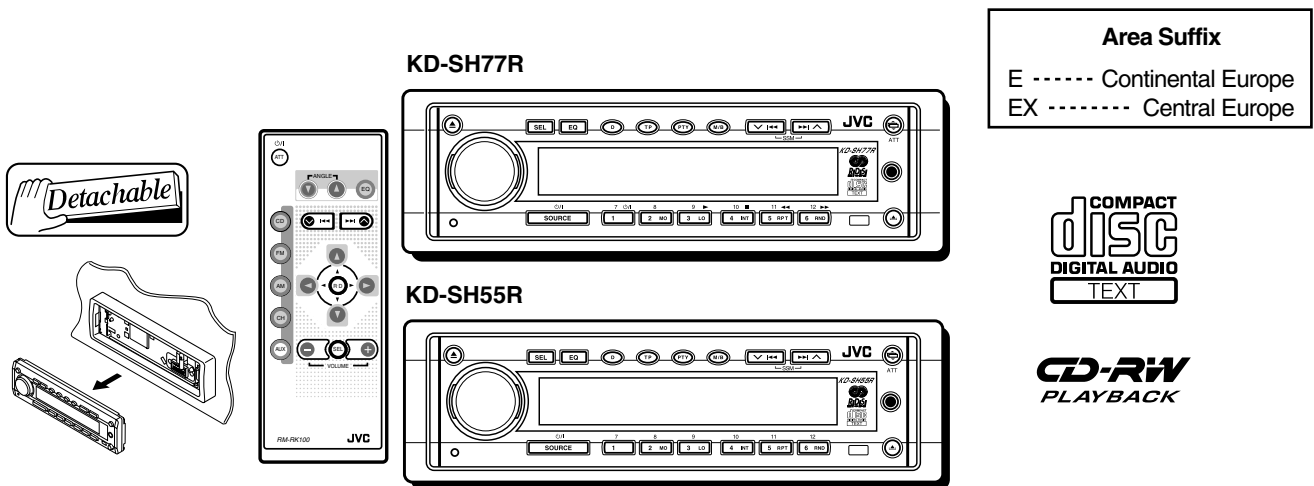


# JVC

# SERVICE MANUAL

## CD RECEIVER

# KD-SH77R/KD-SH55R



Difference point	DVD control	LINE IN	SUBWOOFER OUT	EXT OUT
KD-SH77R	O	O	O	O
KD-SH55R	X	X	X	X

### Contents

Safety precaution ..... 1-2

Preventing static electricity ..... 1-3

Disassembly method ..... 1-4

Adjustment method ..... 1-15

Flow of functional operation


until TOC read ..... 1-17

Maintenance of laser pickup ..... 1-19

Replacement of laser pickup ..... 1-19

Description of major ICs ..... 1-20~35

## Safety precaution

 **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 performing repair of this system.

 **CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

# Preventing static electricity

## 1. Grounding to prevent damage by static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

## 2. About the earth processing for the destruction prevention by static electricity

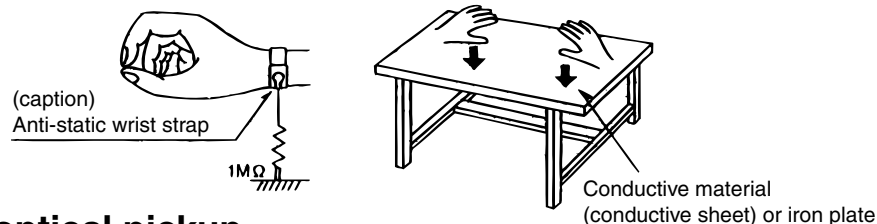
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

### 2-1 Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

### 2-2 Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



## 3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

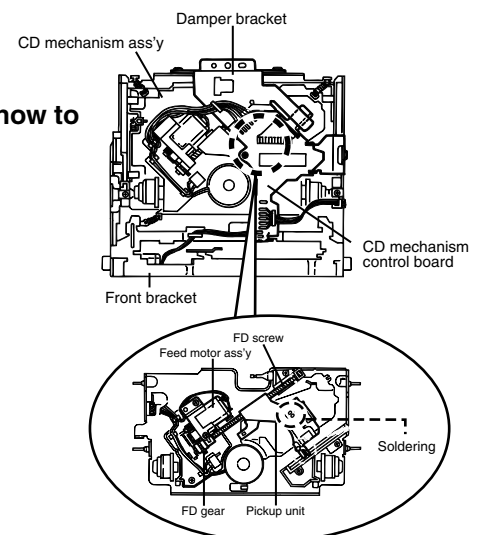
## 4. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
3. Handle the flexible cable carefully as it may break when subjected to strong force.
4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it

## Attention when traverse unit is decomposed

**\*Please refer to "Disassembly method" in the text for pick-up and how to detach the substrate.**

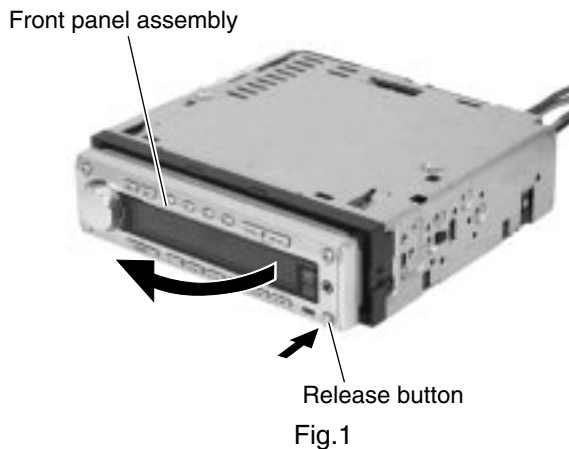
1. Solder is put up before the card wire is removed from connector on the CD substrate as shown in Figure.  
(When the wire is removed without putting up solder, the CD pick-up assembly might destroy.)
2. Please remove solder after connecting the card wire with when you install picking up in the substrate.



## Disassembly method

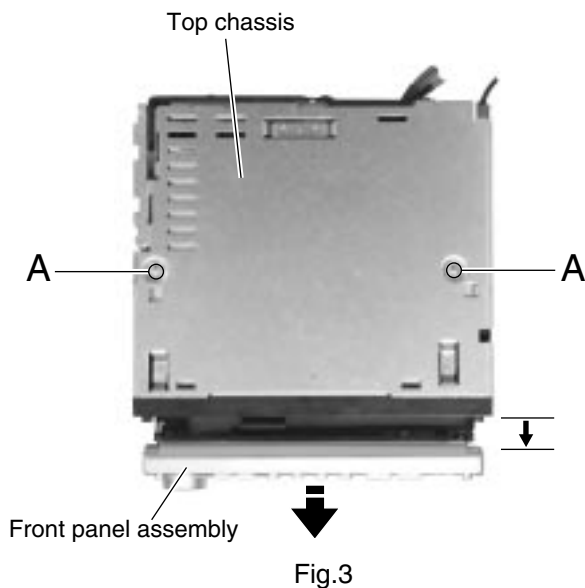
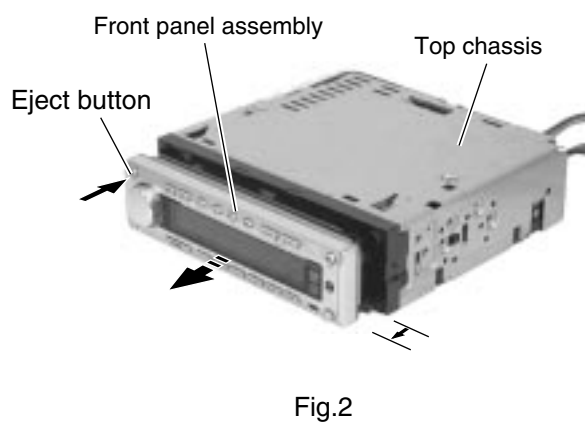
### ■ Removing the front panel assembly (See Fig.1)

1. Press the release button in the lower right part of the front panel assembly to unlock.
2. Remove the front panel assembly in the direction of the arrow.



### ■ Removing the top chassis (See Fig.2 to 6)

- Turn on power.
1. Press the eject button in the upper left part of the front panel assembly to move the assembly as shown in Fig.2 and turn off power.
  2. Remove the two screws **A** on the upper side of the body.



3. Remove the three screws **B** on both sides of the body.
4. Remove the screw **C** and the three screws **D** on the left side of the body.
5. Remove the two screws **E** and the screw **F** on the back of the body.
6. Move the top chassis upward and remove it with the CD mechanism assembly. The connector on the CD mechanism assembly is disconnected from connector CN601 on the main board.

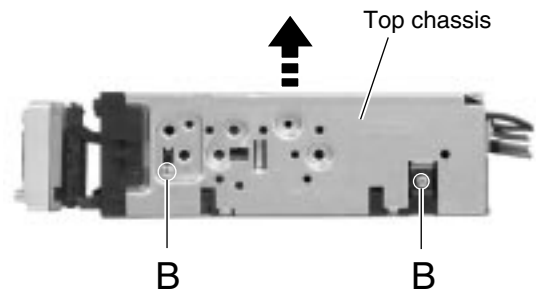


Fig.4

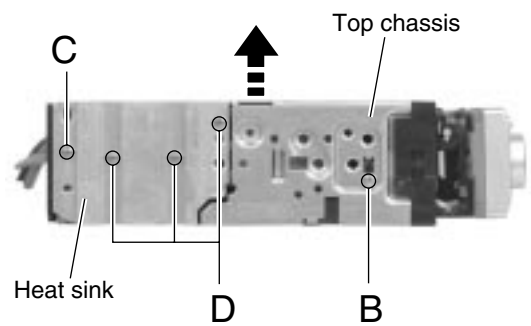


Fig.5

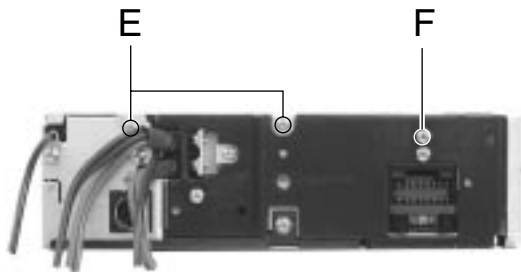


Fig.6 (KD-SH77RE)

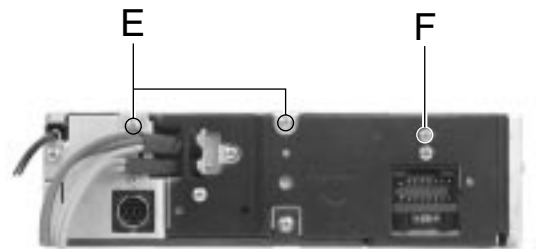


Fig.6 (KD-SH55RE)

**■ Removing the CD mechanism assembly  
(See Fig.7)**

- Prior to performing the following procedure, remove the top chassis.
1. Remove the three screws **G** inside the top chassis and remove the CD mechanism assembly.

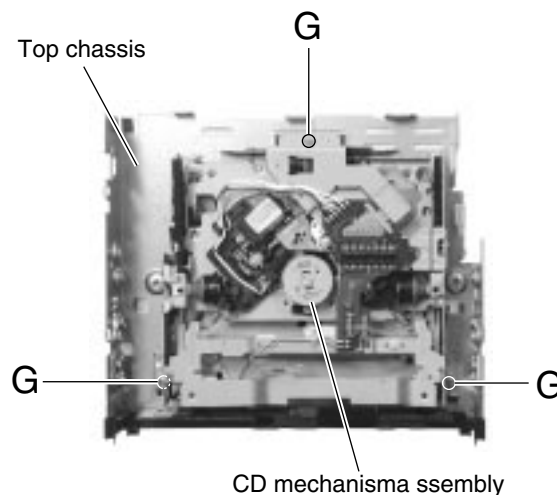


Fig.7

**■ Removing the motor assembly  
(See Fig.8 to 10)**

- Prior to performing the following procedure, remove the top chassis.

1. Disconnect the wire from connector CN703 on the main board.
2. Remove the motor bracket and the spring attached to the arm bracket assembly (R).
3. Remove the two screws **H** attaching the motor bracket.
4. Remove the washer attaching the clutch assembly and pull out the clutch assembly from the shaft.
5. Remove the two screws **I** and the motor assembly from the motor bracket.

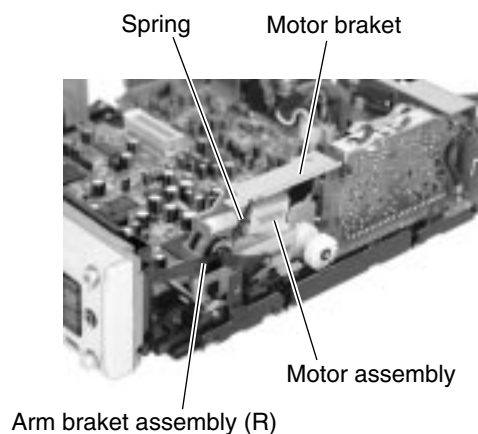


Fig.8

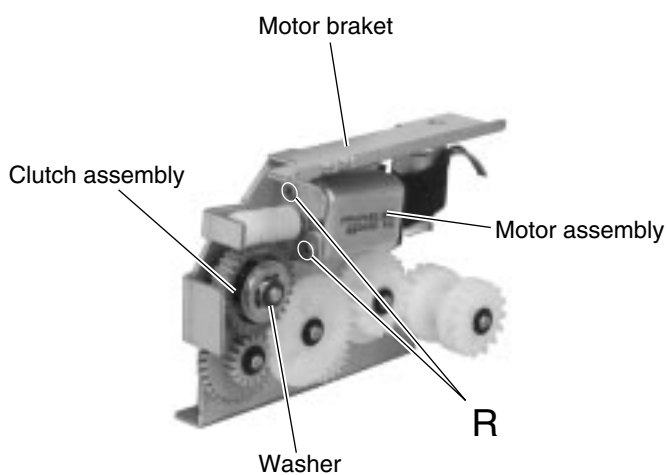


Fig.10

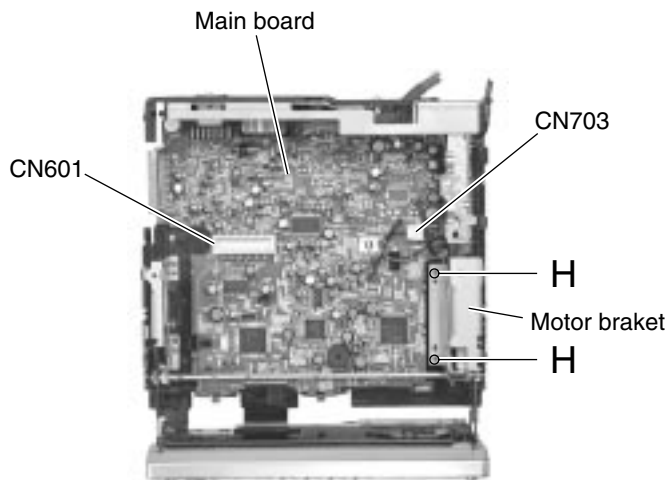


Fig.9

**■ Removing the main board**  
**(See Fig.11 to 15)**

· Prior to performing the following procedures, remove the top chassis and the motor bracket.

1. Disconnect the flexible wire from connector CN701 and CN702 on the main board respectively.
2. Move the front bracket backward until it stops.
3. Remove the four screws **J** attaching the arm brackets (L) and (R). Move the right and arm left brackets from the rod gear.
4. Remove the rod gear.
5. Remove the screw **K** attaching the rear panel to the bottom cover on the back of the body.

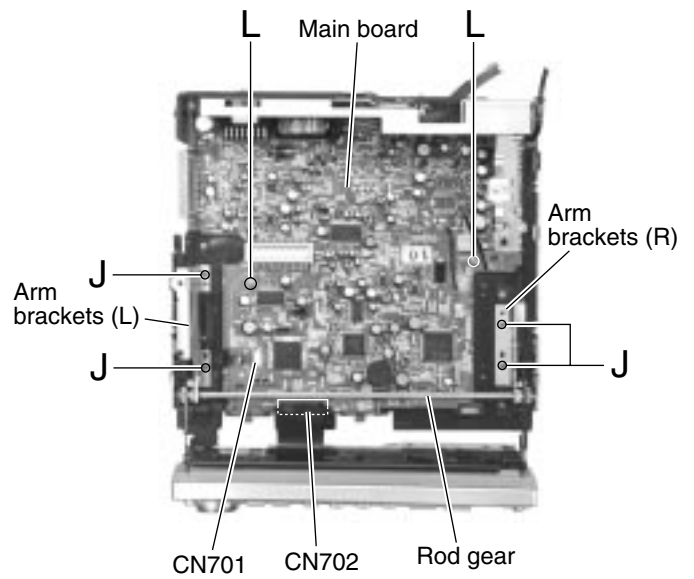


Fig.11

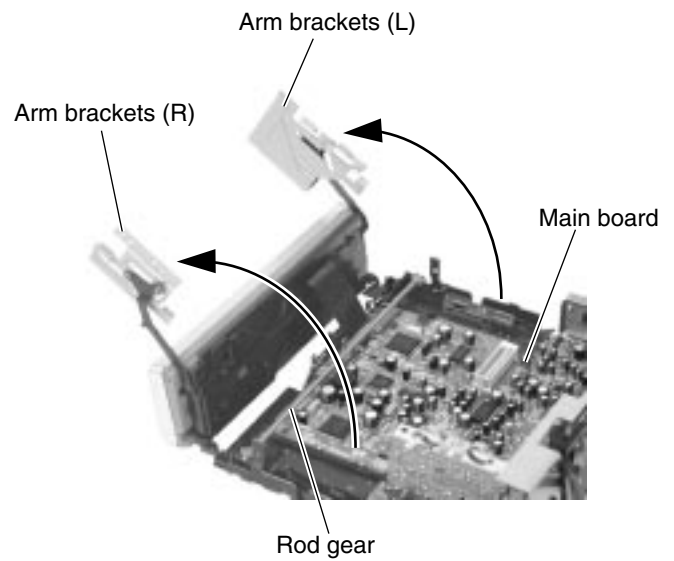


Fig.12

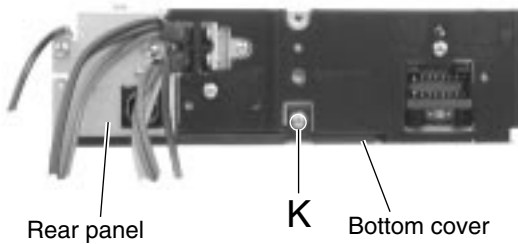


Fig.13 (KD-SH77RE)

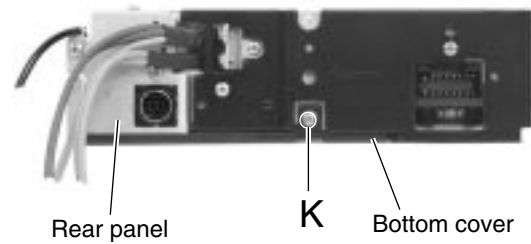


Fig.13 (KD-SH55RE)

6. Remove the two screws **L** and move the main board backwards to release the two joints **a**. (The main board will be removed with the rear panel and the rear heat sink)
7. Remove the screw **M** and **N** attaching the rear heat sink.
8. Remove the two screws **O** and the screw **P** attaching the rear panel. Remove the mainboard (KD-SH55RE).
9. Remove the three screws **O** and the screw **P** attaching the rear panel. Remove the main board (KD-SH77RE).

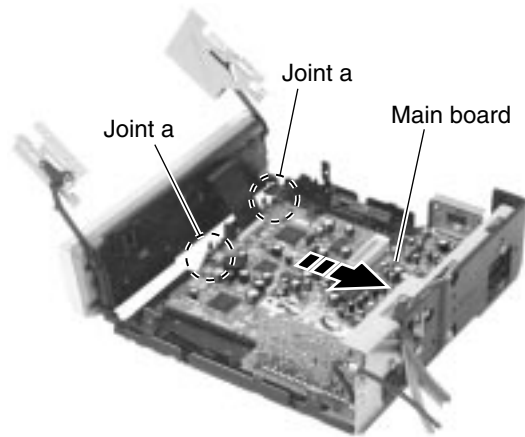


Fig.14

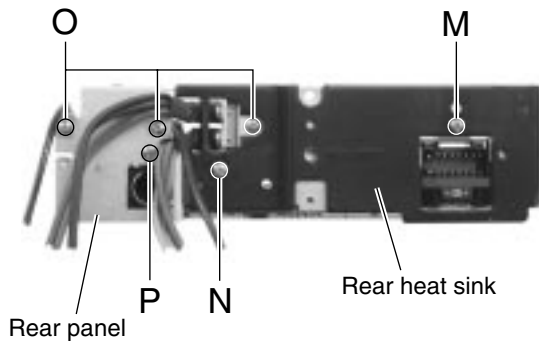


Fig.15 (KD-SH77RE)

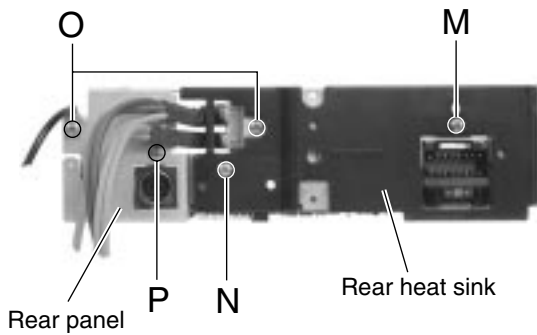


Fig.15 (KD-SH55RE)

■ **Removing the lifter switch board**  
(See Fig.16)

• Prior to performing the following procedures, remove the top chassis, the motor bracket and the main board.

1. Remove the two screws **Q** attaching the lifter switch board.

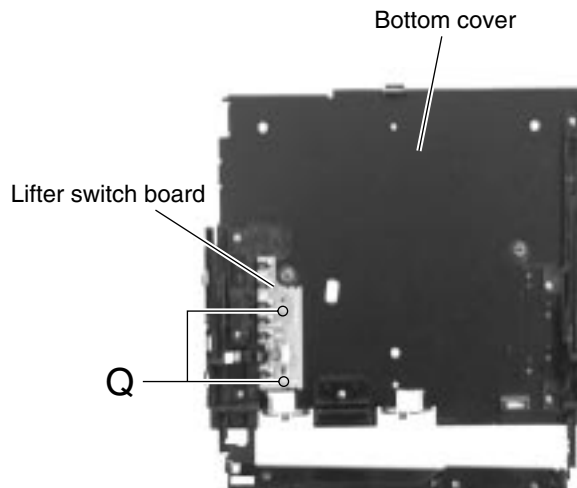


Fig.16



**■ Removing the lifter board**  
**(See Fig.17 to 23)**

· Prior to performing the following procedure, remove the top chassis assembly and the front panel assembly.

1. Disconnect the flexible wire from connector CN702 on the main board.
2. Remove the four screws **R** attaching the front bracket on both sides of the body.
3. Push the pin of the joint **c** on the front of the front bracket to release the lock lever.

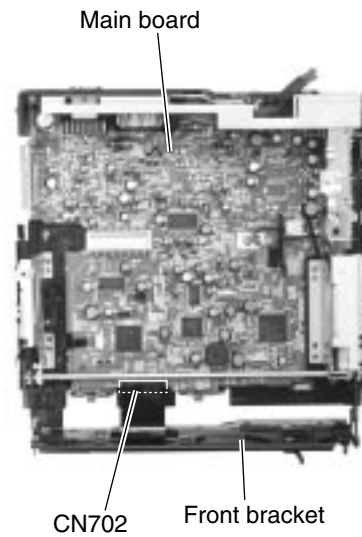


Fig.17

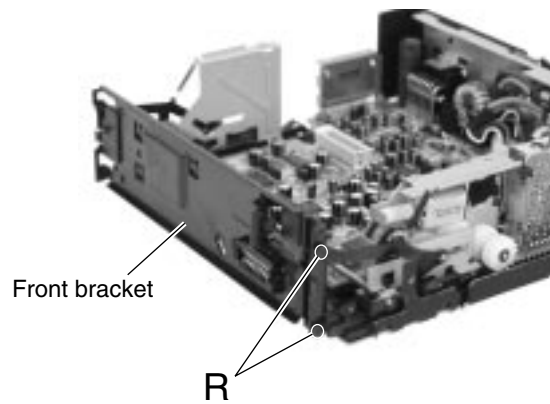


Fig.18

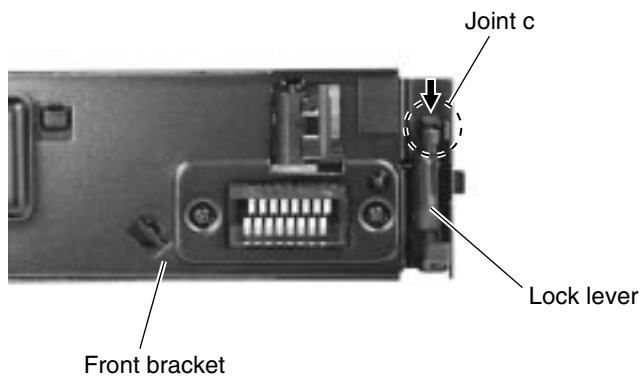


Fig.20

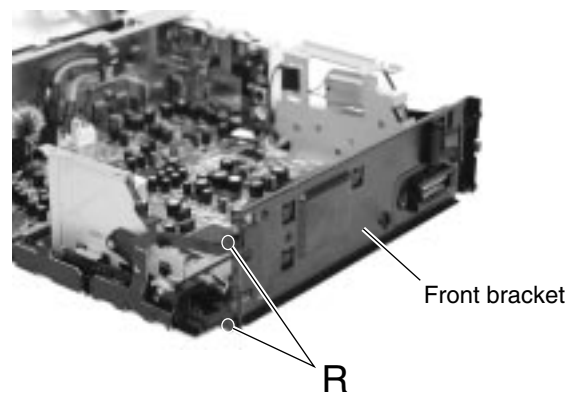


Fig.19

4. Remove the screw **S** attaching the lifter board cover in the rear of the front bracket.
5. Release the two joints **d** while pushing the front side. Move the lifter board cover in the direction of the arrow and release the eight joints **e**.
6. Remove the two screws **T** attaching the lifter board on the front of the body.

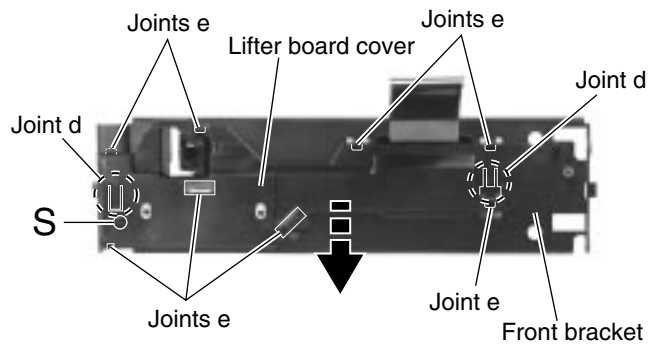


Fig.21

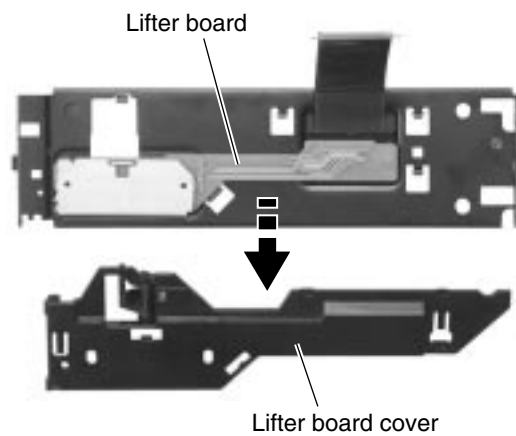


Fig.22

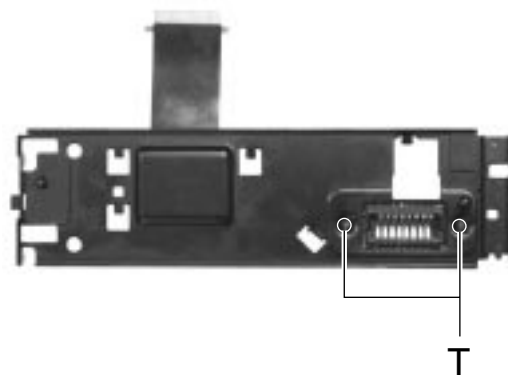


Fig.23

## <Front panel assembly>

- Prior to performing the following procedure, remove the front panel assembly.

### ■ Removing the front board (See Fig.24 and 25)

1. Remove the four screws **U** attaching the rear panel to the front panel assembly.
2. Release the eleven joints **f** of the front panel and the rear panel.
3. Disconnect the wire from connector CN503 on the front board.
4. If necessary, unsolder connector CN502 on the front board.

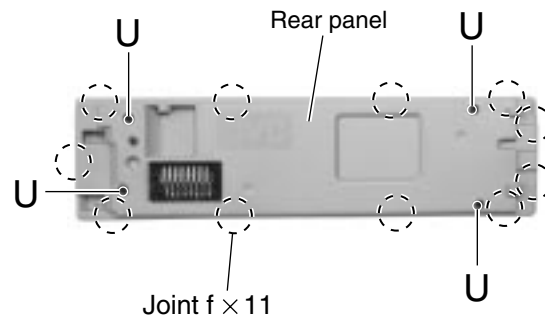


Fig.24

### ■ Removing the volume board (See Fig.25 and 26)

- Prior to performing the following procedure, remove the rear panel.
1. Remove the two screws **W** attaching the volume board.
  2. Disconnect the volume knob, ring lens and volume ring from the volume board.
  3. If necessary, unsolder the volume board.

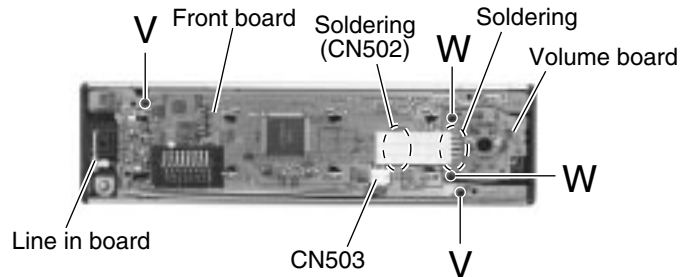


Fig.25

### ■ Removing the line in board (See Fig.25 and 27)

- Prior to performing the following procedure, remove the rear panel.
1. Disconnect the wire from connector CN503 on the front board.
  2. Pull out the line in board from the front panel assembly.

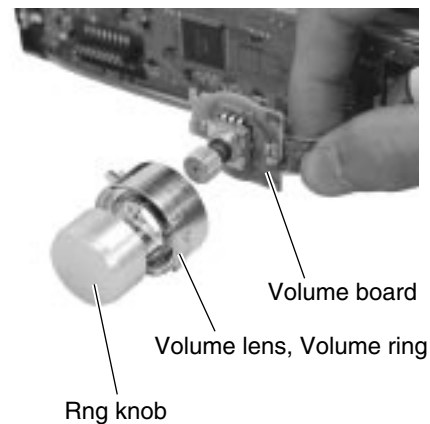


Fig.26

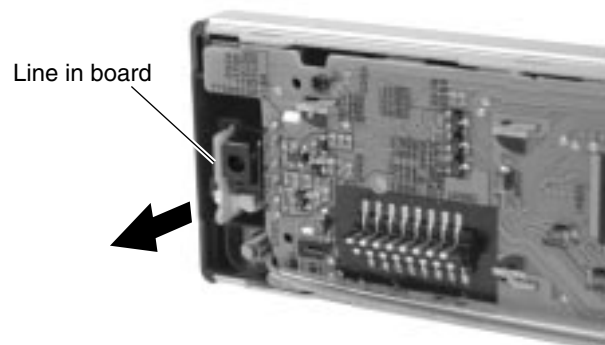


Fig.27

### <CD mechanism section>

#### ■ Removing the CD mechanism control board (See Fig.1 and 2)

1. Unsolder the part **a** and **b** on the CD mechanism control board.
2. Remove the stator fixing the CD mechanism control board and the damper bracket (To remove the stator smoothly, pick up the center part).
3. Remove the screw **A** attaching the CD mechanism control board.
4. Remove the CD mechanism control board in the direction of the arrow while releasing it from the two damper bracket slots **d** and the front bracket slot **e**.
5. Disconnect the flexible wire from connector on the pickup unit.

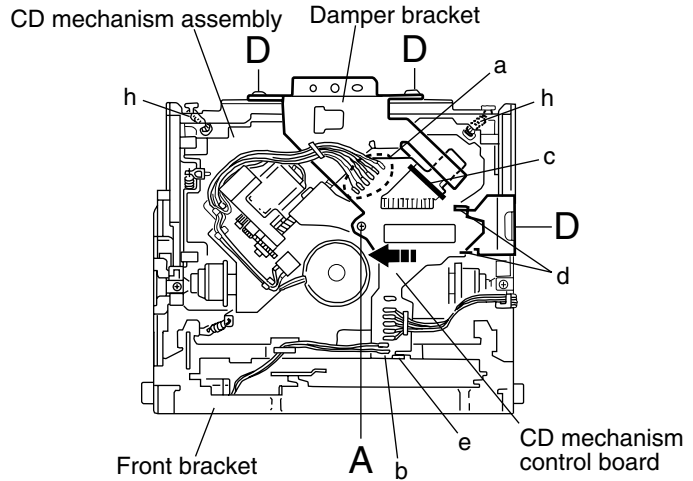


Fig.1

**ATTENTION:** Turn the FD gear in the direction of the arrow to move the entire pickup unit to the appropriate position where the flexible wire of the CD mechanism unit can be disconnected easily.  
(Refer to Fig.2)

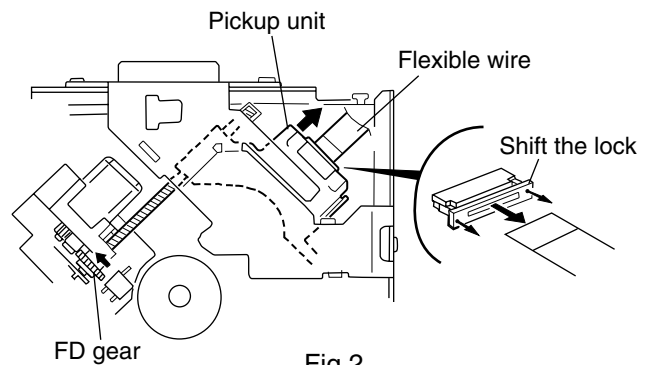


Fig.2

#### ■ Removing the loading motor (See Fig.3 to 5)

- Prior to performing the following procedure, remove the CD mechanism control board.
1. Remove the two springs **f** attaching the CD mechanism assembly and the front bracket.
  2. Remove the two screws **B** and the front bracket while pulling the flame outward.
  3. Remove the belt and the screw **C** from the loading motor.

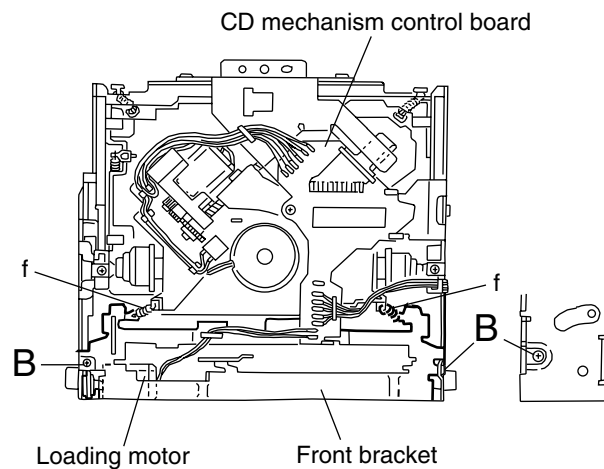


Fig.3

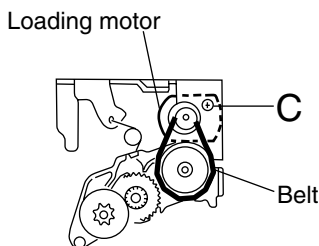


Fig.5

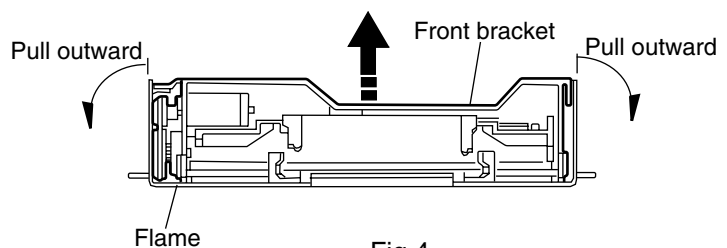


Fig.4

**■ Removing the CD mechanism assembly  
(See Fig.1, 6 to 9)**

• Prior to performing the following procedure, remove the CD mechanism control board and the front bracket (loading motor).

1. Remove the three screws **D** and the damper bracket.
2. Raise the both sides fix arms and move the fix plates in the direction of the arrow to place the four shafts **g** as shown in Fig.8 and 9.
3. Remove the CD mechanism assembly and the two springs **h** attaching the flame.
4. Remove the two screws **E** and both sides rear damper brackets from the dampers. Detach the CD mechanism assembly from the left side to the right side.

**ATTENTION:** The CD mechanism assembly can be removed if only the rear damper bracket on the left side is removed.

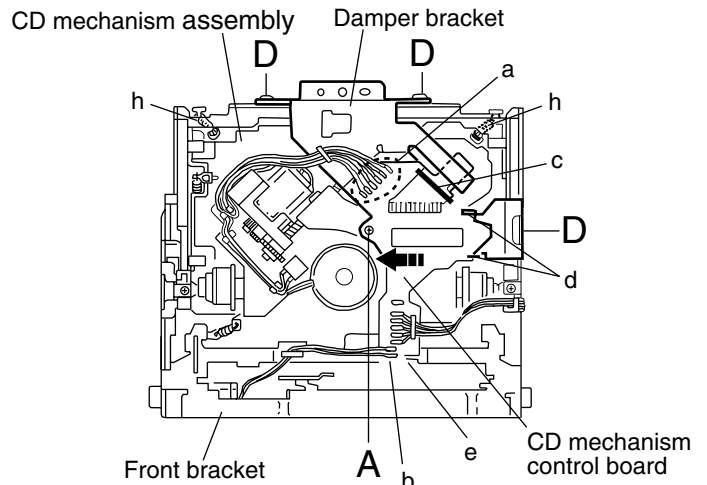


Fig.1

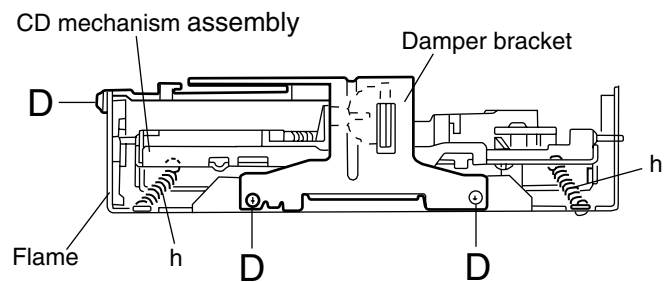


Fig.6

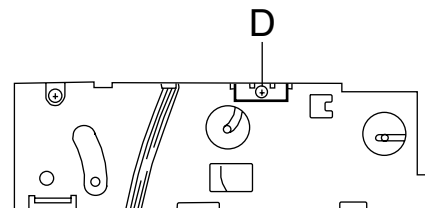


Fig.7

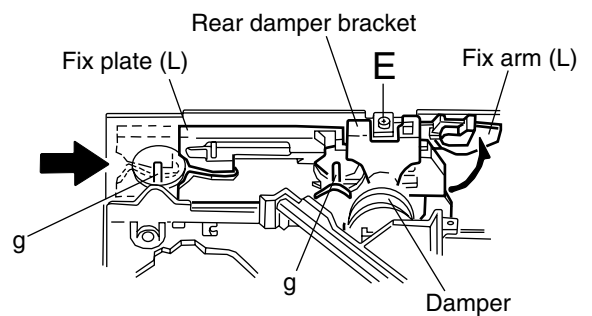


Fig.8

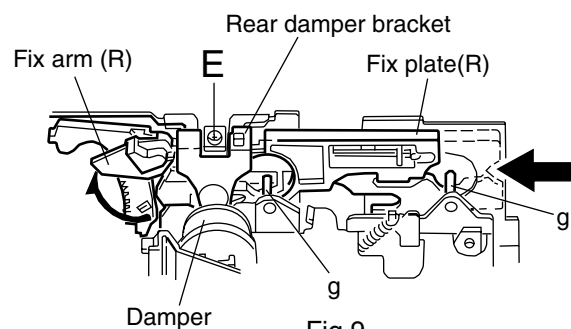


Fig.9

**■ Removing the feed motor assembly**  
(See Fig.10)

• Prior to performing the following procedure, remove the CD mechanism control board, the front bracket (loading motor) and the CD mechanism assembly.

1. Remove the two screws **F** and the feed motor assembly.

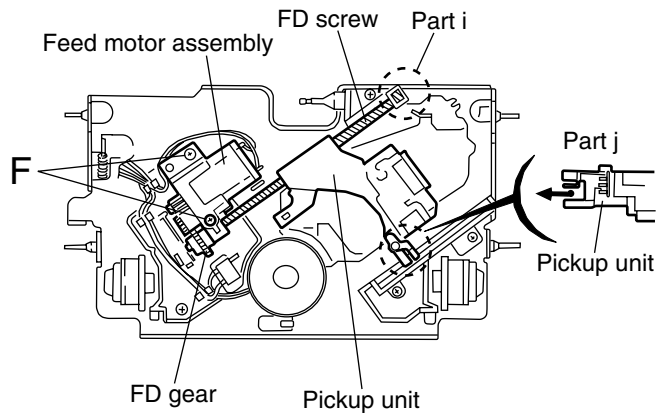


Fig.10

**■ Removing the pickup unit**  
(See Fig.10 and 11)

• Prior to performing the following procedure, remove the CD mechanism control board, the front bracket (loading motor), the CD mechanism assembly and the feed motor assembly.

1. Detach the FD gear part of the pickup unit upward. Then remove the pickup unit while pulling out the part **i** of the FD screw.

ATTENTION: When reattaching the pickup unit, reattach the part **j** of the pickup unit, then the part **i** of the FD screw.

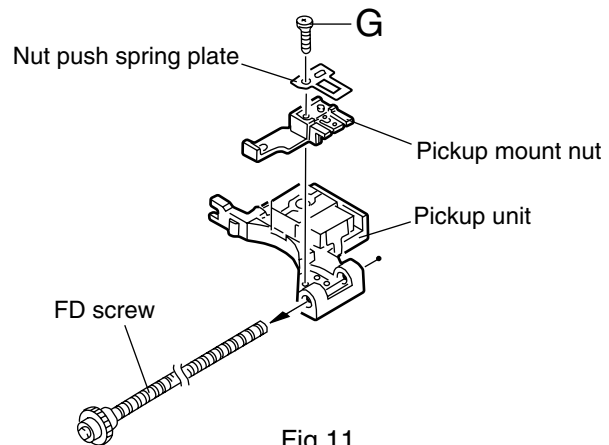


Fig.11

2. Remove the screw **G** attaching the nut push spring plate and the pickup mount nut from the pickup unit. Pull out the FD screw.

**■ Removing the spindle motor**  
(See Fig.12 and 13)

• Prior to performing the following procedure, remove the CD mechanism control board, the front bracket (loading motor), the CD mechanism assembly and the feed motor assembly.

1. Turn up the CD mechanism assembly and remove the two springs **k** on both sides of the clamber arms. Open the clamber arm upward.
2. Turn the turn table, and remove the two screws **H** and the spindle motor.

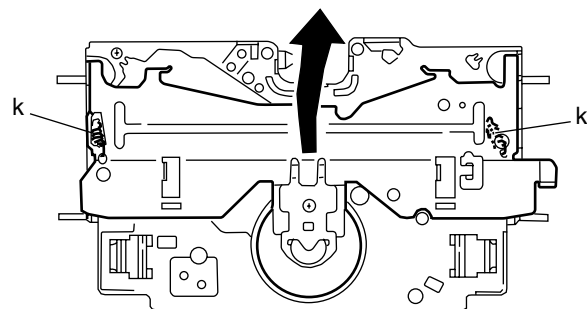


Fig.12

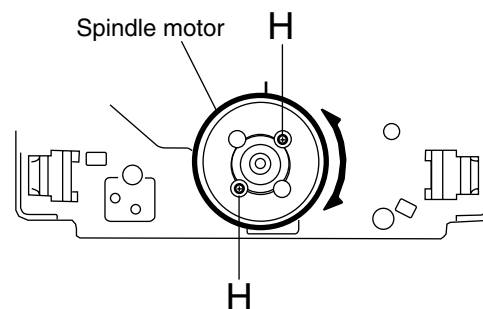


Fig.13

## Adjustment method

### ■ Test instruments required for adjustment

1. Digital oscilloscope (100MHz)
2. AM Standard signal generator
3. FM Standard signal generator
4. Stereo modulator
5. Electric voltmeter
6. Digital tester
7. Tracking offset meter
8. Test Disc JVC :CTS-1000
9. Extension cable for check  
EXTGS004-26P × 1

### ■ Standard measuring conditions

- Power supply voltage DC14.4V(10.5~16V)  
 Load impedance 20Kohm(2 Speakers connection)  
 Output Level KD-SH77R Line out 4.0V (Vol. MAX)  
 KD-SH55R Line out 2.0V (Vol. MAX)

### ■ How to connect the extension cable for adjusting

### ■ Standard volume position

- Balance and Bass & Treble volume : Indication "0"  
 Loudness : OFF  
 BBE : OFF

### ■ Frequency Band

- FM 87.5MHz ~ 108.0MHz  
 MW 522kHz ~ 1620 kHz  
 LW 144kHz ~ 279kHz

### ■ Dummy load

- Exclusive dummy load should be used for AM, and FM. For FM dummy load, there is a loss of 6dB between SSG output and antenna input. The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

**<ERROR CODE of Panel mechanism>**

Memory to EEPROM of 6 digits, 1st and 2nd digit are indicate the operation mode when occur the error, 3rd to 6th digit are indicate details of error.

LCD indication time is use lower 2digits of details of error.

This series is indicate **ERR XX** (XX is error code).

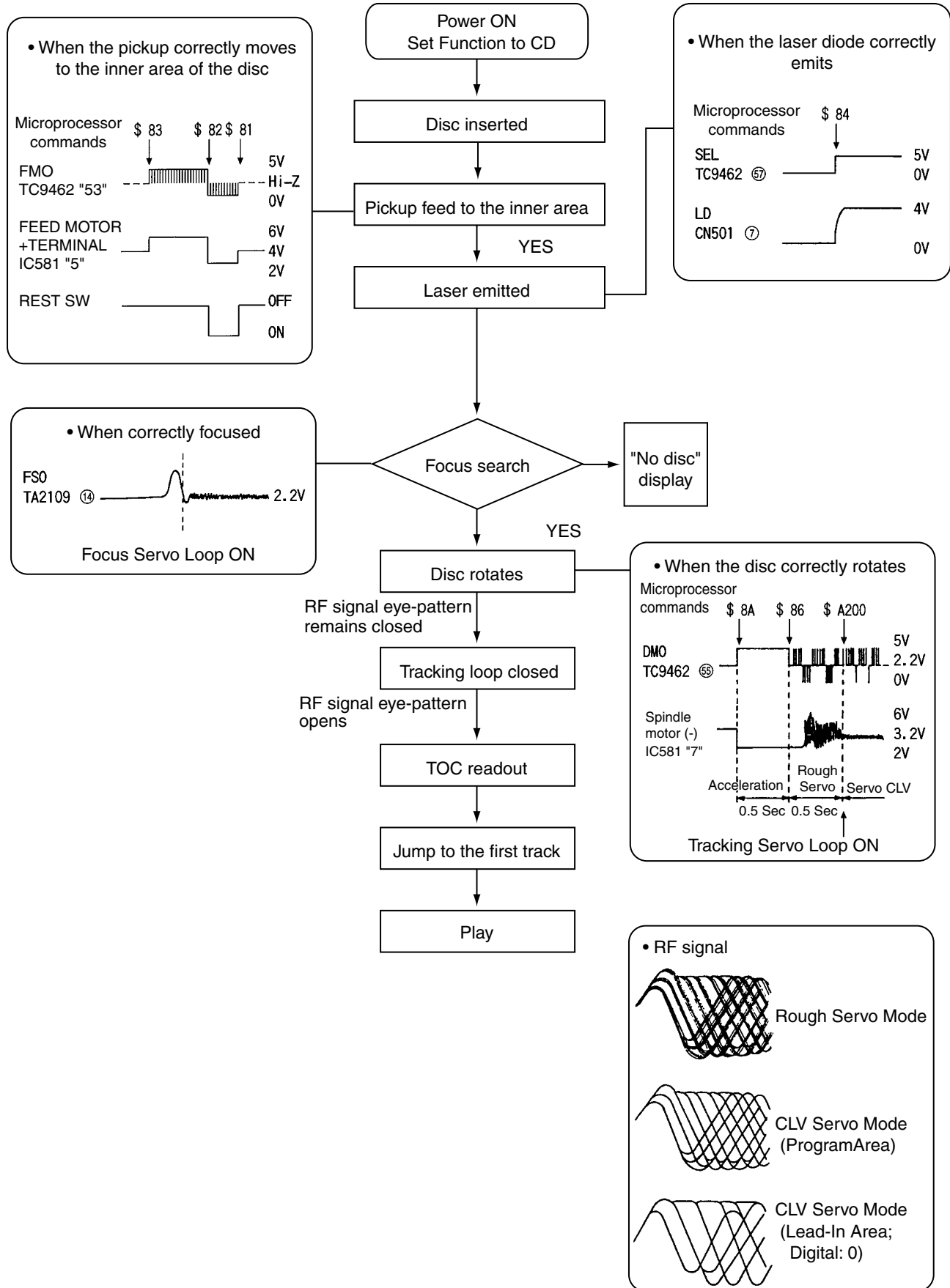
<ex.> When details of error is 0A0001 , it is indicate **ERR 01**, details of error is 0E0031 , it is **ERR 31**.

Switch is from this side sequentially PSW1, PSW2,.....PSW6.

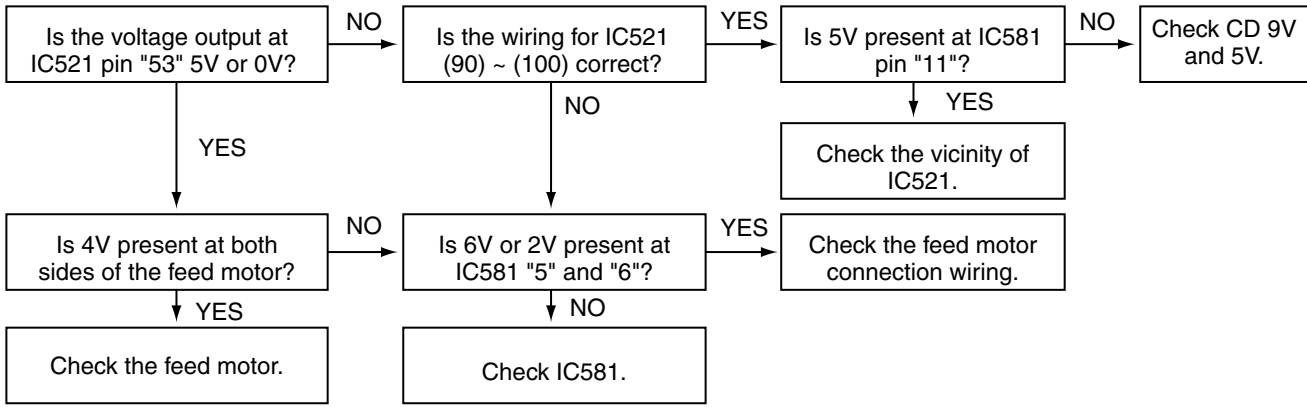
Details of error	Error code
<b>1. Error of door open (fault of PSW1)</b>	
(1) Time out by PSW1 not changed	0A0001
(2) PSW1 change during waiting 300ms after open position detected	0A0002
<b>2. Error of door close (fault of PSW6)</b>	
(1) Time out by PSW6 not changed	0B0006
(2) PSW6 change during waiting 300ms after close position detected	0B0007
<b>3. Error of shift to DETACH position (fault of PSW5)</b>	
(1) Time out by PSW5 not changed to open side	0C0011
(2) Shift to open side, pass the DETACH position then detect ANGLE1	0C0012
(3) Time out by PSW5 not changed to close side	0C0013
(4) Shift to close side, pass the DETACH position then detect close position	0C0014
<b>4. Error of angle adjustment</b>	
<b>4-1 Shift to ANGLE1 (fault of PSW4)</b>	
(1) Time out by PSW4 not changed to shift for open side	0D0021
(2) Shift to open side, pass the ANGLE1 then detect ANGLE2	0D0022
(3) Time out by PSW4 not changed to shift for close side	0D0023
(4) Shift to close side, pass the ANGLE1 then detect DETACH position	0D0024
<b>4-2 Shift to ANGLE2 (fault PSW3)</b>	
(1) Time out by PSW3 not change to shift for open side	0E0031
(2) Shift to open side, pass the ANGLE2 then detect ANGLE3	0E0032
(3) Time out by PSW3 not changed to shift for close side	0E0033
(4) Shift to close side, pass the ANGLE2 then detect ANGLE1	0E0034
<b>4-3 Shift to ANGLE3 (fault PSW2)</b>	
(1) Time out by PSW2 not changed to shift for open side	0F0041
(2) Shift to open side, pass the ANGLE3 then detect OPEN position	0F0042
(3) Time out by PSW2 not changed for shift for close side	0F0043
(4) Shift to close side, pass the ANGLE3 then detect ANGLE2	0F0044
<b>5. PSW fault condition at initialize</b>	
When all PSW is checked immediately after RESET, and the state of SWITCH which cannot be originally is detected, it is displayed as ERR 00.	000000



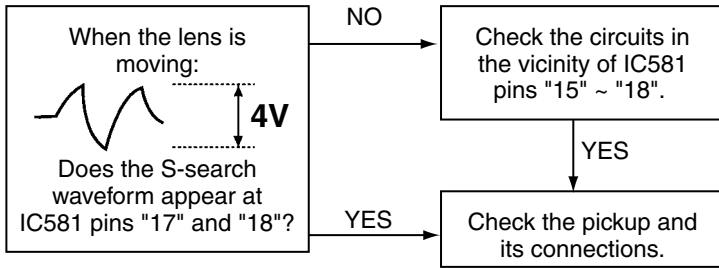
# Flow of functional operation until TOC read



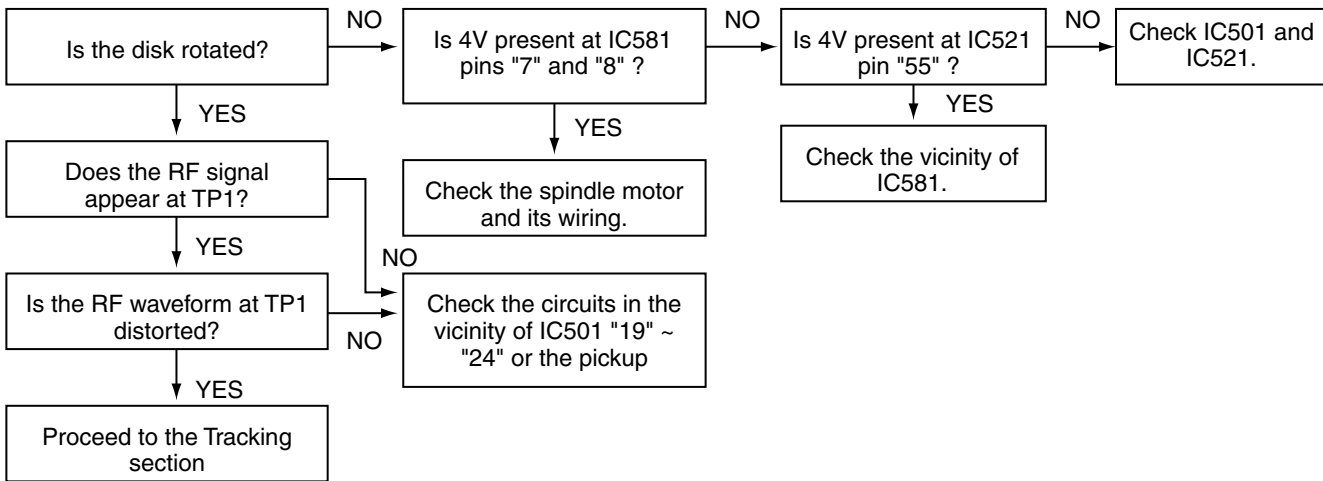
**Feed Section**



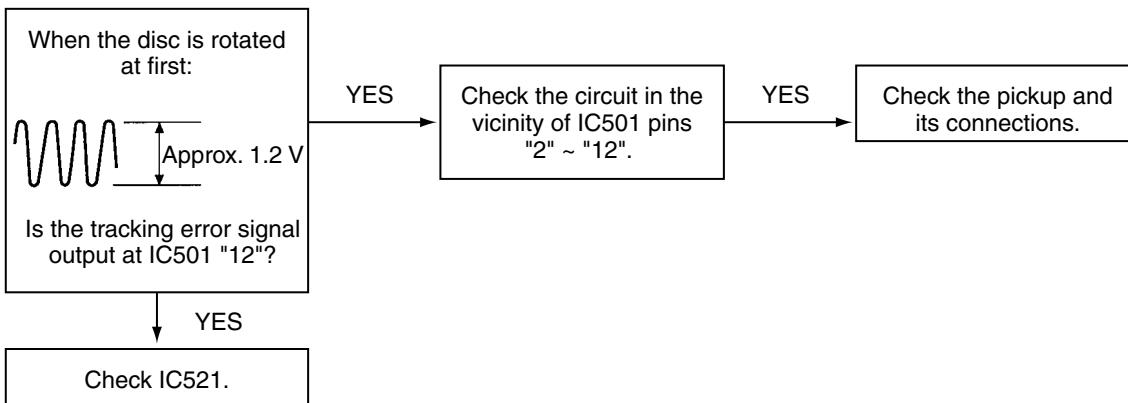
**Focus Section**



**Spindle Section**

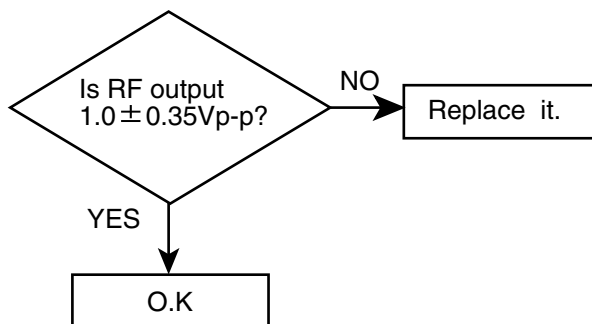


**Tracking Section**



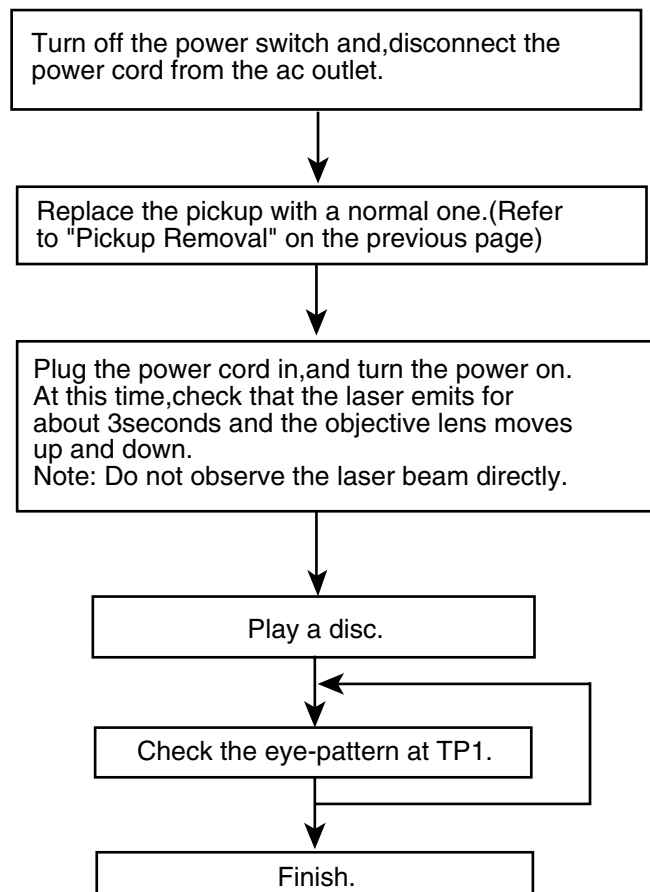
## Maintenance of laser pickup

- (1) Cleaning the pick up lens  
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.
- (2) Life of the laser diode  
When the life of the laser diode has expired, the following symptoms will appear.  
(1) The level of RF output (EFM output:amplitude of eye pattern) will be low.



- (3) Semi-fixed resistor on the APC PC board  
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.  
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.  
If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

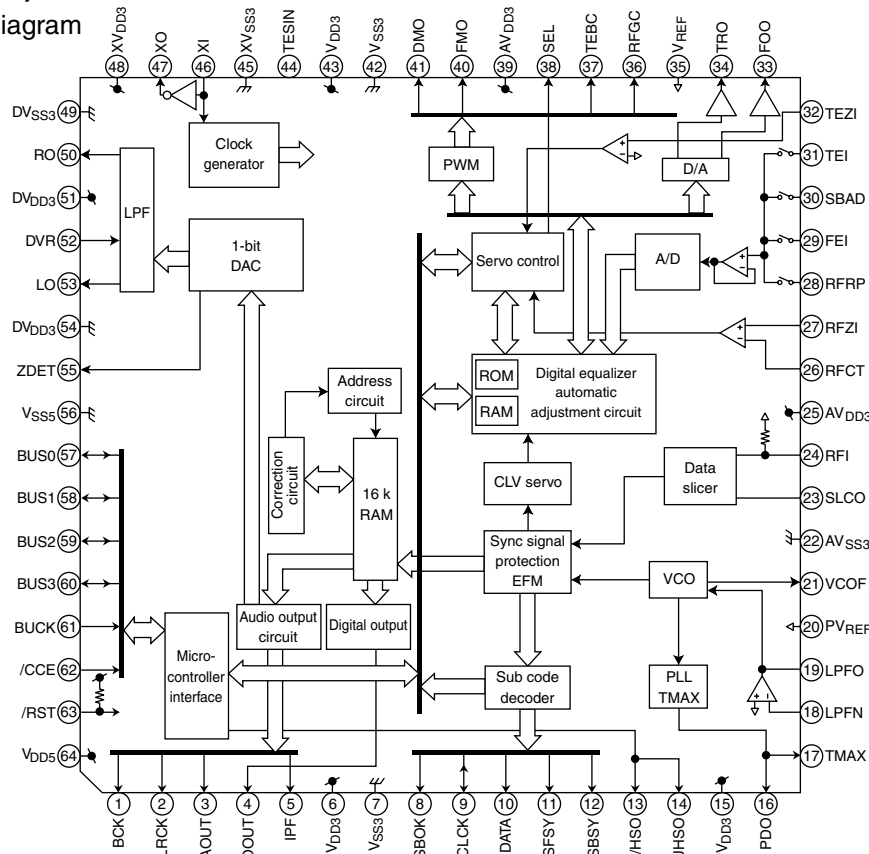
## Replacement of laser pickup



# Description of major ICs

## ■ TC9490FA (IC621) : DSP

### 1. Pin layout & Block diagram



### 2. Pin function (1/2)

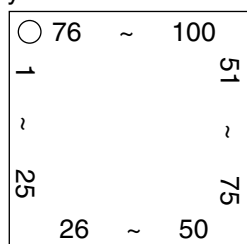
No.	Symbol	I/O	Function
1	BCK	O	Bit clock output pin. 32fs, 48fs, or 64fs selectable by command.
2	LRCK	O	L/R channel clock output pin. "L" for L channel and "H" for R channel.
3	AOUT	O	Audio data output pin. MSB-first or LSB-first selected by command.
4	DOUT	O	Digital data output pin. Outputs up to double-speed playback.
5	IPF	O	Correction flog output pin.
6	VDD3	-	Digital 3.3V power supply voltage pin.
7	VSS3	-	Digital GND pin.
8	SBOK	O	Subcode Q data CRCC result output pin. "H" level when result is OK.
9	CLCK	I/O	Sub-code P-W data read clock I/O pin. I/O polarity selectable by command.
10	DATA	O	Sub-code P-W data output pin.
11	SFSY	O	Playback frames sync signal output pin.
12	SBSY	O	Sub-code block sync output pin.
13	/HSO	O	Playback speed mode flag output pin.
14	/UHSO	O	Playback speed mode flag output pin.
15	PVDD3	-	PLL-only 3.3V power supply voltage pin.
16	PDO	O	EFM and PLCK phase difference signal output pin.
17	TMAX	O	TMAX detection result output pin.
18	LPFN	I	Inverted input pin for PLL RF amp.
19	LPFO	O	Output pin for PLL LPF amp.
20	PVREF	-	PLL-only VREF pin.
21	VCOF	O	VCO filter pin.
22	AVSS3	-	Analog GND pin.
23	SLCO	O	DAC output pin for data slice level generation.
24	RFI	I	RF signal input pin.
25	AVSS3	-	Analog 3.3V power supply voltage pin.

## 2. Pin function (2/2)

No.	Symbol	I/O	Function
26	RFCT	I	RFRP signal center level input pin.
27	RFZI	I	RFRP signal zero-cross input pin.
28	RFRP	I	RF ripple signal input pin.
29	FEI	I	Focus error signal input pin.
30	SBADTEI	I	Sub-beam adder signal input pin.
31	TEI	I	Tracking error input pin. Inputs when tracking servo is on.
32	TEZI	I	Tracking error signal zero-cross input pin.
33	FOO	O	Focus equalizer output pin.
34	TRO	O	Tracking equalizer output pin.
35	VREF	-	Analog reference power supply voltage pin.
36	RFGC	O	RF amplitude adjustment control signal output pin.
37	TEBC	O	Tracking balance control signal output pin.
38	SEL	O	APC circuit ON/OFF signal output pin.
39	AVDD3	-	Analog 3.3V power supply voltage pin.
40	FMO	O	Feed equalizer output pin.
41	DMO	O	Disc equalizer output pin.
42	VSS3	-	Digital GND pin.
43	VDD3	-	Digital 3.3V power supply voltage pin.
44	TESIN	I	Test input pin.
45	XVSS3	-	System clock oscillator GND pin.
46	XI	I	System clock oscillator input pin.
47	XO	O	System clock oscillator output pin.
48	XVDD3	-	System clock oscillator 3.3V power supply voltage pin.
49	DVSS3	-	DA converter GND pin.
50	RO	O	R-channel data forward output pin.
51	DVDD3	-	DA converter 3.3V power supply pin.
52	DVR	-	Reference voltage pin.
53	LO	O	L-channel data forward output pin.
54	DVSS3	-	DC converter GND pin.
55	ZDET	O	1 bit DA converter zero data detection flag output pin.
56	VSS5	-	Microcontroller interface GND pin.
57	BUS0	I/O	Microcontroller interface data I/O pins.
58	BUS1	I/O	Microcontroller interface data I/O pins.
59	BUS2	I/O	Microcontroller interface data I/O pins.
60	BUS3	I/O	Microcontroller interface data I/O pins.
61	BUCK	I	Microcontroller interface clock input pin.
62	/CCE	I	Microcontroller interface chip enable signal input pin.
63	/RST	I	Reset signal input pin.
64	VDD5	-	Microcontroller interface 5V power supply pin.

## ■ UPD784217AGC134 (IC701) : CPU

### 1. Pin layout



### 2. Pin function (1/2)

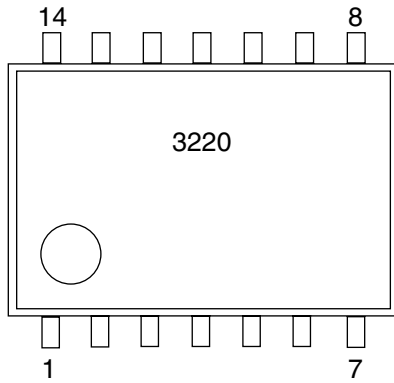
Pin No.	Symbol	I/O	Function
1	SW2	I	CD mecha switch 2 detection signal input
2	SW3	I	CD mecha switch 3 detection signal input
3	SW4	I	CD mecha switch 4 detection signal input
4	REST-SW	I	Rest switch detection signal input
5	LM0	O	Loading side motor control signal output
6	LM1	O	Eject side motor control signal output
7	NC	O	Non connect
8	ANT REM	O	Antenna remote output
9	VDD	-	5V connection
10	X2	-	Connect to X'tal for main clock
11	X1	-	Connect to X'tal for main clock
12	VSS	-	Connect to GND
13	XT2	-	Connect to X'tal for sub clock
14	XT1	-	Connect to X'tal for sub clock
15	RESET	I	Reset detection terminal
16	SW1	I	CD mecha switch 1 detection signal input
17	BUS-INT	I	J-BUS signal interrupt input
18	PS2	I	Power save 2
19	NC	-	Non connect
20	RDS-SCK	I	RDS clock signal input
21	RDS_DA	I	RDS data input
22	REMOCON	I	Remocon signal input
23	AVDD	-	5V connect
24	AVREF0	-	5V connect
25	SD/ST	I	Station detector, Stereo signal input
26	MRC DATA	I	MRC data input
27	KEY0	I	Key input 0
28	KEY1	I	Key input 1
29	TEMP	I	Temperature data input for contrast correction
30	LEVEL	I	Level meter input
31	SQ	I	S.Quality level input
32	SM	I	S.meter level input
33	AVSS	-	Connect to GND
34	INLOCK	O	Lock detection output
35	NC	-	Non connect
36	AVREF	-	5V connect
37	BUS-SI	I	J-BUS data input
38	BUS-SO	O	J-BUS data output
39	BUS-SCK	I/O	J-BUS clock input/output
40	STAGE	I	H:SH77, L:SH55
41	LCD-DA	O	Data output for LCD driver
42	LCD-SCK	O	Clock output for LCD driver
43	LCD-CE	O	Chip enable output for LCD driver

## 2. Pin function (2/2)

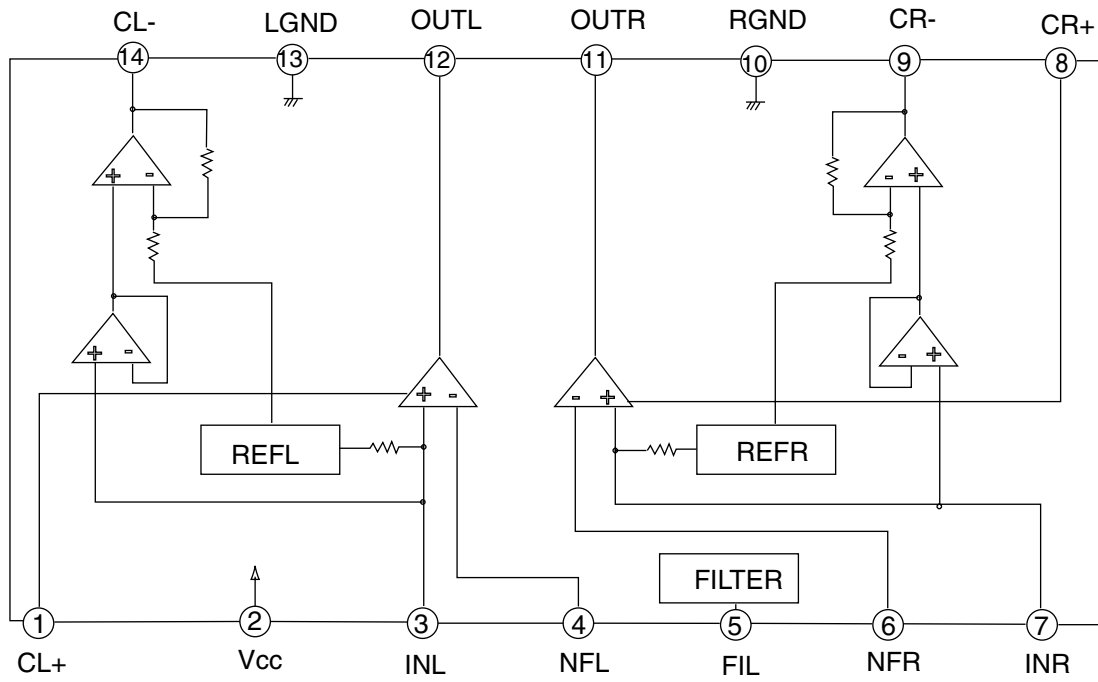
Pin No.	Symbol	I/O	Function
44	BUZZER	O	Buzzer output
45	I2C-DAI	I	I2C data input
46	I2C-DAO	O	I2C data output
47	I2C-CLK	O	I2C clock output
48	BUS-I/O	O	J-BUS I/O switching output
49	PM0	O	Panel close side motor control signal output
50	PM1	O	Panel open side motor control signal output
51	DACML	O	DAC mode control latch
52	DACMC	O	DAC mode control clock
53	DACMD	O	DAC mode control data
54	DETACH	I	Detach signal input
55	VCR CONT	O	VCR control signal output
56~61	PNL-SW1~6	I	Panel position detection switch 1 to 6 signal input
62	AFCK	O	AF check output
63	SEEK/STOP	O	Auto seek / Stop switching output
64	S MUTE	O	Soft mute output for CF switching noise
65	FM/AM	O	FM / AM select output
66	PLL-CE	O	PLL IC control CE output
67	PLL-DO	O	PLL IC control data output
68	PLL-CLK	O	PLL IC control clock output
69	PLL-DI	I	PLL IC control data input
70	TEL-MUTE	-	Telephone mute detection input
71	AMP-KILL	O	Power amp ON /OFF select output
72	VSS	-	Connect to GND
73	DIM-IN	I	Dimmer detection input
74	PS1	I	Power save 1
75	POWER	O	Power ON / OFF select output
76	CD-ON	O	CD power supply control signal output
77	MUTE	O	Mute output
78	W-LPF1	O	Sub woofer cut off frequency control output 1
79	W-LPF2	O	Sub woofer cut off frequency control output 2
80	W-MUTE	O	Sub woofer mute output
81	VDD	O	5V connect
82	VOL-DA	O	E. volume IC control data output
83	VOL-CLK	O	E. volume IC control clock data output
84	CF SEL	O	FM band area filter select signal output
85	PMKICK	O	Panel motor kick signal output
86	EMPH	O	CD emphasis output
87	CS	O	DAC chip select
88	VOL-1	I	Rotary volume pulse
89	VOL-2	I	Rotary volume pulse signal input
90	NC	-	Non connect
91	BUCK	O	Data communication clock output with CD LSI
92	CCE	O	Data communication CE output with CD LSI
93	LSIRST	O	CD LSI reset signal output
94	TEST	-	Connect to GND
95	BUS0	I/O	Data communication input/output port 0 with CD LSI
96	BUS1	I/O	Data communication input/output port 1 with CD LSI
97	BUS2	I/O	Data communication input/output port 2 with CD LSI
98	BUS3	I/O	Data communication input/output port 3 with CD LSI
99	DISCSEL	I	H: 8 cm disc non correspondence L: 8 cm disc correspondence
100	CD-RW	O	CD-RW select signal output

■ BA3220FV-X (IC301,IC401) : Line out amp

1.Pin layout



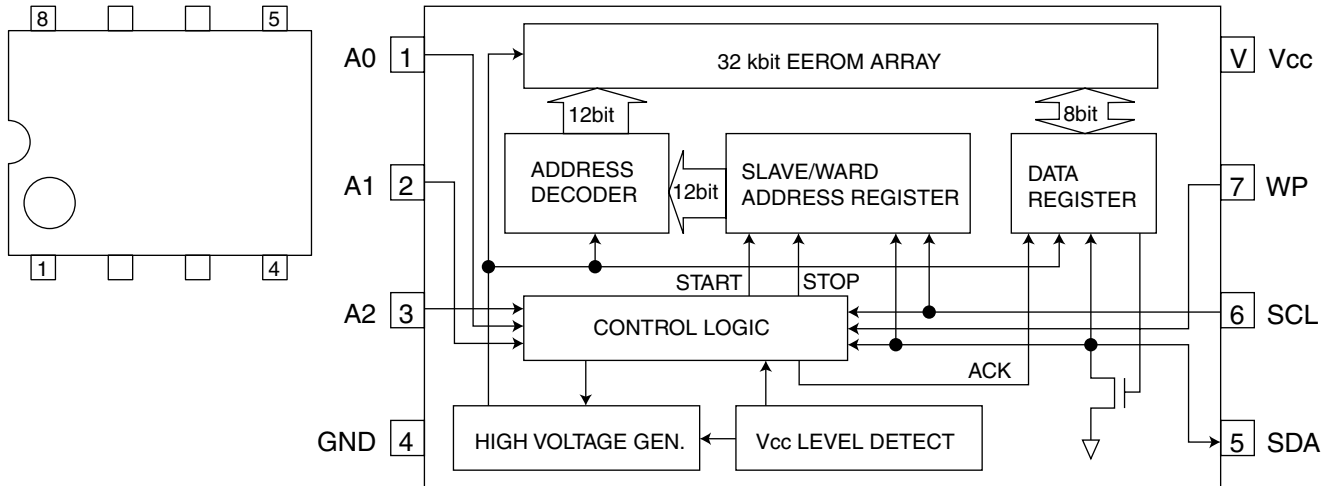
2.Block diagram





■ BR24C32F-X (IC703) : EEPROM

2. Block diagram

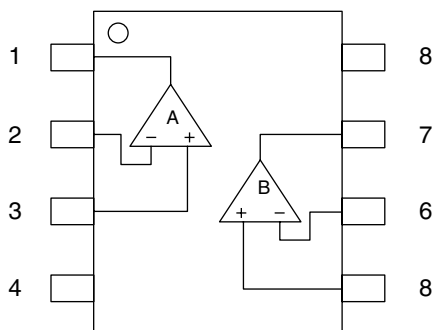


3. Pin function

Pin No.	Symbol	I/O	Function
1	A0	I	Slave address set
2	A1	I	Slave address set
3	A2	I	Slave address set
4	GND	-	Ground
5	SDA	I/O	Slave & Word address, Serial data input/Serial address output
6	SCL	I	Serial clock input
7	WP	I	Write protect input
8	Vcc	-	Power supply

■ NJM4580V-X (IC671) : Ope amp

1. Pin layout & Block diagram

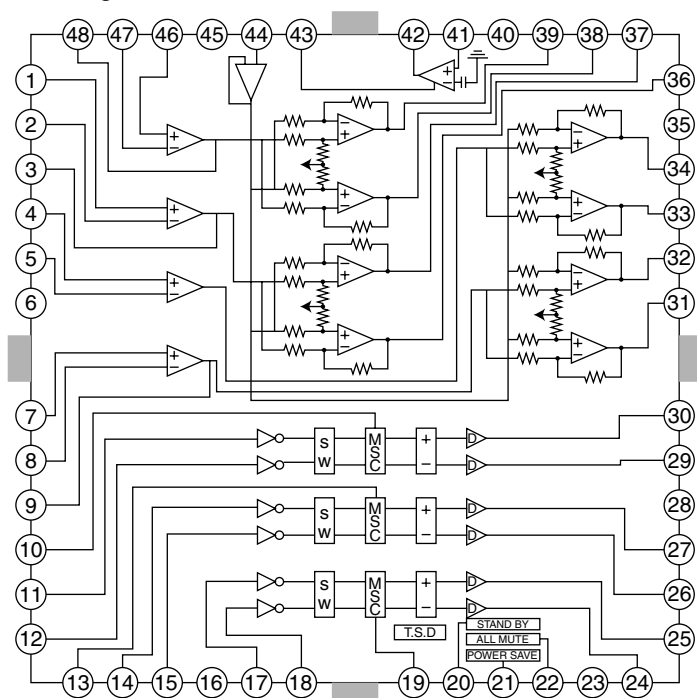


2. Pin function

Pin No.	Function
1	A output
2	A -input
3	A +input
4	V-
5	B +input
6	B -input
7	B output
8	V+

## ■ FAN8037 (IC661) : CD driver

### 1. Pin layout & Block diagram

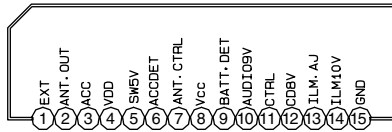


### 2. Pin function

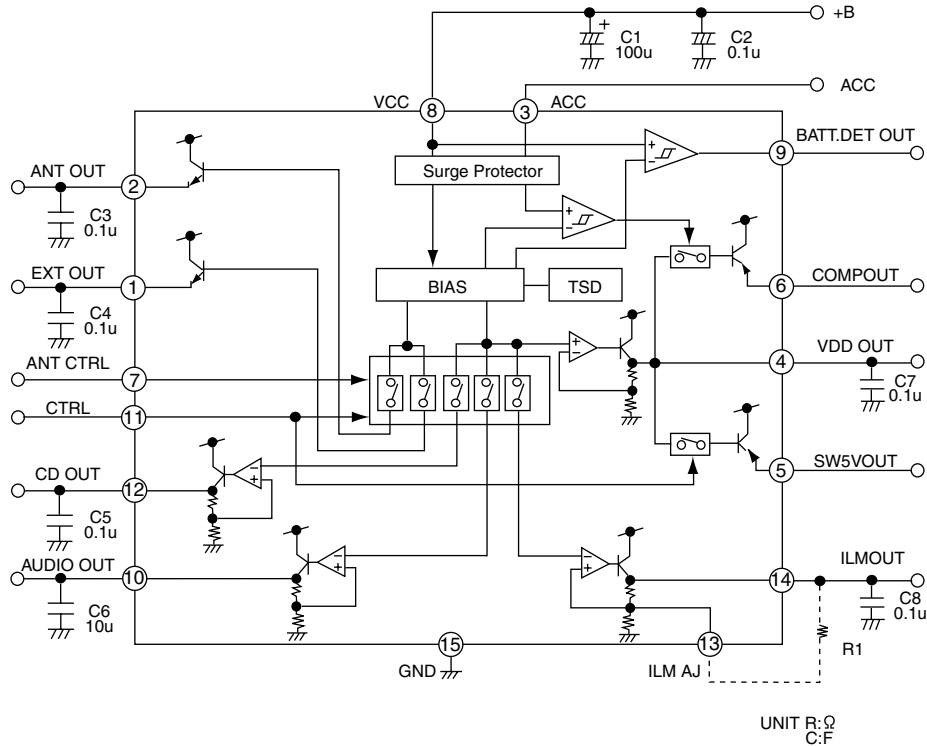
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	IN2+	I	CH2 op-amp input(+)	25	DO7+	O	CH7 drive output(+)
2	IN2-	I	CH2 op-amp input(-)	26	DO6-	O	CH6 drive output(-)
3	OUT2	O	CH2 op-amp output	27	DO6+	O	CH6 drive output(+)
4	IN3+	I	CH3 op-amp input(+)	28	PGND2	-	Power ground2
5	IN3-	I	CH3 op-amp input(-)	29	DO5-	O	CH5 drive output(-)
6	OUT3	O	CH3 op-amp output	30	DO5+	O	CH5 drive output(+)
7	IN4+	I	CH4 op-amp input(+)	31	DO4-	O	CH4 drive output(-)
8	IN4-	I	CH4 op-amp input(-)	32	DO4+	O	CH4 drive output(+)
9	OUT4	O	CH4 op-amp output(+)	33	DO3-	O	CH3 drive output(-)
10	CTL1	I	CH5 motor speed control	34	DO3+	O	CH3 drive output(+)
11	FWD1	I	CH5 forward input	35	PGND1	-	Power ground1
12	REV1	I	CH5 reverse input	36	DO2-	O	CH2 drive output(-)
13	CTL2	I	CH6 motor speed control	37	DO2+	O	CH2 drive output(+)
14	FWD2	I	CH6 forward input	38	DO1-	O	CH1 drive output(-)
15	REV2	I	CH6 reverse input	39	DO1+	O	CH1 drive output(+)
16	SGND	-	Signal ground	40	PVCC1	-	Power supply voltage
17	FWD3	I	CH7 forward input	41	REGOX	I	Regulator feedback input
18	REV3	I	CH7 reverse input	42	REGX	O	Regulator output
19	CTL3	I	CH7 motor speed control	43	RESX	I	Regulator reset input
20	SB	I	Stand by	44	VREF	I	Bias voltage input
21	PS	I	Power save	45	SVCC	-	Signal supply voltage
22	MUTE	I	All mute	46	IN1+	I	CH1 op-amp input(+)
23	PVCC2	-	Power supply voltage	47	IN1-	I	CH1 op-amp input(-)
24	DO7-	O	CH7 drive output(-)	48	OUT1	O	CH1 op-amp output

## HA13164 (IC961) : Regulator

### 1. Terminal layout



### 2. Block diagram



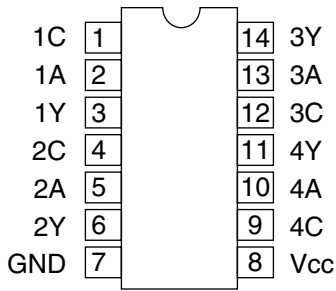
note1) TAB (header of IC)  
connected to GND

### 3. Pin function

Pin No.	Symbol	Function
1	EXTOUT	Output voltage is VCC-1 V when M or H level applied to CTRL pin.
2	ANTOUT	Output voltage is VCC-1 V when M or H level to CTRL pin and H level to ANT-CTRL.
3	ACCIN	Connected to ACC.
4	VDDOUT	Regular 5.7V.
5	SW5VOUT	Output voltage is 5V when M or H level applies to CTRL pin.
6	COMPOUT	Output for ACC detector.
7	ANT CTRL	L:ANT output OFF , H:ANT output ON
8	VCC	Connected to VCC.
9	BATT DET	Low battery detect.
10	AUDIO OUT	Output voltage is 9V when M or H level applied to CTRL pin.
11	CTRL	L:BIAS OFF, M:BIAS ON, H:CD ON
12	CD OUT	Output voltage is 8V when H level applied to CTRL pin.
13	ILM AJ	Adjustment pin for ILM output voltage.
14	ILM OUT	Output voltage is 10V when M or H level applies to CTRL pin.
15	GND	Connected to GND.

■ **HD74HC126FP-X (IC771) : Buffer**

1. Terminal layout

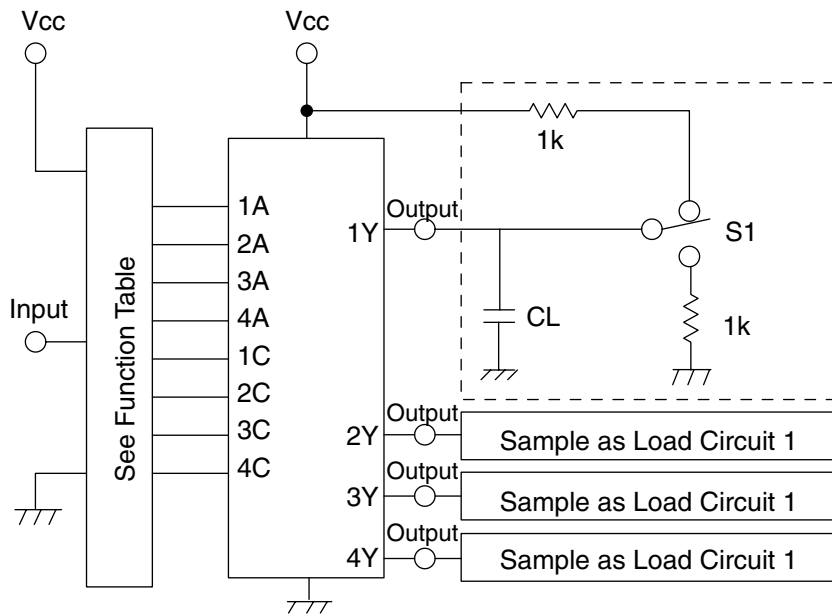


3. Pin function

Input		Output
C	A	Y
L	X	Z
H	L	H
H	H	L

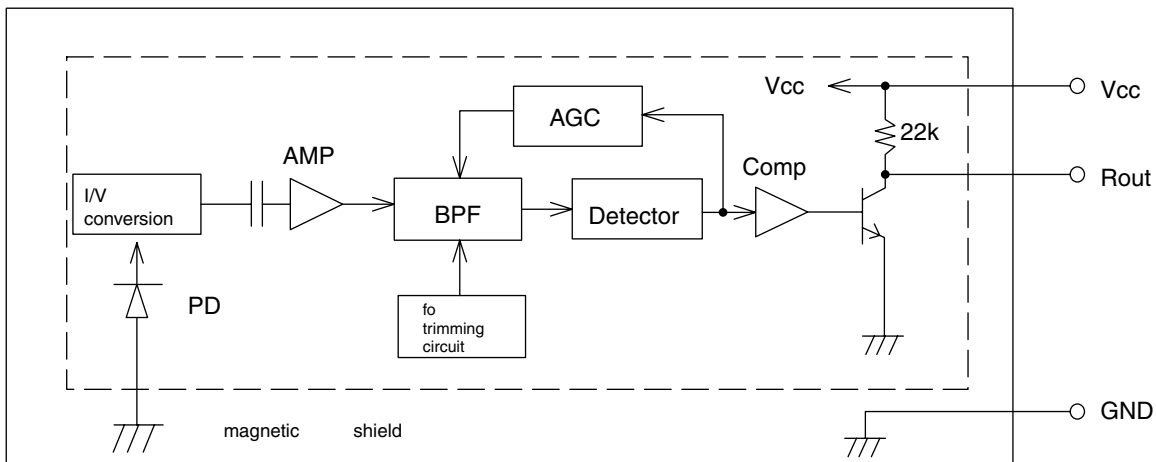
Note: H : High  
 L : Low  
 X : H and L  
 Z : H.L.X

2. Block diagram



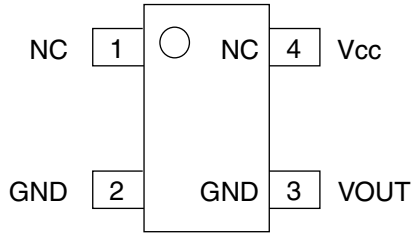
■ **RPM6938-SV4 (IC561) : Remote sensor**

1. Block diagram

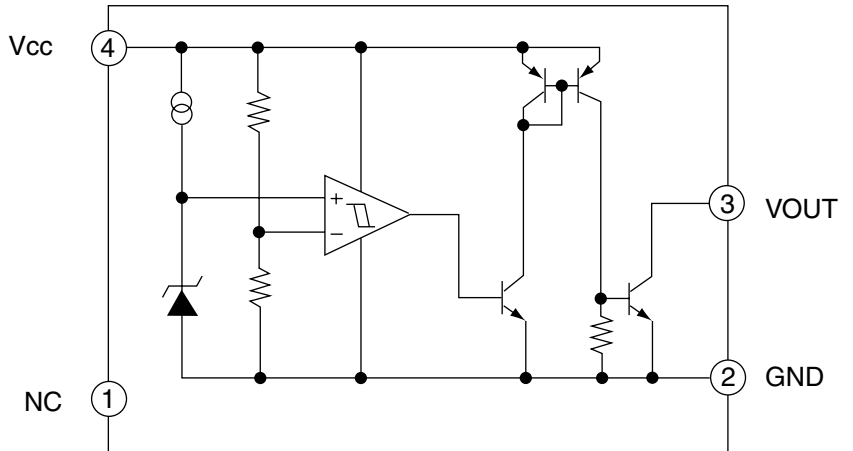


■ IC-PST9333U-X (IC702) : Reset IC

1. Pin layout



2. Block diagram

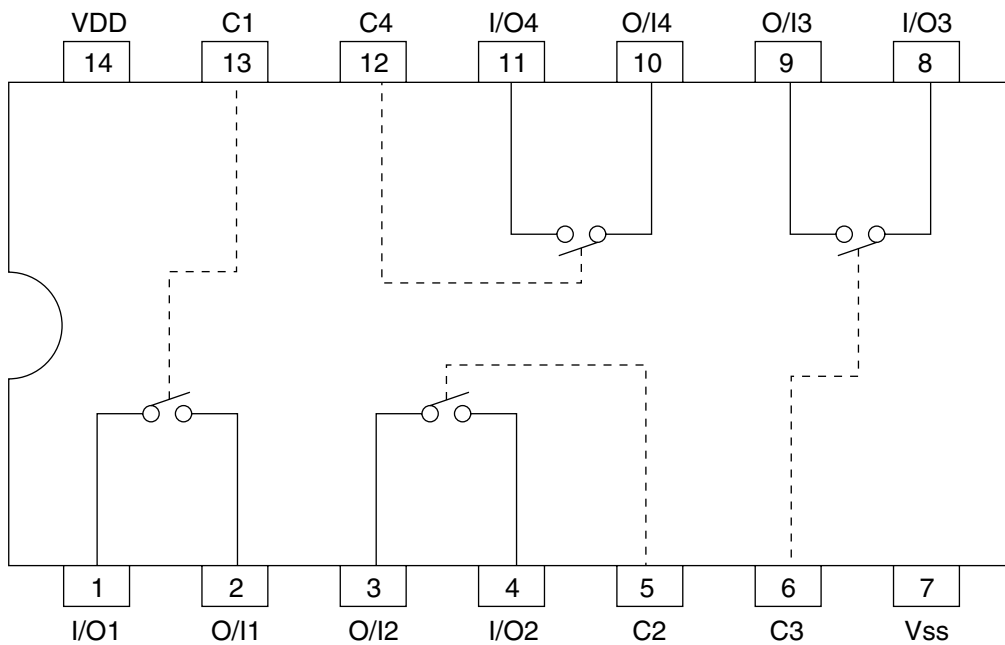


3. Pin function

Pin No.	Symbol	Function
1	NC	Non connect
2	GND	GND terminal
3	VOUT	Reset signal output terminal
4	Vcc	Power supply terminal

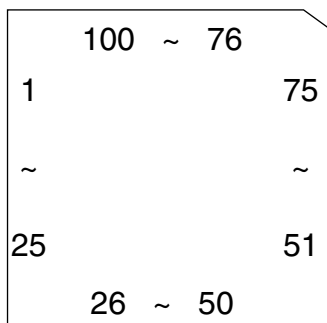
■ BU4066BCFV-X (IC322) : Quad analog switch

1. Pin layout & Block diagram

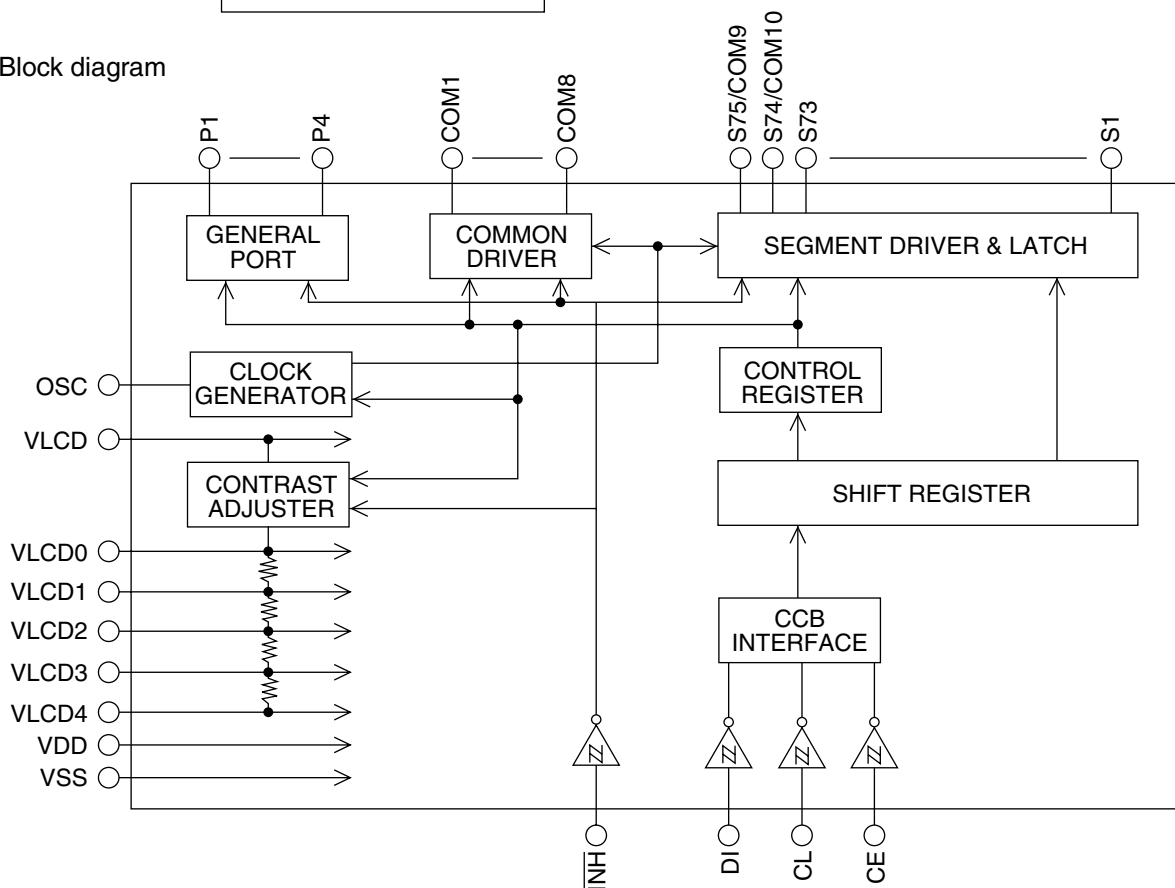


■ LC75878W (IC501) : LCD driver

1. Pin layout



2. Block diagram

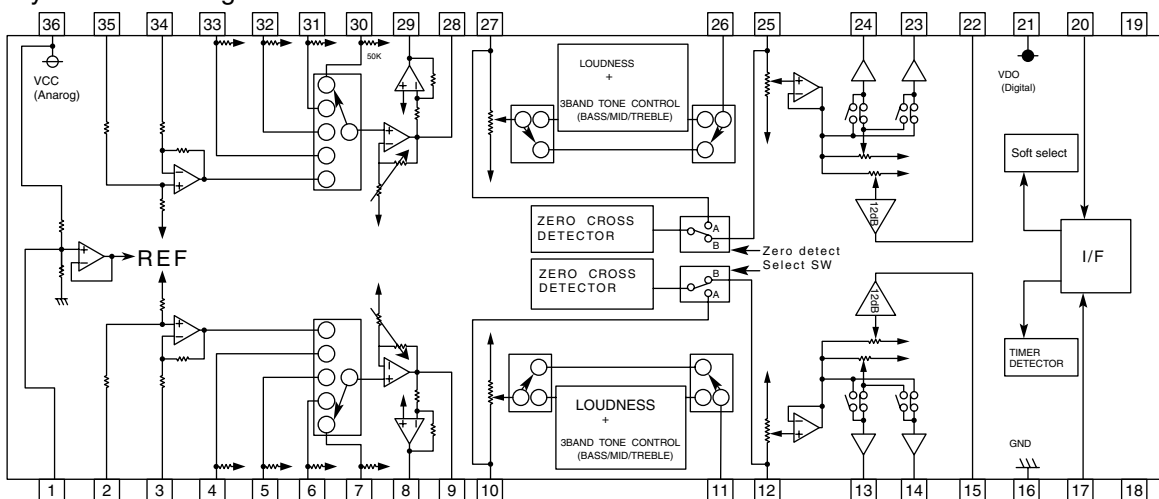


3. Pin function

No.	Symbol	I/O	Function
1~73	S1~S73	O	Segment driver output pin.
74	S74 / COM10	O	Segment driver output pin.
75	S75 / COM9	O	Segment driver output pin.
76~83	COM8~COM1	O	Common driver output pin.
84~87	P1~P4	O	General-purpose output pin.
88	VDD	-	Logic block power supply pin.
89	VLCD	-	LCD driver power supply pin.
90	VLCD0	O	LCD driver bias 4/4 voltage (H-level) power pin.
91	VLCD1	I	LCD driver bias 3/4 voltage (intermediate level) power pin.
92	VLCD2	I	LCD driver bias 2/4 voltage (intermediate level) power pin.
93	VLCD3	I	LCD driver bias 1/4 voltage (intermediate level) power pin.
94	VLCD4	I	LCD driver bias 0/4 voltage (L-level) power pin.
95	VSS	-	Power supply pin to connect to ground.
96	OSC	I/O	Oscillator pin.
97	INH	I	Display off, general-purpose output port 「L」 fixed input pin.
98	CE	I	Chip enable
99	CL	I	Synchronization clock
100	DI	I	Transfer data

■ M61508FP-X (IC911) : E. volume

1. Pin layout & Block diagram

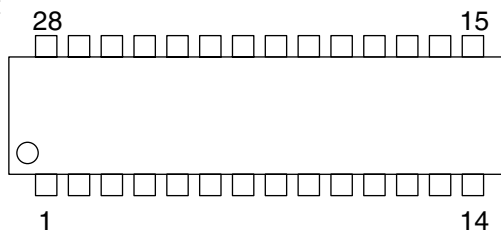


2. Pin function

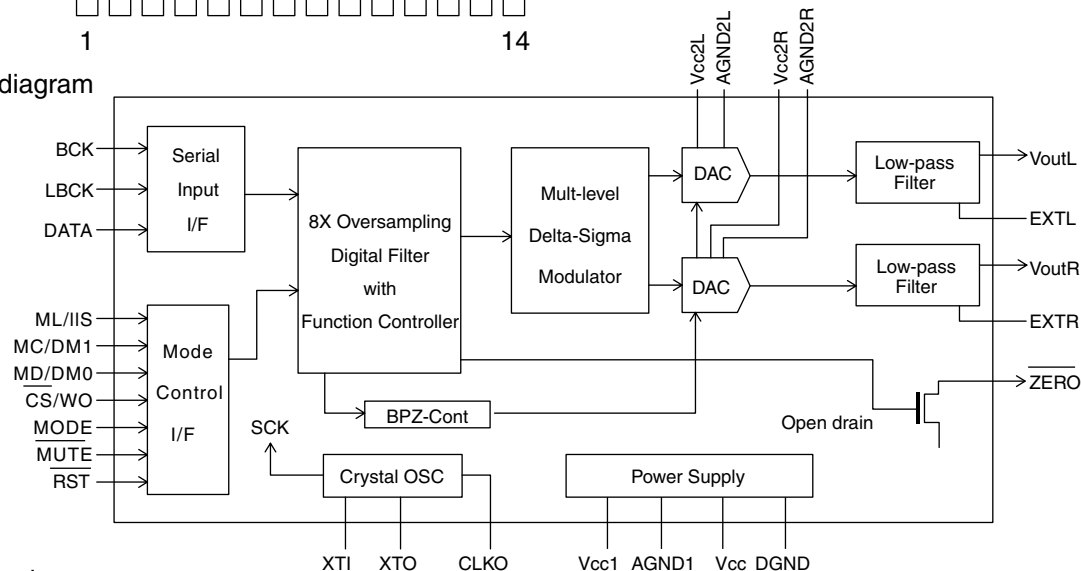
Pin No.	Symbol	Function
1	REF	Grand for IC signal
2	DEFP IN1	Differential motion amp. Positive terminal
3	DEFN IN1	Differential motion amp. Negative terminal
4	INA1	Input terminal of input selector switch channel 1
5	INB1	Input terminal of input selector switch channel 1
6	INC1	Input terminal of input selector switch channel 1
7	IND1	Input terminal of input selector switch channel 1
8	DEFN OUT1	Differential output terminal (-)
9	SEL OUT1	Input selector output terminal
10	VOL IN1	Volume 1 input terminal
11	TONE OUT1	Tone output terminal
12	FADER IN1	Volume 2 input terminal
13	REAR OUT1	Fader volume control (Rear) output terminal
14	FRONT OUT1	Fader volume control (Front) output terminal
15	NonFader OUT1	Non fader volume output terminal
16	GND	GND terminal
17	DATA	Control data input terminal
18	TEST1	Test terminal
19	TEST2	Test terminal
20	CLOCK	Clock input terminal for serial data transport
21	VDD	Power supply terminal for digital
22	NonFader OUT2	Non fader volume control output terminal
23	FRONT OUT2	Fader volume (Front) output terminal
24	REAR OUT2	Fader volume (Rear) output terminal
25	FADER IN2	Volume 2 input terminal
26	TONE OUT2	Tone output terminal
27	VOL IN2	Volume 1 input terminal
28	SEL OUT2	Input selector output terminal
29	DEFN OUT1	Differential output terminal (-)
30	IND2	Input terminal of input selector switch channel 2
31	INC2	Input terminal of input selector switch channel 2
32	INB2	Input terminal of input selector switch channel 2
33	INA2	Input terminal of input selector switch channel 2
34	DEFN IN1	Differential motion amp negative input terminal
35	DEFP IN1	Differential motion amp positive input terminal
36	VCC	Power supply terminal

## ■ PCM1716E-X (IC681) : D/A converter

### 1. Pin layout



### 2. Block diagram



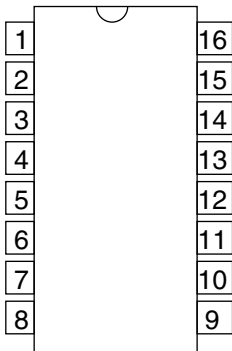
### 3. Pin function

Pin No.	Symbol	I/O	Function
1	LRCK	I	LRCK clock input
2	DATA	I	Serial audio data input
3	BCK	I	Bit clock input for serial audio data
4	CLKO	O	Buffered output of system clock
5	XTI	I	Oscillator input / External clock input
6	XTO	O	Oscillator output
7	DGND	-	Digital ground
8	VDD	-	Digital power +5V
9	VDD2R	-	Analog power +5V
10	AGND2R	-	Analog ground
11	EXTR	O	Rch common pin of analog output amp
12	NC	-	Non connection
13	VOUTR	O	Rch analog voltage output of audio signal
14	AGND1	-	Analog ground
15	Vcc1	-	Analog power +5V
16	VOUTL	O	Lch analog voltage output of audio signal
17	NC	-	Non connection
18	EXTL	O	Lch common pin of analog output amp
19	AGND2L	-	Analog ground
20	Vcc2L	-	Analog power +5V
21	ZERO	O	Zero data flag
22	RST	I	Reset
23	CS/IWO	I	Chip select / Input format selection
24	MODE	I	Mode control select
25	MUTE	I	Mute control
26	MD/DM0	I	Mode control, Data / De-emphasis selection 1
27	MC/DM1	I	Mode control, BCK / De-emphasis selection 2
28	ML/IIS	I	Mode control, WDCK / Input format selection



■ SAA6579T-X (IC51) : RDS detector

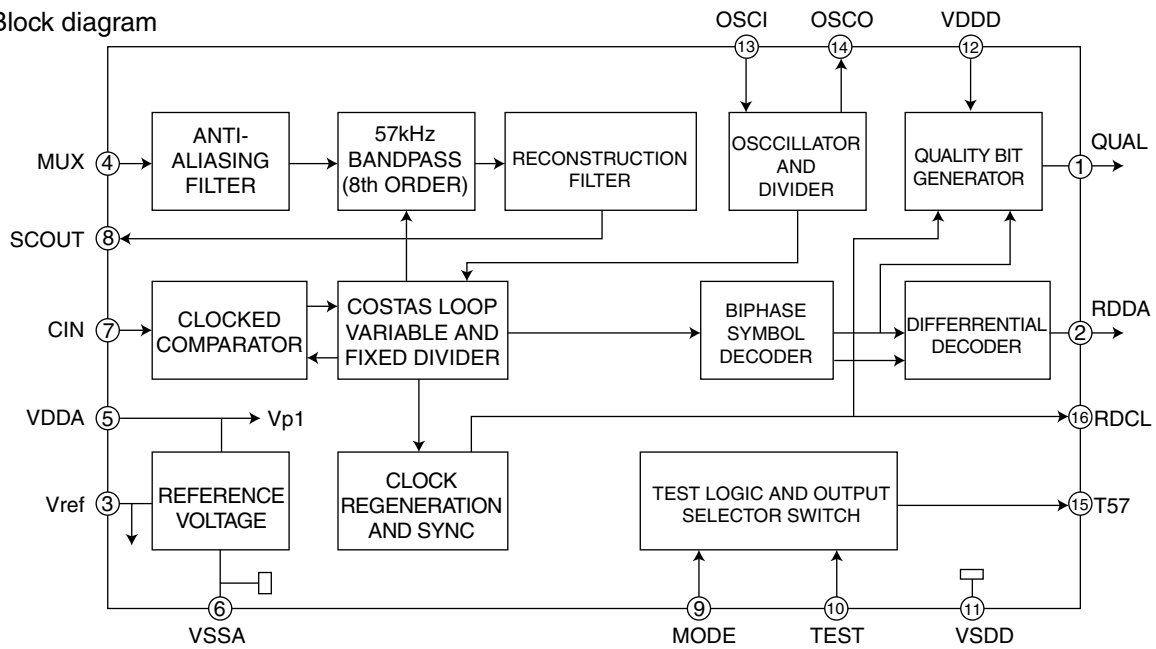
1. Pin layout



2. Pin function

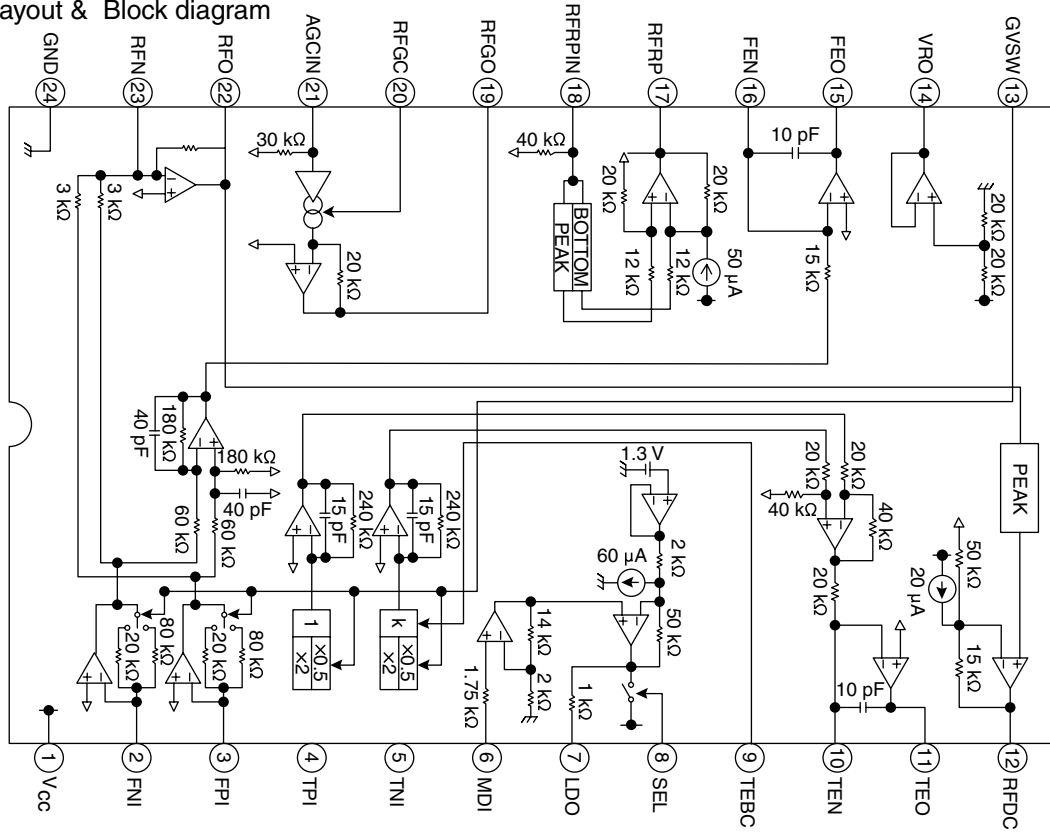
Pin No.	Symbol	Function
1	QUAL	Quality indication output
2	RDDA	RDS data output
3	Vref	Reference voltage output (0.5VDDA)
4	MUX	Multiplex signal input
5	VDDA	+5V supply voltage for analog part
6	VSSA	Ground for analog part (0V)
7	CIN	Subcarrier input to comparator
8	SCOUT	Subcarrier output of reconstruction filter
9	MODE	Oscillator mode / test control input
10	TEST	Test enable input
11	VSSD	Ground for digital part (0V)
12	VDDD	+5V supply voltage for digital part
13	OSCI	Oscillator input
14	OSCO	Oscillator output
15	T57	57kHz clock signal output
16	RDCL	RDS clock output

3. Block diagram



■ TA2147F-X (IC601) : RF amp

1. Pin layout & Block diagram

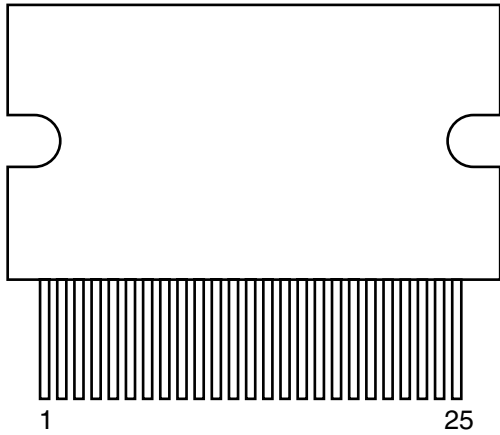


2. Pin function

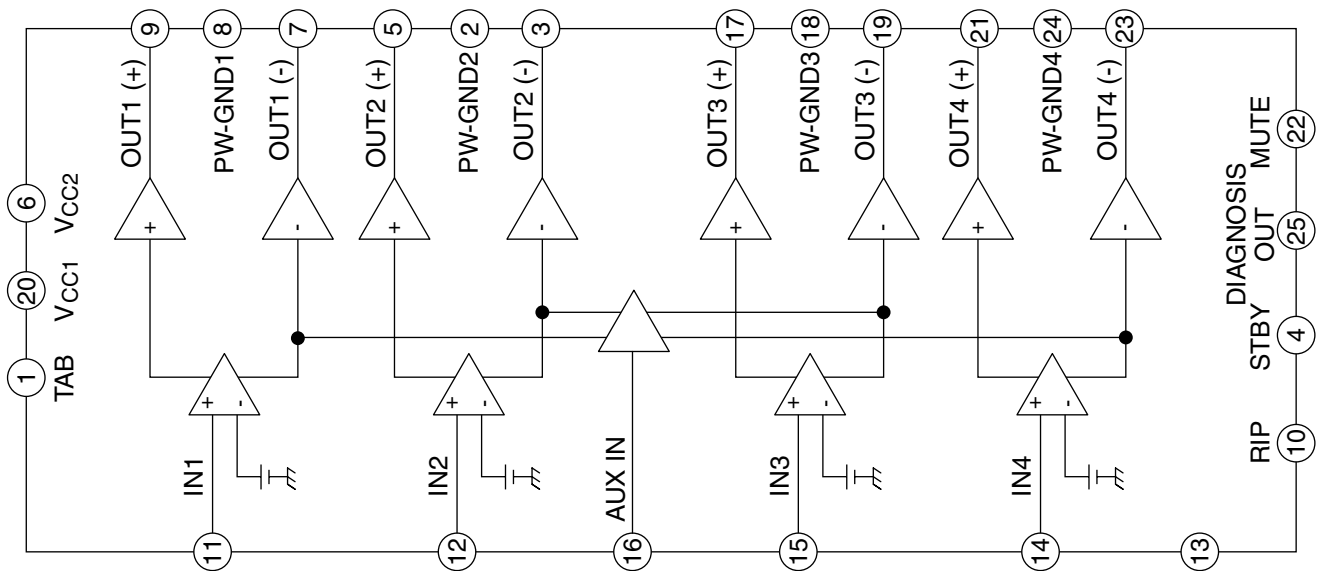
Pin No.	Symbol	I/O	Function
1	Vcc	-	3.3V power supply pin
2	FNI	I	Main-beam amp input pin
3	FPI	I	Main-beam amp input pin
4	TPI	I	Sub-beam amp input pin
5	TNI	I	Sub-beam amp input pin
6	MDI	I	Monitor photo diode amp input pin
7	LDO	O	Laser diode amp output pin
8	SEL	I	APC circuit ON/OFF control signal, laser diode control signal input or bottom/peak detection frequency change pin
9	TEBC	I	Tracking error balance adjustment signal input pin
10	TEN	I	Tracking error signal generation amp negative-phase input pin
11	TEO	O	Tracking error signal generation amp output pin
12	RFDC	O	RF signal peak detection output pin
13	GVSWS	I	AGC/FE/TE amp gain change pin
14	VRO	O	Reference voltage output pin
15	FEO	O	Focus error signal generation amp output pin
16	FEN	I	Focus error signal generation amp negative-phase input pin
17	RFRP	O	Signal amp output pin for track count
18	RFRPIN	I	Signal generation amp input pin for track count
19	RFGO	O	RF signal amplitude adjustment amp output pin
20	RFGC	I	RF amplitude adjustment control signal input pin
21	AGCIN	I	RF signal amplitude adjustment amp input pin
22	RFO	O	RF signal generation amp output pin
23	RFN	I	RF signal generation amp input pin
24	GND	-	GND pin

■ TA8273H (IC941) : Power amp

1. Pin layout

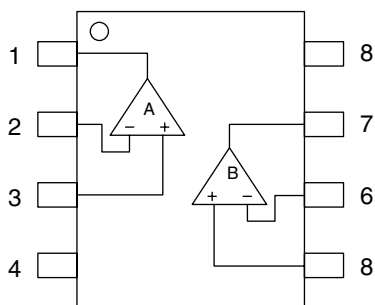


2. Block diagram



■ NJM4565V-X (IC171,IC301,IC323,IC401,IC951) : Ope amp

1. Pin layout & Block diagram



2. Pin function

Pin No.	Function
1	A output
2	A-input
3	A+input
4	V-
5	B+input
6	B-input
7	B output
8	V+



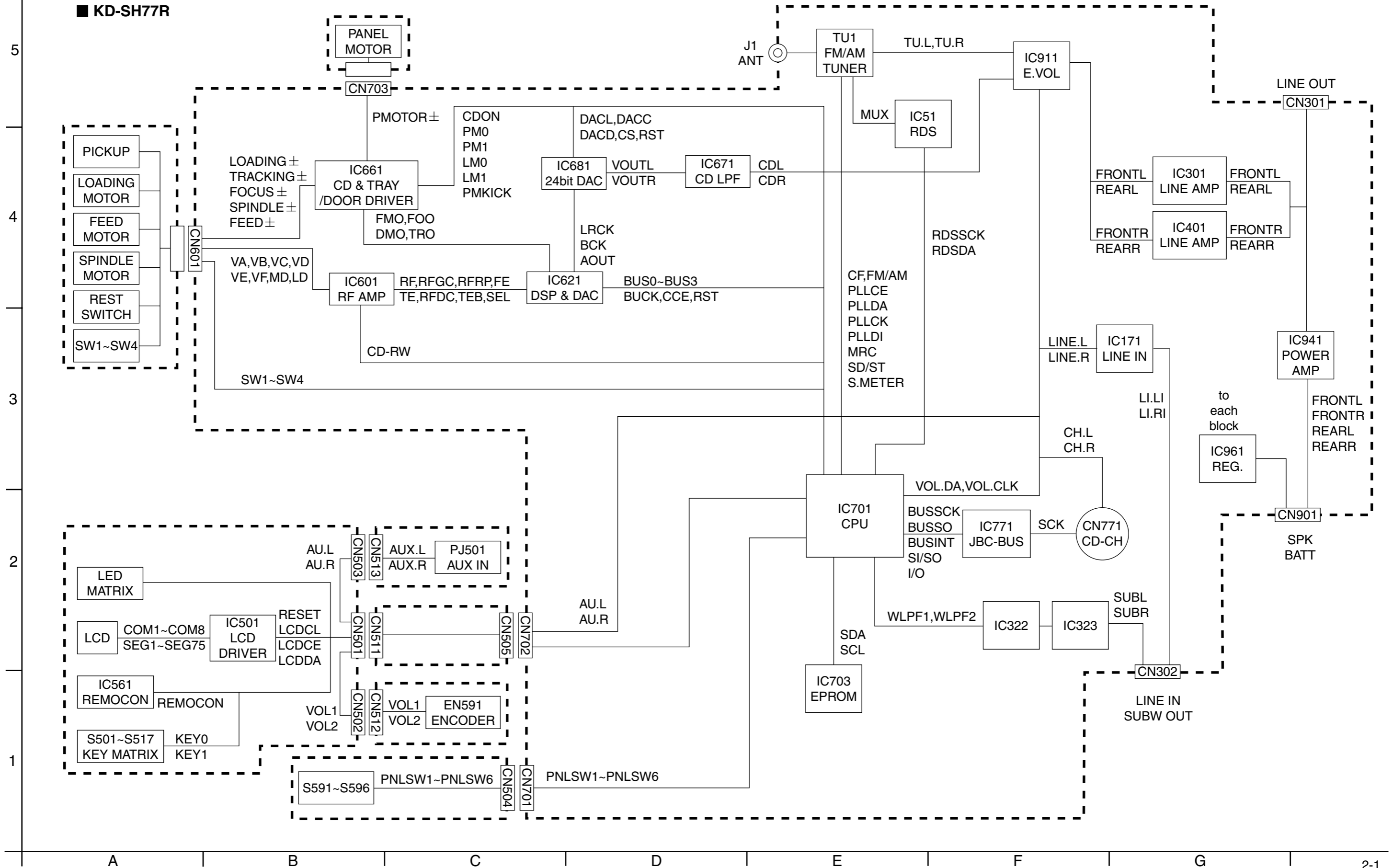
VICTOR COMPANY OF JAPAN, LIMITED

MOBILE ELECTRONICS DIVISION

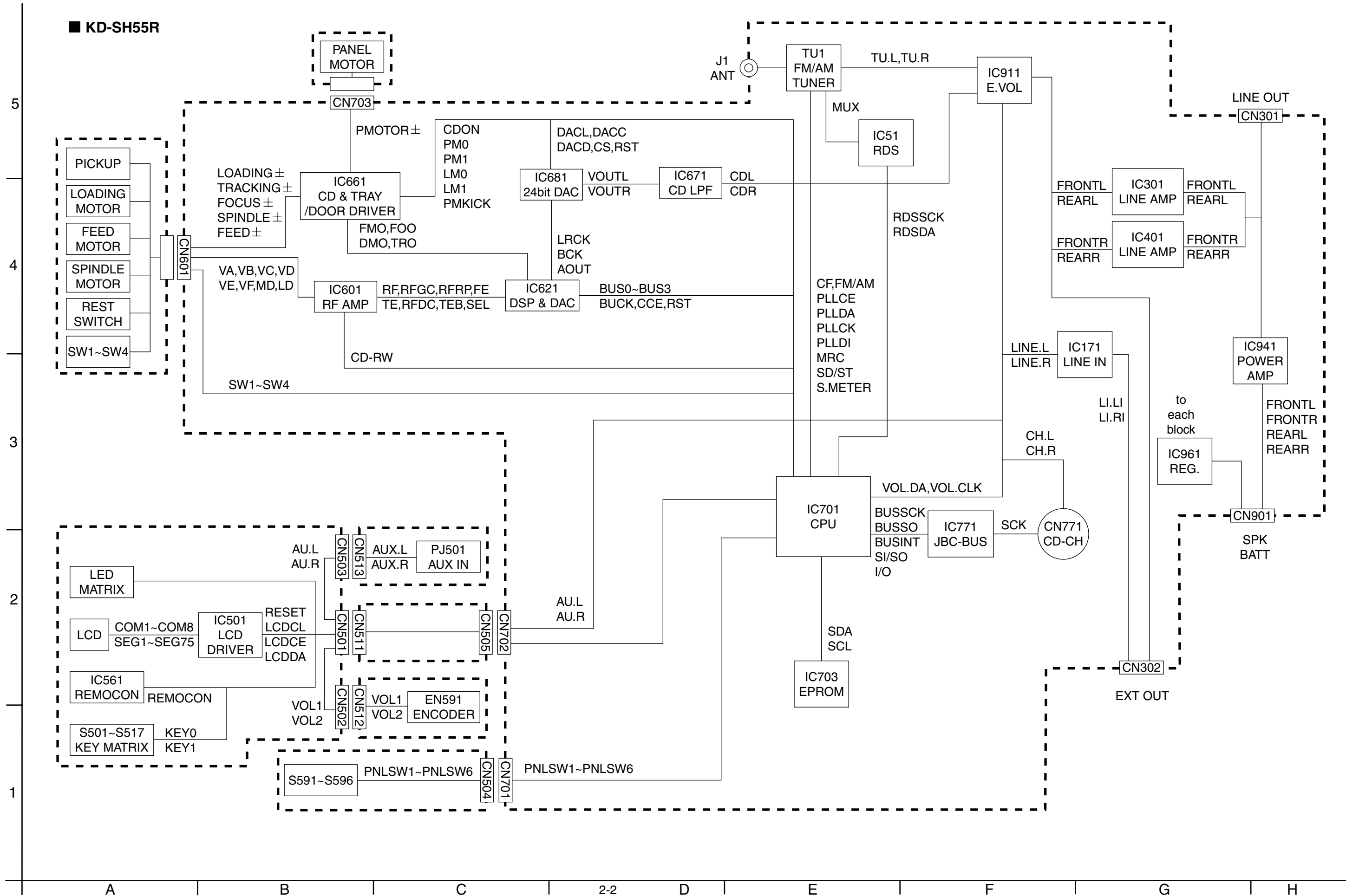
PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1Chome,Ohwatari-machi,Maebashi-city,Japan

# Block diagrams

■ KD-SH77R



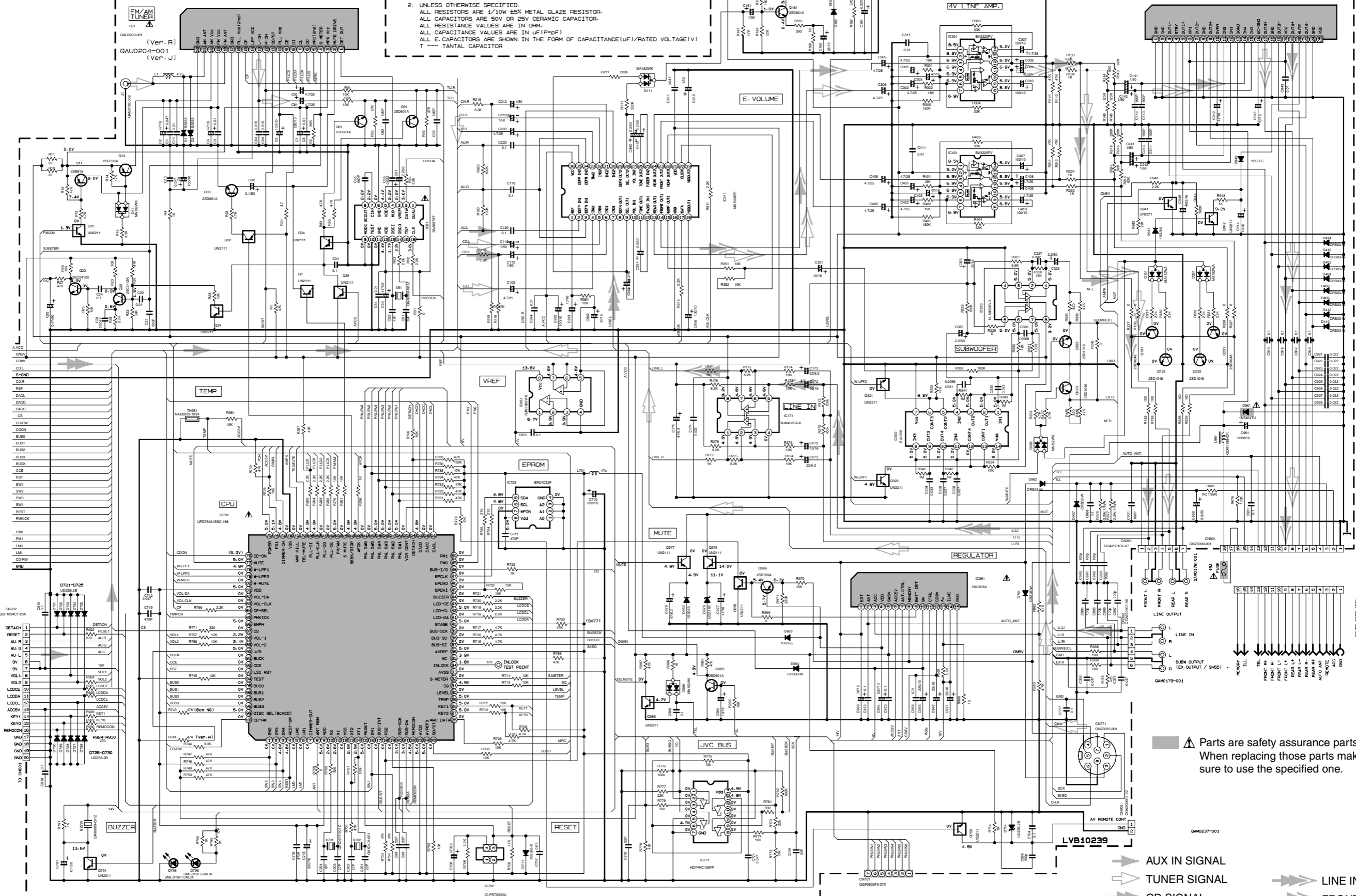
■ KD-SH55R



# Standard schematic diagrams

## main amp section (KD-SH77R)

- NOTES**
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL CONDITION—FM MODE. ( ) CD MODE.
  - UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS ARE 1/10W 25% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM.  
ALL CAPACITANCE VALUES ARE IN uF(pF)  
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(uF)/RATED VOLTAGE(V)  
T — TANTALUM CAPACITOR



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

- ➔ AUX IN SIGNAL
- ➔ TUNER SIGNAL
- ➔ CD SIGNAL
- ➔ CD CHANGER SIGNAL
- ➔ LINE IN SIGNAL
- ➔ FRONT SIGNAL
- ➔ REAR SIGNAL

CD servo control section (KD-SH77R)

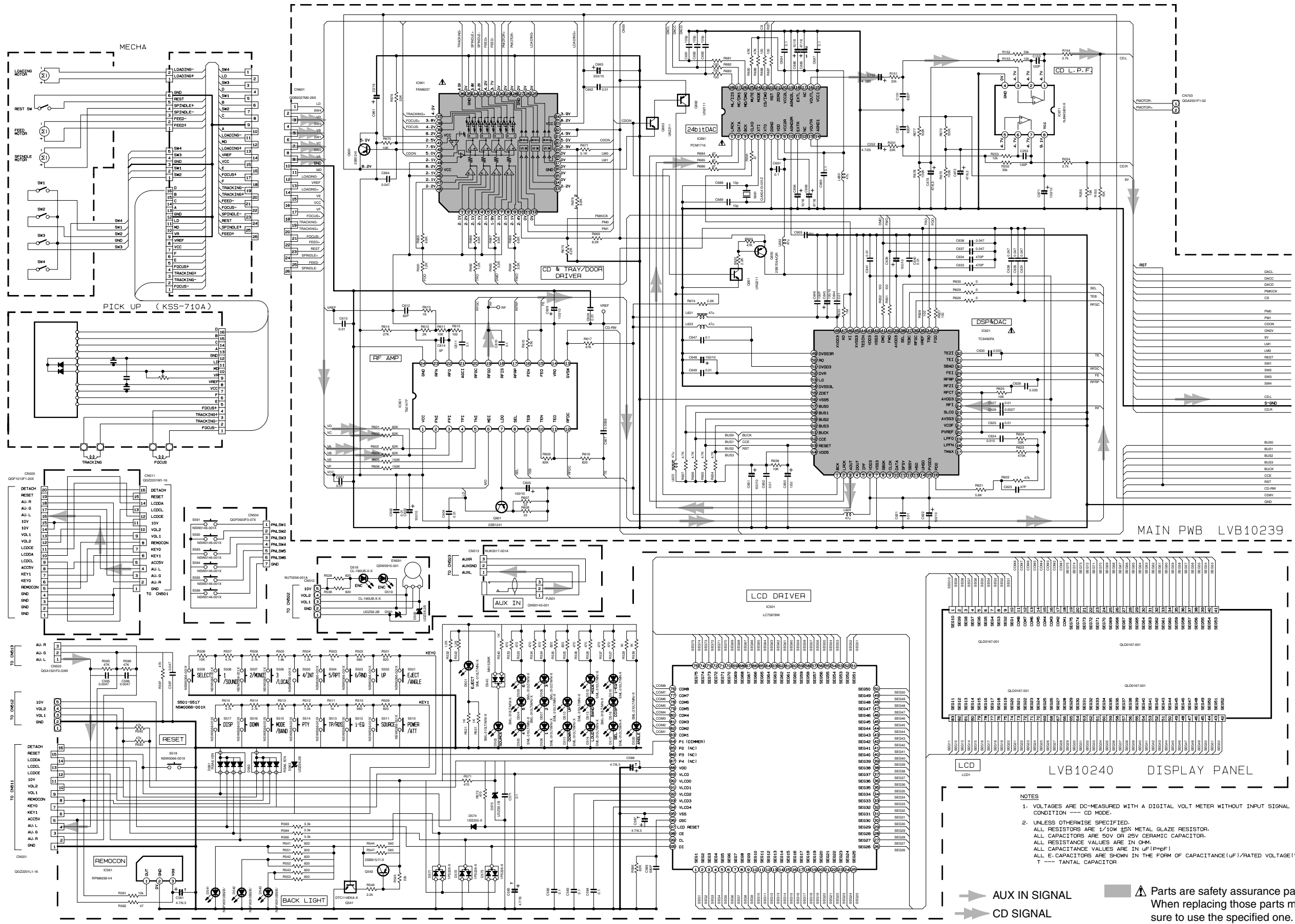
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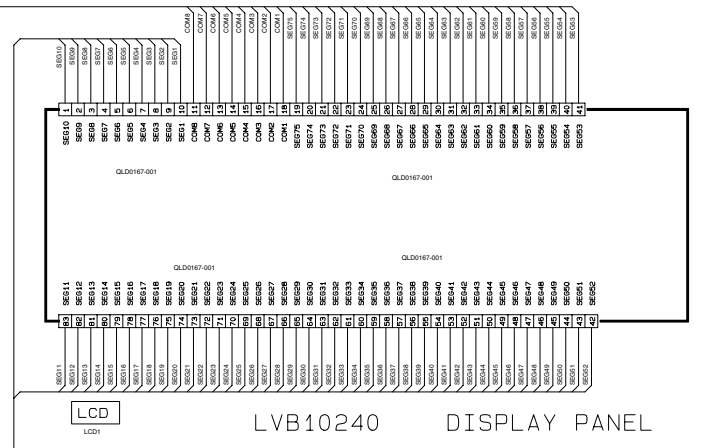
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MAIN PWB LVB10239



NOTES

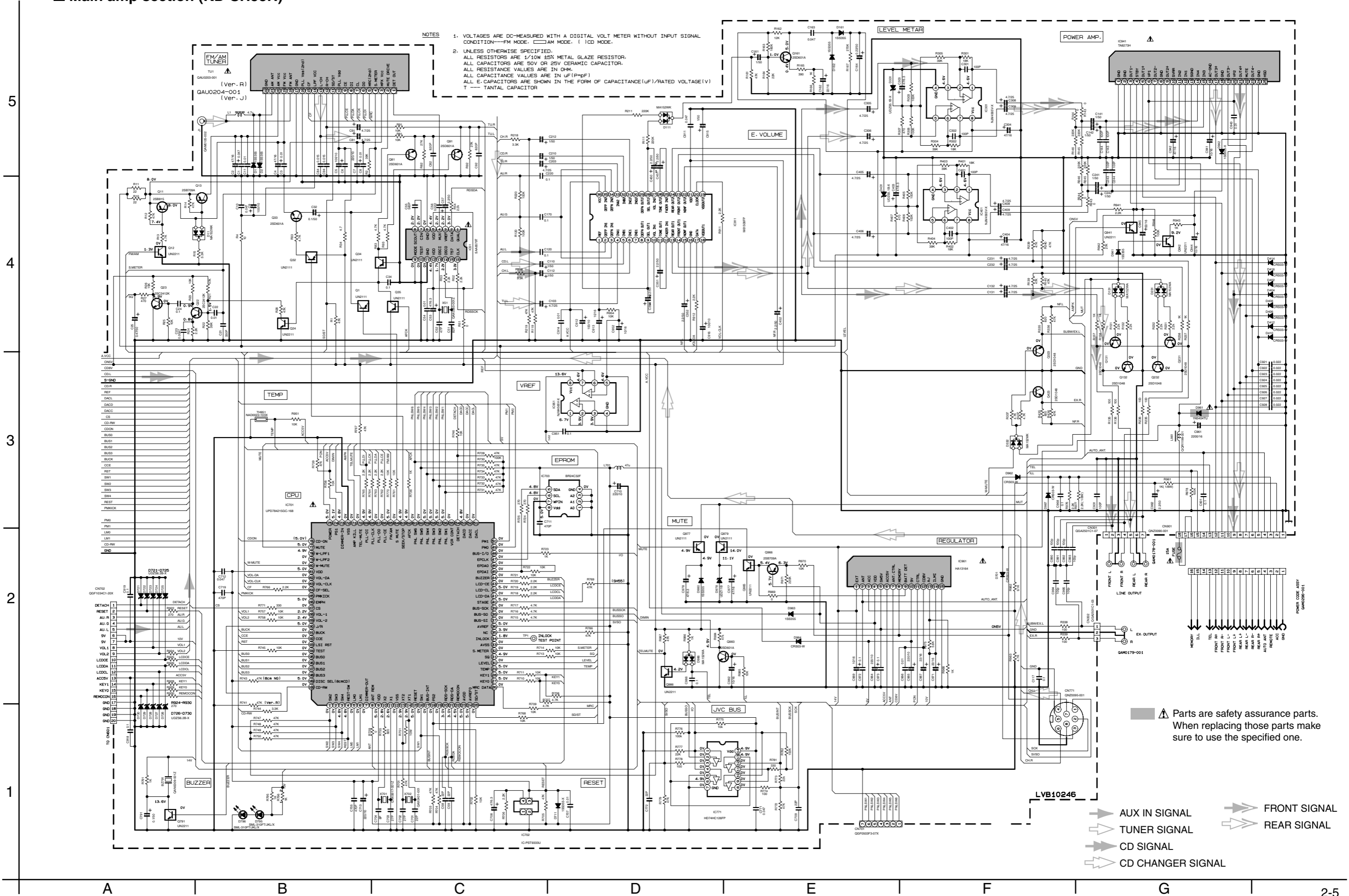
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL CONDITION --- CD MODE.
- UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/10W 25% METAL GLAZE RESISTOR. ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR. ALL RESISTANCE VALUES ARE IN OHM. ALL CAPACITANCE VALUES ARE IN uF (P=PF) ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (uF)/RATED VOLTAGE (V) T --- TANTALUM CAPACITOR

➔ AUX IN SIGNAL  
➔ CD SIGNAL

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



■ Main amp section (KD-SH55R)

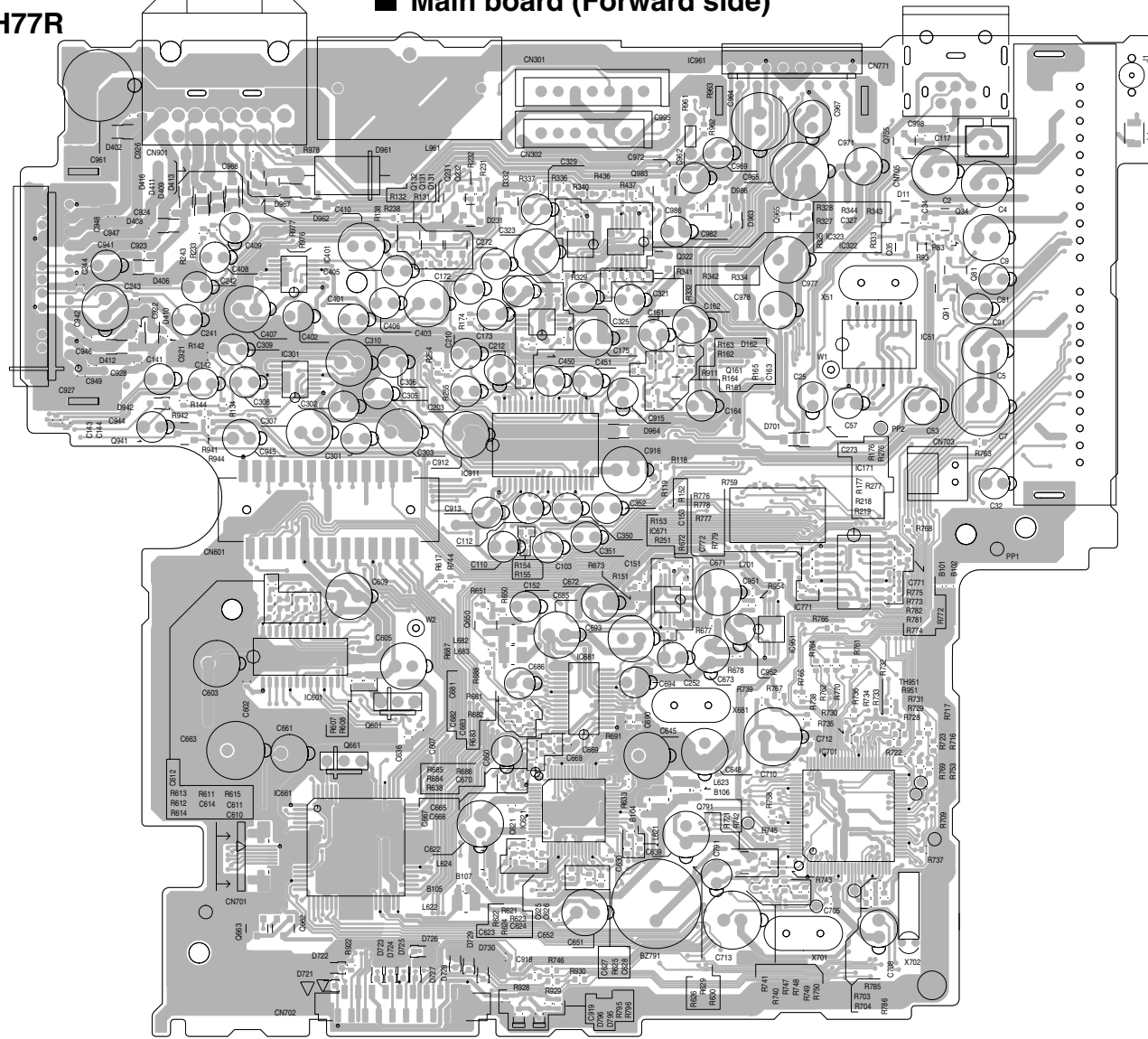




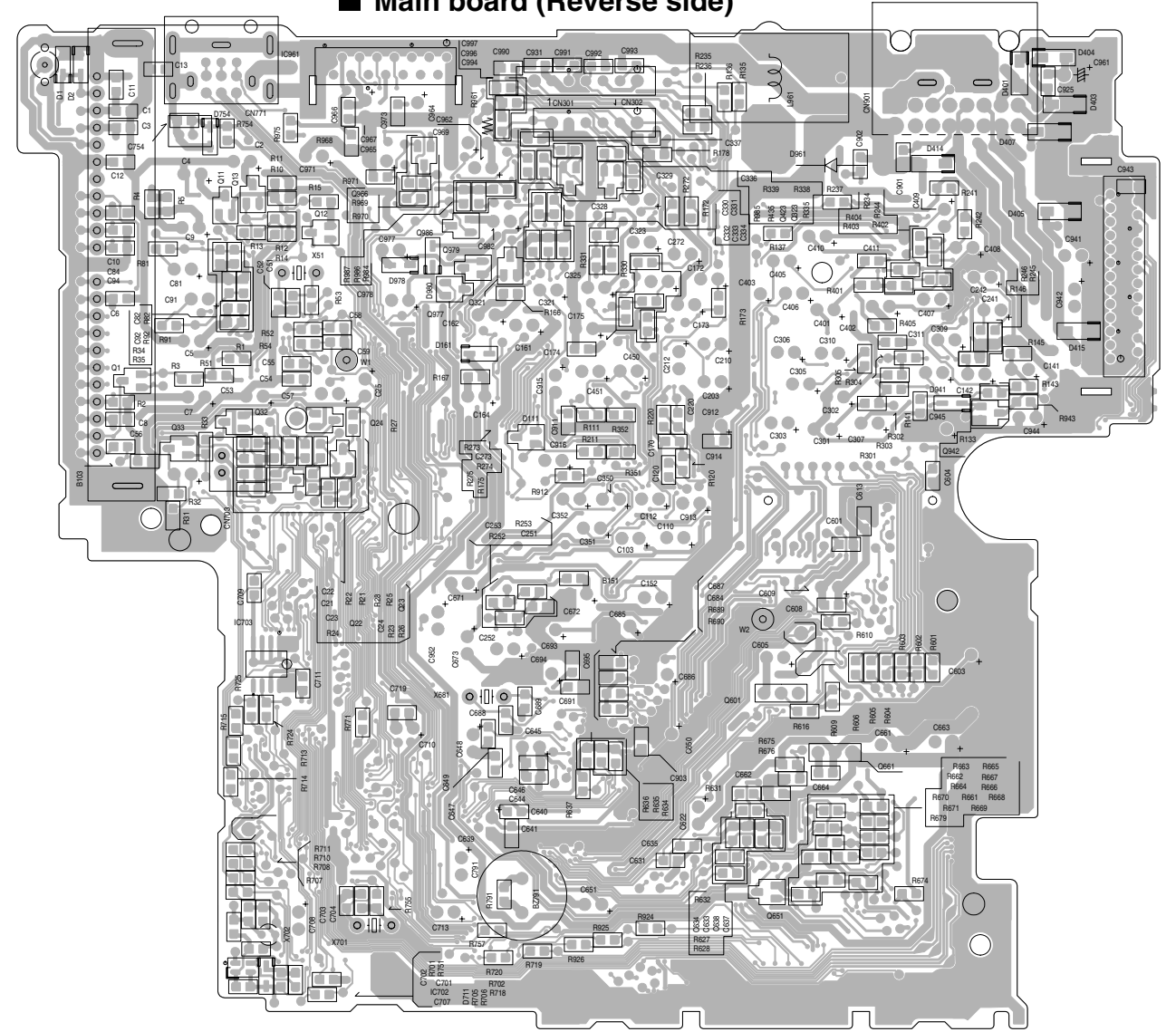
# Printed circuit boards

KD-SH77R

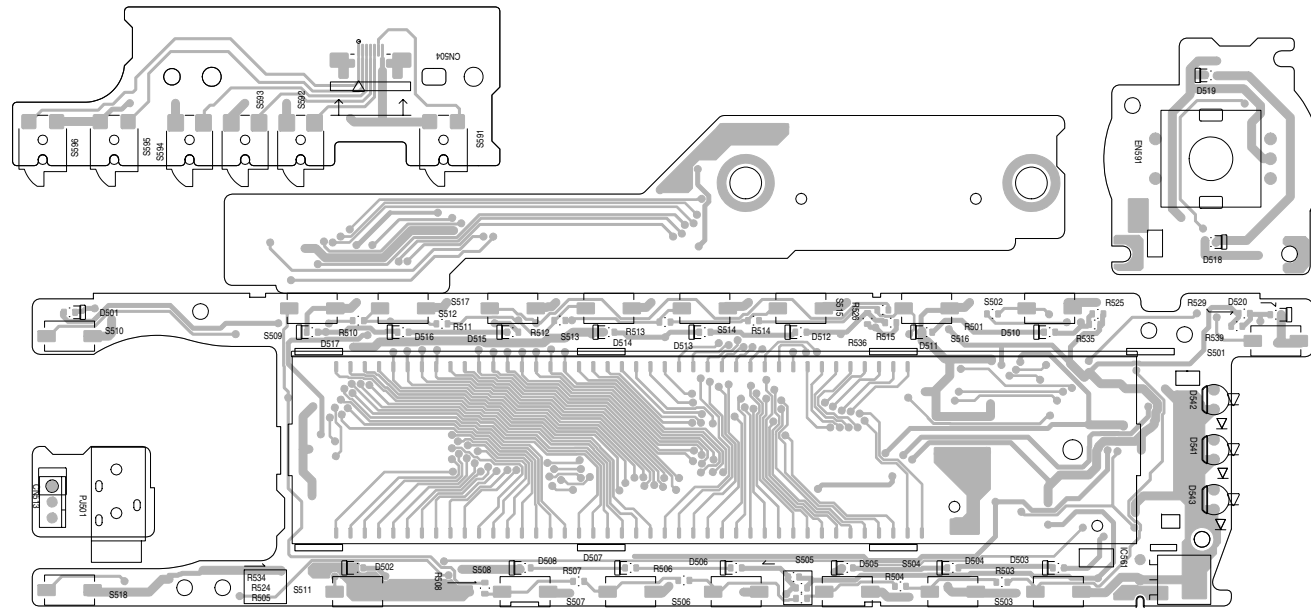
■ Main board (Forward side)



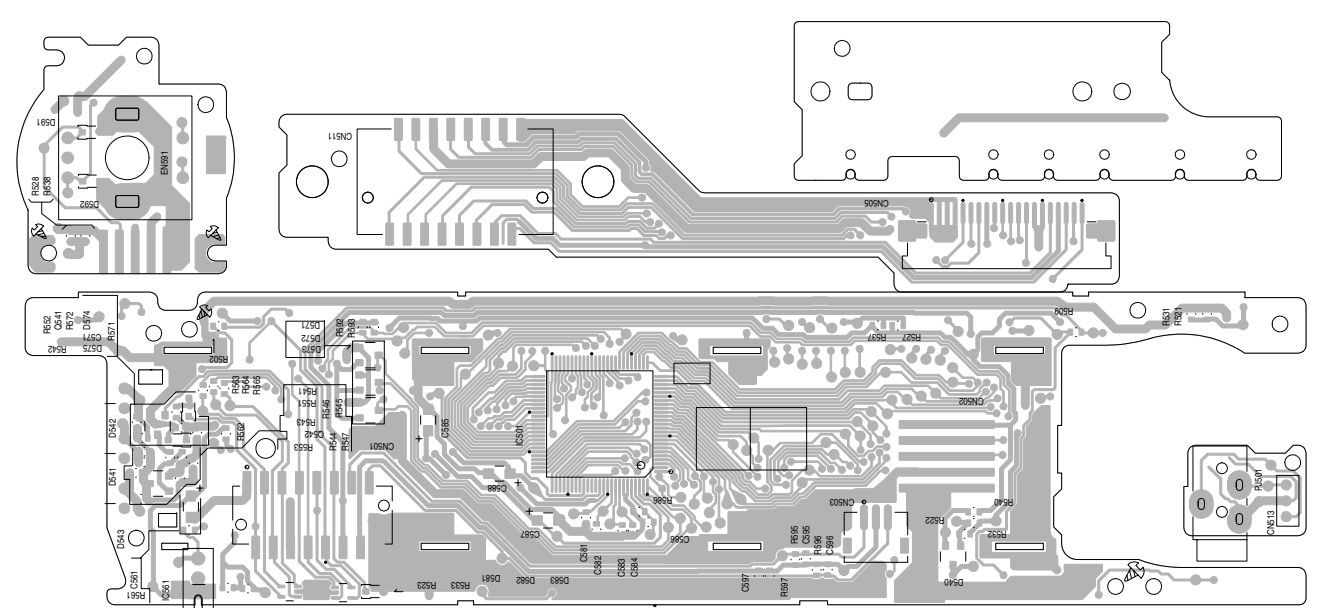
■ Main board (Reverse side)



■ Front board (Forward side)



■ Front board (Reverse side)

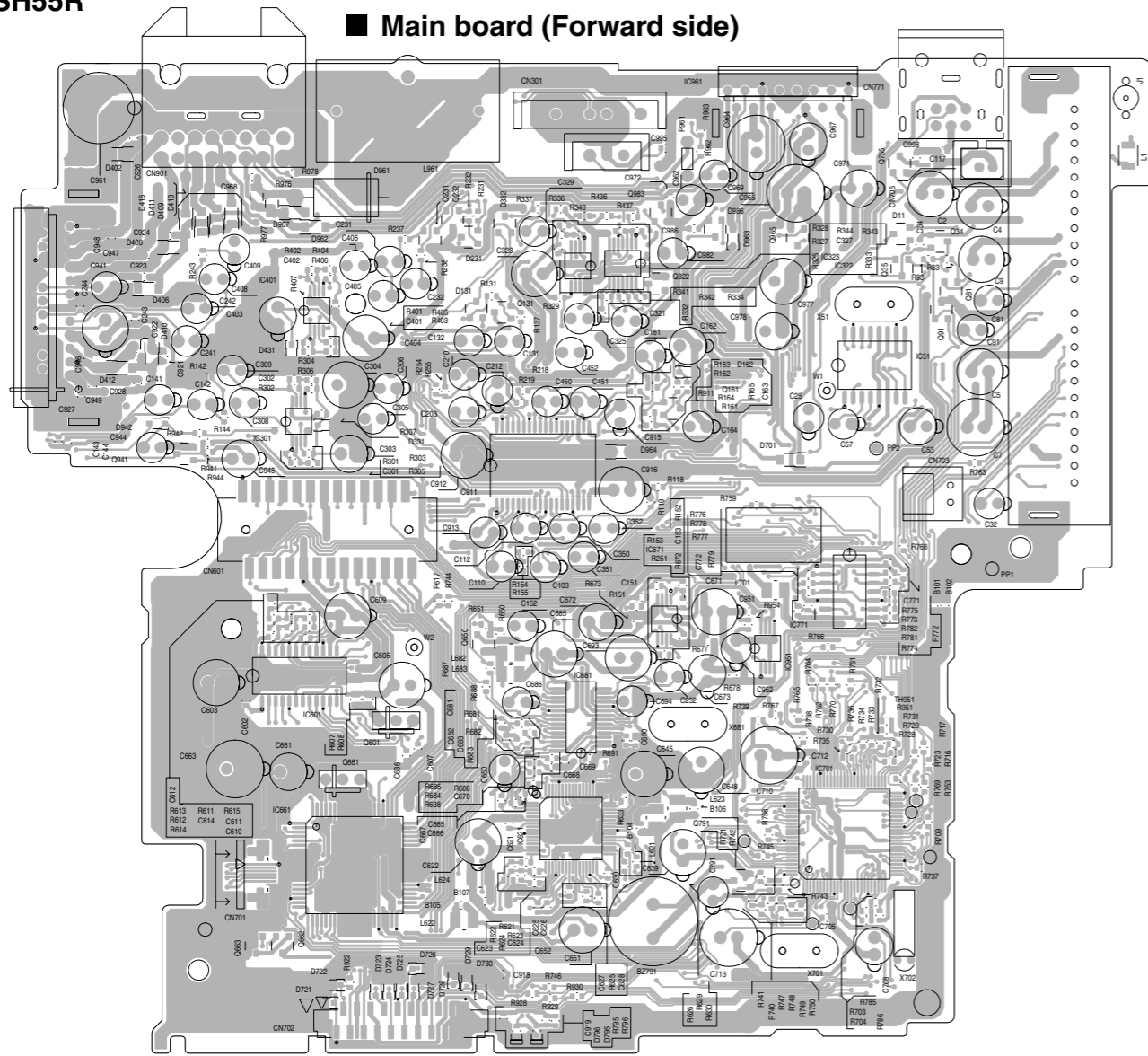


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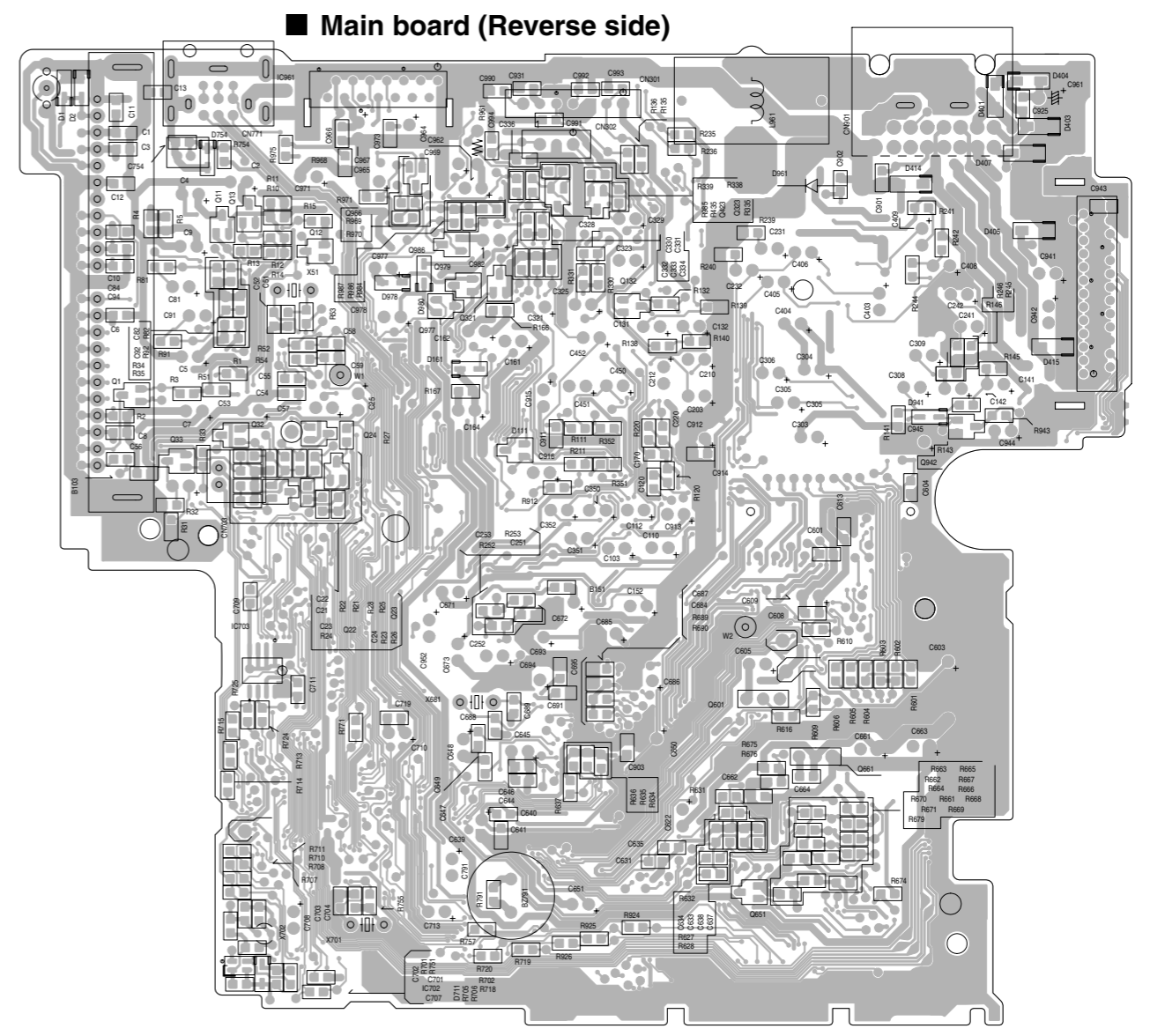
A B C D E F G 2-7

**KD-SH55R**

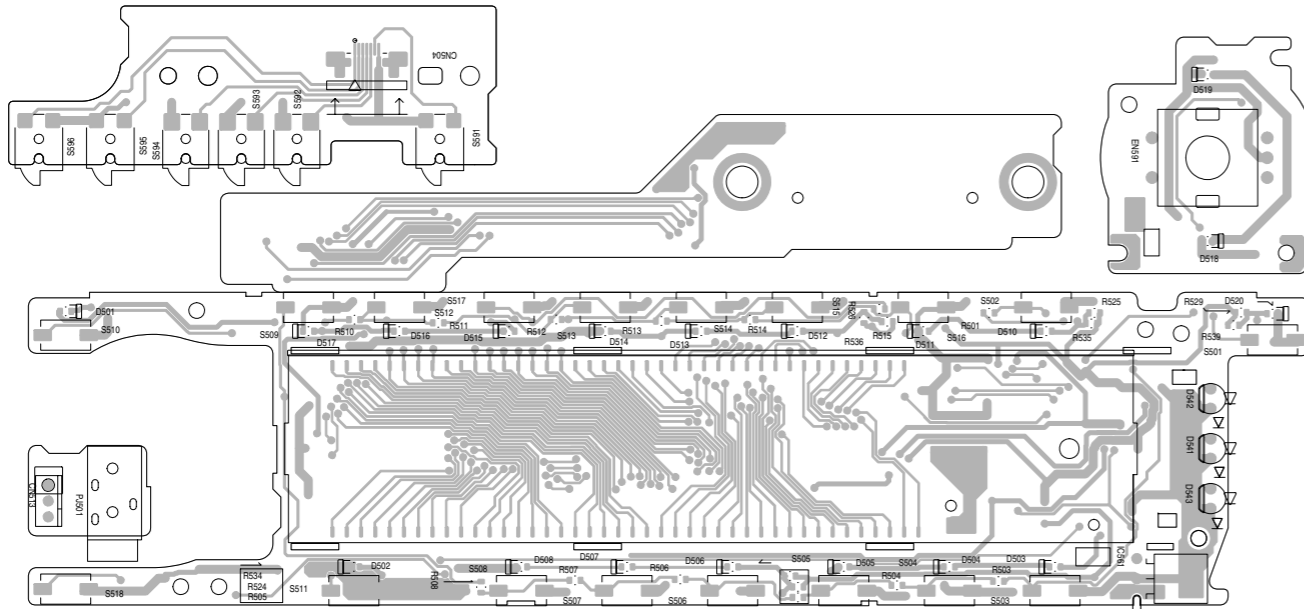
**■ Main board (Forward side)**



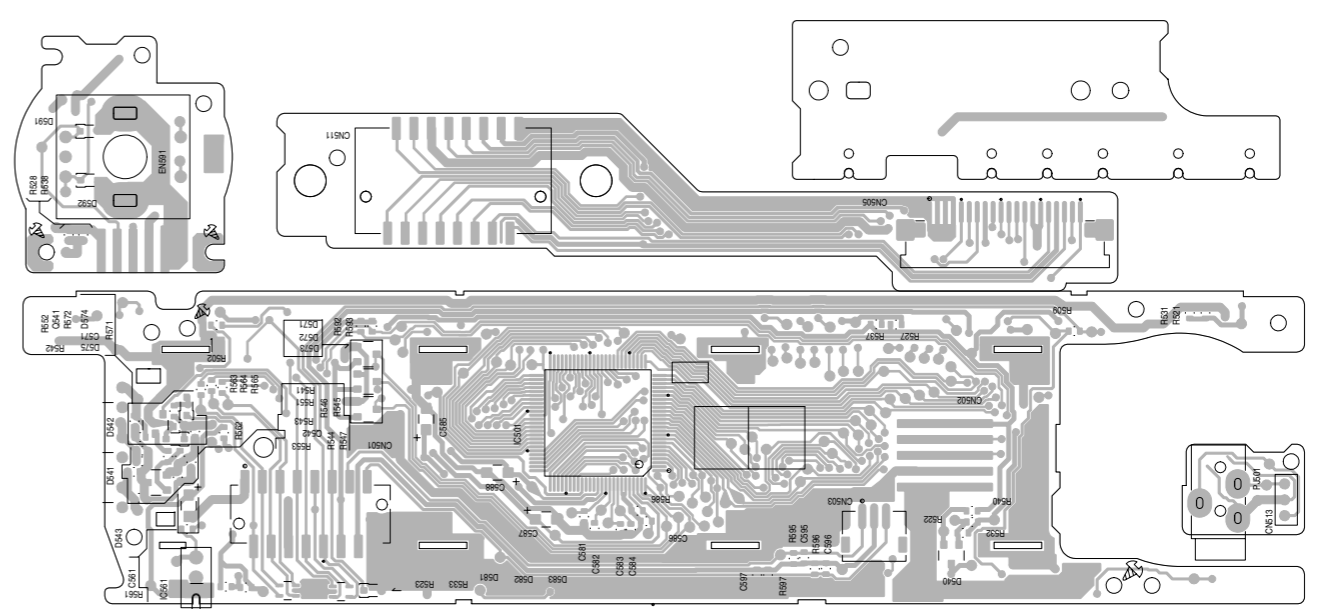
**■ Main board (Reverse side)**



**■ Front board (Forward side)**



**■ Front board (Reverse side)**



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G

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# PARTS LIST

[ KD-SH77R ]

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

## Area suffix

E ----- Continental Europe  
EX ----- Central Europe

## - Contents -

Exploded view of general assembly and parts list .....	3- 2
CD mechanism assembly and parts list .....	3- 5
Electrical parts list .....	3- 8
Packing materials and accessories parts list .....	3-16

■ Parts list(General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	-----	CD MECHA	1		
	2	QYSDST2004Z	SCREW	1		
	3	LV40847-002A	SPACER	1		
	4	LV10461-001A	TOP CHASSIS	1		
	5	LV32559-002A	FRONT CHASSIS ASSY	1		
	6	LV40828-003A	BLIND	1		
	7	LV42419-001A	LENS SHEET	1		
	8	LV40846-017A	SPACER(F)	1		
	9	WJT0057-001A	E CARD WIRE	1		
	10	LV32451-001A	SIDE HEAT SINK	1		
	11	LV32452-001A	INSULATOR	1		
	12	QYSDST2604Z	SCREW	3	T.CHAS+CD MECHA	
	13	QYSDSF2610Z	TAPPING SCREW	1	T.CHAS+S HEAT SINK	
	14	LV41200-003A	SPECIAL SCREW	3	T.CHAS+S HEAT SINK	
	15	LV41200-003A	SPECIAL SCREW	1	T.CHASS+REAR	
	16	QYSDST2604Z	SCREW	5	T.CHAS+B.CHASSIS	
	17	QYSDST2604Z	SCREW	2	T.CHAS+R.BKT	
	18	LV41200-001A	SPECIAL SCREW	1	BOTTOM CHA.+REAR	
	19	QYSPSP2003M	SCREW	2	T.CHAS+F.COVER	
	20	LV41200-001A	SPECIAL SCREW	2	MAIN PWB+BOTTOM	
	21	LV10463-001A	BOTTOM CHASSIS	1		
	22	LV32453-001A	FPC GUIDE	1		
	23	LV20929-001A	GUIDE RAIL(L)	1		
	24	LV20930-001A	GUIDE RAIL(R)	1		
	25	LV42239-001A	S PLATE(L) ASSY	1		
	26	LV42240-001A	S PLATE(R) ASSY	1		
	27	LV42104-001A	DETECT PLATE	1		
	28	QYSPSPU1725M	SCREW	2	DET.PL+S.PL(L)	
	29	LV32569-003A	A BKT ASS'Y(L)	1		
	30	LV32570-001A	A BKT ASS'Y(R)	1		
	31	LV42112-001A	TENS SPG(L)	2		
	32	LV32459-001A	ROD GEAR(SH)	1		
	33	QYWFL259013-0	WASHER	2		
	34	LV32530-001A	GUIDE BLOCK(R)	1		
	35	LV32531-001A	GUIDE BLOCK(L)	1		
	36	LV32460-001A	MOTOR BKT ASS'Y	1		
	37	QAR0182-001	MOTOR(FEED)	1		
	38	QYSPSPT2020Z	MINI SCREW	2	MOTOR+MOTOR BKT	
	39	LV40847-002A	SPACER	1		
	40	WJM0204-001A	E-SI C WIRE C-F	1		
	41	LV42455-001A	SHAFT	1		
	42	LV42437-001A	ROTOR	1		
	43	LV42436-001A	WORM GEAR	1		
	44	LV42115-002A	GEAR S1	1		
	45	LV42116-002A	GEAR S2	1		
	46	LV42117-001A	GEAR S3	1		
	47	LV42118-002A	GEAR S4	1		
	48	LV42119-001A	GEAR S5	1		

■ Parts list(General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	49	WDM215025	WASHER	5	FOR GEAR S1-S5	
	50	WDM214540	WASHER	1	FOR CLUTCH ASSY	
	51	LV30981-005A	CLUTCH ASS'Y	1		
	52	QYWFL266010-9	WASHER	1		
	53	LV32558-002A	FRONT BKT ASSY	1		
	54	LV42394-001A	ABSORBER	1		
	55	LV40846-015A	SPACER(F)	1		
	56	LV40846-018A	SPACER(F)	1	F.BKT ASSY	
	57	LV40846-022A	SPACER(F)	1		
	58	LV20933-001A	CONECTOR COVER	1		
	59	LV40846-018A	SPACER(F)	1		
	60	LV42534-001A	CONNECT PTN	2		
	61	QYSPSPU1730M	SCREW	1		
	62	LV32461-001A	REINFORCE PLATE	1		
	63	QYSPSP2003M	SCREW	2		
	64	LV32462-001A	OPEN LEVER	1		
	65	LV42122-001A	TORSION SPRING	1	FOR OPEN LEVER	
	66	LV32463-001A	DETACH LEVER	1		
	67	LV42123-001A	DTCH LVR SHAFT	1		
	68	LV42124-001A	TORSION SPRING	1	FOR DTCH LEVER	
	69	QAL0314-002	FPC	1		
	70	LV42420-001A	FPC SHEET	1		
	71	LV40865-001A	MINI SCREW	1	FPC GUIDE+BOT.CH	
	72	LV40865-001A	MINI SCREW	3	G.RAIL(L)+BOT.CH	
	73	LV40865-001A	MINI SCREW	3	G.RAIL(R)+BOT.CH	
	74	LV40865-001A	MINI SCREW	2	DET.SW PWB+BO.CH	
	75	LV40865-001A	MINI SCREW	2	ARM BKT(L)+BO.CH	
	76	LV40865-001A	MINI SCREW	2	ARM BKT(R)+BO.CH	
	77	LV40865-001A	MINI SCREW	2	MOTOR BKT+BOT.CH	
	78	LV42181-002A	SPECIAL SCREW	4	ARM+PANEL BKT	
	79	LV10464-001A	FRONT PANEL	1		
	80	LV40848-023A	SPACER(P)	2		
	81	LV32464-004A	AL PANEL	1		
	82	LV10465-001A	REAR COVER	1		
	83	LV42127-005A	EARTH SPRING R	1		
	84	QYSPSPU1730M	SCREW	1	FOR E.SPRING	
	85	LV20934-001A	PRESET BUTTON	1		
	86	LV42456-001A	SW PWB SHEET	1		
	87	LV42457-001A	BUTTON SHEET	6		
	88	LV40848-024A	SPACER(P)	2		
	89	LV32557-001A	PUSH BUTTON(L)	1		
	90	LV32466-001A	PUSH BUTTON(R)	1		
	91	LV20936-002A	D.FUNC BUTTON	1		
	92	LV32467-002A	DETACH BUTTON	1		
	93	LV42128-001A	COMP. SPRING	1		
	94	LV42129-001A	REMOTE LENS	1		
	95	LV20937-004A	FINDER	1		
	96	LV32797-001A	VOL.KNOB ASS'Y	1		

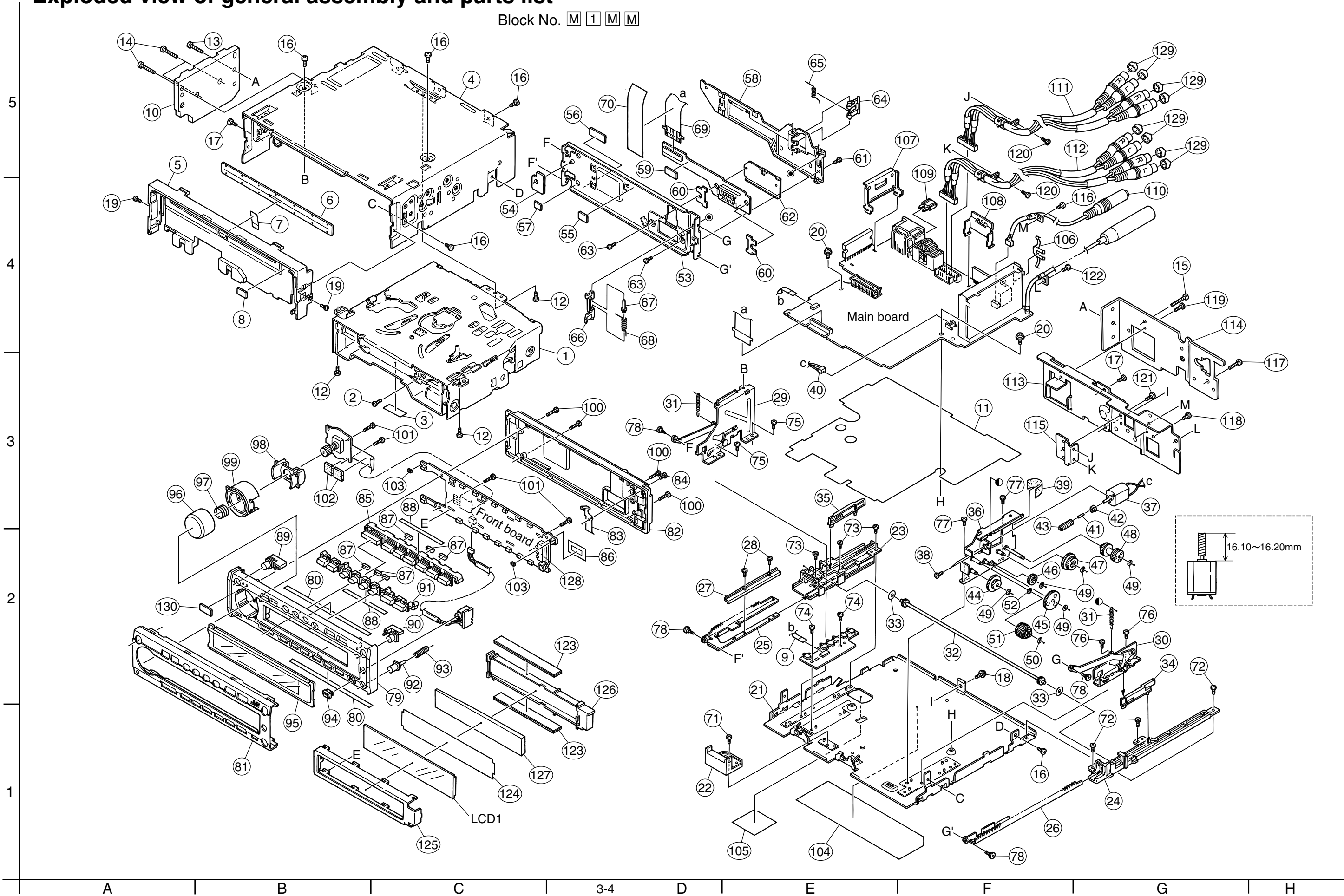
■ Parts list(General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	97	LV42386-001A	COMP.SPRING	1		
	98	LV32469-001A	RING LENS	1		
	99	LV32556-002A	VOL.RING	1		
	100	VKZ4777-001	MINI SCREW	4	F.PANEL+REAR CV	
	101	VKZ4777-001	MINI SCREW	4	F.PANEL+SW.PWB	
	102	VYSH101-009	SPACER	2		
	103	LV40846-016A	SPACER(F)	2		
	104	LV32575-001A	NAME PLATE	1		
	105	LV41143-001A	SHEET	1		
	106	VMA4652-001SS	EARTH PLATE	1		
	107	LV42297-001A	IC BRACKET	1		
	108	LV41993-001A	REG BKT	1		
△	109	QMFZ039-150-T	FUSE	1		
	110	QAM0351-001	PIN CORD ASS'Y	1		
	111	QAM0345-002	PIN CORD ASS'Y	1		
	112	LV30943-202A	REAR BRACKET	1		
	113	LV30946-006A	REAR HEAT SINK	1		
	114	LV40790-002A	PIN CORD BRKT	1		
	115	QYSDST2604Z	SCREW	1	ANT.+REAR.BKT	
	116	LV41200-003A	SPECIAL SCREW	1	REG.BKT+REAR.BKT	
	117	QYSDST2606Z	SCREW	1	CHANGER CO.+REAR BKT	
	118	QYSDST2606Z	SCREW	1	REAR HEAT SINK+REAR BKT	
	119	QYSDST2604Z	SCREW	2	CORD BKT+PIN CORD	
	120	QYSDST2604Z	SCREW	1	CORD BKT+REAR BKT	
	121	QNZ0510-001	RUBBER CONNEC	2		
	122	LV42101-001A	LCD FILTER	1		
	123	LV32447-001A	LCD CASE	1		
	124	LV32446-001A	LIGHTING CASE	1		
	125	LV32448-001A	LIGHTING LENS	1		
	126	LV32449-001A	LED HOLDER	1		
	127	VYTA500-001	PIN CAP	6		
	128	LV30225-0A1A	SPACER	1		
	LCD 1	QLD0167-001	LCD MODULE	1		

# Exploded view of general assembly and parts list

Block No. M 1 M M



16.10~16.20mm

A | B | C | 3-4 | D | E | F | G | H

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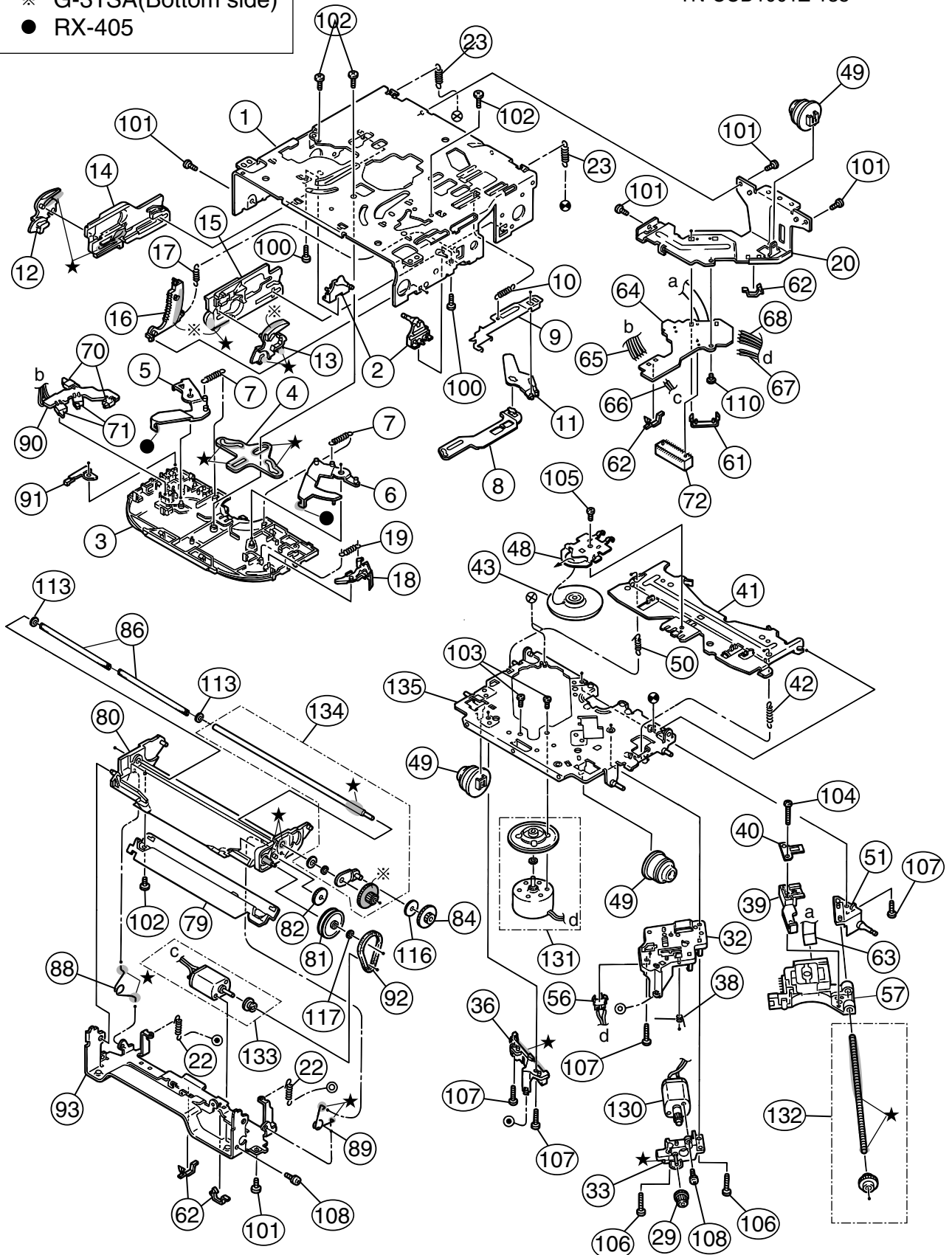
# CD mechanism assembly and parts list

Block No. M 2 M M

TN-CCD1001Z-138

**Grease**

- ★ G-31SA
- ※ G-31SA(Bottom side)
- RX-405



## ■ Parts list(CD mechanism)

Block No. M2MM

▲	Item	Parts number	Parts name	Q'ty	Description	Area
	1	30310101T	FRAME	1		
	2	30310103T	DANPER PIN	2		
	3	30310107T	UPPER PLATE	1		
	4	30310108T	SEL STOP PLATE	1		
	5	30310142T	SEL ARM (L)L	1		
	6	30310143T	SEL ARM (R)L	1		
	7	30310145T	S ARM SPRING(L)	2		
	8	30310112T	TRIG LEVER	1		
	9	30310155T	TRIG PL(Z)	1		
	10	30310115T	TRIG PL SPRING	1		
	11	30310116T	TRIG ARM	1		
	12	30310134T	FIX ARM (L)B	1		
	13	30310159T	FIX ARM (R)Z	1		
	14	30310150T	FIX PL (L)Z	1		
	15	30310156T	FIX PL (R) Z	1		
	16	30310138T	LDG GR (6)B	1		
	17	30310122T	LDG GEAR (6)SP	1		
	18	30310148T	S.L ARM(N)	1		
	19	30310125T	S.L ARM SPRING	1		
	20	30310149T	REAR DAM BKT(Z)	1		
	22	30310151T	HUNG UP SP (FZ)	2		
	23	30310129T	HUNG UP SP (R)	2		
	29	30300510T	PU GEAR(B)	1		
	32	30310544T	F.M.BASE(Z)	1		
	33	30310547T	FD GR BLK(Z)	1		
	36	30310546T	PU GUIDE(Z)	1		
	38	30310533T	THRUST SPR(M)	1		
	39	30310577T	PU M NUT(Z-S)	1		
	40	30310512T	NUT PUSH SPR PL	1		
	41	30310558T	CLP ARM(Z)	1		
	42	30310514T	CLP ARM SPRING	1		
	43	30310552T	CLAMPER(Z)	1		
	48	30310557T	CLAMPER PLATE(Z)	1		
	49	30310524T	DAMPER (J)	3		
	50	30310525T	CLP ARM SPR (L)	1		
	51	30310545T	F SCREW GUIDE(Z)	1		
	56	64180405T	DET SW	1	ESE11SF4	
	57	QAL0230-001	C.D PICK (SONY)	1		
	61	30311035T	FPC HOLDER(Z)	1		
	62	19501403T	WIRE CLAMPER	4		
	63	30311045T	PICK UP FPC(Z-S)	1		
	64	30311044T	CONNECT.PCB(Z-S)	1		
	65	30311038T	WIRE (5P-Z)	1		
	66	30311039T	WIRE (LD-Z)	1		
	67	30311040T	WIRE (FD-Z)	1		
	68	30311041T	WIRE (RS-Z)	1		
	70	64180402T	DET SWITCH	2	ESE22MH1	
	71	64180403T	DET SWITCH	2	ESE22MH3	

**Parts list(CD mechanism)**

Block No. M2MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	72	68150232T	CONNECTOR	1	TKC-W26X-C1	
	79	30311105T	SOPPORT PLATE	1		
	80	30311138T	GR MT BLK(N)	1		
	81	30311109T	LDG GEAR (2)	1		
	82	30311110T	LDG GEAR (3)	1		
	84	30311112T	LDG GEAR (5)	1		
	86	30311136T	LDG ROLLER	2		
	88	30311118T	L.P SPRING (L)	1		
	89	30311119T	L.P SPRING (R)	1		
	90	30311123T	SW PCB	1		
	91	30311124T	SW ACTUATOR	1		
	92	30311129T	LDG BELT	1		
	93	30311140T	FRONT BRKT (J)	1		
	100	9C0620503T	C B TAP SCREW	2	M2X5	
	101	9C2020401T	C SCREW TS.G	5	M2X4	
	102	9C4320403T	C B TAP SCREW	4	M2X4	
	103	9C0117223T	SCREW	2	M1.7X2.2	
	104	9C0917703T	C TAP SCREW S3	1	M1.7X7	
	105	9C0320201T	C TAP SCREW S3	1	M2X2	
	106	9C4920013T	C TAP SCREW S3	2	M2X10	
	107	9C4920603T	C TAP SCREW B3	4	M2X6	
	108	9P0220031T	TAMS SCREW	2	M2X3	
	110	9C0420253	C TAP SCREW	1	M2X2.5	
	113	9W0330276	NW BLUE	2	2.9X5X0.3	
	116	9W0725030T	LUMILAR W	1	2.3X9.8X0.25	
	117	9W0640030T	WASHER	1	1.4X3.2X0.4	
	130	303105310T	FEED MO ASSY	1		
	131	303105311T	SPINDLE MO ASSY	1		
	132	303105312T	FEED SCREW ASSY	1		
	133	303111301T	LDG MOTOR ASSY	1		
	134	303111302T	RDG RLR SFT ASY	1		
	135	303105502T	T.T.BASE ASSY	1		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	BZ791	QAN0009-001Z	BUZZER		
	C 1	NCB31EK-473X	C CAPACITOR		
	C 2	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 3	NCB31HK-103X	C CAPACITOR		
	C 4	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 5	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 7	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 8	NCB31HK-103X	C CAPACITOR		
	C 9	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 10	NCB31EK-473X	C CAPACITOR		
	C 11	NCB31HK-103X	C CAPACITOR		
	C 21	NCS31HJ-331X	C CAPACITOR		
	C 22	NCB31HK-103X	C CAPACITOR		
	C 23	NCB31HK-472X	C CAPACITOR		
	C 24	NCB31CK-104X	C CAPACITOR		
	C 25	QERF1HM-474Z	E CAPACITOR	0.47MF 20% 50V	
	C 32	QERF1HM-104Z	E CAPACITOR	0.1MF 20% 50V	
	C 34	NCB31CK-104X	C CAPACITOR		
	C 51	NDC31HJ-820X	C CAPACITOR		
	C 52	NDC31HJ-470X	C CAPACITOR		
	C 53	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 54	NCB31HK-103X	C CAPACITOR		
	C 55	NCS31HJ-561X	C CAPACITOR		
	C 56	NCB31EK-223X	C CAPACITOR		
	C 57	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 58	NDC31HJ-220X	C CAPACITOR		
	C 59	NDC31HJ-220X	C CAPACITOR		
	C 81	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 82	NCS31HJ-821X	C CAPACITOR		
	C 84	NCB31HK-153X	C CAPACITOR		
	C 91	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 92	NCS31HJ-821X	C CAPACITOR		
	C 94	NCB31HK-153X	C CAPACITOR		
	C 103	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 110	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 112	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 117	NCB31CK-104X	C CAPACITOR		
	C 120	NCB31CK-104X	C CAPACITOR		
	C 121	NCB31CK-473X	C CAPACITOR		
	C 141	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 142	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 143	NCS31HJ-101X	C CAPACITOR		
	C 144	NCS31HJ-101X	C CAPACITOR		
	C 151	NCS31HJ-821X	C CAPACITOR		
	C 152	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 153	NCS31HJ-121X	C CAPACITOR		
	C 161	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 162	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 163	NCB31EK-473X	C CAPACITOR		
	C 164	QERF1HM-224Z	E CAPACITOR	0.22MF 20% 50V	
	C 170	NCB31CK-104X	C CAPACITOR		
	C 171	NCF31EZ-104X	C CAPACITOR		
	C 172	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 173	QERF0JM-226Z	E CAPACITOR	22MF 20% 6.3V	
	C 174	NCB31EK-223X	C CAPACITOR		
	C 175	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 203	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 210	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 212	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 220	NCB31CK-104X	C CAPACITOR		
	C 221	NCB31CK-473X	C CAPACITOR		
	C 241	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 242	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	

△	Item	Parts number	Parts name	Remarks	Area
	C 243	NCS31HJ-101X	C CAPACITOR		
	C 244	NCS31HJ-101X	C CAPACITOR		
	C 251	NCS31HJ-821X	C CAPACITOR		
	C 252	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 253	NCS31HJ-121X	C CAPACITOR		
	C 272	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 273	QERF0JM-226Z	E CAPACITOR	22MF 20% 6.3V	
	C 301	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 302	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 303	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 305	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 306	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 307	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 308	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 309	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 310	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 311	NCB31HK-103X	C CAPACITOR		
	C 321	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 323	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 325	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 327	NCB31CK-823X	C CAPACITOR		
	C 328	NCB31HK-682X	C CAPACITOR		
	C 329	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 330	NCB31HK-123X	C CAPACITOR		
	C 331	NCB31HK-562X	C CAPACITOR		
	C 332	NCB31EK-273X	C CAPACITOR		
	C 333	NCB31EK-273X	C CAPACITOR		
	C 334	NCB31EK-333X	C CAPACITOR		
	C 336	NCB31EK-473X	C CAPACITOR		
	C 337	NCB31EK-473X	C CAPACITOR		
	C 350	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 351	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 401	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 402	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 403	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 405	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 406	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 407	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 408	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 409	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 410	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 411	NCB31HK-103X	C CAPACITOR		
	C 450	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 451	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 601	NCB31HK-103X	C CAPACITOR		
	C 602	NCB31HK-103X	C CAPACITOR		
	C 603	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 604	NCB31HK-103X	C CAPACITOR		
	C 605	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 607	NCB31HK-682X	C CAPACITOR		
	C 608	NCB31HK-103X	C CAPACITOR		
	C 609	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 610	NCB31CK-104X	C CAPACITOR		
	C 611	NCB31CK-104X	C CAPACITOR		
	C 612	NCS31HJ-820X	C CAPACITOR		
	C 613	NCB31HK-103X	C CAPACITOR		
	C 614	NCS31HJ-5R0X	C CAPACITOR		
	C 621	NCB31HK-103X	C CAPACITOR		
	C 622	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 623	NCS31HJ-470X	C CAPACITOR		
	C 624	NCB31HK-153X	C CAPACITOR		
	C 625	NCB31HK-103X	C CAPACITOR		
	C 626	NCB31HK-272X	C CAPACITOR		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 627	NCB31HK-103X	C CAPACITOR				C 912	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 628	NCB31EK-333X	C CAPACITOR				C 913	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 630	NCB31EK-333X	C CAPACITOR				C 914	NCB31HK-103X	C CAPACITOR		
	C 631	NCB31EK-473X	C CAPACITOR				C 915	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 633	NCS31HJ-471X	C CAPACITOR				C 916	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 634	NCS31HJ-471X	C CAPACITOR				C 918	NCB31CK-104X	C CAPACITOR		
	C 635	NCB31EK-473X	C CAPACITOR				C 919	NCB31CK-104X	C CAPACITOR		
	C 636	NCB31EK-473X	C CAPACITOR				C 921	NCB31HK-223X	C CAPACITOR		
	C 637	NCB31EK-473X	C CAPACITOR				C 922	NCB31HK-223X	C CAPACITOR		
	C 638	NCB31EK-473X	C CAPACITOR				C 923	NCB31HK-223X	C CAPACITOR		
	C 639	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 924	NCB31HK-223X	C CAPACITOR		
	C 640	NCB31HK-103X	C CAPACITOR				C 925	NCB31HK-223X	C CAPACITOR		
	C 641	NCB31HK-103X	C CAPACITOR				C 926	NCB31HK-223X	C CAPACITOR		
	C 644	NCB31HK-103X	C CAPACITOR				C 927	NCB31HK-223X	C CAPACITOR		
	C 645	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 928	NCB31HK-223X	C CAPACITOR		
	C 646	NCS31HJ-101X	C CAPACITOR				C 931	NCB31HK-223X	C CAPACITOR		
	C 647	NCB31CK-104X	C CAPACITOR				C 941	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 648	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 942	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 649	NCB31HK-103X	C CAPACITOR				C 943	NCB31HK-103X	C CAPACITOR		
	C 650	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 944	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 651	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 945	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 652	NCB31HK-103X	C CAPACITOR				C 946	NCB31CK-104X	C CAPACITOR		
	C 661	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V			C 947	NCB31CK-104X	C CAPACITOR		
	C 662	NCB31HK-103X	C CAPACITOR				C 948	NCB31CK-104X	C CAPACITOR		
	C 663	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V			C 949	NCB31CK-104X	C CAPACITOR		
	C 664	NCB31EK-473X	C CAPACITOR				C 951	NCB31CK-104X	C CAPACITOR		
	C 671	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 952	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 672	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V			C 961	QE20337-228	E CAPACITOR	2200MF	
	C 673	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V			C 962	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 681	NCS31HJ-101X	C CAPACITOR				C 964	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 682	NCS31HJ-101X	C CAPACITOR				C 965	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 683	NCS31HJ-101X	C CAPACITOR				C 966	NCB31HK-103X	C CAPACITOR		
	C 684	NCB31CK-104X	C CAPACITOR				C 967	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 685	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V			C 968	NCB31CK-104X	C CAPACITOR		
	C 686	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V			C 969	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 687	NCB31CK-104X	C CAPACITOR				C 971	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 688	NDC31HJ-100X	C CAPACITOR				C 972	NCB31CK-104X	C CAPACITOR		
	C 689	NDC31HJ-100X	C CAPACITOR				C 973	NCB31CK-104X	C CAPACITOR		
	C 691	NCB31CK-104X	C CAPACITOR				C 977	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 693	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V			C 978	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 694	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V			C 982	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 695	NCB31CK-104X	C CAPACITOR				C 986	NCB31CK-104X	C CAPACITOR		
	C 701	NDC31HJ-220X	C CAPACITOR				C 990	NCS31HJ-101X	C CAPACITOR		
	C 702	NDC31HJ-270X	C CAPACITOR				C 991	NCS31HJ-101X	C CAPACITOR		
	C 703	NDC31HJ-270X	C CAPACITOR				C 992	NCS31HJ-101X	C CAPACITOR		
	C 704	NCS31HJ-8R0X	C CAPACITOR				C 993	NCS31HJ-101X	C CAPACITOR		
	C 705	NCS31HJ-471X	C CAPACITOR				C 994	NCS31HJ-101X	C CAPACITOR		
	C 707	NCB31CK-104X	C CAPACITOR				C 995	NCS31HJ-101X	C CAPACITOR		
	C 708	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V			C 996	NCS31HJ-101X	C CAPACITOR		
	C 709	NDC31HJ-220X	C CAPACITOR				C 997	NCS31HJ-101X	C CAPACITOR		
	C 710	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V			C 998	NCS31HJ-101X	C CAPACITOR		
	C 711	NCS31HJ-471X	C CAPACITOR				CN301	QGA2501C1-07	7P CONNECTOR		
	C 712	NCB31EK-473X	C CAPACITOR				CN601	QGB2027M2-26X	CONNECTOR		
	C 713	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V			CN701	QGF0503F3-07X	CONNECTOR		
	C 714	NCB31CK-104X	C CAPACITOR				CN702	QGF1034C1-20X	CONNECTOR		
	C 719	NCS31HJ-471X	C CAPACITOR				CN703	QGA2501F1-02	CONNECTOR		
	C 754	NCB31CK-104X	C CAPACITOR				CN705	QGA2006C1-02	CONNECTOR		
	C 771	NCB31EK-473X	C CAPACITOR				CN771	QNZ0095-001	CONNECTOR		
	C 772	NDC31HJ-220X	C CAPACITOR				CN901	QNZ0090-001	CAR CONNECTOR		
	C 791	QERF1HM-104Z	E CAPACITOR	0.1MF 20% 50V			D 1	1SS355-X	DIODE		
	C 901	NCB31CK-104X	C CAPACITOR				D 2	1SS355-X	DIODE		
	C 903	NCB31HK-223X	C CAPACITOR				D 11	MA152WK-X	SI DIODE		
	C 911	NCB31EK-473X	C CAPACITOR				D 111	MA152WK-X	SI DIODE		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	D 131	MA152WA-X	DIODE		
	D 161	1SS355-X	DIODE		
	D 162	1SS355-X	DIODE		
	D 231	MA152WA-X	DIODE		
	D 332	MA152WK-X	SI DIODE		
	D 621	UDZS4.3B-X	ZENER DIODE		
	D 661	1SS133-T2	SI DIODE		
	D 701	CRS03-W	SB DIODE		
	D 711	1SS355-X	DIODE		
	D 721	UDZS6.2B-X	SI DIODE		
	D 722	UDZS6.2B-X	SI DIODE		
	D 723	UDZS6.2B-X	SI DIODE		
	D 724	UDZS6.2B-X	SI DIODE		
	D 725	UDZS6.2B-X	SI DIODE		
	D 726	UDZS6.2B-X	SI DIODE		
	D 727	UDZS6.2B-X	SI DIODE		
	D 728	UDZS6.2B-X	SI DIODE		
	D 729	UDZS6.2B-X	SI DIODE		
	D 730	UDZS6.2B-X	SI DIODE		
	D 754	UDZS6.2B-X	SI DIODE		
	D 795	SML-310FT/JKL/X	LED		
	D 796	SML-310FT/JKL/X	LED		
	D 941	1SS355-X	DIODE		
	D 942	1SS355-X	DIODE		
△	D 961	1N5404-TU-15	DIODE		
	D 962	CRS03-W	SB DIODE		
	D 963	1SS355-X	DIODE		
	D 964	CRS03-W	SB DIODE		
	D 967	CRS03-W	SB DIODE		
	D 978	UDZ11B-X	ZENER DIODE		
	D 980	1SS355-X	DIODE		
	D 986	MA152WA-X	DIODE		
△	IC 51	SAA6579T-X	IC		
	IC171	NJM4565V-X	IC		
	IC301	BA3220FV-X	IC		
	IC322	BU4066BCFV-X	IC		
	IC323	NJM4565V-X	IC		
	IC401	BA3220FV-X	IC		
	IC601	TA2147F-X	IC		
△	IC621	TC9490FA	IC		
△	IC661	FAN8037	IC		
	IC671	NJM4580V-X	IC		
△	IC681	PCM1716E-X	IC		
△	IC701	UPD784217AGC141	IC		
	IC702	IC-PST9333U-X	IC		
	IC703	BR24C32F-X	IC(EEPROM)		
	IC771	HD74HC126FP-X	IC		
	IC911	M61508FP-X	IC		
△	IC941	TA8273H	IC		
	IC951	NJM4565V-X	IC		
△	IC961	HA13164	IC		
	J 1	QAM0105-002	CAR CABLE		
	L 1	NQL334J-4R7X	INDUCTOR		
	L 621	NQL114K-470X	INDUCTOR		
	L 622	NQL114K-470X	INDUCTOR		
	L 623	NQL114K-470X	INDUCTOR		
	L 624	NQL114K-470X	INDUCTOR		
	L 682	NQL114K-470X	INDUCTOR		
	L 683	NQL114K-470X	INDUCTOR		
	L 701	NQL114K-470X	INDUCTOR		
	L 702	NQL114K-100X	INDUCTOR		
	L 961	QQR1198-001	CHOKE COIL		
	PP 1	QZW0010-001	STYLE PIN		

△	Item	Parts number	Parts name	Remarks	Area
	PP 2	QZW0010-001	STYLE PIN		
	Q 1	UN2111-X	TRANSISTOR		
	Q 11	2SB815/7/-X	TRANSISTOR		
	Q 12	UN2211-X	TRANSISTOR		
	Q 13	2SB709A/R/-X	TRANSISTOR		
	Q 22	2SC2412K/R/-X	TRANSISTOR		
	Q 23	2SC2412K/R/-X	TRANSISTOR		
	Q 24	UN2211-X	TRANSISTOR		
	Q 32	UN2111-X	TRANSISTOR		
	Q 33	2SD601A/R/-X	TRANSISTOR		
	Q 34	UN2111-X	TRANSISTOR		
	Q 35	UN2111-X	TRANSISTOR		
	Q 81	2SD601A/R/-X	TRANSISTOR		
	Q 91	2SD601A/R/-X	TRANSISTOR		
	Q 131	2SD1048/6-7/-X	TRANSISTOR		
	Q 132	2SD1048/6-7/-X	TRANSISTOR		
	Q 161	2SD601A/R/-X	TRANSISTOR		
	Q 231	2SD1048/6-7/-X	TRANSISTOR		
	Q 232	2SD1048/6-7/-X	TRANSISTOR		
	Q 321	UN2211-X	TRANSISTOR		
	Q 322	UN2211-X	TRANSISTOR		
	Q 323	2SD1048/6-7/-X	TRANSISTOR		
	Q 423	2SD1048/6-7/-X	TRANSISTOR		
	Q 601	2SB1241/QR/-T	TRANSISTOR		
	Q 650	2SB709A/QR/-X	TRANSISTOR		
	Q 651	UN2211-X	TRANSISTOR		
	Q 661	2SB1241/QR/-T	TRANSISTOR		
	Q 662	UN2111-X	TRANSISTOR		
	Q 663	UN2211-X	TRANSISTOR		
	Q 755	UN2211-X	TRANSISTOR		
	Q 791	UN2211-X	TRANSISTOR		
	Q 941	UN2211-X	TRANSISTOR		
	Q 942	UN2211-X	TRANSISTOR		
	Q 965	UN2211-X	TRANSISTOR		
	Q 966	2SB709A/R/-X	TRANSISTOR		
	Q 977	UN2111-X	TRANSISTOR		
	Q 979	UN2111-X	TRANSISTOR		
	Q 983	2SD601A/R/-X	TRANSISTOR		
	Q 986	UN2211-X	TRANSISTOR		
	R 1	NRSA63J-473X	MG RESISTOR		
	R 2	NRSA63J-393X	MG RESISTOR		
	R 4	NRSA63J-100X	MG RESISTOR		
	R 10	NRSA63J-220X	MG RESISTOR		
	R 11	NRSA63J-220X	MG RESISTOR		
	R 12	NRSA63J-473X	MG RESISTOR		
	R 13	NRSA63J-472X	MG RESISTOR		
	R 14	NRSA63J-473X	MG RESISTOR		
	R 15	NRSA63J-332X	MG RESISTOR		
	R 21	NRSA63J-473X	MG RESISTOR		
	R 22	NRSA63J-393X	MG RESISTOR		
	R 23	NRSA63J-103X	MG RESISTOR		
	R 24	NRSA63J-222X	MG RESISTOR		
	R 25	NRSA63J-103X	MG RESISTOR		
	R 26	NRSA63J-103X	MG RESISTOR		
	R 27	NRSA63J-471X	MG RESISTOR		
	R 28	NRSA63J-473X	MG RESISTOR		
	R 33	NRSA63J-472X	MG RESISTOR		
	R 34	NRSA63J-4R7X	MG RESISTOR		
	R 51	NRSA63J-0R0X	MG RESISTOR		
	R 52	NRSA63J-222X	MG RESISTOR		
	R 53	NRSA63J-222X	MG RESISTOR		
	R 54	NRSA63J-222X	MG RESISTOR		
	R 81	NRSA63J-103X	MG RESISTOR		

## ■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 82	NRSA63J-273X	MG RESISTOR				R 272	NRSA63J-104X	MG RESISTOR		
	R 83	NRSA63J-472X	MG RESISTOR				R 273	NRSA63J-103X	MG RESISTOR		
	R 91	NRSA63J-103X	MG RESISTOR				R 274	NRSA63J-103X	MG RESISTOR		
	R 92	NRSA63J-273X	MG RESISTOR				R 275	NRSA63J-822X	MG RESISTOR		
	R 93	NRSA63J-472X	MG RESISTOR				R 276	NRSA63J-822X	MG RESISTOR		
	R 111	NRSA63J-224X	MG RESISTOR				R 277	NRSA63J-102X	MG RESISTOR		
	R 118	NRSA63J-332X	MG RESISTOR				R 301	NRSA63J-183X	MG RESISTOR		
	R 119	NRSA63J-473X	MG RESISTOR				R 302	NRSA63J-183X	MG RESISTOR		
	R 131	NRSA63J-222X	MG RESISTOR				R 303	NRSA63J-333X	MG RESISTOR		
	R 132	NRSA63J-222X	MG RESISTOR				R 304	NRSA63J-333X	MG RESISTOR		
	R 133	NRSA63J-0R0X	MG RESISTOR				R 305	NRSA63J-154X	MG RESISTOR		
	R 134	NRSA63J-0R0X	MG RESISTOR				R 325	NRSA63J-104X	MG RESISTOR		
	R 135	NRSA63J-101X	MG RESISTOR				R 327	NRSA63J-562X	MG RESISTOR		
	R 136	NRSA63J-101X	MG RESISTOR				R 328	NRSA63J-153X	MG RESISTOR		
	R 137	NRSA63J-102X	MG RESISTOR				R 329	NRSA63J-0R0X	MG RESISTOR		
	R 138	NRSA63J-102X	MG RESISTOR				R 330	NRSA63J-473X	MG RESISTOR		
	R 141	NRSA63J-473X	MG RESISTOR				R 331	NRSA63J-104X	MG RESISTOR		
	R 142	NRSA63J-473X	MG RESISTOR				R 332	NRSA63J-104X	MG RESISTOR		
	R 143	NRSA63J-823X	MG RESISTOR				R 333	NRSA63J-473X	MG RESISTOR		
	R 144	NRSA63J-823X	MG RESISTOR				R 334	NRSA63J-473X	MG RESISTOR		
	R 145	NRSA63J-124X	MG RESISTOR				R 335	NRSA63J-821X	MG RESISTOR		
	R 146	NRSA63J-124X	MG RESISTOR				R 336	NRSA63J-473X	MG RESISTOR		
	R 151	NRSA63J-223X	MG RESISTOR				R 337	NRSA63J-472X	MG RESISTOR		
	R 152	NRSA63J-333X	MG RESISTOR				R 338	NRSA63J-101X	MG RESISTOR		
	R 153	NRSA63J-123X	MG RESISTOR				R 339	NRSA63J-101X	MG RESISTOR		
	R 154	NRSA63J-272X	MG RESISTOR				R 340	NRSA63J-0R0X	MG RESISTOR		
	R 155	NRSA63J-153X	MG RESISTOR				R 341	NRSA63J-105X	MG RESISTOR		
	R 161	NRSA63J-473X	MG RESISTOR				R 342	NRSA63J-105X	MG RESISTOR		
	R 162	NRSA63J-123X	MG RESISTOR				R 343	NRSA63J-105X	MG RESISTOR		
	R 163	NRSA63J-184X	MG RESISTOR				R 344	NRSA63J-105X	MG RESISTOR		
	R 164	NRSA63J-223X	MG RESISTOR				R 351	NRSA63J-103X	MG RESISTOR		
	R 165	NRSA63J-391X	MG RESISTOR				R 352	NRSA63J-103X	MG RESISTOR		
	R 166	NRSA63J-102X	MG RESISTOR				R 401	NRSA63J-183X	MG RESISTOR		
	R 167	NRSA63J-274X	MG RESISTOR				R 402	NRSA63J-183X	MG RESISTOR		
	R 172	NRSA63J-104X	MG RESISTOR				R 403	NRSA63J-333X	MG RESISTOR		
	R 173	NRSA63J-103X	MG RESISTOR				R 404	NRSA63J-333X	MG RESISTOR		
	R 174	NRSA63J-103X	MG RESISTOR				R 405	NRSA63J-154X	MG RESISTOR		
	R 175	NRSA63J-822X	MG RESISTOR				R 435	NRSA63J-821X	MG RESISTOR		
	R 176	NRSA63J-822X	MG RESISTOR				R 436	NRSA63J-473X	MG RESISTOR		
	R 177	NRSA63J-102X	MG RESISTOR				R 437	NRSA63J-472X	MG RESISTOR		
	R 178	NRSA63J-471X	MG RESISTOR				R 601	NRSA63J-823X	MG RESISTOR		
	R 211	NRSA63J-224X	MG RESISTOR				R 602	NRSA63J-823X	MG RESISTOR		
	R 218	NRSA63J-332X	MG RESISTOR				R 603	NRSA63J-823X	MG RESISTOR		
	R 219	NRSA63J-473X	MG RESISTOR				R 604	NRSA63J-823X	MG RESISTOR		
	R 231	NRSA63J-222X	MG RESISTOR				R 605	NRSA63J-154X	MG RESISTOR		
	R 232	NRSA63J-222X	MG RESISTOR				R 606	NRSA63J-154X	MG RESISTOR		
	R 233	NRSA63J-0R0X	MG RESISTOR				R 607	NRSA02J-220X	MG RESISTOR		
	R 234	NRSA63J-0R0X	MG RESISTOR				R 608	NRSA02J-220X	MG RESISTOR		
	R 235	NRSA63J-101X	MG RESISTOR				R 609	NRSA63J-823X	MG RESISTOR		
	R 236	NRSA63J-101X	MG RESISTOR				R 610	NRSA63J-473X	MG RESISTOR		
	R 237	NRSA63J-102X	MG RESISTOR				R 611	NRSA63J-822X	MG RESISTOR		
	R 238	NRSA63J-102X	MG RESISTOR				R 612	NRSA63J-202X	MG RESISTOR		
	R 241	NRSA63J-473X	MG RESISTOR				R 613	NRSA63J-102X	MG RESISTOR		
	R 242	NRSA63J-473X	MG RESISTOR				R 614	NRSA63J-273X	MG RESISTOR		
	R 243	NRSA63J-823X	MG RESISTOR				R 615	NRSA63J-101X	MG RESISTOR		
	R 244	NRSA63J-823X	MG RESISTOR				R 616	NRSA63J-821X	MG RESISTOR		
	R 245	NRSA63J-124X	MG RESISTOR				R 617	NRSA63J-473X	MG RESISTOR		
	R 246	NRSA63J-124X	MG RESISTOR				R 621	NRSA63J-562X	MG RESISTOR		
	R 251	NRSA63J-223X	MG RESISTOR				R 622	NRSA63J-473X	MG RESISTOR		
	R 252	NRSA63J-333X	MG RESISTOR				R 623	NRSA63J-474X	MG RESISTOR		
	R 253	NRSA63J-123X	MG RESISTOR				R 624	NRSA63J-333X	MG RESISTOR		
	R 254	NRSA63J-272X	MG RESISTOR				R 625	NRSA63J-103X	MG RESISTOR		
	R 255	NRSA63J-153X	MG RESISTOR				R 626	NRSA63J-0R0X	MG RESISTOR		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 627	NRSA63J-101X	MG RESISTOR		
	R 628	NRSA63J-101X	MG RESISTOR		
	R 629	NRSA63J-0R0X	MG RESISTOR		
	R 630	NRSA63J-0R0X	MG RESISTOR		
	R 631	NRSA63J-101X	MG RESISTOR		
	R 632	NRSA63J-101X	MG RESISTOR		
	R 633	NRSA63J-105X	MG RESISTOR		
	R 634	NRSA63J-472X	MG RESISTOR		
	R 635	NRSA63J-472X	MG RESISTOR		
	R 636	NRSA63J-472X	MG RESISTOR		
	R 637	NRSA63J-472X	MG RESISTOR		
	R 638	NRSA63J-103X	MG RESISTOR		
	R 650	NRSA63J-473X	MG RESISTOR		
	R 651	NRSA63J-222X	MG RESISTOR		
	R 661	NRSA63J-332X	MG RESISTOR		
	R 662	NRSA63J-122X	MG RESISTOR		
	R 663	NRSA63J-332X	MG RESISTOR		
	R 664	NRSA63J-182X	MG RESISTOR		
	R 665	NRSA63J-682X	MG RESISTOR		
	R 666	NRSA63J-682X	MG RESISTOR		
	R 667	NRSA63J-682X	MG RESISTOR		
	R 668	NRSA63J-682X	MG RESISTOR		
	R 669	NRSA63J-822X	MG RESISTOR		
	R 670	NRSA63J-622X	MG RESISTOR		
	R 671	NRSA63J-512X	MG RESISTOR		
	R 672	NRSA63J-104X	MG RESISTOR		
	R 673	NRSA63J-104X	MG RESISTOR		
	R 674	NRSA63J-222X	MG RESISTOR		
	R 675	NRSA63J-103X	MG RESISTOR		
	R 676	NRSA63J-333X	MG RESISTOR		
	R 677	NRSA63J-104X	MG RESISTOR		
	R 678	NRSA63J-104X	MG RESISTOR		
	R 679	NRSA63J-682X	MG RESISTOR		
	R 680	NRSA02J-184X	MG RESISTOR		
	R 681	NRSA63J-101X	MG RESISTOR		
	R 682	NRSA63J-101X	MG RESISTOR		
	R 683	NRSA63J-101X	MG RESISTOR		
	R 684	NRSA63J-470X	MG RESISTOR		
	R 685	NRSA63J-470X	MG RESISTOR		
	R 686	NRSA63J-470X	MG RESISTOR		
	R 687	NRSA63J-101X	MG RESISTOR		
	R 688	NRSA63J-101X	MG RESISTOR		
	R 689	NRSA63J-473X	MG RESISTOR		
	R 690	NRSA63J-473X	MG RESISTOR		
	R 691	NRSA63J-470X	MG RESISTOR		
	R 701	NRSA63J-473X	MG RESISTOR		
	R 702	NRSA63J-103X	MG RESISTOR		
	R 703	NRSA63J-104X	MG RESISTOR		
	R 704	NRSA63J-104X	MG RESISTOR		
	R 705	NRSA63J-473X	MG RESISTOR		
	R 706	NRSA63J-222X	MG RESISTOR		
	R 707	NRSA63J-472X	MG RESISTOR		
	R 708	NRSA63J-472X	MG RESISTOR		
	R 709	NRSA63J-103X	MG RESISTOR		
	R 710	NRSA63J-103X	MG RESISTOR		
	R 711	NRSA63J-103X	MG RESISTOR		
	R 713	NRSA63J-103X	MG RESISTOR		
	R 714	NRSA63J-103X	MG RESISTOR		
	R 715	NRSA63J-472X	MG RESISTOR		
	R 716	NRSA63J-472X	MG RESISTOR		
	R 717	NRSA63J-472X	MG RESISTOR		
	R 718	NRSA63J-222X	MG RESISTOR		
	R 719	NRSA63J-222X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 720	NRSA63J-222X	MG RESISTOR		
	R 721	NRSA63J-103X	MG RESISTOR		
	R 722	NRSA63J-103X	MG RESISTOR		
	R 723	NRSA63J-102X	MG RESISTOR		
	R 724	NRSA63J-271X	MG RESISTOR		
	R 725	NRSA63J-271X	MG RESISTOR		
	R 728	NRSA63J-104X	MG RESISTOR		
	R 729	NRSA63J-103X	MG RESISTOR		
	R 730	NRSA63J-104X	MG RESISTOR		
	R 731	NRSA63J-104X	MG RESISTOR		
	R 732	NRSA63J-104X	MG RESISTOR		
	R 733	NRSA63J-104X	MG RESISTOR		
	R 734	NRSA63J-104X	MG RESISTOR		
	R 735	NRSA63J-104X	MG RESISTOR		
	R 736	NRSA63J-102X	MG RESISTOR		
	R 738	NRSA63J-103X	MG RESISTOR		
	R 739	NRSA63J-473X	MG RESISTOR		
	R 741	NRSA63J-473X	MG RESISTOR		
	R 743	NRSA63J-473X	MG RESISTOR		
	R 744	NRSA63J-332X	MG RESISTOR		
	R 745	NRSA63J-103X	MG RESISTOR		
	R 746	NRSA63J-103X	MG RESISTOR		
	R 747	NRSA63J-473X	MG RESISTOR		
	R 748	NRSA63J-104X	MG RESISTOR		
	R 749	NRSA63J-473X	MG RESISTOR		
	R 750	NRSA63J-473X	MG RESISTOR		
	R 751	NRSA63J-106X	MG RESISTOR		
	R 753	NRSA63J-473X	MG RESISTOR		
	R 754	NRSA63J-102X	MG RESISTOR		
	R 755	NRSA63J-821X	MG RESISTOR		
	R 757	NRSA63J-103X	MG RESISTOR		
	R 758	NRSA63J-103X	MG RESISTOR		
	R 759	NRSA63J-0R0X	MG RESISTOR		
	R 761	NRSA63J-103X	MG RESISTOR		
	R 762	NRSA63J-222X	MG RESISTOR		
	R 763	NRSA63J-222X	MG RESISTOR		
	R 764	NRSA63J-222X	MG RESISTOR		
	R 765	NRSA63J-222X	MG RESISTOR		
	R 766	NRSA63J-222X	MG RESISTOR		
	R 767	NRSA63J-473X	MG RESISTOR		
	R 768	NRSA63J-103X	MG RESISTOR		
	R 770	NRSA63J-103X	MG RESISTOR		
	R 771	NRSA63J-331X	MG RESISTOR		
	R 772	NRSA63J-473X	MG RESISTOR		
	R 773	NRSA63J-223X	MG RESISTOR		
	R 774	NRSA63J-101X	MG RESISTOR		
	R 775	NRSA63J-103X	MG RESISTOR		
	R 776	NRSA63J-104X	MG RESISTOR		
	R 777	NRSA63J-223X	MG RESISTOR		
	R 778	NRSA63J-101X	MG RESISTOR		
	R 779	NRSA63J-473X	MG RESISTOR		
	R 781	NRSA63J-331X	MG RESISTOR		
	R 782	NRSA63J-104X	MG RESISTOR		
	R 786	NRSA63J-473X	MG RESISTOR		
	R 791	NRSA63J-102X	MG RESISTOR		
	R 795	NRSA63J-102X	MG RESISTOR		
	R 796	NRSA63J-102X	MG RESISTOR		
	R 911	NRSA63J-222X	MG RESISTOR		
	R 912	NRSA63J-222X	MG RESISTOR		
	R 922	NRSA63J-271X	MG RESISTOR		
	R 924	NRSA63J-271X	MG RESISTOR		
	R 925	NRSA63J-271X	MG RESISTOR		
	R 926	NRSA63J-271X	MG RESISTOR		



■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 928	NRSA63J-271X	MG RESISTOR		
	R 929	NRSA63J-271X	MG RESISTOR		
	R 930	NRSA63J-271X	MG RESISTOR		
	R 941	NRSA63J-222X	MG RESISTOR		
	R 943	NRSA63J-102X	MG RESISTOR		
	R 944	NRSA63J-273X	MG RESISTOR		
	R 951	NRSA63J-103X	MG RESISTOR		
	R 954	NRSA63J-103X	MG RESISTOR		
	R 961	QRE142J-102X	C RESISTOR	1.0K 5% 1/4W	
	R 962	NRSA63J-912X	MG RESISTOR		
	R 963	NRSA63J-472X	MG RESISTOR		
	R 968	NRSA63J-102X	MG RESISTOR		
	R 970	NRSA63J-562X	MG RESISTOR		
	R 971	NRSA63J-183X	MG RESISTOR		
	R 975	NRSA63J-562X	MG RESISTOR		
	R 976	NRS181J-222X	MG RESISTOR		
	R 977	NRS181J-222X	MG RESISTOR		
	R 978	NRSA63J-104X	MG RESISTOR		
	R 984	NRSA63J-473X	MG RESISTOR		
	R 985	NRSA63J-103X	MG RESISTOR		
	R 986	NRSA63J-102X	MG RESISTOR		
	R 987	NRSA63J-473X	MG RESISTOR		
	TH951	NAD0022-103X	N THERMISTOR		
△	TU 1	QAU0203-001	TUNER PACK		
	X 51	QAX0263-001Z	CRYSTAL		
	X 681	QAX0413-001Z	CRYSTAL		
	X 701	QAX0617-001Z	CRYSTAL		
	X 702	QAX0401-001	CRYSTAL		

■ Electrical parts list(Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	C 561	NBE20JM-475X	TS E CAPACITOR		
	C 571	NCB31CK-104X	C CAPACITOR		
	C 582	NCB31CK-104X	C CAPACITOR		
	C 583	NCB31CK-104X	C CAPACITOR		
	C 584	NCB31CK-104X	C CAPACITOR		
	C 585	NBE21CM-475X	TA E CAPACITOR		
	C 586	NCB31HK-681X	C CAPACITOR		
	C 587	NBE20JM-475X	TS E CAPACITOR		
	C 588	NBE20JM-475X	TS E CAPACITOR		
	C 595	NCB31CK-473X	C CAPACITOR		
	C 596	NCB31CK-473X	C CAPACITOR		
	C 597	NCF31AZ-105X	C CAPACITOR		
	CN501	QGZ2201L1-16	CONNECTOR		
	CN503	QGA1501F2-03W	CONNECTOR		
	CN504	QGF0503F3-07X	CONNECTOR		
	CN505	QGF1013F1-20X	CONNECTOR		
	CN511	QGZ2201M1-16	CONNECTOR		
	CN512	WJT0056-001A	E-CARD WIRE		
	CN513	WJK0017-001A	ASSY WIRE		
	D 501	SML-310LT/MN/-X	LED		
	D 502	SML-310LT/MN/-X	LED		
	D 503	SML-310LT/MN/-X	LED		
	D 504	SML-310LT/MN/-X	LED		
	D 505	SML-310LT/MN/-X	LED		
	D 506	SML-310LT/MN/-X	LED		
	D 507	SML-310LT/MN/-X	LED		
	D 508	SML-310LT/MN/-X	LED		
	D 510	SML-310LT/MN/-X	LED		
	D 511	SML-310LT/MN/-X	LED		
	D 512	SML-310LT/MN/-X	LED		
	D 513	SML-310LT/MN/-X	LED		
	D 514	SML-310LT/MN/-X	LED		
	D 515	SML-310LT/MN/-X	LED		
	D 516	SML-310LT/MN/-X	LED		
	D 517	SML-310LT/MN/-X	LED		
	D 518	CL-190UB-X-X	LED		
	D 519	CL-190UB-X-X	LED		
	D 520	SML-310LT/MN/-X	LED		
	D 540	MA152WK-X	SI DIODE		
	D 541	NSPW310BS/BRS/	LED		
	D 542	NSPW310BS/BRS/	LED		
	D 543	NSPW310BS/BRS/	LED		
	D 571	1PS226-X	CHIP DIODE		
	D 572	1PS226-X	CHIP DIODE		
	D 573	1PS226-X	CHIP DIODE		
	D 574	1SS355-X	DIODE		
	D 575	UDZS5.1B-X	ZENER DIODE		
	D 581	RSA6.1EN-W	ZENER DIODE		
	D 582	RSA6.1EN-W	ZENER DIODE		
	D 583	UDZS6.2B-X	SI DIODE		
	D 592	UDZS6.2B-X	SI DIODE		
	EN591	QSW0915-001	ROTARY ENCODER		
	IC501	LC75878W	IC		
	IC561	RPM6938-SV4	IC		
	PJ501	QNS0145-001	3.5 JACK		
	Q 541	DTC114EKA-X	TRANSISTOR		
	Q 542	2SB8157/-X	TRANSISTOR		
	R 501	NRSA63J-561X	MG RESISTOR		
	R 502	NRSA63J-681X	MG RESISTOR		
	R 503	NRSA63J-102X	MG RESISTOR		
	R 504	NRSA63J-122X	MG RESISTOR		
	R 505	NRSA63J-182X	MG RESISTOR		
	R 506	NRSA63J-272X	MG RESISTOR		

■ Electrical parts list(Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	R 507	NRSA63J-472X	MG RESISTOR		
	R 508	NRSA63J-103X	MG RESISTOR		
	R 509	NRSA63J-561X	MG RESISTOR		
	R 510	NRSA63J-681X	MG RESISTOR		
	R 511	NRSA63J-102X	MG RESISTOR		
	R 512	NRSA63J-122X	MG RESISTOR		
	R 513	NRSA63J-182X	MG RESISTOR		
	R 514	NRSA63J-272X	MG RESISTOR		
	R 515	NRSA63J-472X	MG RESISTOR		
	R 521	NRSA63J-222X	MG RESISTOR		
	R 522	NRSA63J-122X	MG RESISTOR		
	R 523	NRSA63J-122X	MG RESISTOR		
	R 524	NRSA63J-122X	MG RESISTOR		
	R 525	NRSA63J-182X	MG RESISTOR		
	R 526	NRSA63J-122X	MG RESISTOR		
	R 527	NRSA63J-122X	MG RESISTOR		
	R 528	NRSA63J-821X	MG RESISTOR		
	R 529	NRSA63J-222X	MG RESISTOR		
	R 531	NRSA63J-222X	MG RESISTOR		
	R 532	NRSA63J-122X	MG RESISTOR		
	R 533	NRSA63J-122X	MG RESISTOR		
	R 534	NRSA63J-122X	MG RESISTOR		
	R 535	NRSA63J-182X	MG RESISTOR		
	R 536	NRSA63J-122X	MG RESISTOR		
	R 537	NRSA63J-122X	MG RESISTOR		
	R 538	NRSA63J-821X	MG RESISTOR		
	R 539	NRSA63J-222X	MG RESISTOR		
	R 540	NRSA63J-332X	MG RESISTOR		
	R 541	NRSA63J-821X	MG RESISTOR		
	R 542	NRSA63J-821X	MG RESISTOR		
	R 543	NRSA63J-821X	MG RESISTOR		
	R 544	NRSA63J-561X	MG RESISTOR		
	R 545	NRSA63J-223X	MG RESISTOR		
	R 546	NRSA63J-222X	MG RESISTOR		
	R 547	NRSA63J-561X	MG RESISTOR		
	R 551	NRSA63J-821X	MG RESISTOR		
	R 552	NRSA63J-821X	MG RESISTOR		
	R 553	NRSA63J-821X	MG RESISTOR		
	R 561	NRSA63J-103X	MG RESISTOR		
	R 562	NRSA63J-470X	MG RESISTOR		
	R 563	NRSA63J-332X	MG RESISTOR		
	R 564	NRSA63J-332X	MG RESISTOR		
	R 565	NRSA63J-332X	MG RESISTOR		
	R 571	NRSA63J-471X	MG RESISTOR		
	R 572	NRSA63J-471X	MG RESISTOR		
	R 586	NRSA63J-823X	MG RESISTOR		
	R 592	NRSA63J-473X	MG RESISTOR		
	R 593	NRSA63J-473X	MG RESISTOR		
	R 595	NRSA63J-473X	MG RESISTOR		
	R 596	NRSA63J-473X	MG RESISTOR		
	R 597	NRSA63J-471X	MG RESISTOR		
	S 501	NSW0066-001X	TACT SWITCH		
	S 502	NSW0066-001X	TACT SWITCH		
	S 503	NSW0066-001X	TACT SWITCH		
	S 504	NSW0066-001X	TACT SWITCH		
	S 505	NSW0066-001X	TACT SWITCH		
	S 506	NSW0066-001X	TACT SWITCH		
	S 507	NSW0066-001X	TACT SWITCH		
	S 508	NSW0066-001X	TACT SWITCH		
	S 509	NSW0066-001X	TACT SWITCH		
	S 510	NSW0066-001X	TACT SWITCH		
	S 511	NSW0066-001X	TACT SWITCH		
	S 512	NSW0066-001X	TACT SWITCH		

△	Item	Parts number	Parts name	Remarks	Area
	S 513	NSW0066-001X	TACT SWITCH		
	S 514	NSW0066-001X	TACT SWITCH		
	S 515	NSW0066-001X	TACT SWITCH		
	S 516	NSW0066-001X	TACT SWITCH		
	S 517	NSW0066-001X	TACT SWITCH		
	S 518	NSW0066-001X	TACT SWITCH		
	S 591	NSW0146-001X	DETECT SWITCH		
	S 592	NSW0146-001X	DETECT SWITCH		
	S 593	NSW0146-001X	DETECT SWITCH		
	S 594	NSW0146-001X	DETECT SWITCH		
	S 595	NSW0146-001X	DETECT SWITCH		
	S 596	NSW0146-001X	DETECT SWITCH		

< M E M O >



**Parts list(Packing)**

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPA01703505P	POLY BAG	2	INSTRUCTIONS	
	P 2	QPA00801205	POLY BAG	1	KIT	
	P 3	QPC01002315	POLY BAG	1	FRONT	
	P 4	QPA01003003	POLY BAG	1	HARD CASE	
	P 5	VPE3005-066	POLY BAG	1	SET	
	P 6	LV32580-001A	CARTON	1		
	P 7	LV10466-001A	CUSHION	2		

**Parts list(Accessorise)**

Block No. M4MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0625-001A	INSTRUCTIONS	1		
	A 2	BT-54013-2	W.CARD	1		
	A 3	LVT0638-001A	INSTRUCTIONS	1		E
	A 4	LVT0629-001A	INST MANUAL	1		
		LVT0640-001A	INST MANUAL	1		E
	A 5	LV42487-001A	CAUTION SHEET	1		
	A 6	QAM0106-001	CAR CABLE	1		
	A 7	RM-RK100	REMOCON	1		
	A 8	QAB0014-001	BATTERY	1		
	A 9	VKZ4027-202	PLUG NUT	1		
	A 10	VKH4871-001SS	MOUNT BOLT	1		
	A 11	VKZ4328-001	LOCK NUT	1		
	A 12	WNS5000Z	WASHER	1		
	A 13	FSKL4010-002	HOOK	2		
	A 14	LV40978-001A	CAUTION SHEET	1		
	A 15	FSKM2004-003	MOUNTING SLEEVE	1		
	A 16	LV20938-001A	TRIM PLATE	1		
	A 17	LV32577-001A	HARD CASE ASSY	1		
	KIT	KDGS717K-SCREW1	SCREW PARTS KIT	1	A9-A13	

< M E M O >

# PARTS LIST

[ KD-SH55R ]

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

## Area suffix

E ----- Continental Europe  
EX ----- Central Europe

## - Contents -

Exploded view of general assembly and parts list .....	3-20
CD mechanism assembly and parts list .....	3-23
Electrical parts list .....	3-26
Packing materials and accessories parts list .....	3-34

**Parts list(General assembly)**

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	-----	CD MECHA	1		
	2	QYSDST2004Z	SCREW	1		
	3	LV40847-002A	SPACER	1		
	4	LV10461-001A	TOP CHASSIS	1		
	5	LV32559-002A	FRONT CHASSIS A	1		
	6	LV40828-003A	BLIND	1		
	7	LV42419-001A	LENS SHEET	1		
	8	LV40846-017A	SPACER(F)	1		
	9	WJT0057-001A	E CARD WIRE	1		
	10	LV32451-001A	SIDE HEAT SINK	1		
	11	LV32452-001A	INSULATOR	1		
	12	QYSDST2604Z	SCREW	3	T.CHAS+CD MECHA	
	13	QYSDSF2610Z	TAPPING SCREW	1	T.CHAS+S HEAT S	
	14	LV41200-003A	SPECIAL SCREW	3	T.CHAS+S HEAT S	
	15	LV41200-003A	SPECIAL SCREW	1	T.CHASS+REAR	
	16	QYSDST2604Z	SCREW	5	T.CHAS+B.CHASS	
	17	QYSDST2604Z	SCREW	2	T.CHAS+R.BKT	
	18	LV41200-001A	SPECIAL SCREW	1	BOTTOM CHA.+REA	
	19	QYSPSP2003M	SCREW	2	T.CHAS+F.COVER	
	20	LV41200-001A	SPECIAL SCREW	2	MAIN PWB+BOTTOM	
	21	LV10463-001A	BOTTOM CHASSIS	1		
	22	LV32453-001A	FPC GUIDE	1		
	23	LV20929-001A	GUIDE RAIL(L)	1		
	24	LV20930-001A	GUIDE RAIL(R)	1		
	25	LV42239-001A	S PLATE(L) ASSY	1		
	26	LV42240-001A	S PLATE(R) ASSY	1		
	27	LV42104-001A	DETECT PLATE	1		
	28	QYSPSPU1725M	SCREW	2	DET.PL+S.PL(L)	
	29	LV32569-003A	A BKT ASS'Y(L)	1		
	30	LV32570-001A	A BKT ASS'Y(R)	1		
	31	LV42112-001A	TENS SPG(L)	2		
	32	LV32459-001A	ROD GEAR(SH)	1		
	33	QYWFL259013-0	WASHER	2		
	34	LV32530-001A	GUIDE BLOCK(R)	1		
	35	LV32531-001A	GUIDE BLOCK(L)	1		
	36	LV32460-001A	MOTOR BKT ASS'Y	1		
	37	QAR0182-001	MOTOR(FEED)	1		
	38	QYSPSPT2020Z	MINI SCREW	2	MOTOR+MOTOR BKT	
	39	LV40847-002A	SPACER	1		
	40	WJM0204-001A	E-SI C WIRE C-F	1		
	41	LV42455-001A	SHAFT	1		
	42	LV42437-001A	ROTOR	1		
	43	LV42436-001A	WORM GEAR	1		
	44	LV42115-002A	GEAR S1	1		
	45	LV42116-002A	GEAR S2	1		
	46	LV42117-001A	GEAR S3	1		
	47	LV42118-002A	GEAR S4	1		
	48	LV42119-001A	GEAR S5	1		



## ■ Parts list(General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	49	WDM215025	WASHER	5	FOR GEAR S1-S5	
	50	WDM214540	WASHER	1	FOR CLUTCH ASSY	
	51	LV30981-005A	CLUTCH ASS'Y	1		
	52	QYWFL266010-9	WASHER	1		
	53	LV32558-002A	FRONT BKT ASSY	1		
	54	LV42394-001A	ABSORBER	1		
	55	LV40846-015A	SPACER(F)	1		
	56	LV40846-018A	SPACER(F)	1	F.BKT ASSY	
	57	LV40846-022A	SPACER(F)	1		
	58	LV20933-001A	CONECTOR COVER	1		
	59	LV40846-018A	SPACER(F)	1		
	60	LV42534-001A	CONNECT PTN	2		
	61	QYSPSPU1730M	SCREW	1		
	62	LV32461-001A	REINFORCE PLATE	1		
	63	QYSPSP2003M	SCREW	2		
	64	LV32462-001A	OPEN LEVER	1		
	65	LV42122-001A	TORSION SPRING	1	FOR OPEN LEVER	
	66	LV32463-001A	DETACH LEVER	1		
	67	LV42123-001A	DTCH LVR SHAFT	1		
	68	LV42124-001A	TORSION SPRING	1	FOR DTCH LEVER	
	69	QAL0314-002	FPC	1		
	70	LV42420-001A	FPC SHEET	1		
	71	LV40865-001A	MINI SCREW	1	FPC GUIDE+BOT.CH	
	72	LV40865-001A	MINI SCREW	3	G.RAIL(L)+BOT.CH	
	73	LV40865-001A	MINI SCREW	3	G.RAIL(R)+BOT.CH	
	74	LV40865-001A	MINI SCREW	2	DET.SW PWB+BO.CH	
	75	LV40865-001A	MINI SCREW	2	ARM BKT(L)+BO.CH	
	76	LV40865-001A	MINI SCREW	2	ARM BKT(R)+BO.CH	
	77	LV40865-001A	MINI SCREW	2	MOTOR BKT+BOT.CH	
	78	LV42181-002A	SPECIAL SCREW	4	ARM+PANEL BKT	
	79	LV10464-001A	FRONT PANEL	1		
	80	LV40848-023A	SPACER(P)	2		
	81	LV32464-004A	AL PANEL	1		
	82	LV10465-001A	REAR COVER	1		
	83	LV42127-005A	EARTH SPRING R	1		
	84	QYSPSPU1730M	SCREW	1	FOR E.SPRING	
	85	LV20934-001A	PRESET BUTTON	1		
	86	LV42456-001A	SW PWB SHEET	1		
	87	LV42457-001A	BUTTON SHEET	6		
	88	LV40848-024A	SPACER(P)	2		
	89	LV32557-001A	PUSH BUTTON(L)	1		
	90	LV32466-001A	PUSH BUTTON(R)	1		
	91	LV20936-002A	D.FUNC BUTTON	1		
	92	LV32467-002A	DETACH BUTTON	1		
	93	LV42128-001A	COMP. SPRING	1		
	94	LV42129-001A	REMOTE LENS	1		
	95	LV20937-004A	FINDER	1		
	96	LV32797-001A	VOL.KNOB ASS'Y	1		

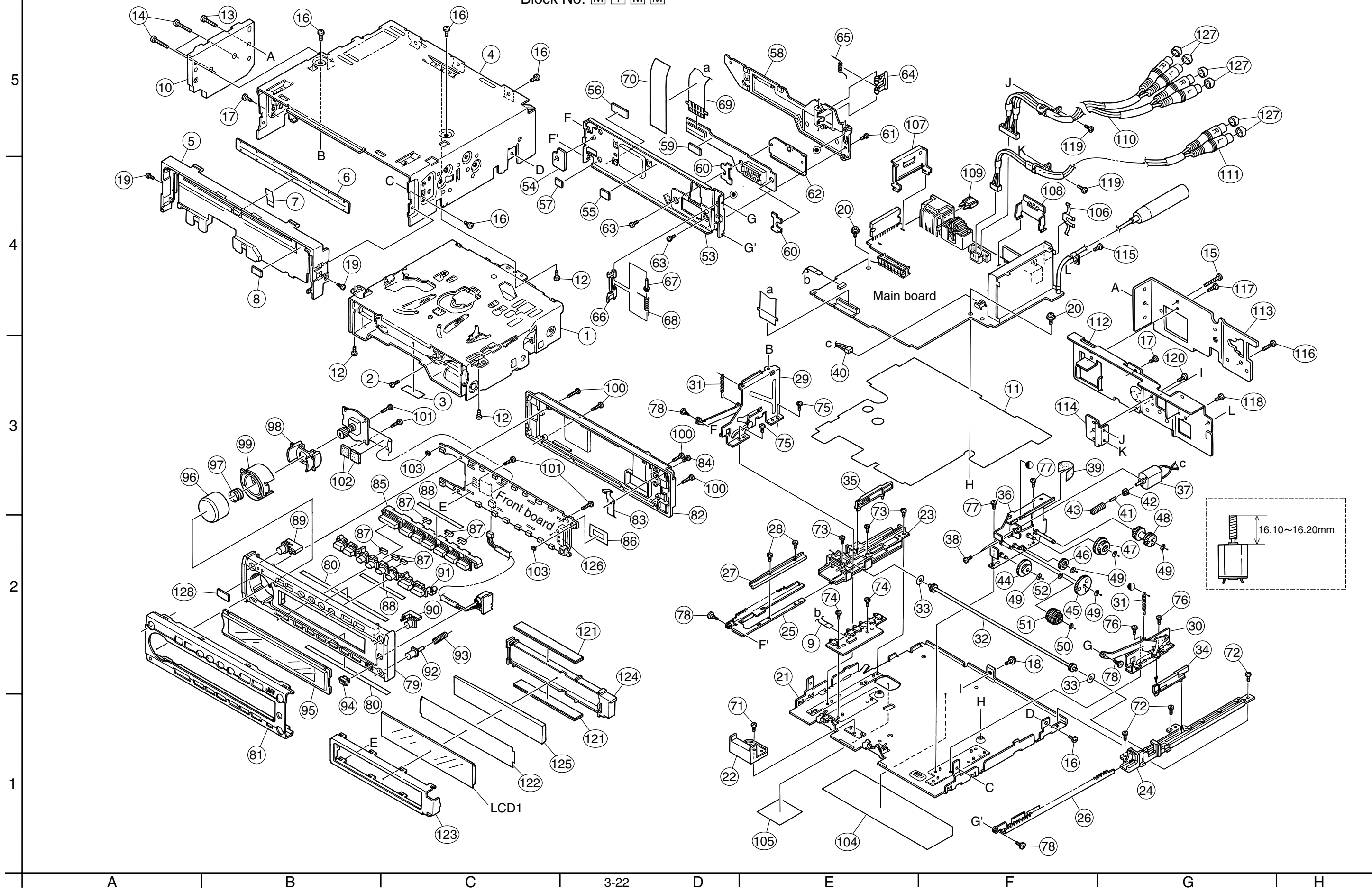
## ■ Parts list(General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	97	LV42386-001A	COMP.SPRING	1		
	98	LV32469-001A	RING LENS	1		
	99	LV32556-002A	VOL.RING	1		
	100	VKZ4777-001	MINI SCREW	4	F.PANEL+REAR CV	
	101	VKZ4777-001	MINI SCREW	4	F.PANEL+SW.PWB	
	102	VYSH101-009	SPACER	2		
	103	LV40846-016A	SPACER(F)	2		
	104	LV32575-001A	NAME PLATE	1		
	105	LV41143-001A	SHEET	1		
	106	VMA4652-001SS	EARTH PLATE	1		
	107	LV42297-001A	IC BRACKET	1		
	108	LV41993-001A	REG BKT	1		
△	109	QMFZ039-150-T	FUSE	1		
	110	QAM0351-001	PIN CORD ASS'Y	1		
	111	QAM0345-002	PIN CORD ASS'Y	1		
	112	LV30943-202A	REAR BRACKET	1		
	113	LV30946-006A	REAR HEAT SINK	1		
	114	LV40790-002A	PIN CORD BRKT	1		
	115	QYSDST2604Z	SCREW	1	ANT.+REAR.BKT	
	116	LV41200-003A	SPECIAL SCREW	1	REG.BKT+REAR.BKT	
	117	QYSDST2606Z	SCREW	1	CHANGER CO.+REAR BKT	
	118	QYSDST2606Z	SCREW	1	REAR HEAT SINK+REAR BKT	
	119	QYSDST2604Z	SCREW	2	CORD BKT+PIN CORD	
	120	QYSDST2604Z	SCREW	1	CORD BKT+REAR BKT	
	121	QNZ0510-001	RUBBER CONNEC	2		
	122	LV42101-001A	LCD FILTER	1		
	123	LV32447-001A	LCD CASE	1		
	124	LV32446-001A	LIGHTING CASE	1		
	125	LV32448-001A	LIGHTING LENS	1		
	126	LV32449-001A	LED HOLDER	1		
	127	VYTA500-001	PIN CAP	6		
	128	LV30225-0A1A	SPACER	1		
	LCD 1	QLD0167-001	LCD MODULE	1		

# Exploded view of general assembly and parts list

Block No. **M 1 M M**

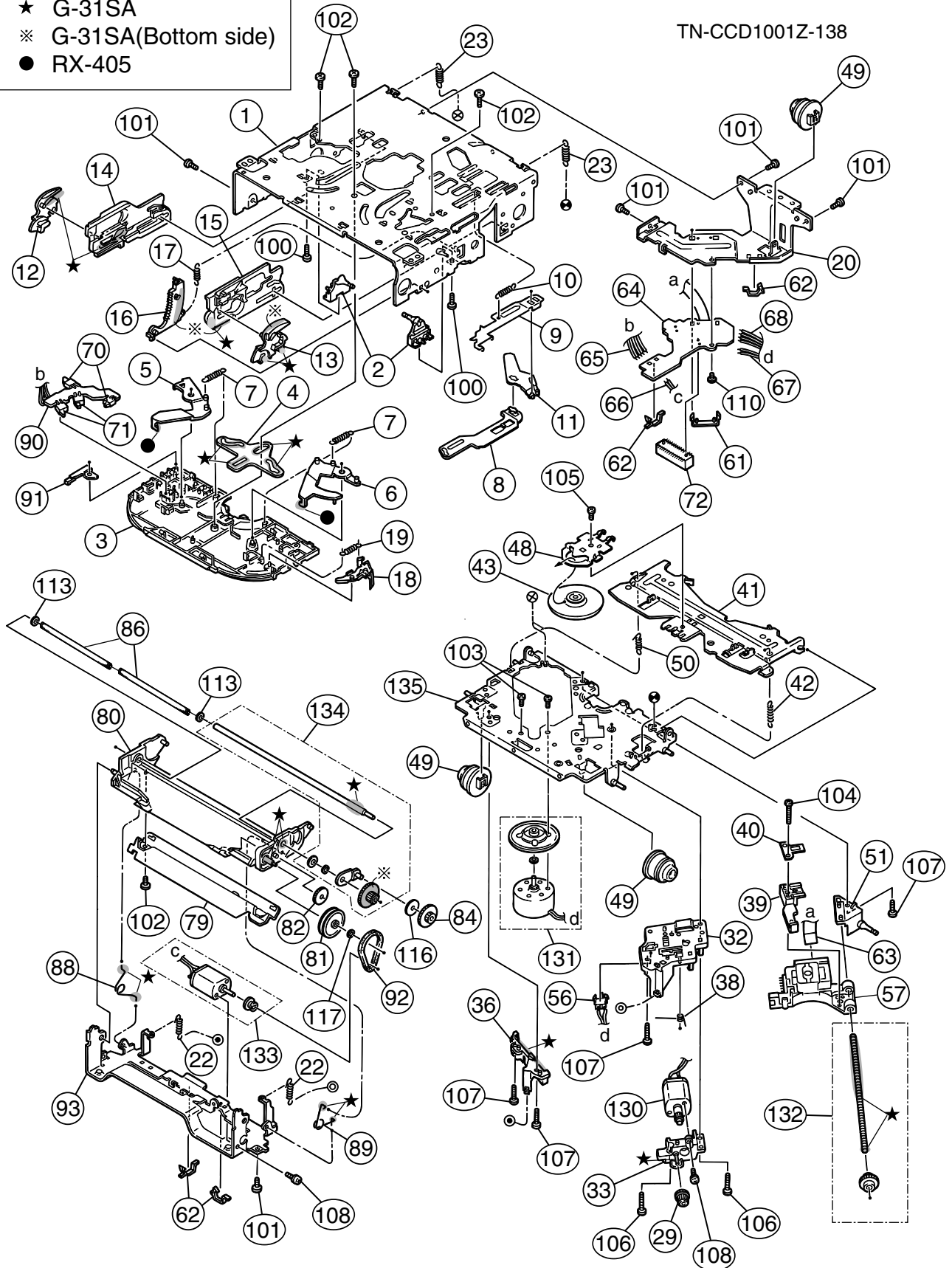


# CD mechanism assembly and parts list

Block No. M 2 M M

Grease  
 ★ G-31SA  
 ※ G-31SA(Bottom side)  
 ● RX-405

TN-CCD1001Z-138



## ■ Parts list(CD mechanism)

Block No. M2MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	30310101T	FRAME	1		
	2	30310103T	DANPER PIN	2		
	3	30310107T	UPPER PLATE	1		
	4	30310108T	SEL STOP PLATE	1		
	5	30310142T	SEL ARM (L)L	1		
	6	30310143T	SEL ARM (R)L	1		
	7	30310145T	S ARM SPRING(L)	2		
	8	30310112T	TRIG LEVER	1		
	9	30310155T	TRIG PL(Z)	1		
	10	30310115T	TRIG PL SPRING	1		
	11	30310116T	TRIG ARM	1		
	12	30310134T	FIX ARM (L)B	1		
	13	30310159T	FIX ARM (R)Z	1		
	14	30310150T	FIX PL (L)Z	1		
	15	30310156T	FIX PL (R) Z	1		
	16	30310138T	LDG GR (6)B	1		
	17	30310122T	LDG GEAR (6)SP	1		
	18	30310148T	S.L ARM(N)	1		
	19	30310125T	S.L ARM SPRING	1		
	20	30310149T	REAR DAM BKT(Z)	1		
	22	30310151T	HUNG UP SP (FZ)	2		
	23	30310129T	HUNG UP SP (R)	2		
	29	30300510T	PU GEAR(B)	1		
	32	30310544T	F.M.BASE(Z)	1		
	33	30310547T	FD GR BLK(Z)	1		
	36	30310546T	PU GUIDE(Z)	1		
	38	30310533T	THRUST SPR(M)	1		
	39	30310577T	PU M NUT(Z-S)	1		
	40	30310512T	NUT PUSH SPR PL	1		
	41	30310558T	CLP ARM(Z)	1		
	42	30310514T	CLP ARM SPRING	1		
	43	30310552T	CLAMPER(Z)	1		
	48	30310557T	CLAMPER PLATE(Z)	1		
	49	30310524T	DAMPER (J)	3		
	50	30310525T	CLP ARM SPR (L)	1		
	51	30310545T	F SCREW GUIDE(Z)	1		
	56	64180405T	DET SW	1	ESE11SF4	
	57	QAL0230-001	C.D PICK (SONY)	1		
	61	30311035T	FPC HOLDER(Z)	1		
	62	19501403T	WIRE CLAMPER	4		
	63	30311045T	PICK UP FPC(Z-S)	1		
	64	30311044T	CONNECT.PCB(Z-S)	1		
	65	30311038T	WIRE (5P-Z)	1		
	66	30311039T	WIRE (LD-Z)	1		
	67	30311040T	WIRE (FD-Z)	1		
	68	30311041T	WIRE (RS-Z)	1		
	70	64180402T	DET SWITCH	2	ESE22MH1	
	71	64180403T	DET SWITCH	2	ESE22MH3	

**Parts list(CD mechanism)**

Block No. M2MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	72	68150232T	CONNECTOR	1	TKC-W26X-C1	
	79	30311105T	SOPPORT PLATE	1		
	80	30311138T	GR MT BLK(N)	1		
	81	30311109T	LDG GEAR (2)	1		
	82	30311110T	LDG GEAR (3)	1		
	84	30311112T	LDG GEAR (5)	1		
	86	30311136T	LDG ROLLER	2		
	88	30311118T	L.P SPRING (L)	1		
	89	30311119T	L.P SPRING (R)	1		
	90	30311123T	SW PCB	1		
	91	30311124T	SW ACTUATOR	1		
	92	30311129T	LDG BELT	1		
	93	30311140T	FRONT BRKT (J)	1		
	100	9C0620503T	C B TAP SCREW	2	M2X5	
	101	9C2020401T	C SCREW TS.G	5	M2X4	
	102	9C4320403T	C B TAP SCREW	4	M2X4	
	103	9C0117223T	SCREW	2	M1.7X2.2	
	104	9C0917703T	C TAP SCREW S3	1	M1.7X7	
	105	9C0320201T	C TAP SCREW S3	1	M2X2	
	106	9C4920013T	C TAP SCREW S3	2	M2X10	
	107	9C4920603T	C TAP SCREW B3	4	M2X6	
	108	9P0220031T	TAMS SCREW	2	M2X3	
	110	9C0420253	C TAP SCREW	1	M2X2.5	
	113	9W0330276	NW BLUE	2	2.9X5X0.3	
	116	9W0725030T	LUMILAR W	1	2.3X9.8X0.25	
	117	9W0640030T	WASHER	1	1.4X3.2X0.4	
	130	303105310T	FEED MO ASSY	1		
	131	303105311T	SPINDLE MO ASSY	1		
	132	303105312T	FEED SCREW ASSY	1		
	133	303111301T	LDG MOTOR ASSY	1		
	134	303111302T	RDG RLR SFT ASY	1		
	135	303105502T	T.T.BASE ASSY	1		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	BZ791	QAN0009-001Z	BUZZER		
	C 1	NCB31EK-473X	C CAPACITOR		
	C 2	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 3	NCB31HK-103X	C CAPACITOR		
	C 4	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 5	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 6	NCB31EK-473X	C CAPACITOR		
	C 7	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 8	NCB31HK-103X	C CAPACITOR		
	C 9	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 10	NCB31EK-473X	C CAPACITOR		
	C 11	NCB31HK-103X	C CAPACITOR		
	C 21	NCS31HJ-331X	C CAPACITOR		
	C 22	NCB31HK-103X	C CAPACITOR		
	C 23	NCB31HK-472X	C CAPACITOR		
	C 24	NCB31CK-104X	C CAPACITOR		
	C 25	QERF1HM-474Z	E CAPACITOR	0.47MF 20% 50V	
	C 32	QERF1HM-104Z	E CAPACITOR	0.1MF 20% 50V	
	C 34	NCB31CK-104X	C CAPACITOR		
	C 51	NDC31HJ-820X	C CAPACITOR		
	C 52	NDC31HJ-470X	C CAPACITOR		
	C 53	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 54	NCB31HK-103X	C CAPACITOR		
	C 55	NCS31HJ-561X	C CAPACITOR		
	C 56	NCB31EK-223X	C CAPACITOR		
	C 57	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 58	NDC31HJ-220X	C CAPACITOR		
	C 59	NDC31HJ-220X	C CAPACITOR		
	C 81	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 82	NCS31HJ-821X	C CAPACITOR		
	C 84	NCB31HK-153X	C CAPACITOR		
	C 91	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 92	NCS31HJ-821X	C CAPACITOR		
	C 94	NCB31HK-153X	C CAPACITOR		
	C 103	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 110	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 112	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 117	NCB31CK-104X	C CAPACITOR		
	C 120	NCB31CK-104X	C CAPACITOR		
	C 121	NCB31CK-473X	C CAPACITOR		
	C 131	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 132	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 141	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 142	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 143	NCS31HJ-101X	C CAPACITOR		
	C 144	NCS31HJ-101X	C CAPACITOR		
	C 151	NCS31HJ-821X	C CAPACITOR		
	C 152	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 153	NCS31HJ-121X	C CAPACITOR		
	C 161	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 162	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 163	NCB31EK-473X	C CAPACITOR		
	C 164	QERF1HM-224Z	E CAPACITOR	0.22MF 20% 50V	
	C 170	NCB31CK-104X	C CAPACITOR		
	C 171	NCF31EZ-104X	C CAPACITOR		
	C 203	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 210	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 212	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 220	NCB31CK-104X	C CAPACITOR		
	C 221	NCB31CK-473X	C CAPACITOR		
	C 231	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 232	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 241	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	

△	Item	Parts number	Parts name	Remarks	Area
	C 242	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 243	NCS31HJ-101X	C CAPACITOR		
	C 244	NCS31HJ-101X	C CAPACITOR		
	C 251	NCS31HJ-821X	C CAPACITOR		
	C 252	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 253	NCS31HJ-121X	C CAPACITOR		
	C 301	NCS31HJ-101X	C CAPACITOR		
	C 302	NCS31HJ-101X	C CAPACITOR		
	C 303	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 304	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 305	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 306	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 308	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 309	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 336	NCB31EK-473X	C CAPACITOR		
	C 350	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 351	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 352	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 401	NCS31HJ-101X	C CAPACITOR		
	C 402	NCS31HJ-101X	C CAPACITOR		
	C 403	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 404	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 405	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 406	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 408	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 409	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 450	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 451	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 452	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 601	NCB31HK-103X	C CAPACITOR		
	C 602	NCB31HK-103X	C CAPACITOR		
	C 603	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 604	NCB31HK-103X	C CAPACITOR		
	C 605	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 607	NCB31HK-682X	C CAPACITOR		
	C 608	NCB31HK-103X	C CAPACITOR		
	C 609	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 610	NCB31CK-104X	C CAPACITOR		
	C 611	NCB31CK-104X	C CAPACITOR		
	C 612	NCS31HJ-820X	C CAPACITOR		
	C 613	NCB31HK-103X	C CAPACITOR		
	C 614	NCS31HJ-5R0X	C CAPACITOR		
	C 621	NCB31HK-103X	C CAPACITOR		
	C 622	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 623	NCS31HJ-470X	C CAPACITOR		
	C 624	NCB31HK-153X	C CAPACITOR		
	C 625	NCB31HK-103X	C CAPACITOR		
	C 626	NCB31HK-272X	C CAPACITOR		
	C 627	NCB31HK-103X	C CAPACITOR		
	C 628	NCB31EK-333X	C CAPACITOR		
	C 630	NCB31EK-333X	C CAPACITOR		
	C 631	NCB31EK-473X	C CAPACITOR		
	C 633	NCS31HJ-471X	C CAPACITOR		
	C 634	NCS31HJ-471X	C CAPACITOR		
	C 635	NCB31EK-473X	C CAPACITOR		
	C 636	NCB31EK-473X	C CAPACITOR		
	C 637	NCB31EK-473X	C CAPACITOR		
	C 638	NCB31EK-473X	C CAPACITOR		
	C 639	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 640	NCB31HK-103X	C CAPACITOR		
	C 641	NCB31HK-103X	C CAPACITOR		
	C 644	NCB31HK-103X	C CAPACITOR		
	C 645	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	

■ Electrical parts list(Main board)

Block No. 01

▲	Item	Parts number	Parts name	Remarks	Area	▲	Item	Parts number	Parts name	Remarks	Area
	C 646	NCS31HJ-101X	C CAPACITOR				C 941	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 647	NCB31CK-104X	C CAPACITOR				C 942	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 648	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 943	NCB31HK-103X	C CAPACITOR		
	C 649	NCB31HK-103X	C CAPACITOR				C 944	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 650	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 945	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 651	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 946	NCB31CK-104X	C CAPACITOR		
	C 652	NCB31HK-103X	C CAPACITOR				C 947	NCB31CK-104X	C CAPACITOR		
	C 661	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V			C 948	NCB31CK-104X	C CAPACITOR		
	C 662	NCB31HK-103X	C CAPACITOR				C 949	NCB31CK-104X	C CAPACITOR		
	C 663	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V			C 951	NCB31CK-104X	C CAPACITOR		
	C 664	NCB31EK-473X	C CAPACITOR				C 952	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 671	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 961	QEZO37-228	E CAPACITOR	2200MF	
	C 672	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V			C 962	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 673	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V			C 964	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 681	NCS31HJ-101X	C CAPACITOR				C 965	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 682	NCS31HJ-101X	C CAPACITOR				C 966	NCB31HK-103X	C CAPACITOR		
	C 683	NCS31HJ-101X	C CAPACITOR				C 967	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 684	NCB31CK-104X	C CAPACITOR				C 968	NCB31CK-104X	C CAPACITOR		
	C 685	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V			C 969	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 686	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V			C 971	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 687	NCB31CK-104X	C CAPACITOR				C 972	NCB31CK-104X	C CAPACITOR		
	C 688	NDC31HJ-100X	C CAPACITOR				C 973	NCB31CK-104X	C CAPACITOR		
	C 689	NDC31HJ-100X	C CAPACITOR				C 977	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 691	NCB31CK-104X	C CAPACITOR				C 978	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 693	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V			C 982	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 694	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V			C 986	NCB31CK-104X	C CAPACITOR		
	C 695	NCB31CK-104X	C CAPACITOR				C 990	NCS31HJ-101X	C CAPACITOR		
	C 701	NDC31HJ-220X	C CAPACITOR				C 991	NCS31HJ-101X	C CAPACITOR		
	C 702	NDC31HJ-270X	C CAPACITOR				C 992	NCS31HJ-101X	C CAPACITOR		
	C 703	NDC31HJ-270X	C CAPACITOR				C 993	NCS31HJ-101X	C CAPACITOR		
	C 704	NCS31HJ-8R0X	C CAPACITOR				C 994	NCS31HJ-101X	C CAPACITOR		
	C 705	NCS31HJ-471X	C CAPACITOR				C 995	NCS31HJ-101X	C CAPACITOR		
	C 707	NCB31CK-104X	C CAPACITOR				CN301	QGA2501C1-07	7P CONNECTOR		
	C 708	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V			CN601	QGB2027M2-26X	CONNECTOR		
	C 709	NDC31HJ-220X	C CAPACITOR				CN701	QGF0503F3-07X	CONNECTOR		
	C 710	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V			CN702	QGF1034C1-20X	CONNECTOR		
	C 711	NCS31HJ-471X	C CAPACITOR				CN703	QGA2501F1-02	CONNECTOR		
	C 712	NCB31EK-473X	C CAPACITOR				CN771	QNZ0095-001	CONNECTOR		
	C 713	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V			CN901	QNZ0090-001	CAR CONNECTOR		
	C 714	NCB31CK-104X	C CAPACITOR				D 1	1SS355-X	DIODE		
	C 719	NCS31HJ-471X	C CAPACITOR				D 2	1SS355-X	DIODE		
	C 771	NCB31EK-473X	C CAPACITOR				D 11	MA152WK-X	SI DIODE		
	C 772	NDC31HJ-220X	C CAPACITOR				D 111	MA152WK-X	SI DIODE		
	C 791	QERF1HM-104Z	E CAPACITOR	0.1MF 20% 50V			D 131	MA152WA-X	DIODE		
	C 901	NCB31CK-104X	C CAPACITOR				D 161	1SS355-X	DIODE		
	C 903	NCB31HK-223X	C CAPACITOR				D 162	1SS355-X	DIODE		
	C 911	NCB31EK-473X	C CAPACITOR				D 231	MA152WA-X	DIODE		
	C 912	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			D 331	UDZS5.1B-X	ZENER DIODE		
	C 913	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V			D 332	MA152WK-X	SI DIODE		
	C 914	NCB31HK-103X	C CAPACITOR				D 431	UDZS5.1B-X	ZENER DIODE		
	C 915	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			D 621	UDZS4.3B-X	ZENER DIODE		
	C 916	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			D 661	1SS133-T2	SI DIODE		
	C 918	NCB31CK-104X	C CAPACITOR				D 701	CRS03-W	SB DIODE		
	C 919	NCB31CK-104X	C CAPACITOR				D 711	1SS355-X	DIODE		
	C 921	NCB31HK-223X	C CAPACITOR				D 721	UDZS6.2B-X	SI DIODE		
	C 922	NCB31HK-223X	C CAPACITOR				D 722	UDZS6.2B-X	SI DIODE		
	C 923	NCB31HK-223X	C CAPACITOR				D 723	UDZS6.2B-X	SI DIODE		
	C 924	NCB31HK-223X	C CAPACITOR				D 724	UDZS6.2B-X	SI DIODE		
	C 925	NCB31HK-223X	C CAPACITOR				D 725	UDZS6.2B-X	SI DIODE		
	C 926	NCB31HK-223X	C CAPACITOR				D 726	UDZS6.2B-X	SI DIODE		
	C 927	NCB31HK-223X	C CAPACITOR				D 727	UDZS6.2B-X	SI DIODE		
	C 928	NCB31HK-223X	C CAPACITOR				D 728	UDZS6.2B-X	SI DIODE		
	C 931	NCB31HK-223X	C CAPACITOR				D 729	UDZS6.2B-X	SI DIODE		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	D 730	UDZS6.2B-X	SI DIODE				Q 650	2SB709A/QR/-X	TRANSISTOR		
	D 795	SML-310FT/JKL/X	LED				Q 651	UN2211-X	TRANSISTOR		
	D 796	SML-310FT/JKL/X	LED				Q 661	2SB1241/QR/-T	TRANSISTOR		
	D 941	1SS355-X	DIODE				Q 662	UN2111-X	TRANSISTOR		
	D 942	1SS355-X	DIODE				Q 663	UN2211-X	TRANSISTOR		
△	D 961	1N5404-TU-15	DIODE				Q 791	UN2211-X	TRANSISTOR		
	D 962	CRS03-W	SB DIODE				Q 942	UN2211-X	TRANSISTOR		
	D 963	1SS355-X	DIODE				Q 965	UN2211-X	TRANSISTOR		
	D 964	CRS03-W	SB DIODE				Q 966	2SB709A/R/-X	TRANSISTOR		
	D 967	CRS03-W	SB DIODE				Q 977	UN2111-X	TRANSISTOR		
	D 978	UDZ11B-X	ZENER DIODE				Q 979	UN2111-X	TRANSISTOR		
	D 980	1SS355-X	DIODE				Q 983	2SD601A/R/-X	TRANSISTOR		
	D 986	MA152WA-X	DIODE				Q 986	UN2211-X	TRANSISTOR		
△	IC 51	SAA6579T-X	IC				R 1	NRSA63J-473X	MG RESISTOR		
	IC301	NJM4565V-X	IC				R 2	NRSA63J-393X	MG RESISTOR		
	IC401	NJM4565V-X	IC				R 4	NRSA63J-100X	MG RESISTOR		
	IC601	TA2147F-X	IC				R 10	NRSA63J-220X	MG RESISTOR		
△	IC621	TC9490FA	IC				R 11	NRSA63J-220X	MG RESISTOR		
△	IC661	FAN8037	IC				R 12	NRSA63J-473X	MG RESISTOR		
	IC671	NJM4580V-X	IC				R 13	NRSA63J-472X	MG RESISTOR		
△	IC681	PCM1716E-X	IC				R 14	NRSA63J-473X	MG RESISTOR		
△	IC701	UPD784217AGC141	IC				R 15	NRSA63J-332X	MG RESISTOR		
	IC702	IC-PST9333U-X	IC				R 21	NRSA63J-473X	MG RESISTOR		
	IC703	BR24C32F-X	IC(EEPROM)				R 22	NRSA63J-393X	MG RESISTOR		
	IC771	HD74HC126FP-X	IC				R 23	NRSA63J-103X	MG RESISTOR		
	IC911	M61508FP-X	IC				R 24	NRSA63J-222X	MG RESISTOR		
△	IC941	TA8273H	IC				R 25	NRSA63J-103X	MG RESISTOR		
	IC951	NJM4565V-X	IC				R 26	NRSA63J-103X	MG RESISTOR		
△	IC961	HA13164	IC				R 27	NRSA63J-471X	MG RESISTOR		
	J 1	QAM0105-002	CAR CABLE				R 28	NRSA63J-473X	MG RESISTOR		
	L 1	NQL334J-4R7X	INDUCTOR				R 33	NRSA63J-472X	MG RESISTOR		
	L 621	NQL114K-470X	INDUCTOR				R 34	NRSA63J-4R7X	MG RESISTOR		
	L 622	NQL114K-470X	INDUCTOR				R 51	NRSA63J-0R0X	MG RESISTOR		
	L 623	NQL114K-470X	INDUCTOR				R 52	NRSA63J-222X	MG RESISTOR		
	L 624	NQL114K-470X	INDUCTOR				R 53	NRSA63J-222X	MG RESISTOR		
	L 682	NQL114K-470X	INDUCTOR				R 54	NRSA63J-222X	MG RESISTOR		
	L 683	NQL114K-470X	INDUCTOR				R 81	NRSA63J-103X	MG RESISTOR		
	L 701	NQL114K-470X	INDUCTOR				R 82	NRSA63J-273X	MG RESISTOR		
	L 702	NQL114K-100X	INDUCTOR				R 83	NRSA63J-472X	MG RESISTOR		
	L 961	QQR1198-001	CHOKE COIL				R 91	NRSA63J-103X	MG RESISTOR		
	PP 1	QZW0010-001	STYLE PIN				R 92	NRSA63J-273X	MG RESISTOR		
	PP 2	QZW0010-001	STYLE PIN				R 93	NRSA63J-472X	MG RESISTOR		
	Q 1	UN2111-X	TRANSISTOR				R 111	NRSA63J-224X	MG RESISTOR		
	Q 11	2SB8157/-X	TRANSISTOR				R 118	NRSA63J-332X	MG RESISTOR		
	Q 12	UN2211-X	TRANSISTOR				R 119	NRSA63J-473X	MG RESISTOR		
	Q 13	2SB709A/R/-X	TRANSISTOR				R 131	NRSA63J-222X	MG RESISTOR		
	Q 22	2SC2412K/R/-X	TRANSISTOR				R 132	NRSA63J-222X	MG RESISTOR		
	Q 23	2SC2412K/R/-X	TRANSISTOR				R 135	NRSA63J-101X	MG RESISTOR		
	Q 24	UN2211-X	TRANSISTOR				R 136	NRSA63J-101X	MG RESISTOR		
	Q 32	UN2111-X	TRANSISTOR				R 137	NRSA63J-102X	MG RESISTOR		
	Q 33	2SD601A/R/-X	TRANSISTOR				R 138	NRSA63J-102X	MG RESISTOR		
	Q 34	UN2111-X	TRANSISTOR				R 139	NRSA63J-473X	MG RESISTOR		
	Q 35	UN2111-X	TRANSISTOR				R 140	NRSA63J-473X	MG RESISTOR		
	Q 81	2SD601A/R/-X	TRANSISTOR				R 143	NRSA63J-0R0X	MG RESISTOR		
	Q 91	2SD601A/R/-X	TRANSISTOR				R 144	NRSA63J-0R0X	MG RESISTOR		
	Q 131	2SD1048/6-7/-X	TRANSISTOR				R 145	NRSA63J-473X	MG RESISTOR		
	Q 132	2SD1048/6-7/-X	TRANSISTOR				R 146	NRSA63J-473X	MG RESISTOR		
	Q 161	2SD601A/R/-X	TRANSISTOR				R 151	NRSA63J-223X	MG RESISTOR		
	Q 231	2SD1048/6-7/-X	TRANSISTOR				R 152	NRSA63J-333X	MG RESISTOR		
	Q 232	2SD1048/6-7/-X	TRANSISTOR				R 153	NRSA63J-123X	MG RESISTOR		
	Q 323	2SD1048/6-7/-X	TRANSISTOR				R 154	NRSA63J-272X	MG RESISTOR		
	Q 423	2SD1048/6-7/-X	TRANSISTOR				R 155	NRSA63J-103X	MG RESISTOR		
	Q 601	2SB1241/QR/-T	TRANSISTOR				R 161	NRSA63J-473X	MG RESISTOR		



## ■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 162	NRSA63J-123X	MG RESISTOR				R 616	NRSA63J-821X	MG RESISTOR		
	R 163	NRSA63J-184X	MG RESISTOR				R 617	NRSA63J-473X	MG RESISTOR		
	R 164	NRSA63J-223X	MG RESISTOR				R 621	NRSA63J-562X	MG RESISTOR		
	R 165	NRSA63J-391X	MG RESISTOR				R 622	NRSA63J-473X	MG RESISTOR		
	R 166	NRSA63J-102X	MG RESISTOR				R 623	NRSA63J-474X	MG RESISTOR		
	R 167	NRSA63J-274X	MG RESISTOR				R 624	NRSA63J-333X	MG RESISTOR		
	R 211	NRSA63J-224X	MG RESISTOR				R 625	NRSA63J-103X	MG RESISTOR		
	R 218	NRSA63J-332X	MG RESISTOR				R 626	NRSA63J-0R0X	MG RESISTOR		
	R 219	NRSA63J-473X	MG RESISTOR				R 627	NRSA63J-101X	MG RESISTOR		
	R 231	NRSA63J-222X	MG RESISTOR				R 628	NRSA63J-101X	MG RESISTOR		
	R 232	NRSA63J-222X	MG RESISTOR				R 629	NRSA63J-0R0X	MG RESISTOR		
	R 235	NRSA63J-101X	MG RESISTOR				R 630	NRSA63J-0R0X	MG RESISTOR		
	R 236	NRSA63J-101X	MG RESISTOR				R 631	NRSA63J-101X	MG RESISTOR		
	R 237	NRSA63J-102X	MG RESISTOR				R 632	NRSA63J-101X	MG RESISTOR		
	R 238	NRSA63J-102X	MG RESISTOR				R 633	NRSA63J-105X	MG RESISTOR		
	R 239	NRSA63J-473X	MG RESISTOR				R 634	NRSA63J-472X	MG RESISTOR		
	R 240	NRSA63J-473X	MG RESISTOR				R 635	NRSA63J-472X	MG RESISTOR		
	R 243	NRSA63J-0R0X	MG RESISTOR				R 636	NRSA63J-472X	MG RESISTOR		
	R 244	NRSA63J-0R0X	MG RESISTOR				R 637	NRSA63J-472X	MG RESISTOR		
	R 245	NRSA63J-473X	MG RESISTOR				R 638	NRSA63J-103X	MG RESISTOR		
	R 246	NRSA63J-473X	MG RESISTOR				R 650	NRSA63J-473X	MG RESISTOR		
	R 251	NRSA63J-223X	MG RESISTOR				R 651	NRSA63J-222X	MG RESISTOR		
	R 252	NRSA63J-333X	MG RESISTOR				R 661	NRSA63J-332X	MG RESISTOR		
	R 253	NRSA63J-123X	MG RESISTOR				R 662	NRSA63J-122X	MG RESISTOR		
	R 254	NRSA63J-272X	MG RESISTOR				R 663	NRSA63J-332X	MG RESISTOR		
	R 255	NRSA63J-103X	MG RESISTOR				R 664	NRSA63J-182X	MG RESISTOR		
	R 301	NRSA63J-183X	MG RESISTOR				R 665	NRSA63J-682X	MG RESISTOR		
	R 302	NRSA63J-183X	MG RESISTOR				R 666	NRSA63J-682X	MG RESISTOR		
	R 303	NRSA63J-104X	MG RESISTOR				R 667	NRSA63J-682X	MG RESISTOR		
	R 304	NRSA63J-393X	MG RESISTOR				R 668	NRSA63J-682X	MG RESISTOR		
	R 305	NRSA63J-393X	MG RESISTOR				R 669	NRSA63J-822X	MG RESISTOR		
	R 306	NRSA63J-104X	MG RESISTOR				R 670	NRSA63J-622X	MG RESISTOR		
	R 307	NRSA63J-471X	MG RESISTOR				R 671	NRSA63J-512X	MG RESISTOR		
	R 335	NRSA63J-821X	MG RESISTOR				R 672	NRSA63J-104X	MG RESISTOR		
	R 336	NRSA63J-473X	MG RESISTOR				R 673	NRSA63J-104X	MG RESISTOR		
	R 337	NRSA63J-472X	MG RESISTOR				R 674	NRSA63J-222X	MG RESISTOR		
	R 338	NRSA63J-101X	MG RESISTOR				R 675	NRSA63J-103X	MG RESISTOR		
	R 339	NRSA63J-101X	MG RESISTOR				R 676	NRSA63J-333X	MG RESISTOR		
	R 401	NRSA63J-183X	MG RESISTOR				R 677	NRSA63J-104X	MG RESISTOR		
	R 402	NRSA63J-183X	MG RESISTOR				R 678	NRSA63J-104X	MG RESISTOR		
	R 403	NRSA63J-393X	MG RESISTOR				R 679	NRSA63J-682X	MG RESISTOR		
	R 404	NRSA63J-393X	MG RESISTOR				R 680	NRSA02J-184X	MG RESISTOR		
	R 405	NRSA63J-104X	MG RESISTOR				R 681	NRSA63J-101X	MG RESISTOR		
	R 406	NRSA63J-104X	MG RESISTOR				R 682	NRSA63J-101X	MG RESISTOR		
	R 407	NRSA63J-471X	MG RESISTOR				R 683	NRSA63J-101X	MG RESISTOR		
	R 435	NRSA63J-821X	MG RESISTOR				R 684	NRSA63J-470X	MG RESISTOR		
	R 436	NRSA63J-473X	MG RESISTOR				R 685	NRSA63J-470X	MG RESISTOR		
	R 437	NRSA63J-472X	MG RESISTOR				R 686	NRSA63J-470X	MG RESISTOR		
	R 601	NRSA63J-823X	MG RESISTOR				R 687	NRSA63J-101X	MG RESISTOR		
	R 602	NRSA63J-823X	MG RESISTOR				R 688	NRSA63J-101X	MG RESISTOR		
	R 603	NRSA63J-823X	MG RESISTOR				R 689	NRSA63J-473X	MG RESISTOR		
	R 604	NRSA63J-823X	MG RESISTOR				R 690	NRSA63J-473X	MG RESISTOR		
	R 605	NRSA63J-154X	MG RESISTOR				R 691	NRSA63J-470X	MG RESISTOR		
	R 606	NRSA63J-154X	MG RESISTOR				R 701	NRSA63J-473X	MG RESISTOR		
	R 607	NRSA02J-220X	MG RESISTOR				R 702	NRSA63J-103X	MG RESISTOR		
	R 608	NRSA02J-220X	MG RESISTOR				R 703	NRSA63J-104X	MG RESISTOR		
	R 609	NRSA63J-823X	MG RESISTOR				R 704	NRSA63J-104X	MG RESISTOR		
	R 610	NRSA63J-473X	MG RESISTOR				R 705	NRSA63J-473X	MG RESISTOR		
	R 611	NRSA63J-822X	MG RESISTOR				R 706	NRSA63J-222X	MG RESISTOR		
	R 612	NRSA63J-202X	MG RESISTOR				R 707	NRSA63J-472X	MG RESISTOR		
	R 613	NRSA63J-102X	MG RESISTOR				R 708	NRSA63J-472X	MG RESISTOR		
	R 614	NRSA63J-273X	MG RESISTOR				R 709	NRSA63J-103X	MG RESISTOR		
	R 615	NRSA63J-101X	MG RESISTOR				R 710	NRSA63J-103X	MG RESISTOR		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 711	NRSA63J-103X	MG RESISTOR		
	R 713	NRSA63J-103X	MG RESISTOR		
	R 714	NRSA63J-103X	MG RESISTOR		
	R 715	NRSA63J-472X	MG RESISTOR		
	R 716	NRSA63J-472X	MG RESISTOR		
	R 717	NRSA63J-472X	MG RESISTOR		
	R 718	NRSA63J-222X	MG RESISTOR		
	R 719	NRSA63J-222X	MG RESISTOR		
	R 720	NRSA63J-222X	MG RESISTOR		
	R 721	NRSA63J-103X	MG RESISTOR		
	R 722	NRSA63J-103X	MG RESISTOR		
	R 723	NRSA63J-102X	MG RESISTOR		
	R 724	NRSA63J-271X	MG RESISTOR		
	R 725	NRSA63J-271X	MG RESISTOR		
	R 728	NRSA63J-104X	MG RESISTOR		
	R 730	NRSA63J-104X	MG RESISTOR		
	R 731	NRSA63J-104X	MG RESISTOR		
	R 732	NRSA63J-104X	MG RESISTOR		
	R 733	NRSA63J-104X	MG RESISTOR		
	R 734	NRSA63J-104X	MG RESISTOR		
	R 735	NRSA63J-104X	MG RESISTOR		
	R 736	NRSA63J-102X	MG RESISTOR		
	R 738	NRSA63J-103X	MG RESISTOR		
	R 739	NRSA63J-473X	MG RESISTOR		
	R 741	NRSA63J-473X	MG RESISTOR		
	R 743	NRSA63J-473X	MG RESISTOR		
	R 744	NRSA63J-332X	MG RESISTOR		
	R 745	NRSA63J-103X	MG RESISTOR		
	R 746	NRSA63J-103X	MG RESISTOR		
	R 747	NRSA63J-473X	MG RESISTOR		
	R 748	NRSA63J-104X	MG RESISTOR		
	R 749	NRSA63J-473X	MG RESISTOR		
	R 750	NRSA63J-473X	MG RESISTOR		
	R 751	NRSA63J-106X	MG RESISTOR		
	R 755	NRSA63J-821X	MG RESISTOR		
	R 757	NRSA63J-103X	MG RESISTOR		
	R 758	NRSA63J-103X	MG RESISTOR		
	R 759	NRSA63J-0R0X	MG RESISTOR		
	R 761	NRSA63J-103X	MG RESISTOR		
	R 762	NRSA63J-222X	MG RESISTOR		
	R 763	NRSA63J-222X	MG RESISTOR		
	R 764	NRSA63J-222X	MG RESISTOR		
	R 765	NRSA63J-222X	MG RESISTOR		
	R 766	NRSA63J-222X	MG RESISTOR		
	R 767	NRSA63J-473X	MG RESISTOR		
	R 768	NRSA63J-103X	MG RESISTOR		
	R 769	NRSA63J-473X	MG RESISTOR		
	R 770	NRSA63J-103X	MG RESISTOR		
	R 771	NRSA63J-331X	MG RESISTOR		
	R 772	NRSA63J-473X	MG RESISTOR		
	R 773	NRSA63J-223X	MG RESISTOR		
	R 774	NRSA63J-101X	MG RESISTOR		
	R 775	NRSA63J-103X	MG RESISTOR		
	R 776	NRSA63J-104X	MG RESISTOR		
	R 777	NRSA63J-223X	MG RESISTOR		
	R 778	NRSA63J-101X	MG RESISTOR		
	R 779	NRSA63J-473X	MG RESISTOR		
	R 781	NRSA63J-331X	MG RESISTOR		
	R 782	NRSA63J-104X	MG RESISTOR		
	R 786	NRSA63J-473X	MG RESISTOR		
	R 791	NRSA63J-102X	MG RESISTOR		
	R 795	NRSA63J-102X	MG RESISTOR		
	R 796	NRSA63J-102X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 911	NRSA63J-222X	MG RESISTOR		
	R 912	NRSA63J-222X	MG RESISTOR		
	R 922	NRSA63J-271X	MG RESISTOR		
	R 924	NRSA63J-271X	MG RESISTOR		
	R 925	NRSA63J-271X	MG RESISTOR		
	R 926	NRSA63J-271X	MG RESISTOR		
	R 928	NRSA63J-271X	MG RESISTOR		
	R 929	NRSA63J-271X	MG RESISTOR		
	R 930	NRSA63J-271X	MG RESISTOR		
	R 941	NRSA63J-222X	MG RESISTOR		
	R 943	NRSA63J-102X	MG RESISTOR		
	R 944	NRSA63J-273X	MG RESISTOR		
	R 951	NRSA63J-103X	MG RESISTOR		
	R 954	NRSA63J-103X	MG RESISTOR		
	R 961	QRE142J-102X	C RESISTOR	1.0K 5% 1/4W	
	R 962	NRSA63J-912X	MG RESISTOR		
	R 963	NRSA63J-472X	MG RESISTOR		
	R 968	NRSA63J-102X	MG RESISTOR		
	R 970	NRSA63J-562X	MG RESISTOR		
	R 971	NRSA63J-183X	MG RESISTOR		
	R 975	NRSA63J-562X	MG RESISTOR		
	R 976	NRS181J-222X	MG RESISTOR		
	R 977	NRS181J-222X	MG RESISTOR		
	R 978	NRSA63J-104X	MG RESISTOR		
	R 984	NRSA63J-473X	MG RESISTOR		
	R 985	NRSA63J-103X	MG RESISTOR		
	R 986	NRSA63J-102X	MG RESISTOR		
	R 987	NRSA63J-473X	MG RESISTOR		
	TH951	NAD0022-103X	N THERMISTOR		
△	TU 1	QAU0203-001	TUNER PACK		
	X 51	QAX0263-001Z	CRYSTAL		
	X 681	QAX0413-001Z	CRYSTAL		
	X 701	QAX0617-001Z	CRYSTAL		
	X 702	QAX0401-001	CRYSTAL		

■ Electrical parts list(Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 561	NBE20JM-475X	TS E CAPACITOR				R 507	NRSA63J-472X	MG RESISTOR		
	C 571	NCB31CK-104X	C CAPACITOR				R 508	NRSA63J-103X	MG RESISTOR		
	C 582	NCB31CK-104X	C CAPACITOR				R 509	NRSA63J-561X	MG RESISTOR		
	C 583	NCB31CK-104X	C CAPACITOR				R 510	NRSA63J-681X	MG RESISTOR		
	C 584	NCB31CK-104X	C CAPACITOR				R 511	NRSA63J-102X	MG RESISTOR		
	C 585	NBE21CM-475X	TA E CAPACITOR				R 512	NRSA63J-122X	MG RESISTOR		
	C 586	NCB31HK-681X	C CAPACITOR				R 513	NRSA63J-182X	MG RESISTOR		
	C 587	NBE20JM-475X	TS E CAPACITOR				R 514	NRSA63J-272X	MG RESISTOR		
	C 588	NBE20JM-475X	TS E CAPACITOR				R 515	NRSA63J-472X	MG RESISTOR		
	C 595	NCB31CK-473X	C CAPACITOR				R 521	NRSA63J-222X	MG RESISTOR		
	C 596	NCB31CK-473X	C CAPACITOR				R 522	NRSA63J-122X	MG RESISTOR		
	C 597	NCF31AZ-105X	C CAPACITOR				R 523	NRSA63J-122X	MG RESISTOR		
	CN501	QGZ2201L1-16	CONNECTOR				R 524	NRSA63J-122X	MG RESISTOR		
	CN503	QGA1501F2-03W	CONNECTOR				R 525	NRSA63J-182X	MG RESISTOR		
	CN504	QGF0503F3-07X	CONNECTOR				R 526	NRSA63J-122X	MG RESISTOR		
	CN505	QGF1013F1-20X	CONNECTOR				R 527	NRSA63J-122X	MG RESISTOR		
	CN511	QGZ2201M1-16	CONNECTOR				R 528	NRSA63J-182X	MG RESISTOR		
	CN512	WJT0056-001A	E-CARD WIRE				R 529	NRSA63J-222X	MG RESISTOR		
	CN513	WJK0017-001A	ASSY WIRE				R 531	NRSA63J-222X	MG RESISTOR		
	D 501	SML-310LT/MN/-X	LED				R 532	NRSA63J-122X	MG RESISTOR		
	D 502	SML-310LT/MN/-X	LED				R 533	NRSA63J-122X	MG RESISTOR		
	D 503	SML-310LT/MN/-X	LED				R 534	NRSA63J-122X	MG RESISTOR		
	D 504	SML-310LT/MN/-X	LED				R 535	NRSA63J-182X	MG RESISTOR		
	D 505	SML-310LT/MN/-X	LED				R 536	NRSA63J-122X	MG RESISTOR		
	D 506	SML-310LT/MN/-X	LED				R 537	NRSA63J-122X	MG RESISTOR		
	D 507	SML-310LT/MN/-X	LED				R 538	NRSA63J-182X	MG RESISTOR		
	D 508	SML-310LT/MN/-X	LED				R 539	NRSA63J-222X	MG RESISTOR		
	D 510	SML-310LT/MN/-X	LED				R 540	NRSA63J-332X	MG RESISTOR		
	D 511	SML-310LT/MN/-X	LED				R 541	NRSA63J-821X	MG RESISTOR		
	D 512	SML-310LT/MN/-X	LED				R 542	NRSA63J-821X	MG RESISTOR		
	D 513	SML-310LT/MN/-X	LED				R 543	NRSA63J-821X	MG RESISTOR		
	D 514	SML-310LT/MN/-X	LED				R 544	NRSA63J-561X	MG RESISTOR		
	D 515	SML-310LT/MN/-X	LED				R 545	NRSA63J-223X	MG RESISTOR		
	D 516	SML-310LT/MN/-X	LED				R 546	NRSA63J-222X	MG RESISTOR		
	D 517	SML-310LT/MN/-X	LED				R 547	NRSA63J-561X	MG RESISTOR		
	D 518	SML-310LT/MN/-X	LED				R 551	NRSA63J-821X	MG RESISTOR		
	D 519	SML-310LT/MN/-X	LED				R 552	NRSA63J-821X	MG RESISTOR		
	D 520	SML-310LT/MN/-X	LED				R 553	NRSA63J-821X	MG RESISTOR		
	D 540	MA152WK-X	SI DIODE				R 561	NRSA63J-103X	MG RESISTOR		
	D 541	NSPW310BS/BRS/	LED				R 562	NRSA63J-470X	MG RESISTOR		
	D 542	NSPW310BS/BRS/	LED				R 563	NRSA63J-332X	MG RESISTOR		
	D 543	NSPW310BS/BRS/	LED				R 564	NRSA63J-332X	MG RESISTOR		
	D 571	1PS226-X	CHIP DIODE				R 565	NRSA63J-332X	MG RESISTOR		
	D 572	1PS226-X	CHIP DIODE				R 571	NRSA63J-471X	MG RESISTOR		
	D 573	1PS226-X	CHIP DIODE				R 572	NRSA63J-471X	MG RESISTOR		
	D 574	1SS355-X	DIODE				R 586	NRSA63J-823X	MG RESISTOR		
	D 575	UDZ55.1B-X	ZENER DIODE				R 592	NRSA63J-473X	MG RESISTOR		
	D 581	RSA6.1EN-W	ZENER DIODE				R 593	NRSA63J-473X	MG RESISTOR		
	D 582	RSA6.1EN-W	ZENER DIODE				R 595	NRSA63J-473X	MG RESISTOR		
	D 583	UDZS6.2B-X	SI DIODE				R 596	NRSA63J-473X	MG RESISTOR		
	D 592	UDZS6.2B-X	SI DIODE				R 597	NRSA63J-471X	MG RESISTOR		
	EN591	QSW0915-001	ROTARY ENCODER				S 501	NSW0066-001X	TACT SWITCH		
	IC501	LC75878W	IC				S 502	NSW0066-001X	TACT SWITCH		
	IC561	RPM6938-SV4	IC				S 503	NSW0066-001X	TACT SWITCH		
	PJ501	QNS0145-001	3.5 JACK				S 504	NSW0066-001X	TACT SWITCH		
	Q 541	DTC114EKA-X	TRANSISTOR				S 505	NSW0066-001X	TACT SWITCH		
	Q 542	2SB815/7/-X	TRANSISTOR				S 506	NSW0066-001X	TACT SWITCH		
	R 501	NRSA63J-561X	MG RESISTOR				S 507	NSW0066-001X	TACT SWITCH		
	R 502	NRSA63J-681X	MG RESISTOR				S 508	NSW0066-001X	TACT SWITCH		
	R 503	NRSA63J-102X	MG RESISTOR				S 509	NSW0066-001X	TACT SWITCH		
	R 504	NRSA63J-122X	MG RESISTOR				S 510	NSW0066-001X	TACT SWITCH		
	R 505	NRSA63J-182X	MG RESISTOR				S 511	NSW0066-001X	TACT SWITCH		
	R 506	NRSA63J-272X	MG RESISTOR				S 512	NSW0066-001X	TACT SWITCH		

## ■ Electrical parts list(Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	S 513	NSW0066-001X	TACT SWITCH		
	S 514	NSW0066-001X	TACT SWITCH		
	S 515	NSW0066-001X	TACT SWITCH		
	S 516	NSW0066-001X	TACT SWITCH		
	S 517	NSW0066-001X	TACT SWITCH		
	S 518	NSW0066-001X	TACT SWITCH		
	S 591	NSW0146-001X	DETECT SWITCH		
	S 592	NSW0146-001X	DETECT SWITCH		
	S 593	NSW0146-001X	DETECT SWITCH		
	S 594	NSW0146-001X	DETECT SWITCH		
	S 595	NSW0146-001X	DETECT SWITCH		
	S 596	NSW0146-001X	DETECT SWITCH		

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## ■ Parts list(Packing)

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPA01703505P	POLY BAG	2	INSTRUCTIONS	
	P 2	QPA00801205	POLY BAG	1	KIT	
	P 3	QPC01002315	POLY BAG	1	FRONT	
	P 4	QPA01003003	POLY BAG	1	HARD CASE	
	P 5	VPE3005-066	POLY BAG	1	SET	
	P 6	LV32579-001A	CARTON	1		
	P 7	LV10466-001A	CUSHION	2		

## ■ Parts list(Accessorise)

Block No. M4MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0625-001A	INSTRUCTIONS	1		
	A 2	BT-54013-2	W.CARD	1		
	A 3	LVT0638-001A	INSTRUCTIONS	1		E
	A 4	LVT0640-001A	INST MANUAL	1		E
		LVT0629-001A	INST MANUAL	1		
	A 5	LV42487-001A	CAUTION SHEET	1		
	A 6	QAM0106-001	CAR CABLE	1		
	A 7	RM-RK100	REMOCON	1		
	A 8	QAB0014-001	BATTERY	1		
	A 9	VKZ4027-202	PLUG NUT	1		
	A 10	VKH4871-001SS	MOUNT BOLT	1		
	A 11	VKZ4328-001	LOCK NUT	1		
	A 12	WNS5000Z	WASHER	1		
	A 13	FSKL4010-002	HOOK	2		
	A 14	LV40978-001A	CAUTION SHEET	1		
	A 15	FSKM2004-003	MOUNTING SLEEVE	1		
	A 16	LV20938-001A	TRIM PLATE	1		
	A 17	LV32577-001A	HARD CASE ASSY	1		
	KIT	KDGS717K-SCREW1	SCREW PARTS KIT	1	A9-A13	