

# JVC

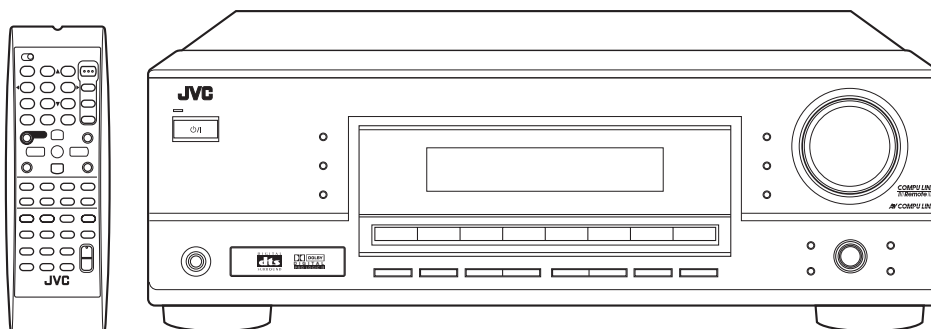
## SERVICE MANUAL

### AUDIO/VIDEO CONTROL RECEIVER

# RX-6030VBK

#### Area suffix

J	-----	U.S.A.
C	-----	Canada



**AV COMPU LINK**

**COMPU LINK**  
*/// Remote ///*

DIGITAL  
**dts**  
 SURROUND

**DOLBY**  
 DIGITAL  
 PRO LOGIC II

### TABLE OF CONTENTS

1	Important Safety Precautions .....	1-2
2	Disassembly method .....	1-4
3	Adjustment.....	1-12
4	Description of major ICs.....	1-13

## SECTION 1

### Important Safety Precautions

#### 1.1 Safety Precautions

- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\Delta$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
- (4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
- (5) Leakage shock hazard testing)
 

After reassembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

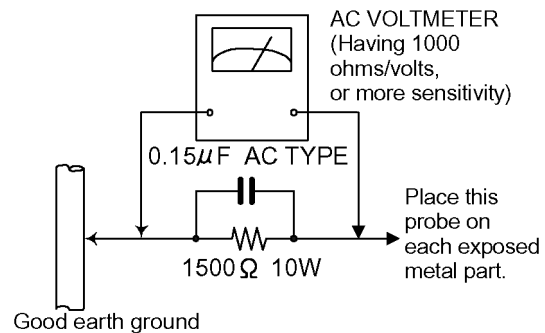
  - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
  - Alternate check method
 

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohm 10W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an

exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



#### 1.2 Warning

- (1) This equipment has been designed and manufactured to meet international safety standards.
- (2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- (3) Repairs must be made in accordance with the relevant safety standards.
- (4) It is essential that safety critical components are replaced by approved parts.
- (5) If mains voltage selector is provided, check setting for local voltage.

#### 1.3 Caution

**Burrs formed during molding may be left over on some parts of the chassis.**

**Therefore, pay attention to such burrs in the case of pre-forming repair of this system.**

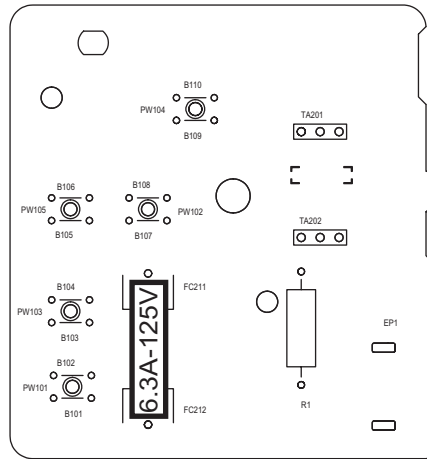
#### 1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (  $\blacksquare$  ), diode (  $\blacksquare$  ) and ICP (  $\bullet$  ) or identified by the " $\Delta$ " mark nearby are critical for safety.

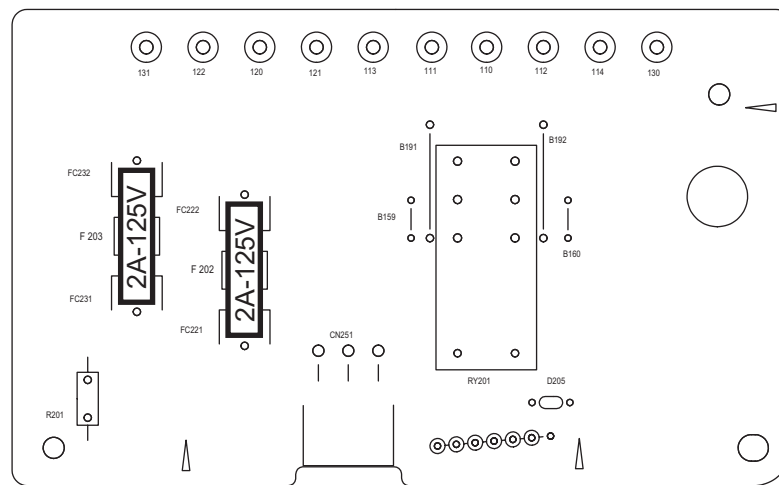
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

1.5 Importance administering point on the safety

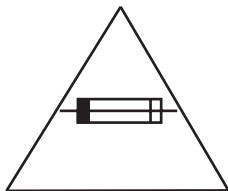
Primary part



Secondary parts



For USA and Canada / pour États - Unis d' Amérique et Canada



Caution: For continued protection against risk of fire, replace only with same type 6.3A/125V for F201, 2A/125V for F202 and F203. This symbol specifies type of fast operating fuse.

Précaution: Pour éviter risques de feux, remplacez le fusible de sûreté de F201 comme le même type que 6.3A/125V, et 2A/125V pour F202 et F203. Ce sont des fusibles sûretés qui fonctionnent rapide.

## SECTION 2

### Disassembly method

#### 2.1 Removing the top cover (See Fig.1)

- (1) From the right and left sides of the main body, remove the four screws **A** attaching the top cover.
- (2) From the back side of the main body, remove the three screws **B** attaching the top cover.
- (3) Remove the top cover in the direction of the arrow 2 while extending the lower sections of the top cover in the direction of the arrow 1.

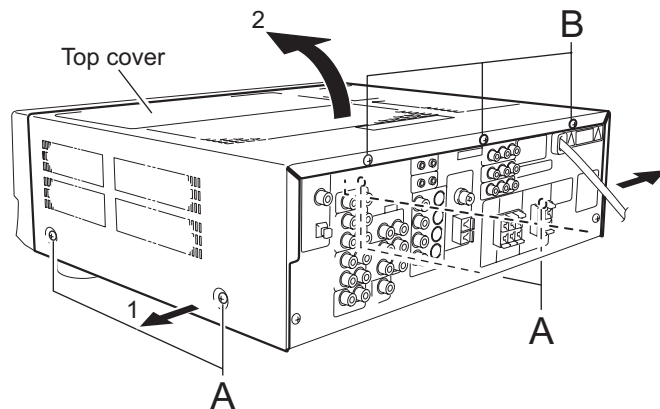


Fig.1

#### 2.2 Removing the front panel assembly (See Figs.2 and 3)

- Prior to performing the following procedure, remove the top cover.
- (1) Disconnect the card wire from the connector CN402 on the audio board. (See Fig.2)
  - (2) Disconnect the card wire from the connector CN201 on the power supply board. (See Fig.2)
  - (3) Remove the tie band and wire protection board fixing the card wire. (See Fig.2)
  - (4) Remove the three screws **C** attaching the front panel assembly. (See Fig.2)
  - (5) From the bottom side of the main body, remove the four screws **D** attaching the front panel assembly. (See Fig.3)
  - (6) Remove the front panel assembly in the direction of the arrow. (See Fig.3)

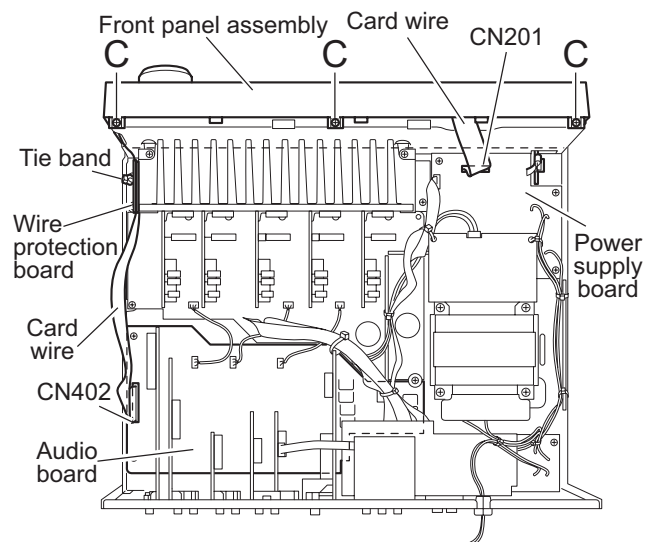


Fig.2

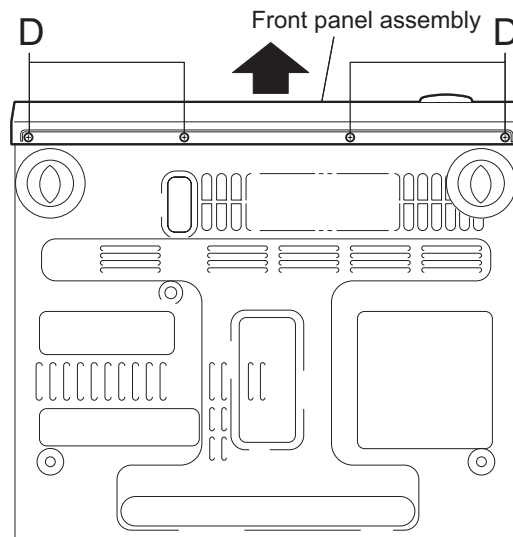


Fig.3

### 2.3 Removing the rear panel (See Fig.4)

- Prior to performing the following procedure, remove the top cover.
  - (1) From the back side of the main body, remove the strain relief from the rear panel in the direction of the arrow.
  - (2) Remove the twenty-five screws **E** and four screws **F** attaching the rear panel.

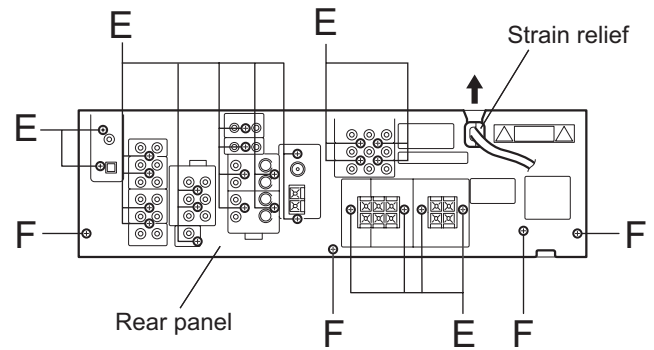


Fig.4

### 2.4 Removing the component board (See Figs.5 and 6)

- Prior to performing the following procedure, remove the top cover.
  - (1) From the top side of the main body, disconnect the parallel wire from the connector CN511 on the S Video board. (See Fig.5)
  - (2) From the back side of the main body, remove the four screws **G** attaching the component board. (See Fig.6)

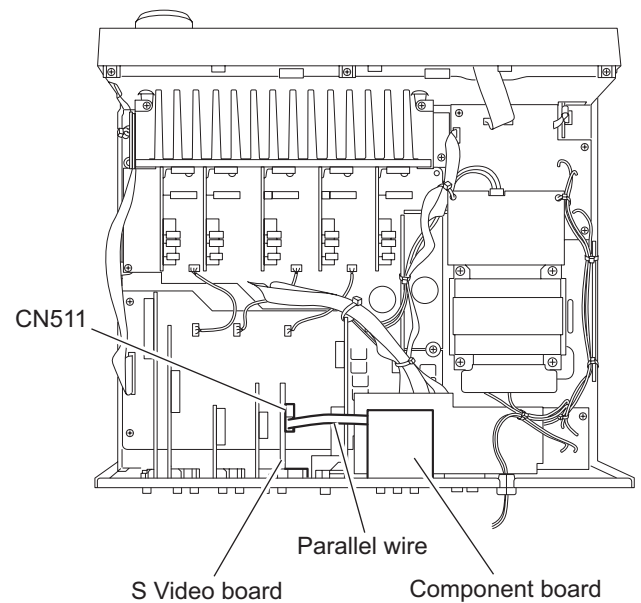


Fig.5

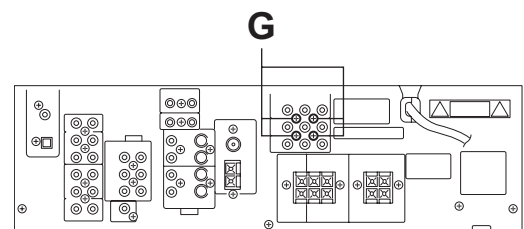
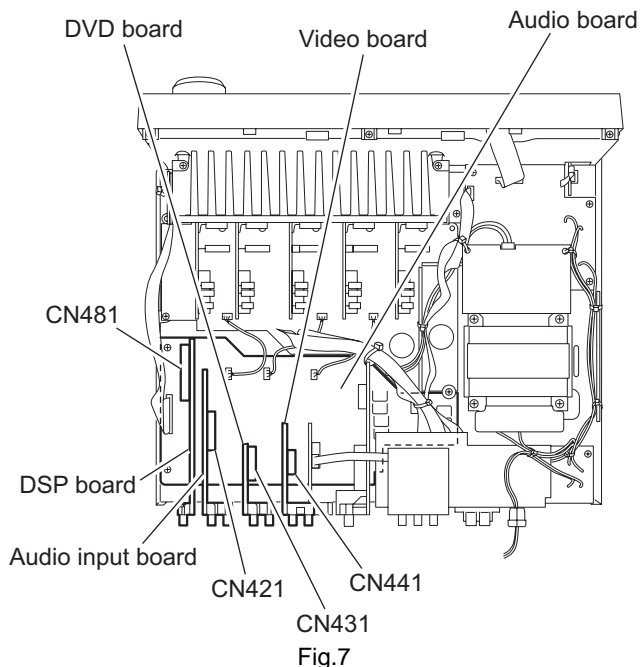


Fig.6

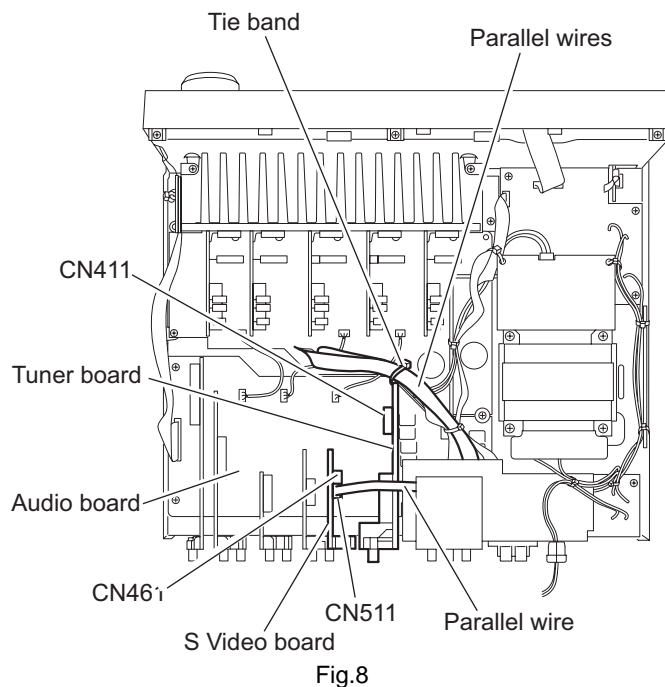
## 2.5 Removing the DSP board, audio input board, DVD board and video board (See Fig.7)

- Prior to performing the following procedure, remove the top cover and rear panel.
  - (1) From the top side of the main body, disconnect the DSP board from the connector CN481 on the audio board.
  - (2) Disconnect the audio input board from the connector CN421 on the audio board.
  - (3) Disconnect the DVD board from the connector CN431 on the audio board.
  - (4) Disconnect the video board from the connector CN441 on the audio board.



## 2.6 Removing the S Video board and tuner board (See Fig.8)

- Prior to performing the following procedure, remove the top cover and rear panel.
  - (1) From the top side of the main body, disconnect the parallel wire from the connector CN511 on the S Video board.
  - (2) Disconnect the S Video board from the connector CN461 on the audio board.
  - (3) Remove the tie band fixing the parallel wires, disconnect the tuner board from the connector CN411 on the audio board.



## 2.7 Removing the audio board (See Fig.9)

- Prior to performing the following procedure, remove the top cover, rear panel, component video board, DSP board, audio input board, DVD board, video board, S Video board and tuner board.
- (1) From the top side of the main body, disconnect the card wire from the connector CN402 on the audio board.
  - (2) Disconnect the relay board from the connectors (CN291, CN491) on the power supply board and audio board.
  - (3) Disconnect the wires from the connectors CN471, CN472 and CN473 on the audio board.
  - (4) Remove the three screws **H** attaching the audio board.
  - (5) Loosen the screw **J** attaching the audio board.

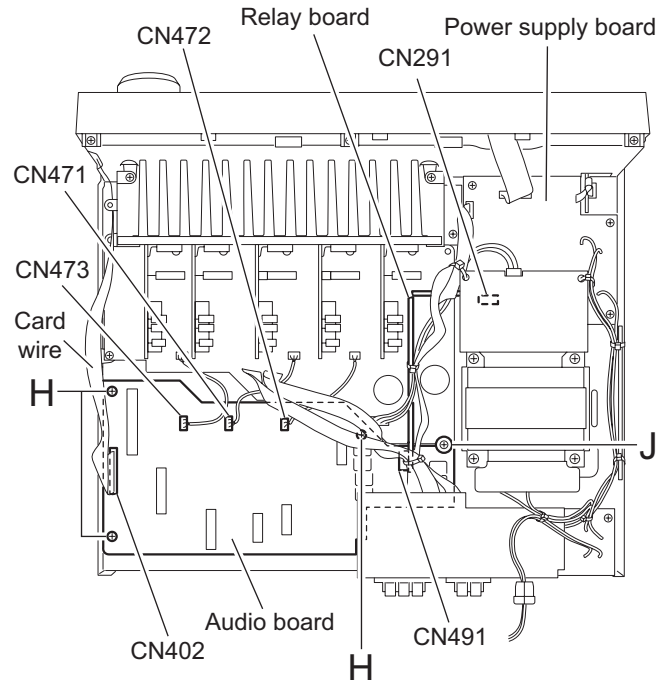


Fig.9

## 2.8 Removing the speaker terminal board (See Fig.10)

- Prior to performing the following procedure, remove the top cover and rear panel.
- (1) From the top side of the main body, remove the solders from the soldered sections a on the speaker terminal board.

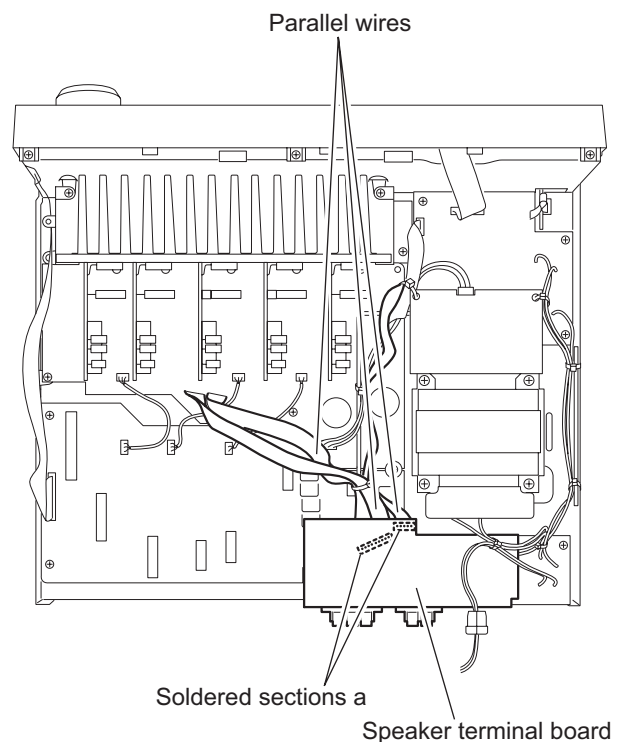
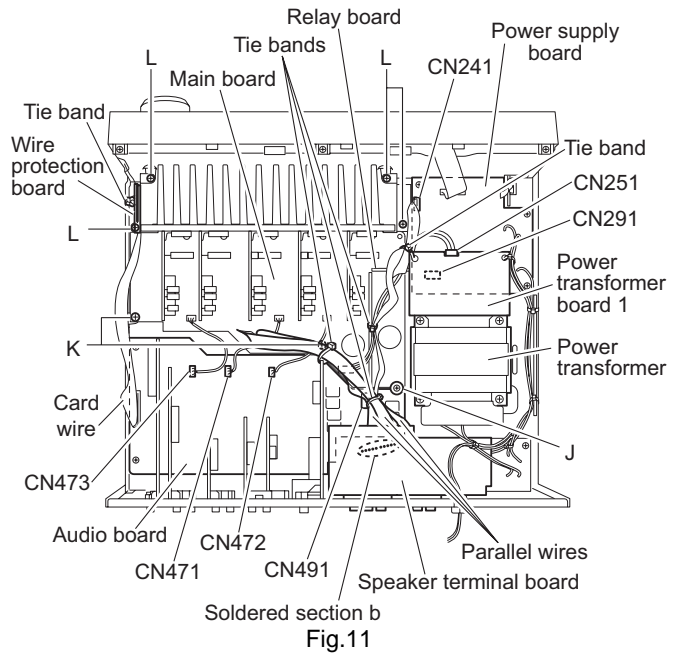


Fig.10

## 2.9 Removing the main board (See Fig.11)

- Prior to performing the following procedure, remove the top cover.
  - (1) From the top side of the main body, remove the tie bands fixing the wires.
  - (2) Remove the tie band and wire protection board fixing the card wire.
  - (3) Remove the solders from the soldered section b on the speaker terminal board attaching the parallel wires.
  - (4) Disconnect the relay board from the connectors (CN291, CN491) on the power supply board and audio board.
  - (5) Disconnect the parallel wire from the connector CN241 on the power supply board.
  - (6) Disconnect the wire from the connector CN251 on the power transformer board 1.
  - (7) Disconnect the wires from the connectors CN471, CN472 and CN473 on the audio board.
  - (8) Remove the screw **J**, two screws **K** and four screws **L** attaching the main board.
  - (9) Take out the main board.



## 2.10 Removing the heat sink (See Figs.12 and 13)

- Prior to performing the following procedure, remove the top cover and main board.
  - (1) Remove the ten screws **M** attaching the heat sink. (See Fig.12)
  - (2) From the reverse side of the main board, remove the two screws **N** attaching the heat sink. (See Fig.13)

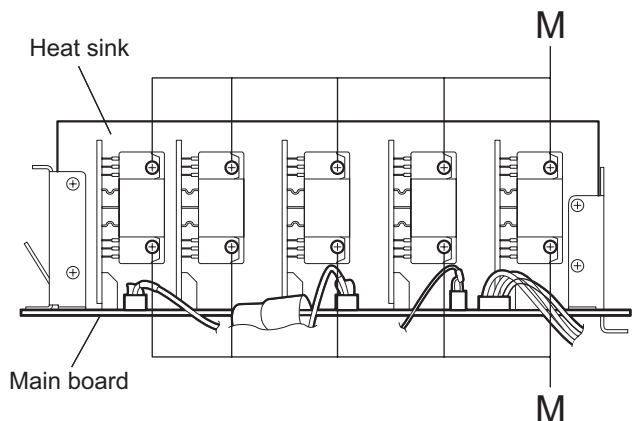


Fig.12

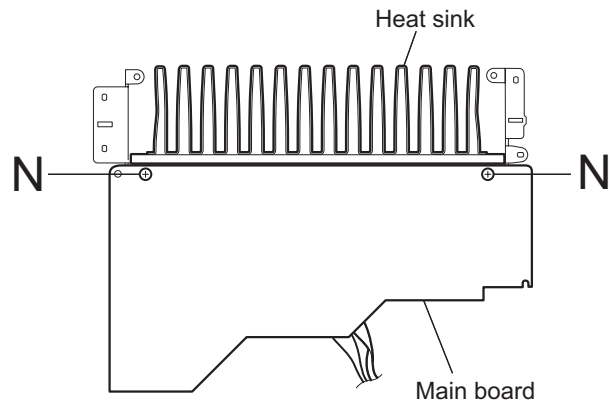


Fig.13



## 2.11 Removing the center amp. board, front amp. boards (L/R) and rear amp. boards (L/R) (See Figs.12 and 14)

- Prior to performing the following procedure, remove the top cover and main board.
  - (1) Remove the ten screws **M** attaching the heat sink. (See Fig.12)
  - (2) Disconnect the center amp. board from the connector CN321 on the main board. (See Fig.14)
  - (3) Disconnect the front amp. board (L) from the connector CN311 on the main board. (See Fig.14)
  - (4) Disconnect the front amp. board (R) from the connector CN312 on the main board. (See Fig.14)
  - (5) Disconnect the rear amp. board (L) from the connector CN331 on the main board. (See Fig.14)
  - (6) Disconnect the rear amp. board (R) from the connector CN332 on the main board. (See Fig.14)

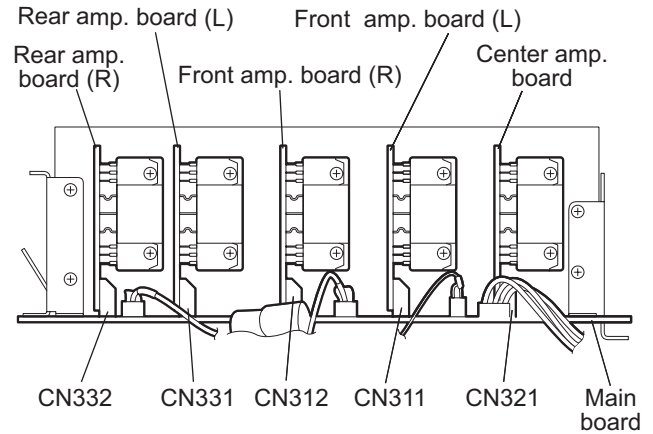


Fig.14

## 2.12 Removing the power transformer (See Fig.15)

- Prior to performing the following procedure, remove the top cover.
  - (1) From the top side of the main body, remove the tie bands fixing the wires.
  - (2) Remove the solders from the soldered section c on the power transformer board 1.
  - (3) Remove the solders from the soldered sections d on the power transformer board 2.
  - (4) Disconnect the wire from the connector CN251 on the power transformer board 1.
  - (5) Remove the four screws **P** attaching the power transformer.

## 2.13 Removing the power/fuse board (See Fig.15)

- Prior to performing the following procedure, remove the top cover.
  - (1) From the back and top sides of the main body, remove the screw **Q** and screw **R** attaching the power/fuse board.
  - (2) Remove the solders from the soldered sections e attaching the power cord.
  - (3) From the reverse side of the power/fuse board, remove the solders from the soldered sections f attaching the wires.

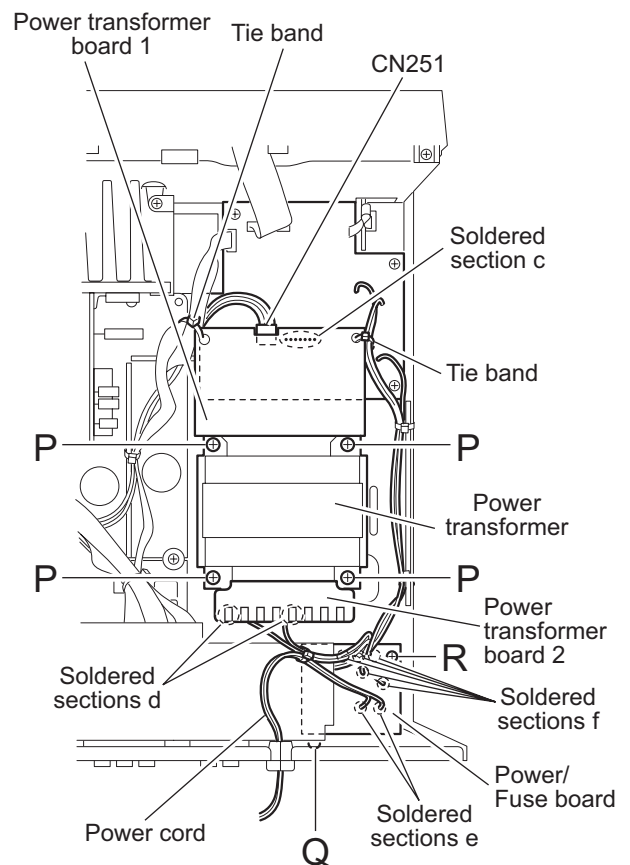


Fig.15

## 2.14 Removing the power supply board (See Fig.16)

- Prior to performing the following procedure, remove the top cover.
  - (1) From the top side of the main body, disconnect the parallel wires from the connectors CN203 and CN241 on the power supply board.
  - (2) Disconnect the card wire from the connector CN201 on the power supply board.
  - (3) Disconnect the relay board from the connector CN291 on the power supply board.
  - (4) Disconnect the parallel wire from the connector CN101 on the headphone jack board.
  - (5) Remove the solders from the soldered section c on the power transformer board 1.
  - (6) Remove the three screws **S** attaching the power supply board.
  - (7) Remove the power supply board from the hook g of the chassis base bracket in the direction of the arrow, take out the power supply board.
  - (8) Turn over the power supply board, remove the solders from the soldered sections h attaching the wires.

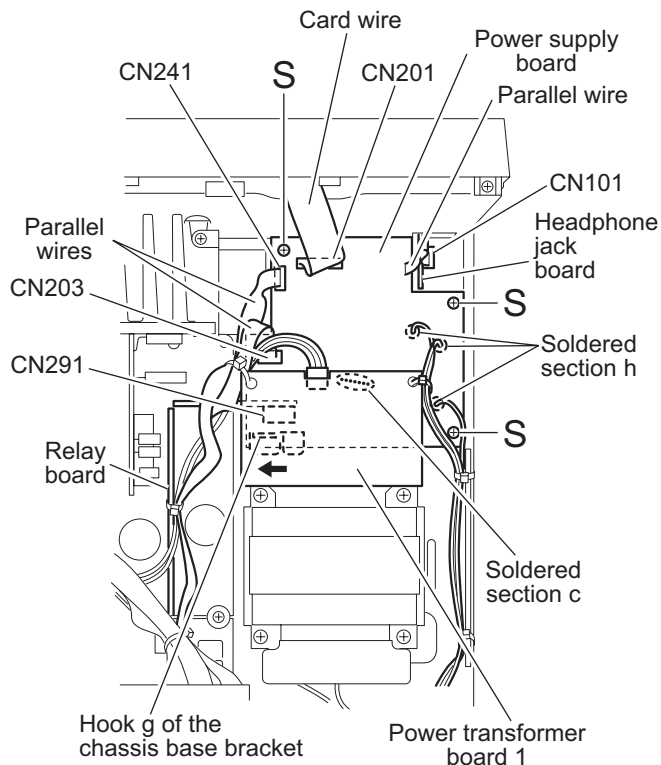


Fig.16

## 2.15 Removing the headphone jack board (See Figs.16 and 17)

- Prior to performing the following procedure, remove the top cover and front panel assembly.
  - (1) From the top side of the main body, disconnect the parallel wire from the connector CN101 on the headphone jack board. (See Fig.16)
  - (2) From the front side of the main body, remove the nut and screw **T** attaching the Bracket(phones) to the chassis base. (See Fig.17)

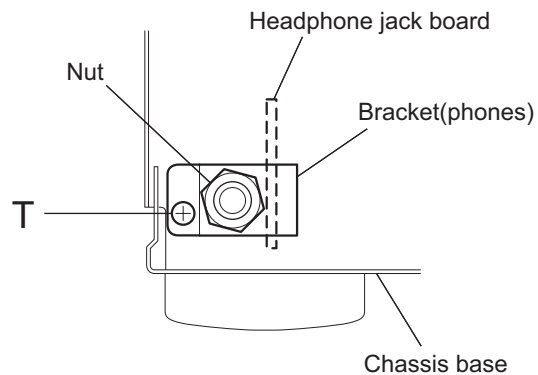


Fig.17

## 2.16 Removing the system control board and power switch board (See Figs.18 and 19)

- Prior to performing the following procedure, remove the top cover and front panel assembly.
  - (1) Pull out the volume and jog knobs from the front side of the front panel assembly, remove the nut attaching the system control board. (See Fig.18)
  - (2) From the back side of the front panel assembly, remove the nine screws **U** attaching the system control board. (See Fig.19)
  - (3) Remove the solders of the soldered section *i* on the system control board and disconnect the parallel wire. (See Fig.19)
  - (4) Remove the two screws **V** attaching the power switch board. (See Fig.19)

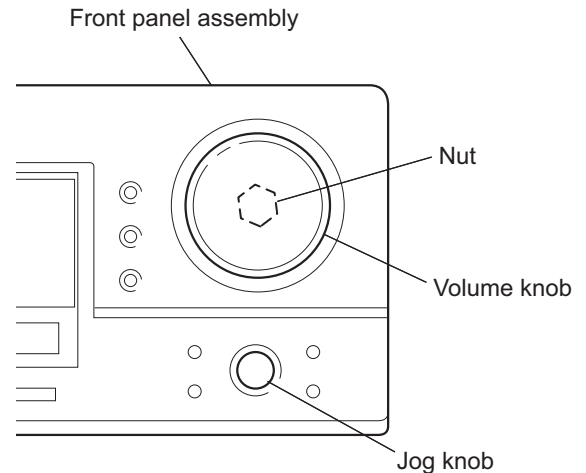


Fig.18

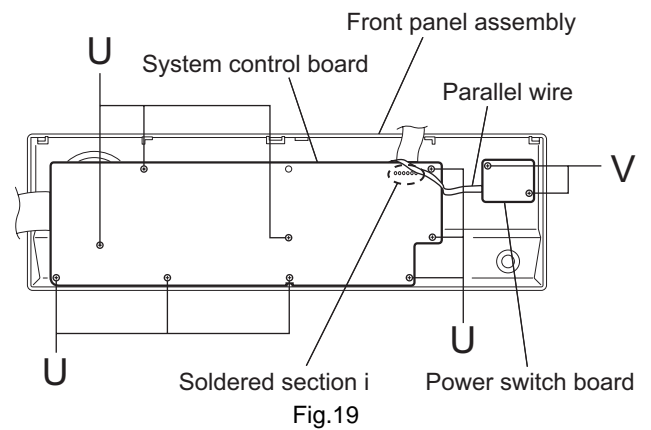


Fig.19

## SECTION 3 Adjustment

### 3.1 Tuner section

#### 3.1.1 Tuner range

FM: 87.5MHz~108.0MHz

AM (MW): 530kHz~1710kHz

### 3.2 Power amplifier section

#### 3.2.1 Adjustment of idling current

Measurement location: TP301 (Lch), TP302 (Rch)

Adjustment part: VR301 (Lch), VR302 (Rch)

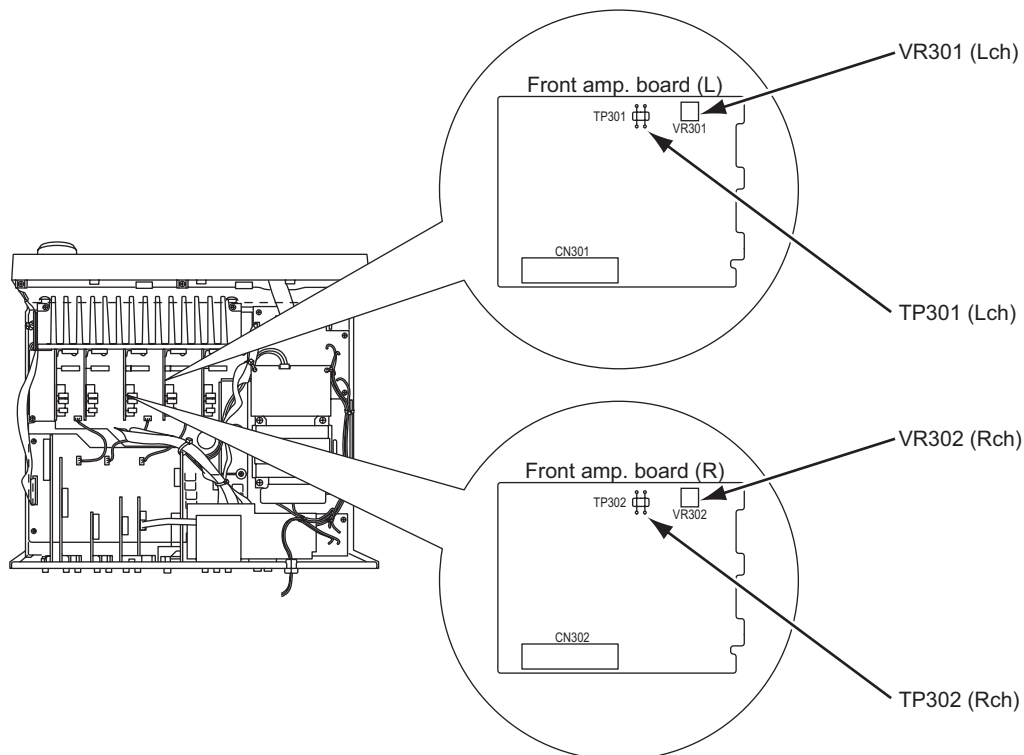
#### Attention:

**This adjustment does not obtain a correct adjustment value immediately after the amplifier is used (state that an internal temperature has risen). Please adjust immediately after using the amplifier after turning off the power supply of the amplifier and falling an internal temperature.**

#### 3.2.2 Adjustment method

- (1) Set the volume control to minimum during this adjustment. (No signal & No load)
- (2) Set the surround mode OFF.
- (3) Turn VR301 and VR302 fully counterclockwise to warm up before adjustment.  
If the heat sink is already warm from previous use the correct adjustment can not be made.
- (4) For L-ch, connect a DC voltmeter between TP301's B216 and B217 (Lch) and, connect it between TP302's B218 and B219 (Rch).
- (5) Adjust the VR301 (Lch) and VR302 (Rch) so that the DC voltmeter indicates 2.0mV immediately after turning the power on.

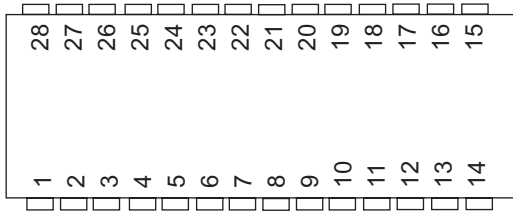
\* It is not abnormal though the idling current might not become 0mA even if it is finished to turn variable resistance (VR301, VR302) in the direction of counterclockwise.



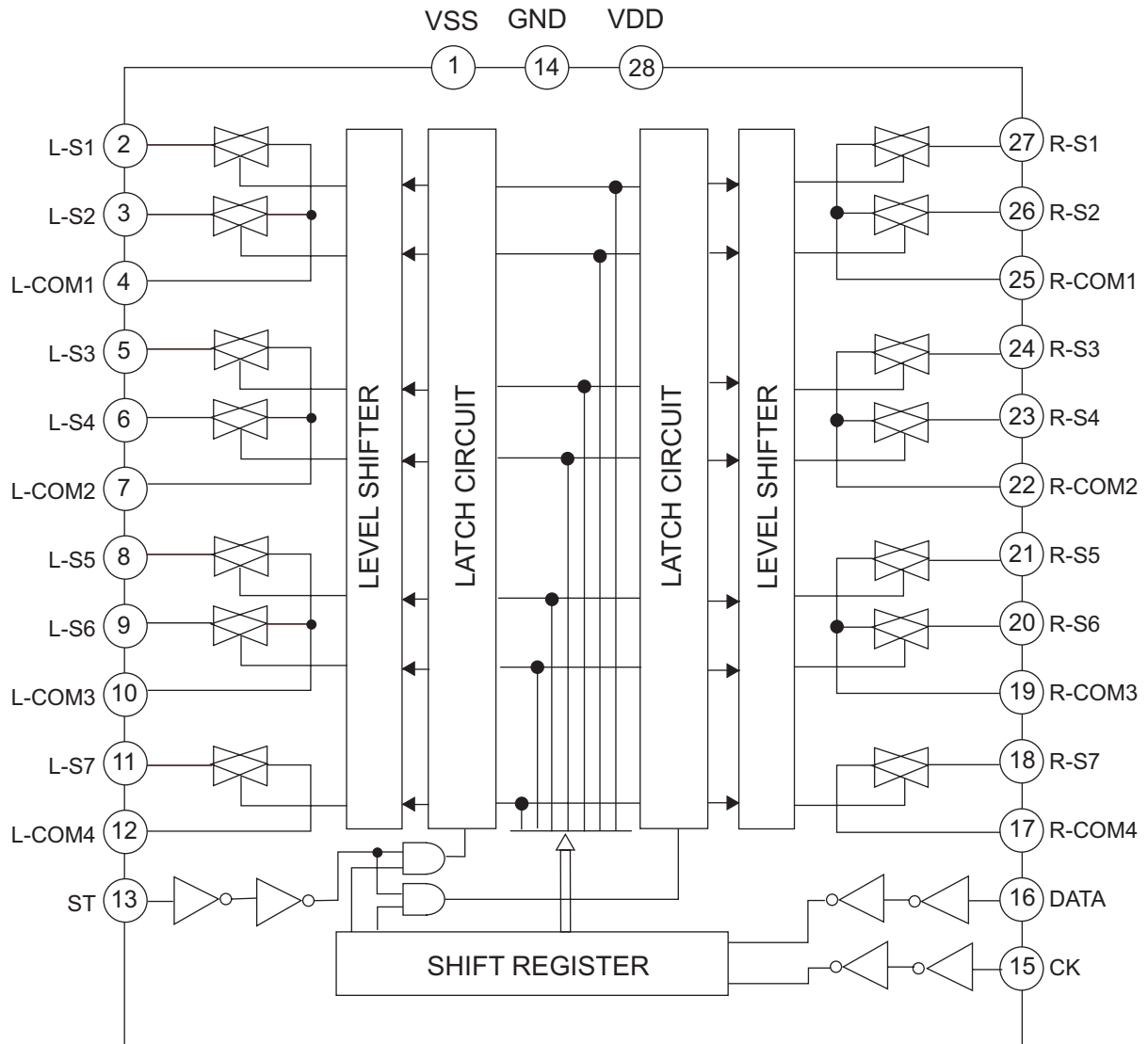
## SECTION 4 Description of major ICs

### 4.1 TC9162AF-X (IC423): Analog switch

- Pin layout

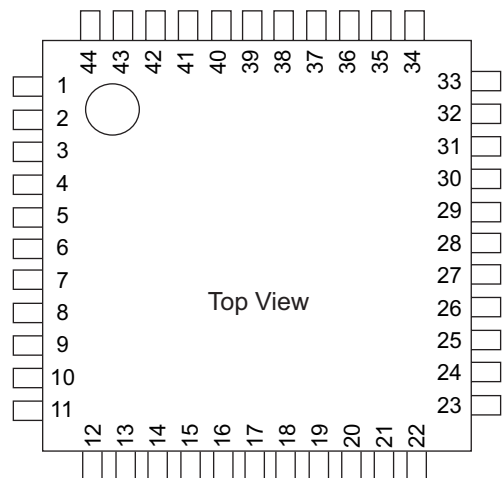


- Block diagram



## 4.2 AK4527BVQP (IC601): A/D, D/A converter

### • Pin layout



### • Pin function

No.	Symbol	I/O	Function
1	SDOS	I	SDTO Source Select Pin (Note 1) "L" : Internal ADC output, "H" : DAUX input
2	OSKS	I	Control Mode Select Pin "L" : 3-wire Serial, "H" : I2C Bus
3	MIS	-	Soft Mute Pin (Note 1) Connect to GND When this pin goes to "H" soft mute cycle is initialized. When returning to "L", the output mute releases.
4	BICK	I	Audio Serial Data Clock Pin
5	LRCK	I/O	Input Channel Clock Pin
6	SDTI1	I	DAC1 Audio Serial Data Input Pin
7	SDTI2	I	DAC2 Audio Serial Data Input Pin
8	SDTI3	I	DAC3 Audio Serial Data Input Pin
9	SDTO	O	Audio Serial Data Output Pin
10	D,AUX	-	Sub Audio Serial Data Input Pin, Connect to GND
11	DFS	-	Double Speed Sampling Mode Pin (Note 1) "L" : Normal Speed, "H" : Double Speed
12	DEMI	-	Connect to GND No internal bonding.
13	DEMO	-	Zero Input Detect Enable Pin, Connect to GND "L" : mode 7 (disable) at parallel mode, - zero detect mode is selectable by DZFM2-0 bits at serial mode. - H : mode 0 (DZF is AND of all six channels)
14	MCKO	-	Output Buffer Power supply Pin, 2.7V~5.5V
15	DVDD	I	Digital Power Supply Pin, 4.5V~5.5V
16	DVSS	-	De-emphasis Pin, 0V
17	$\overline{\text{PD}}$	I	Power-Down & Reset Pin When "L", the AK4527B is powered-down and the control registers are reset to default state. If the state of P/S or CAD0-1 changes, then the AK4527B must be reset by PDN.
18	XTS	-	Test Pin, Connect to GND This pin should be connected to DVSS.
19	ICKS	-	Connect to GND No internal bonding.
20	ADIF	-	Analog Input Format Select Pin, Digital Power Supply H : Full-differential input "L" : Single-ended input

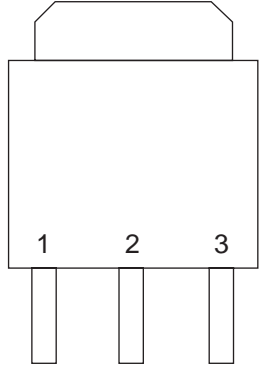
No.	Symbol	I/O	Function
21	CAD1	-	Chip Address 1 Pin, Connect to GND
22	CAD0	O	Chip Address 0 Pin, Connect to GND
23	LOUT3	O	DAC3 Lch Analog Output Pin
24	ROUT3	O	DAC3 Rch Analog Output Pin
25	LOUT2	O	DAC2 Lch Analog Output Pin
26	ROUT2	O	DAC2 Rch Analog Output Pin
27	LOUT1	O	DAC1 Lch Analog Output Pin
28	ROUT1	O	DAC1 Rch Analog Output Pin
29	LIN-	I	Lch Analog Negative Input Pin
30	LIN+	I	Lch Analog Positive Input Pin
31	RIN-	I	Rch Analog Negative Input Pin
32	RIN+	I	Rch Analog Positive Input Pin
33	VREFL	-	Zero Input Detect 2 Pin (Note 2), Non Connect When the input data of the group 1 follow total 8192LRCK cycles with "0" input data, this pin goes to "H".
	OVF	O	Analog Input Overflow Detect Pin (Note 3) This pin goes to "H" if the analog input of Lch or Rch is overflows.
34	VCOM	O	Common Voltage Output Pin, AVDD/2 Large external capacitor around 2.2uF is used to reduce power-supply noise.
35	VREFH	-	Positive Voltage Reference Input Pin, AVDD
36	AVDD	-	Analog Power Supply Pin, 4.5V~5.5V
37	AVSS	-	Analog Ground Pin, 0V
38	XTI	-	Zero Input Detect 1 Pin (Note 2) Non connect When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".
39	XTO	I	Master Clock Input Pin
40	P1S	-	Parallel / Serial Select Pin "L" : Serial control mode, "H" : Parallel control mode
41	$\overline{\text{CS}}$	I	Audio Data Interface Format 0 Pin in parallel mode
	CSN	I	Chip select pin in 3-wire serial control mode This pin should be connected to DVDD at I2C bus control mode
42	DIF1	I	Audio Data Interface Format 1 Pin in parallel mode
	SCL/CCLK	I	Control Data Clock Pin in serial control mode I2C = "L" : CCLK(3-wire Serial), I2C = "H" : SCL(I2C Bus)
43	LOOP0	I	Loopback Mode 0 Pin in parallel control mode Enables digital loop-back from ADC to 3 DACs.
	SAD/CDTI	I/O	Control Data Input Pin in serial control mode I2C = "L" : CDTI(3-wire Serial), I2C = "H" : SDA(I2C Bus)
44	CTD	I	Loopback Mode 1 Pin (Note 1) Enable all 3 DAC channels to be input from SDTI.

**Note:**

- (1) SDOS, SMUTE, DFS, and LOOP1 pins are ORed with register data if P/S = "L".
- (2) The group 1 and 2 can be selected by DZFM2-0 bit if P/S = "L" and DZFME = "L".
- (3) This pin becomes OVF pin if OVFE bit is set to "1" at serial control mode.
- (4) All input pins should not be left floating.

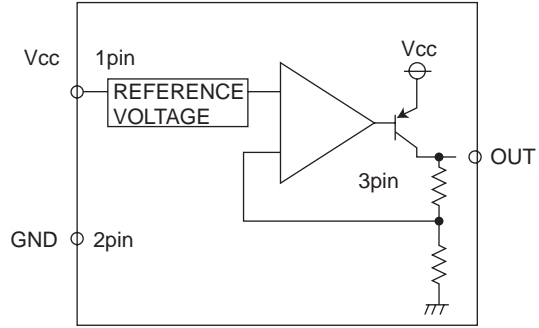
**4.3 BA033FP-X (IC681) : Regulator**

- Pin layout



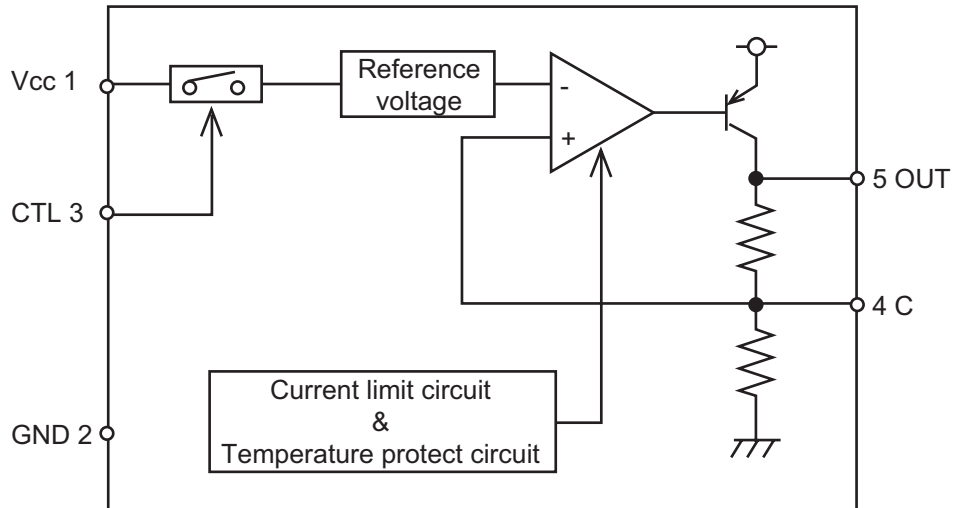
1pin  
2pin (FIN)  
3pin  
Vcc  
GND  
OUT

- Block Diagram



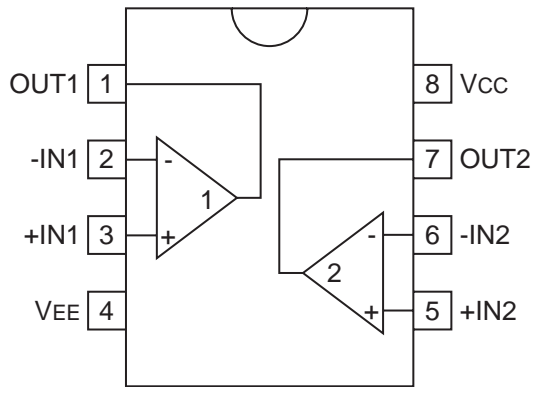
**4.4 BA033LBSG-W (IC683): Regulator**

- Block diagram



**4.5 BA15218 (IC451) : Ope. Amp.**

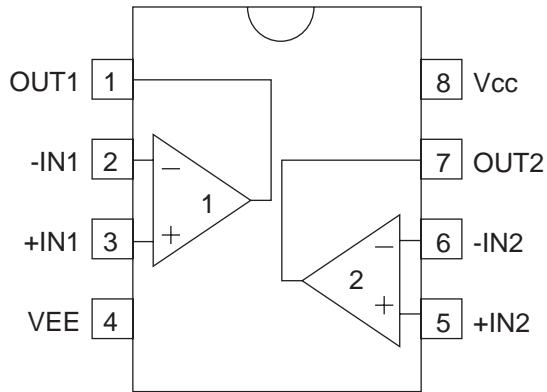
- Pin layout / Block diagram



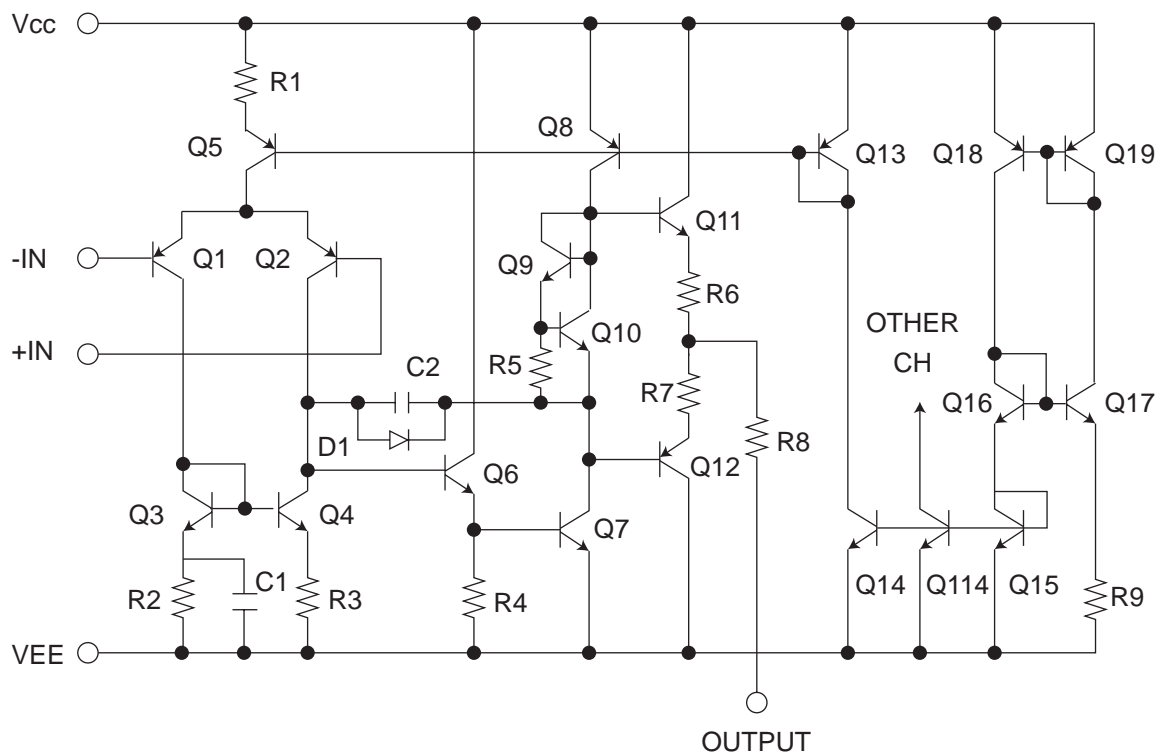


**4.6 BA15218F-XE (IC412, IC422, IC427, IC609, IC610, IC650, IC651, IC661, IC690, IC691) : Dual operational amplifier**

- Pin layout

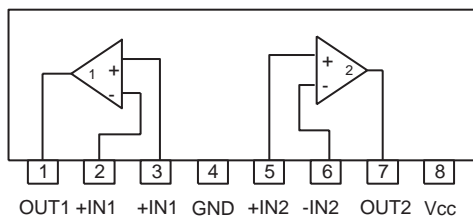


- Block diagram



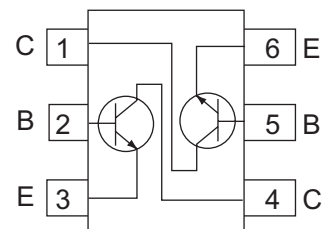
**4.7 BA15218N (IC403) : Dual Ope. Amp.**

- Pin layout & Block diagram



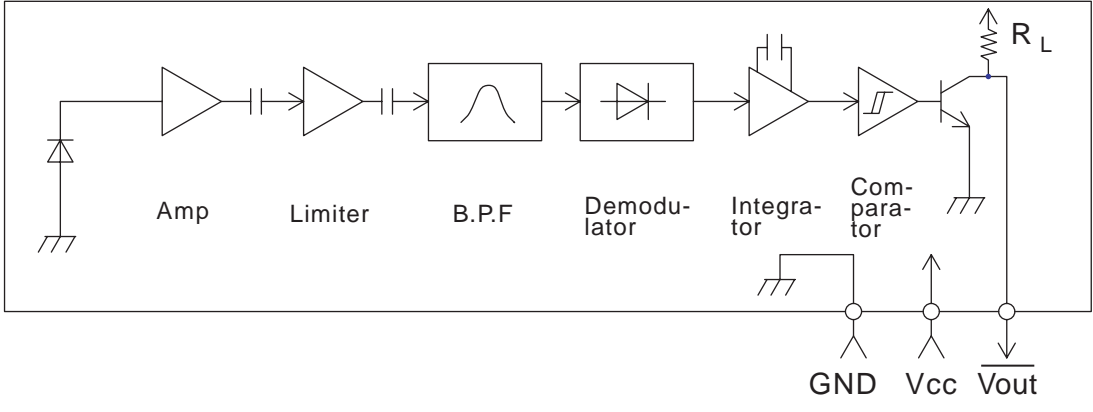
**4.8 IMX9-W (IC652, IC662, IC682): Driver**

- Pin layout & Block diagram



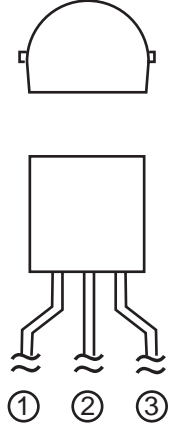
4.9 GP1UM281X (IC703) : Dual operation amplifier

- Block diagram

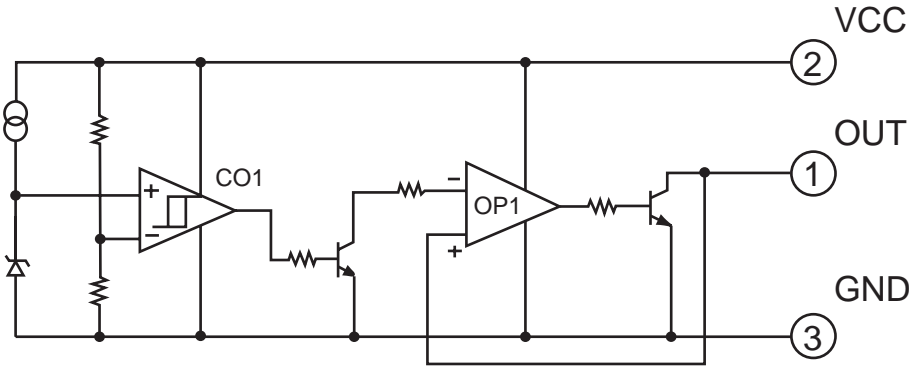


4.10 IC-PST9139-T(IC702) : System reset

- Terminal layout

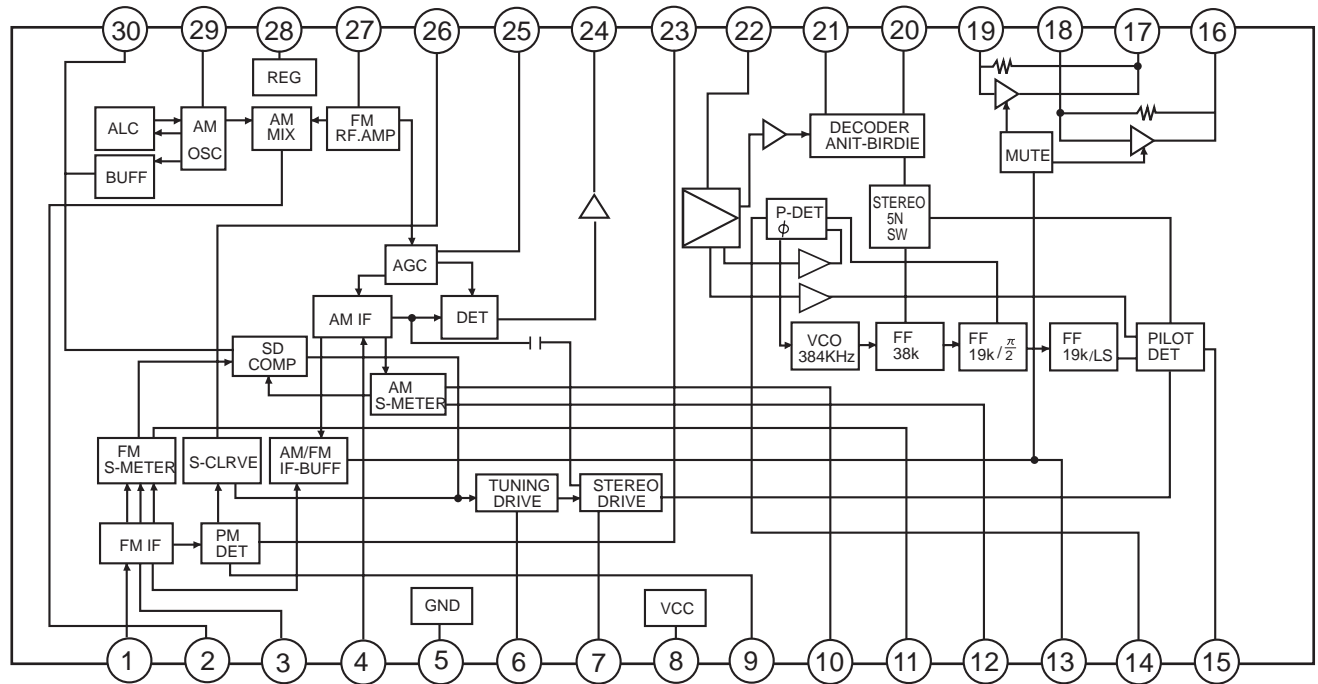


- Block diagram



#### 4.11 LA1838 (IC102): FM AM IF Amp. & Detector, FM MPX decoder

##### • Block Diagram



##### • Pin Function

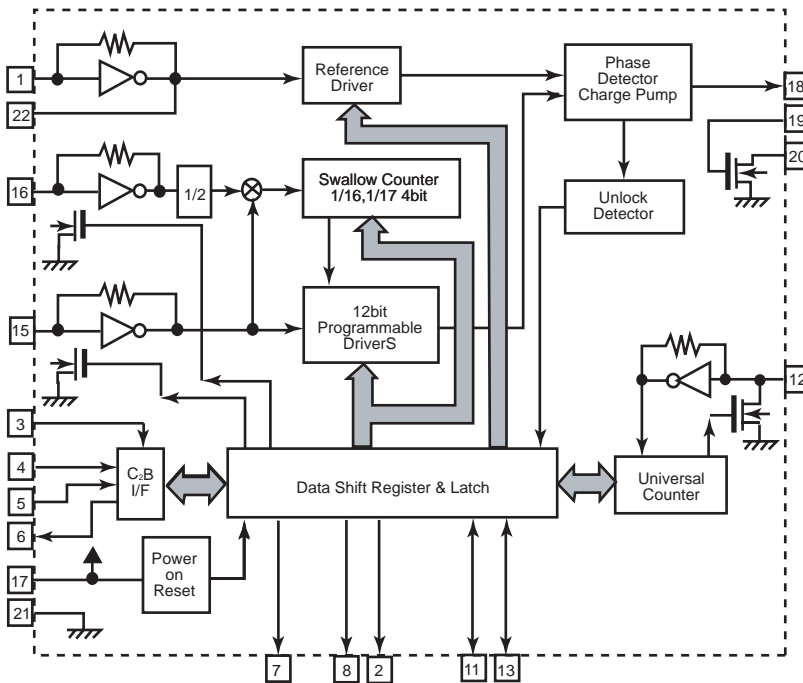
Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.
2	AM MIX	O	This is an out put terminal for AM mixer.
3	FM IF	I	Bypass of FM IF
4	AM IF	I	Input of AM IF Signal.
5	GND	-	This is the device ground terminal.
6	TUNED	O	When the set is tuning, this terminal becomes "L".
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"
8	VCC	-	This is the power supply terminal.
9	FM DET	-	FM detect transformer.
10	AM SD	-	This is a terminal of AM ceramic filter.
11	FM VSM	O	Adjust FM SD sensitivity.
12	AM VSM	O	Adjust AM SD sensitivity.
13	MUTE	I/O	When the signal of IF REQ of IC121(LC72131) appear, the signal of FM/AM IF output. //Muting control input.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM
15	MONO/ST	O	Stereo : "H", Mono: "L"
16	L OUT	O	Left channel signal output.
17	R OUT	O	Right channel signal output.
18	L IN	I	Input terminal of the Left channel post AMP.
19	R IN	I	Input terminal of the Right channel post AMP.
20	RO	O	Mpx Right channel signal output.
21	LO	O	Mpx Left channel signal output.
22	MPX IN	I	Mpx input terminal
23	FM OUT	O	FM detection output.
24	AM DET	O	AM detection output.
25	AM AGC	I	This is an AGC voltage input terminal for AM
26	AFC	-	This is an output terminal of voltage for FM-AFC.
27	AM RF	I	AM RF signal input.
28	REG	O	Register value between pin 26 and pin28 besides the frequency width of the input signal.
29	AM OSC	-	This is a terminal of AM Local oscillation circuit.
30	OSC BUFFER	O	AM Local oscillation Signal output.

#### 4.12 LC72136N (IC121) : PLL frequency synthesizer

- Pin layout

XT	1	22	XT
FM/AM	2	21	GND
CE	3	20	LPFOUT
DI	4	19	LPFIN
CLOCK	5	18	PD
DO	6	17	VCC
FM/ST/VCO	7	16	FMIN
AM/FM	8	15	AMIN
	9	14	
	10	13	IFCONT
SDIN	11	12	IFIN

- Block diagram



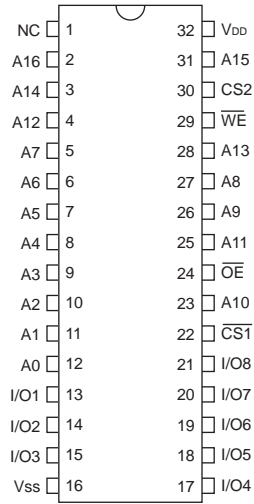
- Pin function

Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75kHz)
2	FM/AM	O	LOW:FM mode
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H
4	DI	I	Input for receive the serial data from controller
5	CLOCK	I	Sync signal input use
6	DO	O	Data output for Controller Output port
7	FM/ST/VCO	O	Low: MW mode
8	AM/FM	O	Open state after the power on reset
9	LW	I/O	Input/output port
10	MW	I/O	Input/output port
11	SDIN	I/O	Data input/output
12	IFIN	I	IF counter signal input

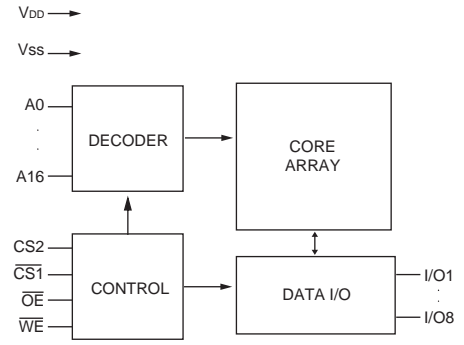
Pin No.	Symbol	I/O	Function
13	IFCONT	O	IF signal output
14		-	Not use
15	AMIN	I	AM Local OSC signal output
16	FMIN	I	FM Local OSC signal input
17	VCC	-	Power supply(VDD=4.5-5.5V) When power ON:Reset circuit move
18	PD	O	PLL charge pump output (H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
19	LPFIN	I	Input for active lowpassfilter of PLL
20	LPFOUT	O	Output for active lowpassfilter of PLL
21	GND	-	Connected to GND
22	XT	I	X'tal oscillator(75KHz)

**4.13 LP61L1024S-12-X (IC641) : SRAM**

- Pin layout



- Block diagram

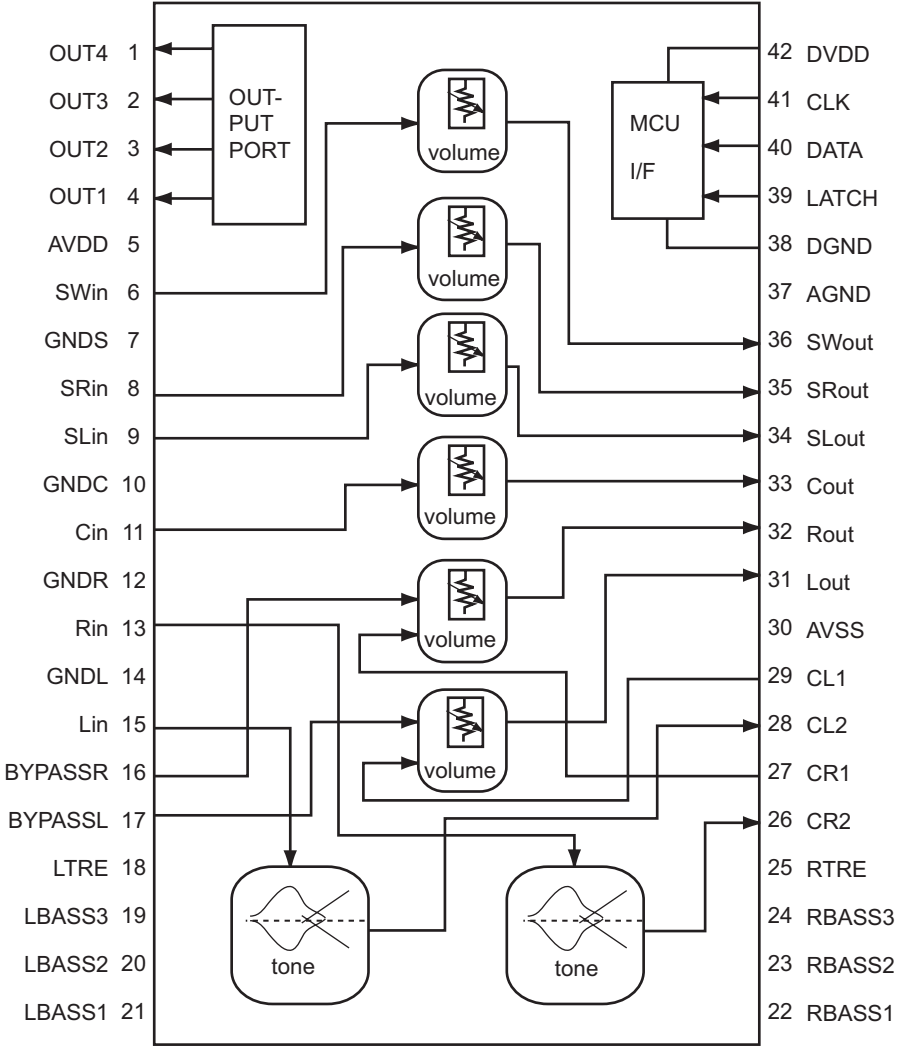


- Pin function

SYMBOL	DESCRIPTION
A0 - A16	Address Input
I/O1 - I/O8	Data Input/Output
CS1, CS2	Chip Select Inputs
WE	Write Enable Input
OE	Output Enable Input
VDD	Power Supply
Vss	Ground
NC	No Connection

4.14 M62446AFP-X (IC428): 6 channel electronic volume

- Pin layout & Block diagram

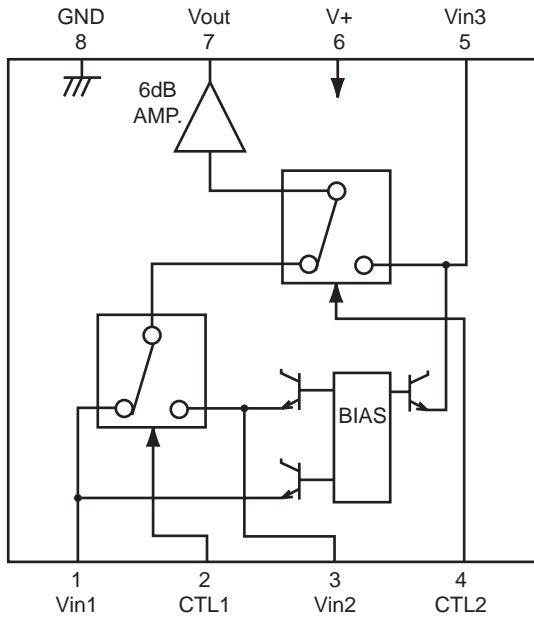


- Pin function

Pin No.	Symbol	I/O	Function
1	OUT4	O	PORT output 4
2	OUT3	O	PORT output 3
3	OUT2	O	PORT output 2
4	OUT1	O	PORT output 1
5	AVDD	-	Analog positive power supply terminal
6	SWin	I	Volume input
7	GNDS	-	Ground terminal
8	SRin	I	Volume input
9	SLin	I	Volume input
10	GNDC	-	Ground terminal
11	Cin	I	Volume input
12	GNDR	-	Ground terminal
13	Rin	I	Tone input
14	GNDL	-	Ground terminal
15	Lin	I	Tone input
16	BYPASSR	I	R channel volume input
17	BYPASSL	I	L channel volume input
18	LTRE	I	Tone treble frequency adjusting terminal
19	LBASS3	I	Tone bass frequency adjusting terminal
20	LBASS2	I	Tone bass frequency adjusting terminal
21	LBASS1	I	Tone bass frequency adjusting terminal
22	RBASS1	I	Tone bass frequency adjusting terminal
23	RBASS2	I	Tone bass frequency adjusting terminal
24	RBASS3	I	Tone bass frequency adjusting terminal
25	RTRE	I	Tone treble frequency adjusting terminal
26	CR2	O	Tone output terminal
27	CR1	I	R channel volume input
28	CL2	O	Tone output terminal
29	CL1	I	L channel volume input
30	AVSS	-	Analog negative power supply terminal
31	Lout	O	L channel output
32	Rout	O	R channel output
33	Cout	O	Volume output
34	SLout	O	Volume output
35	SRout	O	Volume output
36	SWout	O	Volume output
37	AGND	-	Analog ground terminal
38	DGND	-	Digital ground terminal
39	LATCH	I	Latch input terminal
40	DATA	I	Data input terminal
41	CLK	I	Data transfer clock input terminal
42	DVDD	-	Digital power supply terminal

**4.15 NJM2246D (IC501, IC551, IC552) : Video switch**

- Pin layout & Block diagram

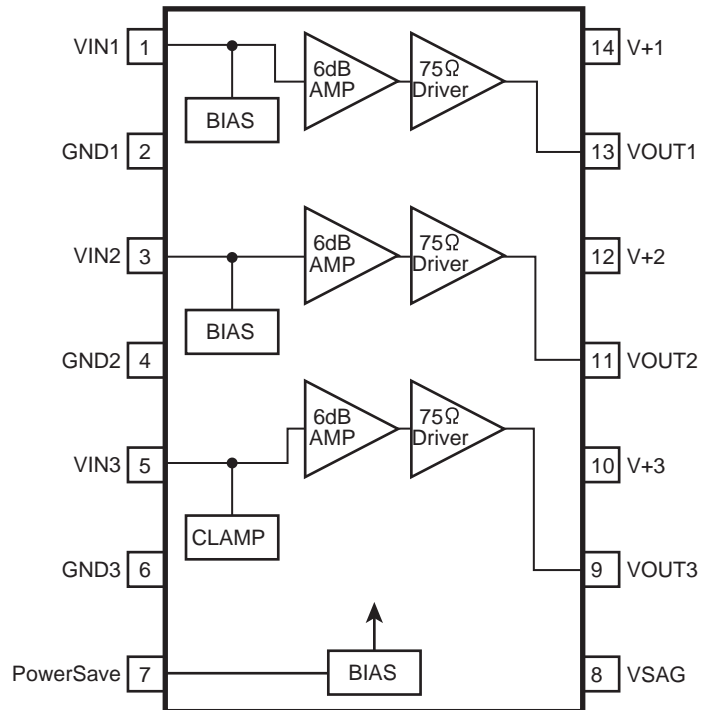


Control input - output signal

CTL 1	CTL 2	Output
L	L	VIN 1
H	L	VIN 2
L/H	H	VIN 3

**4.16 NJM2580M-X (IC582) : Video amp.**

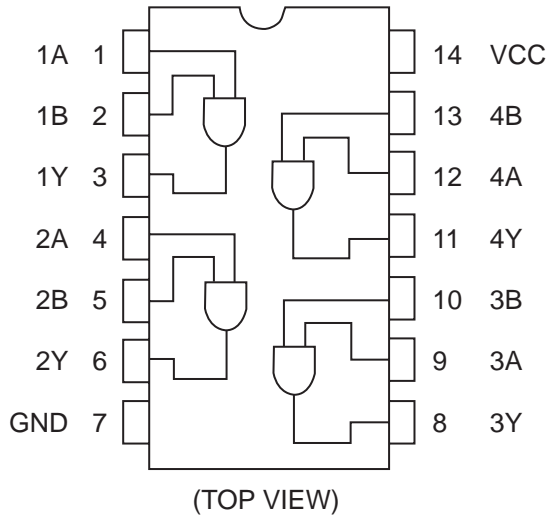
- Block diagram





**4.17 TC74HC08AF-X(IC611) : AND gate**

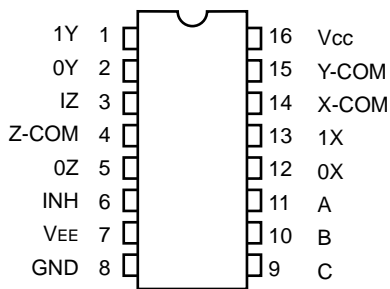
- Block diagram



- Truth table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

**4.18 TC74HC4053AF-X (IC581) : Multiplexer**

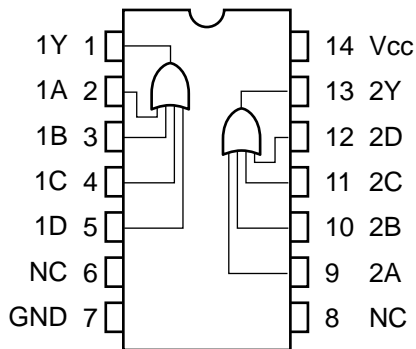


CONTROL INPUTS			
INHIBIT	C	B	A
L	L	L	K
L	L	L	H
L	L	H	K
L	L	H	H
L	H	L	K
L	H	L	H
L	H	H	K
L	H	H	H
H	X	X	X

X : Don't care.

**4.19 TC74HC4072AF-X (IC612) : OR gate**

- Block diagram



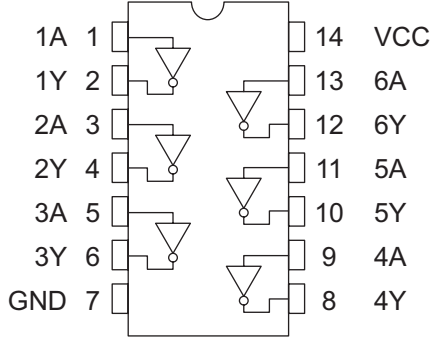
- Truth table

A	B	C	D	Y
H	X	X	X	H
X	H	X	X	H
X	X	H	X	H
X	X	X	H	H
L	L	L	L	L

X : Don't care

**4.20 TC74HCU04AF-W(IC621): Inverter**

- Pin layout

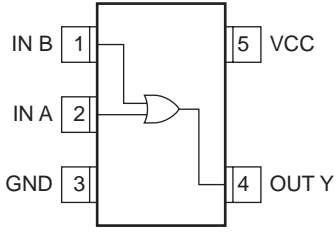


- Truth table

A	Y
L	H
H	L

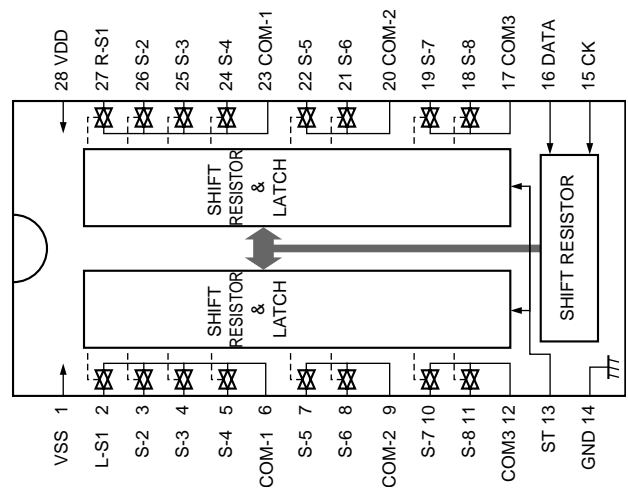
**4.21 TC7SET32FU-X (IC672) : Z-input or gate**

- Pin layout & Block diagram



**4.22 TC9164AN (IC402) : Analog switch**

- Pin layout & Block Diagram



#### 4.23 TC9446F-025 (IC631): Digital signal processor for dolby digital (AC-3) / DTS audio decode

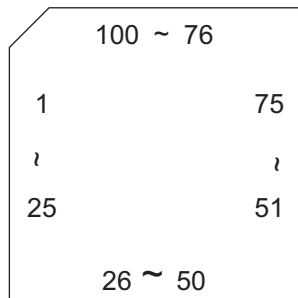
##### • Pin Function

Pin No.	Symbol	I/O	Function
1	RST	I	Reset signal input terminal (L:reset H: normal operation)
2	MIMD	I	Microcomputer interface mode selection input terminal (L:serial H:IC bus)
3	MICS	I	Microcomputer interface chip select input terminal
4	MILP	I	Microcomputer interface latch pulse input
5	MIDIO	I/O	Microcomputer interface data I/O terminal
6	MICK	I	Microcomputer interface clock input terminal
7	MIACK	O	Microcomputer interface acknowledge output terminal
8~11	FI0~3	I	Flag input terminal 0~3
12	IRQ	I	Interrupt input terminal
13	VSS	-	Digital ground terminal
14	LRCKA	I	Audio interface LR clock input terminal A
15	BCKA	I	Audio interface bit clock input terminal A
16~18	SDO0~2	O	Audio interface data output terminal 0
19	SD03	-	Non connect
20	LRCKB	I	Audio interface LR clock input terminal B
21	BCKB	I	Audio interface bit clock input terminal B
22	SDT0	I	Audio interface data input terminal 0
23	SDT1	I	Audio interface data input terminal 1
24	VDD	-	Power supply for digital circuit
25	LRCKOA	O	Audio interface LR clock output terminal A
26	BCKOA	O	Audio interface bit clock output terminal A
27, 28	TEST0,1	I	Test input terminal 0/1 (L:test H: normal operation)
29~30	LRCKOBBCKOB	-	Non connect
31	TXO	O	SPDIF Output
32, 33	TEST2,3	I	Test input terminal (L:test H: normal operation)
34	RX	I	SPDIF input terminal
35	VSS	-	Ground terminal for digital circuit
36	TSTSUB0	I	Test sub input terminal 0 (L:test H: normal operation)
37	FCONT	O	VCO Frequency control output terminal
38, 39	TSTSUB1TSTSUB2	I	Test sub input terminal 12 (L:test H: normal operation)
40	PDO	O	Phase detect signal output terminal
41	VDDA	-	Power supply for analog circuit
42	PLON	I	Clock selection input terminal (L:external clock H:VCO clock)
43	AMPI	I	amplifier input terminal for LPF
44	AMPO	O	amplifier output terminal for LPF
45	CKI	I	External clock input terminal
46	VSSA	-	Ground terminal for analog circuit
47	CKO	O	DIR Clock output terminal
48	LOCK	O	VCO Lock output terminal
49	VSS	-	Ground terminal for digital circuit
50	WR	O	External SRAM writing signal output terminal
51	OE	O	External SRAM output enable signal output terminal
52	CE	O	External SRAM chip enable signal output terminal
53	VDD	-	Power supply terminal for digital circuit
54~61	IO7~0	I/O	External SRAM data I/O terminal 7~0
62	VSS	-	Ground terminal for digital circuit
63~70	AD0~7	O	External SRAM address output terminal 0~7
71	VDD	-	Power supply terminal for digital circuit
72~80	AD8~16	O	External SRAM address output terminal 8~16
81	VSS	-	round terminal for digital circuit
82~89	PO0~7	O	General purpose output terminal 0~7
90	VDDDL	-	Power supply terminal for DLL
91	LPFO	O	LPF output terminal for DLL
92, 93	DLON,DLCKS	I	Refer to the undermentioned table
94	SCKO	-	Non connect
95	VSSDL	-	Ground terminal for DLL
96	SCKI	I	External system clock input terminal
97	VSSX	-	Ground terminal for oscillation circuit
98, 99	XO,XI	I/O	Oscillation I/O terminal
100	VDDX	-	Power supply terminal for oscillation circuit

DLCKS terminal	DLON terminal	DLL clock setting
L	L	SCKI input (DLL circuit OFF)
L	H	Four times XI clock
H	L	Three times XI clock
H	H	Six times XI clock

#### 4.24 UPD784215AGC167 (IC671): Digital signal controller

- Pin layout



- Pin function

Pin No.	Symbol	I/O	Function
1~8		-	Non connect
9	VDD	-	Power supply terminal
10	X2	O	Connecting the crystal oscillator for system main clock
11	X1	I	Connecting the crystal oscillator for system main clock
12	VSS	-	Connect to GND
13	XT2	O	Connecting the crystal oscillator for system sub clock
14	XT1	I	Connecting the crystal oscillator for system sub clock
15	RESET	I	System reset signal input
16	AUTODATA	I	Output of DSP to general-purpose port
17	LOCK	I	Output of DSP to general-purpose port
18	DIGITAL0	I	Output of DSP to general-purpose port
19	FORMAT	I	Output of DSP to general-purpose port
20	CHANNEL	I	Output of DSP to general-purpose port
21	ERR	I	Output of DSP to general-purpose port
22	REST IN	I	Reset signal input
23	AVDD	-	Power supply terminal
24	AVREF0	-	Connect to GND
25		-	Connect to GND
26		-	Connect to GND
27		-	Connect to GND
28		-	Connect to GND
29		-	Connect to GND
30		-	Connect to GND
31		-	Connect to GND
32		-	Connect to GND
33	AVSS	-	Connect to GND
34,35		-	Non connect
36	AV REF1	-	Power supply terminal
37	RX	-	Not use
38	TX	-	Not use
39		-	Non connect
40	DSPCOM	I	Communication port from IC701
41	DSPSTS	O	Status communication port to IC701
42	DSPCLK	I	Clock input from IC701
43	DSPRDY	I	Ready signal input from IC701
44		-	Non connect

Pin No.	Symbol	I/O	Function
45	MIDIO IN	I/O	Interface I/O terminal with microcomputer
46	MIDIO OUT	I/O	Interface I/O terminal with microcomputer
47	MICK	O	Interface I/O terminal with microcomputer of clock signal
48	MICS	O	Interface I/O terminal with microcomputer of chip select
49	MILP	O	Interface I/O terminal with microcomputer
50	MIACK	O	Interface I/O terminal with microcomputer
51		-	Non connect
52		-	Non connect
53	DSPRST	O	Reset signal output of DSP
54-63		-	Non connect
64	CODEC OUT	I/O	Interface I/O terminal with microcomputer
65	CODEC IN	I/O	Interface I/O terminal with microcomputer
66	CODEC CLK	O	Interface I/O terminal with microcomputer of clock signal
67	CODEC CS	O	Interface I/O terminal with microcomputer of chip select
68	CODEC XTS	-	Non connect
69		-	Non connect
70		-	Non connect
71	PD	O	Reset signal output
72	GND	-	Connect to GND
73		-	Non connect
74		-	Non connect
75		-	Non connect
76		-	Non connect
77		-	Non connect
78		-	Non connect
79		-	Non connect
80		-	Non connect
81	VDD	-	Power supply
82		-	Non connect
83		-	Non connect
84	ANAT-TONE	O	Test tone control
85	LEF-MIX	O	Control at output destination of LFE channel
86		-	Non connect
87	D.MUTE	O	Mute of the digital out terminal is controlled
88	S.MUTE	O	Mute of the audio signal is controlled
89		O	Non connect
90	ASW1	O	Selection of digital input selector
91	ASW2	-	Selection of digital input selector
92	ASW3	-	Selection of digital input selector
93	ASW4	-	Selection of digital input selector
94	TEST	-	Test terminal
95		-	Non connect
96		-	Non connect
97		-	Non connect
98		-	Non connect
99		-	Non connect
100		-	Non connect



**JVC**

VICTOR COMPANY OF JAPAN, LIMITED  
AV & MULTIMEDIA COMPANY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.22026)

# JVC

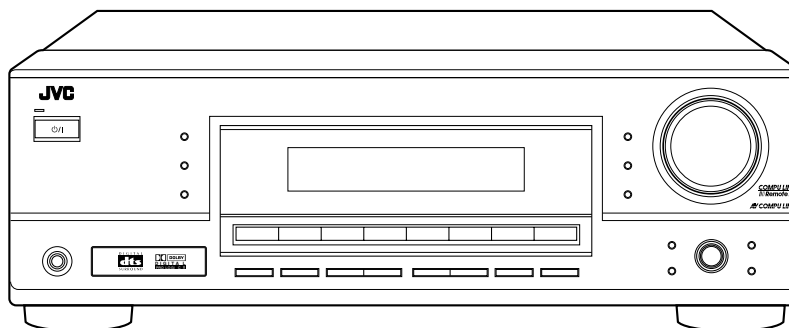
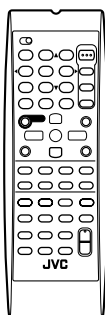
# SCHEMATIC DIAGRAMS

## AUDIO/VIDEO CONTROL RECEIVER

# RX-6030VBK

CD-ROM No.SML200303

Area suffix	
J	U.S.A.
C	Canada



**AV COMPU LINK**

**COMPU LINK**  
*Remote*

DIGITAL  
**ds**  
 SURROUND

**DD DOLBY**  
**DIGITAL**  
**PRO LOGIC II**

### Contents

Block diagram .....	2-1
Standard schematic diagrams .....	2-2
Printed circuit boards .....	2-10~14

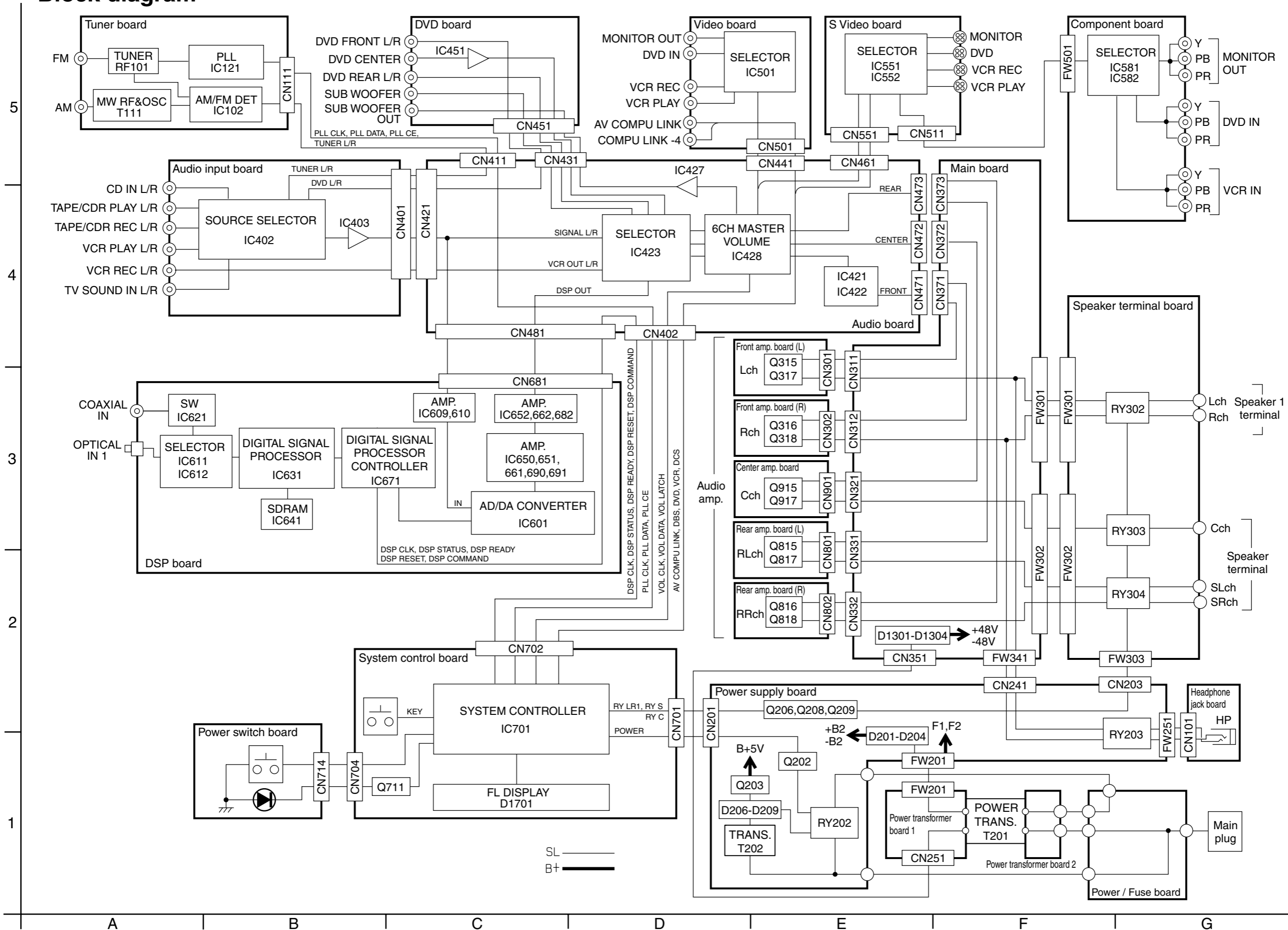
## RX-6030VBK

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (⬤) and ICP (●) or identified by the "▲" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

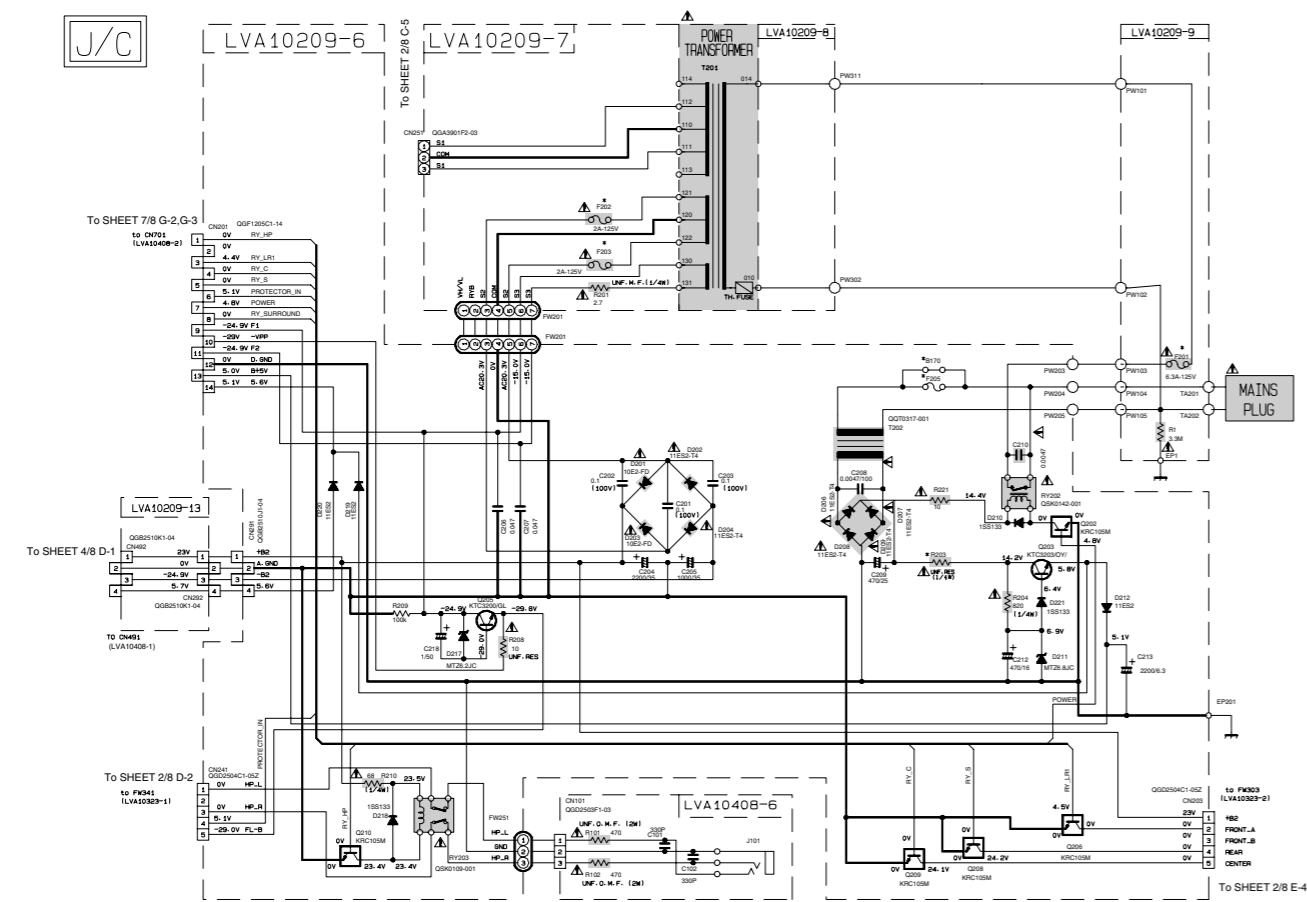


# Block diagram

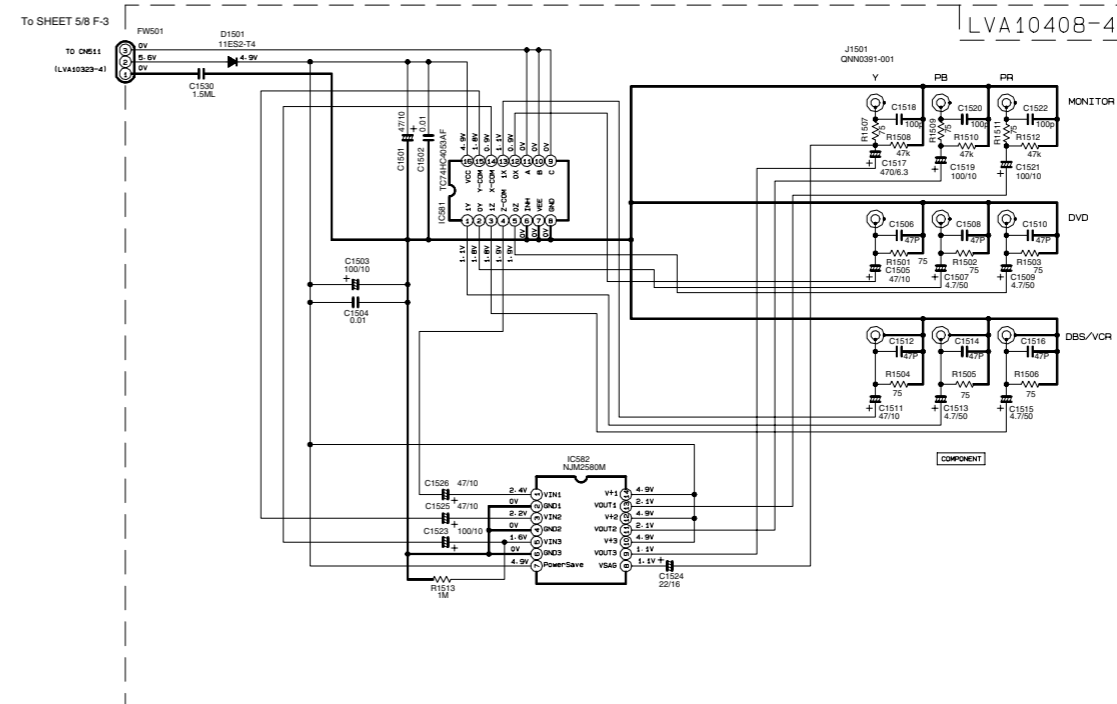


# Standard schematic diagrams

## Power supply section



## Component video terminal section



	J/C	B/E/EN/EA/PA	US/TA/UA
F201	08P51U1-2R3-JB (16-24-125V)	08P51K2-2R3-JB (12.5A-250V)	08P51K2-2R3-JB (16A-250V)
F202-F203	08P51U1-2R3-JB (16-24-125V)	08P51K2-2R3-JB (12A-250V)	08P51K2-2R3-JB (16A-250V)
F204	NONE	NONE	08P51K2-2R3-JB (16A-250V)
F205	NONE	08P51K2-2R3-JB (16A-250V)	08P51K2-2R3-JB (16A-250V)
R170	USE	NONE	NONE
VR201	NONE	NONE	USE

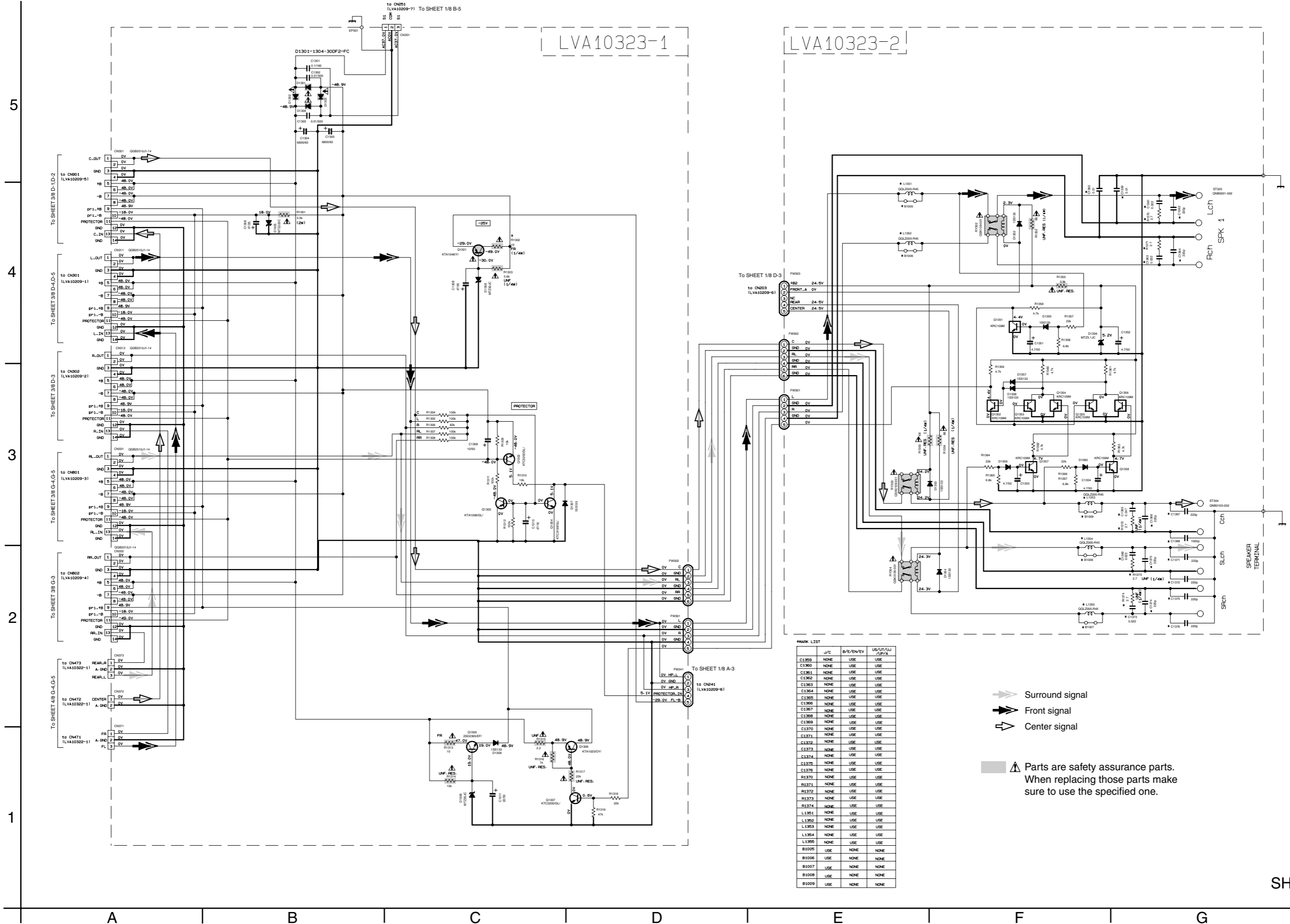
Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

	J/C	B/E/EN/EA	US/TA/UA	UP/A
R1-EPI	USE	NONE	NONE	NONE
RE11-RE12	NONE	NONE	NONE	USE
RE13-RE14	USE	USE	NONE	NONE
R202	10	10	3.9	3.9
T202	02T0317-001	02T0281-002	02T0281-004	02T0281-004
C202	470-20	470-20	470-20	470-20
R201	2.7	4.7	5.6	5.6
C1331	330P	0.001	330P	330P
C1332	330P	0.001	330P	330P
C201	NONE	USE	NONE	NONE

SHEET No.	CIRCUIT DESCRIPTION
1 / 8	Power supply & Component video
2 / 8	Audio & Speaker terminal
3 / 8	Audio amplifier
4 / 8	Volume, Regulator & Source select
5 / 8	Audio & Video signal input terminal
6 / 8	Digital signal input terminal & Surround
7 / 8	User control, System control & FL display
8 / 8	Tuner

VERSION CODES
J : U. S. A.
C : CANADA
B : U. K.
E : CONTINENTAL EUROPE
EN : NORDIC COUNTRIES
EV : EASTERN EUROPE
US : SINGAPORE
UT : TAIWAN
UJ : MILLITARY MARKET
UP : KOREA
A : AUSTRALIA

Audio & Speaker terminal section



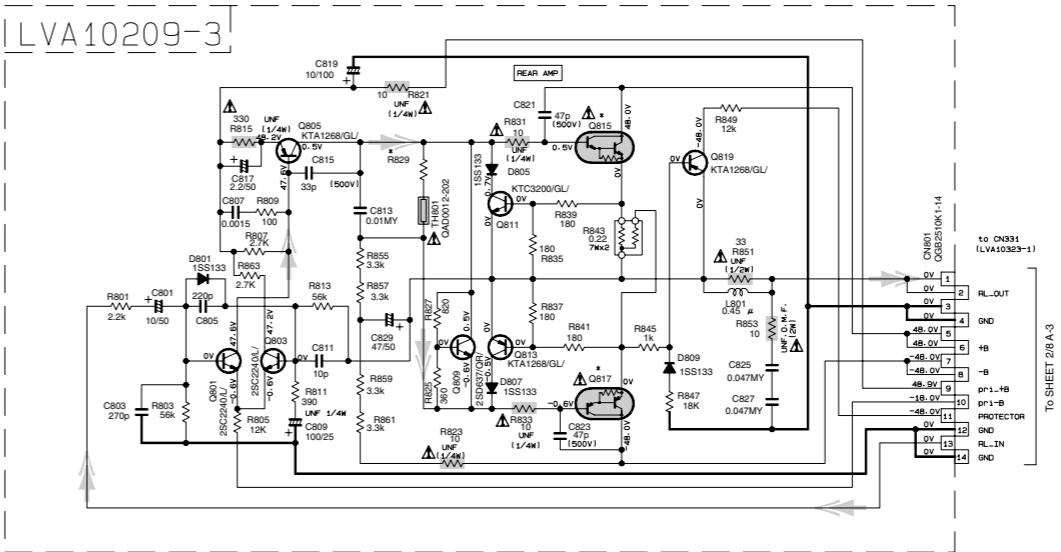
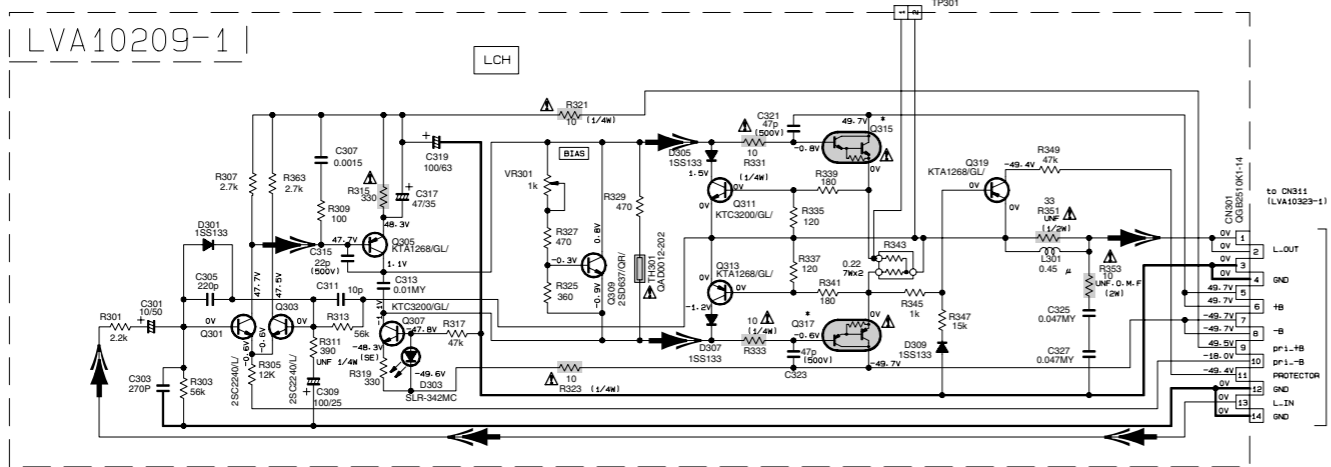
MARK LIST

MARK	J/C	B/E/EN/VEV	US/TA/UA	AP/A
C1359	NONE	USE	USE	
C1360	NONE	USE	USE	
C1361	NONE	USE	USE	
C1362	NONE	USE	USE	
C1363	NONE	USE	USE	
C1364	NONE	USE	USE	
C1365	NONE	USE	USE	
C1366	NONE	USE	USE	
C1367	NONE	USE	USE	
C1368	NONE	USE	USE	
C1369	NONE	USE	USE	
C1370	NONE	USE	USE	
C1371	NONE	USE	USE	
C1372	NONE	USE	USE	
C1373	NONE	USE	USE	
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C1398	NONE	USE	USE	
C1399	NONE	USE	USE	
B1005	USE	NONE	NONE	
B1006	USE	NONE	NONE	
B1007	USE	NONE	NONE	
B1008	USE	NONE	NONE	
B1009	USE	NONE	NONE	

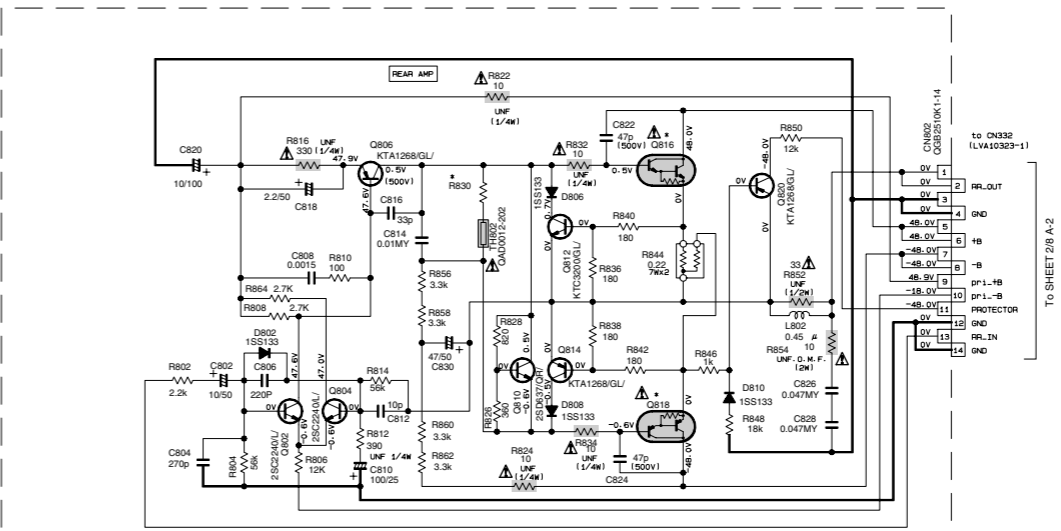
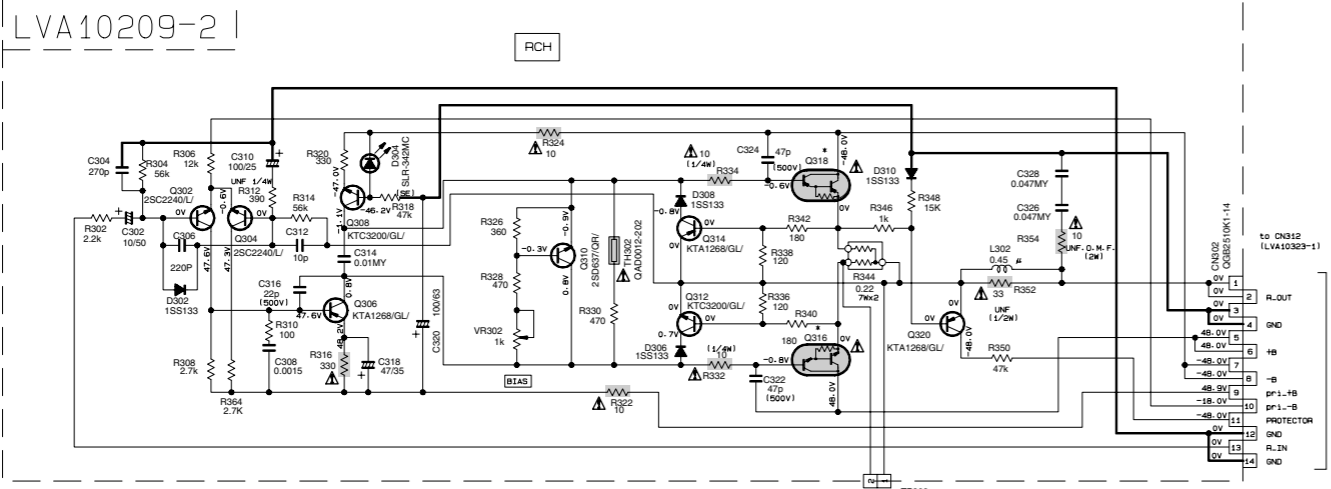
- ➡ Surround signal
- ➡ Front signal
- ➡ Center signal
- ⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

■ Audio amplifier section

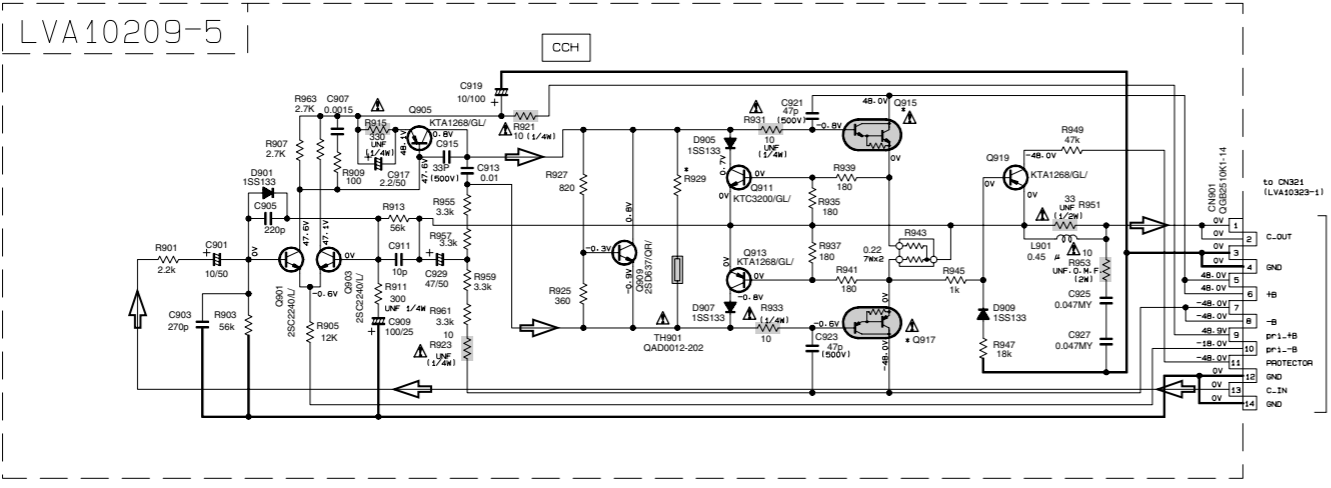
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LVA10209-4

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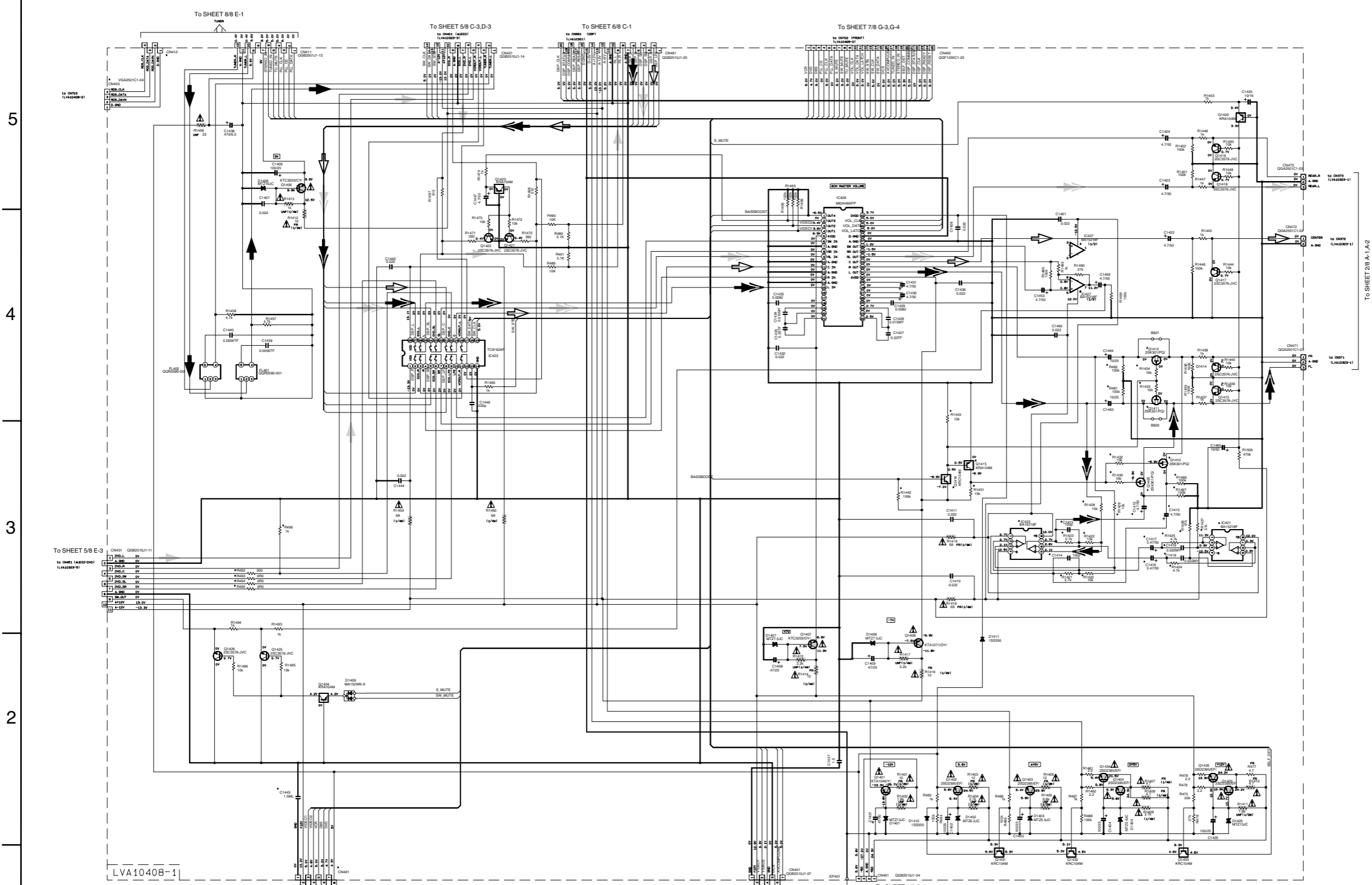
1

MARK LIST

	J/C	B/E/ENVV	US/UT/UJ/UP/A
Q315, Q316	2SD2389/OPY/-F6	2SD2390/OPY/-F6	2SD2390/OPY/-F6
Q815, Q816			
Q915			
Q317, Q318	2SB1559/OPY/-F6	2SB1560/OPY/-F6	2SB1560/OPY/-F6
Q817, Q818			
Q917			
RB29, RB30	470	470	220
RB29			

Surround signal  
 Front signal  
 Center signal  
 Parts are safety assurance parts.  
 When replacing those parts make sure to use the specified one.

Volume, Regulator & Source select section



- |  |  |   |
|--|--|---|
| <p>➔ Audio signal</p> <p>➔ Tuner signal</p> <p>➔ Surround signal</p> | <p>➔ Front signal</p> <p>➔ Center signal</p> | <p>⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.</p> |
|--|--|---|
- 
- | <p><b>MARK-LIST</b> BassBoost</p> <table border="1"> <tr><th>IC</th><th>Part No.</th><th>Part Name</th></tr> <tr><td>IC421</td><td>IC421</td><td>IC421</td></tr> <tr><td>IC422</td><td>IC422</td><td>IC422</td></tr> <tr><td>IC423</td><td>IC423</td><td>IC423</td></tr> <tr><td>IC424</td><td>IC424</td><td>IC424</td></tr> <tr><td>IC425</td><td>IC425</td><td>IC425</td></tr> <tr><td>IC426</td><td>IC426</td><td>IC426</td></tr> <tr><td>IC427</td><td>IC427</td><td>IC427</td></tr> <tr><td>IC428</td><td>IC428</td><td>IC428</td></tr> <tr><td>IC429</td><td>IC429</td><td>IC429</td></tr> <tr><td>IC430</td><td>IC430</td><td>IC430</td></tr> <tr><td>IC431</td><td>IC431</td><td>IC431</td></tr> <tr><td>IC432</td><td>IC432</td><td>IC432</td></tr> <tr><td>IC433</td><td>IC433</td><td>IC433</td></tr> <tr><td>IC434</td><td>IC434</td><td>IC434</td></tr> <tr><td>IC435</td><td>IC435</td><td>IC435</td></tr> <tr><td>IC436</td><td>IC436</td><td>IC436</td></tr> <tr><td>IC437</td><td>IC437</td><td>IC437</td></tr> 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IC447 | IC448 | IC448 | IC448 | IC449 | IC449 | IC449 | IC450 | IC450 | IC450 | IC451 | IC451 | IC451 | IC452 | IC452 | IC452 | IC453 | IC453 | IC453 | IC454 | IC454 | IC454 | IC455 | IC455 | IC455 | IC456 | IC456 | IC456 | IC457 | IC457 | IC457 | IC458 | IC458 | IC458 | IC459 | IC459 | IC459 | IC460 | IC460 | IC460 | IC461 | IC461 | IC461 | IC462 | IC462 | IC462 | IC463 | IC463 | IC463 | IC464 | IC464 | IC464 | IC465 | IC465 | IC465 | IC466 | IC466 | IC466 | IC467 | IC467 | IC467 | IC468 | IC468 | IC468 | IC469 | IC469 | IC469 | IC470 | IC470 | IC470 | IC471 | IC471 | IC471 | IC472 | IC472 | IC472 | IC473 | IC473 | IC473 | IC474 | IC474 | IC474 | IC475 | IC475 | IC475 | IC476 | IC476 | IC476 | IC477 | IC477 | IC477 | IC478 | IC478 | IC478 | IC479 | IC479 | IC479 | IC480 | IC480 | IC480 | IC481 | IC481 | IC481 | IC482 | IC482 | IC482 | IC483 | IC483 | IC483 | IC484 | IC484 | IC484 | IC485 | IC485 | IC485 | IC486 | IC486 | IC486 | IC487 | IC487 | IC487 | IC488 | IC488 | IC488 | IC489 | IC489 | IC489 | IC490 | IC490 | IC490 | IC491 | IC491 | IC491 | IC492 | IC492 | IC492 | IC493 | IC493 | IC493 | IC494 | IC494 | IC494 | IC495 | IC495 | IC495 | IC496 | IC496 | IC496 | IC497 | IC497 | IC497 | IC498 | IC498 | IC498 | IC499 | IC499 | IC499 | IC500 | IC500 | IC500 | <p><b>MARK-LIST</b> RX-5030/RX-6030</p> <table border="1"> <tr><th>Part No.</th><th>Part Name</th></tr> <tr><td>R1433</td><td>R1433</td></tr> <tr><td>R1434</td><td>R1434</td></tr> <tr><td>R1435</td><td>R1435</td></tr> <tr><td>R1436</td><td>R1436</td></tr> <tr><td>R1437</td><td>R1437</td></tr> <tr><td>R1438</td><td>R1438</td></tr> <tr><td>R1439</td><td>R1439</td></tr> <tr><td>R1440</td><td>R1440</td></tr> <tr><td>R1441</td><td>R1441</td></tr> <tr><td>R1442</td><td>R1442</td></tr> <tr><td>R1443</td><td>R1443</td></tr> <tr><td>R1444</td><td>R1444</td></tr> <tr><td>R1445</td><td>R1445</td></tr> <tr><td>R1446</td><td>R1446</td></tr> <tr><td>R1447</td><td>R1447</td></tr> <tr><td>R1448</td><td>R1448</td></tr> 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Part No. | Part Name | R1433 | R1433 | R1434 | R1434 | R1435 | R1435 | R1436 | R1436 | R1437 | R1437 | R1438 | R1438 | R1439 | R1439 | R1440 | R1440 | R1441 | R1441 | R1442 | R1442 | R1443 | R1443 | R1444 | R1444 | R1445 | R1445 | R1446 | R1446 | R1447 | R1447 | R1448 | R1448 | R1449 | R1449 | R1450 | R1450 | R1451 | R1451 | R1452 | R1452 | R1453 | R1453 | R1454 | R1454 | R1455 | R1455 | R1456 | R1456 | R1457 | R1457 | R1458 | R1458 | R1459 | R1459 | R1460 | R1460 | R1461 | R1461 | R1462 | R1462 | R1463 | R1463 | R1464 | R1464 | R1465 | R1465 | R1466 | R1466 | R1467 | R1467 | R1468 | R1468 | R1469 | R1469 | R1470 | R1470 | R1471 | R1471 | R1472 | R1472 | R1473 | R1473 | R1474 | R1474 | R1475 | R1475 | R1476 | R1476 | R1477 | R1477 | R1478 | R1478 | R1479 | R1479 | R1480 | R1480 | R1481 | R1481 | R1482 | R1482 | R1483 | R1483 | R1484 | R1484 | R1485 | R1485 | R1486 | R1486 | R1487 | R1487 | R1488 | R1488 | R1489 | R1489 | R1490 | R1490 | R1491 | R1491 | R1492 | R1492 | R1493 | R1493 | R1494 | R1494 | R1495 | R1495 | R1496 | R1496 | R1497 | R1497 | R1498 | R1498 | R1499 | R1499 | R1500 | R1500 | <p><b>MARK-LIST</b> DVC-MULTI</p> <table border="1"> <tr><th>Part No.</th><th>Part Name</th></tr> <tr><td>R490</td><td>R490</td></tr> <tr><td>R491</td><td>R491</td></tr> <tr><td>R492</td><td>R492</td></tr> <tr><td>R493</td><td>R493</td></tr> <tr><td>R494</td><td>R494</td></tr> <tr><td>R495</td><td>R495</td></tr> </table> | Part No. | Part Name | R490 | R490 | R491 | R491 | R492 | R492 | R493 | R493 | R494 | R494 | R495 | R495 | <p><b>MARK-LIST</b> RES</p> <table border="1"> <tr><th>Part No.</th><th>Part Name</th></tr> <tr><td>CN403</td><td>CN403</td></tr> <tr><td>CN412</td><td>CN412</td></tr> </table> | Part No. | Part Name | CN403 | CN403 | CN412 | CN412 | <p><b>MARK-LIST</b> S-VIDEO</p> <table border="1"> <tr><th>Part No.</th><th>Part Name</th></tr> <tr><td>IC443</td><td>IC443</td></tr> <tr><td>CN451</td><td>CN451</td></tr> </table> | Part No. | Part Name | IC443 | IC443 | CN451 | CN451 |
|---|-----------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|--|----------|-----------|-------|-------|-------|-------|--|----------|-----------|-------|-------|-------|-------|
| IC  | Part No.  | Part Name |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC421   | IC421     | IC421     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC422   | IC422     | IC422     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC423   | IC423     | IC423     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC424   | IC424     | IC424     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC425   | IC425     | IC425     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC426   | IC426     | IC426     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC427   | IC427     | IC427     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC428   | IC428     | IC428     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC429   | IC429     | IC429     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC430   | IC430     | IC430     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC431   | IC431     | IC431     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC432   | IC432     | IC432     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC433   | IC433     | IC433     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC434   | IC434     | IC434     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC435   | IC435     | IC435     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC436   | IC436     | IC436     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC437   | IC437     | IC437     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC438   | IC438     | IC438     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC439   | IC439     | IC439     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC440   | IC440     | IC440     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC441   | IC441     | IC441     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC442   | IC442     | IC442     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC443   | IC443     | IC443     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC444   | IC444     | IC444     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC445   | IC445     | IC445     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC446   | IC446     | IC446     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC447   | IC447     | IC447     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC448   | IC448     | IC448     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC449   | IC449     | IC449     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC450   | IC450     | IC450     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC451   | IC451     | IC451     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC452   | IC452     | IC452     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC453   | IC453     | IC453     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC454   | IC454     | IC454     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC455   | IC455     | IC455     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC456   | IC456     | IC456     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC457   | IC457     | IC457     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC458   | IC458     | IC458     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC459   | IC459     | IC459     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC460   | IC460     | IC460     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC461   | IC461     | IC461     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC462   | IC462     | IC462     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC463   | IC463     | IC463     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC464   | IC464     | IC464     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC465   | IC465     | IC465     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC466   | IC466     | IC466     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC467   | IC467     | IC467     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC468   | IC468     | IC468     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC469   | IC469     | IC469     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC470   | IC470     | IC470     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC471   | IC471     | IC471     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC472   | IC472     | IC472     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC473   | IC473     | IC473     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC474   | IC474     | IC474     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC475   | IC475     | IC475     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC476   | IC476     | IC476     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC477   | IC477     | IC477     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC478   | IC478     | IC478     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC479   | IC479     | IC479     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC480   | IC480     | IC480     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC481   | IC481     | IC481     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC482   | IC482     | IC482     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC483   | IC483     | IC483     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC484   | IC484     | IC484     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC485   | IC485     | IC485     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC486   | IC486     | IC486     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC487   | IC487     | IC487     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC488   | IC488     | IC488     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC489   | IC489     | IC489     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC490   | IC490     | IC490     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC491   | IC491     | IC491     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC492   | IC492     | IC492     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC493   | IC493     | IC493     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC494   | IC494     | IC494     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC495   | IC495     | IC495     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC496   | IC496     | IC496     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC497   | IC497     | IC497     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC498   | IC498     | IC498     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC499   | IC499     | IC499     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC500   | IC500     | IC500     |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| Part No.  | Part Name |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1433   | R1433     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1434   | R1434     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1435   | R1435     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1436   | R1436     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1437   | R1437     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1438   | R1438     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1439   | R1439     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1440   | R1440     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1441   | R1441     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1442   | R1442     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1443   | R1443     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1444   | R1444     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1445   | R1445     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1446   | R1446     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1447   | R1447     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1448   | R1448     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1449   | R1449     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1450   | R1450     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1451   | R1451     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1452   | R1452     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1453   | R1453     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1454   | R1454     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1455   | R1455     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1456   | R1456     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1457   | R1457     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1458   | R1458     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1459   | R1459     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1460   | R1460     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1461   | R1461     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1462   | R1462     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1463   | R1463     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1464   | R1464     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1465   | R1465     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1466   | R1466     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1467   | R1467     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1468   | R1468     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1469   | R1469     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1470   | R1470     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1471   | R1471     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1472   | R1472     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1473   | R1473     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1474   | R1474     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1475   | R1475     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1476   | R1476     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1477   | R1477     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1478   | R1478     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1479   | R1479     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1480   | R1480     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1481   | R1481     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1482   | R1482     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1483   | R1483     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1484   | R1484     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1485   | R1485     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1486   | R1486     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1487   | R1487     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1488   | R1488     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1489   | R1489     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1490   | R1490     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1491   | R1491     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1492   | R1492     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1493   | R1493     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1494   | R1494     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1495   | R1495     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1496   | R1496     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1497   | R1497     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1498   | R1498     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1499   | R1499     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R1500   | R1500     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| Part No.  | Part Name |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R490  | R490      |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R491  | R491      |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R492  | R492      |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R493  | R493      |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R494  | R494      |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| R495  | R495      |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| Part No.  | Part Name |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| CN403   | CN403     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| CN412   | CN412     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| Part No.  | Part Name |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| IC443   | IC443     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |
| CN451   | CN451     |           |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |          |           |      |      |      |      |      |      |      |      |      |      |      |      |  |          |           |       |       |       |       |  |          |           |       |       |       |       |

■ Audio & Video signal input terminal section

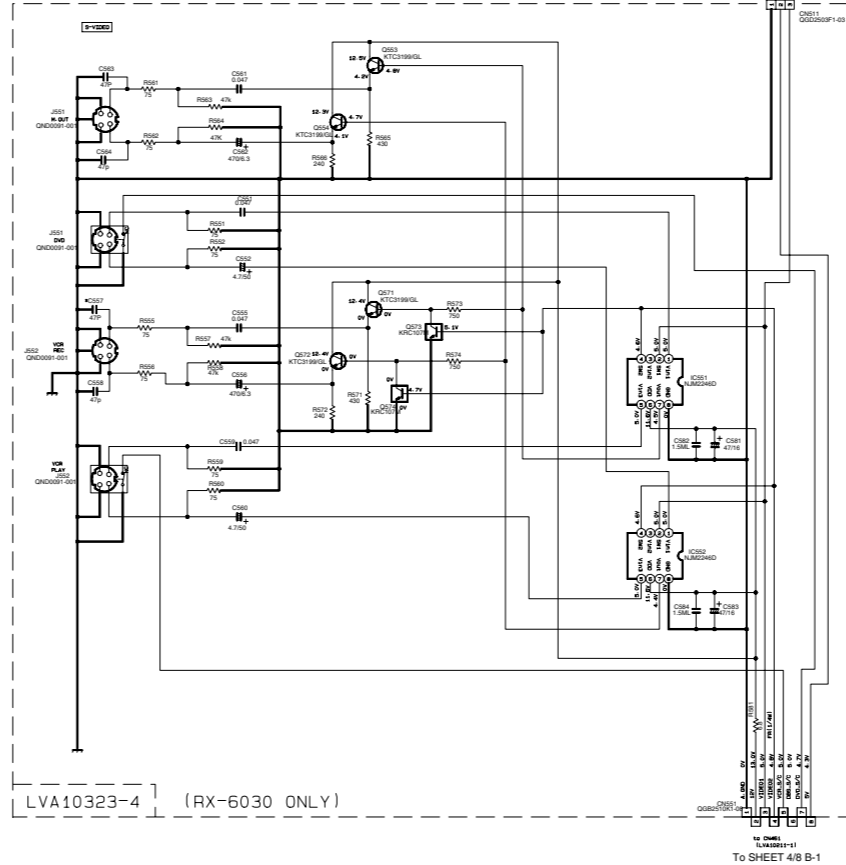
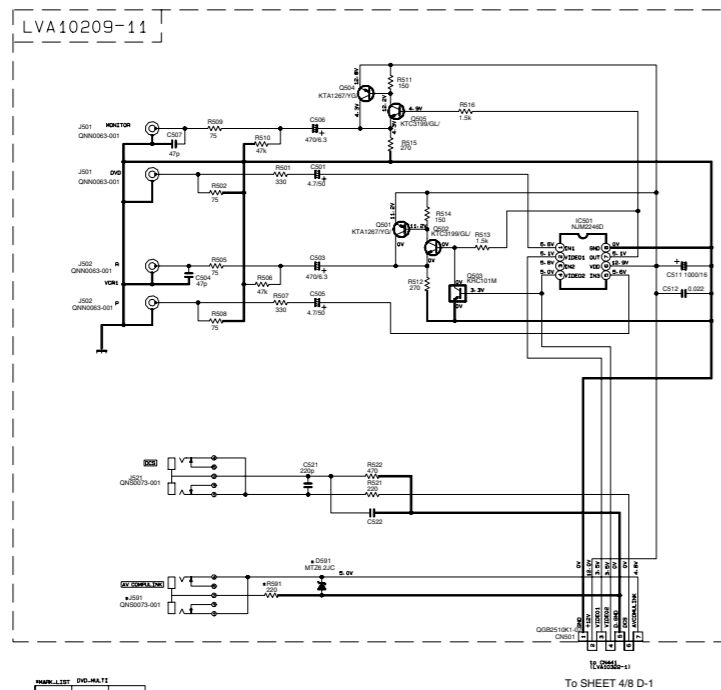
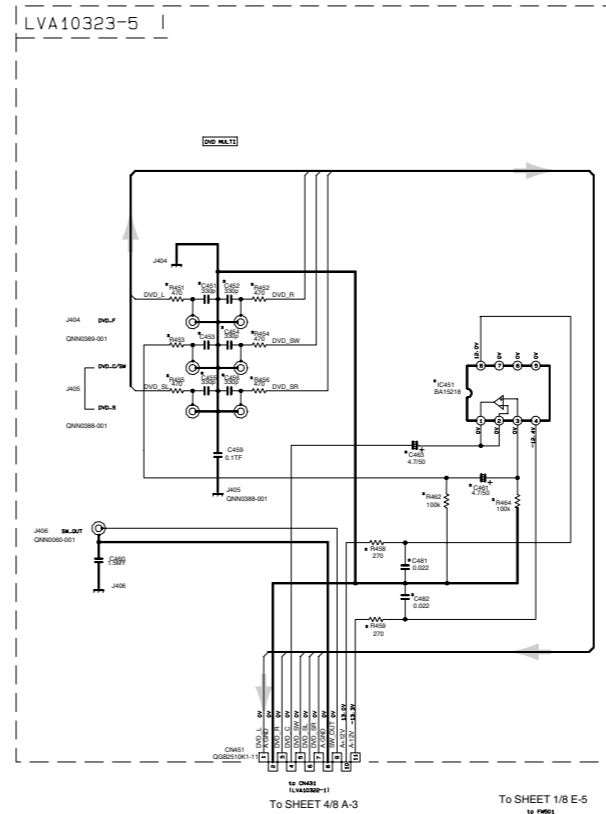
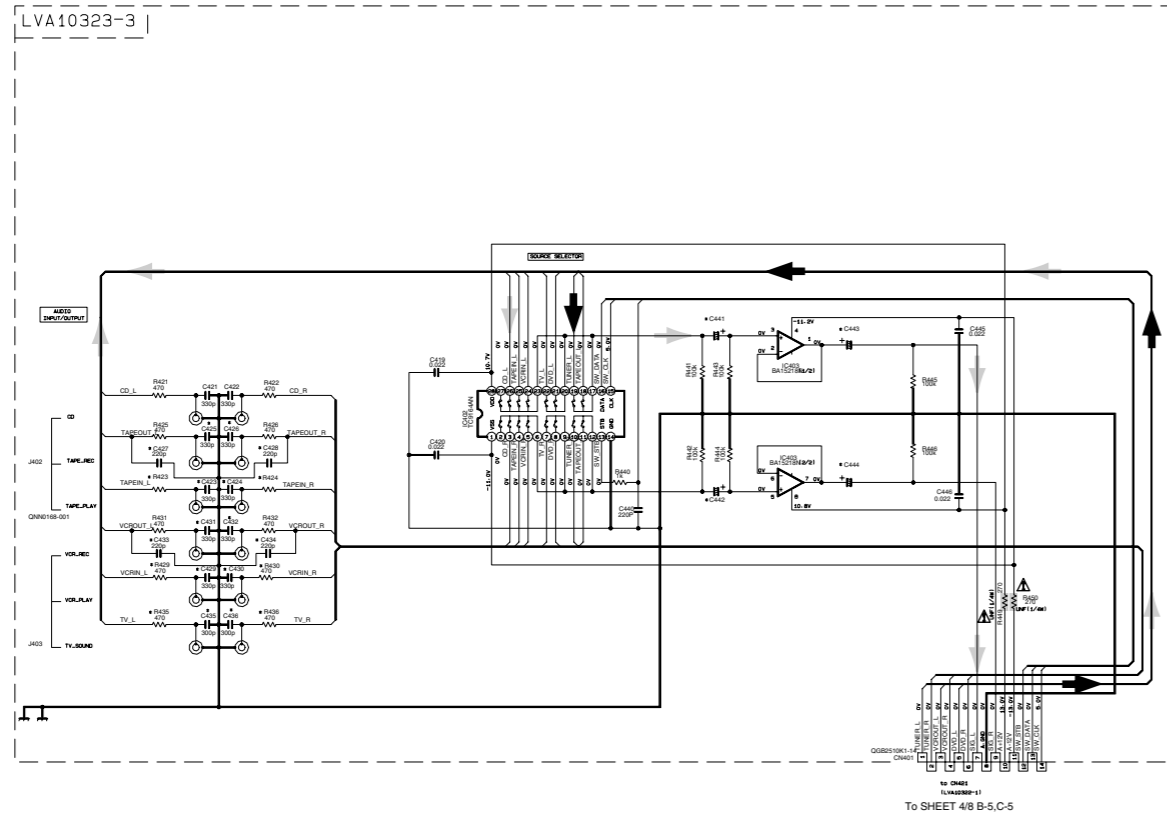
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1



NAME LIST

REF	VALUE	UNIT	REMARKS
R801	330P	330P	NONE
R802	330P	330P	NONE
R803	330P	330P	NONE
R804	330P	330P	NONE
R805	330P	330P	NONE
R806	330P	330P	NONE
R807	330P	330P	NONE
R808	330P	330P	NONE
R809	330P	330P	NONE
R810	330P	330P	NONE
R811	330P	330P	NONE
R812	330P	330P	NONE
R813	330P	330P	NONE
R814	330P	330P	NONE
R815	330P	330P	NONE
R816	330P	330P	NONE
R817	330P	330P	NONE
R818	330P	330P	NONE
R819	330P	330P	NONE
R820	330P	330P	NONE
R821	330P	330P	NONE
R822	330P	330P	NONE
R823	330P	330P	NONE
R824	330P	330P	NONE
R825	330P	330P	NONE
R826	330P	330P	NONE
R827	330P	330P	NONE
R828	330P	330P	NONE
R829	330P	330P	NONE
R830	330P	330P	NONE
C801	100N	100N	NONE
C802	100N	100N	NONE
C803	100N	100N	NONE
C804	100N	100N	NONE
C805	100N	100N	NONE
C806	100N	100N	NONE
C807	100N	100N	NONE
C808	100N	100N	NONE
C809	100N	100N	NONE
C810	100N	100N	NONE
C811	100N	100N	NONE
C812	100N	100N	NONE
C813	100N	100N	NONE
C814	100N	100N	NONE
C815	100N	100N	NONE
C816	100N	100N	NONE
C817	100N	100N	NONE
C818	100N	100N	NONE
C819	100N	100N	NONE
C820	100N	100N	NONE
C821	100N	100N	NONE
C822	100N	100N	NONE
C823	100N	100N	NONE
C824	100N	100N	NONE
C825	100N	100N	NONE
C826	100N	100N	NONE
C827	100N	100N	NONE
C828	100N	100N	NONE
C829	100N	100N	NONE
C830	100N	100N	NONE
IC801	BA12181	BA12181	NONE
IC802	BA12181	BA12181	NONE

NAME LIST DVD-MULTI

REF	VALUE	UNIT	REMARKS
D801	330P	330P	NONE
D802	330P	330P	NONE
D803	330P	330P	NONE
D804	330P	330P	NONE
D805	330P	330P	NONE
D806	330P	330P	NONE
D807	330P	330P	NONE
D808	330P	330P	NONE
D809	330P	330P	NONE
D810	330P	330P	NONE
D811	330P	330P	NONE
D812	330P	330P	NONE
D813	330P	330P	NONE
D814	330P	330P	NONE
D815	330P	330P	NONE
D816	330P	330P	NONE
D817	330P	330P	NONE
D818	330P	330P	NONE
D819	330P	330P	NONE
D820	330P	330P	NONE
D821	330P	330P	NONE
D822	330P	330P	NONE
D823	330P	330P	NONE
D824	330P	330P	NONE
D825	330P	330P	NONE
D826	330P	330P	NONE
D827	330P	330P	NONE
D828	330P	330P	NONE
D829	330P	330P	NONE
D830	330P	330P	NONE
C831	100N	100N	NONE
C832	100N	100N	NONE
C833	100N	100N	NONE
C834	100N	100N	NONE
C835	100N	100N	NONE
C836	100N	100N	NONE
C837	100N	100N	NONE
C838	100N	100N	NONE
C839	100N	100N	NONE
C840	100N	100N	NONE
C841	100N	100N	NONE
C842	100N	100N	NONE
C843	100N	100N	NONE
C844	100N	100N	NONE
C845	100N	100N	NONE
C846	100N	100N	NONE
C847	100N	100N	NONE
C848	100N	100N	NONE
C849	100N	100N	NONE
C850	100N	100N	NONE
IC801	BA12181	BA12181	NONE
IC802	BA12181	BA12181	NONE

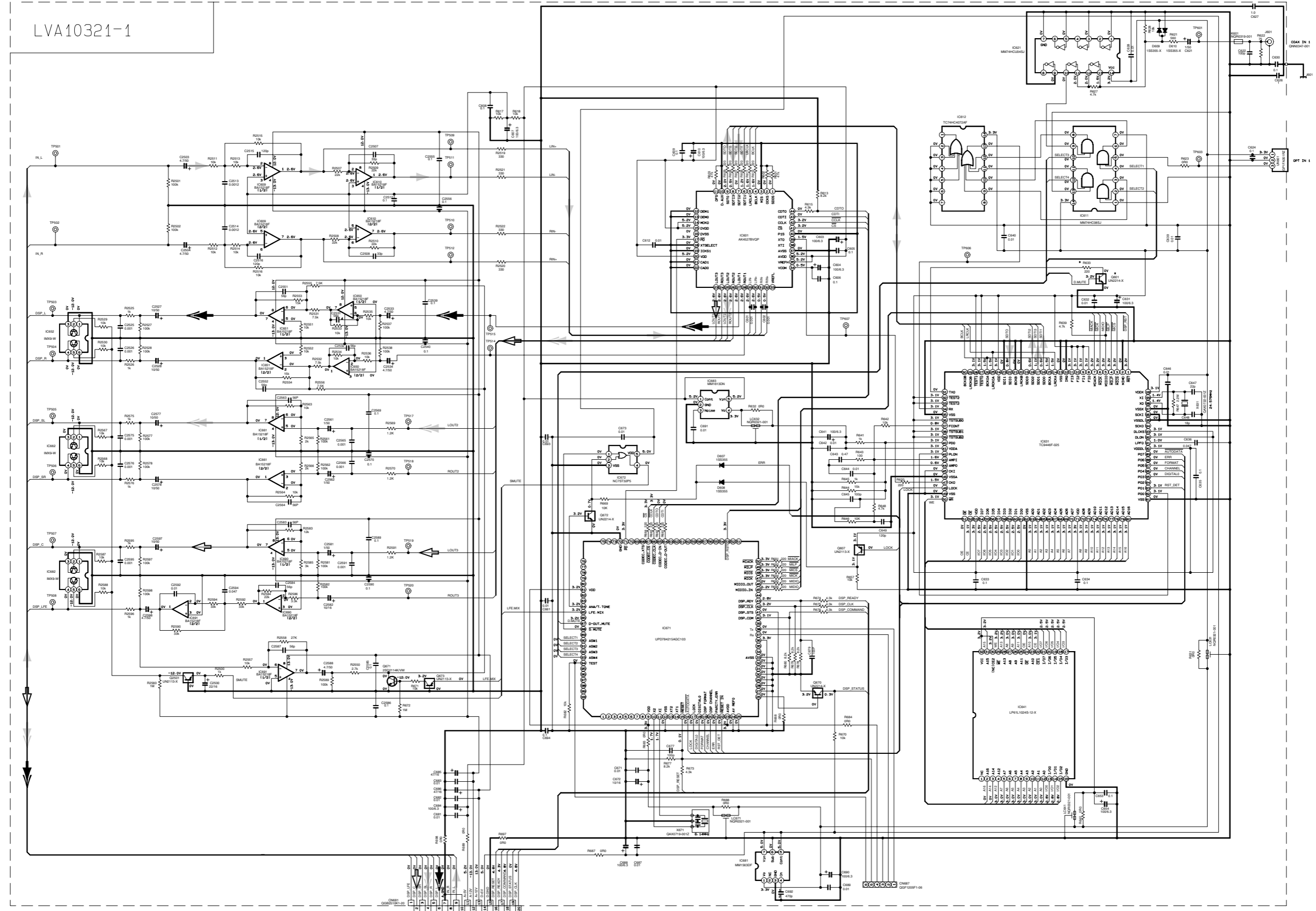
▶ Audio signal  
▶ Tuner signal

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

Digital signal input terminal & Surround section

LVA10321-1

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4  
3  
2  
1



To SHEET 4/8 C-5,D-5

- ➔ Audio signal
- ➔ Surround signal
- ➔ Front signal
- ➔ Center signal

A B C D E F G

■ User control, System control & FL display section

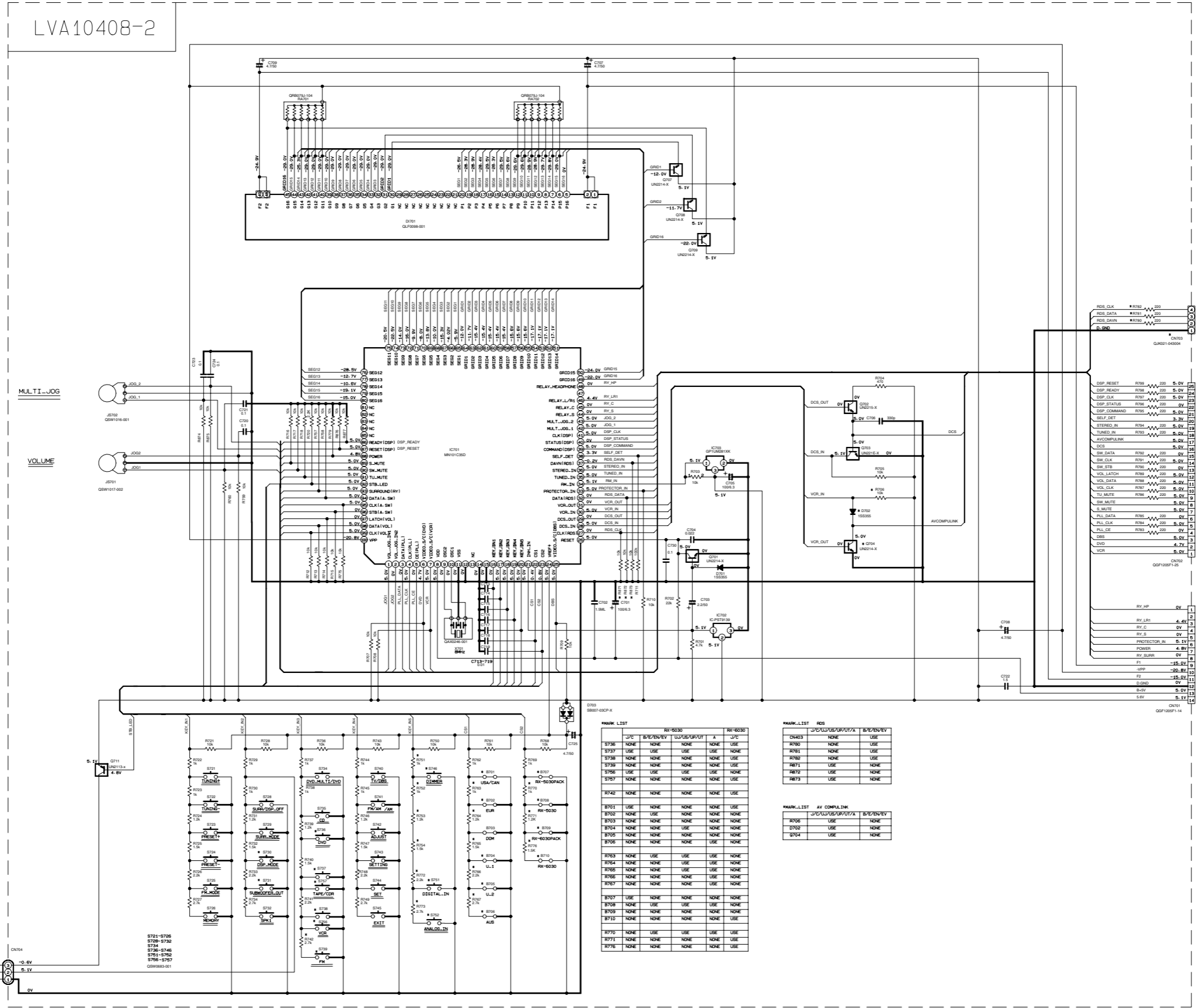
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LVA10408-2

MULTI-JOG

VOLUME

LVA10408-3

MARK LIST

J/C	B/E/BVEY	U/L/U/B/O/U/A	A	J/C
R736	NONE	NONE	NONE	USE
R737	USE	USE	USE	USE
R738	NONE	NONE	NONE	USE
R739	NONE	NONE	NONE	USE
R756	USE	USE	USE	USE
R757	NONE	NONE	NONE	USE
R742	NONE	NONE	NONE	USE
R701	USE	NONE	NONE	USE
R702	NONE	USE	NONE	NONE
R703	NONE	NONE	NONE	NONE
R704	NONE	NONE	USE	NONE
R705	NONE	NONE	NONE	NONE
R706	NONE	NONE	NONE	USE
R763	NONE	USE	USE	NONE
R764	NONE	NONE	USE	NONE
R765	NONE	NONE	USE	NONE
R766	NONE	NONE	NONE	NONE
R767	NONE	NONE	NONE	USE
R707	USE	NONE	NONE	NONE
R708	NONE	USE	USE	NONE
R709	NONE	NONE	NONE	NONE
R710	NONE	NONE	NONE	USE
R770	NONE	USE	USE	USE
R771	NONE	NONE	NONE	USE
R776	NONE	NONE	NONE	USE

MARK LIST ROS

J/C	U/L/U/B/O/U/A	B/E/BVEY
CN403	NONE	USE
R780	NONE	USE
R781	NONE	USE
R782	NONE	USE
R783	USE	NONE
R787	USE	NONE
R783	USE	NONE

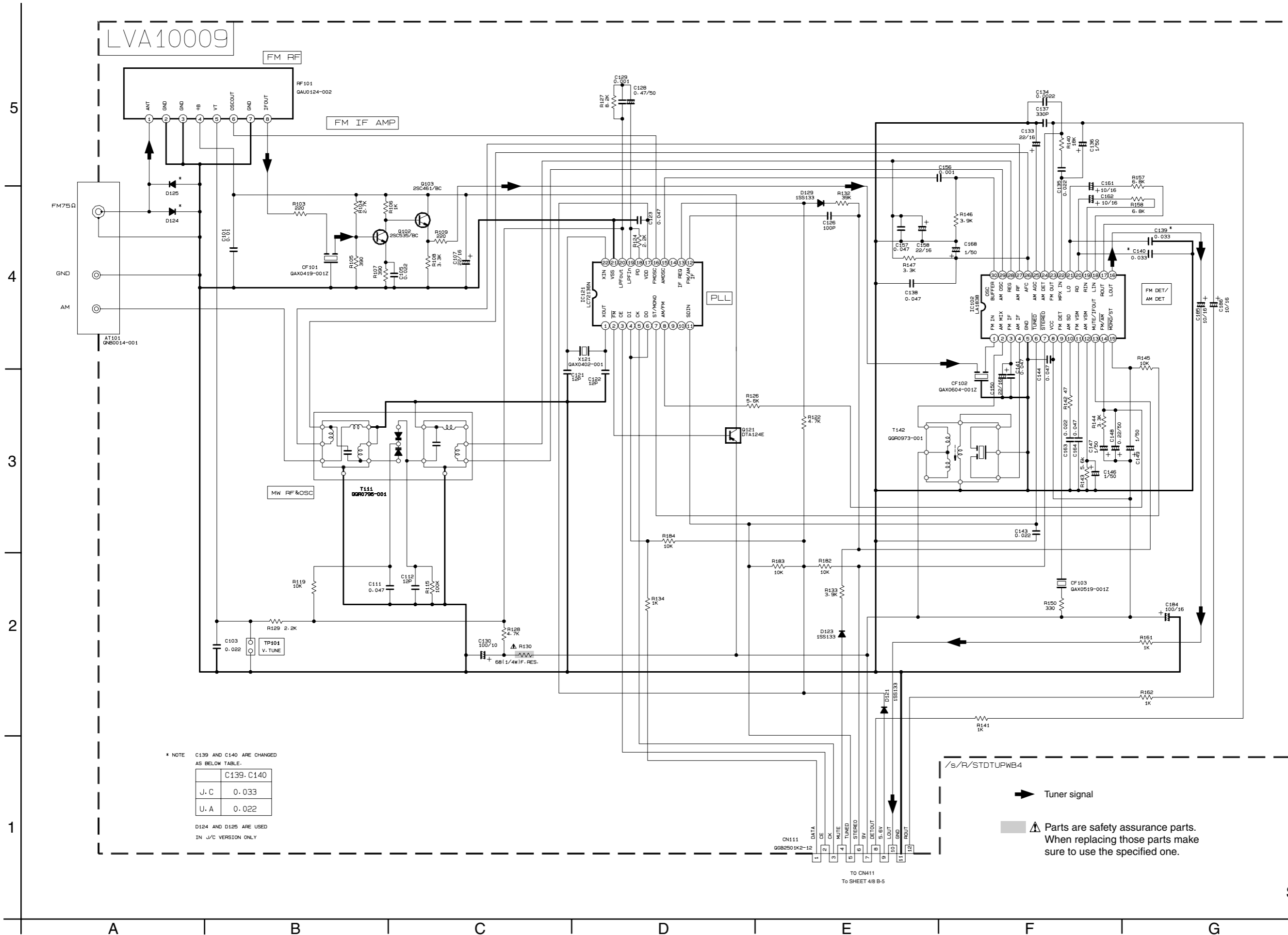
MARK LIST AV COMPLIMK

J/C	U/L/U/B/O/U/A	B/E/BVEY
R705	USE	NONE
D702	USE	NONE
S704	USE	NONE

TO CN403 (LVA10302-1)  
TO CN402 (LVA10302-1)  
TO CN61 (LVA10209-61)  
TO SHEET 7/8 A-4



■ Tuner section



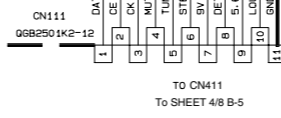
\* NOTE C139 AND C140 ARE CHANGED AS BELOW TABLE.

C139, C140	
J.C	0.033
U.A	0.022

D124 AND D125 ARE USED IN J/C VERSION ONLY

▶ Tuner signal

▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.



/s/R/STDTUPWB4

# Printed circuit boards

## ■ Main board

(Wire protection board)

Reverse side

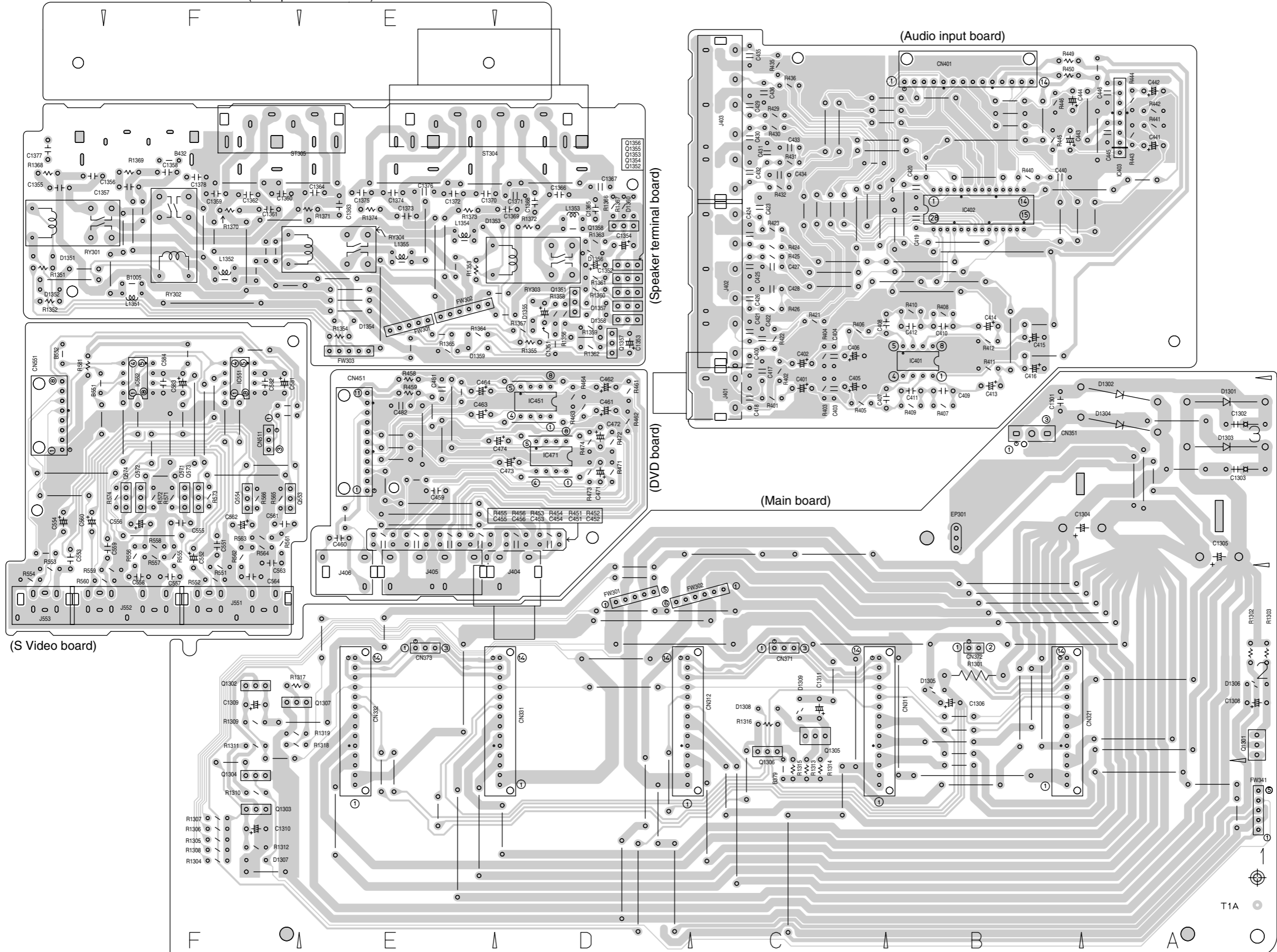
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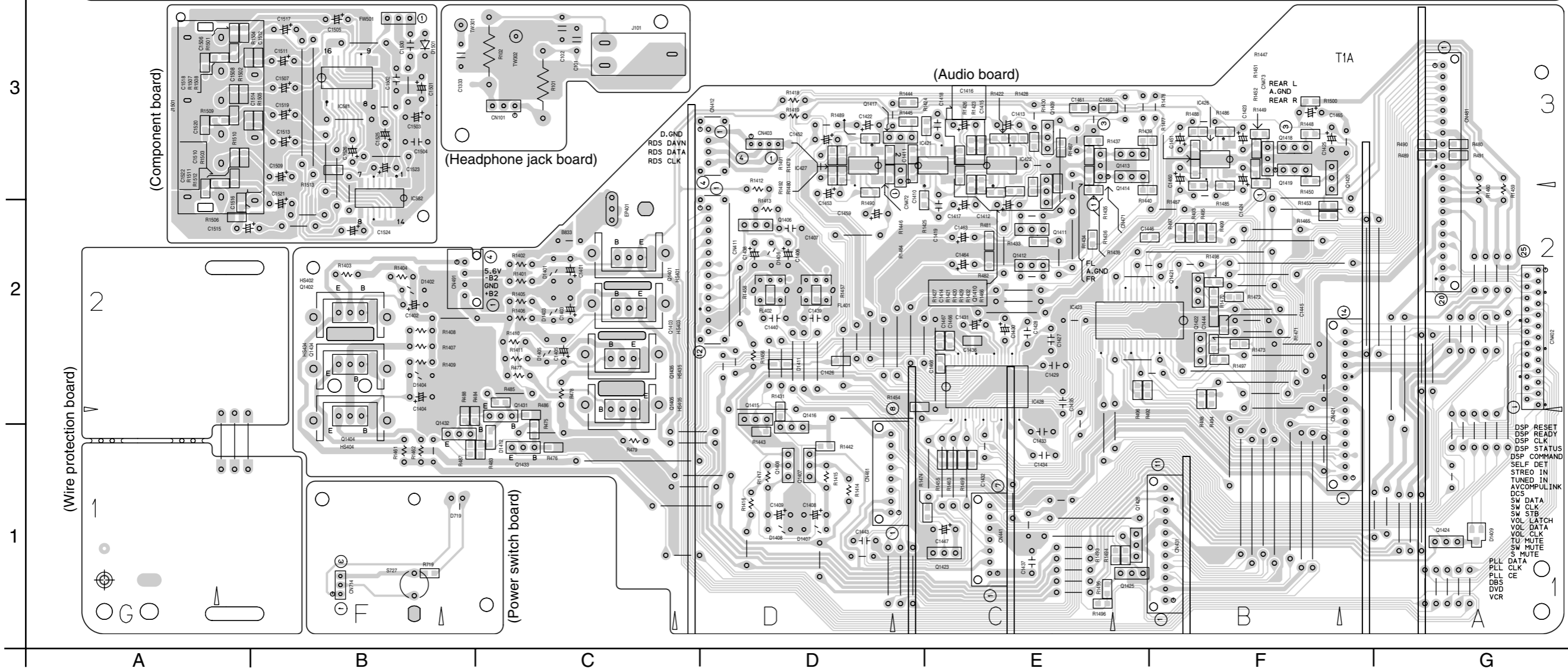
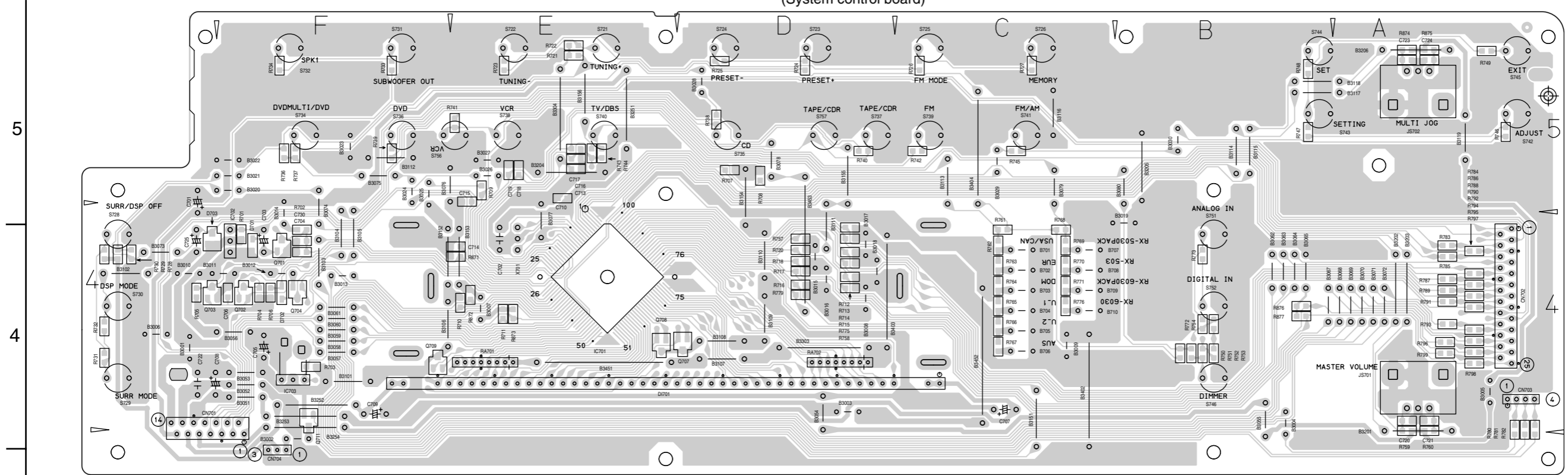


A B C D E F G H

2-10

System control & Audio board

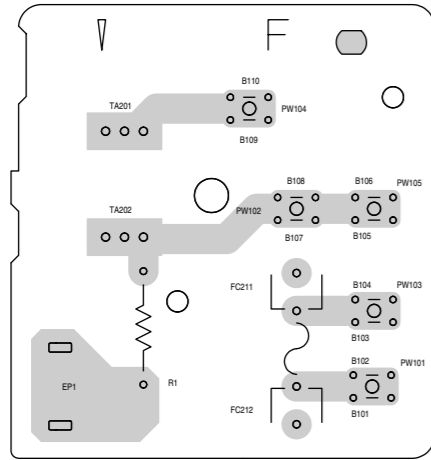
Reverse side  
(System control board)



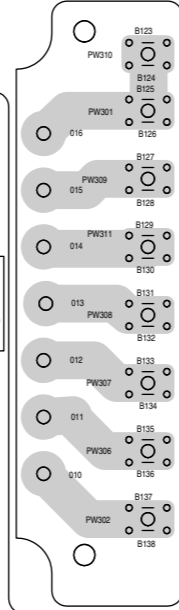
- DSP RESET
- DSP READY
- DSP CLK
- DSP STATUS
- DSP COMMAND
- SELF DET
- STREQ IN
- TUNED IN
- AVCOMPULINK
- DCS
- SW DATA
- SW CLK
- SW STB
- VOL LATCH
- VOL DATA
- VOL CLK
- TV MUTE
- SW MUTE
- SW MUTE
- S MUTE
- PLL DATA
- PLL CLK
- PLL CE
- DBS
- DVD
- VCR

Power amp. board

(Power / Fuse board)

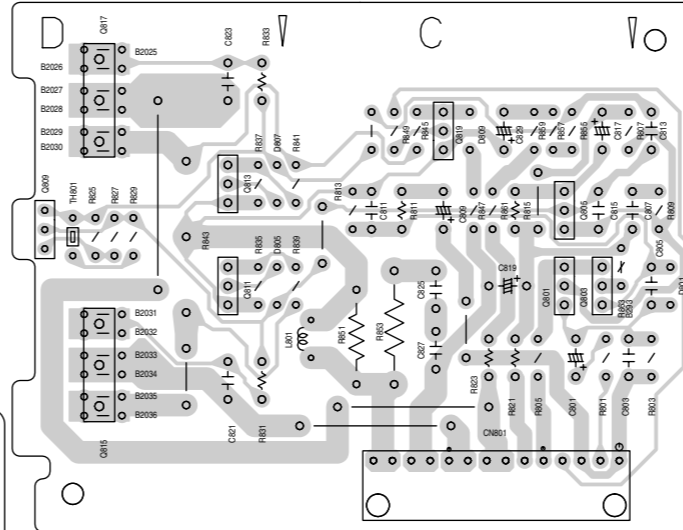


(Power transformer board 2)

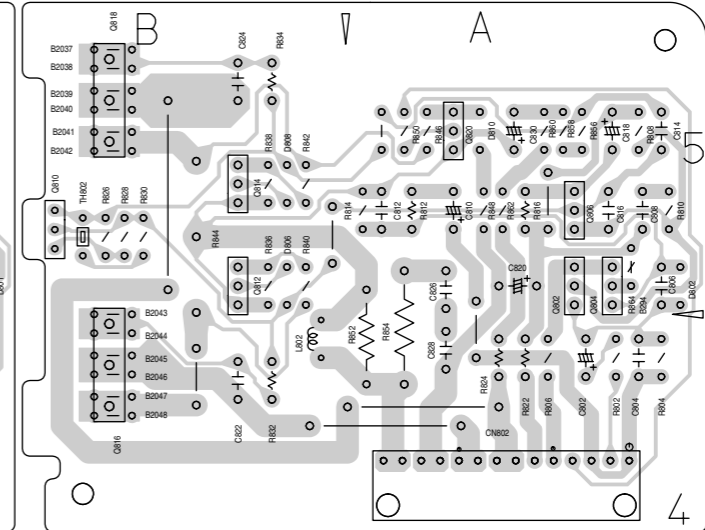


Reverse side

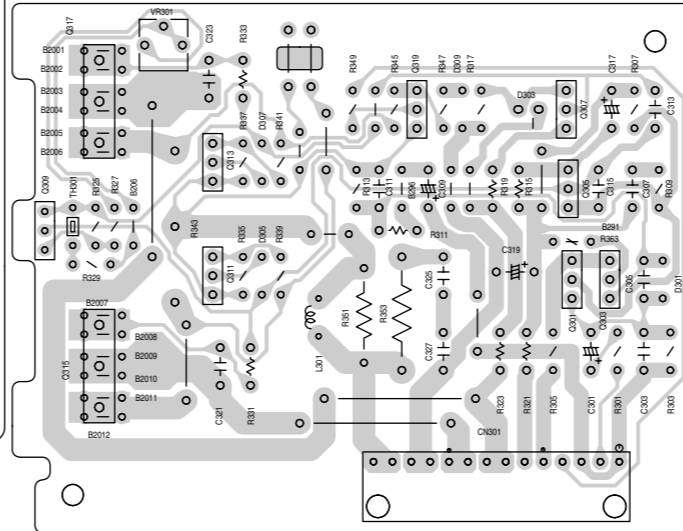
(Rear amp. board (L))



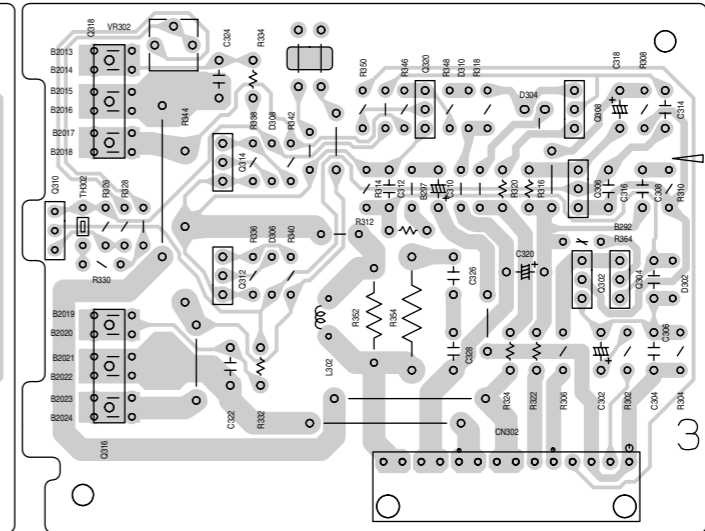
(Rear amp. board (R))



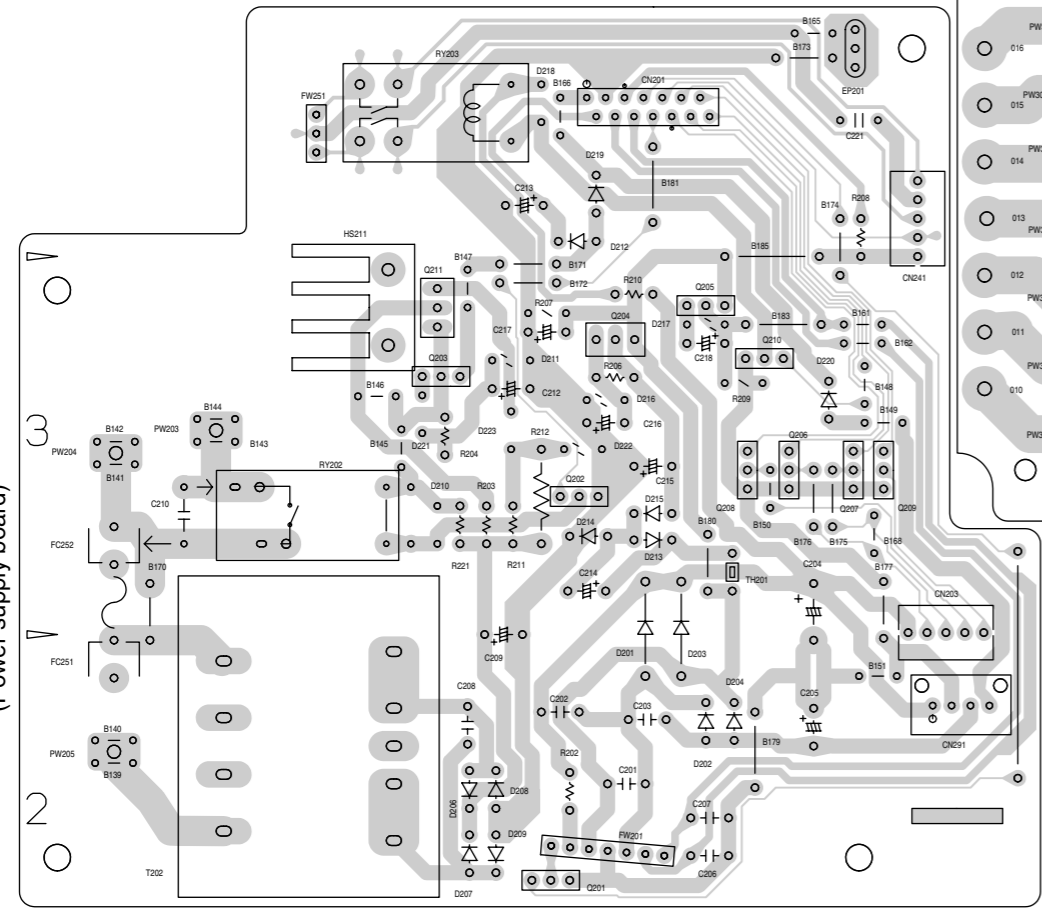
(Front amp. board (L))



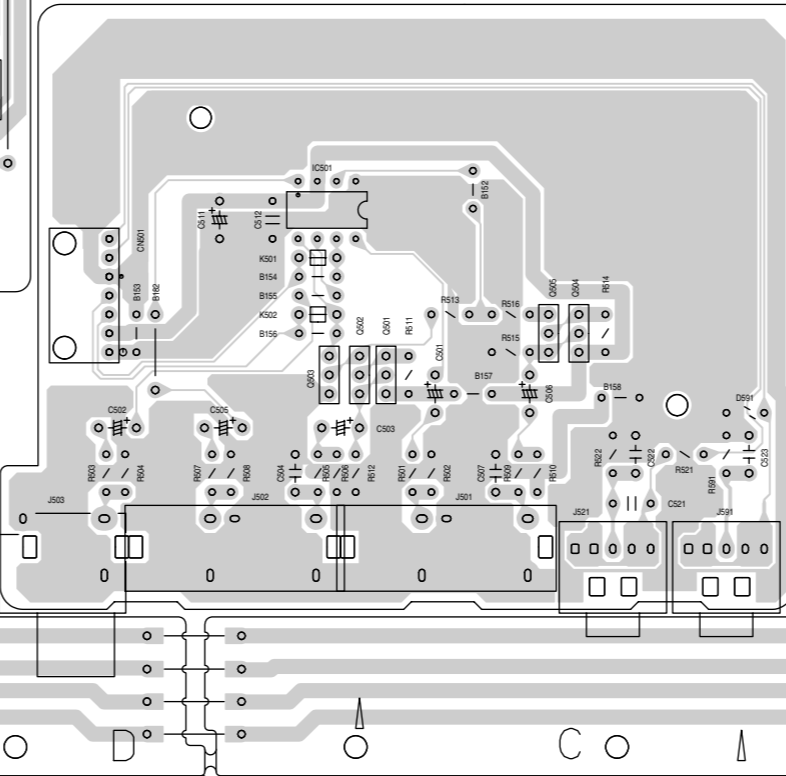
(Front amp. board (R))



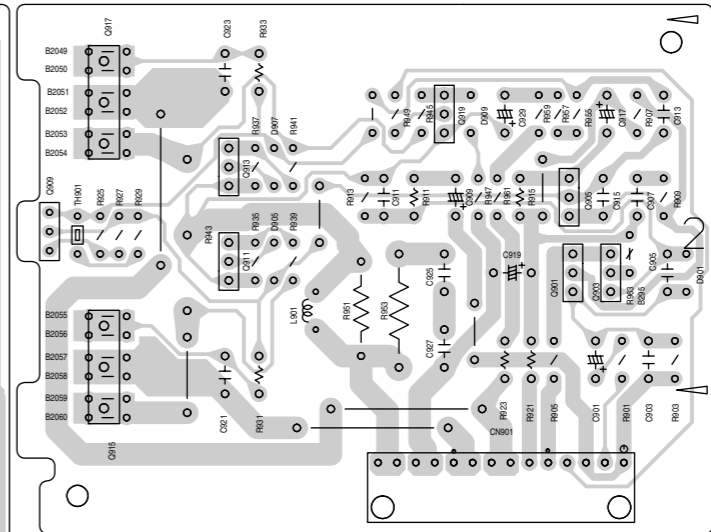
(Power supply board)



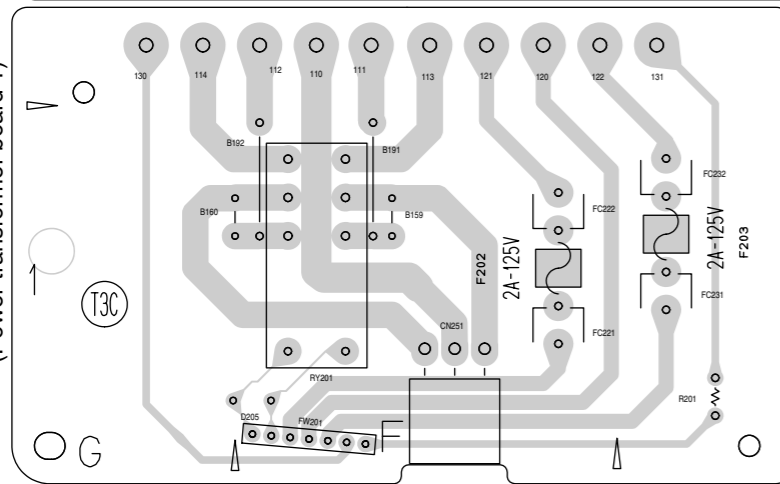
(Video board)



(Center amp. board)



(Relay board)



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A

B

C

2-12

D

E

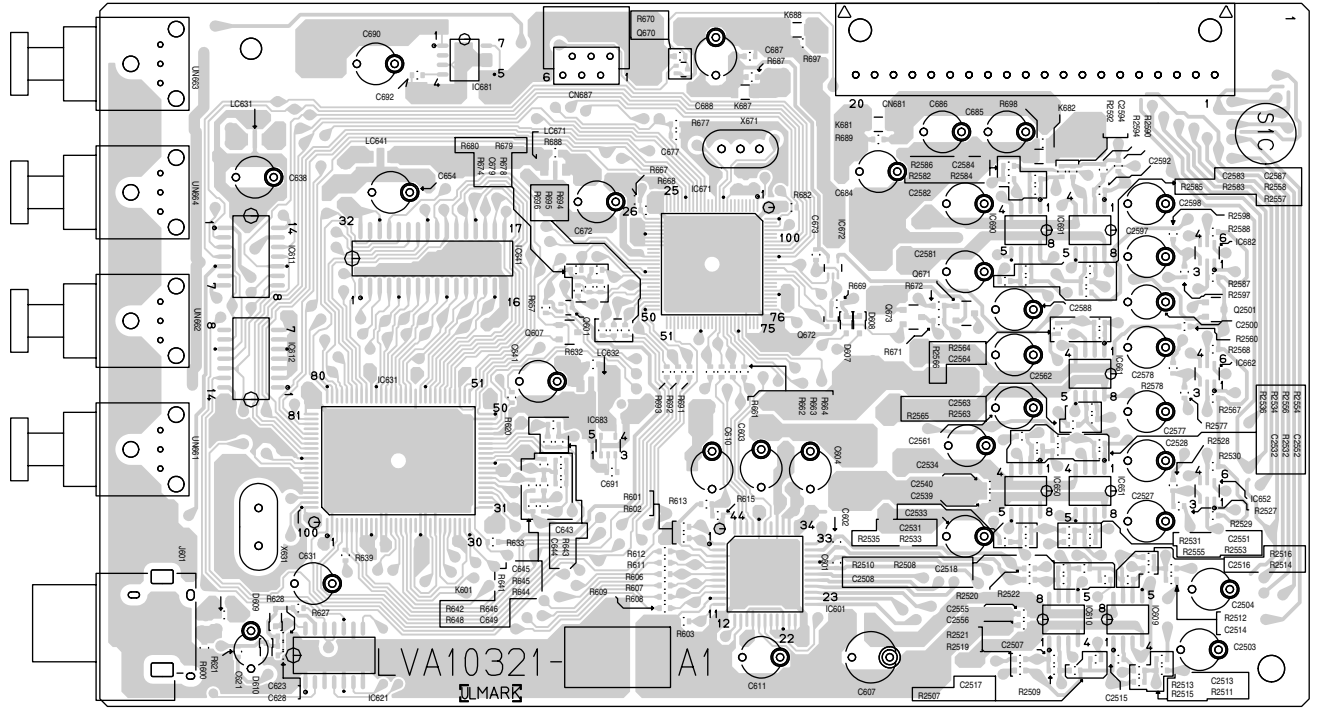
F

G

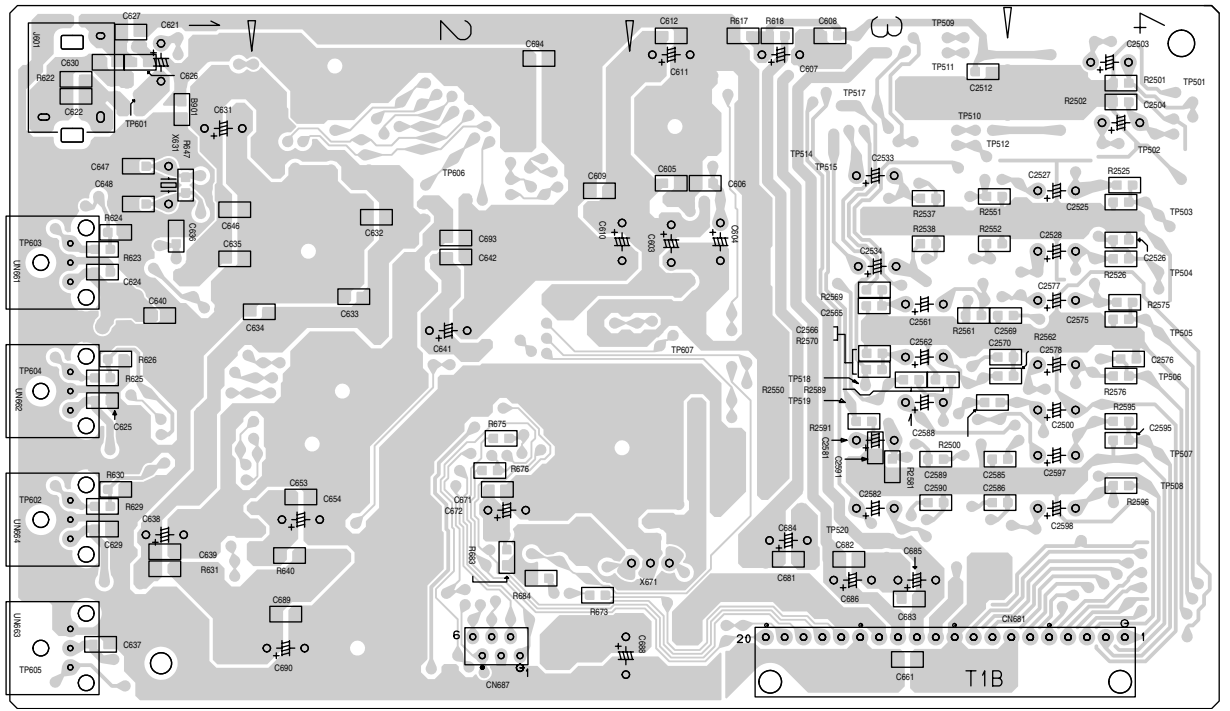
H

■ DSP board

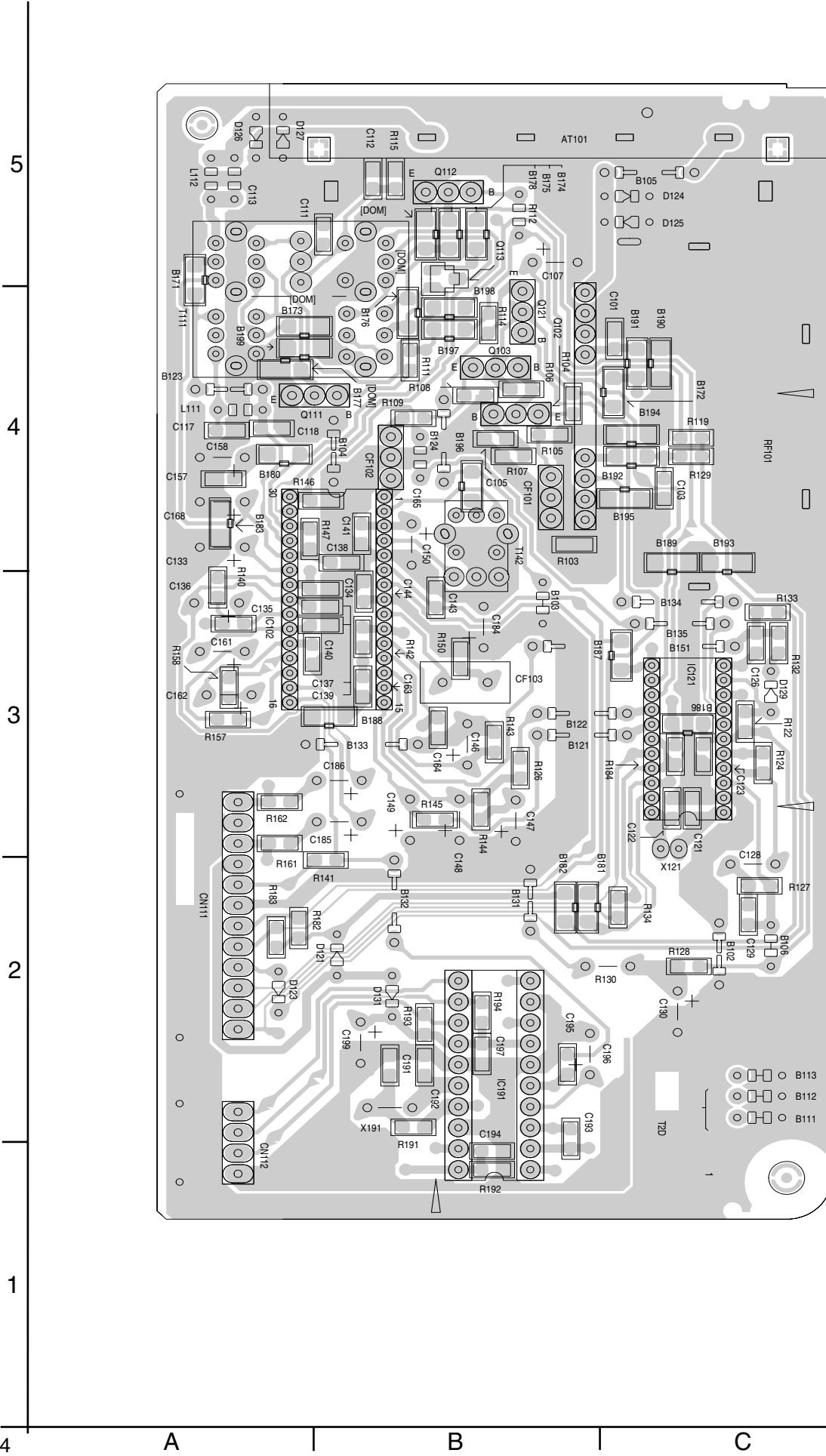
Forward side



Reverse side



■ Tuner board



< MEMO >

RX-6030VBK

**JVC**

VICTOR COMPANY OF JAPAN, LIMITED

AV & MULTIMEDIA COMPANY 10-1, 1Chome, Ohwatari-machi, Maebashi-city, 371-8543, Japan

(No.22026SCH)



Printed in Japan  
2003/03



# PARTS LIST

[ RX-6030VBK ]

\* All printed circuit boards and its assemblies are not available as service parts.

## Area suffix

J ----- U.S.A.  
C ----- Canada

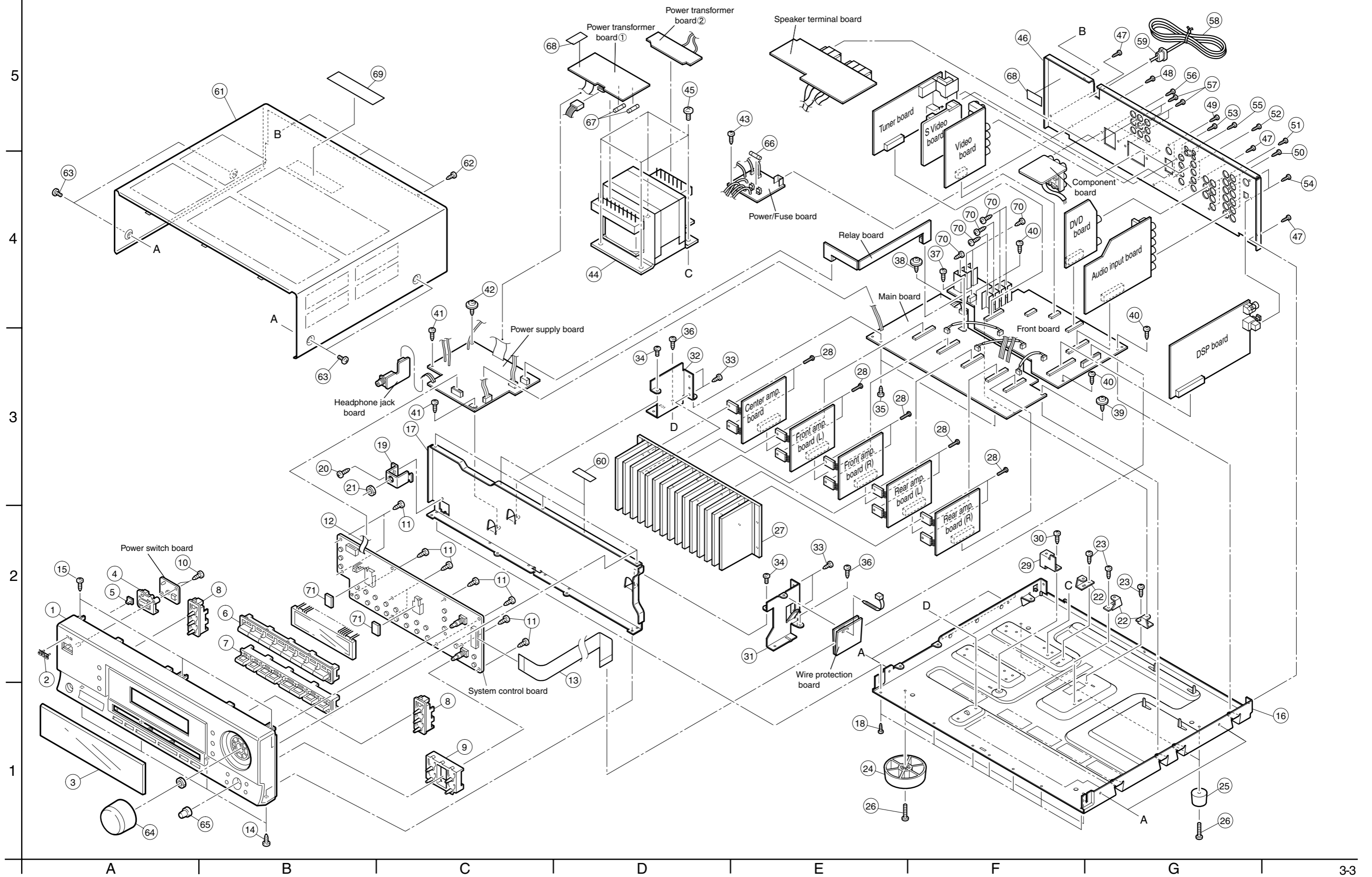
## - Contents -

Exploded view of general assembly and parts list (Block No.M1) .....	3- 3
Electrical parts list (Block No.01~05) .....	3- 5
Packing materials and accessories parts list (Block No.M3,M5) .....	3- 20

< M E M O >

# Exploded view of general assembly and parts list

Block No. **M 1 M M**



## ■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10756-007A	FRONT PANEL	1	RX-6030VBKJ,C	
	2	LV43338-001A	JVC MARK	1	BK MODEL	
	3	LV34003-001A	LENS	1		
	4	LV34000-001A	PUSH BUTTON(POW	1	BK MODEL	
	5	LV42096-001A	INDICATOR	1	POWER	
	6	LV21420-001A	PUSH BUTTON	1	SOURCE	
	7	LV21421-001A	PUSH BUTTON(FM)	1	FM	
	8	LV34001-001A	3-BUTTON	2	SURROUND,INPUT	
	9	LV34002-001A	4-BUTTON	1	SET	
	10	QYSBSF2608Z	T.SCREW	2	FRONT C.B	
	11	QYSBSF2608Z	T.SCREW	9	FRONT C.B FL	
	12	QUQ412-1415CJ	FFC WIRE	1		
	13	QUQ412-2534CJ	FFC WIRE	1		
	14	QYSDSG3006Z	SCREW	4	FRONT D	
	15	QYSBSG3006Z	T.SCREW	3	FRONT U	
	16	LV10019-003A	CHASSIS BASE	1		
	17	LV10458-003A	FRONT BRACKET	1		
	18	QYSDSG3006Z	SCREW	7	C.B-F.B	
	19	LV43304-001A	BKT(PHONES)	1		
	20	QYSBSG3006Z	T.SCREW	1	H.P BKT-F.B	
	21	VKZ4150-001	SPECIAL NUT	1		
	22	E68587-223SM	CB BKT	3		
	23	QYSBST3006Z	T.SCREW	3	C.B-BKT	
	24	QZF6018-001	FOOT	2		
	25	E47227-036	FOOT	2		
	26	QYSBST3010Z	T.SCREW	4	FOOT	
	27	LV20916-002A	HEAT SINK	1	NEW TYPE	
	28	QYSBSG3012E	SCREW	10	TR	
	29	LV42098-001A	C.B BKT	1	PRI/SEC C.B	
	30	QYSBST3006Z	T.SCREW	1	C.B BKT	
	31	LV32433-001A	H.S BRACKET(R)	1		
	32	LV32434-001A	H.S BRACKET(L)	1		
	33	QYSBSG3008Z	T.SCREW	4	H.S-BKT	
	34	QYSBST3006Z	T.SCREW	2	H.S BKT-F.BKT	
	35	QYSBSG3006Z	T.SCREW	2	H.S BKT	
	36	QYSBST3006Z	T.SCREW	2	H.S BKT-CHASSIS	
	37	QYSBSG3006Z	T.SCREW	1	M.C.B	
	38	E65923-003	TAPPING SCREW	1		
	39	E65923-003	TAPPING SCREW	1	M.C.B	
	40	QYSBSG3006Z	T.SCREW	3	H.S-C.B	
	41	QYSBSG3006Z	T.SCREW	2	P.C.B	
	42	E65923-003	TAPPING SCREW	1	P.C.B	
	43	QYSBSG3006Z	T.SCREW	1	C.B-CHASSIS	
△	44	QQT0318-001	POWER TRANS.	1		
	45	QYSDSTL4008Z	SPECIAL SCREW	4	P.TRANS	
	46	LV20915-064A	REAR PANEL	1	RX-6030VJ,C	
	47	QYSBSGY3008M	SPECIAL SCREW	3	R.P-C.BASE	
	48	QYSBSGY3008M	SPECIAL SCREW	1	R.P-	

## ■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	49	QYSBSGY3008M	SPECIAL SCREW	2	TUNER	
	50	QYSBSGY3008M	SPECIAL SCREW	4	INPUT	
	51	QYSBSGY3008M	SPECIAL SCREW	3	DVD/SUB WOOFER	
	52	QYSBSGY3008M	SPECIAL SCREW	2	VIDEO	
	53	QYSBSGY3008M	SPECIAL SCREW	2	S VIDEO	
	54	QYSBSGY3008M	SPECIAL SCREW	2	DIGITAL	
	55	QYSBSGY3008M	SPECIAL SCREW	2	COMP C.B	
	56	QYSBSGY3008M	SPECIAL SCREW	4	SPK C.B	
	57	QYSBSGY3008M	SPECIAL SCREW	4	COMPONENT VIDEO	
△	58	QMPD420-200-JV	POWER CORD	1		
△	59	QZW0033-001	STRAIN RELIEF	1		
	60	LV30225-0H3A	SPACER	2		
	61	LV21422-004A	TOP COVER	1		
	62	QYSBSGY3008M	SPECIAL SCREW	3		
	63	E406308-003	SPECIAL SCREW	4		
	64	LV43463-001A	VOL KNOB ASSY	1		
	65	LV43458-001A	JOG KNOB ASSY	1		
△	66	QMF51U1-6R3-J8	FUSE	1	F 201	
△	67	QMF51U1-2R0-J8	FUSE	2	F 202 F 203	
	68	LV42388-001A	FUSE CAUTION	2		
	69	E409396-003	CAUTION LABEL	1	C	
	70	QYSBSG3008E	T.SCREW	7		
	71	LV30225-0J4A	SPACER	2		

## ■ Electrical parts list (Main board)

Block No. 01

Item	Parts number	Parts name	Remarks	Area	Item	Parts number	Parts name	Remarks	Area
C 419	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V		C1302	QCE22HP-103	C CAPACITOR	.010MF +100:-0%	
C 420	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V		C1303	QCE22HP-103	C CAPACITOR	.010MF +100:-0%	
C 421	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1304	QEZO341-688	E CAPACITER	6800MF	
C 422	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1305	QEZO341-688	E CAPACITER	6800MF	
C 423	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1306	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
C 424	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1308	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
C 425	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1309	QEKC1HM-106Z	E CAPACITOR	10MF 20% 50V	
C 426	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1310	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V	
C 427	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V		C1311	QEKC1HM-226Z	E CAPACITOR	22MF 20% 50V	
C 428	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V		C1351	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C 429	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1352	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C 430	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1353	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C 431	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		C1354	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C 432	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		△ D1301	30DF2-FC	DIODE		
C 433	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V		△ D1302	30DF2-FC	DIODE		
C 434	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V		△ D1303	30DF2-FC	DIODE		
C 435	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		△ D1304	30DF2-FC	DIODE		
C 436	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		D1305	MTZJ18C-T2	Z.DIODE		
C 440	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V		D1306	MTZJ30C-T2	ZENER DIODE		
C 441	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		D1307	1SS133-T2	SI DIODE		
C 442	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		D1308	1SS133-T2	SI DIODE		
C 443	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		D1309	MTZJ20C-T2	Z.DIODE		
C 444	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		D1352	1SS133-T2	SI DIODE		
C 445	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V		D1353	1SS133-T2	SI DIODE		
C 446	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V		D1354	1SS133-T2	SI DIODE		
C 451	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		D1355	1SS133-T2	SI DIODE		
C 452	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V		D1356	MTZJ5.1C-T2	ZENER DIODE		
C 453	QCBB1HK-331Y	C CAPACITOR	FOR 6030		D1357	1SS133-T2	SI DIODE		
C 454	QCBB1HK-331Y	C CAPACITOR	FOR 6030		D1358	1SS133-T2	SI DIODE		
C 455	QCBB1HK-331Y	C CAPACITOR	FOR 6030		D1359	1SS133-T2	SI DIODE		
C 456	QCBB1HK-331Y	C CAPACITOR	FOR 6030		D1360	1SS133-T2	SI DIODE		
C 460	QCZ0202-155Z	ML C CAPACITOR	1.5MF		EP301	QNZ0136-001Z	EARTH PLATE		
C 461	QETN1HM-475Z	E CAPACITOR	FOR 6030		FW301	QUM215-25Z4Z4	PARA RIBON WIRE		
C 463	QETN1HM-475Z	E CAPACITOR	FOR 6030		FW302	QUM216-25Z4Z4	FLAT WIRE		
C 481	QCBB1HK-223Y	C CAPACITOR	FOR 6030		FW303	QUM215-28DGZ4	FLAT WIRE		
C 482	QCBB1HK-223Y	C CAPACITOR	FOR 6030		FW341	QUM215-20DGZ4	FLAT WIRE		
C 551	QDX31EM-473Z	C CAPACITOR			IC402	TC9164AN	IC		
C 552	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V		IC403	BA15218N	IC		
C 555	QDX31EM-473Z	C CAPACITOR			IC451	BA15218	IC	FOR 6030	
C 556	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V		IC551	NJM2246D	IC		
C 557	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V		IC552	NJM2246D	IC		
C 558	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V		J 402	QNN0168-001	PIN JACK	CD.TAPE(R/P)	
C 559	QDX31EM-473Z	C CAPACITOR			J 403	QNN0168-001	PIN JACK	VCR(R/P),DBS	
C 560	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V		J 404	QNN0389-001	PIN JACK	DVD FL/FR	
C 561	QDX31EM-473Z	C CAPACITOR			J 405	QNN0388-001	PIN JACK	FOR 6030	
C 562	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V		J 406	QNN0060-001	PIN JACK		
C 563	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V		J 551	QND0091-001	S JACK	M.OUT.DVD	
C 564	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V		J 552	QND0091-001	S JACK	VCR(R/P)	
C 581	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V		Q 553	KTC3199/GL/-T	TRANSISTOR		
C 582	QCZ0202-155Z	ML C CAPACITOR	1.5MF		Q 554	KTC3199/GL/-T	TRANSISTOR		
C 583	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V		Q 571	KTC3199/GL/-T	TRANSISTOR		
C 584	QCZ0202-155Z	ML C CAPACITOR	1.5MF		Q 572	KTC3199/GL/-T	TRANSISTOR		
CN311	QGB2510J1-14	CONNECTOR			Q 573	KRC107M-T	D.TRANSISTOR		
CN312	QGB2510J1-14	CONNECTOR			Q 574	KRC107M-T	D.TRANSISTOR		
CN321	QGB2510J1-14	CONNECTOR			△ Q1301	KTA1046/Y/	TRANSISTOR		
CN331	QGB2510J1-14	CONNECTOR			Q1302	KTC3200/GL/-T	TRANSISTOR		
CN332	QGB2510J1-14	CONNECTOR			Q1303	KTA1268/GL/-T	TRANSISTOR		
CN351	QJK012-032403	SKT WIRE ASSY			Q1304	KTC3199/GL/-T	TRANSISTOR		
CN371	QJP001-031201	SHI CR C-B WIRE			Q1305	2SD2395/EF/	TRANSISTOR		
CN372	QJP002-021201	SHI CR C-B WIRE			Q1306	KTA1023/OY/-T	TRANSISTOR		
CN373	QJP001-031201	SHI CR C-B WIRE			Q1307	KTC3200/GL/-T	TRANSISTOR		
CN401	QGB2510K1-14	CONNECTOR			Q1351	KRC109M-T	D.TRANSISTOR		
CN451	QGB2510K1-11	CONNECTOR			Q1352	KRC109M-T	D.TRANSISTOR		
CN511	QGD2503F1-03	SOCKET			Q1353	KRC109M-T	D.TRANSISTOR		
CN551	QGB2510K1-08	CONNECTOR			Q1354	KRC109M-T	D.TRANSISTOR		
C1301	QFZ9076-104Z	MM CAPACITOR	.10MF		Q1355	KRC109M-T	D.TRANSISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	Q1356	KRC109M-T	D.TRANSISTOR		
	Q1357	KRC109M-T	D.TRANSISTOR		
	Q1358	KRC109M-T	D.TRANSISTOR		
	R 421	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 422	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 423	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 424	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 425	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 426	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 429	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 430	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 431	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 432	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 435	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 436	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 440	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 441	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 442	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 443	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 444	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 445	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 446	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
△	R 449	QRJ146J-271X	UNF C RESISTOR	270 5% 1/4W	
△	R 450	QRJ146J-271X	UNF C RESISTOR	270 5% 1/4W	
	R 451	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 452	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 453	QRE141J-471Y	C RESISTOR	FOR 6030	
	R 454	QRE141J-471Y	C RESISTOR	FOR 6030	
	R 455	QRE141J-471Y	C RESISTOR	FOR 6030	
	R 456	QRE141J-471Y	C RESISTOR	FOR 6030	
	R 458	QRJ146J-271X	UNF C RESISTOR	FOR 6030	
	R 459	QRJ146J-271X	UNF C RESISTOR	FOR 6030	
	R 462	QRE141J-104Y	C RESISTOR	FOR 6030	
	R 464	QRE141J-104Y	C RESISTOR	FOR 6030	
	R 551	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 552	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 555	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 556	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 557	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 558	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 559	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 560	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 561	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 562	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 563	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 564	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 565	QRE141J-431Y	C RESISTOR	430 5% 1/4W	
	R 566	QRE141J-241Y	C RESISTOR	240 5% 1/4W	
	R 571	QRE141J-431Y	C RESISTOR	430 5% 1/4W	
	R 572	QRE141J-241Y	C RESISTOR	240 5% 1/4W	
	R 573	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R 574	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R 581	QRJ146J-6R8X	UNF C RESISTOR	6.8 5% 1/4W	
△	RY302	QSK0109-001	RELAY		
△	RY303	QSK0109-001	RELAY		
△	RY304	QSK0109-001	RELAY		
△	R1301	QRL027J-332	UNF.OMF.RES.	3.3K 5% 1/2W	
△	R1302	QRZ9005-100X	F RESISTOR	10 1/4W	
△	R1303	QRJ146J-562X	UNF C RESISTOR	5.6K 5% 1/4W	
	R1304	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1305	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1306	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R1307	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1308	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1309	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1310	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	

△	Item	Parts number	Parts name	Remarks	Area
	R1311	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1312	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
△	R1313	QRZ9005-100X	F RESISTOR	10 1/4W	
△	R1314	QRJ146J-103X	UNF C RESISTOR	10K 5% 1/4W	
△	R1315	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
△	R1316	QRJ146J-102X	UNF C RESISTOR	1.0K 5% 1/4W	
△	R1317	QRJ146J-223X	UNF C RESISTOR	22K 5% 1/4W	
	R1318	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1319	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
△	R1352	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
△	R1353	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
△	R1354	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
△	R1355	QRJ146J-392X	UNF C RESISTOR	3.9K 5% 1/4W	
	R1356	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1357	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1358	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R1359	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1360	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1361	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1362	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1363	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1364	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1365	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R1366	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1367	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	ST304	QNB0103-002	SPK TERMINAL	5030/6030 C/R	
	ST305	QNB0001-002	SPK TERMINAL	5030/6030 FRONT	

## ■ Electrical parts list (Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	BK701	LV42093-001A	FL HOLDER(L)				C1426	NCB31CK-223X	C CAPACITOR		
	BK702	LV42092-001A	FL HOLDER(R)				C1427	QFVF1HJ-334Z	MF CAPACITOR	.33MF 5% 50V	
	C 101	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1428	QFLC1HJ-153Z	M CAPACITOR	.015MF 5% 50V	
	C 102	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1429	QCB31HK-822Z	C CAPACITOR	8200PF 10% 50V	
	C 701	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C1430	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 702	QCZ0202-155Z	ML C CAPACITOR	1.5MF			C1431	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 703	QEKC1HM-225Z	E CAPACITOR	2.2MF 20% 50V			C1432	NCB31CK-223X	C CAPACITOR		
	C 704	NCB31CK-223X	C CAPACITOR				C1433	QFVF1HJ-334Z	MF CAPACITOR	.33MF 5% 50V	
	C 705	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C1434	QFLC1HJ-153Z	M CAPACITOR	.015MF 5% 50V	
	C 706	NCB21HK-331X	C CAPACITOR				C1435	QCB31HK-822Z	C CAPACITOR	8200PF 10% 50V	
	C 707	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1436	NCB31CK-223X	C CAPACITOR		
	C 708	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1437	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C 709	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1438	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 713	NCB21HK-103X	C CAPACITOR				C1439	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 714	NCB21HK-103X	C CAPACITOR				C1440	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 715	NCB21HK-103X	C CAPACITOR				C1443	QCZ0202-155Z	ML C CAPACITOR	S-VIDEO 6030	
	C 716	NCB21HK-103X	C CAPACITOR				C1444	NCB31CK-223X	C CAPACITOR		
	C 717	NCB21HK-103X	C CAPACITOR				C1445	NCB31CK-223X	C CAPACITOR		
	C 718	NCB21HK-103X	C CAPACITOR				C1446	NCB31HK-221X	C CAPACITOR		
	C 719	NCB21HK-103X	C CAPACITOR				C1447	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 720	NCB31CK-104X	C CAPACITOR				C1453	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 721	NCB31CK-104X	C CAPACITOR				C1459	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 722	QCZ0202-155Z	ML C CAPACITOR	1.5MF			C1460	NCB31CK-223X	C CAPACITOR		
	C 723	NCB31CK-104X	C CAPACITOR				C1461	NCB31CK-223X	C CAPACITOR		
	C 724	NCB31CK-104X	C CAPACITOR				C1463	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 725	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1464	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 730	NCB31CK-104X	C CAPACITOR				C1465	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	CN101	QGD2503F1-03	SOCKET				C1501	QEKC1AM-476Z	E CAPACITOR	FOR 6030	
	CN402	QGF1205C1-25	CONNECTOR				C1502	QCF31HZ-103Z	C CAPACITOR	FOR 6030	
	CN411	QGB2501J1-12	CONNECTOR				C1503	QETN1AM-107Z	E CAPACITOR	FOR 6030	
	CN421	QGB2510J1-14	CONNECTOR				C1504	QCF31HZ-103Z	C CAPACITOR	FOR 6030	
	CN431	QGB2510J1-11	CONNECTOR				C1505	QEKC1AM-476Z	E CAPACITOR	FOR 6030	
	CN441	QGB2510J1-07	CONNECTOR				C1506	NCS31HJ-470X	C CAPACITOR	FOR 6030	
	CN461	QGB2510J1-08	CONNECTOR	S-VIDEO 6030			C1507	QEKC1HM-475Z	E CAPACITOR	FOR 6030	
	CN471	QGA2501C1-03	3P CONNECTOR				C1508	NCS31HJ-470X	C CAPACITOR	FOR 6030	
	CN472	QGA2501C1-02	2P CONNECTOR				C1509	QEKC1HM-475Z	E CAPACITOR	FOR 6030	
	CN473	QGA2501C1-03	3P CONNECTOR				C1510	NCS31HJ-470X	C CAPACITOR	FOR 6030	
	CN481	QGB2510J1-20	CONNECTOR				C1511	QEKC1AM-476Z	E CAPACITOR	FOR 6030	
	CN491	QGB2510J1-04	CONNECTOR				C1512	NCS31HJ-470X	C CAPACITOR	FOR 6030	
	CN701	QGF1205F1-14	CONNECTOR				C1513	QEKC1HM-475Z	E CAPACITOR	FOR 6030	
	CN702	QGF1205F1-25	CONNECTOR				C1514	NCS31HJ-470X	C CAPACITOR	FOR 6030	
	CN704	WJS0020-002A	SKT.WIRE ASS'Y				C1515	QEKC1HM-475Z	E CAPACITOR	FOR 6030	
	CN714	QGA2001F1-03	CONNECTOR				C1516	NCS31HJ-470X	C CAPACITOR	FOR 6030	
	C1401	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V			C1517	QETN0JM-477Z	E CAPACITOR	FOR 6030	
	C1402	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1518	NCS31HJ-101X	C CAPACITOR	FOR 6030	
	C1403	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1519	QETN1AM-107Z	E CAPACITOR	FOR 6030	
	C1404	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1520	NCS31HJ-101X	C CAPACITOR	FOR 6030	
	C1405	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1521	QETN1AM-107Z	E CAPACITOR	FOR 6030	
	C1406	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1522	NCS31HJ-101X	C CAPACITOR	FOR 6030	
	C1407	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%			C1523	QEKC1AM-107Z	E CAPACITOR	FOR 6030	
	C1408	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			C1524	QEKC1CM-226Z	E CAPACITOR	FOR 6030	
	C1409	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			C1525	QEKC1AM-476Z	E CAPACITOR	FOR 6030	
	C1410	NCB31CK-223X	C CAPACITOR				C1526	QEKC1AM-476Z	E CAPACITOR	FOR 6030	
	C1411	NCB31CK-223X	C CAPACITOR				C1530	QCZ0202-155Z	ML C CAPACITOR	FOR 6030	
	C1412	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D 701	1SS355-X	DIODE		
	C1413	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D 702	1SS355-X	DIODE	AVCOMPULINK	
	C1414	NCS31HJ-101X	C CAPACITOR				D 703	SB007-03CP-X	S.K DIODE		
	C1415	NCS31HJ-101X	C CAPACITOR				DI701	QLF0098-001	FL TUBE		
	C1416	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V			D1401	MTZJ13C-T2	ZENER DIODE		
	C1417	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V			D1402	MTZJ6.2C-T2	ZENER DIODE		
	C1418	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V			D1403	MTZJ5.6C-T2	ZENER DIODE		
	C1419	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V			D1404	MTZJ5.6C-T2	ZENER DIODE		
	C1422	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1405	MTZJ13C-T2	ZENER DIODE		
	C1423	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1406	MTZJ10C-T2	Z.DIODE		
	C1424	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1407	MTZJ7.5C-T2	ZENER DIODE		
	C1425	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V			D1408	MTZJ7.5C-T2	ZENER DIODE		

## ■ Electrical parts list (Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	D1409	MA152WK-X	SI DIODE		
	D1411	1SS355-X	DIODE		
	D1412	1SS355-X	DIODE		
	D1501	11ES2-T4	DIODE	FOR 6030	
	EP401	QNZ0136-001Z	EARTH PLATE		
	FL401	QQR0590-001	FILTER		
	FL402	QQR0590-001	FILTER		
	FW501	QUM213-10DGZ4	PARA RIBON WIRE	FOR 6030	
	HS401	E70306-001	HEAT SINK		
	HS402	E70306-001	HEAT SINK		
	HS403	E70306-001	HEAT SINK		
	HS404	E70306-001	HEAT SINK		
	HS405	E70306-001	HEAT SINK		
	HS434	E70306-001	HEAT SINK		
	HS435	E70306-001	HEAT SINK		
	IC421	BA15218F-XE	IC		
	IC422	BA15218F-XE	IC		
	IC423	TC9162AF-X	IC		
	IC427	BA15218F-XE	IC		
	IC428	M62446AFP-X	IC		
	IC581	MM74HC4053SJ-X	I.C	FOR 6030	
	IC582	NJM2580M-X	I.C	FOR 6030	
	IC701	MN101C35DME	IC		
	IC702	IC-PST9139-T	IC		
	IC703	GP1UM281XK	IR DETECT UNIT		
	J 101	QNS0022-001	JACK		
	JS701	QSW1017-002	JOG VOLUME		
	JS702	QSW1016-001	ROTARY ENCODER		
	J1501	QNN0391-001	PIN JACK	FOR 6030	
	Q 701	UN2214-X	TRANSISTOR		
	Q 702	UN2215-X	TRANSISTOR		
	Q 703	DTC144WKA-X	TRANSISTOR		
	Q 704	UN2214-X	TRANSISTOR	AVCOMPULINK	
	Q 707	UN2214-X	TRANSISTOR		
	Q 708	UN2214-X	TRANSISTOR		
	Q 709	UN2214-X	TRANSISTOR		
	Q 711	UN2113-X	TRANSISTOR		
△	Q1401	KTA1046/Y/	TRANSISTOR		
△	Q1402	2SD2395/EF/	TRANSISTOR		
△	Q1403	2SD2395/EF/	TRANSISTOR		
△	Q1404	2SD2395/EF/	TRANSISTOR		
△	Q1405	2SD2395/EF/	TRANSISTOR		
△	Q1406	KTC3203/OY/-T	TRANSISTOR		
△	Q1407	KTC3203/OY/-T	TRANSISTOR		
△	Q1408	KTA1271/OY/-T	TRANSISTOR		
	Q1409	2SK301/PQ/-T	FET		
	Q1410	2SK301/PQ/-T	FET		
	Q1411	2SK301/PQ/-T	FET		
	Q1412	2SK301/PQ/-T	FET		
	Q1413	2SC3576-JVC-T	TRANSISTOR		
	Q1414	2SC3576-JVC-T	TRANSISTOR		
	Q1415	KRA104M-T	D.TRANSISTOR		
	Q1416	KRC104M-T	D.TRANSISTOR		
	Q1417	2SC3576-JVC-T	TRANSISTOR		
	Q1418	2SC3576-JVC-T	TRANSISTOR		
	Q1419	2SC3576-JVC-T	TRANSISTOR		
	Q1420	KRA104M-T	D.TRANSISTOR		
	Q1421	2SC3576-JVC-T	TRANSISTOR		
	Q1422	2SC3576-JVC-T	TRANSISTOR		
	Q1423	KRA104M-T	D.TRANSISTOR		
	Q1424	KRA104M-T	D.TRANSISTOR		
	Q1425	2SC3576-JVC-T	TRANSISTOR		
	Q1426	2SC3576-JVC-T	TRANSISTOR		
	Q1431	KRC104M-T	D.TRANSISTOR		
	Q1432	KRC104M-T	D.TRANSISTOR		
	Q1433	KRC104M-T	D.TRANSISTOR		

△	Item	Parts number	Parts name	Remarks	Area
△	Q1434	2SD2395/EF/	TRANSISTOR		
△	Q1435	2SD2395/EF/	TRANSISTOR		
△	R 101	QRL027J-471	UNF OMF.RES.	470 5% 1/2W	
△	R 102	QRL027J-471	UNF OMF.RES.	470 5% 1/2W	
	R 475	NRSA63J-203X	MG RESISTOR		
	R 476	NRSA63J-273X	MG RESISTOR		
	R 477	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R 478	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R 479	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R 480	NRSA63J-512X	MG RESISTOR		
	R 481	NRSA63J-104X	MG RESISTOR		
	R 482	NRSA63J-104X	MG RESISTOR		
	R 483	NRSA63J-102X	MG RESISTOR		
	R 484	NRSA63J-104X	MG RESISTOR		
	R 485	NRSA63J-102X	MG RESISTOR		
	R 486	NRSA63J-104X	MG RESISTOR		
	R 487	NRSA63J-102X	MG RESISTOR		
	R 488	NRSA63J-104X	MG RESISTOR		
	R 489	NRSA63J-103X	MG RESISTOR		
	R 490	NRSA63J-103X	MG RESISTOR		
	R 491	NRSA63J-512X	MG RESISTOR		
	R 492	NRSA63J-301X	MG RESISTOR	DVD MULTI 6030	
	R 493	NRSA63J-0R0X	MG RESISTOR	DVD MULTI 6030	
	R 494	NRSA63J-0R0X	MG RESISTOR	DVD MULTI 6030	
	R 495	NRSA63J-0R0X	MG RESISTOR	DVD MULTI 6030	
	R 496	NRSA63J-102X	MG RESISTOR	DVD MULTI 6030	
	R 701	NRSA63J-472X	MG RESISTOR		
	R 702	NRSA63J-223X	MG RESISTOR		
	R 704	NRSA63J-471X	MG RESISTOR		
	R 705	NRSA63J-103X	MG RESISTOR		
	R 706	NRSA63J-103X	MG RESISTOR	AVCOMPULINK	
	R 707	NRSA63J-103X	MG RESISTOR		
	R 708	NRSA63J-103X	MG RESISTOR		
	R 709	NRSA63J-103X	MG RESISTOR		
	R 710	NRSA63J-103X	MG RESISTOR		
	R 711	NRSA63J-104X	MG RESISTOR		
	R 712	NRSA63J-103X	MG RESISTOR		
	R 713	NRSA63J-103X	MG RESISTOR		
	R 714	NRSA63J-103X	MG RESISTOR		
	R 715	NRSA63J-103X	MG RESISTOR		
	R 716	NRSA63J-103X	MG RESISTOR		
	R 717	NRSA63J-103X	MG RESISTOR		
	R 718	NRSA63J-103X	MG RESISTOR		
	R 719	NRSA63J-221X	MG RESISTOR		
	R 720	NRSA63J-222X	MG RESISTOR		
	R 721	NRSA63J-103X	MG RESISTOR		
	R 722	NRSA63J-102X	MG RESISTOR		
	R 723	NRSA63J-102X	MG RESISTOR		
	R 724	NRSA63J-122X	MG RESISTOR		
	R 725	NRSA63J-152X	MG RESISTOR		
	R 726	NRSA63J-222X	MG RESISTOR		
	R 727	NRSA63J-272X	MG RESISTOR		
	R 728	NRSA63J-103X	MG RESISTOR		
	R 729	NRSA63J-102X	MG RESISTOR		
	R 730	NRSA63J-102X	MG RESISTOR		
	R 731	NRSA63J-122X	MG RESISTOR		
	R 732	NRSA63J-152X	MG RESISTOR		
	R 733	NRSA63J-222X	MG RESISTOR		
	R 734	NRSA63J-272X	MG RESISTOR		
	R 736	NRSA63J-103X	MG RESISTOR		
	R 737	NRSA63J-102X	MG RESISTOR		
	R 738	NRSA63J-102X	MG RESISTOR		
	R 739	NRSA63J-122X	MG RESISTOR		
	R 740	NRSA63J-152X	MG RESISTOR		
	R 741	NRSA63J-222X	MG RESISTOR		
	R 742	NRSA63J-272X	MG RESISTOR	FOR S739(6030)	



## ■ Electrical parts list (Front board)

Block No. 02

▲	Item	Parts number	Parts name	Remarks	Area	▲	Item	Parts number	Parts name	Remarks	Area
	R 743	NRSA63J-103X	MG RESISTOR			▲	R1416	QRZ9005-100X	F RESISTOR	10 1/4W	
	R 744	NRSA63J-102X	MG RESISTOR			▲	R1417	QRJ146J-222X	UNF C RESISTOR	2.2K 5% 1/4W	
	R 745	NRSA63J-102X	MG RESISTOR			▲	R1418	QRZ9005-680X	F RESISTOR	68 1/4W	
	R 746	NRSA63J-122X	MG RESISTOR			▲	R1419	QRZ9005-680X	F RESISTOR	68 1/4W	
	R 747	NRSA63J-152X	MG RESISTOR				R1420	NRSA63J-103X	MG RESISTOR		
	R 748	NRSA63J-222X	MG RESISTOR				R1421	NRSA63J-272X	MG RESISTOR		
	R 749	NRSA63J-272X	MG RESISTOR				R1422	NRSA63J-103X	MG RESISTOR		
	R 750	NRSA63J-103X	MG RESISTOR				R1423	NRSA63J-272X	MG RESISTOR		
	R 751	NRSA63J-102X	MG RESISTOR				R1424	NRSA63J-472X	MG RESISTOR		
	R 752	NRSA63J-102X	MG RESISTOR				R1425	NRSA63J-472X	MG RESISTOR		
	R 753	NRSA63J-122X	MG RESISTOR				R1426	NRSA63J-513X	MG RESISTOR		
	R 754	NRSA63J-152X	MG RESISTOR				R1427	NRSA63J-513X	MG RESISTOR		
	R 757	NRSA63J-103X	MG RESISTOR				R1428	NRSA63J-103X	MG RESISTOR		
	R 758	NRSA63J-103X	MG RESISTOR				R1429	NRSA63J-103X	MG RESISTOR		
	R 759	NRSA63J-103X	MG RESISTOR				R1430	NRSA63J-103X	MG RESISTOR		
	R 760	NRSA63J-103X	MG RESISTOR				R1431	NRSA63J-103X	MG RESISTOR		
	R 761	NRSA63J-103X	MG RESISTOR				R1432	NRSA63J-103X	MG RESISTOR		
	R 762	NRSA63J-102X	MG RESISTOR	J/C			R1433	NRSA63J-103X	MG RESISTOR		
	R 768	NRSA63J-103X	MG RESISTOR				R1434	NRSA63J-103X	MG RESISTOR		
	R 769	NRSA63J-102X	MG RESISTOR	5020PACK			R1435	NRSA63J-154X	MG RESISTOR		
	R 770	NRSA63J-102X	MG RESISTOR	5030			R1436	NRSA63J-154X	MG RESISTOR		
	R 771	NRSA63J-122X	MG RESISTOR	6030PACK			R1437	NRSA63J-102X	MG RESISTOR		
	R 772	NRSA63J-222X	MG RESISTOR				R1438	NRSA63J-102X	MG RESISTOR		
	R 773	NRSA63J-272X	MG RESISTOR				R1439	NRSA63J-103X	MG RESISTOR		
	R 775	NRSA63J-103X	MG RESISTOR				R1440	NRSA63J-103X	MG RESISTOR		
	R 776	NRSA63J-152X	MG RESISTOR	6030			R1442	NRSA63J-104X	MG RESISTOR	FOR 6030	
	R 779	NRSA63J-103X	MG RESISTOR				R1443	NRSA63J-103X	MG RESISTOR		
	R 783	NRSA63J-221X	MG RESISTOR				R1444	NRSA63J-103X	MG RESISTOR		
	R 784	NRSA63J-221X	MG RESISTOR				R1445	NRSA63J-102X	MG RESISTOR		
	R 785	NRSA63J-221X	MG RESISTOR				R1446	NRSA63J-104X	MG RESISTOR		
	R 786	NRSA63J-221X	MG RESISTOR				R1447	NRSA63J-102X	MG RESISTOR		
	R 787	NRSA63J-221X	MG RESISTOR				R1448	NRSA63J-103X	MG RESISTOR		
	R 788	NRSA63J-221X	MG RESISTOR				R1449	NRSA63J-102X	MG RESISTOR		
	R 789	NRSA63J-221X	MG RESISTOR				R1450	NRSA63J-103X	MG RESISTOR		
	R 790	NRSA63J-221X	MG RESISTOR				R1451	NRSA63J-104X	MG RESISTOR		
	R 791	NRSA63J-221X	MG RESISTOR				R1452	NRSA63J-104X	MG RESISTOR		
	R 792	NRSA63J-221X	MG RESISTOR				R1453	NRSA63J-102X	MG RESISTOR		
	R 793	NRSA63J-221X	MG RESISTOR				R1455	NRSA63J-104X	MG RESISTOR		
	R 794	NRSA63J-221X	MG RESISTOR			▲	R1456	QRJ146J-220X	UNF C RESISTOR	22 5% 1/4W	
	R 795	NRSA63J-221X	MG RESISTOR				R1457	NRSA63J-472X	MG RESISTOR		
	R 796	NRSA63J-221X	MG RESISTOR				R1458	NRSA63J-472X	MG RESISTOR		
	R 797	NRSA63J-221X	MG RESISTOR			▲	R1459	QRZ9005-680X	F RESISTOR	68 1/4W	
	R 798	NRSA63J-221X	MG RESISTOR			▲	R1460	QRZ9005-680X	F RESISTOR	68 1/4W	
	R 799	NRSA63J-221X	MG RESISTOR				R1461	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R 871	NRSA63J-103X	MG RESISTOR	FOR J.C.U			R1462	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R 872	NRSA63J-103X	MG RESISTOR	FOR J.C.U			R1463	NRSA63J-104X	MG RESISTOR		
	R 873	NRSA63J-103X	MG RESISTOR	FOR J.C.U			R1464	NRSA63J-104X	MG RESISTOR		
	R 874	NRSA63J-103X	MG RESISTOR				R1465	NRSA63J-102X	MG RESISTOR		
	R 875	NRSA63J-103X	MG RESISTOR				R1466	NRSA63J-104X	MG RESISTOR		
	R 876	NRSA63J-103X	MG RESISTOR				R1467	NRSA63J-104X	MG RESISTOR		
	R 877	NRSA63J-103X	MG RESISTOR				R1470	NRSA63J-391X	MG RESISTOR		
▲	R1401	QRZ9005-100X	F RESISTOR	10 1/4W			R1471	NRSA63J-391X	MG RESISTOR		
▲	R1402	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W			R1472	NRSA63J-103X	MG RESISTOR		
▲	R1403	QRZ9005-120X	F RESISTOR	12 1/4W			R1473	NRSA63J-103X	MG RESISTOR		
▲	R1404	QRJ146J-272X	UNF C RESISTOR	2.7K 5% 1/4W			R1474	NRSA63J-102X	MG RESISTOR		
▲	R1405	QRZ9005-120X	F RESISTOR	12 1/4W			R1480	NRSA63J-104X	MG RESISTOR		
▲	R1406	QRK126J-682X	C RESISTOR	6.8K 5% 1/2W			R1490	NRSA63J-273X	MG RESISTOR		
▲	R1407	QRZ9006-4R7X	F RESISTOR	4.7 1/4W			R1492	NRSA63J-102X	MG RESISTOR		
▲	R1408	QRZ9006-4R7X	F RESISTOR	4.7 1/4W			R1493	NRSA63J-102X	MG RESISTOR		
▲	R1409	QRJ146J-272X	UNF C RESISTOR	2.7K 5% 1/4W			R1494	NRSA63J-102X	MG RESISTOR		
▲	R1410	QRZ9006-4R7X	F RESISTOR	4.7 1/4W			R1495	NRSA63J-103X	MG RESISTOR		
▲	R1411	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W			R1496	NRSA63J-103X	MG RESISTOR		
▲	R1412	QRZ9005-100X	F RESISTOR	10 1/4W			R1497	NRSA63J-511X	MG RESISTOR		
▲	R1413	QRJ146J-102X	UNF C RESISTOR	1.0K 5% 1/4W			R1498	NRSA63J-511X	MG RESISTOR		
▲	R1414	QRZ9005-100X	F RESISTOR	10 1/4W			R1499	NRSA63J-104X	MG RESISTOR		
▲	R1415	QRJ146J-222X	UNF C RESISTOR	2.2K 5% 1/4W			R1500	NRSA63J-474X	MG RESISTOR		

## ■ Electrical parts list (Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	R1501	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1502	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1503	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1504	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1505	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1506	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1507	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1508	NRSA63J-473X	MG RESISTOR	FOR 6030	
	R1509	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1510	NRSA63J-473X	MG RESISTOR	FOR 6030	
	R1511	NRSA63J-750X	MG RESISTOR	FOR 6030	
	R1512	NRSA63J-473X	MG RESISTOR	FOR 6030	
	R1513	NRSA63J-105X	MG RESISTOR	FOR 6030	
	S 721	QSW0683-001Z	PUSH SWITCH	TUNING+	
	S 722	QSW0683-001Z	PUSH SWITCH	TUNING-	
	S 723	QSW0683-001Z	PUSH SWITCH	PRESET+	
	S 724	QSW0683-001Z	PUSH SWITCH	PRESET-	
	S 725	QSW0683-001Z	PUSH SWITCH	FM MODE	
	S 726	QSW0683-001Z	PUSH SWITCH	MEMORY	
	S 727	QSW0683-001Z	PUSH SWITCH	POWER	
	S 728	QSW0683-001Z	PUSH SWITCH	SURR/DSP-OFF	
	S 729	QSW0683-001Z	PUSH SWITCH	SURR MODE	
	S 730	QSW0683-001Z	PUSH SWITCH	DSP MODE	
	S 731	QSW0683-001Z	PUSH SWITCH	SUBWOOFER	
	S 732	QSW0683-001Z	PUSH SWITCH	SPK1	
	S 734	QSW0683-001Z	PUSH SWITCH	DVD(5030)	
	S 735	QSW0683-001Z	PUSH SWITCH	CD(7020)	
	S 736	QSW0683-001Z	PUSH SWITCH	DVD(6030)	
	S 738	QSW0683-001Z	PUSH SWITCH	VCR(6030)	
	S 739	QSW0683-001Z	PUSH SWITCH	FM(6030)	
	S 740	QSW0683-001Z	PUSH SWITCH	TV/DBS(COM)	
	S 741	QSW0683-001Z	PUSH SWITCH	AM(6030)	
	S 742	QSW0683-001Z	PUSH SWITCH	ADJUST	
	S 743	QSW0683-001Z	PUSH SWITCH	SETTING	
	S 744	QSW0683-001Z	PUSH SWITCH	SET	
	S 745	QSW0683-001Z	PUSH SWITCH	EXIT	
	S 746	QSW0683-001Z	PUSH SWITCH	DIMMER	
	S 751	QSW0683-001Z	PUSH SWITCH	DIGITAL	
	S 752	QSW0683-001Z	PUSH SWITCH	ANALOG	
	S 757	QSW0683-001Z	PUSH SWITCH	TAPE/CDR(6020)	
	X 701	QAX0246-001Z	C RESONATOR		

■ Electrical parts list (Power amp. board) Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 201	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			C 816	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C 202	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			C 817	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 203	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			C 818	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 204	QETM1VM-228	E.CAPACITOR	2200MF 20% 35V			C 819	QEHR2AM-106Z	E CAPACITOR	10MF 20% 100V	
	C 205	QETM1VM-108	E.CAPACITOR	1000MF 20% 35V			C 820	QEHR2AM-106Z	E CAPACITOR	10MF 20% 100V	
	C 206	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V			C 821	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 207	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V			C 822	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 208	QFLC2AJ-472Z	M CAPACITOR	4700PF 5% 100V			C 823	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 209	QETN1EM-477Z	E CAPACITOR	470MF 20% 25V			C 824	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
△	C 210	QCZ9104-472	C.CAPACITOR	4700PF			C 825	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 212	QETN1CM-477Z	E CAPACITOR	470MF 20% 16V			C 826	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 213	QETM0JM-228	E CAPACITOR	2200MF 20% 6.3V			C 827	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 218	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 828	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 301	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V			C 829	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 302	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V			C 830	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 303	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V			C 901	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 304	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V			C 903	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 305	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V			C 905	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V	
	C 306	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V			C 907	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 307	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V			C 909	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 308	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V			C 911	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V	
	C 309	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C 913	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 310	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C 915	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C 311	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V			C 917	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 312	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V			C 919	QEHR2AM-106Z	E CAPACITOR	10MF 20% 100V	
	C 313	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V			C 921	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 314	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V			C 923	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 315	QCS32HJ-220Z	C CAPACITOR	22PF 5% 500V			C 925	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 316	QCS32HJ-220Z	C CAPACITOR	22PF 5% 500V			C 927	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 317	QEHR1VM-476Z	E CAPACITOR	47MF 20% 35V			C 929	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 318	QEHR1VM-476Z	E CAPACITOR	47MF 20% 35V			CN201	QGF1205C1-14	CONNECTOR		
	C 319	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V			CN203	QGD2504C1-05Z	CONNECTOR		
	C 320	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V			CN241	QGD2504C1-05Z	CONNECTOR		
	C 321	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V			CN251	QGA3901F2-03	CONNECTOR		
	C 322	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V			CN291	QGB2510J1-04	CONNECTOR		
	C 323	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V			CN292	QGB2510K1-04	CONNECTOR		
	C 324	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V			CN301	QGB2510K1-14	CONNECTOR		
	C 325	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V			CN302	QGB2510K1-14	CONNECTOR		
	C 326	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V			CN492	QGB2510K1-04	CONNECTOR		
	C 327	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V			CN501	QGB2510K1-07	CONNECTOR		
	C 328	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V			CN801	QGB2510K1-14	CONNECTOR		
	C 501	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			CN802	QGB2510K1-14	CONNECTOR		
	C 503	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			CN901	QGB2510K1-14	CONNECTOR		
	C 504	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V			△	D 201	10E2-FD	DIODE	
	C 505	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			△	D 202	11ES2-T4	DIODE	
	C 506	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			△	D 203	10E2-FD	DIODE	
	C 507	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V			△	D 204	11ES2-T4	DIODE	
	C 511	QETN1CM-108Z	E CAPACITOR	1000MF 20% 16V			△	D 206	11ES2-T4	DIODE	
	C 512	QCB1HK-223Y	C CAPACITOR	.022MF 10% 50V			△	D 207	11ES2-T4	DIODE	
	C 521	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V			△	D 208	11ES2-T4	DIODE	
	C 522	QCZ0202-155Z	ML C CAPACITOR	1.5MF			△	D 209	11ES2-T4	DIODE	
	C 801	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V				D 210	1SS133-T2	SI DIODE	
	C 802	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V				D 211	MTZJ6.8C-T2	ZENER DIODE	
	C 803	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V				D 212	11ES2-T4	DIODE	
	C 804	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V				D 217	MTZJ6.2C-T2	ZENER DIODE	
	C 805	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V				D 218	1SS133-T2	SI DIODE	
	C 806	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V				D 219	11ES2-T4	DIODE	
	C 807	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V				D 220	11ES2-T4	DIODE	
	C 808	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V				D 221	1SS133-T2	SI DIODE	
	C 809	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V				D 301	1SS133-T2	SI DIODE	
	C 810	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V				D 302	1SS133-T2	SI DIODE	
	C 811	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V				D 303	SLR-342MC-T	LED	
	C 812	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V				D 304	SLR-342MC-T	LED	
	C 813	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V				D 305	1SS133-T2	SI DIODE	
	C 814	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V				D 306	1SS133-T2	SI DIODE	
	C 815	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V				D 307	1SS133-T2	SI DIODE	

## ■ Electrical parts list (Power amp. board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	D 308	1SS133-T2	SI DIODE				Q 319	KTA1268/GL-T	TRANSISTOR		
	D 309	1SS133-T2	SI DIODE				Q 320	KTA1268/GL-T	TRANSISTOR		
	D 310	1SS133-T2	SI DIODE				Q 501	KTA1267/YG-T	TRANSISTOR		
	D 591	MTZJ6.2C-T2	ZENER DIODE				Q 502	KTC3199/GL-T	TRANSISTOR		
	D 801	1SS133-T2	SI DIODE				Q 503	KRC101M-T	TRANSISTOR		
	D 802	1SS133-T2	SI DIODE				Q 504	KTA1267/YG-T	TRANSISTOR		
	D 805	1SS133-T2	SI DIODE				Q 505	KTC3199/GL-T	TRANSISTOR		
	D 806	1SS133-T2	SI DIODE				Q 801	2SC2240/L-T	TRANSISTOR		
	D 807	1SS133-T2	SI DIODE				Q 802	2SC2240/L-T	TRANSISTOR		
	D 808	1SS133-T2	SI DIODE				Q 803	2SC2240/L-T	TRANSISTOR		
	D 809	1SS133-T2	SI DIODE				Q 804	2SC2240/L-T	TRANSISTOR		
	D 810	1SS133-T2	SI DIODE				Q 805	KTA1268/GL-T	TRANSISTOR		
	D 901	1SS133-T2	SI DIODE				Q 806	KTA1268/GL-T	TRANSISTOR		
	D 905	1SS133-T2	SI DIODE				Q 809	2SD637/QR/	TRANSISTOR		
	D 907	1SS133-T2	SI DIODE				Q 810	2SD637/QR/	TRANSISTOR		
	D 909	1SS133-T2	SI DIODE				Q 811	KTC3200/GL-T	TRANSISTOR		
	EP 1	E409182-001SM	GRAND TERMINAL				Q 812	KTC3200/GL-T	TRANSISTOR		
	EP201	QNZ0136-001Z	EARTH PLATE				Q 813	KTA1268/GL-T	TRANSISTOR		
	FC211	QNG0020-001Z	FUSE CLIP	F201			Q 814	KTA1268/GL-T	TRANSISTOR		
	FC212	QNG0020-001Z	FUSE CLIP	F201		△	Q 815	2SD2389/OPY/-F6	TRANSISTOR	FOR J.C	
	FC221	QNG0020-001Z	FUSE CLIP	F202		△	Q 816	2SD2389/OPY/-F6	TRANSISTOR	FOR J.C	
	FC222	QNG0020-001Z	FUSE CLIP	F202		△	Q 817	2SB1559/OPY/-F6	TRANSISTOR	FOR J.C	
	FC231	QNG0020-001Z	FUSE CLIP	F203		△	Q 818	2SB1559/OPY/-F6	TRANSISTOR	FOR J.C	
	FC232	QNG0020-001Z	FUSE CLIP	F203			Q 819	KTA1268/GL-T	TRANSISTOR		
	FW201	QUM217-14Z4Z4	FLAT WIRE				Q 820	KTA1268/GL-T	TRANSISTOR		
	FW251	QUM213-08DGZ4	PARA RIBON WIRE				Q 901	2SC2240/L-T	TRANSISTOR		
	IC501	NJM2246D	IC				Q 903	2SC2240/L-T	TRANSISTOR		
	J 501	QNN0011-001	PIN JACK	M.OUT.DVD			Q 905	KTA1268/GL-T	TRANSISTOR		
	J 502	QNN0011-001	PIN JACK	VCR(R/P)			Q 909	2SD637/QR/	TRANSISTOR		
	J 521	QNS0073-001	JACK				Q 911	KTC3200/GL-T	TRANSISTOR		
	J 591	QNS0073-001	JACK				Q 913	KTA1268/GL-T	TRANSISTOR		
	L 301	QQLZ005-R45	INDUCTOR			△	Q 915	2SD2389/OPY/-F6	TRANSISTOR	FOR J.C	
	L 302	QQLZ005-R45	INDUCTOR			△	Q 917	2SB1559/OPY/-F6	TRANSISTOR	FOR J.C	
	L 801	QQLZ005-R45	INDUCTOR				Q 919	KTA1268/GL-T	TRANSISTOR		
	L 802	QQLZ005-R45	INDUCTOR			△	R 1	QRZ9037-335	F RESISTOR	FOR J/C	
	L 901	QQLZ005-R45	INDUCTOR			△	R 201	QRJ146J-2R7X	UNF C RESISTOR	2.7 5% 1/4W	
	PW101	QUB112-14PPPP	SIN TWIST WIRE	WITH PW311		△	R 203	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	PW102	QUB116-16PPPP	PIN WIRE	WITH PW302		△	R 204	QRJ146J-821X	UNF C RESISTOR	820 5% 1/4W	
	PW103	QUB112-34PPPP	SIN TWIST WIRE	WITH PW203		△	R 208	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	PW104	QUB111-34PPPP	SIN TWIST WIRE	WITH PW204			R 209	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	PW105	QUB116-26PPPP	SIN TWIST WIRE	WITH PW205		△	R 210	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
	Q 202	KRC105M-T	D.TRANSISTOR			△	R 221	QRJ146J-100X	UNF C RESISTOR	FOR J.C.E	
	Q 203	KTC3203/OY/-T	TRANSISTOR				R 301	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	Q 205	KTC3200/GL/-T	TRANSISTOR				R 302	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	Q 206	KRC105M-T	D.TRANSISTOR				R 303	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	Q 208	KRC105M-T	D.TRANSISTOR				R 304	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	Q 209	KRC105M-T	D.TRANSISTOR				R 305	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	Q 210	KRC105M-T	D.TRANSISTOR				R 306	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	Q 301	2SC2240/L-T	TRANSISTOR				R 307	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	Q 302	2SC2240/L-T	TRANSISTOR				R 308	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	Q 303	2SC2240/L-T	TRANSISTOR				R 309	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	Q 304	2SC2240/L-T	TRANSISTOR				R 310	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	Q 305	KTA1268/GL/-T	TRANSISTOR				R 311	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
	Q 306	KTA1268/GL/-T	TRANSISTOR				R 312	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
	Q 307	KTC3200/GL/-T	TRANSISTOR				R 313	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	Q 308	KTC3200/GL/-T	TRANSISTOR				R 314	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	Q 309	2SD637/QR/	TRANSISTOR			△	R 315	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
	Q 310	2SD637/QR/	TRANSISTOR			△	R 316	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
	Q 311	KTC3200/GL/-T	TRANSISTOR				R 317	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	Q 312	KTC3200/GL/-T	TRANSISTOR				R 318	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	Q 313	KTA1268/GL/-T	TRANSISTOR				R 319	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
	Q 314	KTA1268/GL/-T	TRANSISTOR				R 320	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
△	Q 315	2SD2389/OPY/-F6	TRANSISTOR	FOR J.C		△	R 321	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	Q 316	2SD2389/OPY/-F6	TRANSISTOR	FOR J.C		△	R 322	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	Q 317	2SB1559/OPY/-F6	TRANSISTOR	FOR J.C		△	R 323	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	Q 318	2SB1559/OPY/-F6	TRANSISTOR	FOR J.C		△	R 324	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	

■ Electrical parts list (Power amp. board) Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 325	QRE141J-361Y	C RESISTOR	360 5% 1/4W			R 822	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 326	QRE141J-361Y	C RESISTOR	360 5% 1/4W			R 823	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 327	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R 824	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 328	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R 825	QRE141J-361Y	C RESISTOR	360 5% 1/4W	
	R 329	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R 826	QRE141J-361Y	C RESISTOR	360 5% 1/4W	
	R 330	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R 827	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
△	R 331	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 828	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
△	R 332	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 829	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
△	R 333	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 830	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
△	R 334	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W		△	R 831	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 335	QRE141J-121Y	C RESISTOR	120 5% 1/4W		△	R 832	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 336	QRE141J-121Y	C RESISTOR	120 5% 1/4W		△	R 833	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 337	QRE141J-121Y	C RESISTOR	120 5% 1/4W		△	R 834	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 338	QRE141J-121Y	C RESISTOR	120 5% 1/4W			R 835	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 339	QRE141J-181Y	C RESISTOR	180 5% 1/4W			R 836	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 340	QRE141J-181Y	C RESISTOR	180 5% 1/4W			R 837	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 341	QRE141J-181Y	C RESISTOR	180 5% 1/4W			R 838	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 342	QRE141J-181Y	C RESISTOR	180 5% 1/4W			R 839	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 343	QRZ0218-R22	C RESISTOR	1/2W			R 840	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 344	QRZ0218-R22	C RESISTOR	1/2W			R 841	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 345	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 842	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 346	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 843	QRZ0218-R22	C RESISTOR	1/2W	
	R 347	QRE141J-153Y	C RESISTOR	15K 5% 1/4W			R 844	QRZ0218-R22	C RESISTOR	1/2W	
	R 348	QRE141J-153Y	C RESISTOR	15K 5% 1/4W			R 845	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 349	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 846	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 350	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 847	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
△	R 351	QRJ125J-330	UNF.C.RESISTOR	33 5% 1/2W			R 848	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
△	R 352	QRJ125J-330	UNF.C.RESISTOR	33 5% 1/2W			R 849	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
△	R 353	QRL027J-100	UNF.OMF.RES.	10 5% 1/2W			R 850	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
△	R 354	QRL027J-100	UNF.OMF.RES.	10 5% 1/2W		△	R 851	QRJ125J-330	UNF.C.RES.	33 5% 1/2W	
	R 363	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W		△	R 852	QRJ125J-330	UNF.C.RES.	33 5% 1/2W	
	R 364	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W		△	R 853	QRL027J-100	UNF.OMF.RES.	10 5% 1/2W	
	R 501	QRE141J-331Y	C RESISTOR	330 5% 1/4W		△	R 854	QRL027J-100	UNF.OMF.RES.	10 5% 1/2W	
	R 502	QRE141J-750Y	C RESISTOR	75 5% 1/4W			R 855	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 505	QRE141J-750Y	C RESISTOR	75 5% 1/4W			R 856	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 506	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 857	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 507	QRE141J-331Y	C RESISTOR	330 5% 1/4W			R 858	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 508	QRE141J-750Y	C RESISTOR	75 5% 1/4W			R 859	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 509	QRE141J-750Y	C RESISTOR	75 5% 1/4W			R 860	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 510	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 861	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 511	QRE141J-151Y	C RESISTOR	150 5% 1/4W			R 862	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 512	QRE141J-271Y	C RESISTOR	270 5% 1/4W			R 863	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 513	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W			R 864	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 514	QRE141J-151Y	C RESISTOR	150 5% 1/4W			R 901	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 515	QRE141J-271Y	C RESISTOR	270 5% 1/4W			R 903	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 516	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W			R 905	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 521	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R 907	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 522	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R 909	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 591	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R 911	QRJ146J-301X	UNF C RESISTOR	300 5% 1/4W	
	R 801	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W			R 913	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 802	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W		△	R 915	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
	R 803	QRE141J-563Y	C RESISTOR	56K 5% 1/4W		△	R 921	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 804	QRE141J-563Y	C RESISTOR	56K 5% 1/4W		△	R 923	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 805	QRE141J-123Y	C RESISTOR	12K 5% 1/4W			R 925	QRE141J-361Y	C RESISTOR	360 5% 1/4W	
	R 806	QRE141J-123Y	C RESISTOR	12K 5% 1/4W			R 927	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
	R 807	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W			R 929	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 808	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W		△	R 931	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 809	QRE141J-101Y	C RESISTOR	100 5% 1/4W		△	R 933	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 810	QRE141J-101Y	C RESISTOR	100 5% 1/4W			R 935	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 811	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W			R 937	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 812	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W			R 939	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 813	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 941	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 814	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 943	QRZ0218-R22	C RESISTOR	1/2W	
△	R 815	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W			R 945	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
△	R 816	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W			R 947	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
△	R 821	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 949	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	

## ■ Electrical parts list (Power amp. board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
△	R 951	QRJ125J-330	UNF.C.RES.	33 5% 1/2W	
△	R 953	QRL027J-100	UNF.OMF.RES.	10 5% 1/2W	
	R 955	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 957	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 959	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 961	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 963	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
△	RY202	QSK0142-001	RELAY		
△	RY203	QSK0109-001	RELAY		
△	T 202	QQT0317-001	POWER TRANSF	FOR J.C	
	TA201	QNZ0079-001Z	TAB		
	TA202	QNZ0079-001Z	TAB		
△	TH301	QAD0012-202	BATTERY PACK		
△	TH302	QAD0012-202	BATTERY PACK		
△	TH801	QAD0012-202	BATTERY PACK		
△	TH802	QAD0012-202	BATTERY PACK		
△	TH901	QAD0012-202	BATTERY PACK		
	VR301	QVP0008-102Z	SEMI V RESISTOR		
	VR302	QVP0008-102Z	SEMI V RESISTOR		

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 601	NCB31HK-102X	C CAPACITOR				C2514	NCB31HK-122X	C CAPACITOR		
	C 602	NCB31HK-102X	C CAPACITOR				C2515	NCS31HJ-121X	C CAPACITOR		
	C 603	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2516	NCS31HJ-121X	C CAPACITOR		
	C 604	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2525	NCB31HK-102X	C CAPACITOR		
	C 605	NCF31CZ-104X	C CAPACITOR				C2526	NCB31HK-102X	C CAPACITOR		
	C 606	NCF31CZ-104X	C CAPACITOR				C2527	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 607	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V			C2528	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 608	NCF31CZ-104X	C CAPACITOR				C2531	NCS31HJ-560X	C CAPACITOR		
	C 609	NCF31CZ-104X	C CAPACITOR				C2532	NCS31HJ-560X	C CAPACITOR		
	C 610	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2533	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 611	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2534	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 612	NCB31CK-103X	C CAPACITOR				C2539	NCF31CZ-104X	C CAPACITOR		
	C 621	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C2540	NCF31CZ-104X	C CAPACITOR		
	C 622	NCS31HJ-101X	C CAPACITOR				C2551	NCS31HJ-560X	C CAPACITOR		
	C 624	NCF31CZ-104X	C CAPACITOR				C2552	NCS31HJ-560X	C CAPACITOR		
	C 626	NCF31AZ-105X	C CAPACITOR				C2555	NCF31CZ-104X	C CAPACITOR		
	C 627	NCF31AZ-105X	C CAPACITOR	K603			C2556	NCF31CZ-104X	C CAPACITOR		
	C 628	NCB31CK-103X	C CAPACITOR				C2561	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 630	NCF31AZ-105X	C CAPACITOR				C2562	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 631	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2563	NCS31HJ-560X	C CAPACITOR		
	C 632	NCB31CK-103X	C CAPACITOR				C2564	NCS31HJ-560X	C CAPACITOR		
	C 633	NCF31CZ-104X	C CAPACITOR				C2565	NCB31HK-102X	C CAPACITOR		
	C 634	NCF31CZ-104X	C CAPACITOR				C2566	NCB31HK-102X	C CAPACITOR		
	C 635	NCF31CZ-104X	C CAPACITOR				C2569	NCF31CZ-104X	C CAPACITOR		
	C 636	NCB31CK-473X	C CAPACITOR				C2570	NCF31CZ-104X	C CAPACITOR		
	C 638	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2575	NCB31HK-102X	C CAPACITOR		
	C 639	NCB31CK-103X	C CAPACITOR				C2576	NCB31HK-102X	C CAPACITOR		
	C 640	NCB31CK-103X	C CAPACITOR				C2577	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 641	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2578	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 642	NCB31CK-103X	C CAPACITOR				C2581	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 643	NCB31AK-474X	C CAPACITOR				C2582	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 644	NCB31CK-103X	C CAPACITOR				C2583	NCS31HJ-560X	C CAPACITOR		
	C 645	NCS31HJ-101X	C CAPACITOR				C2584	NCS31HJ-560X	C CAPACITOR		
	C 646	NCB31CK-103X	C CAPACITOR				C2585	NCF31CZ-104X	C CAPACITOR		
	C 647	NCS31HJ-220X	C CAPACITOR				C2586	NCF31CZ-104X	C CAPACITOR		
	C 648	NCS31HJ-180X	C CAPACITOR				C2587	NCS31HJ-560X	C CAPACITOR		
	C 649	NCS31HJ-121X	C CAPACITOR				C2588	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 653	NCB31CK-104X	C CAPACITOR				C2589	NCF31CZ-104X	C CAPACITOR		
	C 654	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2590	NCF31CZ-104X	C CAPACITOR		
	C 661	NCB31CK-103X	C CAPACITOR				C2591	NCB31HK-102X	C CAPACITOR		
	C 671	NCB31CK-103X	C CAPACITOR				C2592	NCB31HK-103X	C CAPACITOR		
	C 672	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2594	NCB31CK-473X	C CAPACITOR		
	C 673	NCB31CK-103X	C CAPACITOR				C2595	NCB31HK-102X	C CAPACITOR		
	C 677	NCS31HJ-101X	C CAPACITOR				C2597	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 679	NCS31HJ-101X	C CAPACITOR				C2598	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 681	NCB31CK-103X	C CAPACITOR				D 607	1SS355-X	DIODE		
	C 682	NCB31CK-103X	C CAPACITOR				D 608	1SS355-X	DIODE		
	C 683	NCB31CK-103X	C CAPACITOR				D 609	1SS355-X	DIODE		
	C 684	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			D 610	1SS355-X	DIODE		
	C 685	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V			IC601	AK4527BVQP	IC		
	C 686	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V			IC609	BA15218F-XE	IC		
	C 687	NCB31CK-103X	C CAPACITOR				IC610	BA15218F-XE	IC		
	C 688	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			IC611	MM74HC08SJ-X	IC		
	C 689	NCB31CK-103X	C CAPACITOR				IC612	TC74HC4072AF-X	IC		
	C 690	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			IC621	MM74HC04SJ-X	IC		
	C 691	NCB31HK-103X	C CAPACITOR				IC631	TC9446F-025	IC		
	C 692	NCS31HJ-471X	C CAPACITOR				IC641	LP61L1024S-12-X	IC		
	C 693	NCB31CK-103X	C CAPACITOR				IC650	BA15218F-XE	IC		
	C 694	NCF31CZ-104X	C CAPACITOR				IC651	BA15218F-XE	IC		
	CN681	QGB2510K1-20	B TO B CONNE				IC652	IMX9-W	TRANSISTOR		
	C2500	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V			IC661	BA15218F-XE	IC		
	C2503	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			IC662	IMX9-W	TRANSISTOR		
	C2504	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			IC671	UPD784215AGC167	IC(MICRO C ROM)		
	C2507	NCS31HJ-330X	C CAPACITOR				IC672	NC7ST32P5-X	IC(DIGITAL)		
	C2508	NCS31HJ-330X	C CAPACITOR				IC681	MM1563DF-X	IC		
	C2512	NCF31CZ-104X	C CAPACITOR				IC682	IMX9-W	TRANSISTOR		
	C2513	NCB31HK-122X	C CAPACITOR								

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	IC683	MM1613DN-X	IC				R 689	NRSA63J-0R0X	MG RESISTOR		
	IC690	BA15218F-XE	IC				R 691	NRSA63J-221X	MG RESISTOR		
	IC691	BA15218F-XE	IC				R 692	NRSA63J-221X	MG RESISTOR		
	J 601	QNN0347-001	PIN JACK				R 693	NRSA63J-221X	MG RESISTOR		
	K 601	NQR0269-004X	FERRITE BEADS				R 694	NRSA63J-221X	MG RESISTOR		
	Q 607	UN2113-X	TRANSISTOR				R 695	NRSA63J-221X	MG RESISTOR		
	Q 670	DTC114YE-X	TRANSISTOR				R 696	NRSA63J-221X	MG RESISTOR		
	Q 671	2SD2114K/VW/-X	CHIP TRANSISTOR				R 697	NRSA63J-0R0X	MG RESISTOR		
	Q 672	DTC114YE-X	TRANSISTOR				R 698	NRSA63J-0R0X	MG RESISTOR		
	Q 673	UN2113-X	TRANSISTOR				R2500	NRSA63J-102X	MG RESISTOR		
	Q2501	UN2113-X	TRANSISTOR				R2501	NRSA63J-104X	MG RESISTOR		
	R 600	NRSA63J-0R0X	MG RESISTOR				R2502	NRSA63J-104X	MG RESISTOR		
	R 601	NRSA63J-473X	MG RESISTOR				R2507	NRSA63J-223X	MG RESISTOR		
	R 602	NRSA63J-473X	MG RESISTOR				R2508	NRSA63J-223X	MG RESISTOR		
	R 603	NRSA63J-473X	MG RESISTOR				R2509	NRSA63J-223X	MG RESISTOR		
	R 606	NRSA63J-221X	MG RESISTOR				R2510	NRSA63J-223X	MG RESISTOR		
	R 607	NRSA63J-221X	MG RESISTOR				R2511	NRSA63J-103X	MG RESISTOR		
	R 608	NRSA63J-221X	MG RESISTOR				R2512	NRSA63J-103X	MG RESISTOR		
	R 609	NRSA63J-221X	MG RESISTOR				R2513	NRSA63J-103X	MG RESISTOR		
	R 611	NRSA63J-221X	MG RESISTOR				R2514	NRSA63J-103X	MG RESISTOR		
	R 612	NRSA63J-221X	MG RESISTOR				R2515	NRSA63J-103X	MG RESISTOR		
	R 613	NRSA63J-822X	MG RESISTOR				R2516	NRSA63J-103X	MG RESISTOR		
	R 615	NRSA63J-432X	MG RESISTOR				R2519	NRSA63J-331X	MG RESISTOR		
	R 617	NRSA63J-103X	MG RESISTOR				R2520	NRSA63J-331X	MG RESISTOR		
	R 618	NRSA63J-103X	MG RESISTOR				R2521	NRSA63J-331X	MG RESISTOR		
	R 620	NRSA63J-221X	MG RESISTOR				R2522	NRSA63J-331X	MG RESISTOR		
	R 621	NRSA63J-561X	MG RESISTOR				R2525	NRSA63J-102X	MG RESISTOR		
	R 622	NRSA63J-750X	MG RESISTOR				R2526	NRSA63J-102X	MG RESISTOR		
	R 623	NRSA63J-0R0X	MG RESISTOR				R2527	NRSA63J-104X	MG RESISTOR		
	R 627	NRSA63J-472X	MG RESISTOR				R2528	NRSA63J-104X	MG RESISTOR		
	R 628	NRSA63J-333X	MG RESISTOR				R2529	NRSA63J-103X	MG RESISTOR		
	R 631	NRSA63J-0R0X	MG RESISTOR				R2530	NRSA63J-103X	MG RESISTOR		
	R 632	NRSA63J-0R0X	MG RESISTOR				R2531	NRSA63J-752X	MG RESISTOR		
	R 639	NRSA63J-472X	MG RESISTOR				R2532	NRSA63J-752X	MG RESISTOR		
	R 640	NRSA63J-0R0X	MG RESISTOR				R2533	NRSA63J-103X	MG RESISTOR		
	R 641	NRSA63F-102X	MG RESISTOR				R2534	NRSA63J-103X	MG RESISTOR		
	R 642	NRSA63J-103X	MG RESISTOR				R2535	NRSA63J-103X	MG RESISTOR		
	R 643	NRSA63J-101X	MG RESISTOR				R2536	NRSA63J-103X	MG RESISTOR		
	R 644	NRSA63J-153X	MG RESISTOR				R2537	NRSA63J-104X	MG RESISTOR		
	R 645	NRSA63F-102X	MG RESISTOR				R2538	NRSA63J-104X	MG RESISTOR		
	R 646	NRSA63J-103X	MG RESISTOR				R2550	NRSA63J-272X	MG RESISTOR		
	R 647	NRSA63J-225X	MG RESISTOR				R2551	NRSA63J-103X	MG RESISTOR		
	R 648	NRSA63J-472X	MG RESISTOR				R2552	NRSA63J-103X	MG RESISTOR		
	R 657	NRSA63J-103X	MG RESISTOR				R2553	NRSA63J-153X	MG RESISTOR		
	R 661	NRSA63J-221X	MG RESISTOR				R2554	NRSA63J-153X	MG RESISTOR		
	R 662	NRSA63J-221X	MG RESISTOR				R2555	NRSA63J-752X	MG RESISTOR		
	R 663	NRSA63J-221X	MG RESISTOR				R2556	NRSA63J-752X	MG RESISTOR		
	R 664	NRSA63J-221X	MG RESISTOR				R2557	NRSA63J-103X	MG RESISTOR		
	R 668	NRSA63J-0R0X	MG RESISTOR				R2558	NRSA63J-273X	MG RESISTOR		
	R 669	NRSA63J-103X	MG RESISTOR				R2560	NRSA63J-105X	MG RESISTOR		
	R 670	NRSA63J-103X	MG RESISTOR				R2561	NRSA63J-104X	MG RESISTOR		
	R 671	NRSA63J-103X	MG RESISTOR				R2562	NRSA63J-104X	MG RESISTOR		
	R 672	NRSA63J-105X	MG RESISTOR				R2563	NRSA63J-103X	MG RESISTOR		
	R 673	NRSA63J-432X	MG RESISTOR				R2564	NRSA63J-103X	MG RESISTOR		
	R 674	NRSA63J-432X	MG RESISTOR				R2565	NRSA63J-202X	MG RESISTOR		
	R 675	NRSA63J-432X	MG RESISTOR				R2566	NRSA63J-202X	MG RESISTOR		
	R 676	NRSA63J-432X	MG RESISTOR				R2567	NRSA63J-103X	MG RESISTOR		
	R 677	NRSA63J-822X	MG RESISTOR				R2568	NRSA63J-103X	MG RESISTOR		
	R 678	NRSA63J-822X	MG RESISTOR				R2569	NRSA63J-122X	MG RESISTOR		
	R 679	NRSA63J-822X	MG RESISTOR				R2570	NRSA63J-122X	MG RESISTOR		
	R 680	NRSA63J-822X	MG RESISTOR				R2575	NRSA63J-102X	MG RESISTOR		
	R 682	NRSA63J-103X	MG RESISTOR				R2576	NRSA63J-102X	MG RESISTOR		
	R 683	NRSA63J-0R0X	MG RESISTOR				R2577	NRSA63J-104X	MG RESISTOR		
	R 684	NRSA63J-0R0X	MG RESISTOR				R2578	NRSA63J-104X	MG RESISTOR		
	R 687	NRSA63J-0R0X	MG RESISTOR				R2581	NRSA63J-104X	MG RESISTOR		
	R 688	NRSA63J-0R0X	MG RESISTOR				R2582	NRSA63J-104X	MG RESISTOR		



## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	R2583	NRSA63J-123X	MG RESISTOR		
	R2584	NRSA63J-223X	MG RESISTOR		
	R2585	NRSA63J-302X	MG RESISTOR		
	R2586	NRSA63J-332X	MG RESISTOR		
	R2587	NRSA63J-103X	MG RESISTOR		
	R2588	NRSA63J-103X	MG RESISTOR		
	R2589	NRSA63J-104X	MG RESISTOR		
	R2590	NRSA63J-333X	MG RESISTOR		
	R2591	NRSA63J-122X	MG RESISTOR		
	R2592	NRSA63J-333X	MG RESISTOR		
	R2594	NRSA63J-333X	MG RESISTOR		
	R2595	NRSA63J-102X	MG RESISTOR		
	R2596	NRSA63J-102X	MG RESISTOR		
	R2597	NRSA63J-104X	MG RESISTOR		
	R2598	NRSA63J-104X	MG RESISTOR		
	UN661	GP1FA351RZ	OPT RECEIVER		
	X 631	QAX0722-001Z	CRYSTAL		
	X 671	QAX0719-001Z	1COSCIALLATOR		

## ■ Electrical parts list (Tuner board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	AT101	QNB0014-001	ANT TERMINAL		
	BK 1	LV31618-001A	SHIELD BKT		
	C 101	NCB21HK-103X	C CAPACITOR	C/M B	
	C 103	NCB21HK-223X	C CAPACITOR	C/M B	
	C 105	NCB21HK-223X	C CAPACITOR	C/M B	
	C 107	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 111	NCB21HK-473X	C CAPACITOR	C/M B	
	C 112	NDC21HJ-120X	C CAPACITOR	C/M B	
	C 121	NDC21HJ-120X	C CAPACITOR	C/M B	
	C 122	NDC21HJ-120X	C CAPACITOR	C/M B	
	C 123	NCB21HK-473X	C CAPACITOR	C/M B	
	C 126	NCS21HJ-101X	C CAPACITOR	C/M B	
	C 128	QENC1HM-474Z	NP E CAPACITOR	.47MF 20% 50V	
	C 129	NCB21HK-102X	C CAPACITOR	C/M B	
	C 130	QEK1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 133	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 134	NCB21HK-222X	C CAPACITOR	C/M B	
	C 135	NCB21HK-223X	C CAPACITOR	C/M B	
	C 136	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 137	NCB21HK-331X	C CAPACITOR	C/M B	
	C 138	NCB21HK-473X	C CAPACITOR	C/M B	
	C 139	NCB21HK-333X	C CAPACITOR	C/M B	
	C 140	NCB21HK-333X	C CAPACITOR	C/M B	
	C 141	NCB21HK-473X	C CAPACITOR	C/M B	
	C 143	NCB21HK-223X	C CAPACITOR	C/M B	
	C 144	NCB21HK-473X	C CAPACITOR	C/M B	
	C 146	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 147	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 148	QEK1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 149	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 150	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 156	QDGB1HK-102Y	C CAPACITOR	C/M B	
	C 157	NCB21HK-473X	C CAPACITOR	C/M B	
	C 158	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 161	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 162	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 163	NCB21HK-223X	C CAPACITOR	C/M B	
	C 164	NCB21HK-473X	C CAPACITOR	C/M B	
	C 168	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 184	QEK1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 185	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 186	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	CF101	QAX0419-001Z	C FILTER		
	CF102	QAX0604-001Z	C FILTER		
	CF103	QAX0519-001Z	C FILTER		
	CN111	QGB2501K2-12	CONNECTOR		
	D 121	1SS133-T2	SI DIODE IM		
	D 123	1SS133-T2	SI DIODE IM		
	D 124	1SS133-T2	SI DIODE IM		
	D 125	1SS133-T2	SI DIODE IM		
	D 129	1SS133-T2	SI DIODE IM		
	IC102	LA1838	IC		
	IC121	LC72136N	IC		
	Q 102	2SC535/BC-T	TRANSISTOR		
	Q 103	2SC461/BC-T	TRANSISTOR		
	Q 121	KRA103M-T	TRANSISTOR	FM+B	
	R 103	NRSA02J-221X	MG RESISTOR	C/M B	
	R 104	NRSA02J-272X	MG RESISTOR	C/M B	
	R 105	NRSA02J-391X	MG RESISTOR	C/M B	
	R 106	NRSA02J-102X	MG RESISTOR	C/M B	
	R 107	NRSA02J-391X	MG RESISTOR	C/M B	
	R 108	NRSA02J-332X	MG RESISTOR	C/M B	
	R 109	NRSA02J-221X	MG RESISTOR	C/M B	
	R 115	NRSA02J-104X	MG RESISTOR	C/M B	
	R 119	NRSA02J-103X	MG RESISTOR	C/M B	
	R 122	NRSA02J-472X	MG RESISTOR	C/M B	

△	Item	Parts number	Parts name	Remarks	Area
	R 124	NRSA02J-222X	MG RESISTOR	C/M B	
	R 126	NRSA02J-562X	MG RESISTOR	C/M B	
	R 127	NRSA02J-822X	MG RESISTOR	C/M B	
	R 128	NRSA02J-472X	MG RESISTOR	C/M B	
	R 129	NRSA02J-222X	MG RESISTOR	C/M B	
△	R 130	QRZ9005-680X	F RESISTOR	68 1/4W	
	R 132	NRSA02J-393X	MG RESISTOR	C/M B	
	R 133	NRSA02J-392X	MG RESISTOR	C/M B	
	R 134	NRSA02J-102X	MG RESISTOR	C/M B	
	R 140	NRSA02J-183X	MG RESISTOR	C/M B	
	R 141	NRSA02J-102X	MG RESISTOR	C/M B	
	R 142	NRSA02J-470X	MG RESISTOR	C/M B	
	R 143	NRSA02J-562X	MG RESISTOR	C/M B	
	R 144	NRSA02J-332X	MG RESISTOR	C/M B	
	R 145	NRSA02J-103X	MG RESISTOR	C/M B	
	R 146	NRSA02J-392X	MG RESISTOR	C/M B	
	R 147	NRSA02J-332X	MG RESISTOR	C/M B	
	R 150	NRSA02J-331X	MG RESISTOR	C/M B	
	R 157	NRSA02J-682X	MG RESISTOR	C/M B	
	R 158	NRSA02J-682X	MG RESISTOR	C/M B	
	R 161	NRSA02J-102X	MG RESISTOR	C/M B	
	R 162	NRSA02J-102X	MG RESISTOR	C/M B	
	R 182	NRSA02J-103X	MG RESISTOR		
	R 183	NRSA02J-103X	MG RESISTOR		
	R 184	NRSA02J-103X	MG RESISTOR		
	RF101	QAU0124-002	FRONT END		
	T 111	QQR0796-001	COIL BLOCK		
	T 142	QQR0973-001	IFT		
	X 121	QAX0402-001	CRYSTAL		

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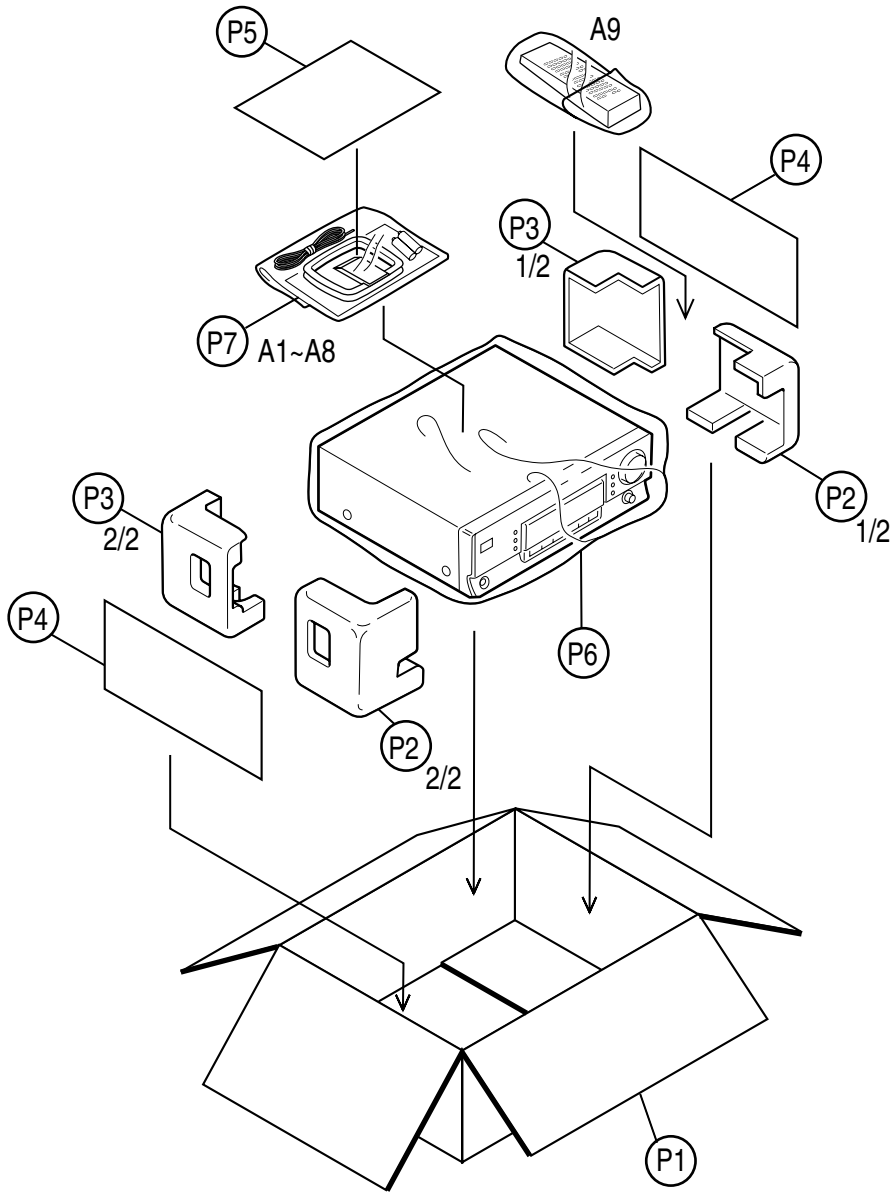
# Packing materials and accessories parts list

Block No. 

M	3	M	M
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Block No. 

M	5	M	M
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**■ Parts list (Packing)**

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	LV20983-057A	CARTON BOX	1	RX-6030VJ,C  TOP COVER	
	P 2	LV21429-001A	CUSHION	1		
	P 3	LV21430-002A	CUSHION	1		
	P 4	LV32034-003A	SHEET	2		
	P 5	LV30256-009A	SHEET	1		
	P 6	QPC06507015P	POLY BAG	1		
	P 7	QPA02503505P	POLY BAG	1		

**■ Parts list (Accessories)**

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0984-001B	INST BOOK	1	ENG	J
		LVT0984-002A	INST BOOK	1	ENG	C
	A 2	-----	BATTERY	2		
	A 3	EWP503-001C	ANT.WIRE	1		
	A 4	QAL0204-001	AM LOOP ANT	1		
	A 5	YU20333	SAFETY INST.	1		
	A 6	BT-52006-2	WARRANTY CARD	1		C
	A 7	BT-20071B	JVC CENTER LIST	1		C
	A 8	BT-51028-2	REGISTER CARD	1		J
	A 9	RM-SRX6030J	REMOCON	1		