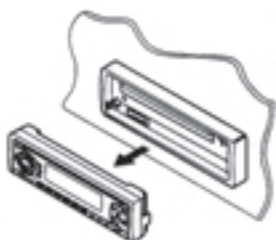


# JVC

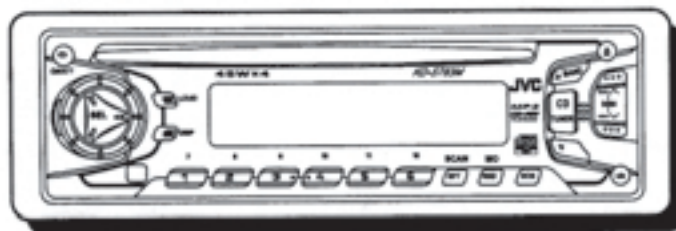
# SERVICE MANUAL

## CD RECEIVER

# KD-S783M



KD-S783M



**MP3**  
**CD-RW**  
PLAYBACK

COMPACT  
**disc**  
DIGITAL AUDIO  
TEXT

**Area Suffix**

UF ..... China

### Contents

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## 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

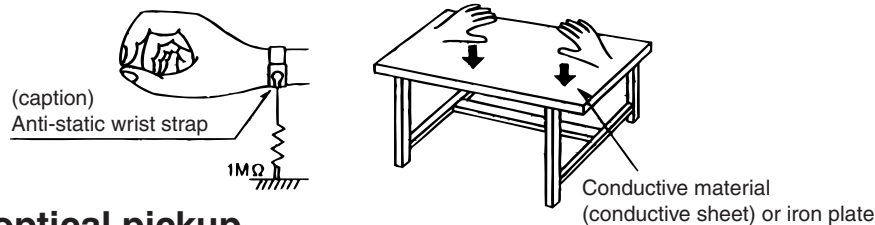
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

### 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.

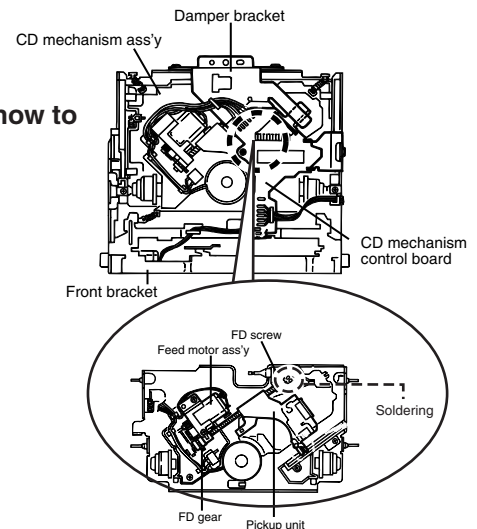
## 4. Handling the traverse unit (optical pickup)

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

### <Main body>

#### ■ Removing the front panel assembly

(See Fig.1)

1. Press the eject button in the lower right part of the front panel. Remove the front panel assembly from the body.

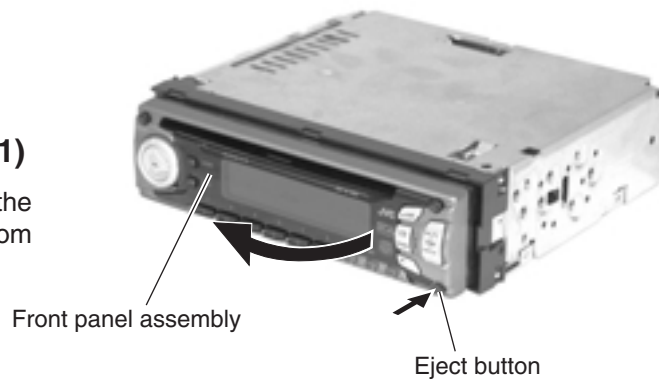


Fig.1

#### ■ Removing the front chassis assembly

(See Fig.2, 3)

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

1. Release the four joint tabs **a** on both sides of the front chassis assembly and remove the front chassis assembly toward the front.

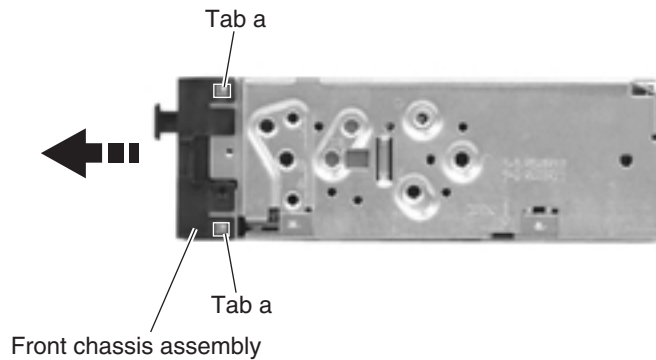


Fig.2

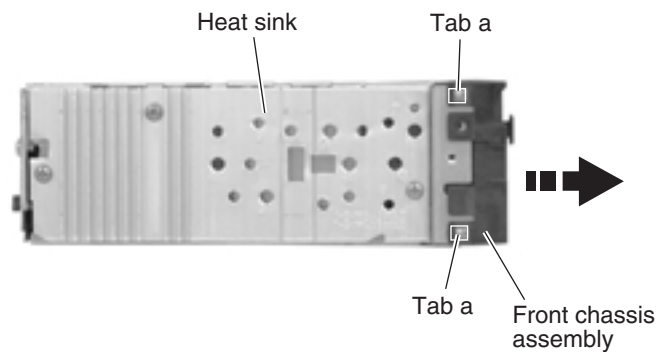


Fig.3

■ **Removing the heat sink (See Fig.4)**

1. Remove the three screws **A** on the left side of the body.

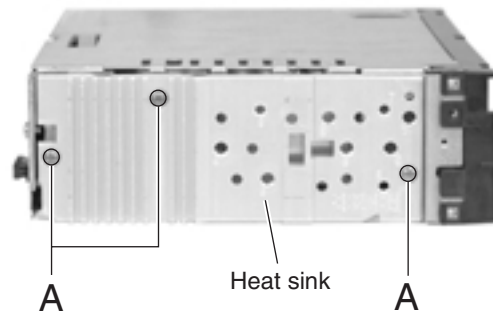


Fig.4

■ **Removing the bottom cover (See Fig.5, 6)**

- Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly and the heat sink.

1. Turn the body upside down.
2. Insert a screwdriver to the two joints **b** and two joints **c** on both sides of the body and the joint **d** on the back of the body, then detach the bottom cover from the body.

**CAUTION:** When disengaging the joint **d** using a screwdriver, do not damage or break the board.

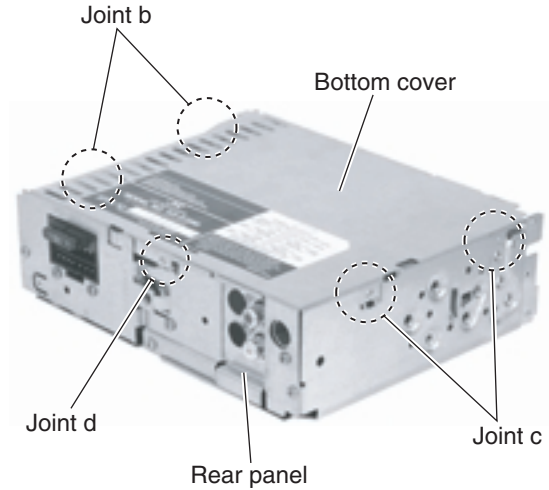


Fig.5

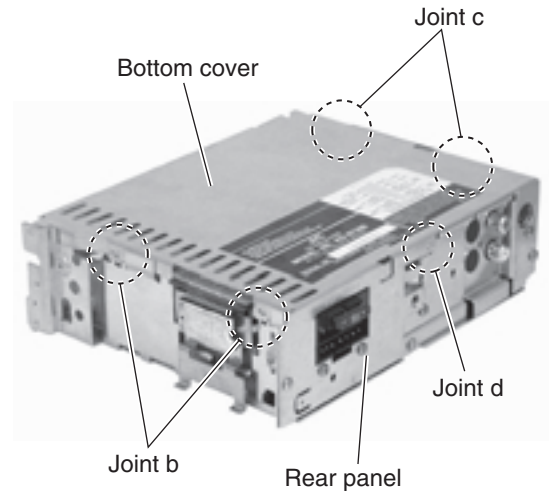


Fig.6

■ **Removing the main board (See Fig.7, 8)**

• Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly, the heat sink and the bottom cover.

1. Remove the screw **B**, the four screws **C** and the three screws **D** attaching the rear bracket on the back of the body. Remove the rear panel.
2. Remove the two screws **E** attaching the main board on the bottom of the body. Disconnect connector **CN501** on the main board in the direction of the arrow.

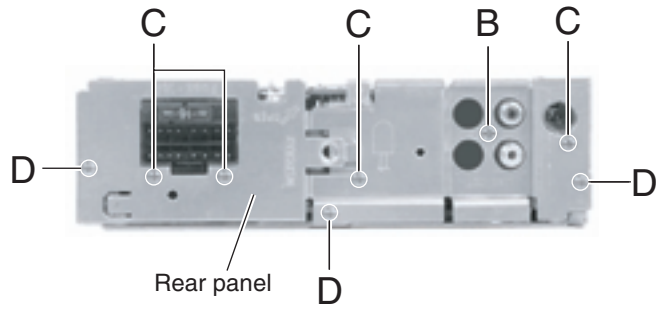


Fig.7

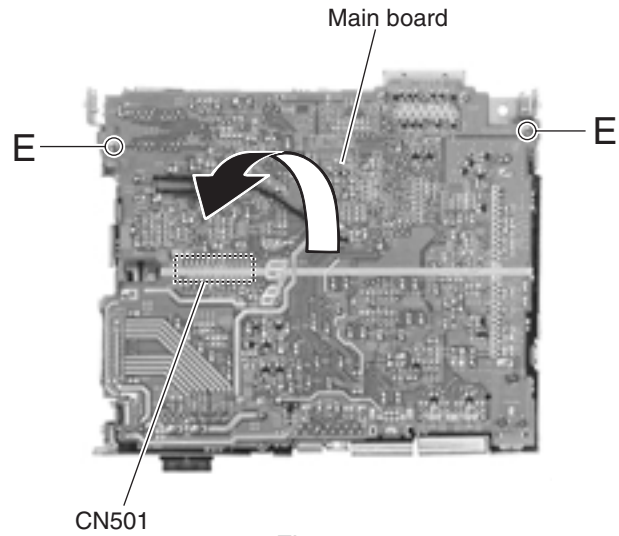


Fig.8

■ **Removing the CD mechanism section (See Fig.9)**

• Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly, the heat sink, the bottom cover and the main board.

1. Remove the three screws **F** attaching the cassette mechanism section on the back of the top chassis.

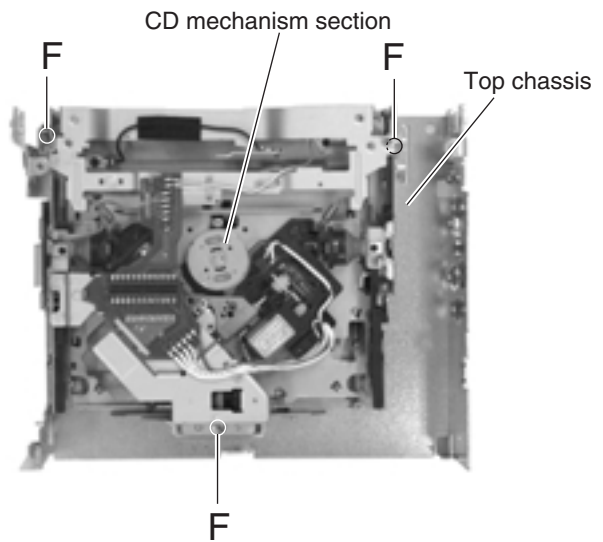


Fig.9

**■ Removing the control switch board**  
**(See Fig.10 ~ 12)**

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

1. Remove the four screws **G** attaching the rear cover on the back of the front panel assembly.
2. Unjoint the eleven joints **e** with the front panel and the rear cover.
3. Remove the control switch board on the back of the front panel.

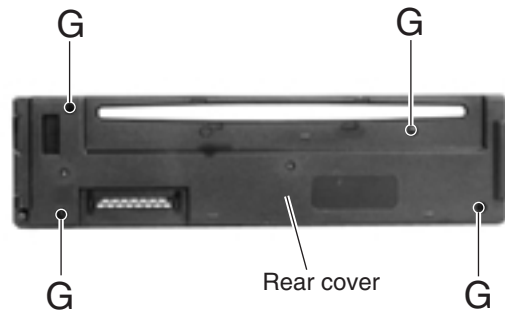


Fig.10

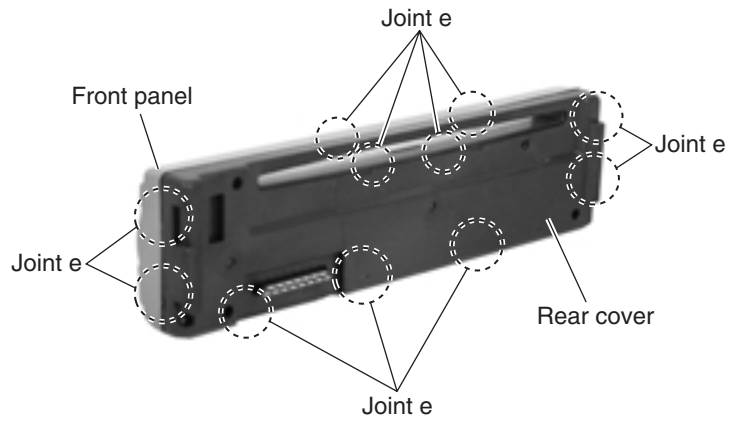


Fig.11

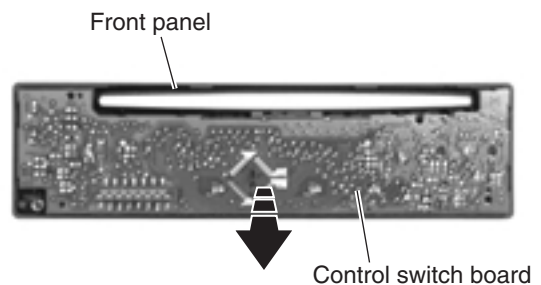


Fig.12

<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.

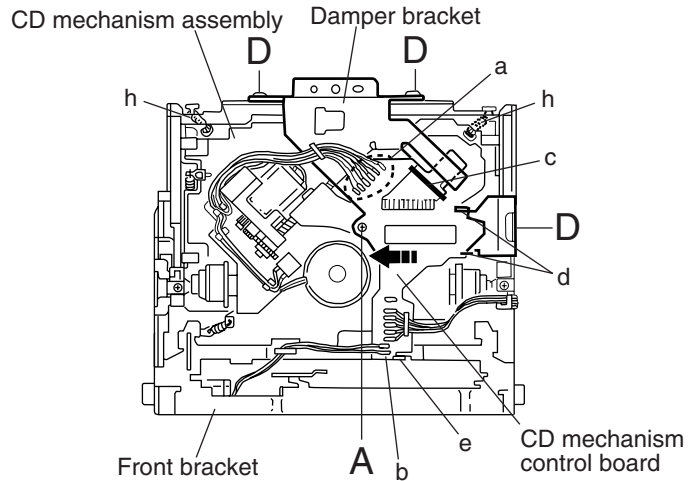


Fig.1

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)

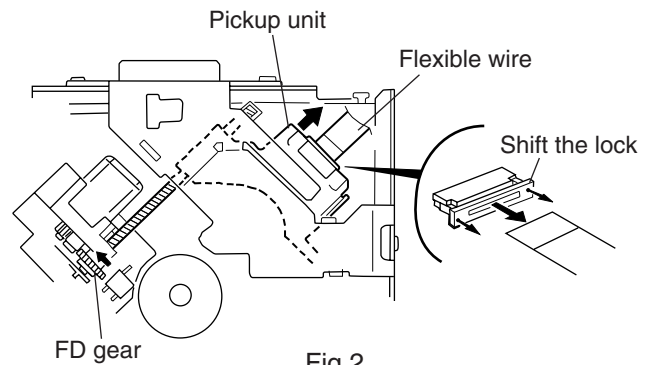


Fig.2

■ 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.

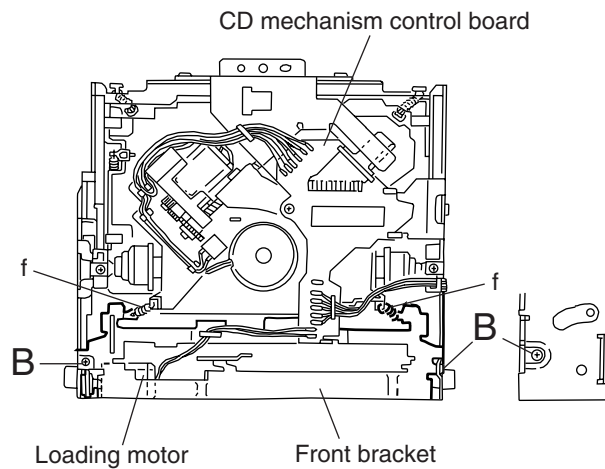


Fig.3

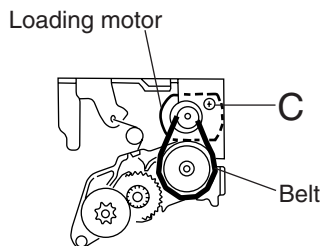


Fig.5

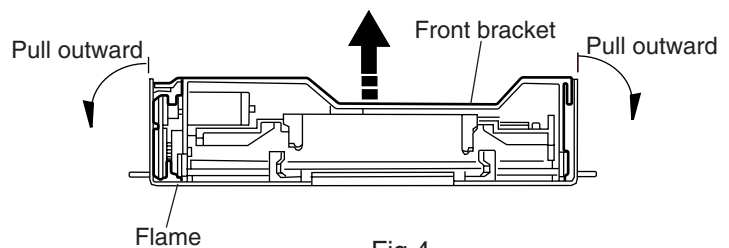


Fig.4



**■ 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.

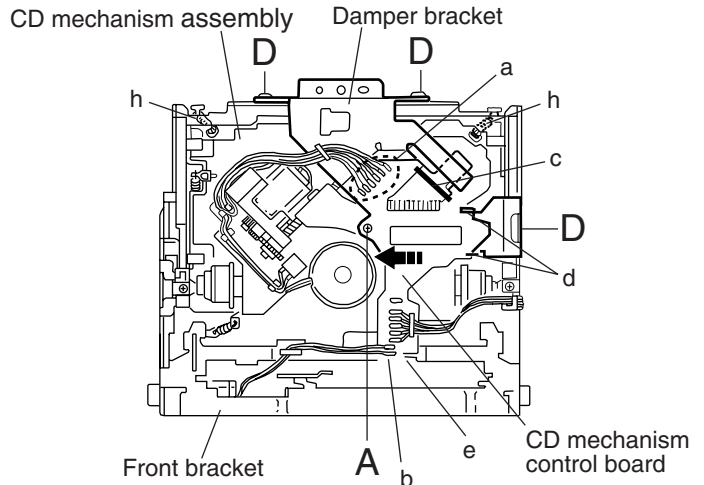


Fig.5

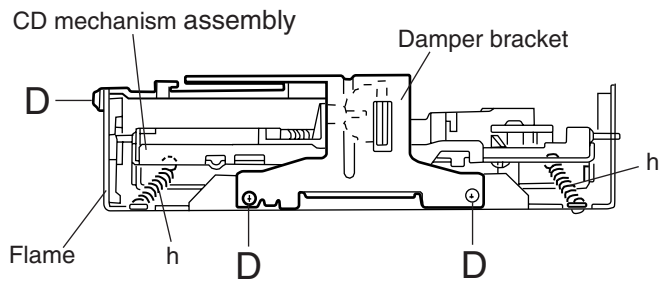


Fig.6

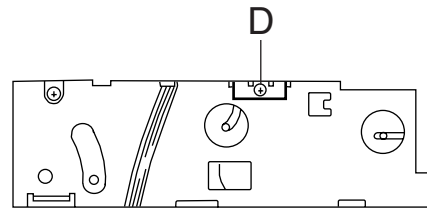


Fig.7

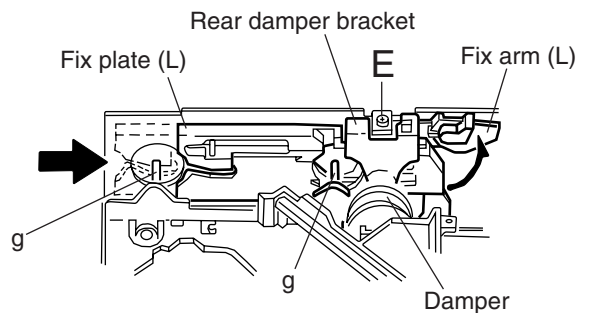


Fig.8

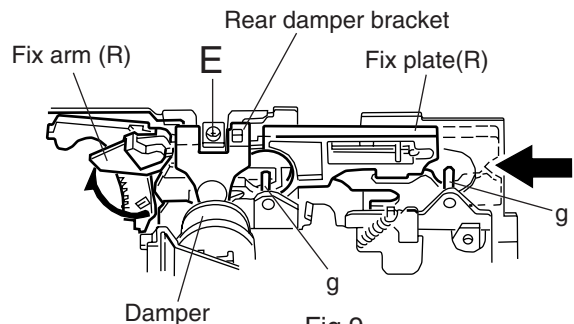


Fig.9

**■ 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.

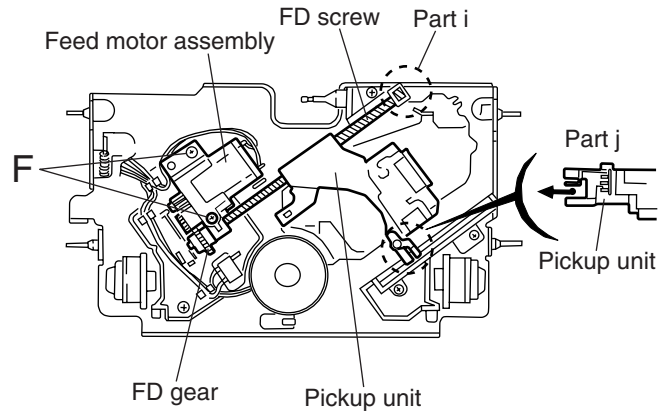


Fig.10

**■ 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.

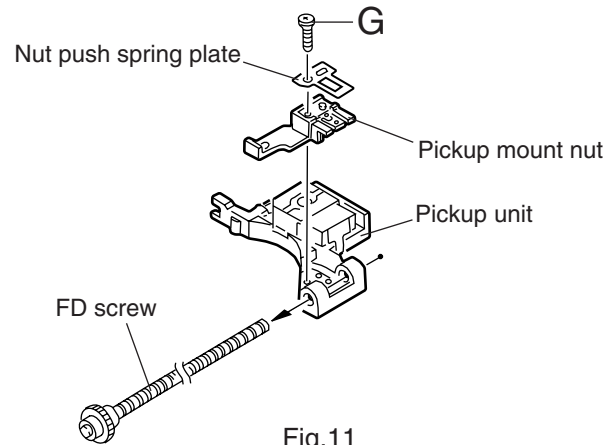


Fig.11

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.

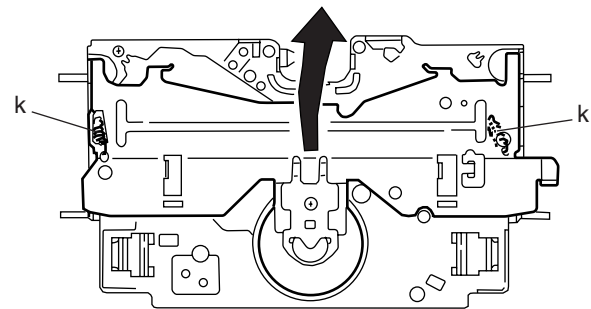


Fig.12

2. Turn the turn table, and remove the two screws **H** and the spindle motor.

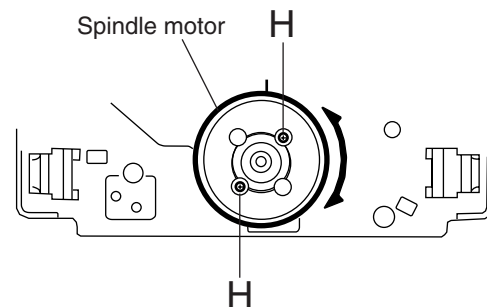


Fig.13

## 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 volume position

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

### ■ Frequency Band

FM 87.5MHz ~ 107.9MHz  
MW 530kHz ~ 1710 kHz

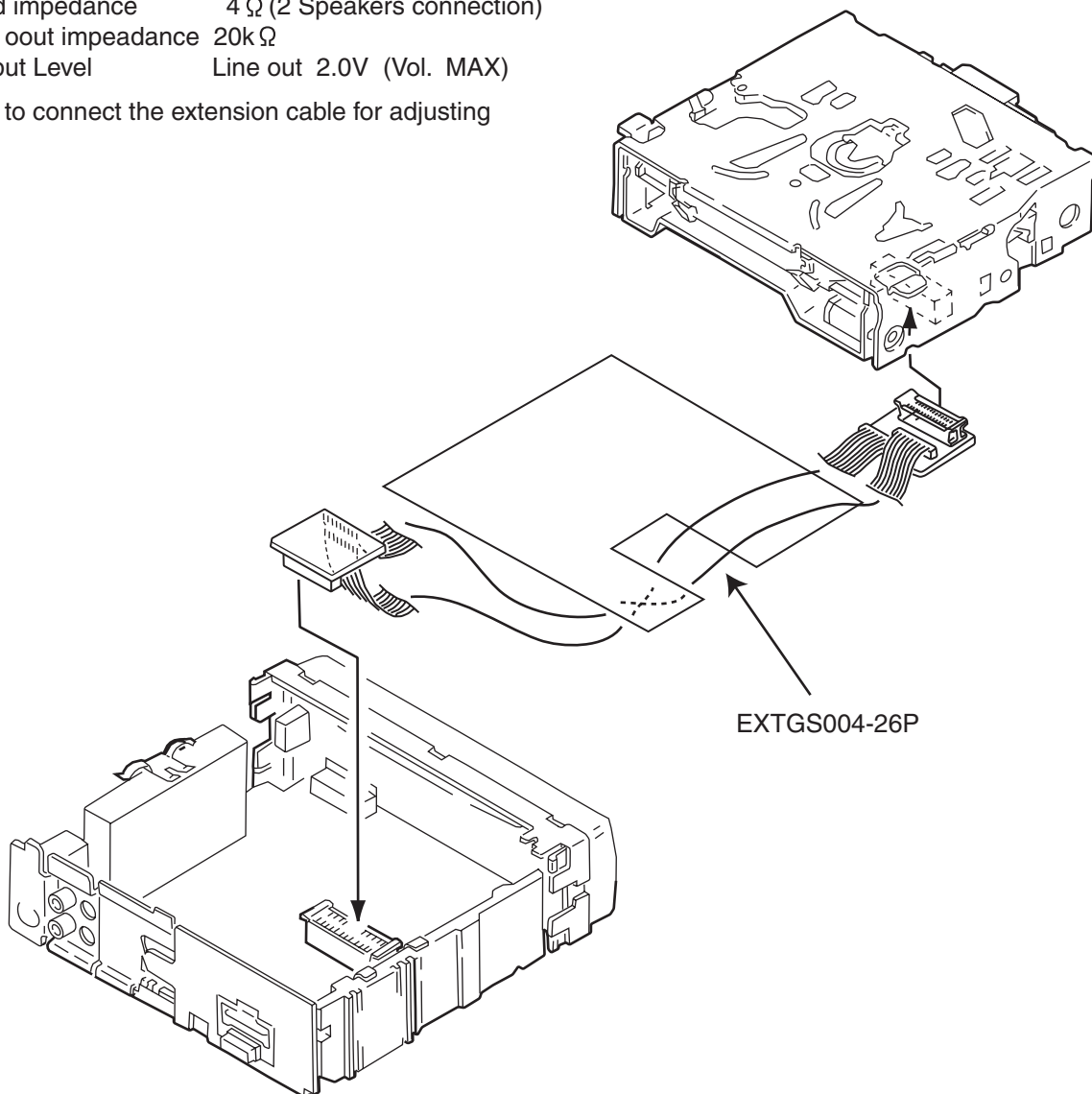
### ■ Dummy load

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.

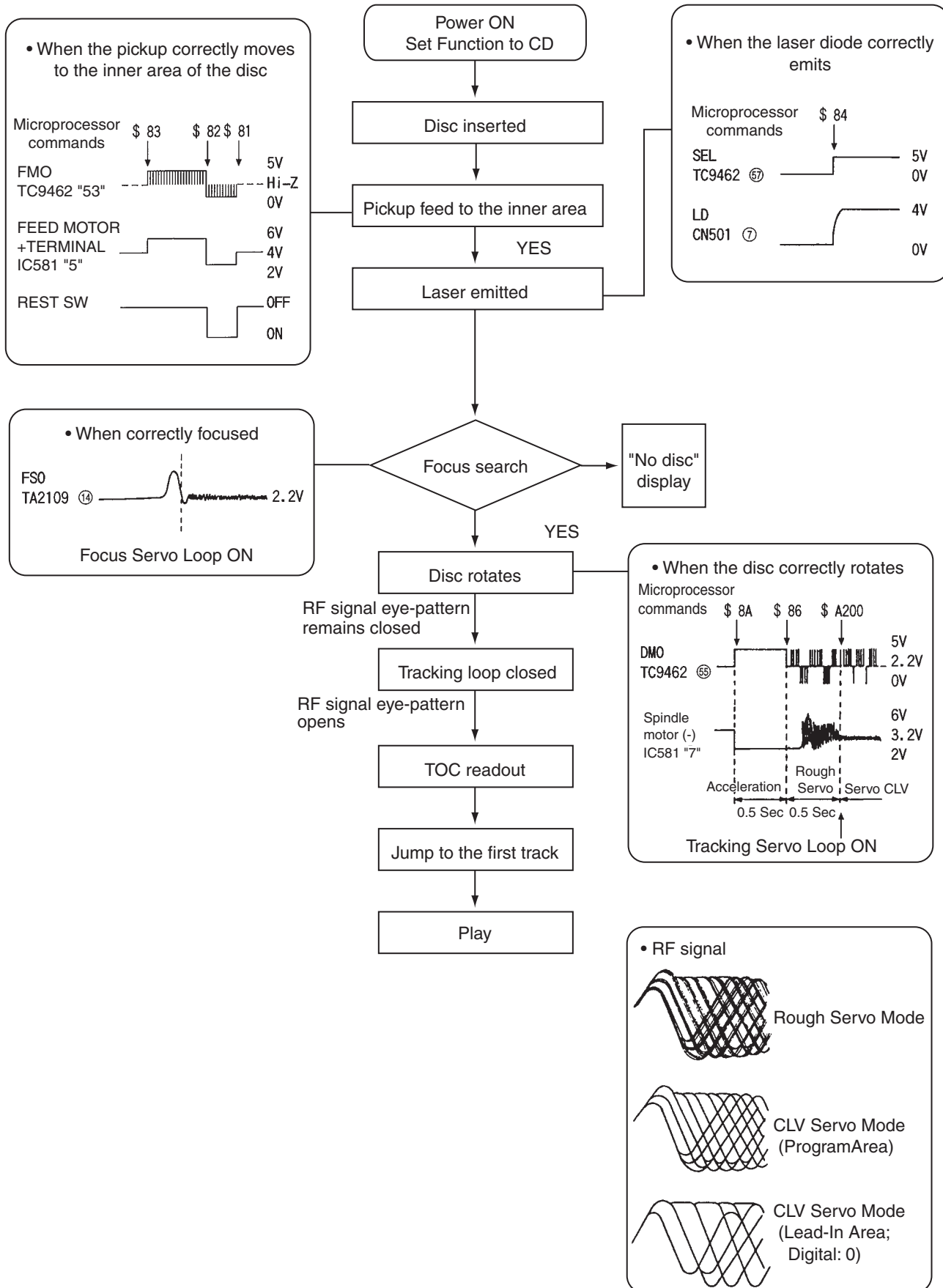
### ■ Standard measuring conditions

Power supply voltage DC14.4V(10.5~16V)  
Load impedance  $4\ \Omega$  (2 Speakers connection)  
Line out impedance  $20k\ \Omega$   
Output Level Line out 2.0V (Vol. MAX)

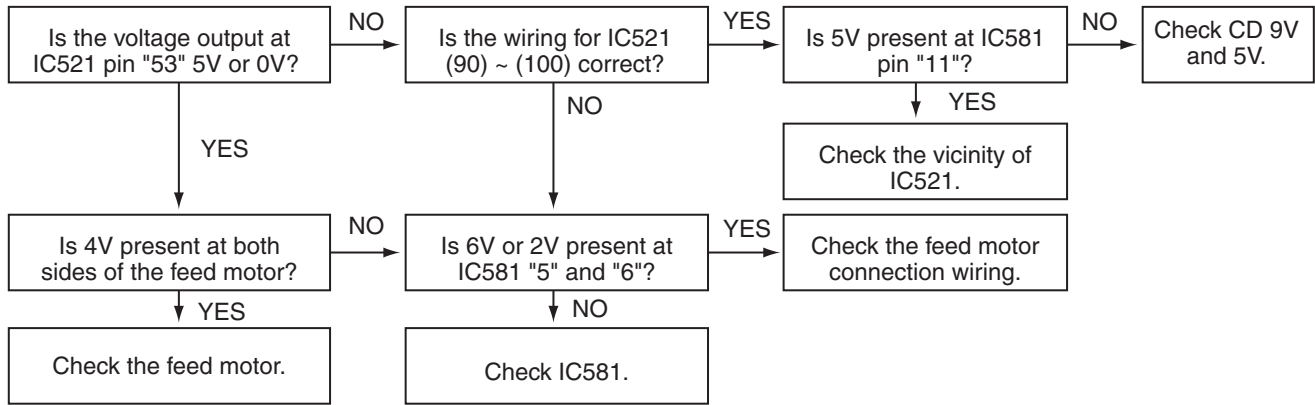
### ■ How to connect the extension cable for adjusting



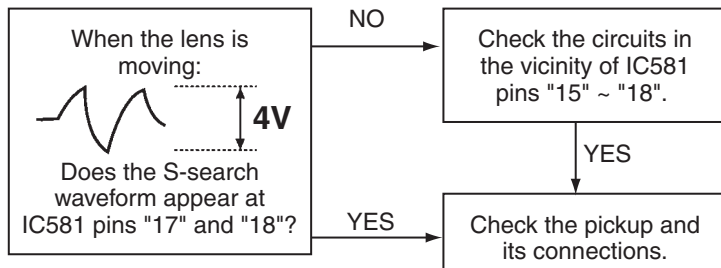
# Flow of functional operation until TOC read



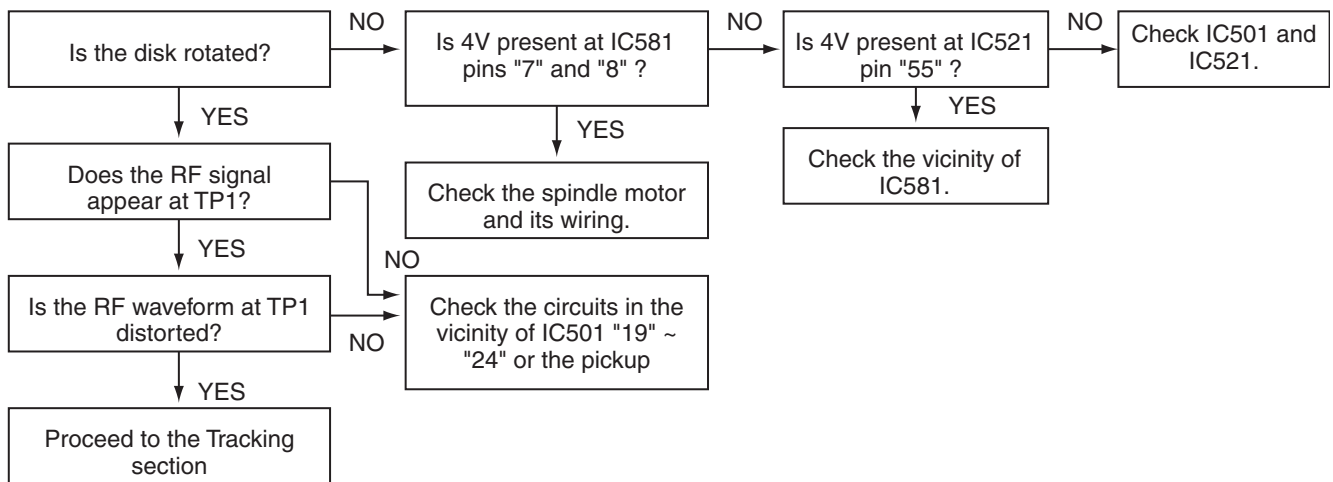
**Feed Section**



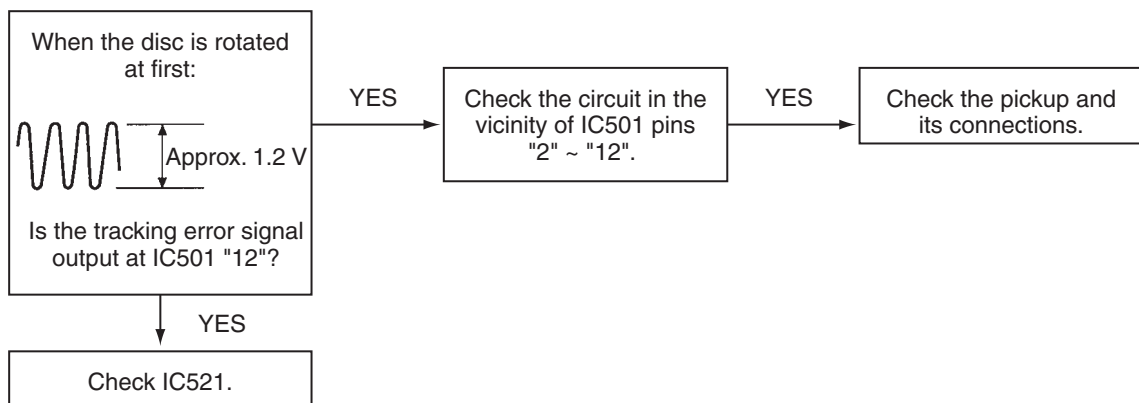
**Focus Section**



**Spindle Section**

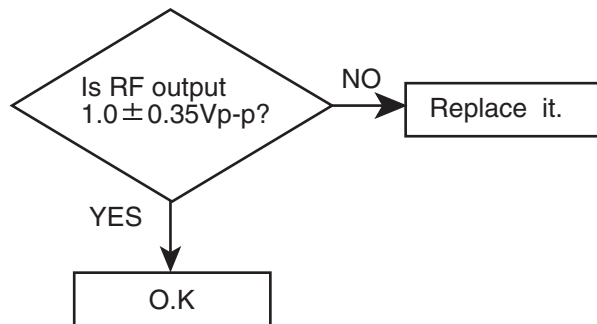


**Tracking Section**

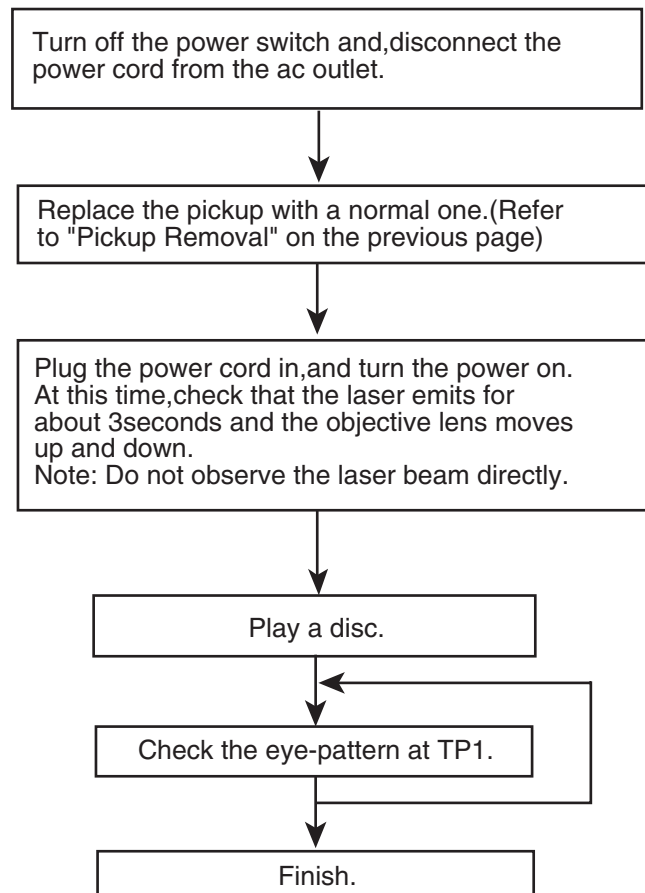


# Maintenance of laser pickup

- (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.



## Replacement of laser pickup

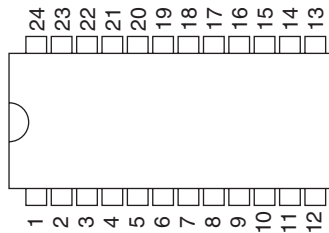


- (3) Semi-fixed resistor on the APC PC board  
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.  
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.

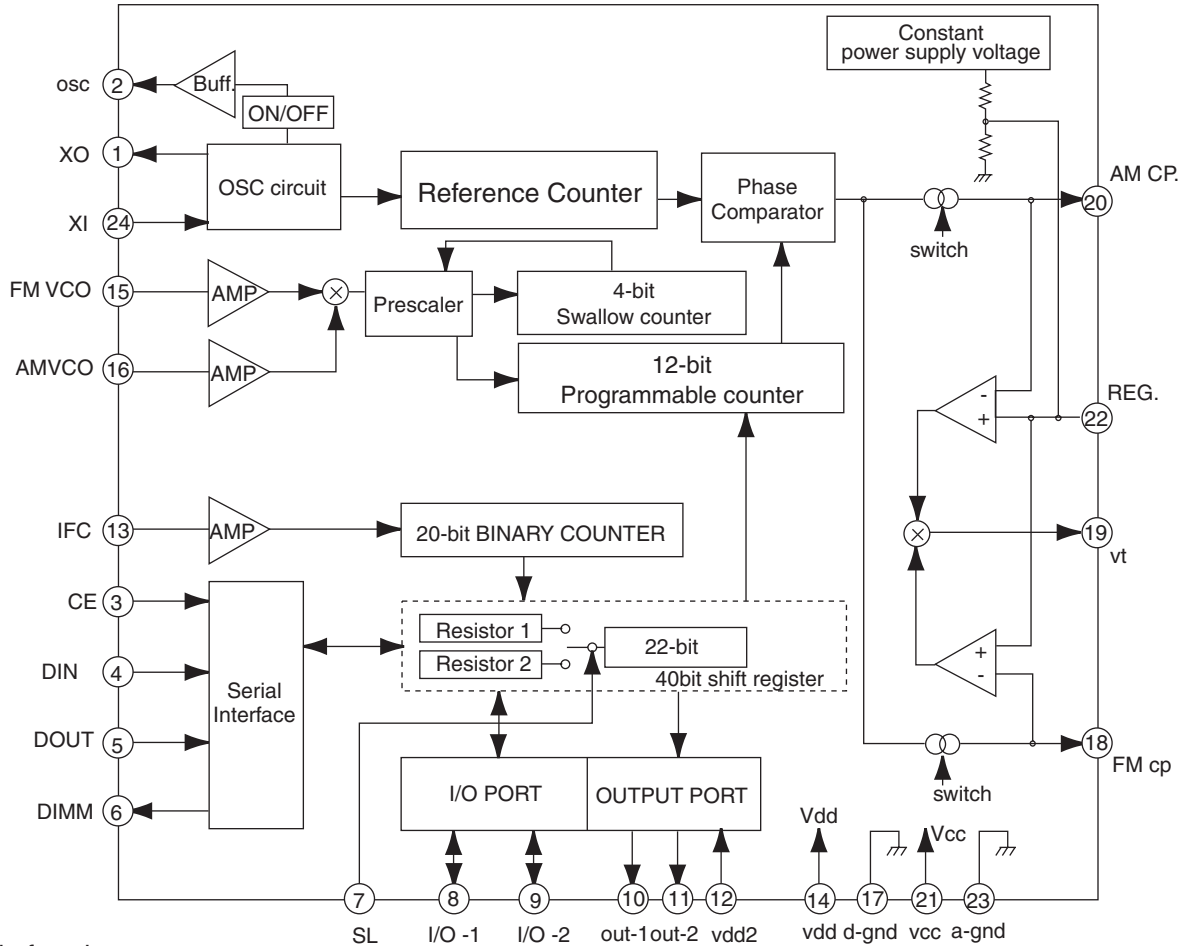
# Description of major ICs

## ■ TB2118F-X (IC31) : PLL

### 1. Terminal layout



### 2. Block diagram

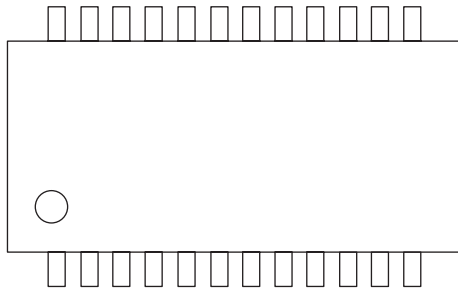


### 3. Pin function

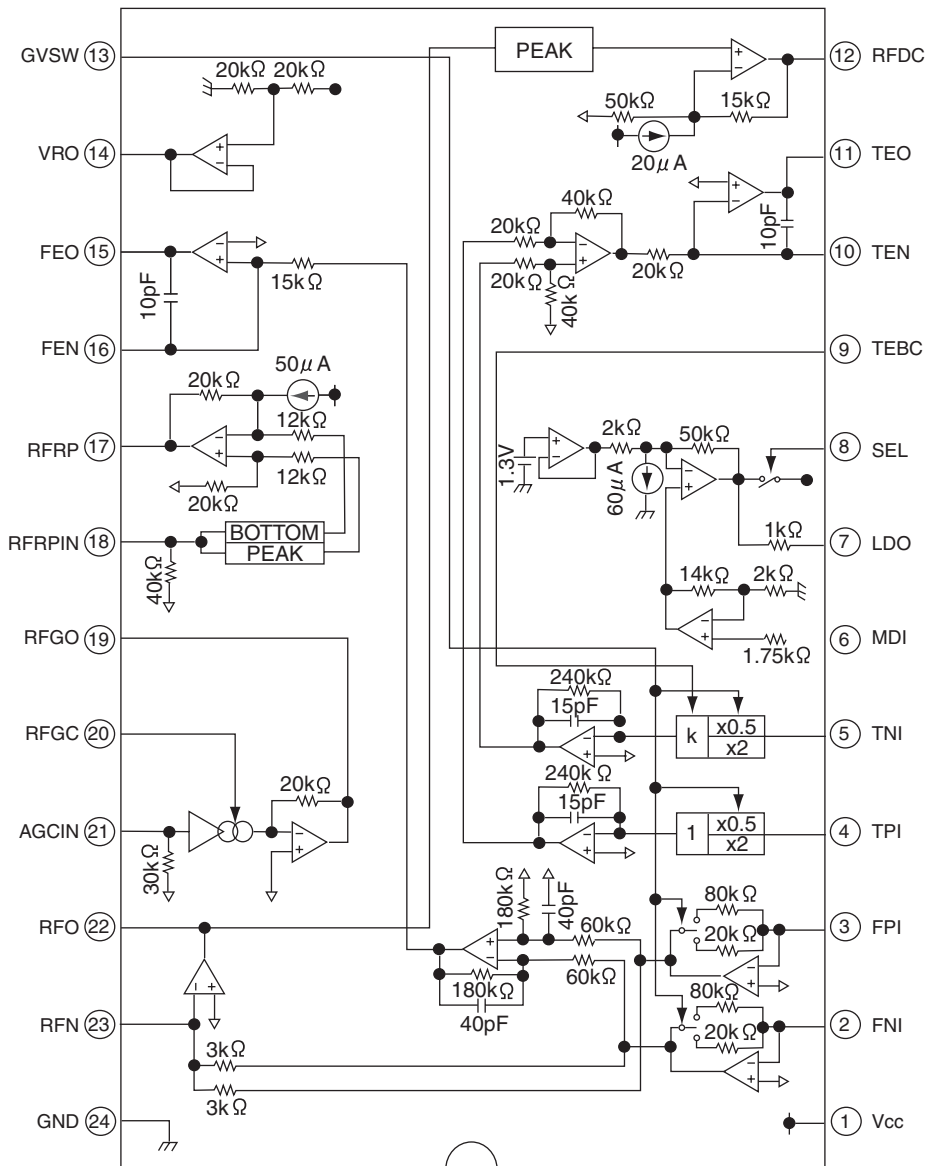
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XOUT	O	Crystal oscillator pin	13	IFC	I	IF signal input
2	OSC	-	Non connect	14	VDD	-	Power pins for digital block
3	CE	I	Chip enable input	15	FMIN	I	FM band local signal input
4	DI	I	Serial data input	16	AMIN	I	AM band local signal input
5	CK	I	Clock input	17	DGND	-	Connect to GND (for digital circuit)
6	DOUT	O	Serial data output	18	FMCP	O	Charge pump output for FM
7	SR	O	Register control pin	19	VT	-	Tuning voltage biased to 2.5V.
8	I/O1	I/O	I/O ports	20	AMCP	O	Charge pump output for AM
9	I/O2	I/O	I/O ports	21	VCC	-	Power pins for analog block
10	OUT1	-	Non connect	22	RF	I	Ripple filter connecting pin
11	OUT2	-	Non connect	23	AGND	-	Connect to GND (for analog circuit)
12	VDD2	-	Single power supply for REF. frequency block	24	XIN	I	Crystal oscillator pin

■ TA2147F-X (IC521) : RF amp.

1. Terminal layout



2. Block diagram



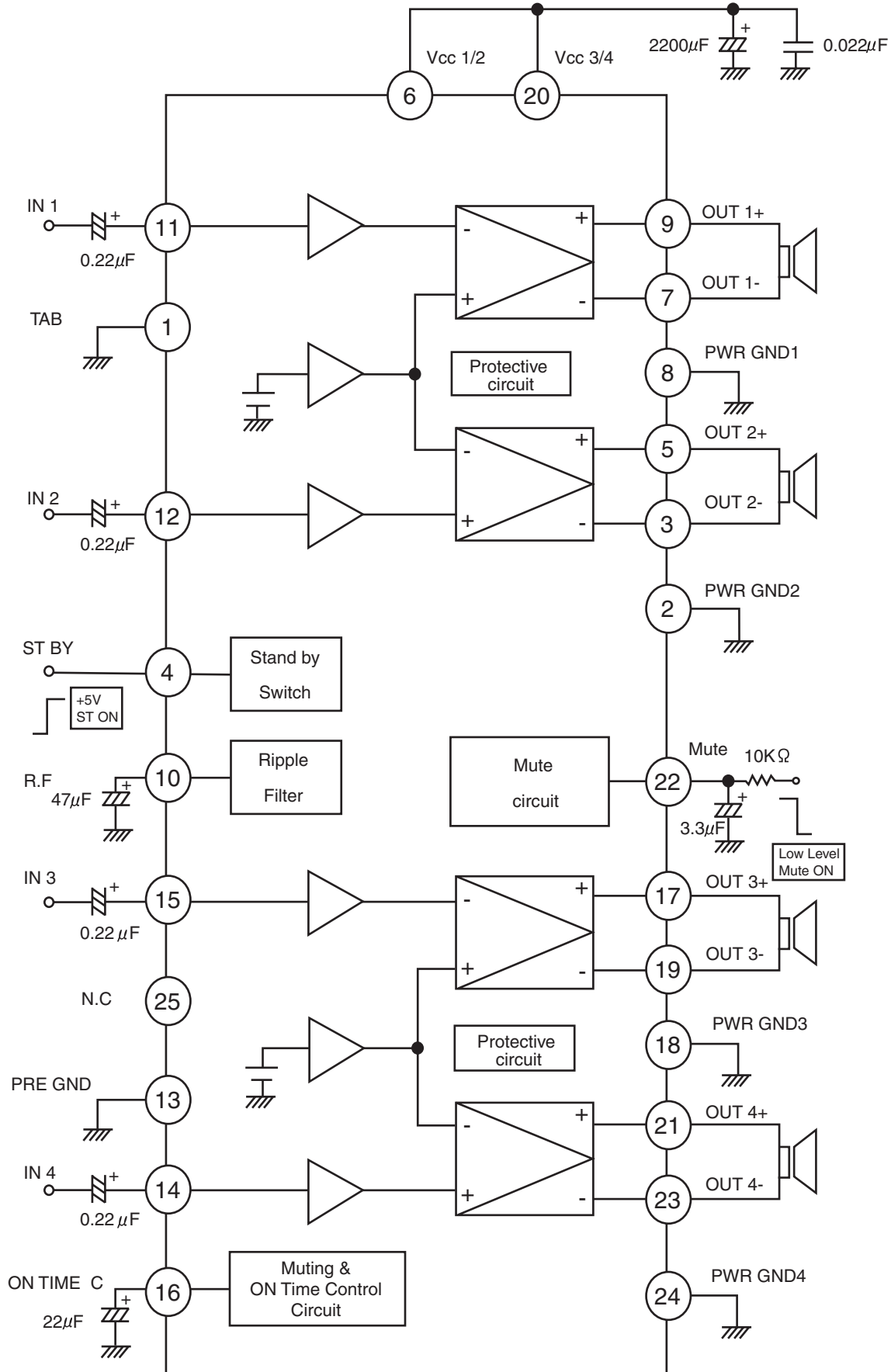


3.Pin function

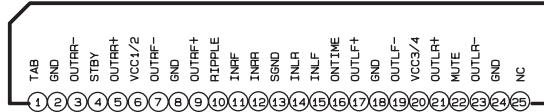
Pin No.	Symbol	I/O	Function												
1	Vcc	-	3.3V Power supply pin												
2	FNI	I	Main-beam amp input pin												
3	FPI	I	Main-beam amp input pin												
4	TPI	I	Sub-beam amp input pin												
5	TNI	I	Sub-beam input pin												
6	MDI	I	Monitor photo diode amp input pin												
7	LDO	O	Laser diode amp output pin												
8	SEL	I	APC circuit ON/OFF control signal,laser diode (LDO) control signal input or bottom/peak detection frequency change pin. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>SEL</th> <th>APC circuit</th> <th>LDO</th> </tr> </thead> <tbody> <tr> <td>GND</td> <td>OFF</td> <td>Connected to Vcc through 1kΩ resistor</td> </tr> <tr> <td>HIZ</td> <td>ON</td> <td>Control signal output</td> </tr> <tr> <td>Vcc</td> <td>ON</td> <td>Control signal output</td> </tr> </tbody> </table>	SEL	APC circuit	LDO	GND	OFF	Connected to Vcc through 1kΩ resistor	HIZ	ON	Control signal output	Vcc	ON	Control signal output
SEL	APC circuit	LDO													
GND	OFF	Connected to Vcc through 1kΩ resistor													
HIZ	ON	Control signal output													
Vcc	ON	Control signal output													
9	TEBC	I	Tracking error balance adjustment signal pin Adjusts TE signal balance by eliminating carrier component from PWM signal(3-state output, PWM carrier = 88.2kHz) output from TC9490F/FA TEBC pin using RC-LPF and inputting DC. TEBC input voltage:GND~Vcc												
10	TEN	I	Tracking error signal generation amp negative-phase input pin												
11	TEO	O	Tracking error signal generation amp output pin. Combining TEO signal and RFRP signal with TC9490F/FA configures tracking search system.												
12	RFDC	O	RF signal peak detection output pin												
13	GVSW	I	AGC/FE/TE amp gain change pin <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>GVSW</th> <th>Mode</th> </tr> </thead> <tbody> <tr> <td>GND</td> <td>CD-RW</td> </tr> <tr> <td>HIZ</td> <td>CD-DA</td> </tr> <tr> <td>Vcc</td> <td>CD-DA</td> </tr> </tbody> </table>	GVSW	Mode	GND	CD-RW	HIZ	CD-DA	Vcc	CD-DA				
GVSW	Mode														
GND	CD-RW														
HIZ	CD-DA														
Vcc	CD-DA														
14	VRO	O	Reference voltage (VRO) output pin *VRO = 1/2 Vcc when Vcc = 3.3V												
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 Combining RFRP signal TEO signal with TC9490F/FA configures tracking search system.												
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 Adjusts RF signal amplitude by eliminating carrier component from PWM signal (3-state output, PWM carrier = 88.2kHz) output from TC9490F/FA RFGC pin using RC-LPF and inputting DC. *RFGC input voltage : GND-Vcc												
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												

■ LA4743K (IC301) : Power amp

1. Block diagram



2. Terminal layout



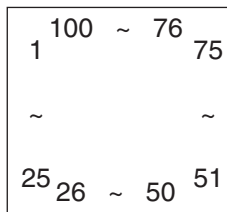
3. Pin function

LA4743B

Pin No.	Symbol	Function
1	TAB	Header of IC
2	GND	Power GND
3	OUTRR-	Output (-) for front Rch
4	STBY	Stand by input
5	OUTRR+	Output (+) for front Rch
6	VCC1/2	Power input
7	OUTRF-	Output (-) for rear Rch
8	GND	Power GND
9	OUTRF+	Output (+) for rear Rch
10	RIPPLE	Ripple filter
11	INRF	Rear Rch input
12	INRR	Front Rch input
13	SGND	Signal GND
14	INLR	Front Lch input
15	INLF	Rear Lch input
16	ONTIME	Power on time control
17	OUTLF+	Output (+) for rear Lch
18	GND	Power GND
19	OUTLF-	Output (-) for rear Lch
20	VCC3/4	Power input
21	OUTLR+	Output (+) for front
22	MUTE	Muting control input
23	OUTLR-	Output (-) for front
24	GND	Power GND
25	NC	Non connection

## ■ UPD784215AGC184 (IC701) : Main micon

### 1.Pin layout



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

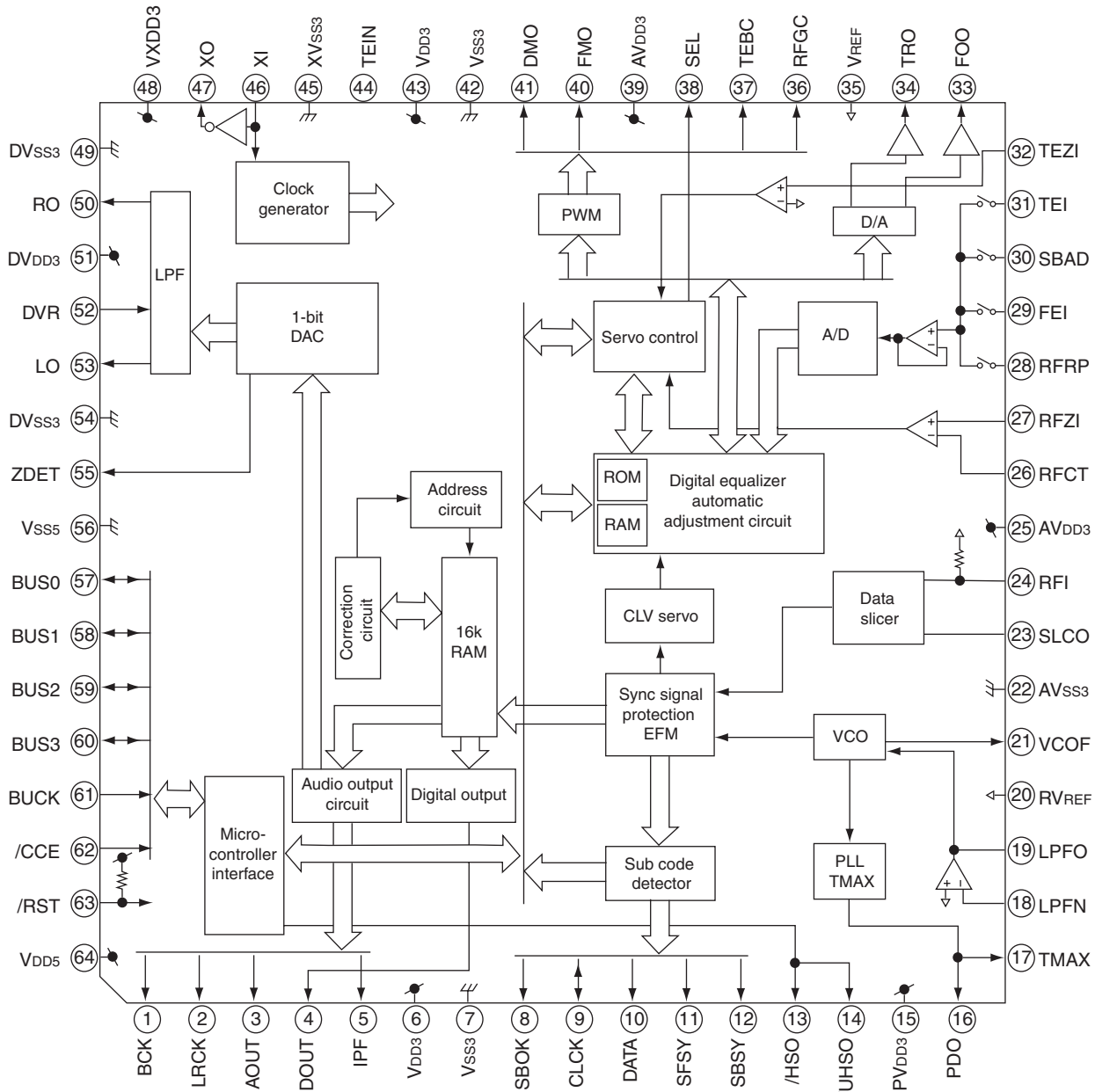
Pin No.	Symbol	I/O	Function
1	SW2	I	CD mecha sw2
2	SW3	I	CD mecha sw3
3	SW4	I	CD mecha sw4
4	REST	I	Rest sw
5	LM0	O	Loading/Eject motor control (Loading side)
6	LM1	O	Loading/Eject motor control (Eject side)
7	-	-	No use
8	ANT CONT	O	Antenna remote control
9	VDD	-	Maicon power supply
10	X2	-	
11	X1	-	
12	VSS	-	GND
13	XT2	-	
14	XT1	-	
15	RESET	I	Reset detection
16	SW1	I	CD mecha sw1
17	BUS-INT	I	J-BUS int
18	PS2	I	Power save 2, H means STOP mode
19~21	-	-	No use
22	REMOCON	I	Remocon input
23	AVDD	-	A/D converter power supply
24	AVREF0	-	A/D reference voltage
25	VOL1	I	Volume encoder pulse input 1
26	VOL2	I	Volume encoder pulse input 2
27	KEY0	I	Key input 0
28	KEY1	I	Key input 1
29	KEY2	I	Key input 2
30	LEVEL	I	Level meter input
31	-	-	No use
32	SM	I	S.METER input
33	AVSS	-	GND
34,35	-	-	No use
36	AVREF	-	
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	BUS-I/O	O	J-BUS I/O selection output H:output L:input
41	LCD-DA	O	Data output for LCD driver
42	LCD-SCK	O	CLK output for LCD driver
43	LCD-CE	O	CE for LCD driver
44	BUZZER	O	Buzzer output
45~52	-	-	No use

## 2.Pin functions (2/2)

Pin No.	Symbol	I/O	Function
53	SD/ST	I	Station detector or stereo signal input
54	LOCAL	O	Loal or distance selecting output
55	MONO	O	Monoral selection output
56	MP3 CLK	O	CLK output for MP3 decoder
57	MP3 DATA IN	I	Data input for MP3 decoder / inverting input due to converter
58	MP3 DATA OUT	O	Data output for MP3 decoder / H level during input mode
59	MP3 STANDBY	O	Standby output for MP3 decoder
60	MP3 RESET	O	Reset output for MP3 decoder
61	MP3 REQ	I	REQ input for MP3 decoder / inverting input due to converter
62	DETACH	I	Detach detect input H: detaching
63	SEEK/STOP	O	Auto seek and stop selecting output
64	-	-	No use
65	FM/AM	O	FM,AM band selecting output
66	PLL-CE	O	CE output for PLL IC
67	PLL-DO	O	Data output for PLL IC
68	PLL-CLK	O	Clock output for PLL IC
69	PLL-DI	I	Data input from PLL IC
70	TEL-MUTE	I	Telephone muting detection input, active level can selected H or L is PSM
71	-	-	No use
72	VSS	-	GND
73	VSDIM-IN	I	Dimmer detector input L=dimmer on
74	PS1	I	POWER SAVE 1 L=ACC off
75	POWER	O	Power ON/OFF control output H=power on
76	CD-ON	O	CD power supply control output H=CD power ON
77	MUTING	O	Muting output L=Muting ON
78~80	-	-	No use
81	VDD	-	Micon power supply
82	-	-	No use
83	VOL-DA	O	Data output for E-vol IC
84	VOL-CLK	O	Clock output for E-vol IC
85	DIM-OUT	O	Dimmer control output L=dimmer on
86~89	-	-	No use
90	STAGE	I	L=U version, H=Japanversion
91	BUCK	O	Clock output for CD LSI
92	CCE	O	CE output for CD LSI
93	RST	O	Reset output for CD LSI
94	TEST	-	For rewriting flash memory
95	BUS0	I/O	Data output and input 0 for CD LSI
96	BUS1	I/O	Data output and input 1 for CD LSI
97	BUS2	I/O	Data output and input 2 for CD LSI
98	BUS3	I/O	Data output and input 3 for CD LSI
99	-	-	No use
100	CD-RW	-	RF gain control L=CD-RW, H=CD-DA

■ TC9490FA (IC541) : DSP & DAC

1.Pin layout & Block diagram



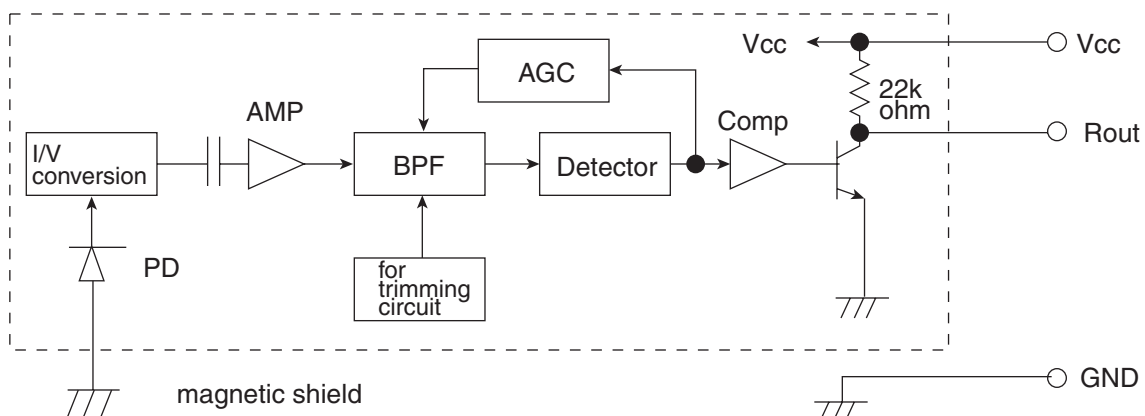
2.Pin function (1/2)

TC9490FA(2/3)

Pin 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. Output polarity can be inverted by command.															
3	AOUT	O	Audio data output pin. MSB-first or LSB-first selectable by command.															
4	DOUT	O	Digital data output pin. Outputs up to double-speed playback.															
5	IPF	O	Correction flag output pin. When set to "H", AOUT output cannot be corrected by C2 correction processing.															
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	Subcode P-W data read clock/I/O pin. I/O polarity selectable by command.															
10	DATA	O	Subcode P-W data output pin.															
11	SFSY	O	Playback frame sync signal output pin.															
12	SBSY	O	Subcode block sync signal output pin. "H" level at S1 when subcode sync is detected.															
13	/HSO	O	Playback speed mode flag output pins.															
14	/UHSO	O	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>/UHSO</th> <th>/HSO</th> <th>Playback speed</th> </tr> </thead> <tbody> <tr> <td>H</td> <td>H</td> <td>Normal</td> </tr> <tr> <td>H</td> <td>L</td> <td>Double</td> </tr> <tr> <td>L</td> <td>L</td> <td>4 times</td> </tr> <tr> <td>--</td> <td>--</td> <td>---</td> </tr> </tbody> </table>	/UHSO	/HSO	Playback speed	H	H	Normal	H	L	Double	L	L	4 times	--	--	---
/UHSO	/HSO	Playback speed																
H	H	Normal																
H	L	Double																
L	L	4 times																
--	--	---																
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. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>TMAX Detection result</th> <th>TMAX Output</th> </tr> </thead> <tbody> <tr> <td>Longer than fixed period</td> <td>"PVDD3"</td> </tr> <tr> <td>Within fixed period</td> <td>"HIZ"</td> </tr> <tr> <td>Shorter than fixed period</td> <td>"AVSS3"</td> </tr> </tbody> </table>	TMAX Detection result	TMAX Output	Longer than fixed period	"PVDD3"	Within fixed period	"HIZ"	Shorter than fixed period	"AVSS3"							
TMAX Detection result	TMAX Output																	
Longer than fixed period	"PVDD3"																	
Within fixed period	"HIZ"																	
Shorter than fixed period	"AVSS3"																	
18	LPFN	I	Inverted input pin for PLL LPF 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. Zin selectable by command.															
25	AV	-	Analog 3.3V power supply voltage pin.															
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	SBAD	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.															

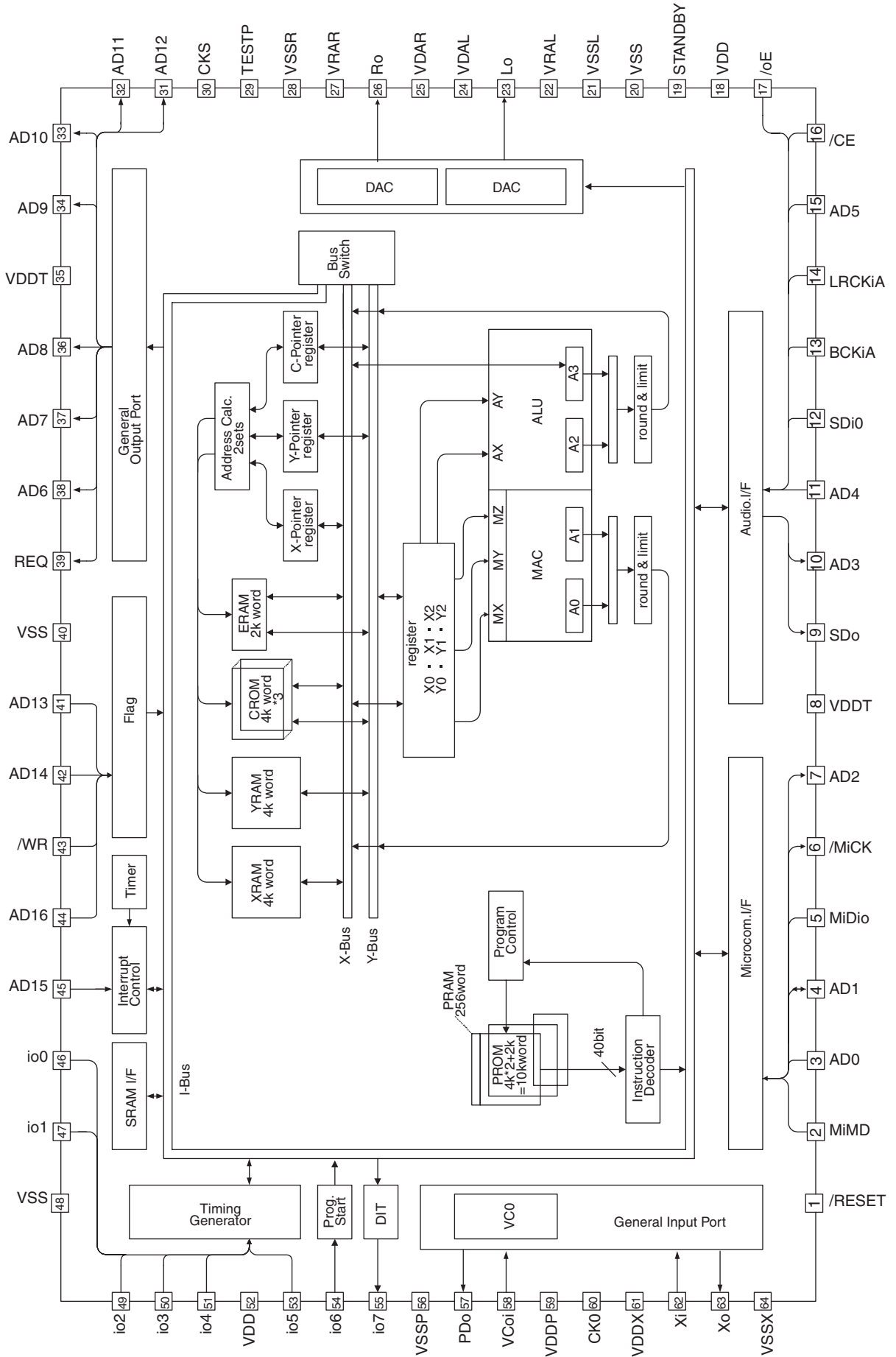
Pin No.	Symbol	I/O	Function
36	RFGC	O	RF amplitude adjustment control signal output pin.
37	TEBC	O	Tracking balance control signal output pin.
38	SEL	O	APC circuit ON/OFF signal output pin. At laser on,high impedance with UHS="L" ,H output with UHS="H".
39	AVDD3	-	Analog 3.3V power supply voltage pin.
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. Normally, fixed to "L".
45	XVSS3	-	System clock oscillator GND pin.
46	XI	I	System clock oscilatoe 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	-	DA 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		
59	BUS2		
60	BUS3		
61	BUCK	I	Microcontroller interface clock input pin.
62	/CCE	I	Microcontroller interface chip enable signal input pin. At "L". Bus0 to BUS3 are active.
63	/RST	I	Reset signal input pin. At reset, "L".
64	VDD5	-	Microcontroller interface 5V power supply pin.

■ RPM6938-SV4 (IC602) : Remote control receiver





■ TC94A02F-005 (IC401) : DSP



Pin No.	Symbol	I/O	Function
1	/RESET	I	Hard reset input terminal(H:Normal operation L: Reset)
2	MiMD	I	Micon I/F mode select input terminal
3	AD0	O	External SRAM address output 0 terminal
4	AD1	O	External SRAM address output 1 terminal
5	MiDio	I/O	Micon I/F data input/output terminal
6	/MiCK	I	Micon I/F clock input terminal
7	AD2	O	External SRAM address output 2 terminal
8	VDDT	-	Digital power supply (3.3V)
9	SDo	O	Data output terminal
10	AD3	O	External SRAM address output 3 terminal
11	AD4	O	External SRAM address output 4 terminal
12	SDi0	I	Data input terminal 0
13	BCKiA	I	Bit clock input terminal A
14	LRCKiA	I	LR clock input terminal A
15	AD5	O	External SRAM address output 5 terminal
16	CE	O	External SRAM chip enable terminal
17	OE	O	External SRAM output enable terminal
18	VDD	-	Digital power supply (2.5V)
19	STANBY	I	Standby mode control terminal
20	VSS	-	Digital GND
21	VSSL	-	DAC Lch GND
22	VRAL	-	DAC Lch reference voltage terminal
23	LO	O	DAC Lch output terminal
24	VDAL	-	DAC Rch power supply terminal(2.5V)
25	VDAR	-	DAC Lch power supply terminal(2.5V)
26	RO	O	DAC Rch output terminal
27	VRAR	-	DAC Rch reference voltage terminal
28	VSSR	-	DAC Rch GND
29	TESTP	I	Test terminal
30	CKS	I	VCO select terminal
31	AD12	O	External SRAM address output 12 terminal
32	AD11	O	External SRAM address output 11 terminal
33	AD10	O	External SRAM address output 10 terminal
34	AD9	O	External SRAM address output 9 terminal
35	VDDT	-	Digital power supply terminal (3.3V)
36	AD8	O	External SRAM address output 8 terminal
37	AD7	O	External SRAM address output 7 terminal
38	AD6	O	External SRAM address output 6 terminal
39	REQ	O	Squeeze request terminal to host
40	VSS	-	Digital GND
41	AD13	O	External SRAM address output 13 terminal
42	AD14	O	External SRAM address output 14 terminal
43	WR	O	External SRAM write signal
44	AD16	O	External SRAM address output 16 terminal
45	AD15	O	External SRAM address output 15 terminal
46	io0	I/O	External SRAM data input/output 0 terminal
47	io1	I/O	External SRAM data input/output 1 terminal
48	VSS	-	Digital GND
49	io2	I/O	External SRAM data input/output 2 terminal
50	io3	I/O	External SRAM data input/output 3 terminal

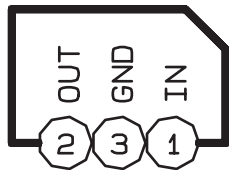
3.Pin function(2/2)

TC94A02F-005

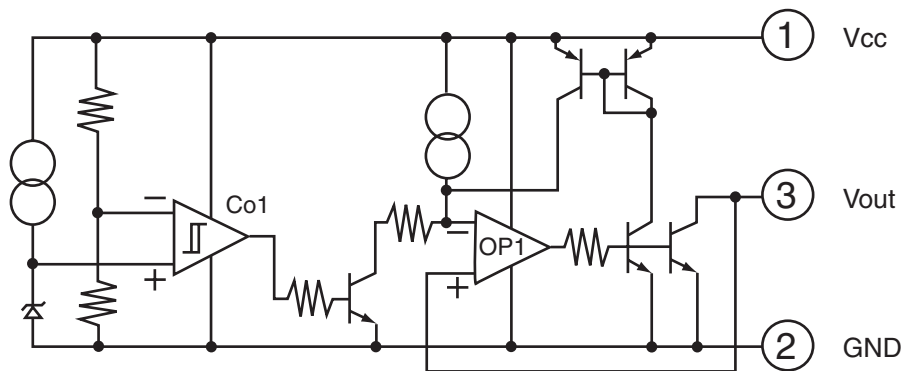
Pin No.	Symbol	I/O	Function
51	io4	I/O	External SRAM data input/output 4 terminal
52	VDD	-	Digital power supply (2.5V) terminal
53	io5	I/O	External SRAM data input/output 5 terminal
54	io6	I/O	External SRAM data input/output 6 terminal
55	io7	I/O	External SRAM data input/output 7 terminal
56	VSSP	-	VCO GND
57	Pdo	O	PLL phase error detection signal output terminal
58	Vcoi	I	VCO control voltage input terminal
59	VDDP	-	VCO power supply
60	Cko	O	16.934 MHz clock output terminal
61	VDDX	-	Power supply (2.5V) terminal for oscillator
62	Xi	I	Connection terminal for oscillator(input)
63	Xo	O	Connection terminal for oscillator(output)
64	VSSX	-	GND for oscillator

■ IC-PST600M / G / -W (IC702) : Reset

1. Terminal layout

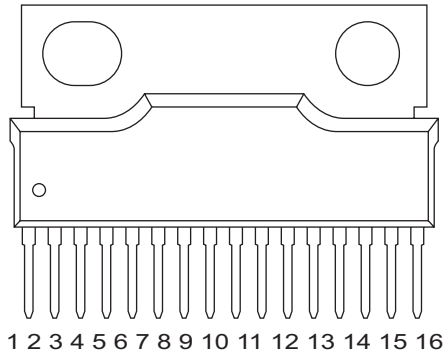


2. Block diagram

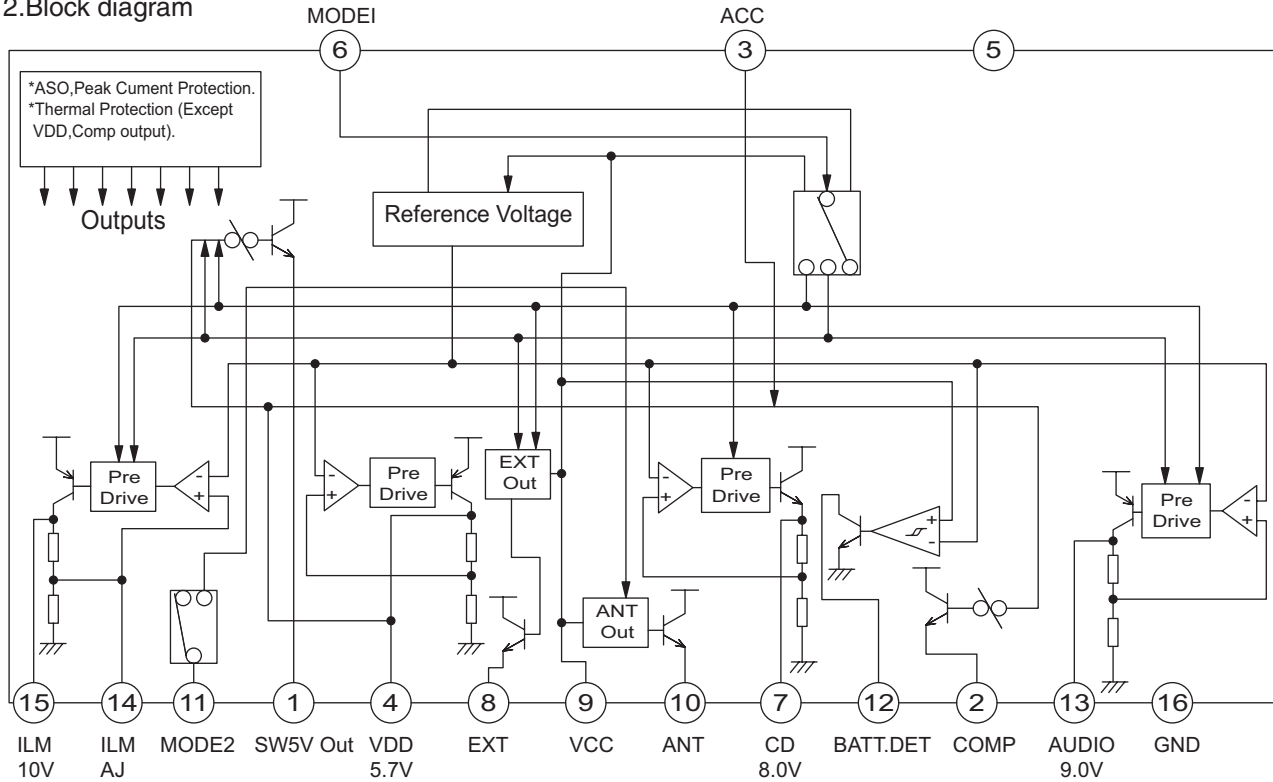


■ AN80T07 (IC901) :

1.Pin layout



2.Block diagram

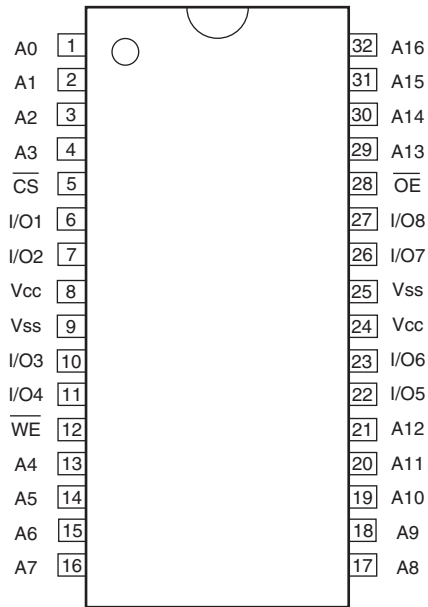


3.Pin function

Pin No.	Pin Descriptions	Function
1	SW5V Output	When Mode 1 pin is "M","H" SW output is VDD-0.7V (Io=100mA min).
2	COMP Output	When ACC input pin is "H" COMP Output is VDD-0.7V (Io=100mA min).
3	ACC Input	L:COMP Output OFF and H: COMP Output ON
4	VDD Output	5.7V Output voltage for a microcontroller (Io=100mA min).
5	NC	NC pin
6	MODE1	3 Input "L","M","H" control pin
7	CD Output	When Mode 1 pin is "H" CD output is 8V (Io=1200mA min).
8	EXT Output	When Mode 1 pin is "M","H" EXT output is Vcc-1.0V (Io=300mA min).
9	VCC	Connected to car BACKUP Power supply.
10	ANT Output	When Mode 2 pin is "H" ANT output is Vcc-1.0V (Io=300mA).
11	MODE2	L: ANT Output OFF and H: ANT Output ON
12	BATT,DET	NPN Trs open collector Output (When battery is lower then 9V "L")
13	Audio Output	When Mode 1 pin is "M","H" Audio output is 9V (Io=500mA min).
14	ILM AJ	ILM (Illumination) Output adjustable pin.
15	ILM (Illumination) Output	When Mode 1 pin is "M","H" ILM output is 10V (Io=300mA min).
16	GND	Connected to the IC substrate.

■ KSR1008VDT110-X (IC451) : CMOS SRAM

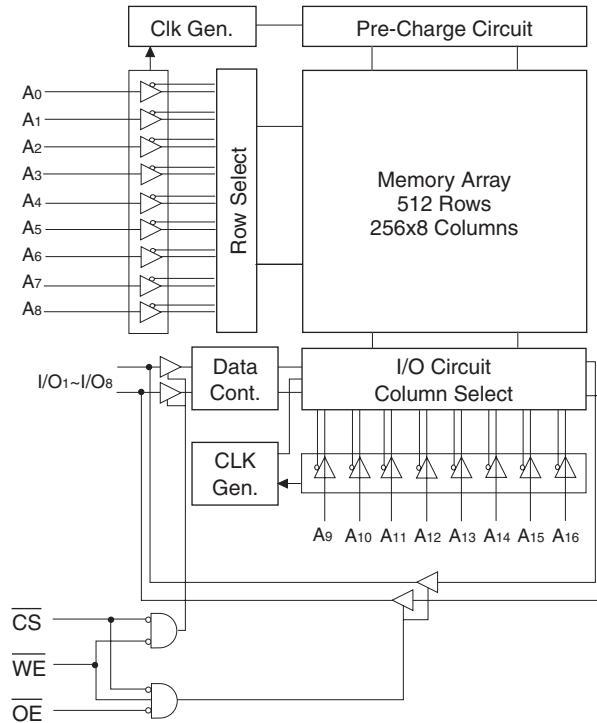
1. Pin layout



2. Pin function

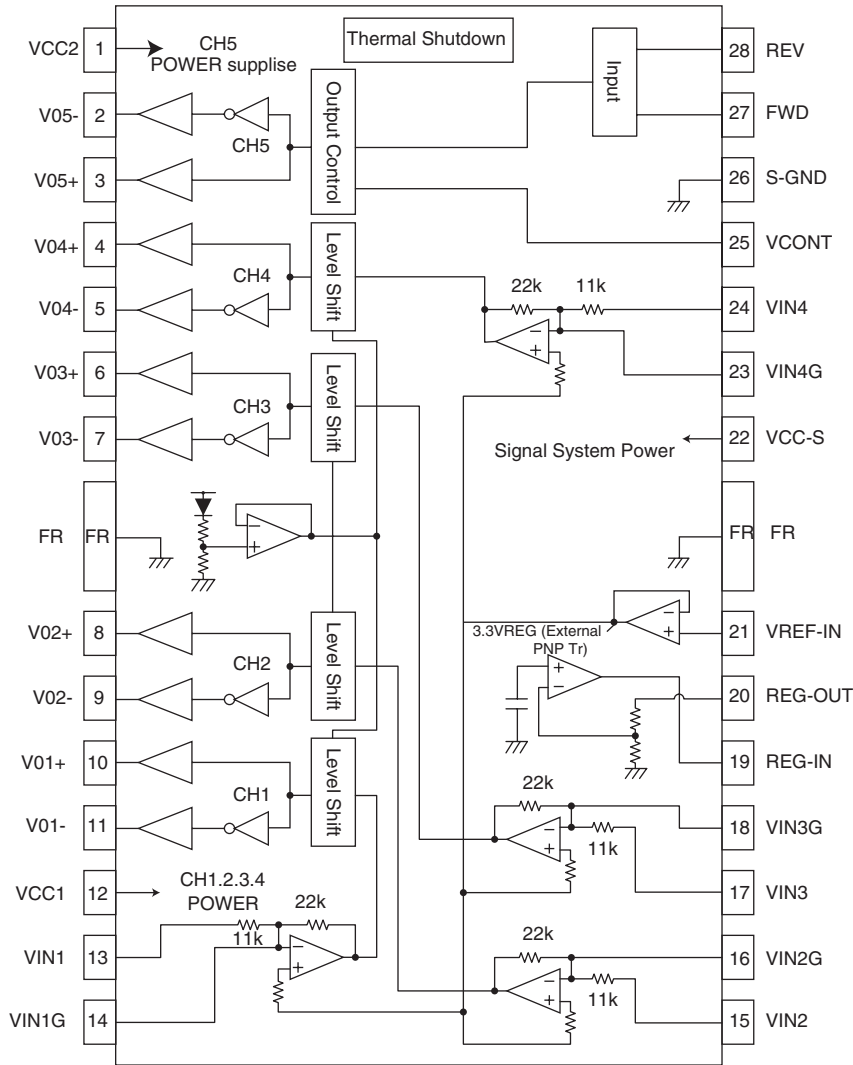
Pin No.	Symbol	Function
1~4	A0~A3	Address inputs
5	$\overline{CS}$	Chip select
6,7	I/O1, I/O2	Data inputs / outputs
8	Vcc	Power (+3.3V)
9	Vss	Ground
10,11	I/O3, I/O4	Data inputs / outputs
12	$\overline{WE}$	Write enable
13~21	A4~A12	Address inputs
22,23	I/O5, I/O6	Data inputs / outputs
24	Vcc	Power (+3.3V)
25	Vss	Ground
26,27	I/O7, I/O8	Data inputs / outputs
28	$\overline{OE}$	Output enable
29~32	A13~A16	Address inputs

3. Block diagram



■ LA6574H-X (IC501) :CD driver

1. Terminal layout & brock daiagram

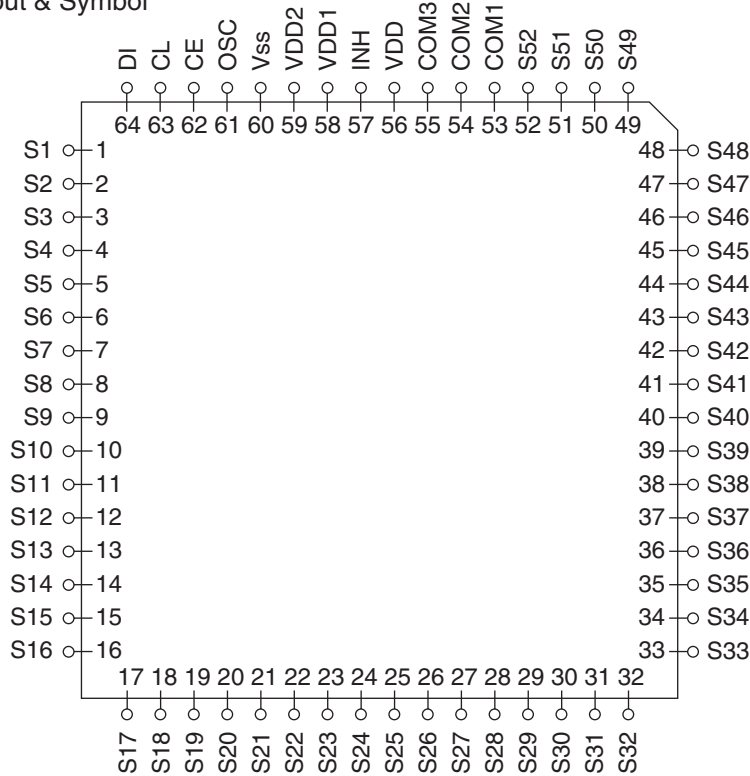


2. Pin function

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	VCC2	CH5 power supplies.	15	VIN2	CH2 input terminal
2	VO5-	Loading output(-)	16	VIN2G	CH2 input terminal(for gain adjustment)
3	VO5+	Loading output(+)	17	VIN3	CH3 input terminal
4	VO4+	CH4 output terminal(+)	18	VIN3G	CH3 input terminal(for gain adjustment)
5	VO4-	CH4 output terminal(-)	19	REG-IN	Regulator terminal
6	VO3+	CH3 output terminal(+)	20	REG-OUT	Regulator terminal
7	VO3-	CH3 output terminal(-)	21	VREF-IN	Standard voltage input terminal
8	VO2+	CH2 output terminal(+)	22	VCC-S	Signal system power
9	VO2-	CH2 output terminal(-)	23	VIN4G	CH4 input terminal(for gain adjustment)
10	VO1+	CH1 output terminal(+)	24	VIN4	CH4 input terminal
11	VO1-	CH1 output terminal(-)	25	VCONT	CH5 output voltage set terminal
12	VCC1	CH1,2,3,4 power supplies	26	S-GND	Signal system GND
13	VIN1	CH1 input terminal	27	FWD	CH5 output switch terminal
14	VIN1G	CH1 input terminal (for gain adjustment)	28	REV	CH5 output switch terminal

■ LC75823W (IC601) : LCD driver

1. Pin layout & Symbol

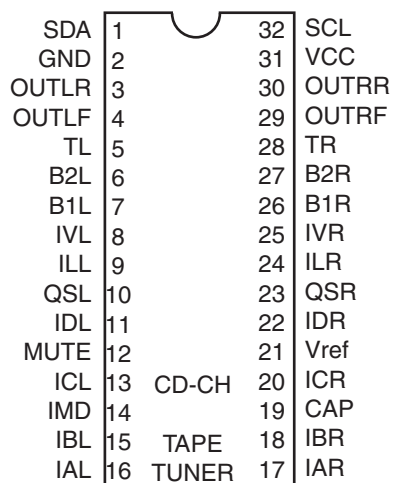


2. Pin function

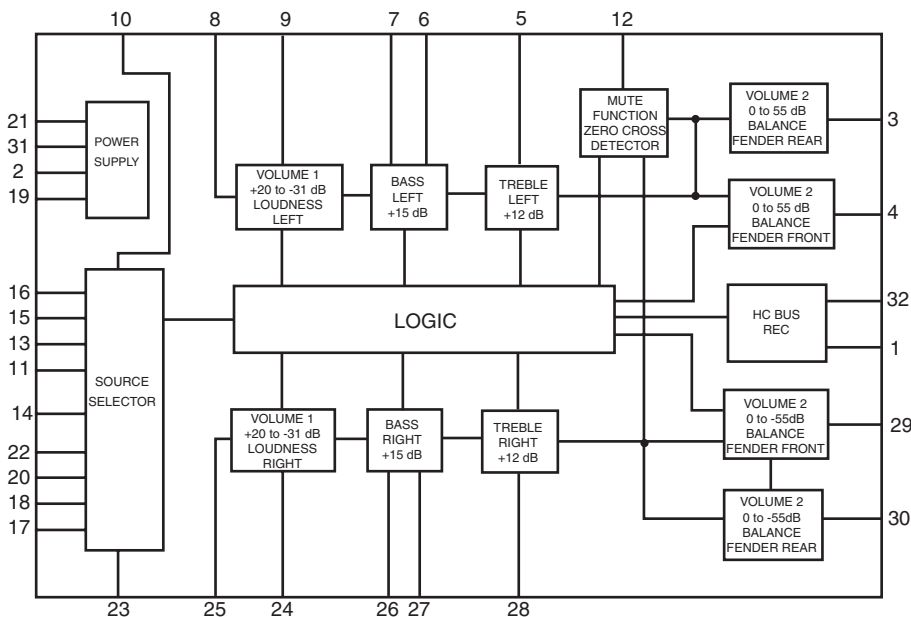
Pin No.	Symbol	I/O	Function
1 to 52	S1 to S52	O	Segment output pins used to display data transferred by serial data input.
53 to 55	COM1 to COM3	O	Common driver output pins. The frame frequency is given by : $t_0 = (f_{osc}/384)Hz$ .
56	VDD	--	Power supply connection. Provide a voltage of between 4.5 and 6.0V.
57	$\overline{INH}$	I	Display turning off input pin. $\overline{INT} = "L"$ (Vss) ----- off (S1 to S52, COM1 to COM3 = "L") $\overline{INT} = "H"$ (VDD) ----- on Serial data can be transferred in display off mode.
58	VDD1	I	Used for applying the LCD drive 2/3 bias voltage externally. Must be connected to VDD2 when a 1/2 bias drive scheme is used.
59	VDD2	I	Used for applying the LCD drive 1/3 bias voltage externally. Must be connected to VDD1 when a 1/2 bias drive scheme is used.
60	Vss	--	Power supply connection. Connect to GND.
61	OSC	I/O	Oscillator connection. An oscillator circuit is formed by connecting an external resistor and capacitor at this pin.
62	CE		Serial data interface connection CE : Chip enable
63	CL	I	to the controller. CL : Sync clock
64	DI		DI : Transfer data

TEA6320T-X (IC161) : E. volume

1. Pin layout



2. Block diagram

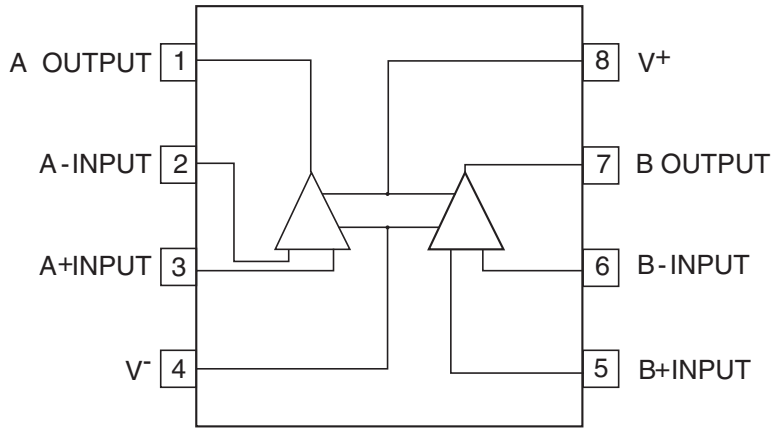


3. Pin functions

Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	SDA	I/O	Serial data input/output.	17	IAR	I	Input A right source.
2	GND	-	Ground.	18	IBR	I	Input B right source.
3	OUTLR	O	output left rear.	19	CAP	-	Electronic filtering for supply.
4	OUTLF	O	output left front.	20	ICR	I	Input C right source.
5	TL	I	Treble control capacitor left channel or input from an external equalizer.	21	Vref	-	Reference voltage (0.5Vcc)
6	B2L	-	Bass control capacitor left channel or output to an external equalizer.	22	IDR	-	Not used
7	B1L	-	Bass control capacitor left channel.	23	QSR	O	Output source selector right channel.
8	IVL	I	Input volume 1. left control part.	24	ILR	I	Input loudness right channel.
9	ILL	I	Input loudness. left control part.	25	IVR	I	Input volume 1. right control part.
10	QSL	O	Output source selector. left channel.	26	B1R	-	Bass control capacitor right channel
11	IDL	-	Not used	27	B2R	O	Bass control capacitor right channel or output to an external equalizer.
12	MUTE	-	Not used	28	TR	I	Treble control capacitor right channel or input from an external equalizer.
13	ICL	I	Input C left source.	29	OUTRF	O	Output right front.
14	IMO	-	Not used	30	OUTRR	O	Output right rear.
15	IBL	I	Input B left source.	31	Vcc	-	Supply voltage.
16	IAL	I	Input A left source.	32	SCL	I	Serial clock input.

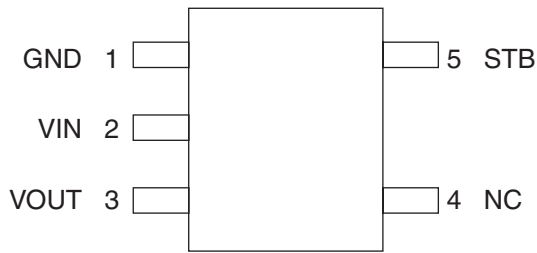


■ NJM4565M-WE (IC581) : Ope. amp

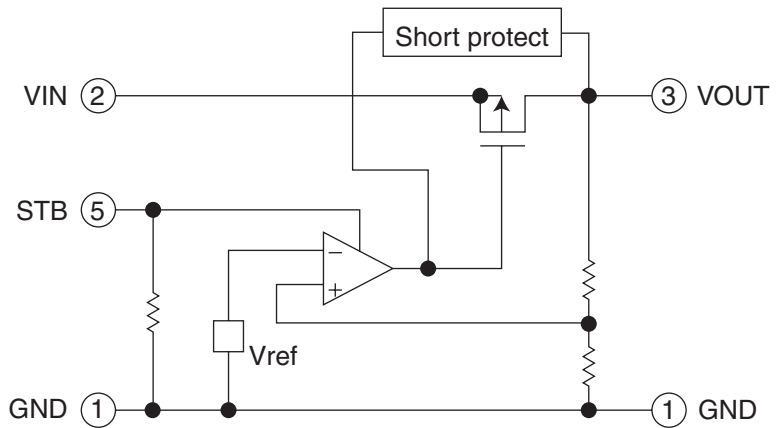


■ NJU7241F25-X (IC461) : Regulator

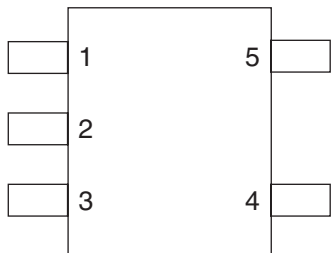
1.Pin layout



2.Block diagram



■ NJU7241F33-X (IC471) : Voltage regulator



- PIN FUNCTION
- 1. GND
  - 2. VIN
  - 3. VOUT
  - 4. +NC
  - 5. STB



VICTOR COMPANY OF JAPAN, LIMITED

MOBILE ELECTRONICS DIVISION

PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1Chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

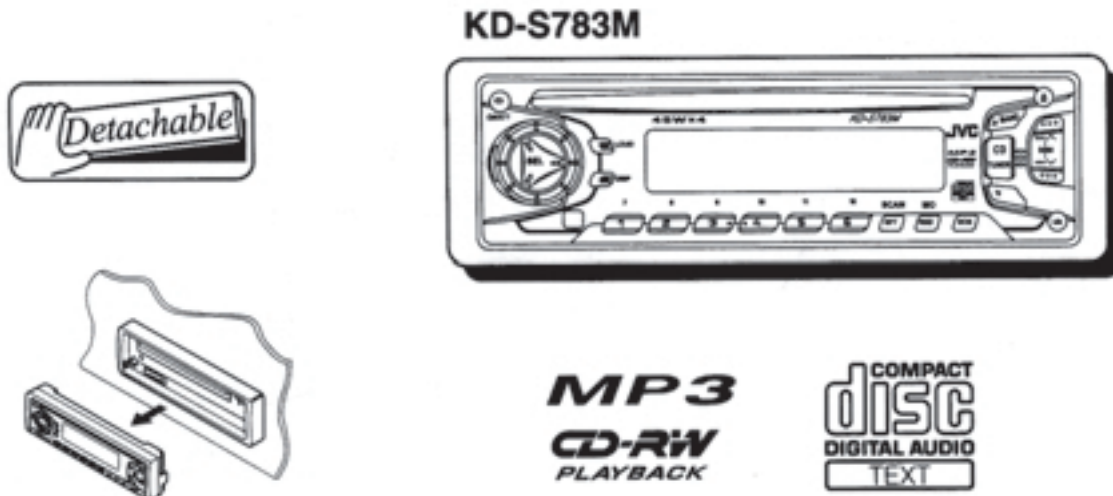
# JVC

# SCHEMATIC DIAGRAMS

## CD RECEIVER

# KD-S783M

CD-ROM No.SML200211




Area Suffix	
UF .....	China

### Contents

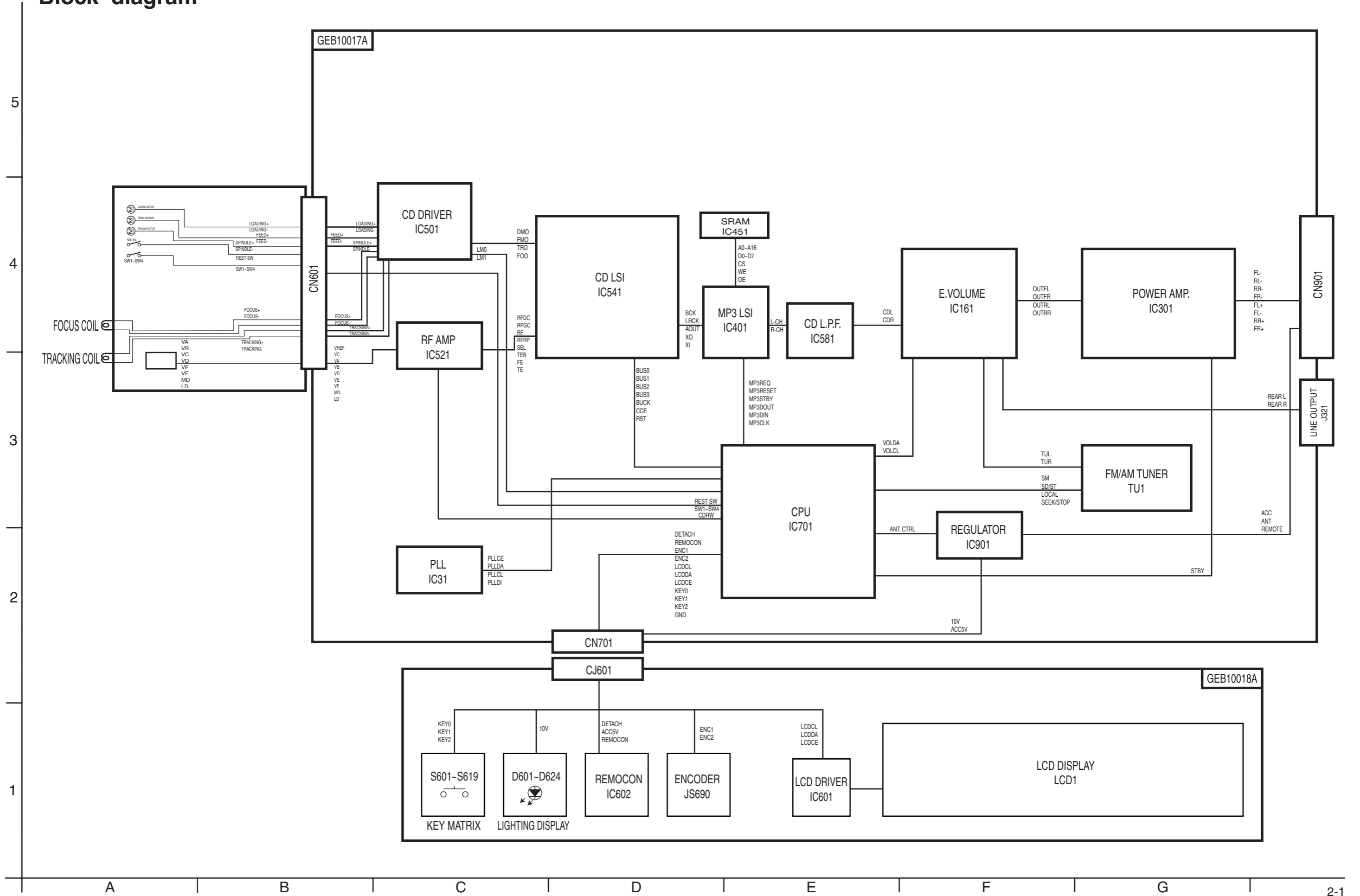
Block diagram .....	2-1
Standard schematic diagrams .....	2-2
Printed circuit boards .....	2-5~6

## 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.

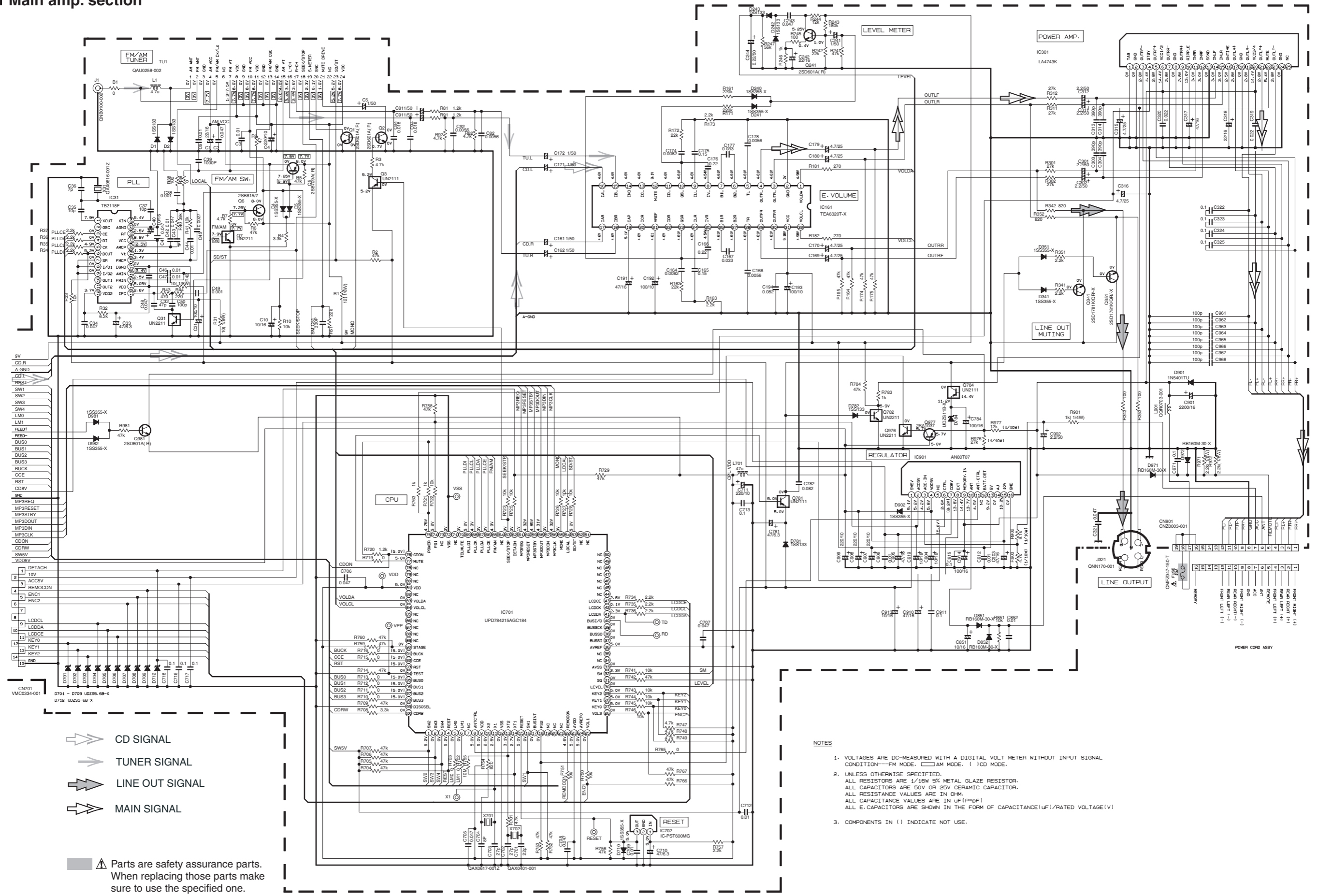
# Block diagram



# Standard schematic diagrams

## ■ Main amp. section

5  
4  
3  
2  
1



- CD SIGNAL
- TUNER SIGNAL
- LINE OUT SIGNAL
- MAIN SIGNAL

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

- NOTES**
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL CONDITION---FM MODE. ( ) AM MODE. ( ) CD MODE.
  - UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/16W 5% 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)
  - COMPONENTS IN ( ) INDICATE NOT USE.

■ Mecha control section

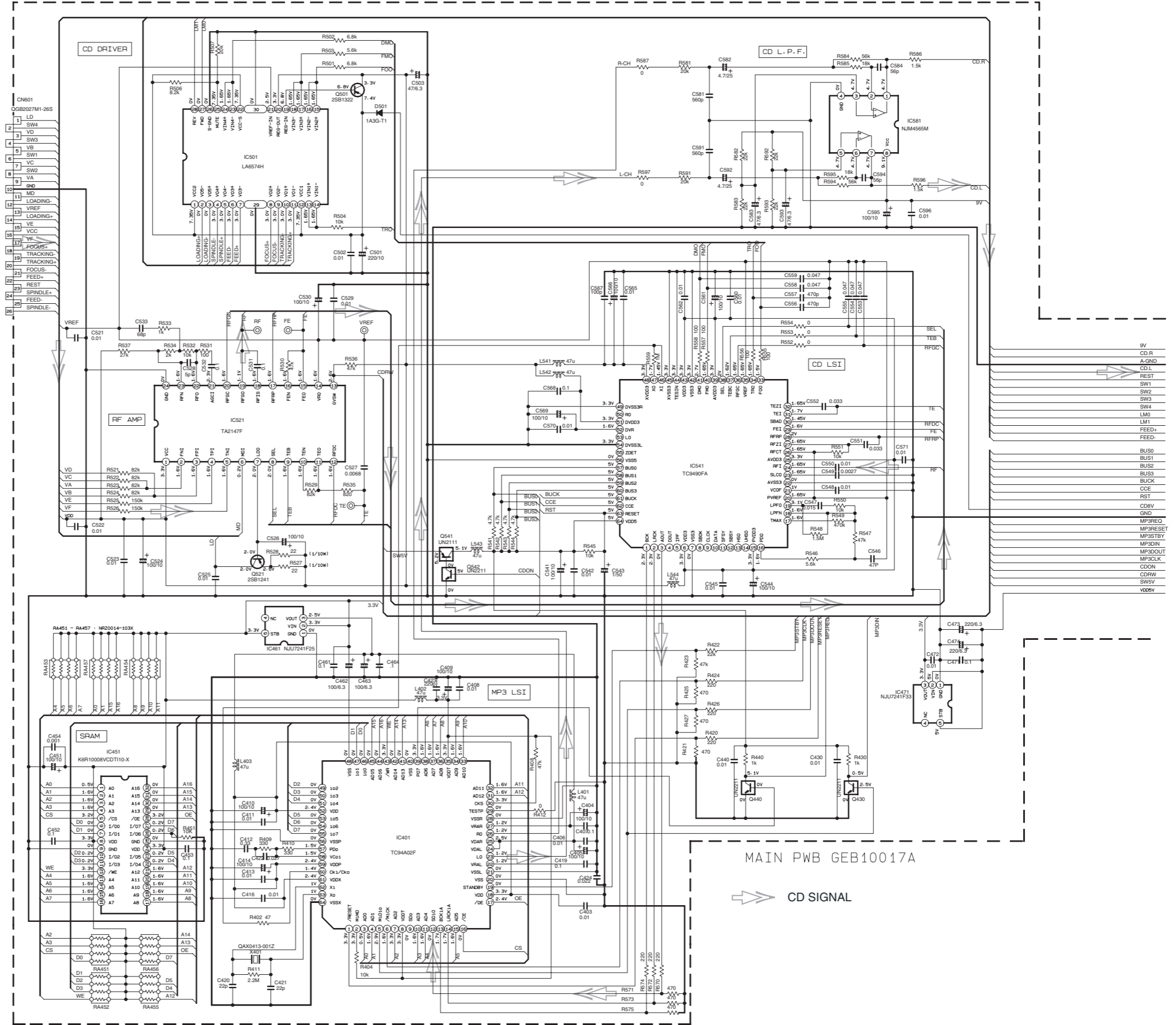
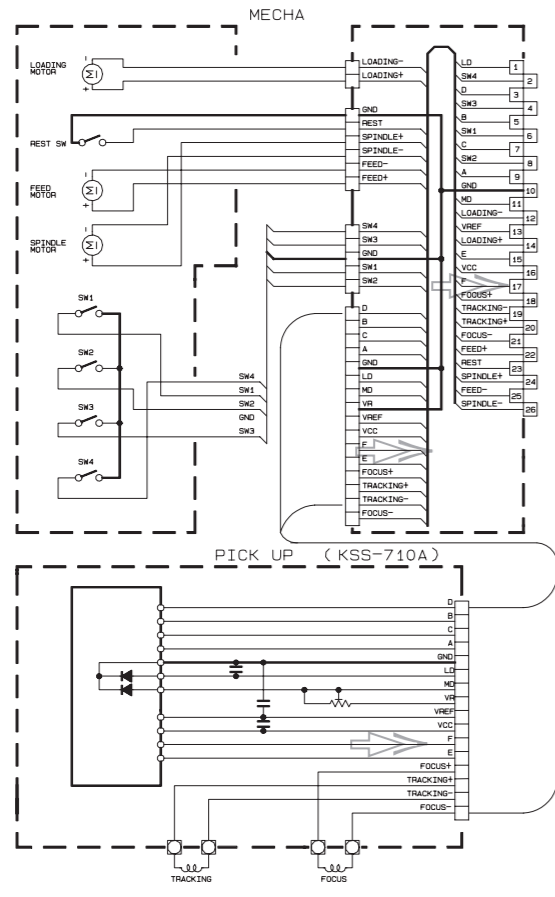
5

4

3

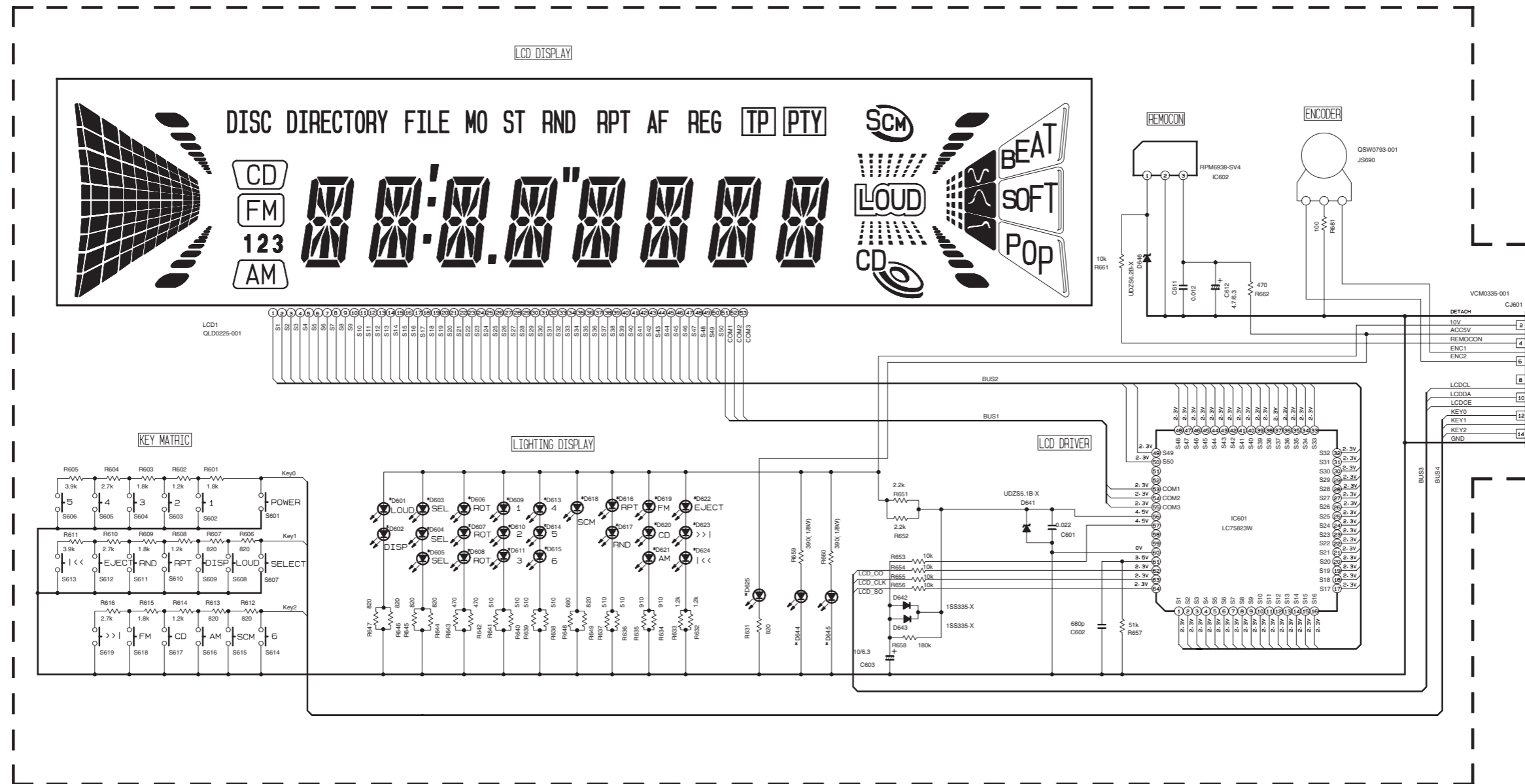
2

1



A B C D E F G

■ LCD & Key switch section



SWPWB:GEB10018A

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
2. UNLESS OTHERWISE SPECIFIED, ALL RESISTOR ARE 1/16W 15% 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)

\*REMARKS

LCD1	QLD0225-001
D644 D645	WHITE NSPW310BS/BS/-
D601-D611 D613-D617 D619-D624	SML-310VT/JK/-X
D618	LNJ308G81/1-3/X
D625	SML-310LT/MN/-X

5

4

3

2

1

A

B

C

2-4 D

E

F

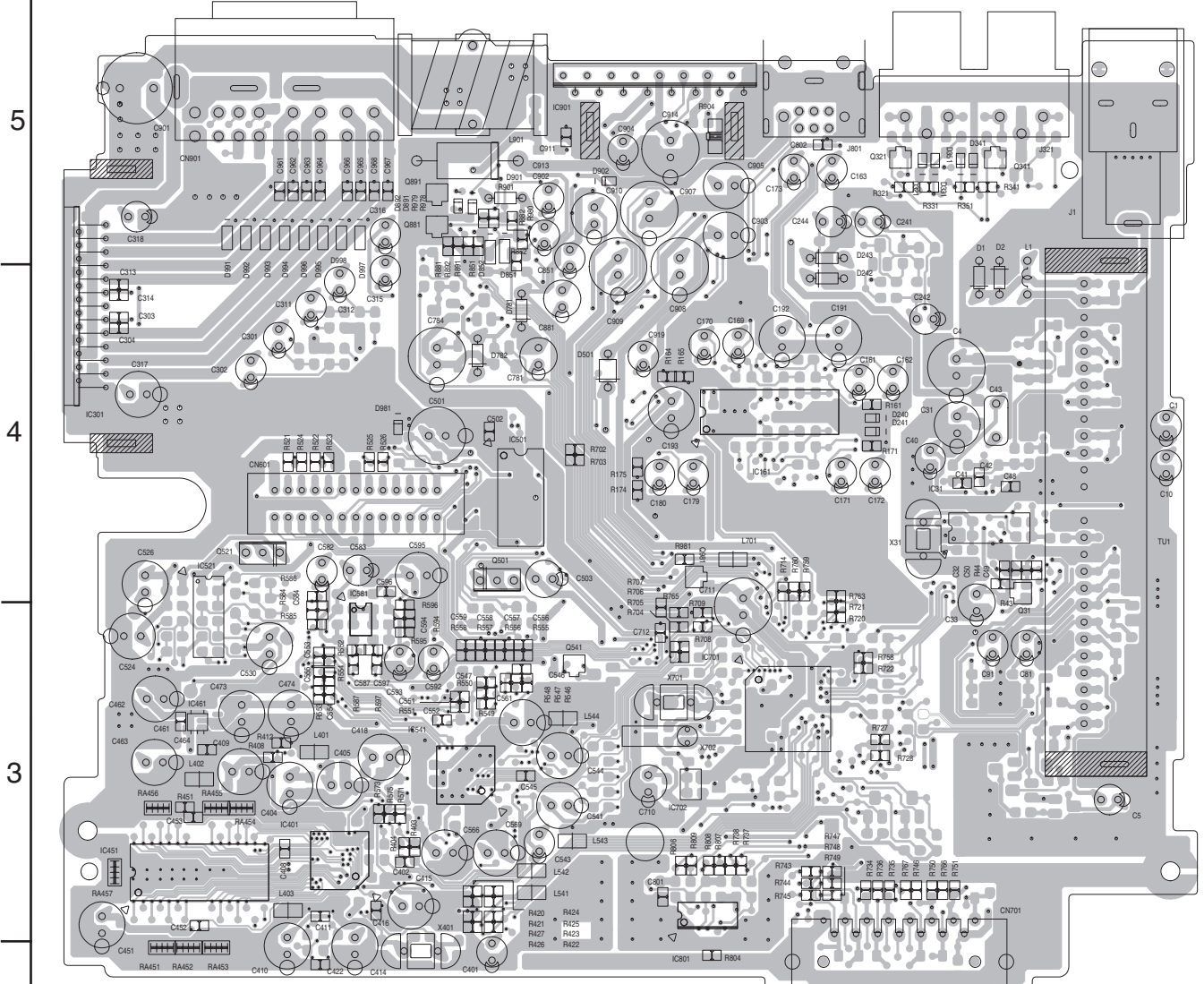
G



# Printed circuit boards

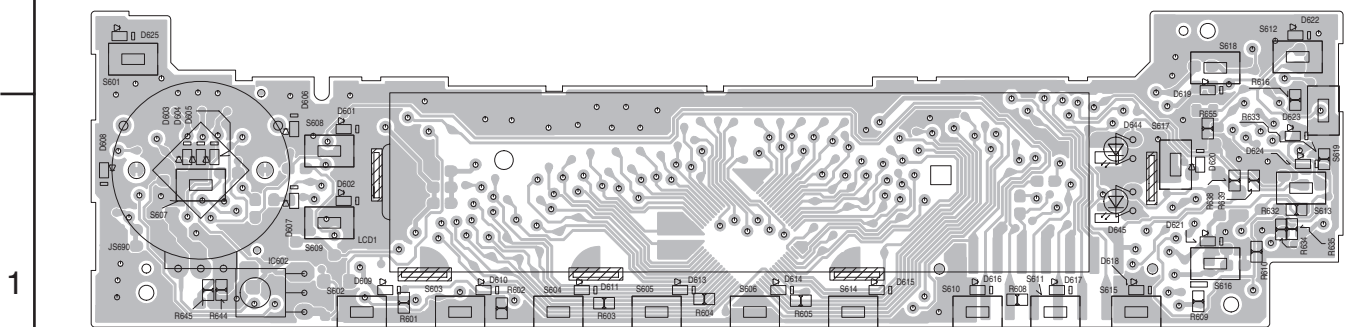
## ■ Main board

(Forward side)



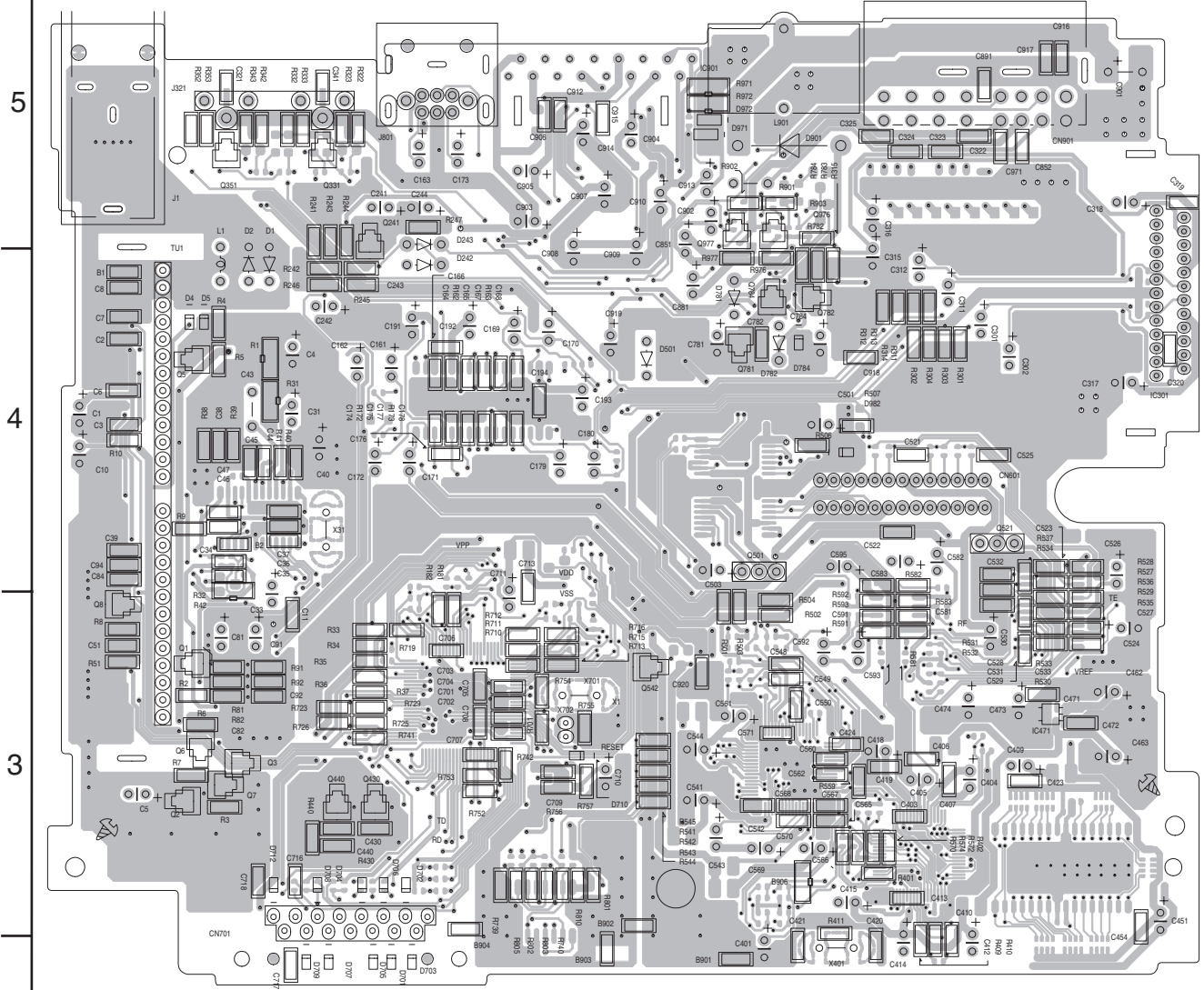
## ■ Front board

(Forward side)



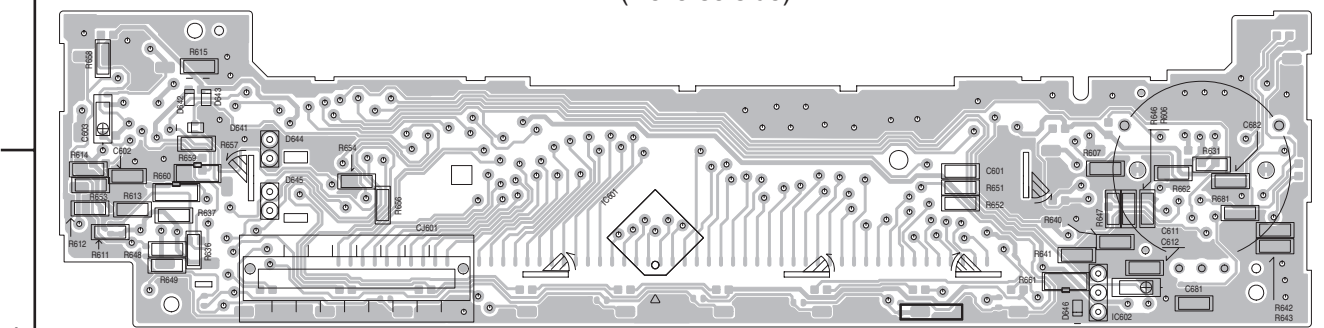
■ Main board

(Reverse side)



■ Front board

(Reverse side)



< MEMO >

**JVC**

**VICTOR COMPANY OF JAPAN, LIMITED**

MOBILE ELECTRONICS DIVISION

PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1, 1Chome, Ohwatari-machi, Maebashi-city, 371-8543, Japan

# PARTS LIST

[ KD-S783M ]

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

Area suffix

UF ----- China

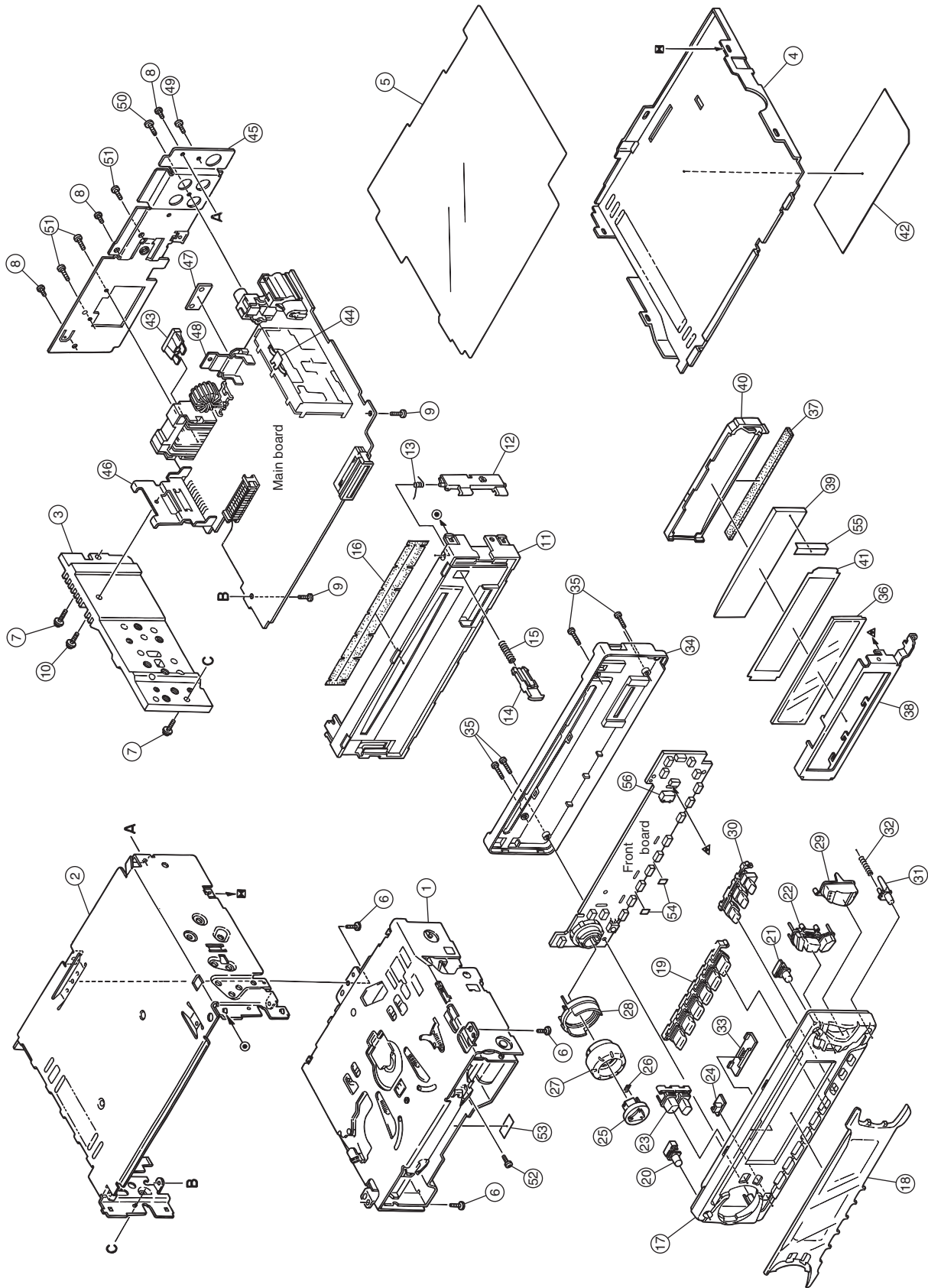
## - Contents -

Exploded view of general assembly and parts list (Block No.M1) .....	3- 2
CD mechanism assembly and parts list (Block No.MB) .....	3- 5
Electrical parts list (Block No.01~02) .....	3- 8
Packing materials and accessories parts list (Block No.M3,M5) .....	3-14

# Exploded view of general assembly and parts list

Block No. 

M	1	M	M
---	---	---	---



■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	-----	CD MECHA (1325)	1		
	2	FSJC1029-401	TOP CHASSIS	1		
	3	FSMH3001-202	SIDE PANEL	1		
	4	FSKM3011-002SSF	BOTTOM COVER	1		
	5	FSMA3004-203	INSULATOR	1		
	6	QYSDST2604Z	SCREW	3	CHASSIS+MECHA	
	7	FSKZ4005-001	SCREW	2	CHASSIS+SIDE PANEL	
	8	QYSDST2604Z	SCREW	3	CHASSIS+REAR BKT	
	9	QYSDST2606Z	SCREW	2	CHASSIS+MAIN PWB	
	10	FSKZ4005-001	SCREW	1	SIDE PANEL+IC BKT	
	11	FSJC2013-013	FRONT CHASSIS	1		
	12	FSKS3010-001	LOCK LEVER	1		
	13	FSKW4005-003	TORSION SPRING	1	LOCK LEVER	
	14	FSXP3026-002	RLS KNOB	1		
	15	FSKW3002-015	COMP.SPRING	1	RLS KNOB	
	16	FSPK3009-002	BLIND	1		
	17	GE10003-002A	FRONT PANEL	1		
	18	GE30111-032A	FINDER ASSY	1		
	19	GE20104-002A	PRESET BUTTON	1		
	20	GE30105-002B	POWER BUTTON	1		
	21	GE30109-002A	EJECT BUTTON	1		
	22	GE20110-007C	D FUNC.BUTTON	1		
	23	GE30112-001A	PUSH BUTTON(2)	1		
	24	GE40102-001A	REMOTE LENS	1		
	25	GE30366-001A	SEL BUTTON	1		
	26	FSYH4036-032	SHEET	1	SEL BUTTON	
	27	GE30546-002A	KNOB	1		
	28	GE30104-001A	RIM LENS	1		
	29	GE20109-001C	UP DOWN BUTTON	1		
	30	GE30106-001A	SND FUNC BUTTON	1		
	31	FSXP3055-001	DETACH BUTTON	1		
	32	FSKW3002-012	COMP.SPRING	1	DETACH BUTTON	
	33	GE30117-001A	LIGHT LENS	1		
	34	GE10004-003B	REAR COVER	1		
	35	VKZ4777-001	MINI SCREW	4	FRONT PANEL+REAR COVER	
	36	QLD0225-001	LCD MODULE	1		
	37	QNZ0442-001	LCD CONNECTOR	1		
	38	GE30276-001A	LCD CASE	1		
	39	FSJK3025-001	LCD LENS	1		
	40	FSKS3019-001	LENS CASE	1		
	41	FSYH4074-001	LIGHTING SHEET	1		
	42	GE30848-001A	NAME PLATE	1		
△	43	QMFZ047-150-T	FUSE	1		
	44	VMA4652-001SS	EARTH PLATE	1		
	45	FSKM3010-020SSF	REAR BRACKET	1		
	46	FSKL4024-001	IC BRACKET	1		
	47	GE40107-002A	HEAT SINK	1		
	48	GE40103-002A	REG BRACKET	1		

■ **Parts list (General assembly)**

**Block No. M1MM**

▲	Item	Parts number	Parts name	Q'ty	Description	Area
	49	QYSDST2606Z	SCREW	1	ANT	
	50	QYSDSF3006Z	SCREW	1	LINE OUT	
	51	QYSDST2606Z	SCREW	3	16P & REG BKT	
	52	QYSDST2004Z	SCREW	1		
	53	LV40847-002A	SPACER	1		
	54	FSYH4036-069	SHEET	2		
	55	FSYH4071-001	LIGHTING SHEET	1		
	56	GE30854-001A	LED HOLDER	1		



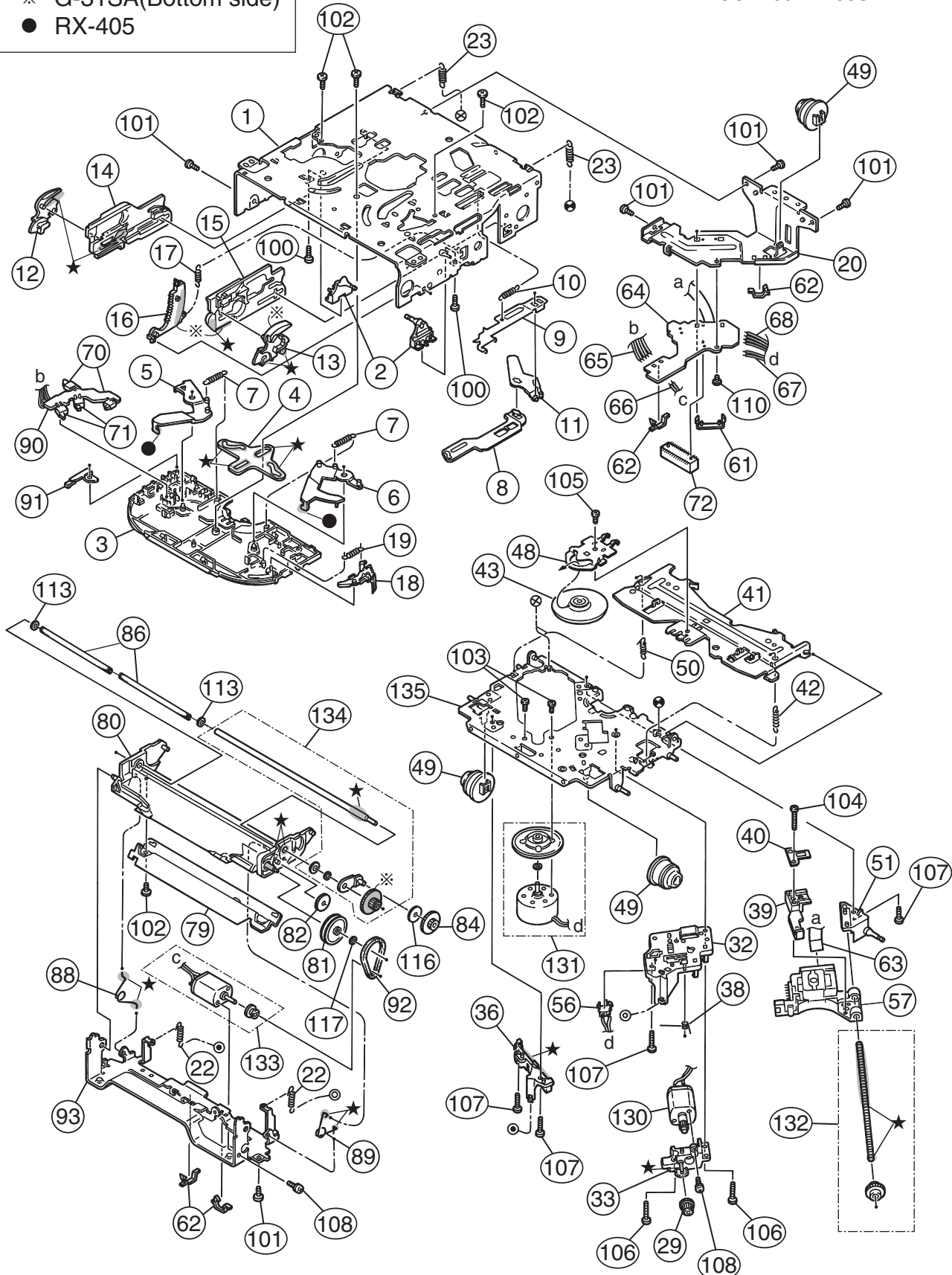
# CD mechanism assembly and parts list

Block No. **M** **B** **M** **M**

TN-CCD1001Z-138S

**Grease**

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



## ■ Parts list (CD mechanism)

Block No. MBMM

△	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. MBMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	72	68150242T	CONNECTOR	1	TKC-W26X-A1	
	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
C 1	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V		
C 2	NCB31EK-473X	C CAPACITOR			
C 3	NCB31EK-103X	C CAPACITOR			
C 4	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V		
C 5	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 6	NCB31HK-103X	C CAPACITOR			
C 10	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V		
C 11	NCB31EK-103X	C CAPACITOR			
C 31	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 32	NDC31HJ-470X	C CAPACITOR			
C 33	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V		
C 34	NCB31EK-473X	C CAPACITOR			
C 35	NDC31HJ-100X	C CAPACITOR			
C 36	NDC31HJ-7R0X	C CAPACITOR			
C 37	NDC31HJ-100X	C CAPACITOR			
C 38	NCB31HK-102X	C CAPACITOR			
C 39	NCB31HK-102X	C CAPACITOR			
C 40	QEKJ1CM-106Z	E CAPACITOR	10MF 20% 16V		
C 41	NCB31EK-473X	C CAPACITOR			
C 42	NCB31HK-103X	C CAPACITOR			
C 43	QFV61HJ-473Z	MF CAPACITOR	.047MF 5% 50V		
C 44	NCB31HK-103X	C CAPACITOR			
C 45	NCB31HK-272X	C CAPACITOR			
C 46	NCB31HK-103X	C CAPACITOR			
C 47	NCB31HK-103X	C CAPACITOR			
C 48	NCB31EK-473X	C CAPACITOR			
C 49	NCB31HK-102X	C CAPACITOR			
C 50	NCS31HJ-101X	C CAPACITOR			
C 51	NCS31HJ-331X	C CAPACITOR			
C 81	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 82	NCB31HK-562X	C CAPACITOR			
C 84	NCB31HK-183X	C CAPACITOR			
C 91	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 92	NCB31HK-562X	C CAPACITOR			
C 94	NCB31HK-183X	C CAPACITOR			
C 161	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 162	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 164	NCB31HK-822X	C CAPACITOR			
C 165	NCB21CK-154X	C CAPACITOR			
C 166	NCB21CK-224X	C CAPACITOR			
C 167	NCB31EK-333X	C CAPACITOR			
C 168	NCB31HK-562X	C CAPACITOR			
C 169	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V		
C 170	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V		
C 171	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 172	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 174	NCB31HK-822X	C CAPACITOR			
C 175	NCB21CK-154X	C CAPACITOR			
C 176	NCB21CK-224X	C CAPACITOR			
C 177	NCB31EK-333X	C CAPACITOR			
C 178	NCB31HK-562X	C CAPACITOR			
C 179	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V		
C 180	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V		
C 191	QEKJ1CM-476Z	E CAPACITOR	47MF 20% 16V		
C 192	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 193	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 194	NCB31EK-823X	C CAPACITOR			
C 241	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
C 242	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V		
C 243	NCB31EK-473X	C CAPACITOR			
C 244	QEKJ1HM-224Z	E CAPACITOR	.22MF 20% 50V		
C 301	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V		
C 302	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V		
C 303	NCS31HJ-391X	C CAPACITOR			
C 304	NCS31HJ-391X	C CAPACITOR			
C 311	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V		

△	Item	Parts number	Parts name	Remarks	Area
C 312	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V		
C 313	NCS31HJ-391X	C CAPACITOR			
C 314	NCS31HJ-391X	C CAPACITOR			
C 315	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V		
C 316	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V		
C 317	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V		
C 318	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V		
C 319	NCB31EK-223X	C CAPACITOR			
C 320	NCB31EK-223X	C CAPACITOR			
C 321	NCB31EK-473X	C CAPACITOR			
C 322	NCB31EK-104X	C CAPACITOR			
C 323	NCB31EK-104X	C CAPACITOR			
C 324	NCB31EK-104X	C CAPACITOR			
C 325	NCB31EK-104X	C CAPACITOR			
C 403	NCB31HK-103X	C CAPACITOR			
C 404	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 405	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 406	NCB31HK-103X	C CAPACITOR			
C 407	NCB31EK-104X	C CAPACITOR			
C 408	NCB31HK-103X	C CAPACITOR			
C 409	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 410	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 411	NCB31HK-103X	C CAPACITOR			
C 412	NCB31AK-334X	C CAPACITOR			
C 413	NCB31HK-103X	C CAPACITOR			
C 414	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 416	NCB31HK-103X	C CAPACITOR			
C 419	NCB31EK-104X	C CAPACITOR			
C 420	NDC31HJ-220X	C CAPACITOR			
C 421	NDC31HJ-220X	C CAPACITOR			
C 422	NCB31EK-273X	C CAPACITOR			
C 423	NCB31HK-221X	C CAPACITOR			
C 424	NCB31EK-223X	C CAPACITOR			
C 430	NCB31HK-103X	C CAPACITOR			
C 440	NCB31HK-103X	C CAPACITOR			
C 451	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 452	NCB31EK-104X	C CAPACITOR			
C 453	NCB31EK-104X	C CAPACITOR			
C 454	NCS31HJ-102X	C CAPACITOR			
C 461	NCB31EK-104X	C CAPACITOR			
C 462	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V		
C 463	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V		
C 464	NCB31EK-104X	C CAPACITOR			
C 471	NCB31EK-104X	C CAPACITOR			
C 472	NCB31HK-103X	C CAPACITOR			
C 473	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V		
C 474	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V		
C 501	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V		
C 502	NCB31HK-103X	C CAPACITOR			
C 503	QEDJ1AM-476Z	E CAPACITOR	47MF 20% 10V		
C 521	NCB31HK-103X	C CAPACITOR			
C 522	NCB31HK-103X	C CAPACITOR			
C 523	NCB31HK-103X	C CAPACITOR			
C 524	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 525	NCB31HK-103X	C CAPACITOR			
C 526	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 527	NCB31HK-682X	C CAPACITOR			
C 528	NDC31HJ-5R0X	C CAPACITOR			
C 529	NCB31HK-103X	C CAPACITOR			
C 530	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 531	NCB31EK-104X	C CAPACITOR			
C 532	NCB31EK-104X	C CAPACITOR			
C 533	NDC31HJ-680X	C CAPACITOR			
C 541	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V		
C 542	NCB31HK-103X	C CAPACITOR			
C 543	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	C 544	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 545	NCB31HK-103X	C CAPACITOR		
	C 546	NDC31HJ-470X	C CAPACITOR		
	C 547	NCB31HK-153X	C CAPACITOR		
	C 548	NCB31HK-103X	C CAPACITOR		
	C 549	NCB31HK-272X	C CAPACITOR		
	C 550	NCB31HK-103X	C CAPACITOR		
	C 551	NCB31EK-333X	C CAPACITOR		
	C 552	NCB31EK-333X	C CAPACITOR		
	C 553	NCB31EK-473X	C CAPACITOR		
	C 554	NCB31EK-473X	C CAPACITOR		
	C 555	NCB31EK-473X	C CAPACITOR		
	C 556	NCB31HK-471X	C CAPACITOR		
	C 557	NCB31HK-471X	C CAPACITOR		
	C 558	NCB31EK-473X	C CAPACITOR		
	C 559	NCB31EK-473X	C CAPACITOR		
	C 560	NCB31HK-103X	C CAPACITOR		
	C 561	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 562	NCB31HK-103X	C CAPACITOR		
	C 565	NCB31HK-103X	C CAPACITOR		
	C 566	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 567	NCS31HJ-101X	C CAPACITOR		
	C 568	NCB31EK-104X	C CAPACITOR		
	C 569	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 570	NCB31HK-103X	C CAPACITOR		
	C 571	NCB31HK-103X	C CAPACITOR		
	C 581	NCS31HJ-561X	C CAPACITOR		
	C 582	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 583	QEKJ0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 584	NCS31HJ-560X	C CAPACITOR		
	C 591	NCS31HJ-561X	C CAPACITOR		
	C 592	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 593	QEKJ0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 594	NCS31HJ-560X	C CAPACITOR		
	C 595	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 596	NCB31HK-103X	C CAPACITOR		
	C 701	NDC31HJ-220X	C CAPACITOR		
	C 702	NDC31HJ-270X	C-CAPACITOR		
	C 703	NDC31HJ-270X	C-CAPACITOR		
	C 704	NDC31HJ-8R0X	C CAPACITOR		
	C 705	NCB31EK-473X	C CAPACITOR		
	C 706	NCB31EK-473X	C CAPACITOR		
	C 707	NCB31EK-473X	C CAPACITOR		
	C 708	NCB31EK-473X	C CAPACITOR		
	C 709	NCB31HK-103X	C CAPACITOR		
	C 710	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 711	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 712	NCB31HK-103X	C CAPACITOR		
	C 713	NCB31EK-104X	C CAPACITOR		
	C 716	NCB31EK-104X	C CAPACITOR		
	C 717	NCB31EK-104X	C CAPACITOR		
	C 718	NCB31EK-104X	C CAPACITOR		
	C 781	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 782	NCB31EK-823X	C CAPACITOR		
	C 784	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 851	QEKJ1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 852	NCB31HK-103X	C CAPACITOR		
	C 901	QEZ0337-228	E CAPACITOR	2200MF	
	C 902	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 903	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 904	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 905	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 906	NCB31HK-103X	C CAPACITOR		
	C 907	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 908	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 909	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	

△	Item	Parts number	Parts name	Remarks	Area
	C 910	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 911	NCB31CK-104X	C CAPACITOR		
	C 912	NCB31HK-103X	C CAPACITOR		
	C 913	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 914	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 915	NCB31CK-104X	C CAPACITOR		
	C 918	NCB31EK-473X	C CAPACITOR		
	C 919	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 920	NCB31HK-103X	C CAPACITOR		
	C 961	NCS31HJ-101X	C CAPACITOR		
	C 962	NCS31HJ-101X	C CAPACITOR		
	C 963	NCS31HJ-101X	C CAPACITOR		
	C 964	NCS31HJ-101X	C CAPACITOR		
	C 965	NCS31HJ-101X	C CAPACITOR		
	C 966	NCS31HJ-101X	C CAPACITOR		
	C 967	NCS31HJ-101X	C CAPACITOR		
	C 968	NCS31HJ-101X	C CAPACITOR		
	C 971	NCB31EK-104X	C CAPACITOR		
	CN601	QGB2027M1-26S	CONNECTOR		
	CN701	VMC0334-001	CONNECTOR		
	CN901	QNZ0002-001	JACK UNIT		
	D 1	1SS133-T1	SI DIODE		
	D 2	1SS133-T1	SI DIODE		
	D 4	1SS355-X	DIODE		
	D 5	1SS355-X	DIODE		
	D 240	1SS355-X	DIODE		
	D 241	1SS355-X	DIODE		
	D 242	1SS133-T1	SI DIODE		
	D 243	1SS133-T1	SI DIODE		
	D 341	1SS355-X	DIODE		
	D 351	1SS355-X	DIODE		
	D 501	1A3G-T1	SI DIODE		
	D 701	UDZS5.6B-X	Z DIODE		
	D 702	UDZS5.6B-X	Z DIODE		
	D 703	UDZS5.6B-X	Z DIODE		
	D 704	UDZS5.6B-X	Z DIODE		
	D 705	UDZS5.6B-X	Z DIODE		
	D 706	UDZS5.6B-X	Z DIODE		
	D 707	UDZS5.6B-X	Z DIODE		
	D 708	UDZS5.6B-X	Z DIODE		
	D 709	UDZS5.6B-X	Z DIODE		
	D 710	1SS355-X	DIODE		
	D 712	UDZS5.6B-X	Z DIODE		
	D 781	1SS133-T1	SI DIODE		
	D 782	1SS133-T1	SI DIODE		
	D 784	UDZS11B-X	Z DIODE		
	D 851	RB160M-30-X	SB DIODE		
	D 852	RB160M-30-X	SB DIODE		
	D 901	1N5401-TU-15	DIODE		
	D 902	1SS355-X	DIODE		
	D 971	RB160M-30-X	SB DIODE		
	D 972	RB160M-30-X	SB DIODE		
	D 981	1SS355-X	DIODE		
	D 982	1SS355-X	DIODE		
	IC 31	TB2118F-X	IC		
	IC161	TEA6320T-X	IC		
	IC301	LA4743K	IC		
	IC401	TC94A02F-005	IC		
	IC451	K6R1008VDT110-X	IC		
	IC461	NJU7241F25-X	IC		
	IC471	NJU7241F33-X	IC		
	IC501	LA6574H-X	IC		
	IC521	TA2147F-X	IC		
	IC541	TC9490FA	IC		
	IC581	NJM4565M-WE	IC		
	IC701	UPD784215AGC184	IC		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	IC702	IC-PST600M/GI-W	IC		
	IC901	AN80T07	IC		
	J 1	QNB0100-002	ANT TERMINAL		
	J 321	QNN0170-001	PIN JACK (REEL)		
	L 1	QQL244J-4R7Z	INDUCTOR		
	L 401	NQL114K-470X	INDUCTOR		
	L 402	NQL114K-470X	INDUCTOR		
	L 403	NQL114K-470X	INDUCTOR		
	L 541	NQL114K-470X	INDUCTOR		
	L 542	NQL114K-470X	INDUCTOR		
	L 543	NQL114K-470X	INDUCTOR		
	L 544	NQL114K-470X	INDUCTOR		
	L 701	NQL114K-470X	INDUCTOR		
	L 901	QQR0703-001	CHOKO COIL		
	Q 1	2SD601A/R/-X	TRANSISTOR		
	Q 2	2SD601A/R/-X	TRANSISTOR		
	Q 3	UN2111-X	TRANSISTOR		
	Q 5	2SB709A/R/-X	TRANSISTOR		
	Q 6	2SB8157/-X	TRANSISTOR		
	Q 7	UN2211-X	TRANSISTOR		
	Q 31	UN2211-X	TRANSISTOR		
	Q 241	2SD601A/R/-X	TRANSISTOR		
	Q 341	2SD1781K/QR/-X	TRANSISTOR		
	Q 351	2SD1781K/QR/-X	TRANSISTOR		
	Q 430	UN2211-X	TRANSISTOR		
	Q 440	UN2211-X	TRANSISTOR		
	Q 501	2SB1322/RS/-T	TRANSISTOR		
	Q 521	2SB1241/QR/-T	TRANSISTOR		
	Q 541	UN2111-X	TRANSISTOR		
	Q 542	UN2211-X	TRANSISTOR		
	Q 781	UN2111-X	TRANSISTOR		
	Q 782	UN2211-X	TRANSISTOR		
	Q 784	UN2111-X	TRANSISTOR		
	Q 976	UN2211-X	TRANSISTOR		
	Q 977	2SA1037AK/RS/-X	TRANSISTOR		
	Q 981	2SD601A/R/-X	TRANSISTOR		
	R 1	NRS181J-120X	MG RESISTOR		
	R 2	NRSA63J-473X	MG RESISTOR		
	R 3	NRSA63J-472X	MG RESISTOR		
	R 4	NRSA63J-332X	MG RESISTOR		
	R 5	NRSA63J-473X	MG RESISTOR		
	R 6	NRSA63J-473X	MG RESISTOR		
	R 7	NRSA63J-472X	MG RESISTOR		
	R 9	NRSA63J-470X	MG RESISTOR		
	R 10	NRSA63J-103X	MG RESISTOR		
	R 31	NRS181J-100X	MG RESISTOR		
	R 32	NRSA63J-622X	MG RESISTOR		
	R 33	NRSA63J-103X	MG RESISTOR		
	R 34	NRSA63J-222X	MG RESISTOR		
	R 35	NRSA63J-222X	MG RESISTOR		
	R 36	NRSA63J-222X	MG RESISTOR		
	R 37	NRSA63J-222X	MG RESISTOR		
	R 38	NRSA63J-101X	MG RESISTOR		
	R 39	NRSA63J-0R0X	MG RESISTOR		
	R 40	NRSA63J-393X	MG RESISTOR		
	R 41	NRSA63J-103X	MG RESISTOR		
	R 42	NRS181J-100X	MG RESISTOR		
	R 43	NRSA63J-471X	MG RESISTOR		
	R 44	NRSA63J-221X	MG RESISTOR		
	R 51	NRSA63J-223X	MG RESISTOR		
	R 81	NRSA63J-122X	MG RESISTOR		
	R 82	NRSA63J-472X	MG RESISTOR		
	R 91	NRSA63J-122X	MG RESISTOR		
	R 92	NRSA63J-472X	MG RESISTOR		
	R 161	NRSA63J-224X	MG RESISTOR		
	R 162	NRSA63J-223X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 163	NRSA63J-222X	MG RESISTOR		
	R 164	NRSA63J-473X	MG RESISTOR		
	R 165	NRSA63J-473X	MG RESISTOR		
	R 171	NRSA63J-224X	MG RESISTOR		
	R 172	NRSA63J-223X	MG RESISTOR		
	R 173	NRSA63J-222X	MG RESISTOR		
	R 174	NRSA63J-473X	MG RESISTOR		
	R 175	NRSA63J-473X	MG RESISTOR		
	R 181	NRSA63J-271X	MG RESISTOR		
	R 182	NRSA63J-271X	MG RESISTOR		
	R 241	NRSA63J-473X	MG RESISTOR		
	R 242	NRSA63J-223X	MG RESISTOR		
	R 243	NRSA63J-184X	MG RESISTOR		
	R 244	NRSA63J-123X	MG RESISTOR		
	R 245	NRSA63J-101X	MG RESISTOR		
	R 246	NRSA63J-102X	MG RESISTOR		
	R 247	NRSA63J-563X	MG RESISTOR		
	R 301	NRSA63J-273X	MG RESISTOR		
	R 302	NRSA63J-273X	MG RESISTOR		
	R 311	NRSA63J-273X	MG RESISTOR		
	R 312	NRSA63J-273X	MG RESISTOR		
	R 341	NRSA63J-222X	MG RESISTOR		
	R 342	NRSA63J-821X	MG RESISTOR		
	R 343	NRSA63J-101X	MG RESISTOR		
	R 351	NRSA63J-222X	MG RESISTOR		
	R 352	NRSA63J-821X	MG RESISTOR		
	R 353	NRSA63J-101X	MG RESISTOR		
	R 402	NRSA63J-470X	MG RESISTOR		
	R 404	NRSA63J-103X	MG RESISTOR		
	R 408	NRSA63J-473X	MG RESISTOR		
	R 409	NRSA63J-331X	MG RESISTOR		
	R 410	NRSA63J-331X	MG RESISTOR		
	R 411	NRSA63J-225X	MG RESISTOR		
	R 412	NRSA63J-0R0X	MG RESISTOR		
	R 420	NRSA63J-221X	MG RESISTOR		
	R 421	NRSA63J-471X	MG RESISTOR		
	R 422	NRSA63J-223X	MG RESISTOR		
	R 423	NRSA63J-473X	MG RESISTOR		
	R 424	NRSA63J-221X	MG RESISTOR		
	R 425	NRSA63J-471X	MG RESISTOR		
	R 426	NRSA63J-221X	MG RESISTOR		
	R 427	NRSA63J-471X	MG RESISTOR		
	R 430	NRSA63J-102X	MG RESISTOR		
	R 440	NRSA63J-102X	MG RESISTOR		
	R 451	NRSA63J-103X	MG RESISTOR		
	R 501	NRSA63J-682X	MG RESISTOR		
	R 502	NRSA63J-682X	MG RESISTOR		
	R 503	NRSA63J-562X	MG RESISTOR		
	R 504	NRSA63J-103X	MG RESISTOR		
	R 506	NRSA63J-822X	MG RESISTOR		
	R 507	NRSA63J-203X	MG RESISTOR		
	R 521	NRSA63J-823X	MG RESISTOR		
	R 522	NRSA63J-823X	MG RESISTOR		
	R 523	NRSA63J-823X	MG RESISTOR		
	R 524	NRSA63J-823X	MG RESISTOR		
	R 525	NRSA63J-154X	MG RESISTOR		
	R 526	NRSA63J-154X	MG RESISTOR		
	R 527	NRSA02J-220X	MG RESISTOR		
	R 528	NRSA02J-220X	MG RESISTOR		
	R 529	NRSA63J-823X	MG RESISTOR		
	R 530	NRSA63J-473X	MG RESISTOR		
	R 531	NRSA63J-101X	MG RESISTOR		
	R 532	NRSA63J-103X	MG RESISTOR		
	R 533	NRSA63J-102X	MG RESISTOR		
	R 534	NRSA63J-202X	MG RESISTOR		
	R 535	NRSA63J-821X	MG RESISTOR		



■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 536	NRSA63J-473X	MG RESISTOR		
	R 537	NRSA63J-273X	MG RESISTOR		
	R 541	NRSA63J-472X	MG RESISTOR		
	R 542	NRSA63J-472X	MG RESISTOR		
	R 543	NRSA63J-472X	MG RESISTOR		
	R 544	NRSA63J-472X	MG RESISTOR		
	R 545	NRSA63J-103X	MG RESISTOR		
	R 546	NRSA63J-562X	MG RESISTOR		
	R 547	NRSA63J-473X	MG RESISTOR		
	R 548	NRSA63J-155X	MG RESISTOR		
	R 549	NRSA63J-474X	MG RESISTOR		
	R 550	NRSA63J-103X	MG RESISTOR		
	R 551	NRSA63J-103X	MG RESISTOR		
	R 552	NRSA63J-0R0X	MG RESISTOR		
	R 553	NRSA63J-0R0X	MG RESISTOR		
	R 554	NRSA63J-0R0X	MG RESISTOR		
	R 555	NRSA63J-101X	MG RESISTOR		
	R 556	NRSA63J-101X	MG RESISTOR		
	R 557	NRSA63J-101X	MG RESISTOR		
	R 558	NRSA63J-101X	MG RESISTOR		
	R 559	NRSA63J-105X	MG RESISTOR		
	R 570	NRSA63J-221X	MG RESISTOR		
	R 571	NRSA63J-471X	MG RESISTOR		
	R 572	NRSA63J-221X	MG RESISTOR		
	R 573	NRSA63J-471X	MG RESISTOR		
	R 574	NRSA63J-221X	MG RESISTOR		
	R 575	NRSA63J-471X	MG RESISTOR		
	R 581	NRSA63J-203X	MG RESISTOR		
	R 582	NRSA63J-223X	MG RESISTOR		
	R 583	NRSA63J-223X	MG RESISTOR		
	R 584	NRSA63J-563X	MG RESISTOR		
	R 585	NRSA63J-183X	MG RESISTOR		
	R 586	NRSA63J-152X	MG RESISTOR		
	R 587	NRSA63J-0R0X	MG RESISTOR		
	R 591	NRSA63J-203X	MG RESISTOR		
	R 592	NRSA63J-223X	MG RESISTOR		
	R 593	NRSA63J-223X	MG RESISTOR		
	R 594	NRSA63J-563X	MG RESISTOR		
	R 595	NRSA63J-183X	MG RESISTOR		
	R 596	NRSA63J-152X	MG RESISTOR		
	R 597	NRSA63J-0R0X	MG RESISTOR		
	R 701	NRSA63J-473X	MG RESISTOR		
	R 702	NRSA63J-0R0X	MG RESISTOR		
	R 703	NRSA63J-0R0X	MG RESISTOR		
	R 704	NRSA63J-473X	MG RESISTOR		
	R 705	NRSA63J-473X	MG RESISTOR		
	R 706	NRSA63J-473X	MG RESISTOR		
	R 707	NRSA63J-473X	MG RESISTOR		
	R 708	NRSA63J-332X	MG RESISTOR		
	R 709	NRSA63J-473X	MG RESISTOR		
	R 710	NRSA63J-0R0X	MG RESISTOR		
	R 711	NRSA63J-0R0X	MG RESISTOR		
	R 712	NRSA63J-0R0X	MG RESISTOR		
	R 713	NRSA63J-0R0X	MG RESISTOR		
	R 714	NRSA63J-473X	MG RESISTOR		
	R 715	NRSA63J-0R0X	MG RESISTOR		
	R 716	NRSA63J-0R0X	MG RESISTOR		
	R 719	NRSA63J-0R0X	MG RESISTOR		
	R 720	NRSA63J-122X	MG RESISTOR		
	R 721	NRSA63J-102X	MG RESISTOR		
	R 722	NRSA63J-103X	MG RESISTOR		
	R 723	NRSA63J-103X	MG RESISTOR		
	R 725	NRSA63J-103X	MG RESISTOR		
	R 726	NRSA63J-103X	MG RESISTOR		
	R 728	NRSA63J-103X	MG RESISTOR		
	R 729	NRSA63J-473X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 734	NRSA63J-222X	MG RESISTOR		
	R 735	NRSA63J-222X	MG RESISTOR		
	R 736	NRSA63J-222X	MG RESISTOR		
	R 741	NRSA63J-103X	MG RESISTOR		
	R 742	NRSA63J-473X	MG RESISTOR		
	R 743	NRSA63J-103X	MG RESISTOR		
	R 744	NRSA63J-103X	MG RESISTOR		
	R 745	NRSA63J-103X	MG RESISTOR		
	R 746	NRSA63J-103X	MG RESISTOR		
	R 747	NRSA63J-472X	MG RESISTOR		
	R 748	NRSA63J-472X	MG RESISTOR		
	R 749	NRSA63J-472X	MG RESISTOR		
	R 750	NRSA63J-103X	MG RESISTOR		
	R 751	NRSA63J-103X	MG RESISTOR		
	R 752	NRSA63J-473X	MG RESISTOR		
	R 753	NRSA63J-473X	MG RESISTOR		
	R 754	NRSA63J-821X	MG RESISTOR		
	R 755	NRSA63J-106X	MG RESISTOR		
	R 756	NRSA63J-473X	MG RESISTOR		
	R 757	NRSA63J-222X	MG RESISTOR		
	R 758	NRSA63J-473X	MG RESISTOR		
	R 760	NRSA63J-473X	MG RESISTOR		
	R 763	NRSA63J-102X	MG RESISTOR		
	R 765	NRSA63J-0R0X	MG RESISTOR		
	R 766	NRSA63J-473X	MG RESISTOR		
	R 767	NRSA63J-473X	MG RESISTOR		
	R 783	NRSA63J-102X	MG RESISTOR		
	R 784	NRSA63J-473X	MG RESISTOR		
	R 851	NRSA63J-103X	MG RESISTOR		
	R 901	QRE142J-102X	C RESISTOR	1.0K 5% 1/4W	
	R 902	NRSA02J-912X	MG RESISTOR		
	R 903	NRSA02J-472X	MG RESISTOR		
	R 971	NRS181J-222X	MG RESISTOR		
	R 972	NRS181J-222X	MG RESISTOR		
	R 976	NRSA02J-273X	MG RESISTOR		
	R 977	NRSA02J-123X	MG RESISTOR		
	R 981	NRSA63J-473X	MG RESISTOR		
	RA451	NRZ0014-103X	NET RESISTOR		
	RA452	NRZ0014-103X	NET RESISTOR		
	RA453	NRZ0014-103X	NET RESISTOR		
	RA454	NRZ0014-103X	NET RESISTOR		
	RA455	NRZ0014-103X	NET RESISTOR		
	RA456	NRZ0014-103X	NET RESISTOR		
	RA457	NRZ0014-103X	NET RESISTOR		
	TU 1	QAU0258-002	TUNER		
	X 31	QAX0616-001Z	CRYSTAL		
	X 401	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 601	NCB31HK-223X	C CAPACITOR		
	C 602	NCS31HJ-681X	C CAPACITOR		
	C 603	NBE20JM-106X	TS E CAP SVB20J		
	C 611	NCB31HK-123X	C CAPACITOR		
	C 612	NBE20JM-475X	TS E CAPACITOR		
	CJ601	VMC0335-001	CONNECTOR		
	D 601	SML-310VT/JK/-X	LED		
	D 602	SML-310VT/JK/-X	LED		
	D 603	SML-310VT/JK/-X	LED		
	D 604	SML-310VT/JK/-X	LED		
	D 605	SML-310VT/JK/-X	LED		
	D 606	SML-310VT/JK/-X	LED		
	D 607	SML-310VT/JK/-X	LED		
	D 608	SML-310VT/JK/-X	LED		
	D 609	SML-310VT/JK/-X	LED		
	D 610	SML-310VT/JK/-X	LED		
	D 611	SML-310VT/JK/-X	LED		
	D 613	SML-310VT/JK/-X	LED		
	D 614	SML-310VT/JK/-X	LED		
	D 615	SML-310VT/JK/-X	LED		
	D 616	SML-310VT/JK/-X	LED		
	D 617	SML-310VT/JK/-X	LED		
	D 618	LNJ308G81/1-3/X	LED		
	D 619	SML-310VT/JK/-X	LED		
	D 620	SML-310VT/JK/-X	LED		
	D 621	SML-310VT/JK/-X	LED		
	D 622	SML-310VT/JK/-X	LED		
	D 623	SML-310VT/JK/-X	LED		
	D 624	SML-310VT/JK/-X	LED		
	D 625	SML-310LT/MN/-X	LED	POWER LED	
	D 641	UDZS5.1B-X	Z DIODE		
	D 642	1SS355-X	DIODE		
	D 643	1SS355-X	DIODE		
	D 644	NSPW310BS/BRS/	LED		
	D 645	NSPW310BS/BRS/	LED		
	D 646	UDZS6.2B-X	SI DIODE		
	IC601	LC75823W	IC		
	IC602	RPM6938-SV4	IC		
	JS690	QSW0793-001	ROTARY ENCODER		
	R 601	NRSA63J-182X	MG RESISTOR		
	R 602	NRSA63J-122X	MG RESISTOR		
	R 603	NRSA63J-182X	MG RESISTOR		
	R 604	NRSA63J-272X	MG RESISTOR		
	R 605	NRSA63J-392X	MG RESISTOR		
	R 606	NRSA63J-821X	MG RESISTOR		
	R 607	NRSA63J-821X	MG RESISTOR		
	R 608	NRSA63J-122X	MG RESISTOR		
	R 609	NRSA63J-182X	MG RESISTOR		
	R 610	NRSA63J-272X	MG RESISTOR		
	R 611	NRSA63J-392X	MG RESISTOR		
	R 612	NRSA63J-821X	MG RESISTOR		
	R 613	NRSA63J-821X	MG RESISTOR		
	R 614	NRSA63J-122X	MG RESISTOR		
	R 615	NRSA63J-182X	MG RESISTOR		
	R 616	NRSA63J-272X	MG RESISTOR		
	R 631	NRSA63J-821X	MG RESISTOR		
	R 632	NRSA63J-122X	MG RESISTOR		
	R 633	NRSA63J-122X	MG RESISTOR		
	R 634	NRSA63J-911X	MG RESISTOR		
	R 635	NRSA63J-911X	MG RESISTOR		
	R 636	NRSA63J-511X	MG RESISTOR		
	R 637	NRSA63J-511X	MG RESISTOR		
	R 638	NRSA63J-511X	MG RESISTOR		
	R 639	NRSA63J-511X	MG RESISTOR		
	R 640	NRSA63J-511X	MG RESISTOR		
	R 641	NRSA63J-511X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 642	NRSA63J-471X	MG RESISTOR		
	R 643	NRSA63J-471X	MG RESISTOR		
	R 644	NRSA63J-821X	MG RESISTOR		
	R 645	NRSA63J-821X	MG RESISTOR		
	R 646	NRSA63J-821X	MG RESISTOR		
	R 647	NRSA63J-821X	MG RESISTOR		
	R 648	NRSA63J-122X	MG RESISTOR		
	R 649	NRSA63J-122X	MG RESISTOR		
	R 651	NRSA63J-222X	MG RESISTOR		
	R 652	NRSA63J-222X	MG RESISTOR		
	R 653	NRSA63J-103X	MG RESISTOR		
	R 654	NRSA63J-103X	MG RESISTOR		
	R 655	NRSA63J-103X	MG RESISTOR		
	R 656	NRSA63J-103X	MG RESISTOR		
	R 657	NRSA63J-513X	MG RESISTOR		
	R 658	NRSA63J-184X	MG RESISTOR		
	R 659	NRS181J-391X	MG RESISTOR		
	R 660	NRS181J-391X	MG RESISTOR		
	R 661	NRS181J-103X	MG RESISTOR		
	R 662	NRSA63J-471X	MG RESISTOR		
	R 681	NRSA63J-101X	MG RESISTOR		
	S 601	NSW0124-001X	TACT SWITCH	POWER	
	S 602	NSW0124-001X	TACT SWITCH	1	
	S 603	NSW0124-001X	TACT SWITCH	2	
	S 604	NSW0124-001X	TACT SWITCH	3	
	S 605	NSW0124-001X	TACT SWITCH	4	
	S 606	NSW0124-001X	TACT SWITCH	5	
	S 607	NSW0124-001X	TACT SWITCH	SELECT	
	S 608	NSW0124-001X	TACT SWITCH	DISP/LOUD	
	S 609	NSW0124-001X	TACT SWITCH	S-EQ	
	S 610	NSW0124-001X	TACT SWITCH	SCAN/RPT	
	S 611	NSW0124-001X	TACT SWITCH	MO/RND	
	S 612	NSW0124-001X	TACT SWITCH	EJECT	
	S 613	NSW0124-001X	TACT SWITCH	<<	
	S 614	NSW0124-001X	TACT SWITCH	6	
	S 615	NSW0124-001X	TACT SWITCH	INFO	
	S 616	NSW0124-001X	TACT SWITCH	AM	
	S 617	NSW0124-001X	TACT SWITCH	CD	
	S 618	NSW0124-001X	TACT SWITCH	FM	
	S 619	NSW0124-001X	TACT SWITCH	>>	



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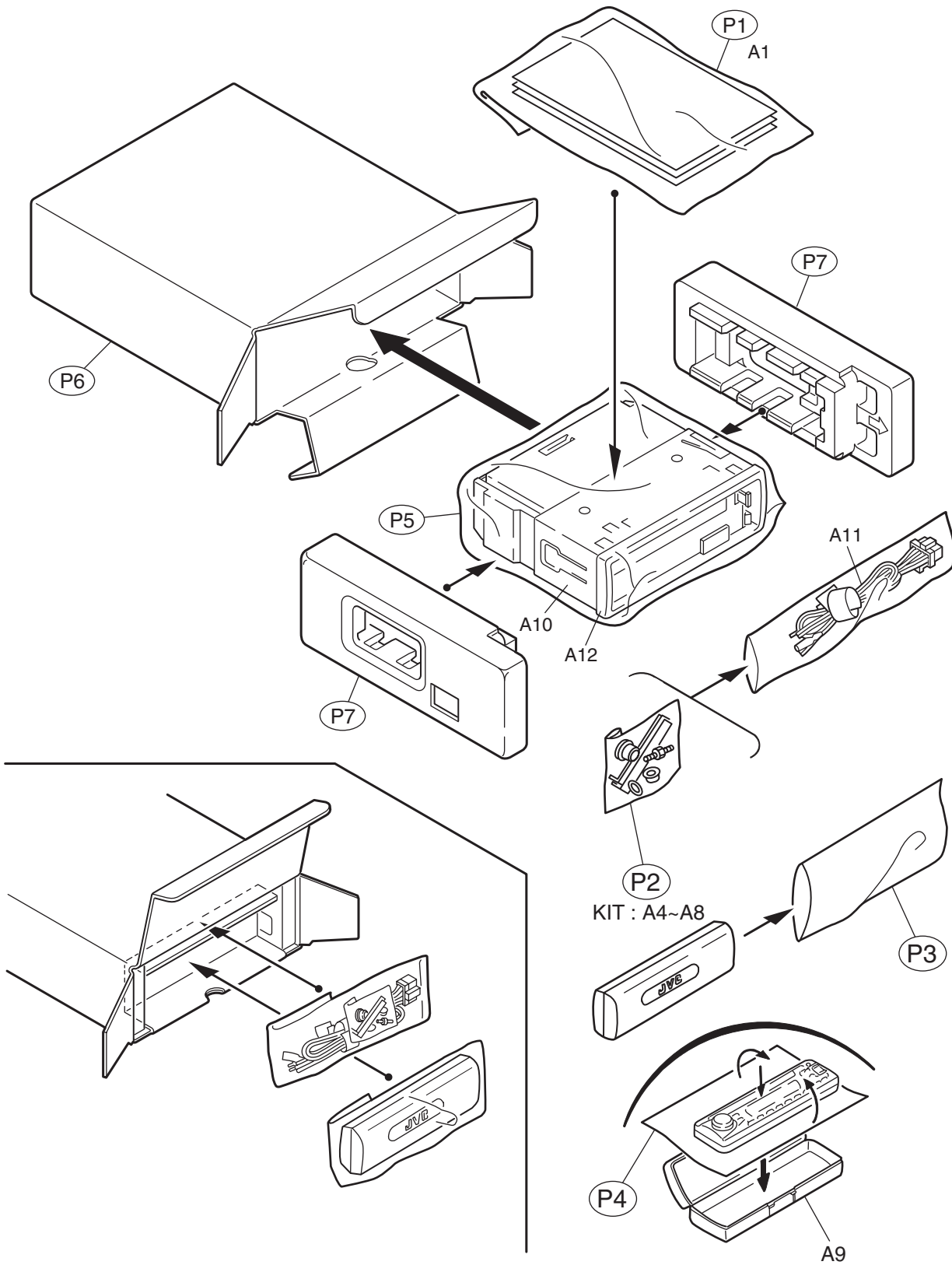
# Packing materials and accessories parts list

Block No. 

M	3	M	M
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Block No. 

M	5	M	M
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## ■ Parts list (Packing)

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	FSPG4002-001	POLY BAG	1	INST.BOOK	
	P 2	QPA00801205	POLY BAG	1	SCREW KIT	
	P 3	-----	POLY BAG	1	HARD CASE	
	P 4	-----	SHEET	1		
	P 5	QPC03004315P	POLY BAG	1	SET	
	P 6	-----	PACKING CASE	1		
	P 7	-----	CUSHION	2		

## ■ Parts list (Accessories)

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	-----	INST.BOOK	1		
	A 4	VKZ4027-202	PLUG NUT	1		
	A 5	VKH4871-001SS	MOUNT BOLT	1		
	A 6	VKZ4328-001	LOCK NUT	1	M5	
	A 7	WNS5000Z	WASHER	1		
	A 8	FSKL4010-002	HOOK	2		
	A 9	FSJB3001-30A	HARD CASE	1		
	A 10	FSKM2004-202SSF	MOUNTING SLEEVE	1		
	A 11	QAM0390-001	CAR BATT CORD	1		
	A 12	FSJD2034-001SSF	TRIM PLATE	1		
	K I T	KDGS717K-SCREW1	SCREW PARTS KIT	1	A4-A8	