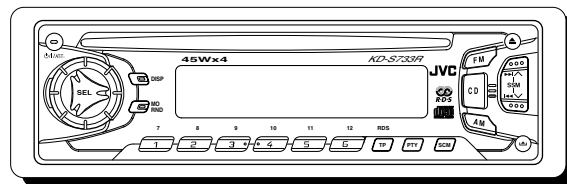
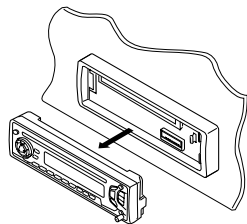


JVC

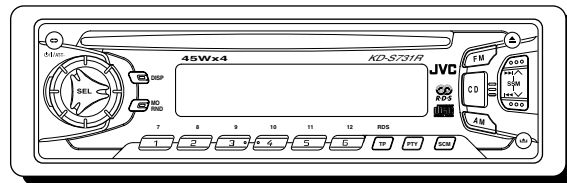
SERVICE MANUAL

CD RECEIVER

KD-S733R/KD-S731R



KD-S733R



KD-S731R


Area Suffix

E --- Continental Europe
 EX Central Europe

Contents

Safety precaution	1- 2
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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

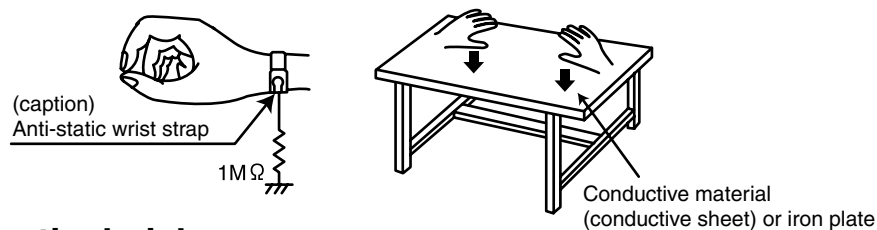
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

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.

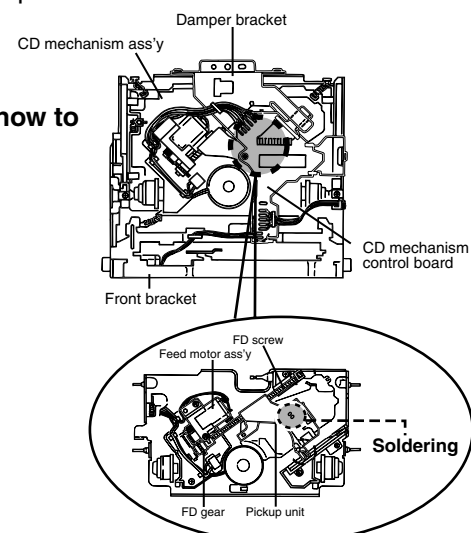
4. Handling the traverse unit (optical pickup)

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.

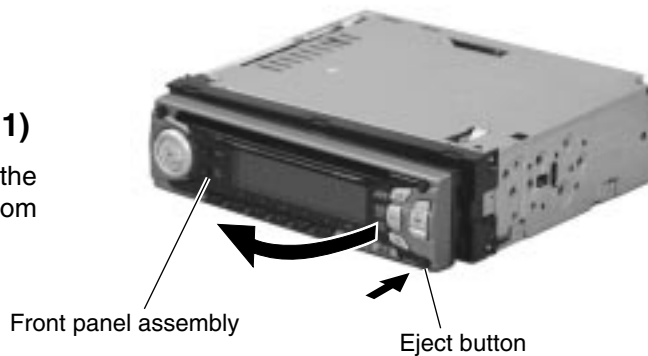


Fig.1

■ Removing the front chassis assembly (See Fig.2 and 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.

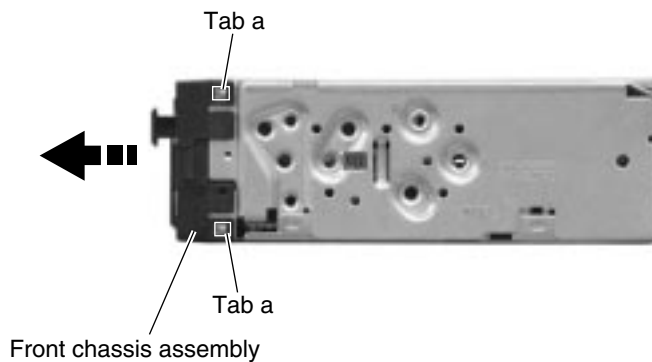


Fig.2

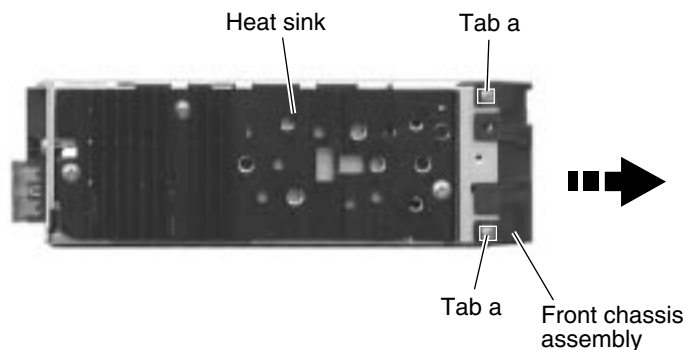


Fig.3

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

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

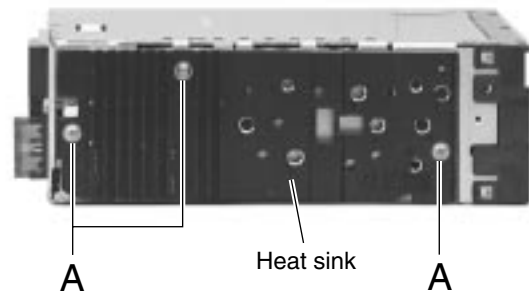


Fig.4

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

- Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly and the heat sink.
1. Turn over the body and unjoint the five joints **b** with the bottom cover and the body using a screwdriver.

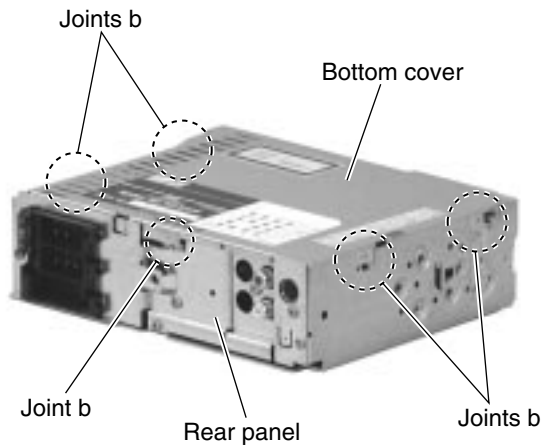


Fig.5

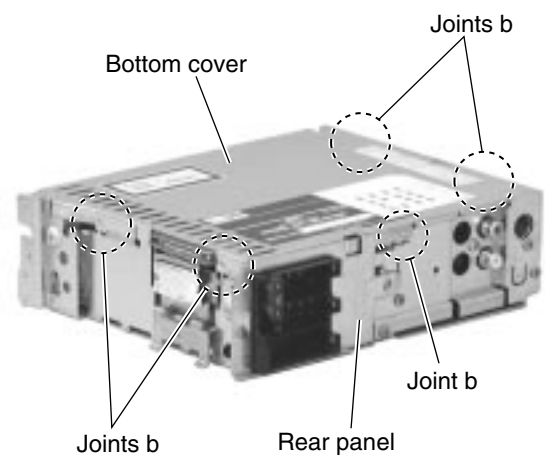


Fig.6

■ Removing the main board
(See Fig.7 and 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 two screws **C** and the three screws **D** attaching the rear panel 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.

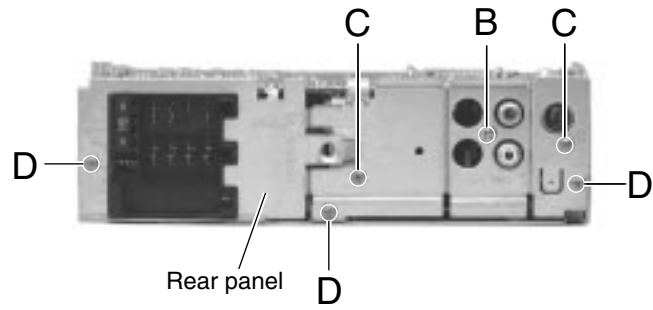


Fig.7

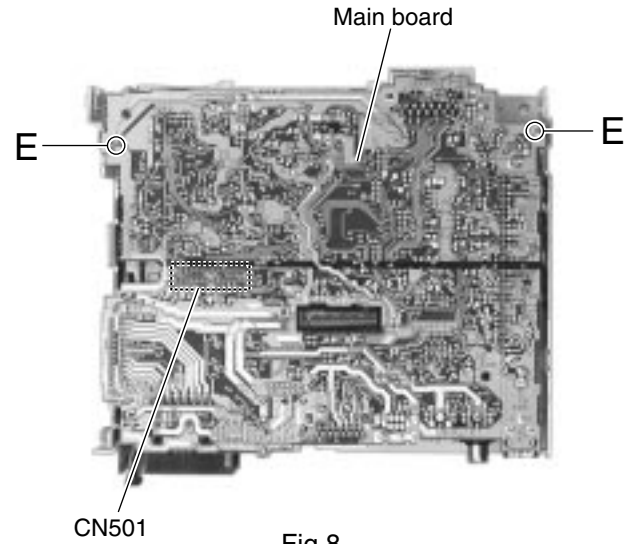


Fig.8

■ 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.

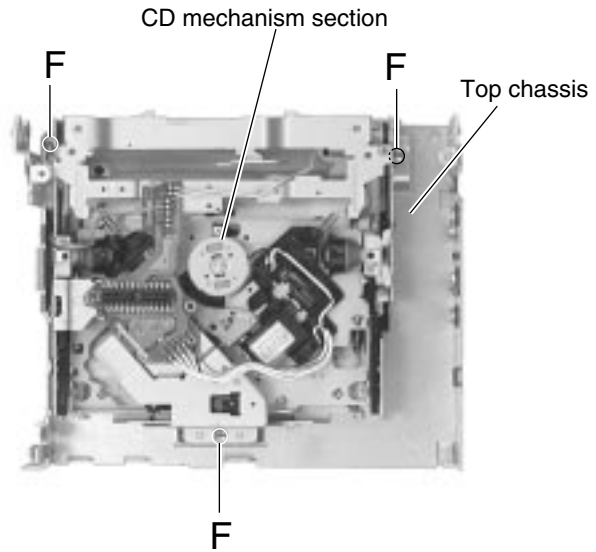


Fig.9

■ Removing the control switch board (See Fig.10 to 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 ten joints **c** with the front panel and the rear cover.
 3. Remove the control switch board on the back of the front panel.

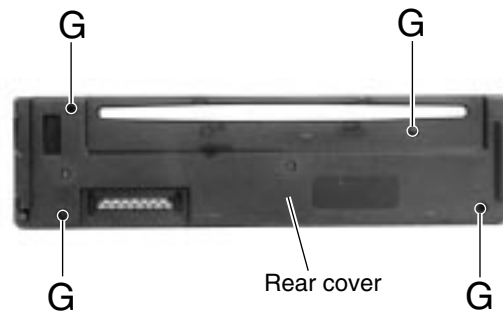


Fig.10

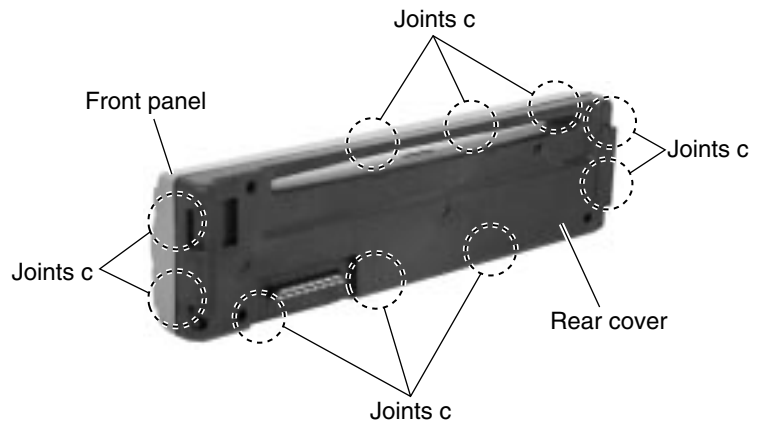


Fig.11

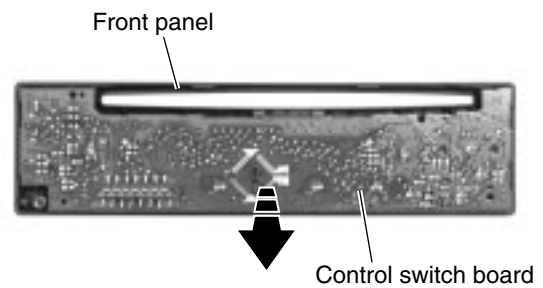


Fig.12

<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.

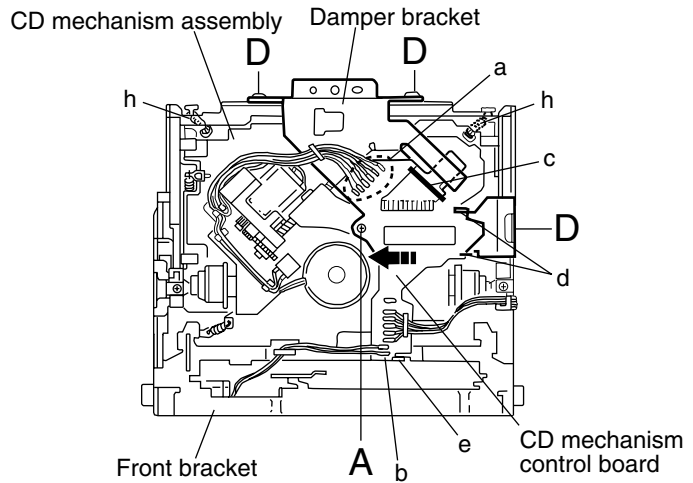


Fig.1

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)

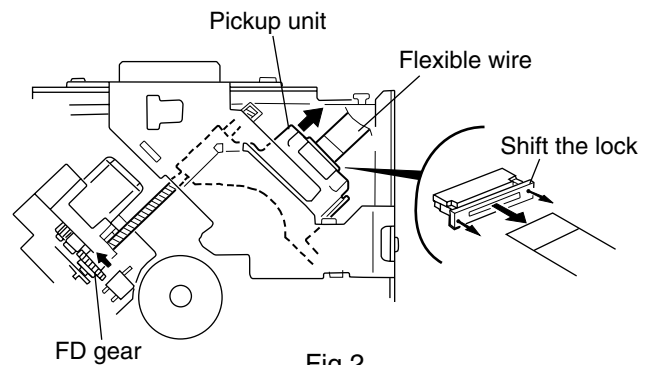


Fig.2

■ 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.

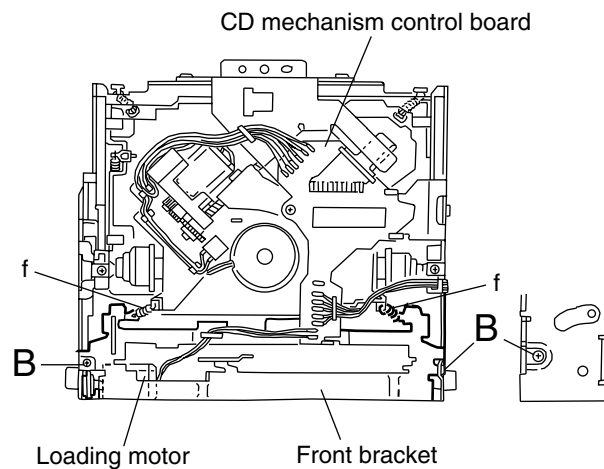


Fig.3

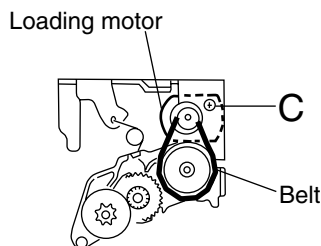


Fig.5

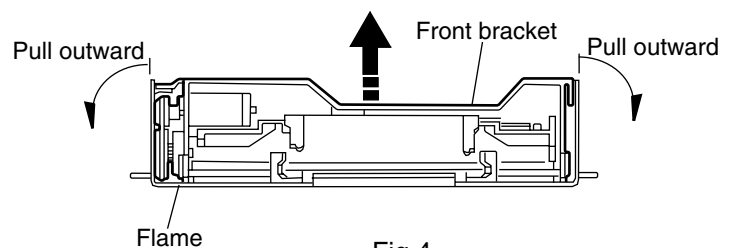


Fig.4

**■ 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.

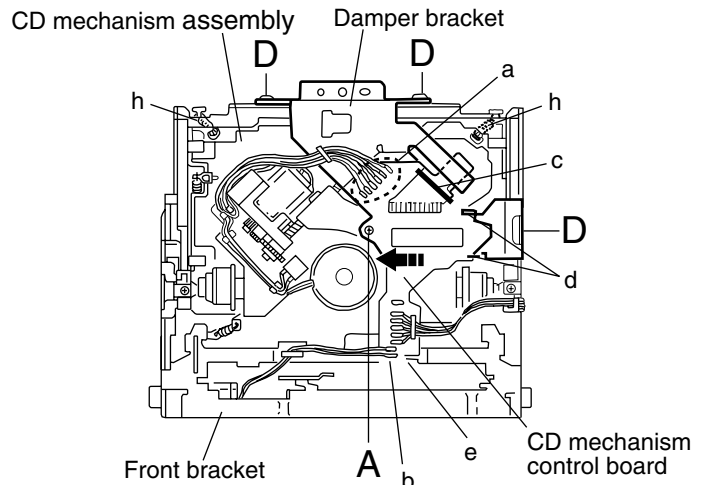


Fig.5

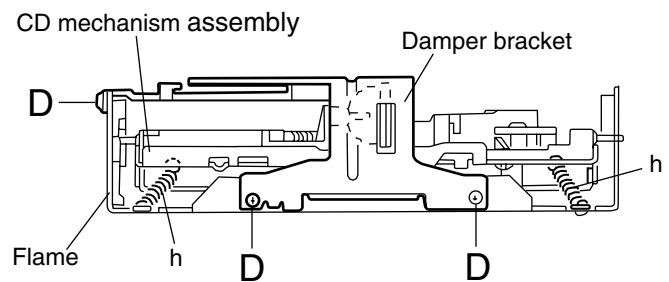


Fig.6

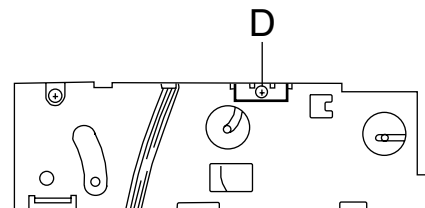


Fig.7

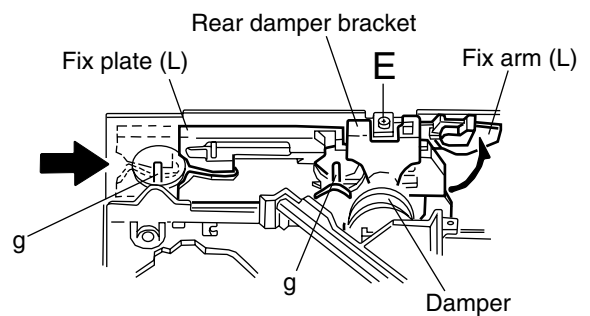


Fig.8

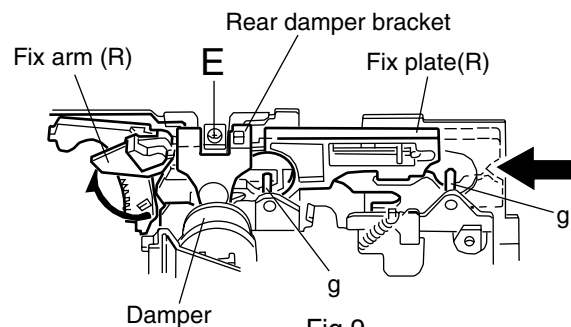


Fig.9

■ 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.

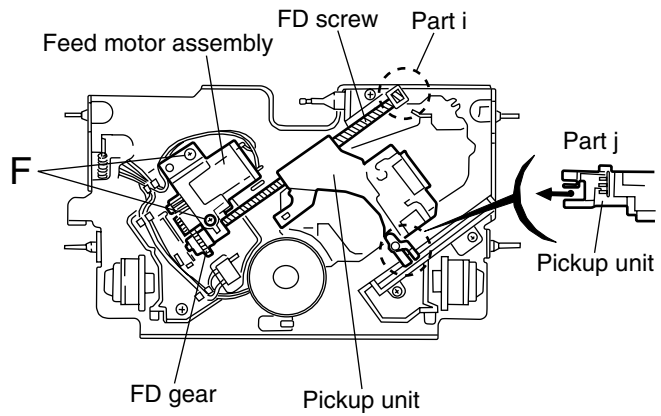


Fig.10

■ 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.

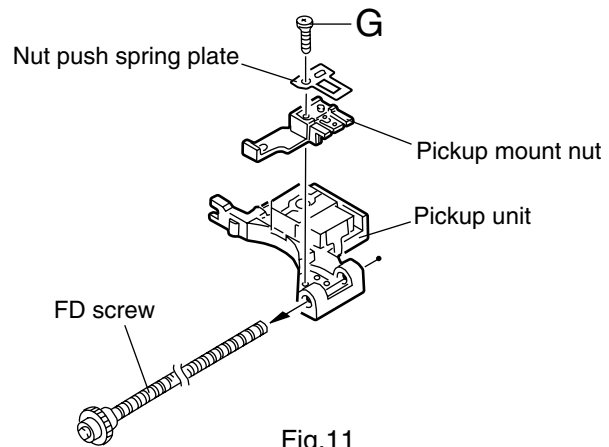


Fig.11

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

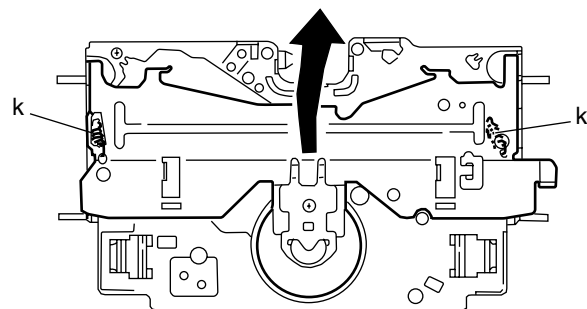


Fig.12

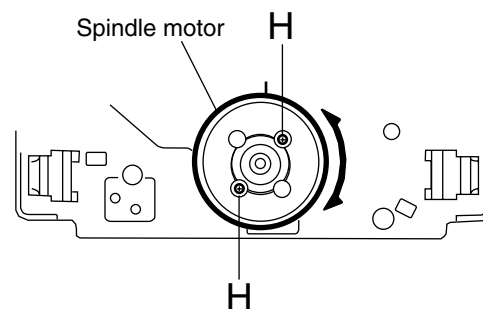


Fig.13

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 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

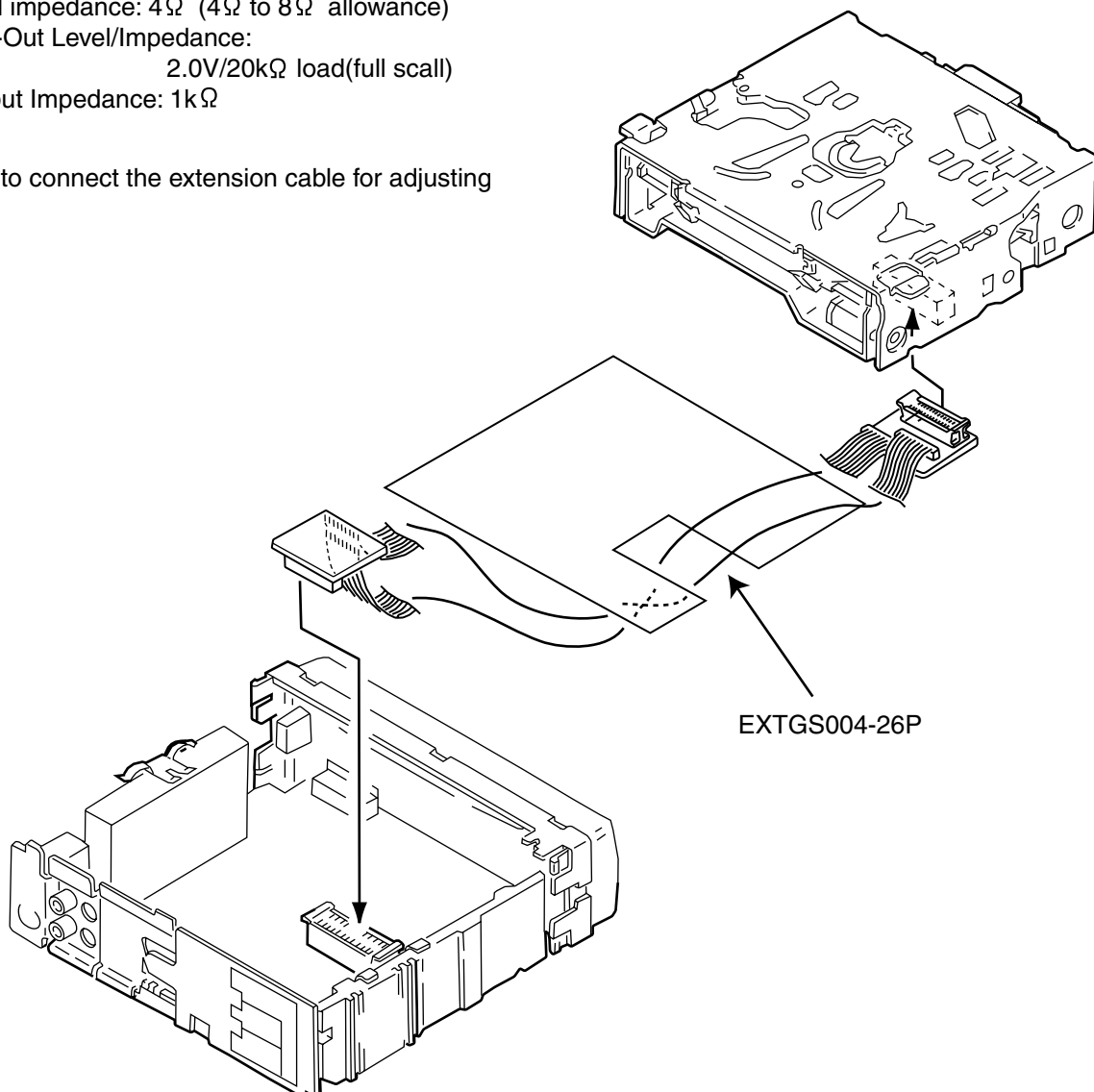
■ Dummy load

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.

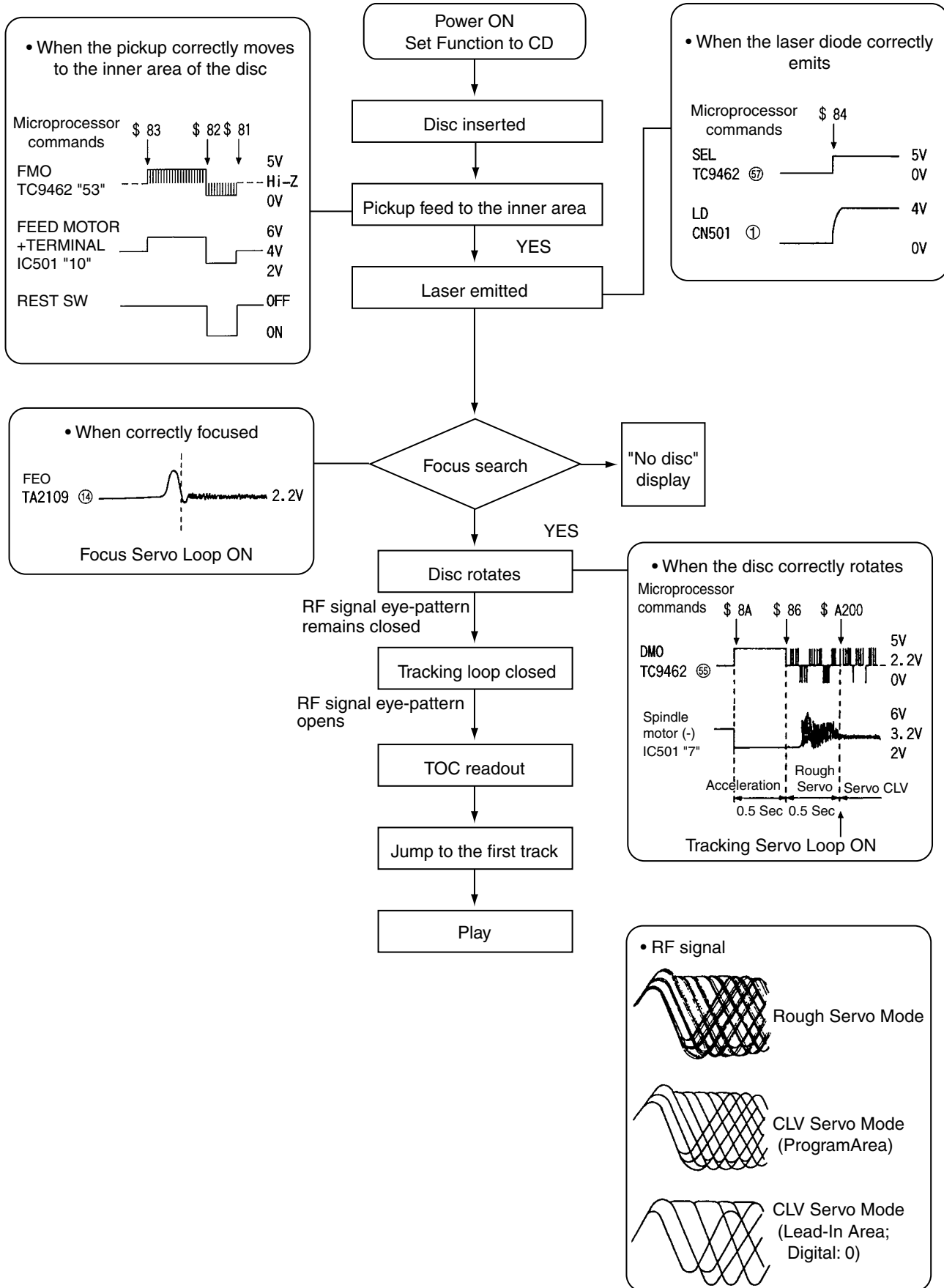
■ Standard measuring conditions

Power supply voltage: DC14.4V(11V to 16V allowance)
Load impedance: 4Ω (4Ω to 8Ω allowance)
Line-Out Level/Impedance:
2.0V/20k Ω load(full scall)
Output Impedance: 1k Ω

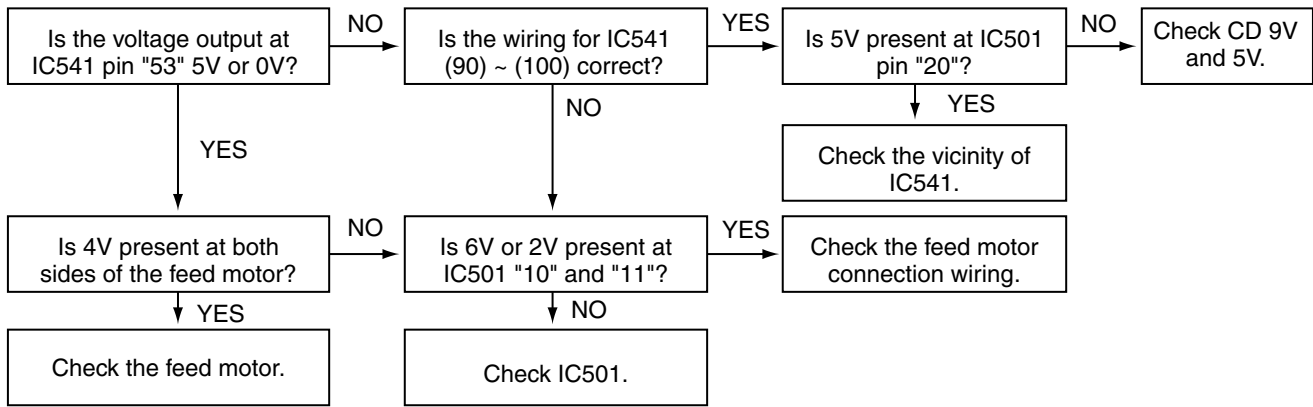
■ How to connect the extension cable for adjusting



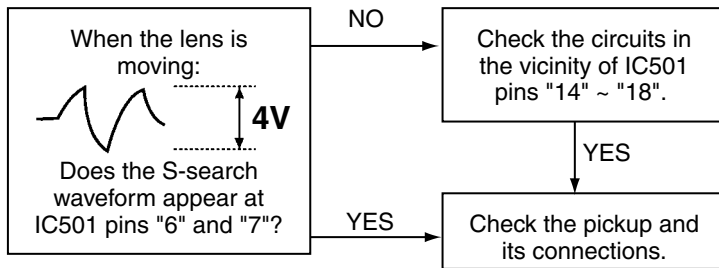
Flow of functional operation until TOC read



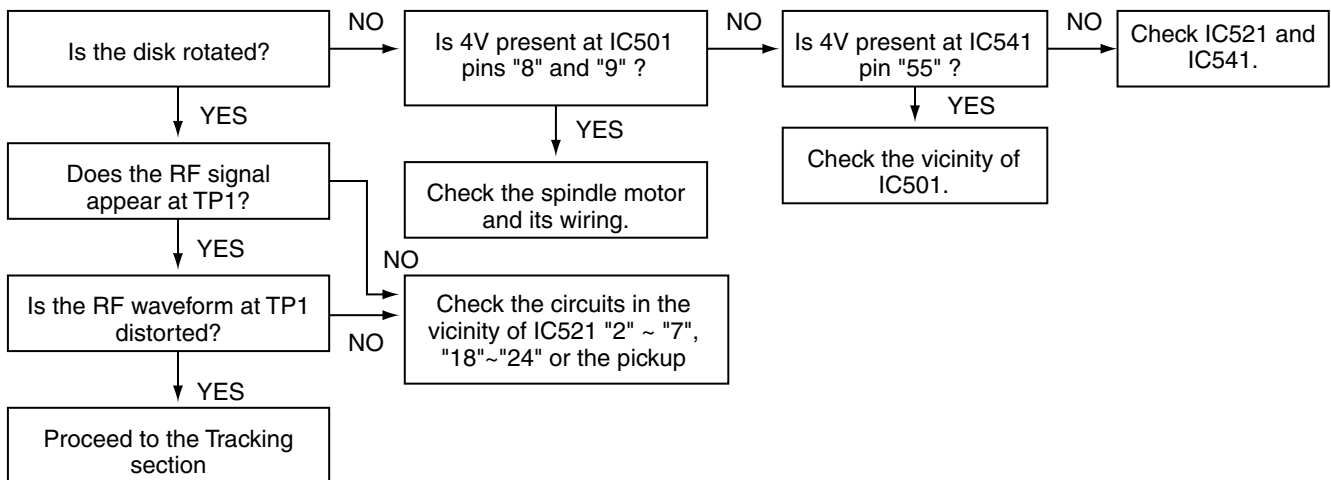
■ Feed Section



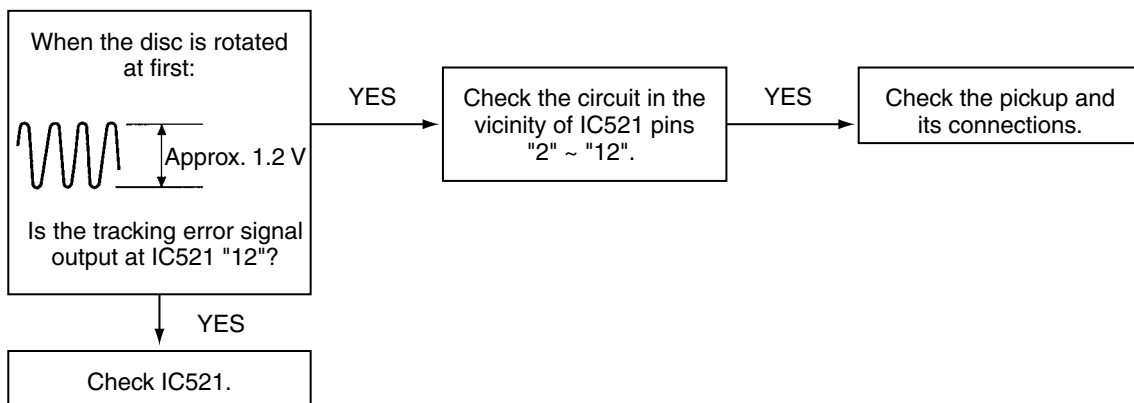
■ Focus Section



■ Spindle Section



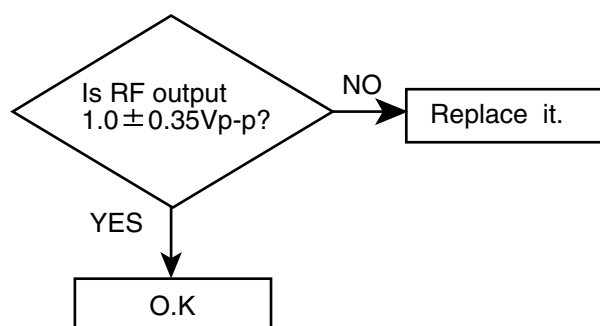
■ Tracking Section



Maintenance of laser pickup

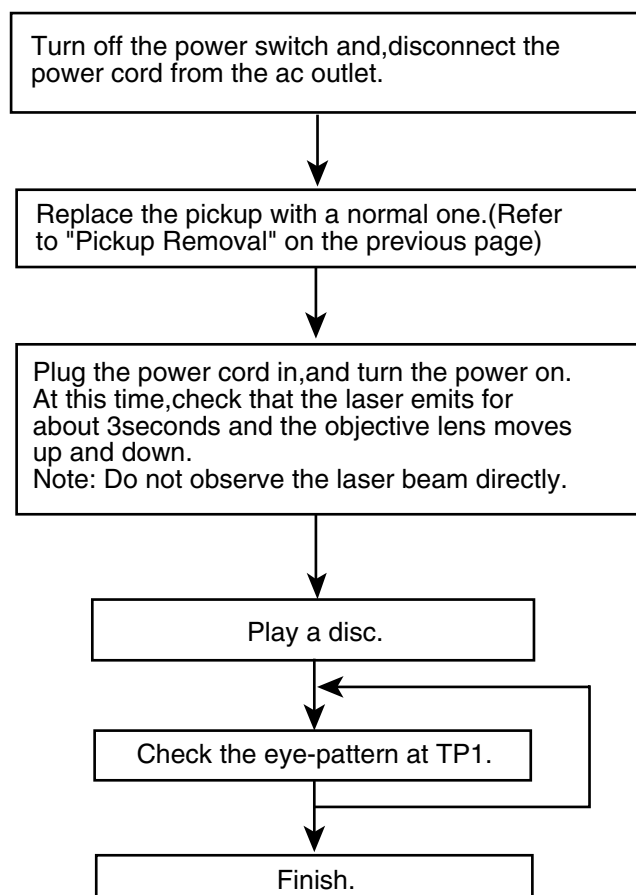
(1) Cleaning the pick up lens
 Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

(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

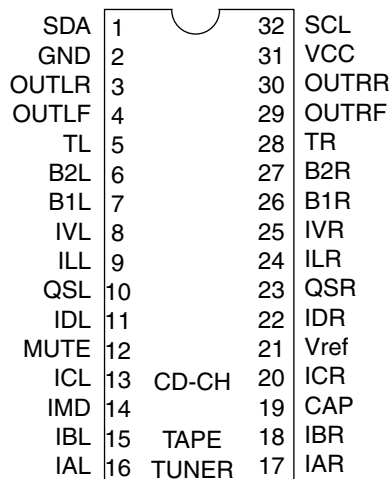
(3) Semi-fixed resistor on the APC PC board
 The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.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



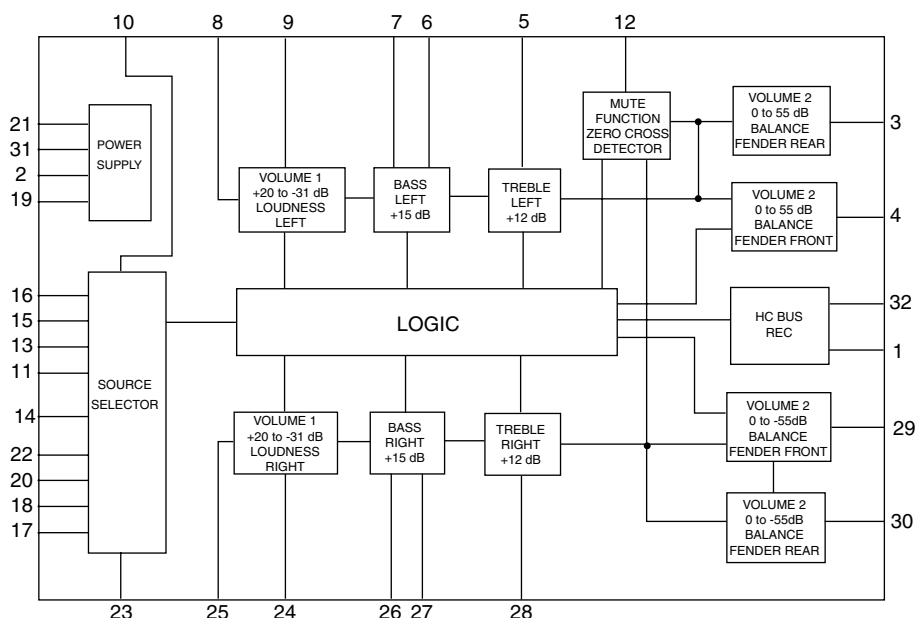
Description of major ICs

TEA6320T-X (IC161) : E.volume

1.Pin layout



2.Block diagram

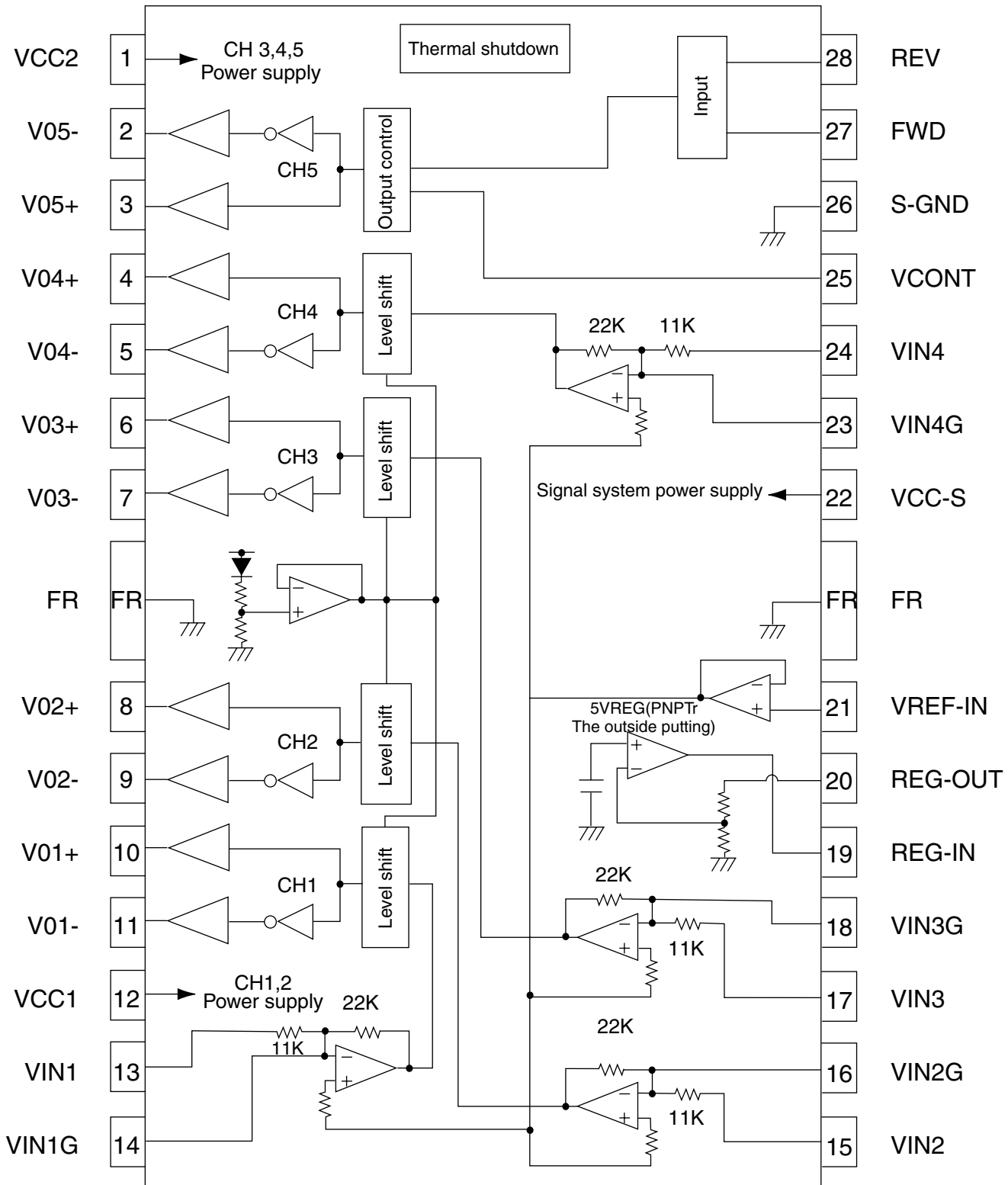


3.Pin functions

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.

■ LA6567H-X (IC501) : CD driver

1.Pin layout & Blockdiagram



2. Pin function

LA6567H-X(2/2)

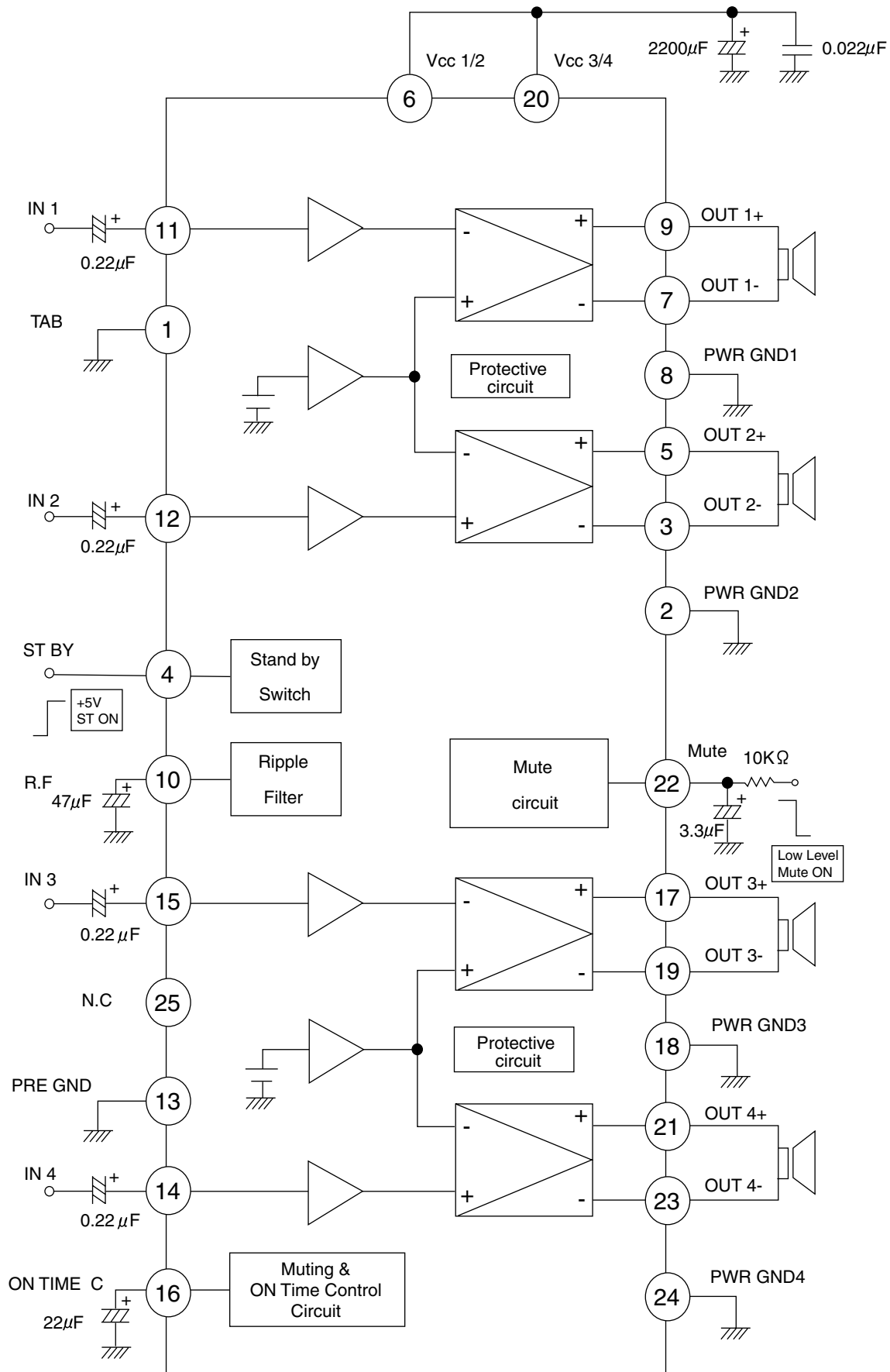
Pin no.	Symbol	Function
1	VCC2	CH3,4,5 Power supply(It is short with VCC1,VCC-S)
2	V05-	Loading output(-)
3	V05+	Loading terminal (+)
4	V04+	CH4 Output terminal(+)
5	V04-	CH4 Output terminal(-)
6	V03+	CH3 Output terminal(+)
7	V03-	CH3 Output terminal(-)
8	V02+	CH2 Output terminal(+)
9	V02-	CH2 Output terminal(-)
10	V01+	CH1 Output terminal(+)
11	V01-	CH1 Output terminal(-)
12	VCC1	CH1,2(BTL) Power supply(It is short with VCC-S,VCC2)
13	VIN1	CH1 Input terminal
14	VIN1G	CH1 Input terminal(For gain adjustment)
15	VIN2	CH2 Input terminal
16	VIN2G	CH2 Input terminal(For gain adjustment)
17	VIN3	CH3 Input terminal
18	VIN3G	CH3 Input terminal(For gain adjustment)
19	REG-IN	Regulator terminal(Outside putting PNP base)
20	REG-OUT	Regulator terminal(Outside putting PNP collector)
21	VREF-IN	Standard voltage input terminal
22	VCC-S	Signal system power supply(It is short with VCC1,VCC2)
23	VIN4G	CH4 Input terminal(For gain adjustment)
24	VIN4	CH4 Input terminal
25	VCONT	5CH(VLO) Output voltage set terminal
26	S-GND	Signal system GND
27	FWD	5CH(VLO)Signal output switch terminal(FWD),Input of logic of loading part
28	REV	5CH(VLO)Signal output switch terminal(REV), Input of logic of loading part

* Frame(FR)at the center becomes system GND.

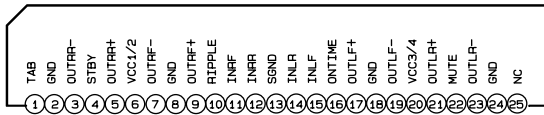
* Please be short-circuited on the outside and use the terminal of the power supply system and three terminals of VCC-S, VCC1,VCC2.

■ LA4743K (IC301) : Power amp.

1. Block diagram



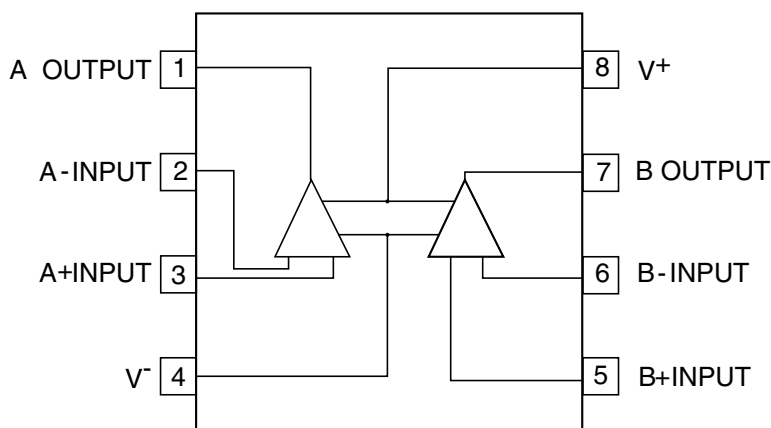
2.Terminal layout



3.Pin function

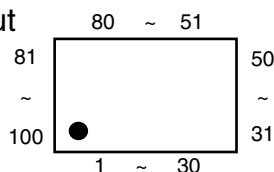
Pin No.	Symbol	Function
1	TAB	Header of IC
2	GND	Power GND
3	OUTRR-	Output(-) for front Rch
4	STBY	Stand by input
5	OUTRR+	Output (+) for front Rch
6	VCC1/2	Power input
7	OUTRF-	Output (-) for rear Rch
8	GND	Power GND
9	OUTRF+	Output (+) for rear Rch
10	RIPPLE	Ripple filter
11	INRF	Rear Rch input
12	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

■ NJM4565M-WE (IC581) : Ope. amp



■ UPD178078GF-558 (IC701) : System CPU

1. Pin layout



2. Pin function (1/2)

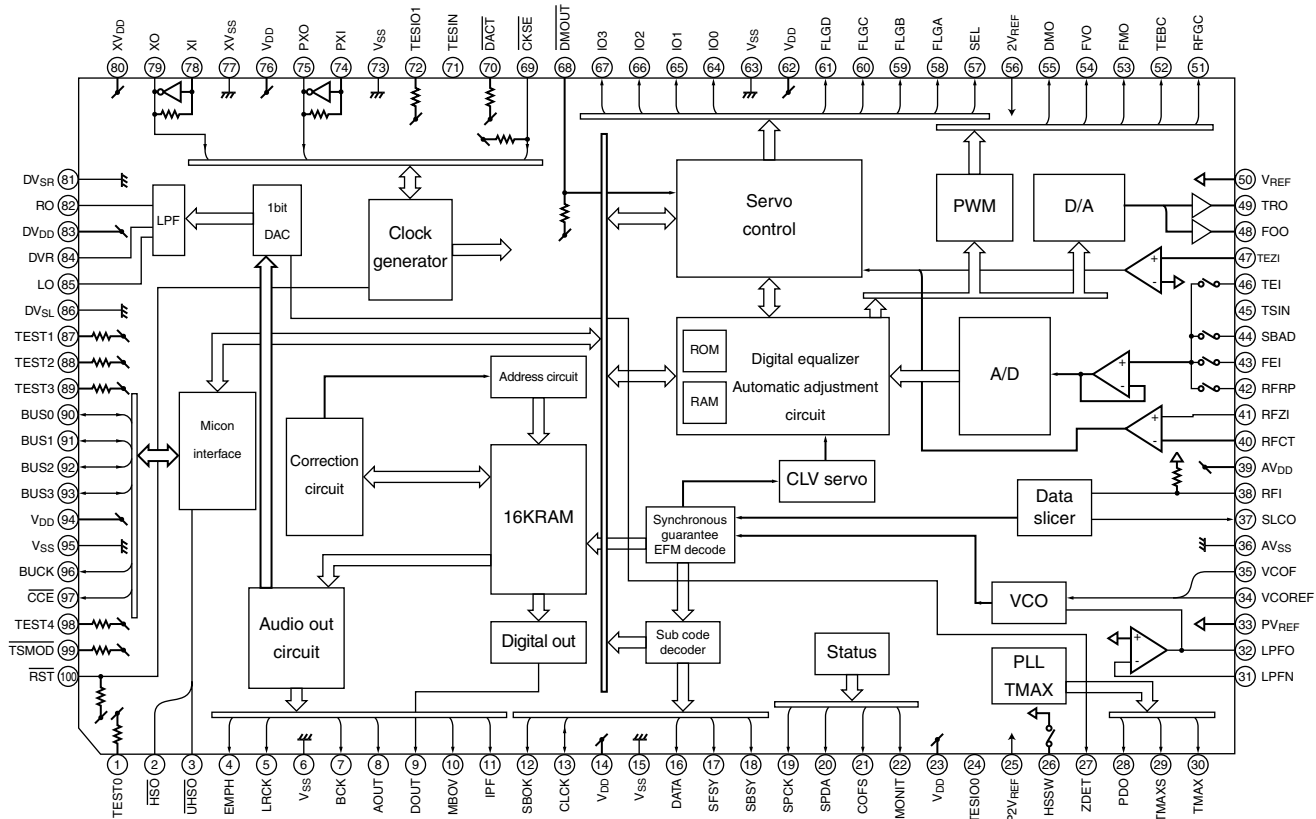
Pin NO.	Symbol	I/O	FUNCTION
1	NC	-	No connection
2	BUSINT	I	JVC bus communication line
3	BUSSI	I	JVC bus communication line
4	BUSO	O	JVC bus communication line
5	BUSACK	O	JVC bus communication line
6,7	NC	-	No connection
8	I2CDAI	I	Serial data input
9	I2CDAO	O	Serial data output
10	I2CCLK	O	Serial clock output
11	NC	-	No connection
12	LCDDA	O	LCD driver serial data output
13	LCDSCK	O	LCD driver serial clock output
14	BUSI/O	O	JVC bus output select
15	NC	-	No connection
16	LCDCE	O	LCD driver communication line
17	SW2	I	CD mech switch
18	SW3	I	CD mech switch
19	SW4	I	CD mech switch
20	RESTSW	I	Traverse mech rest switch
21	ENC1	I	Encoder 1 input
22	ENC2	I	Encoder 2 input
23	KEY0	I	Key input
24	KEY1	I	Key input
25	KEY2	I	Key input
26	LEVEL	I	Audio level input
27	AVDD	-	Power supply
28	SM	I	Signal level meter input
29	SQ	I	Signal quality input
30,31	NC	-	Non connection
32	AVSS	-	Connect to GND
33	REGCPU	-	Connect to GND with capacitor
34	VDD	-	Power supply
35	REGOSC	-	Connect to GND with capacitor
36	X2	-	System clock
37	X1	I	System clock
38	GND0	-	Connect to GND
39	SD/ST	I	Station detector & Stereo indicator
40	GND2	-	Connect to GND
41	NC	-	No connection
42	IFC	I	IF count input
43	VDDPLL	-	---
44	OSC	I	FM,AM osc input
45	NC	-	No connection

2.Pin function (2/2)

Pin NO.	Symbol	I/O	FUNCTION
46	GNDPLL	-	---
47	AMEQ	O	PLL error output for AM
48	FMEQ	O	PLL error output for FM
49	IC(VPP)	-	Setting to write for flash
50	RESET	I	System reset
51	SW1	I	CD mech switch
52	REMOCON	I	Remocon input
53	NC	-	Non connection
54	TEL_MUTE	O	TEL mute output
55	POWER	O	Power control
56	CDON	O	CD power control
57	MUTE	O	Mute control
58	STAGE 1	-	---
59	BUZZER	-	Non connection
60	STAGE 2	-	---
61~68	NC	-	Non connection
69	LM0	O	CD mech driver control
70	LM1	O	CD mech driver control
71	BUCK	O	CD LSI communication line
72	CCE	O	CD LSI communication line
73	BUS0	I/O	CD LSI communication line
74	BUS1	I/O	CD LSI communication line
75	BUS2	I/O	CD LSI communication line
76	BUS3	I/O	CD LSI communication line
77	RST	O	CD LSI communication line
78	PS1	I	ACC detection input
79	PS2	I	Memory detection
80	DETACH	I	Detach detection
81	RDSSCK	I	Clock input for RDS
82	GND1	-	Connect to GND
83	MONO	O	Mono by force
84	SEEK/STOP	O	Switching SEEK & STOP
85	FM/AM	O	Band switch
86	AFCK	O	AFcheck output
87	RSDA	I	RDS data input
88	PLLMONITOR	-	Non connection
89~98	NC	-	Non connection
99	VDDPORT	-	Vdd
100	GNDPORT	-	Connect to GND

■ TC9462F (IC541) : DSP

1.Pin layout & Block Diagram



2.Pin function

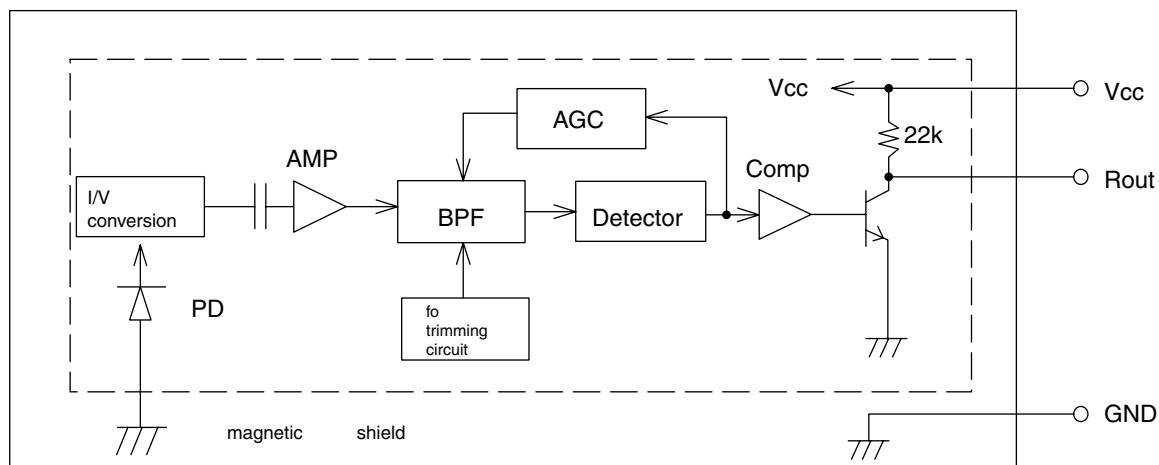
PIN No.	SYMBOL	I/O	FUNCTIONAL DESCRIPTION	REMARKS															
1	TEST0	I	Test mode terminal. Normally, Keep at open.	With pull-up resistor.															
2	HSO	O	Playback speed mode flag output terminal. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>UHSO</th> <th>HSO</th> <th>PLAYBACK SPEED</th> </tr> </thead> <tbody> <tr> <td>H</td> <td>H</td> <td>Normal</td> </tr> <tr> <td>H</td> <td>L</td> <td>2 times</td> </tr> <tr> <td>L</td> <td>H</td> <td>4 times</td> </tr> <tr> <td>L</td> <td>L</td> <td>--</td> </tr> </tbody> </table>	UHSO	HSO	PLAYBACK SPEED	H	H	Normal	H	L	2 times	L	H	4 times	L	L	--	--
UHSO	HSO	PLAYBACK SPEED																	
H	H	Normal																	
H	L	2 times																	
L	H	4 times																	
L	L	--																	
3	UHSO	O		--															
4	EMPH	O	Subcode Q data emphasis flag output terminal. Emphasis ON at "H" level and OFF at "L" level. The output polarity can invert by command.	--															
5	LRCK	O	Channel clock output terminal. (44.1kHz) L-ch at "L" level and R-ch at "H" level. the output polarity can invert by command.	--															
6	VSS	--	Digital GND terminal.	--															
7	BCK	O	Bit clock output terminal. (1.4112MHz)	--															
8	AOUT	O	Audio data output terminal.	--															
9	DOUT	O	Digital data output terminal.	--															
10	MBOV	O	Buffer memory over signal output terminal. Over at "H" level.	--															
11	IPF	O	Correction flag output terminal. At "H" level, AOUT output is made to correction impossibility by C ₂ correction processing.	--															
12	SBOK	O	Subcode Q data CRCC check adjusting result output terminal. The adjusting result is OK at "H" level.	--															
13	CLKK	I/O	Subcode P~W data readout clock input/output terminal. This terminal can select by command bit.	--															
14	VDD	--	Digital power supply voltage terminal.	--															
15	VSS	--	Digital GND terminal.	--															
16	DATA	O	Subcode P~W data output terminal.	--															
17	SFSY	O	Play-back frame sync signal output terminal.	--															
18	SBSY	O	Subcode block sync signal output terminal.	--															
19	SPCK	O	Processor status signal readout clock output terminal.	--															
20	SADA	O	Processor status signal output terminal.	--															
21	COFS	O	Correction frame clock output terminal. (7.35kHz)	--															
22	MONIT	O	Internal signal (DSP internal flag and PLL clock) output terminal. Selected by command. This terminal output the text data with serial by command.	--															
23	VDD	--	Digital power supply voltage terminal.	--															
24	TESIO0	I	Test input/output terminal. Normally, keep at "L" level. The terminal that inputted the clock for read of text data by command.	--															
25	P2VREF	--	PLL double reference voltage supply terminal.	--															

Pin No.	Symbol	I/O	Function	Remarks								
26	HSSW	O	2/4 times speed at "VREF" voltage.	2-state output(PVREF,HIZ)								
27	ZDET	O	1 bit DA converter zero detect flag output terminal.	-								
28	PDO	O	Phase difference signal output terminal of EFM signal and PLCK signal.	3-state output. (P2VREF,PVREF,VSS)								
29	TMAXS	O	TMAX detection result output terminal. Selected by command bit (TMPS)	3-state output. (P2VREF,PVREF,VSS)								
30	TMAX	O	TMAX detection result output terminal. Selected by command bit (TMPS)	3-state output. (P2VREF,HIZ,VSS)								
			<table border="1"> <tr> <td>DIFFERENCE RESULT</td> <td>TMAX OUTPUT</td> </tr> <tr> <td>Longer than fixed freq.</td> <td>"P2VREF"</td> </tr> <tr> <td>Shorter than fixed freq.</td> <td>"VSS"</td> </tr> <tr> <td>Within the fixed freq.</td> <td>"Hiz"</td> </tr> </table>	DIFFERENCE RESULT	TMAX OUTPUT	Longer than fixed freq.	"P2VREF"	Shorter than fixed freq.	"VSS"	Within the fixed freq.	"Hiz"	
DIFFERENCE RESULT	TMAX OUTPUT											
Longer than fixed freq.	"P2VREF"											
Shorter than fixed freq.	"VSS"											
Within the fixed freq.	"Hiz"											
31	LPFN	I	LPF amplifier inverting terminal for PLL.	Analog input.								
32	LPFO	O	LPF amplifier output terminal for PLL.	Analog output.								
33	PVREF	-	PLL reference voltage supply terminal.	-								
34	VCOREF	I	VCO center frequency reference level terminal. Normally, keep at "PVREF" level.	-								
35	VCOF	O	VCO filter terminal.	Analog output.								
36	AVSS	-	Analog GND terminal.	-								
37	SLCO	O	Data slice level output terminal.	Analog output.								
38	RFI	I	RF signal input terminal.	Analog input. (Zin:selected by command)								
39	AVDD	-	Analog power supply voltage terminal.	-								
40	RFCT	I	RFRP signal center level input terminal	Analog input(Zin : 50k Ω)								
41	RFZI	I	RFRP zero cross input terminal	Analog input.								
42	RFRP	I	RF ripple signal input terminal	Analog input.								
43	FEI	I	Focus error signal input terminal	Analog input.								
44	SBAD	I	Sub-beam adder signal input terminal	Analog input.								
45	TSIN	I	Test input terminal Normally, keep at "vref" level	Analog input.								
46	TEI	I	Tracking error signal input terminal. Take in at tracking servo ON.	Analog input.								
47	TEZI	I	Tracking error zero cross input terminal	Analog input(Zin :10k Ω)								
48	FOO	O	Focus servo equalizer output terminal	Analog output.(2VREF - AVSS)								
49	TRO	O	Tracking servo equalizer output terminal	-								
50	VREF	-	Analog reference voltage supply terminal	3-state PWM signal output.								
51	RFGC	O	RF amplitude adjustment control signal output terminal	(2VREF,VREF,VSS)								
52	TEBC	O	Tracking balance control signal output terminal	(PWM carrier =88.2kHz)								
53	FMO	O	Feed equalizer output terminal									
54	FVO	O	Speed error signal or feed search equalizer output terminal									
55	DMO	O	Disk equalizer output terminal (PWM carrier=88.2kHz for DSP, Synchronize to PXO)	3-state output. (2VREF,VREF,VSS)								
56	2VREF	-	Analog double reference voltage supply terminal	-								
57	SEL	O	APC circuit ON/OFF indication signal output terminal	-								
58~61	FLGA~D	O	External flag output terminal for internal signal	-								
62	VDD	-	Digital power supply voltage terminal	-								
63	VSS	-	Digital GND terminal	-								
64~67	IO0~3	I/O	General I/O terminal	-								
68	DMOUT	I	This terminal control IO0~IO3 terminal	With pull-up resistor.								
69	CKSE	I	Normally, keep at open	With pull-up resistor.								
70	DACT	I	DAC test mode terminal. Normally, keep at open	With pull-up resistor.								

Pin No.	Symbol	I/O	Function	Remarks
71	TESIN	I	Test input terminal, Normally, keep at "L" level	Analog input.
72	TESIO1	I	Test input/output terminal. Normally, keep at "L" level	Analog input.
73	VSS	-	Digital GND terminal	-
74	PXI	I	Crystal oscillator connecting input terminal for DSP	-
75	PXO	O	Crystal oscillator connecting output terminal for DSP	-
76	VDD	-	Digital power supply voltage terminal	-
77	XVSS	-	Oscillator GND terminal for system clock	-
78	XI	I	Crystal oscillator connecting input terminal for system clock	-
79	XO	O	Crystal oscillator connecting output terminal for system clock	-
80	XVDD	-	Oscillator power supply voltage terminal for system clock	-
81	DVSR	-	Analog GND terminal for DA converter (Rch)	-
82	RO	O	R channel data forward output terminal	-
83	DVDD	-	Analog supply voltage terminal for DA converter	-
84	DVR	-	Reference voltage terminal for DA converter	-
85	LO	O	L channel data forward output terminal	-
86	DVSL	-	Analog GND terminal for DA converter (Lch)	-
87~89	TEST1~3	I	Test mode terminal . Normal keep at open	With piull-up resistor.
90~93	BUS0~3	I/O	Micon interface data input/output terminal	Schmit input. With pull-up resistor.
94	VDD	-	Digital power supply voltage terminal	-
95	VSS	-	Digital GND terminal	-
96	BUCK	I	Micon interface clock input terminal	Schmit input.
97	CCE	I	Command and data sending/receiving chip enable signal input terminal	Schmit input.
98	TEST4	I	Test mode terminal. Normal, keep at open	With pull-up resistor.
99	TSMOD	I	Local test mode selection terminal	With pull-up resistor.
100	RST	I	Reset signal input terminal. Reset at "L" level	With pull-up resistor.

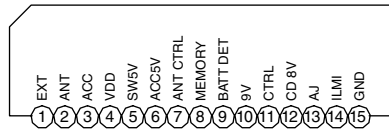
■ RPM6938-SV4 (IC602) : Remote sensor

1. Block diagram

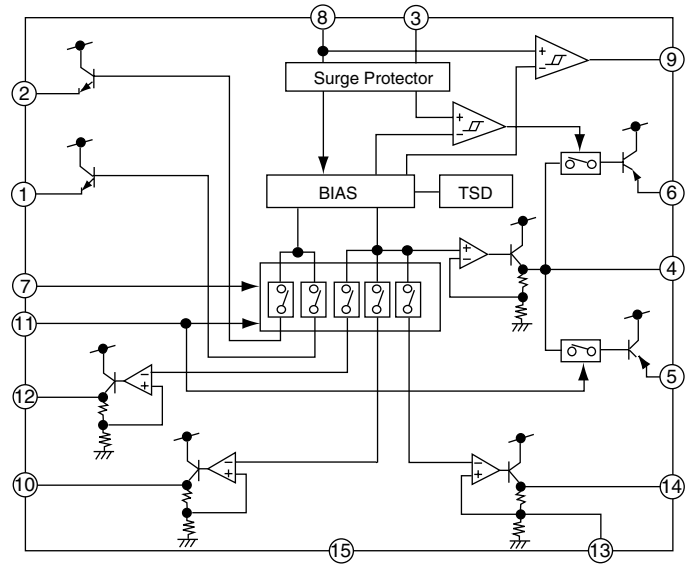


■ HA13164A (IC961) : Regulator

1.Pin layout



2.Block diagram

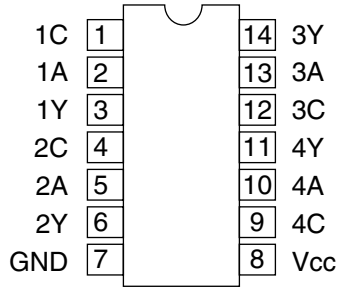


3.Pin function

PinNo.	Symbol	Function
1	EXT	When CTRL terminal "M" and "H", output of VCC-1V
2	ANT	When CTRL terminal "M" , "H" and ANT CTRL terminal is "H", output of VCC-1V
3	ACC	Connect to ACC
4	VDD	Output 5.7V
5	SW5V	When CTRL terminal "M" and "H", output 5V
6	ACC5V	Voltage detection output of ACC
7	ANT CTRL	L:ANT output OFF H:ANT output ON
8	MEMORY	Power supply pin
9	BATT DET	Detect the reduce voltage of power supply
10	9V	When CTRL terminal "M" and "H", output 9V
11	CTRL	L:BIAS OFF M:BIAS ON H:CD ON
12	CD 8V	When CTRL terminal "H", output 8V
13	AJ	Voltage adjust terminal for ILM output
14	ILMI	When CTRL terminal "M" and "H", output 10V
15	GND	GND

■ HD74HC126FP-X (IC801) : Buffer

1. Terminal layout

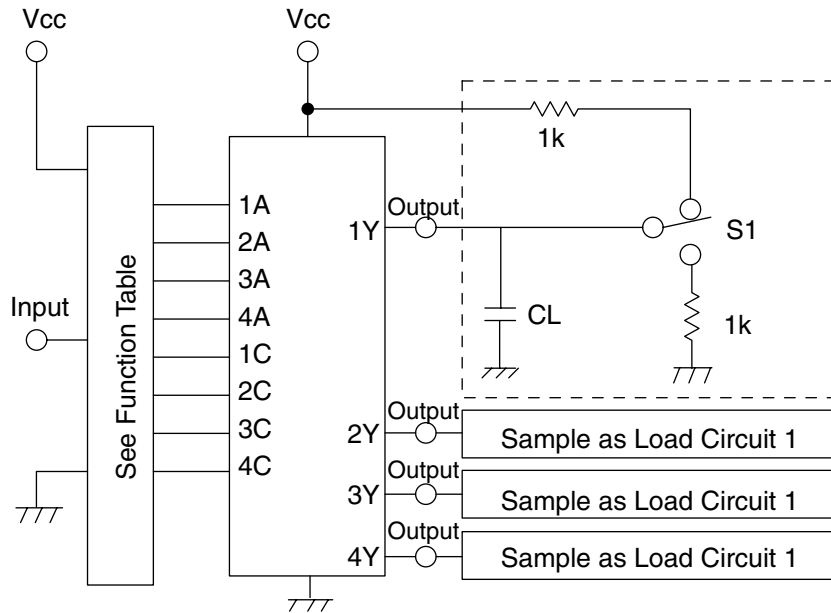


3. Pin function

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

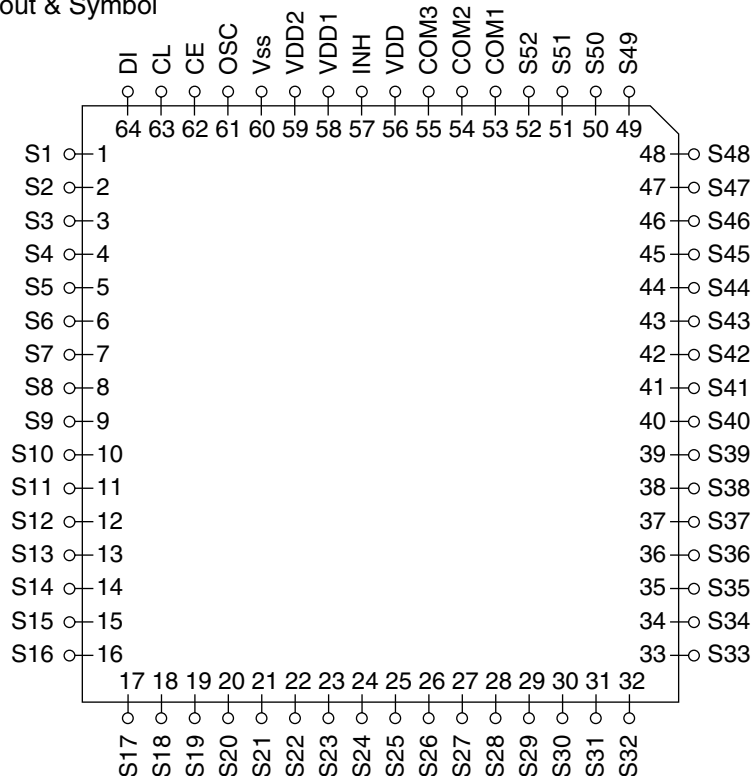
Note: H : High
 L : Low
 X : H and L
 Z : H.L.X

2. Block diagram



■ LC75823W (IC601) : LCD driver

1. Pin Layout & Symbol

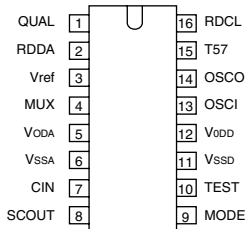


2. Pin Function

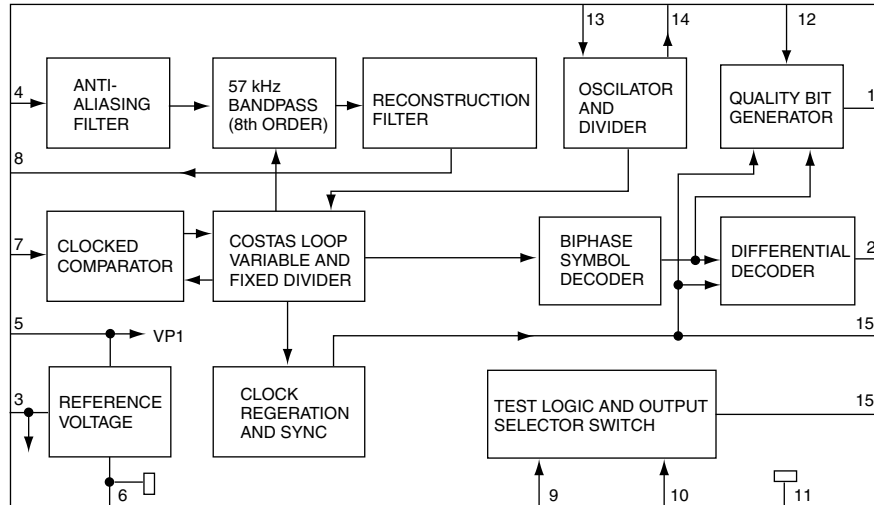
Pin No.	Symbol	I/O	Function
1 to 52	S1 to S52	O	Segment output pins used to display data transferred by serial data input.
53 to 55	COM1 to COM3	O	Common driver output pins. The frame frequency is given by : $t_0 = (f_{osc}/384)Hz$.
56	VDD	--	Power supply connection. Provide a voltage of between 4.5 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

■ SAA6579T-X (IC71) : RDS

1.Pin layout



2.Block diagram

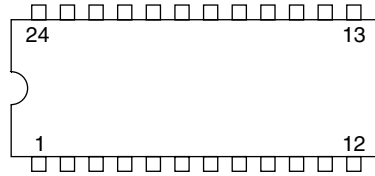


3.Pin function

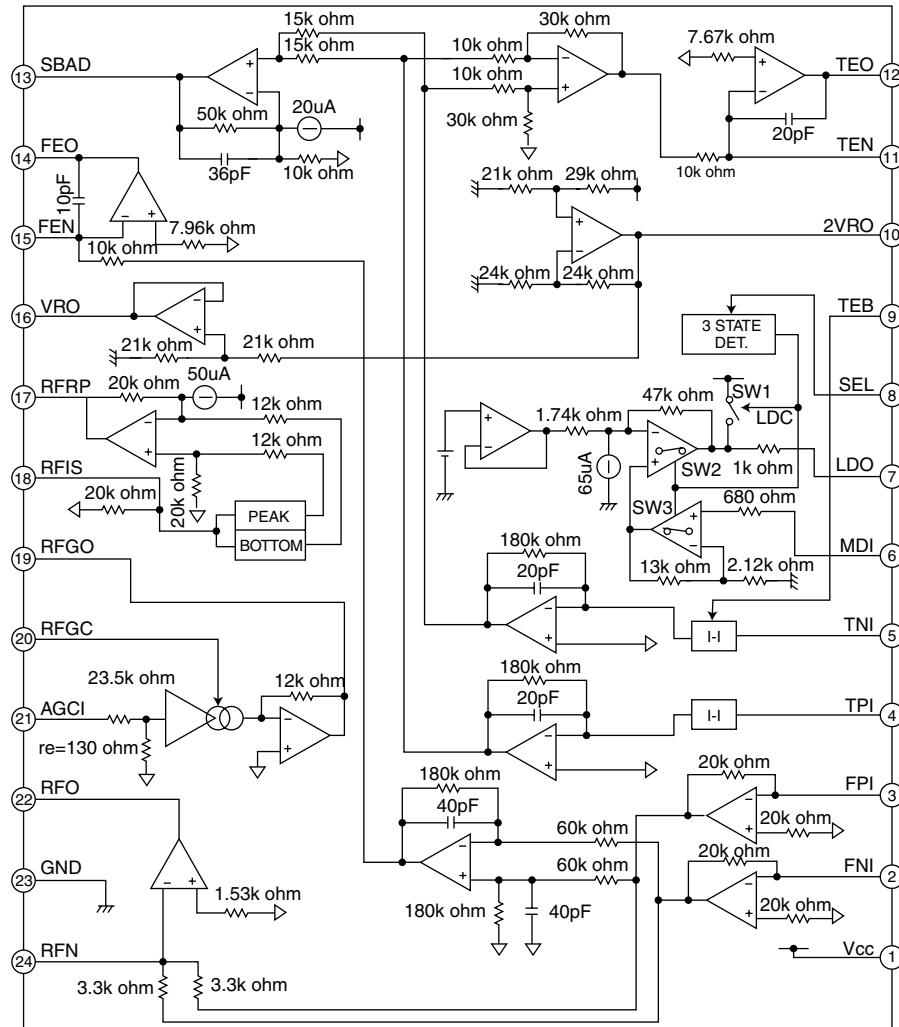
Pin No.	Symbol	Function
1	QUAL	Quality indication output
2	RDDA	RDS data output
3	Vref	Reference voltage output (0.5VDDA)
4	MUX	Multiolex signal input
5	VDDA	+5V supply voltage for analog part
6	VSSA	Ground for analog part (0V)
7	CIN	Subcarrier input to comparator
8	SCOUT	Subcarrier output of reconstruction 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	57 kHz clock signal output
16	RDCL	RDS clock output

■ TA2109F-X (IC521) : RF amp.

1. Pin layout



2. Block diagram



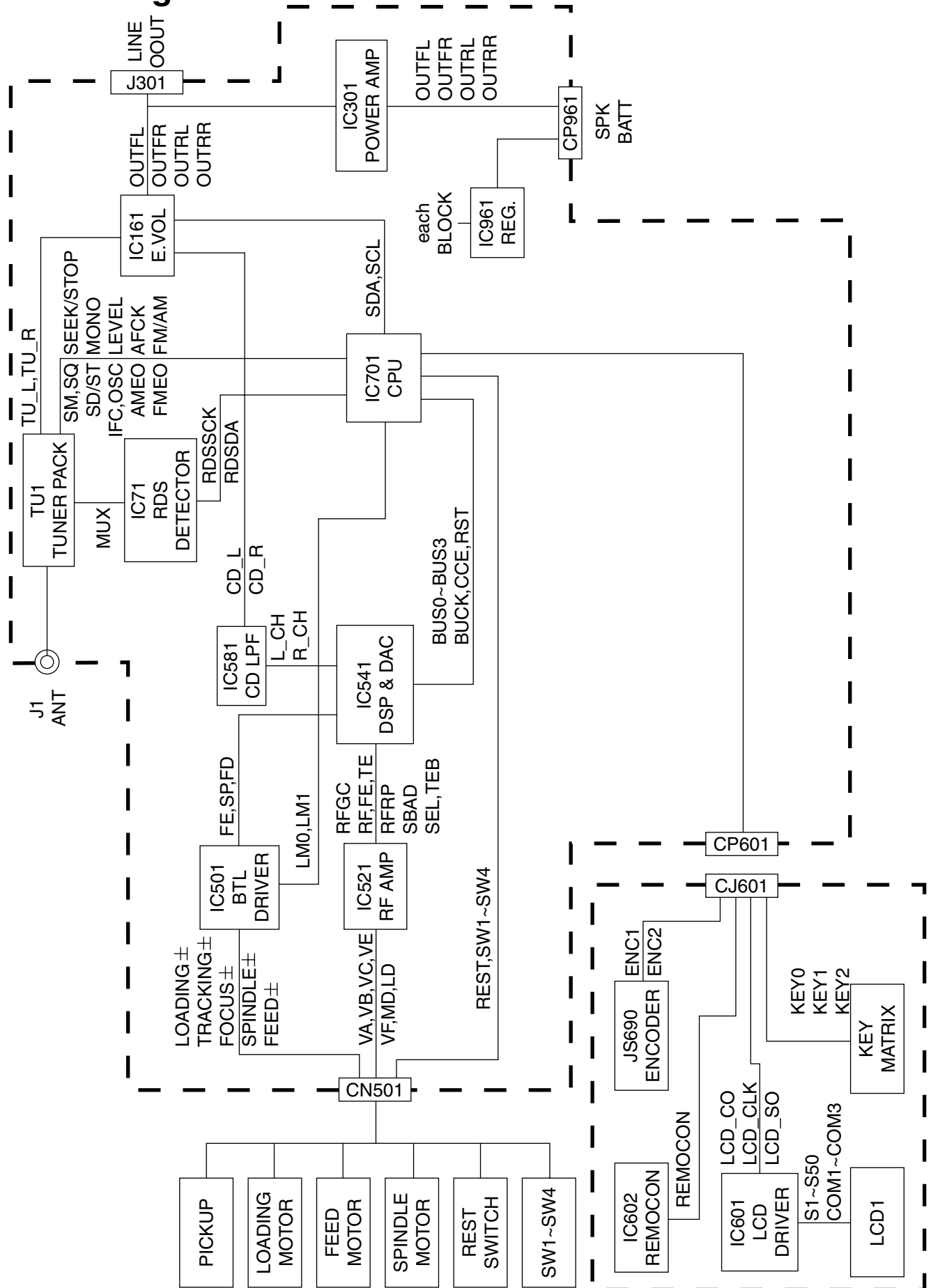
3. Pin function

Pin No.	Symbol	I/O	Pin function	Pin No.	Symbol	I/O	Pin function
1	Vcc	-	Power supply input terminal	13	SBAD	O	Sub beam adder signal output terminal
2	FNI	I	Main beam I-V amp input terminal	14	FEO	O	Focus error signal output terminal
3	FPI	I	Main beam I-V amp input terminal	15	FEN	I	FE amp negative input terminal
4	TPI	I	Sub beam I-v input terminal	16	VRO	O	Reference voltage (VREF) output terminal
5	TNI	I	Sub beam I-V input terminal	17	RFRP	O	Track count signal output terminal
6	MDI	I	Monitor photo diode amp input terminal	18	RFIS	I	RFRP detect circuit input terminal
7	LDO	O	Laser diode amp output terminal	19	RFGO	O	RF gain signal output terminal
8	SEL	I	Laser diode control signal input terminal	20	RFGC	I	RF amplitude adj. control signal input terminal
9	TEB	I	T. error balance adj. signal input terminal	21	AGCI	I	RF signal amplitude adj. amp input terminal
10	2VRO	O	Reference voltage output terminal	22	RFO	O	RF signal output terminal
11	TEN	I	TE amp negative input terminal	23	GND	-	Ground terminal
12	TEO	O	TE error signal output terminal	24	RFN	I	RF amp negative input terminal



VICTOR COMPANY OF JAPAN, LIMITED
MOBILE ELECTRONICS DIVISION
PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1Chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

Block diagram

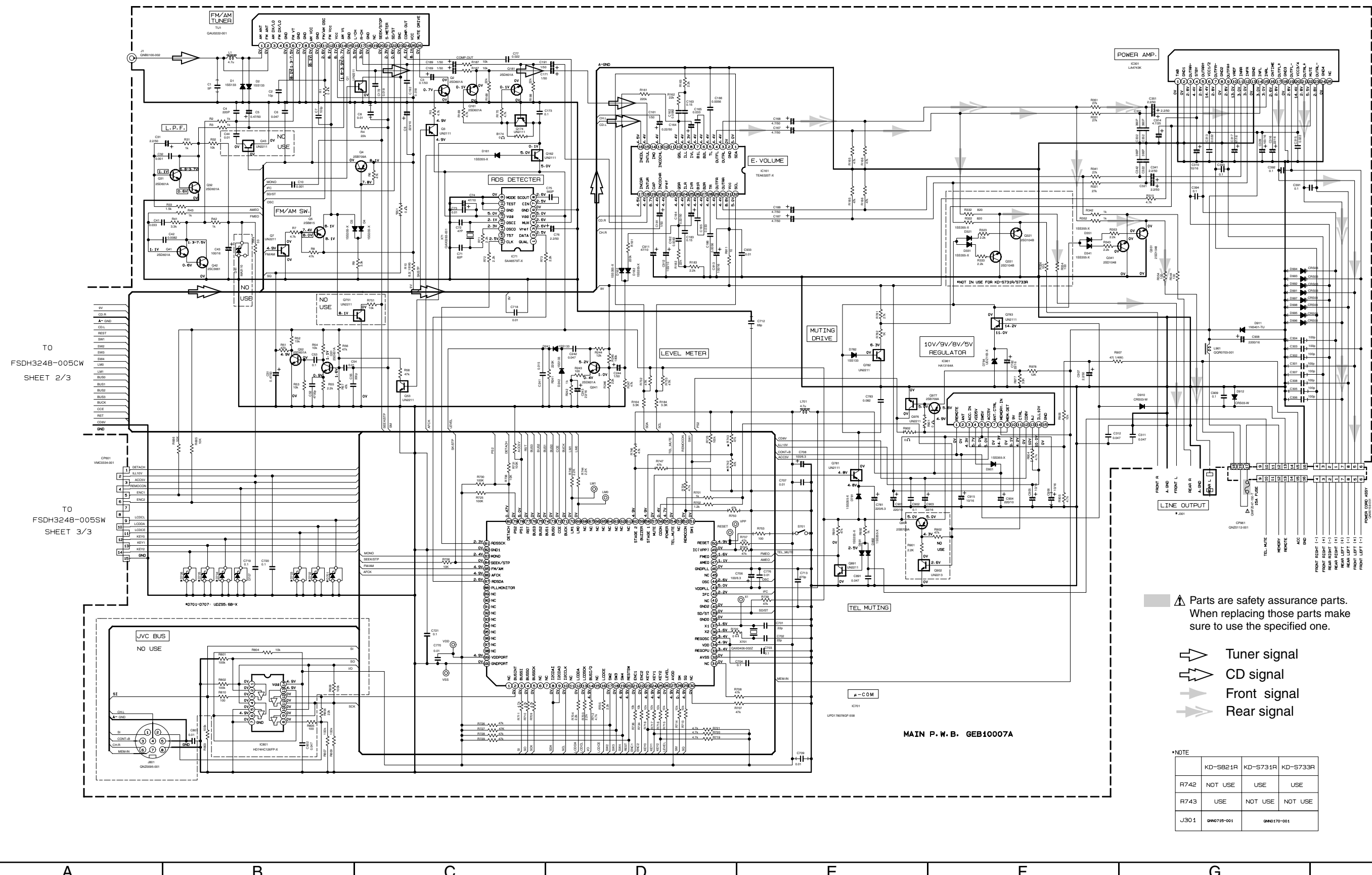
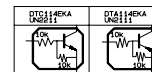


< M E M O >

Standard schematic diagrams

Receiver & System control section

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL CONDITION—FM MODE. () CD MODE.
 2. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/10W 45% 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) TF --- T. F. CAPACITOR
 3. COMPONENTS IN () INDICATE NOT USE.



TO
FSDH324B-005CW
SHEET 2/3

TO
FSDH324B-005SW
SHEET 3/3

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

- ▶ Tuner signal
- ▶ CD signal
- ▶ Front signal
- ▶ Rear signal

*NOTE

	KD-S821R	KD-S731R	KD-S733R
R742	NOT USE	USE	USE
R743	USE	NOT USE	NOT USE
J301	Q9N0719-001	Q9N0719-001	

5
4
3
2
1

A B C D E F G 2-3

CD servo section

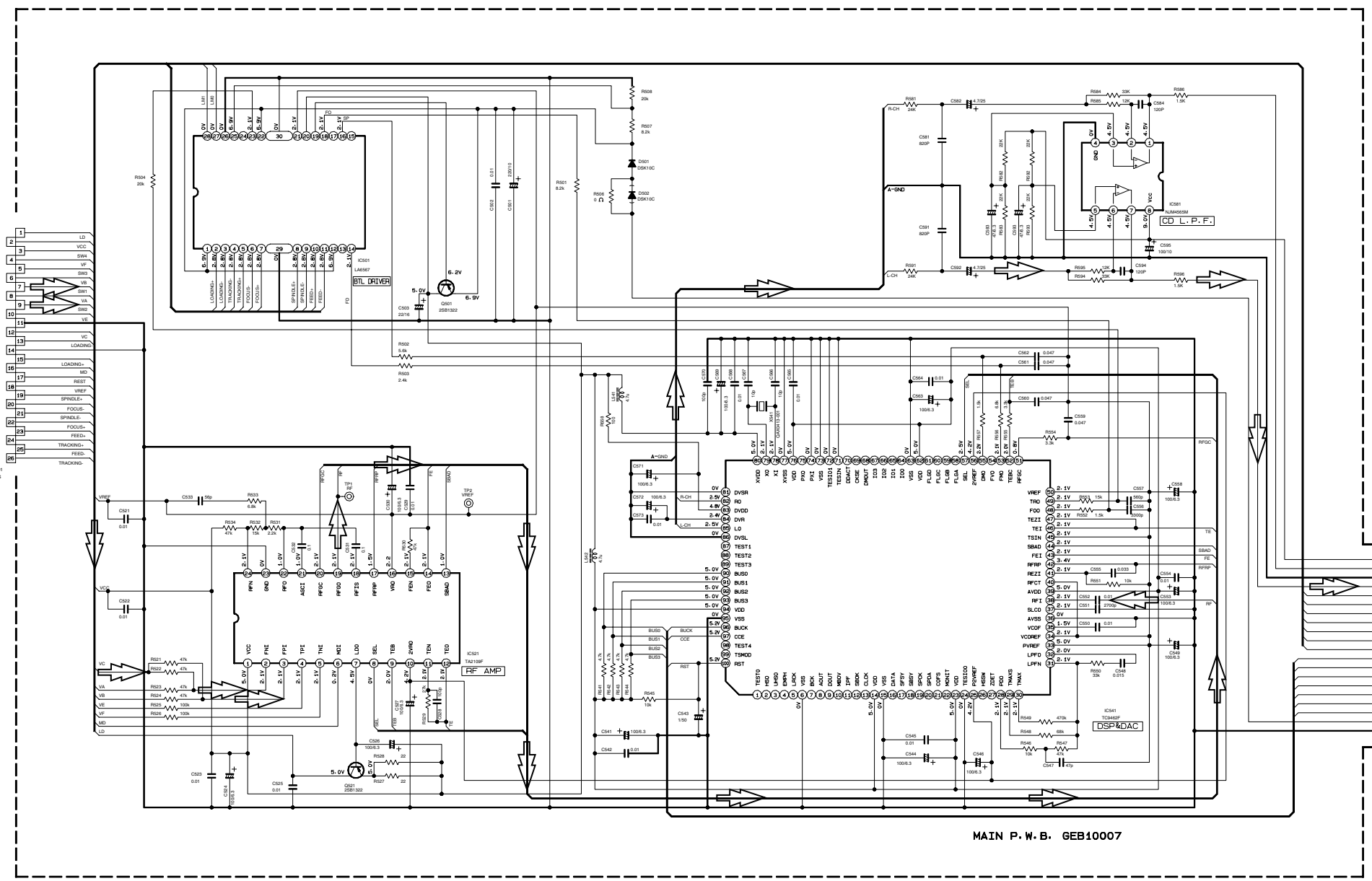
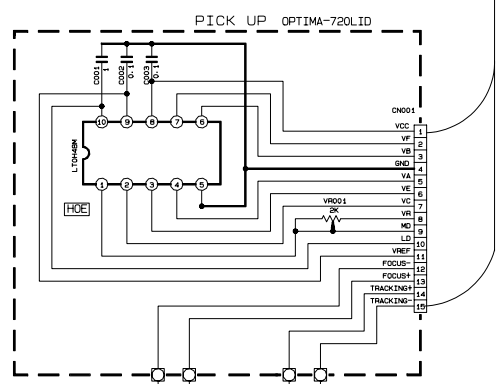
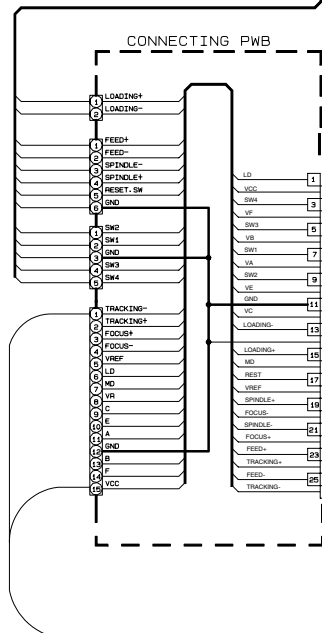
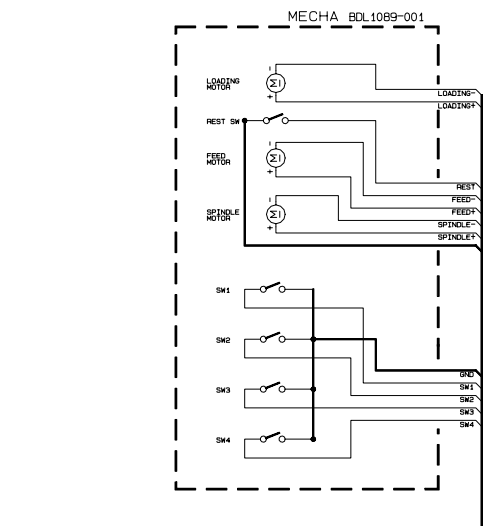
5

4

3

2

1



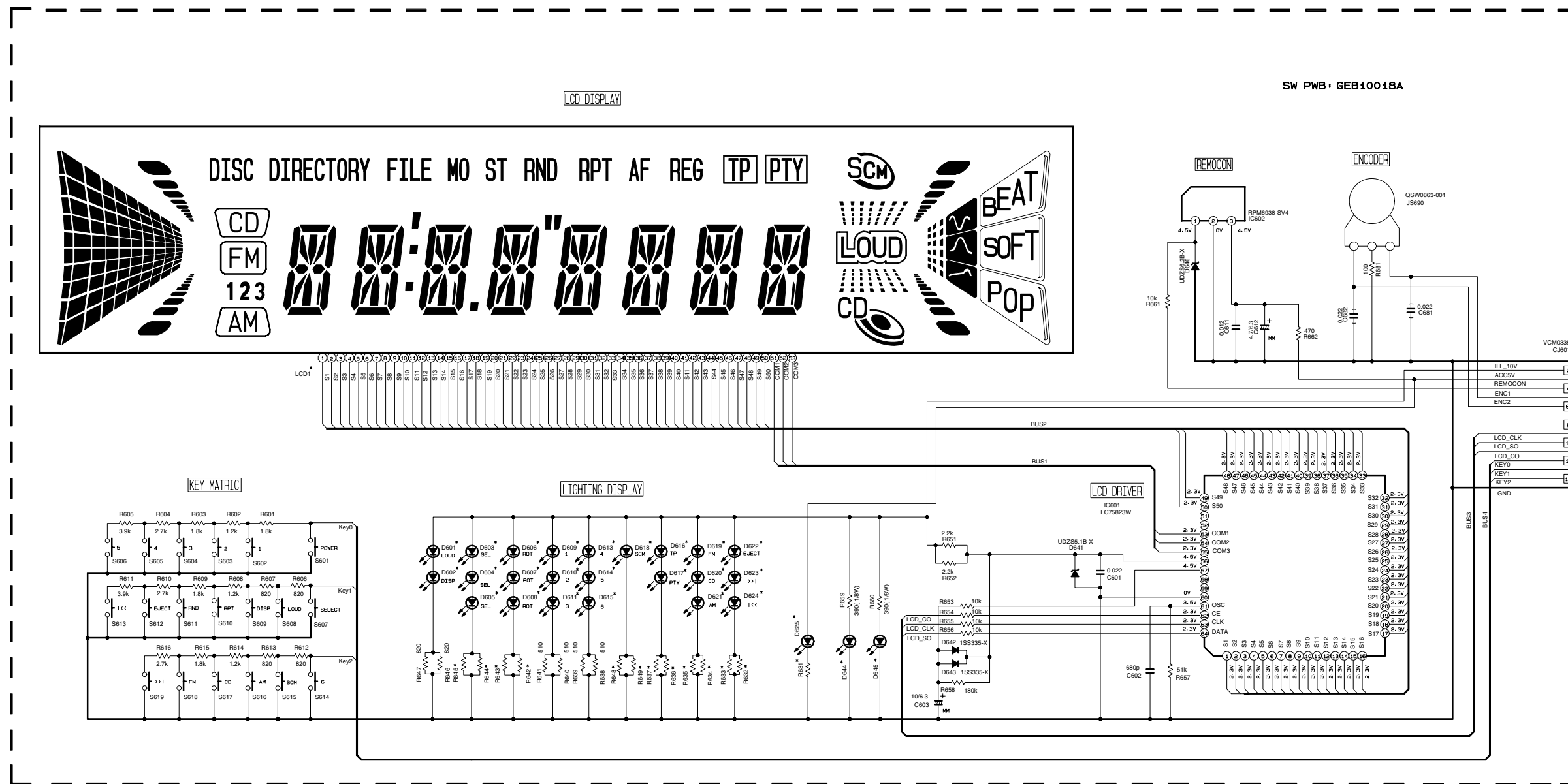
NOTES

1. UNLESS OTHERWISE SPECIFIED,
ALL RESISTORS ARE 1/10W OR 1/4W ±5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM.
ALL CAPACITANCE VALUES ARE IN μF (p=pF)
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE(V)
TF --- T. F. CAPACITOR
N --- N. F. CAPACITOR

⚡ CD signal

TO HDH3248-0050W
SHEET 1/3

■ LCD & key control



*REMARKS

MODEL	KD-S821R Series	KD-S731R Series	KD-S733R Series
LCD1	QLD0216-001	QLD0194-001	QLD0194-001
D644 D645	WHITE NSPW310BS/BRS/	WHITE NSPW310BS/BRS/	WHITE NSPW310BS/BRS/
D601-D611 D613-D624	SML-310VT/JK/-X	LNJ308GB1/1-3/X	SML-310VT/JK/-X
D618	LNJ308GB1/1-3/X	SML-310VT/JK/-X	LNJ308GB1/1-3/X
R631	820	820	820
R632 R633	1.8k	1.2k	1.8k
R634 R635	1.8k	910	1.8k
R636 R637	1.8k	510	1.8k
R642 R643	820	470	820
R644 R645	1.8k	820	1.8k
R648	910	680	910
R649	910	820	910

- 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.
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ALL CAPACITANCE VALUES ARE IN UF(P=pF)
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(UF)/RATED VOLTAGE(V)
MM — TANTAL CAPACITOR.
 3. COMPONENTS IN () INDICATE NOT USE.

5

4

3

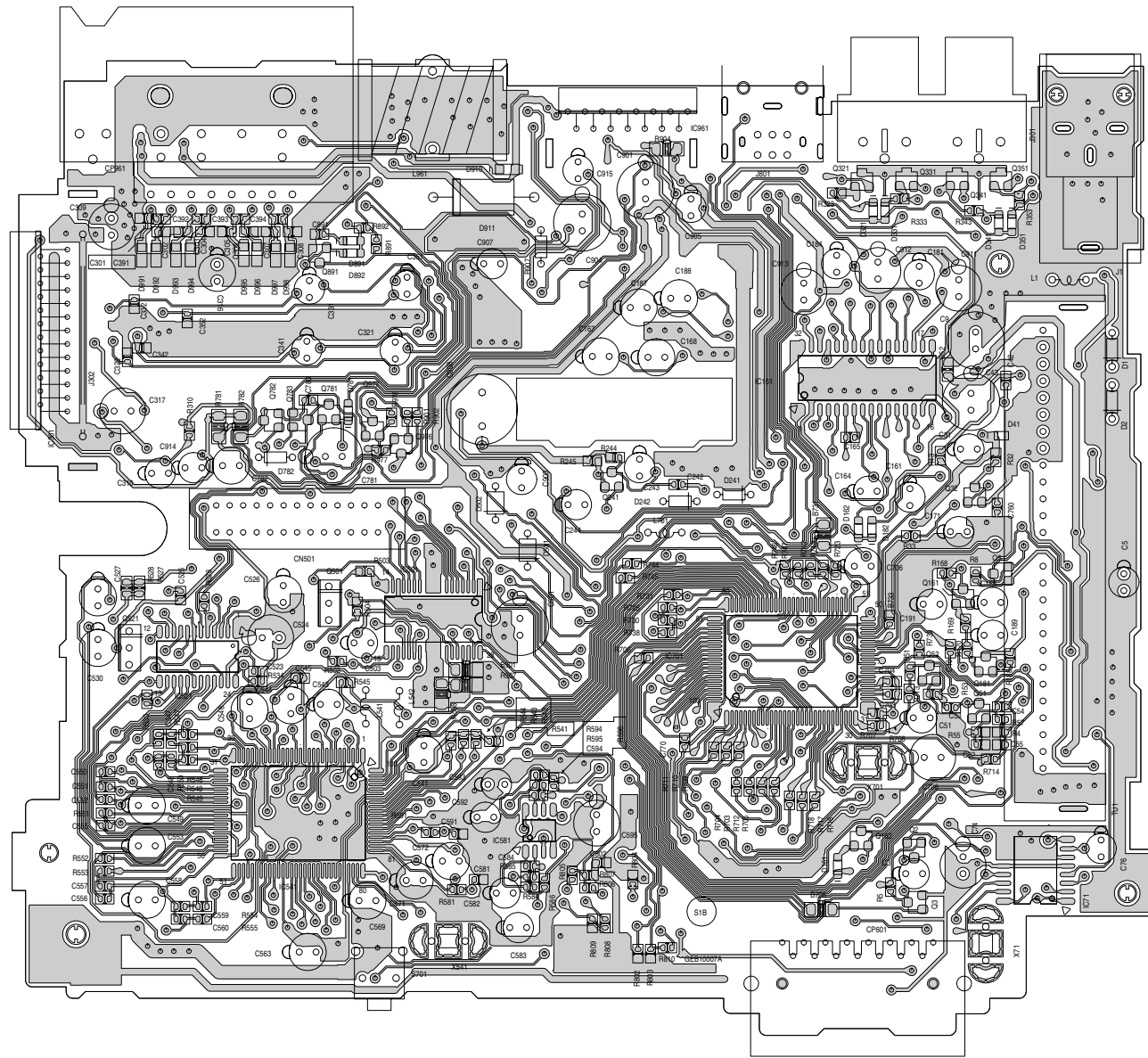
2

1

Printed circuit boards

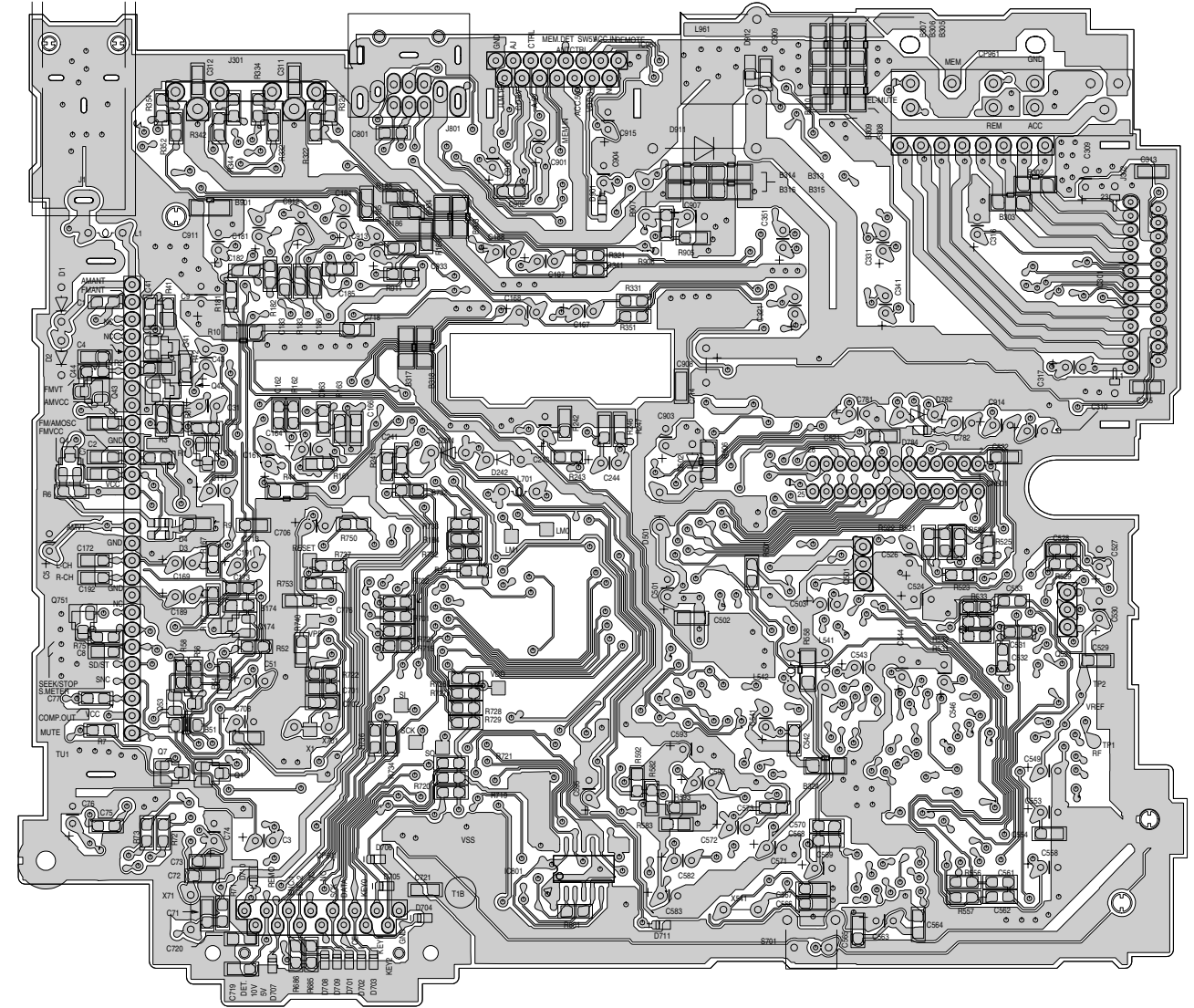
■ Main board

(Forward side)



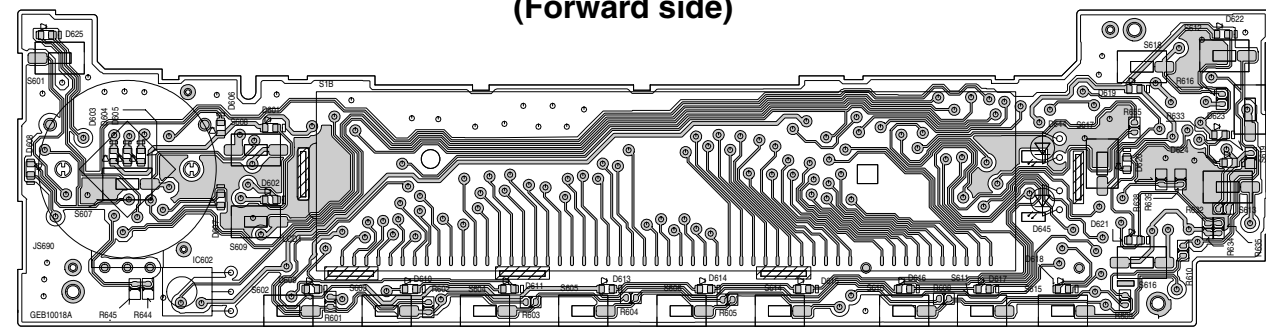
■ Main board

(Reverse side)



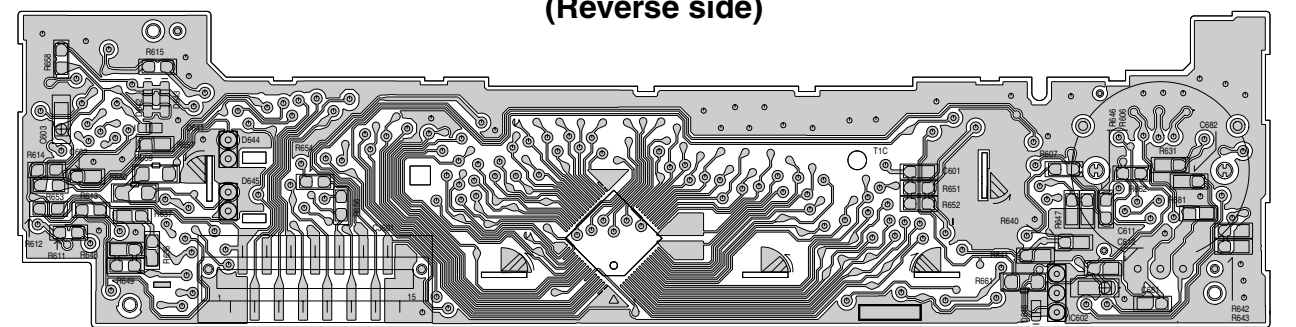
■ Front board

(Forward side)



■ Front board

(Reverse side)



5

4

3

2

1

A

B

C

2-6

D

E

F

G

H

PARTS LIST

[KD-S733R]

[KD-S731R]

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

Area suffix

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

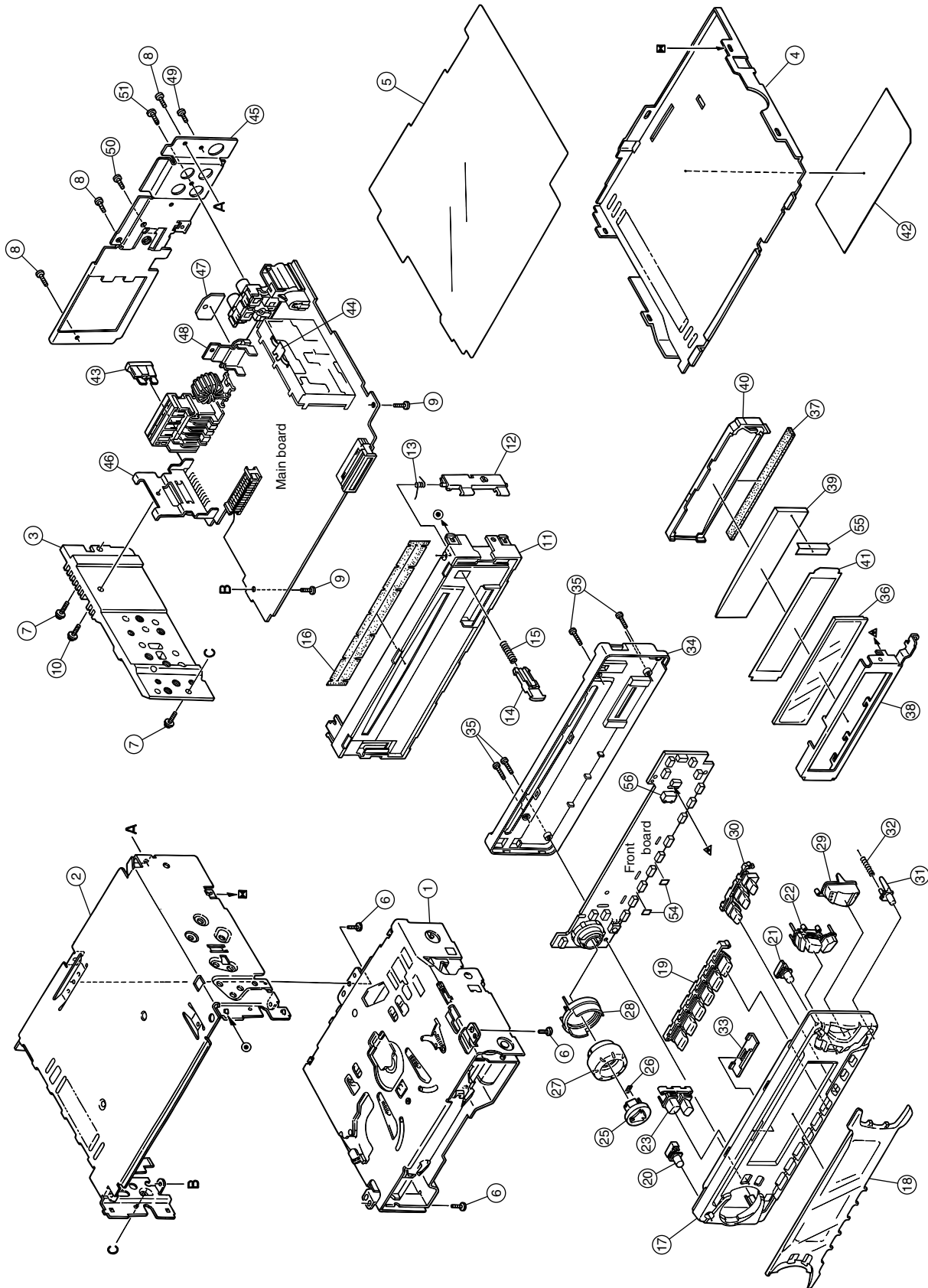
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Exploded view of general assembly and parts list

Block No.

M	1	M	M
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■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	-----	CD MECHA	1		
	2	FSJC1029-404	TOP CHASSIS	1		
	3	FSMH3001-202	SIDE PANEL	1		
	4	FSKM3011-002	BOTTOM COVER	1		
	5	FSMA3004-203	INSULATOR	1		
	6	QYSDST2604Z	SCREW	3	CHASSIS+MECHA BKT	
	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 B	
	11	FSJC2013-013	FRONT CHASSIS	1		
	12	FSKS3010-001	LOCK LEVER	1		
	13	FSKW4005-003	TORSION SPRING	1	FOR LOCK LEVEL	
	14	FSXP3026-002	RLS KNOB	1		
	15	FSKW3002-015	COMP.SPRING	1		
	16	FSPK3009-002	BLIND	1		
	17	GE10003-001A	FRONT PANEL	1		
	18	GE30111-017A	FINDER ASSY	1	KD-S733R	
		GE30111-018A	FINDER LENS	1	KD-S731R	
	19	GE20104-002A	PRESET BUTTON	1		
	20	GE30105-002B	POWER BUTTON	1		
	21	GE30109-002A	EJECT BUTTON	1		
	22	GE20110-004C	D.FUNCT BUTTON	1	FM/CD/AM	
	23	GE30112-001A	PUSH BUTTON	1		
	25	GE30366-001A	SEL BUTTON	1		
	26	FSYH4036-032	SHEET	1	FOR SEL BUTTON	
	27	GE30546-001A	KNOB	1		
	28	GE30104-001A	RIM LENS	1		
	29	GE20109-001C	UP DOWN BUTTON	1		
	30	GE30106-003A	SND FUNC BUTTON	1		
	31	FSXP3055-001	DETACH BUTTON	1		
	32	FSKW3002-012	COMP. SPRING	1	FOR DETACH BUTTON	
	33	GE30117-001A	LIGHT LENS	1		
	34	GE10004-001B	REAR COVER	1		
	35	VKZ4777-001	MINI SCREW	4	FRONT+REAR	
	36	QLD0194-001	LCD MODULE	1		
	37	QNZ0442-001	RUBBER CONNE	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	GE30325-002A	NAME PLATE	1	KD-S733R	
		GE30324-002A	NAME PLATE	1	KD-S731R	
△	43	QMFZ047-150-T	FUSE	1		
	44	VMA4652-001SS	EARTH PLATE	1		
	45	FSKM3012-015	REAR BRACKET	1		
	46	FSKL4024-001	POWER IC BKT	1		
	47	GE40104-002B	HEAT SINK	1		

■ Parts list (General assembly)

Block No. M1MM

▲	Item	Parts number	Parts name	Q'ty	Description	Area
	48	GE40103-001A	REGULATOR BKT	1		
	49	QYSDST2606Z	SCREW	1	FOR ANT	
	50	QYSDST2606Z	SCREW	1	16P & TR BRACK	
	51	QYSDSF3006Z	SCREW	1	LINE OUT	
	54	FSYH4036-069	SHEET	2		
	55	FSYH4071-001	LIGHTING SHEET	1		
	56	FSKS3016-002	LED HOLDER	1		

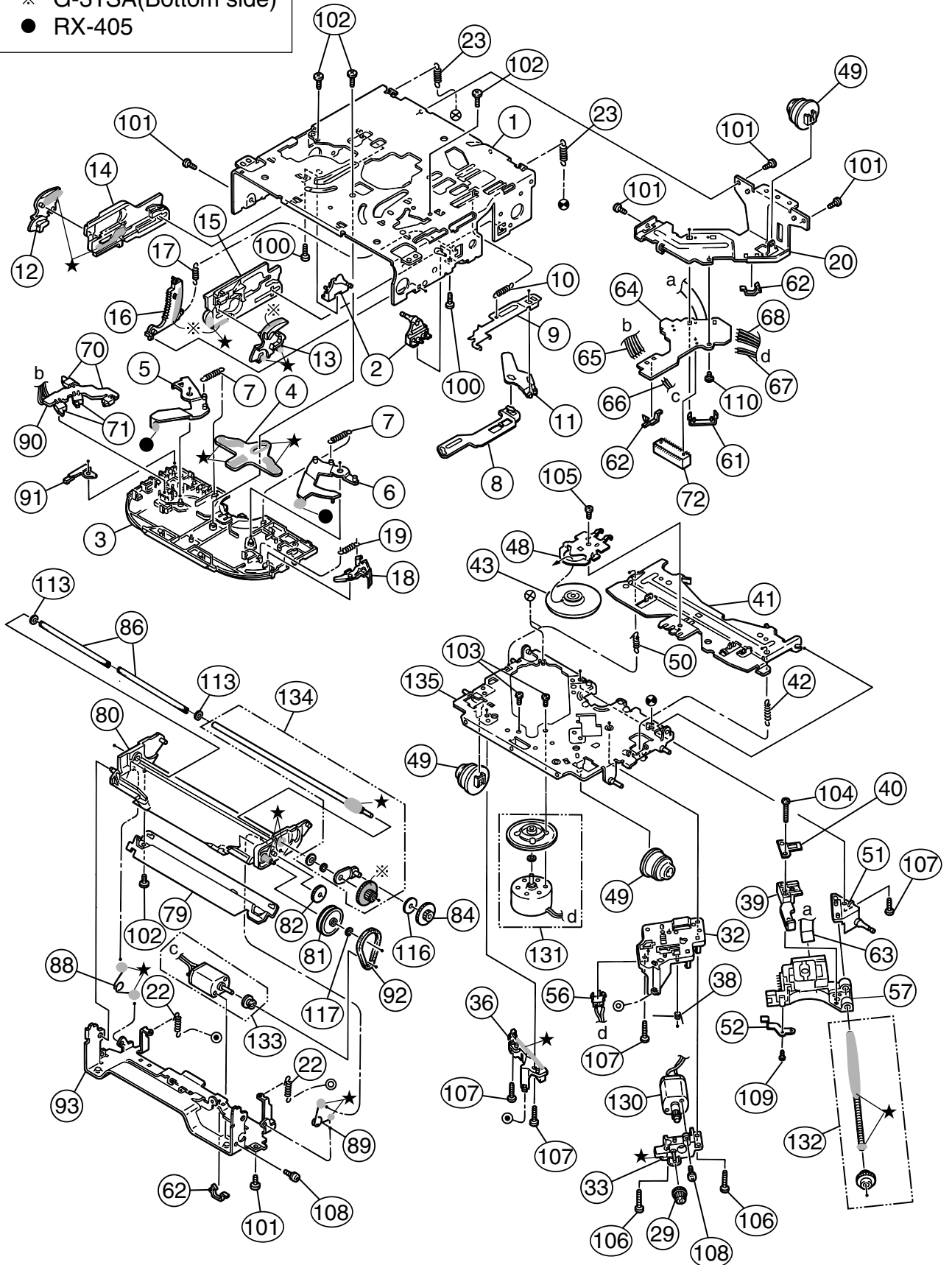
CD mechanism assembly and parts list

Grease

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

TN-CCD1001Z-136J

Block No. M B M M



■ Parts list (CD mechanism)

Block No. MBMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	30310101T	FRAME	1		
	2	30310103T	DAMPER 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	30310548T	PU M NUT(Z)	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		
	52	30310556T	PU G.SP PLT(Z)	1		
	56	64180405T	DET SW	1	ESE11SF4	
	57	OPTIMA-720L1	C.D PICK (CAR)	1		
	61	30311035T	FPC HOLDER(Z)	1		
	62	19501403T	WIRE CLAMPER	3		
	63	30311037T	PICK UP FPC(Z)	1		
	64	30311036T	CONNECT.PCB(Z-J)	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	

Parts list (CD mechanism)

Block No. MBMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	71	64180403T	DET SWITCH	2	ESE22MH3	
	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	
	109	9C0314203T	C TAP SCREW	1	M1.4X2	
	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	NDC31HJ-5R0X	C CAPACITOR		
	C 2	NDC31HJ-100X	C CAPACITOR		
	C 3	QERF1HM-104Z	E CAPACITOR	.10MF 20% 50V	
	C 4	NCS31HJ-221X	C CAPACITOR		
	C 5	QERF1HM-474Z	E CAPACITOR	.47MF 20% 50V	
	C 6	NCB31EK-473X	C CAPACITOR		
	C 7	NDC31HJ-101X	C CAPACITOR		
	C 9	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 10	NCB31HK-102X	C CAPACITOR		
	C 31	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 32	NCB31HK-102X	C CAPACITOR		
	C 41	NCB31EK-333X	C CAPACITOR		
	C 42	NCB31HK-822X	C CAPACITOR		
	C 43	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 51	QERF1HM-474Z	E CAPACITOR	.47MF 20% 50V	
	C 52	NCB31HK-472X	C CAPACITOR		
	C 53	NCB31EK-104X	C CAPACITOR		
	C 54	NCB31EK-103X	C CAPACITOR		
	C 55	NCB31HK-331X	C CAPACITOR		
	C 71	NDC31HJ-820X	C CAPACITOR		
	C 72	NDC31HJ-470X	C CAPACITOR		
	C 73	NCB31HK-103X	C CAPACITOR		
	C 74	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 75	NDC31HJ-561X	C CAPACITOR		
	C 76	QEKJ1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 77	NCB31EK-223X	C CAPACITOR		
	C 161	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 162	NCB31HK-822X	C CAPACITOR		
	C 163	NCB31AK-154X	C CAPACITOR		
	C 164	QEKJ1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 165	NCB31EK-333X	C CAPACITOR		
	C 166	NCB31HK-562X	C CAPACITOR		
	C 167	QEKJ1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 168	QEKJ1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 169	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 171	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 172	NCB31HK-183X	C CAPACITOR		
	C 173	NCB31EK-104X	C CAPACITOR		
	C 181	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 182	NCB31HK-822X	C CAPACITOR		
	C 183	NCB31AK-154X	C CAPACITOR		
	C 184	QEKJ1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 185	NCB31EK-333X	C CAPACITOR		
	C 186	NCB31HK-562X	C CAPACITOR		
	C 187	QERF1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 188	QERF1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 189	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 191	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 192	NCB31HK-183X	C CAPACITOR		
	C 241	NCB21HK-153X	C CAPACITOR		
	C 242	NCB31EK-473X	C CAPACITOR		
	C 243	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 244	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 309	QEKJ1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 310	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 311	NCB31EK-473X	C CAPACITOR		
	C 312	NCB31EK-473X	C CAPACITOR		
	C 313	NCB31HK-223X	C CAPACITOR		
	C 315	NCB31HK-223X	C CAPACITOR		
	C 316	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 317	QERF1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 321	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 322	NCS31HJ-391X	C CAPACITOR		

△	Item	Parts number	Parts name	Remarks	Area
	C 331	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 332	NCS31HJ-391X	C CAPACITOR		
	C 341	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 342	NCS31HJ-391X	C CAPACITOR		
	C 351	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 352	NCS31HJ-391X	C CAPACITOR		
	C 391	NCB31EK-104X	C CAPACITOR		
	C 392	NCB31EK-104X	C CAPACITOR		
	C 393	NCB31EK-104X	C CAPACITOR		
	C 394	NCB31EK-104X	C CAPACITOR		
	C 501	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 502	NCB31HK-103X	C CAPACITOR		
	C 503	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 521	NCB31HK-103X	C CAPACITOR		
	C 522	NCB31HK-103X	C CAPACITOR		
	C 523	NCB31EK-103X	C CAPACITOR		
	C 524	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 525	NCB31HK-103X	C CAPACITOR		
	C 526	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 527	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 528	NDC31HJ-101X	C CAPACITOR		
	C 529	NCB31HK-103X	C CAPACITOR		
	C 530	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 531	NCB31EK-104X	C CAPACITOR		
	C 532	NCB31EK-104X	C CAPACITOR		
	C 533	NDC21HJ-560X	C CAPACITOR		
	C 541	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 542	NCB31HK-103X	C CAPACITOR		
	C 543	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 544	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 545	NCB31HK-103X	C CAPACITOR		
	C 546	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 547	NDC31HJ-470X	C CAPACITOR		
	C 548	NCB31HK-153X	C CAPACITOR		
	C 549	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 550	NCB31HK-103X	C CAPACITOR		
	C 551	NCB31HK-272X	C CAPACITOR		
	C 552	NCB31HK-103X	C CAPACITOR		
	C 553	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 554	NCB31HK-103X	C CAPACITOR		
	C 555	NCB31EK-333X	C CAPACITOR		
	C 556	NCB31HK-332X	C CAPACITOR		
	C 557	NDC31HJ-561X	C CAPACITOR		
	C 558	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 559	NCB31EK-473X	C CAPACITOR		
	C 560	NCB31EK-473X	C CAPACITOR		
	C 561	NCB31EK-473X	C CAPACITOR		
	C 562	NCB31EK-473X	C CAPACITOR		
	C 563	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 564	NCB31HK-103X	C CAPACITOR		
	C 565	NCB31HK-103X	C CAPACITOR		
	C 566	NDC31HJ-100X	C CAPACITOR		
	C 567	NDC31HJ-100X	C CAPACITOR		
	C 568	NCB31HK-103X	C CAPACITOR		
	C 569	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 570	NDC31HJ-101X	C CAPACITOR		
	C 571	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 572	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 573	NCB31HK-103X	C CAPACITOR		
	C 581	NCS31HJ-821X	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-121X	C CAPACITOR		

■ Electrical parts list (Main board)

Block No. 01

Item	Parts number	Parts name	Remarks	Area
C 591	NCS31HJ-821X	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-121X	C CAPACITOR		
C 595	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
C 701	NDC31HJ-220X	C CAPACITOR		
C 702	NDC31HJ-220X	C CAPACITOR		
C 703	NCB31EK-104X	C CAPACITOR		
C 704	NCB31EK-104X	C CAPACITOR		
C 706	QEKJ0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
C 707	NCB31HK-103X	C CAPACITOR		
C 708	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
C 713	NCB31HK-471X	C CAPACITOR		
C 718	NCB31HK-103X	C CAPACITOR		
C 719	NCB31EK-104X	C CAPACITOR		
C 720	NCB31EK-104X	C CAPACITOR		
C 721	NCB31EK-104X	C CAPACITOR		
C 770	NCB31HK-103X	C CAPACITOR		
C 776	NCB31HK-103X	C CAPACITOR		
C 781	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
C 782	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
C 783	NCB31EK-823X	C CAPACITOR		
C 891	NCB31EK-473X	C CAPACITOR		
C 901	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
C 902	NCB31EK-104X	C CAPACITOR		
C 903	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
C 904	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
C 905	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
C 907	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
C 908	QEZO338-228	E CAPACITOR	2200MF	
C 909	NCB31EK-104X	C CAPACITOR		
C 911	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
C 912	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
C 913	QEKJ1CM-107Z	E CAPACITOR	100MF 20% 16V	
C 914	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
C 915	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
C 933	NCB31EK-103X	C CAPACITOR		
CN501	QGB2027M1-26S	CONNECTOR		
CP601	VMC0334-001	CONNECTOR	F.PANEL CONN.	
CP961	QNZ0112-001	CAR CONNECTOR		
D 1	1SS133-T1	SI DIODE		
D 2	1SS133-T1	SI DIODE		
D 3	1SS355-X	DIODE		
D 4	1SS355-X	DIODE		
D 161	1SS355-X	DIODE		
D 162	1SS355-X	DIODE		
D 182	1SS355-X	DIODE		
D 241	1SS133-T1	SI DIODE		
D 242	1SS133-T1	SI DIODE		
D 321	1SS355-X	DIODE		
D 331	1SS355-X	DIODE		
D 341	1SS355-X	DIODE		
D 351	1SS355-X	DIODE		
D 501	DSK10C-T1	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 781	1SS355-X	DIODE		
D 782	1SS133-T1	SI DIODE		

Item	Parts number	Parts name	Remarks	Area
D 784	UDZ11B-X	Z DIODE		
D 891	1SS355-X	DIODE		
D 892	1SS355-X	DIODE		
D 901	1SS355-X	DIODE		
D 910	CRS03-W	SB DIODE		
D 911	1N5401-TU-15	DIODE		
D 912	CRS03-W	SB DIODE		
IC 71	SAA6579T-X	IC		
IC161	TEA6320T-X	IC		
IC301	LA4743K	IC		
IC501	LA6567H-X	IC		
IC521	TA2109F-X	IC		
IC541	TC9462F	IC		
IC581	NJM4565M-WE	IC		
IC701	UPD178078GF-558	IC		
IC961	HA13164A	IC		
J 1	QNB0100-002	ANT TERMINAL		
J 301	QNN0170-001	PIN JACK (REEL)		
J 302	QUY360-300F	FORMED BUS WIRE		
L 1	QQL244J-4R7Z	INDUCTOR		
L 541	QQL244J-4R7Z	INDUCTOR		
L 542	QQL244J-4R7Z	INDUCTOR		
L 701	QQL244J-4R7Z	INDUCTOR		
L 961	QQR0703-001	CHOKE COIL		
Q 1	UN2211-X	TRANSISTOR		
Q 2	2SD601A/R/-X	TRANSISTOR		
Q 3	UN2111-X	TRANSISTOR		
Q 4	2SB709A/R/-X	TRANSISTOR		
Q 5	2SB815/7/-X	TRANSISTOR		
Q 7	UN2211-X	TRANSISTOR		
Q 31	2SD601A/R/-X	TRANSISTOR		
Q 32	2SD601A/R/-X	TRANSISTOR		
Q 41	2SD601A/R/-X	TRANSISTOR		
Q 42	2SC3661-X	TRANSISTOR		
Q 43	UN2211-X	TRANSISTOR		
Q 51	2SD601A/R/-X	TRANSISTOR		
Q 52	2SD601A/R/-X	TRANSISTOR		
Q 53	UN2211-X	TRANSISTOR		
Q 161	2SD601A/R/-X	TRANSISTOR		
Q 162	UN2111-X	TRANSISTOR		
Q 174	UN2111-X	TRANSISTOR		
Q 181	2SD601A/R/-X	TRANSISTOR		
Q 241	2SD601A/R/-X	TRANSISTOR		
Q 321	2SD1048/6-7/-X	TRANSISTOR		
Q 331	2SD1048/6-7/-X	TRANSISTOR		
Q 341	2SD1048/6-7/-X	TRANSISTOR		
Q 351	2SD1048/6-7/-X	TRANSISTOR		
Q 501	2SB1322/RS/-T	TRANSISTOR		
Q 521	2SB1322/RS/-T	TRANSISTOR		
Q 781	UN2111-X	TRANSISTOR		
Q 782	UN2211-X	TRANSISTOR		
Q 783	UN2111-X	TRANSISTOR		
Q 891	UN2211-X	TRANSISTOR		
Q 976	UN2211-X	TRANSISTOR		
Q 977	2SB709A/R/-X	TRANSISTOR		
R 1	NRSA63J-8R2X	MG RESISTOR		
R 2	NRSA63J-102X	MG RESISTOR		
R 3	NRSA63J-102X	MG RESISTOR		
R 4	NRSA63J-223X	MG RESISTOR		
R 5	NRSA63J-472X	MG RESISTOR		
R 6	NRSA63J-473X	MG RESISTOR		
R 7	NRSA63J-472X	MG RESISTOR		
R 8	NRSA63J-473X	MG RESISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 9	NRSA63J-332X	MG RESISTOR		
	R 10	NRS181J-8R2X	MG RESISTOR		
	R 31	NRSA63J-102X	MG RESISTOR		
	R 32	NRSA63J-103X	MG RESISTOR		
	R 33	NRSA63J-152X	MG RESISTOR		
	R 41	NRSA63J-332X	MG RESISTOR		
	R 42	NRSA63J-102X	MG RESISTOR		
	R 43	NRSA63J-102X	MG RESISTOR		
	R 44	NRS181J-330X	MG RESISTOR		
	R 51	NRSA63J-471X	MG RESISTOR		
	R 52	NRSA63J-153X	MG RESISTOR		
	R 53	NRSA63J-103X	MG RESISTOR		
	R 54	NRSA63J-103X	MG RESISTOR		
	R 55	NRSA63J-222X	MG RESISTOR		
	R 56	NRSA63J-473X	MG RESISTOR		
	R 57	NRSA63J-473X	MG RESISTOR		
	R 58	NRSA63J-473X	MG RESISTOR		
	R 71	NRSA63J-222X	MG RESISTOR		
	R 72	NRSA63J-222X	MG RESISTOR		
	R 73	NRSA63J-222X	MG RESISTOR		
	R 161	NRSA63J-224X	MG RESISTOR		
	R 162	NRSA63J-223X	MG RESISTOR		
	R 163	NRSA63J-222X	MG RESISTOR		
	R 164	NRSA63J-332X	MG RESISTOR		
	R 165	NRSA63J-473X	MG RESISTOR		
	R 166	NRSA63J-473X	MG RESISTOR		
	R 167	NRSA63J-103X	MG RESISTOR		
	R 168	NRSA63J-223X	MG RESISTOR		
	R 169	NRSA63J-472X	MG RESISTOR		
	R 170	NRSA63J-472X	MG RESISTOR		
	R 181	NRSA63J-224X	MG RESISTOR		
	R 182	NRSA63J-223X	MG RESISTOR		
	R 183	NRSA63J-222X	MG RESISTOR		
	R 184	NRSA63J-332X	MG RESISTOR		
	R 185	NRSA63J-473X	MG RESISTOR		
	R 186	NRSA63J-473X	MG RESISTOR		
	R 187	NRSA63J-103X	MG RESISTOR		
	R 188	NRSA63J-223X	MG RESISTOR		
	R 241	NRSA63J-224X	MG RESISTOR		
	R 242	NRSA63J-102X	MG RESISTOR		
	R 243	NRSA63J-101X	MG RESISTOR		
	R 244	NRSA63J-123X	MG RESISTOR		
	R 245	NRSA63J-184X	MG RESISTOR		
	R 246	NRSA63J-223X	MG RESISTOR		
	R 247	NRSA63J-473X	MG RESISTOR		
	R 310	NRSA63J-472X	MG RESISTOR		
	R 321	NRSA63J-273X	MG RESISTOR		
	R 322	NRSA63J-821X	MG RESISTOR		
	R 323	NRSA63J-222X	MG RESISTOR		
	R 324	NRSA63J-101X	MG RESISTOR		
	R 331	NRSA63J-273X	MG RESISTOR		
	R 332	NRSA63J-821X	MG RESISTOR		
	R 333	NRSA63J-222X	MG RESISTOR		
	R 334	NRSA63J-101X	MG RESISTOR		
	R 341	NRSA63J-273X	MG RESISTOR		
	R 342	NRSA63J-102X	MG RESISTOR		
	R 343	NRSA63J-222X	MG RESISTOR		
	R 344	NRSA63J-101X	MG RESISTOR		
	R 351	NRSA63J-273X	MG RESISTOR		
	R 352	NRSA63J-102X	MG RESISTOR		
	R 353	NRSA63J-222X	MG RESISTOR		
	R 354	NRSA63J-101X	MG RESISTOR		
	R 501	NRSA63J-822X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 502	NRSA63J-562X	MG RESISTOR		
	R 503	NRSA63J-242X	MG RESISTOR		
	R 504	NRSA63J-203X	MG RESISTOR		
	R 506	NRS181J-0R0X	MG RESISTOR		
	R 507	NRS181J-822X	MG RESISTOR		
	R 508	NRS181J-203X	MG RESISTOR		
	R 521	NRSA63J-473X	MG RESISTOR		
	R 522	NRSA63J-473X	MG RESISTOR		
	R 523	NRSA63J-473X	MG RESISTOR		
	R 524	NRSA63J-473X	MG RESISTOR		
	R 525	NRSA63J-104X	MG RESISTOR		
	R 526	NRSA63J-104X	MG RESISTOR		
	R 527	NRSA02J-220X	MG RESISTOR		
	R 528	NRSA02J-220X	MG RESISTOR		
	R 529	NRSA63J-273X	MG RESISTOR		
	R 530	NRSA63J-473X	MG RESISTOR		
	R 531	NRSA63J-222X	MG RESISTOR		
	R 532	NRSA63J-153X	MG RESISTOR		
	R 533	NRSA63J-682X	MG RESISTOR		
	R 534	NRSA63J-473X	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-103X	MG RESISTOR		
	R 547	NRSA63J-473X	MG RESISTOR		
	R 548	NRSA63J-683X	MG RESISTOR		
	R 549	NRSA63J-474X	MG RESISTOR		
	R 550	NRSA63J-333X	MG RESISTOR		
	R 551	NRSA63J-103X	MG RESISTOR		
	R 552	NRSA63J-152X	MG RESISTOR		
	R 553	NRSA63J-153X	MG RESISTOR		
	R 554	NRSA63J-332X	MG RESISTOR		
	R 555	NRSA63J-332X	MG RESISTOR		
	R 556	NRSA63J-682X	MG RESISTOR		
	R 557	NRSA63J-152X	MG RESISTOR		
	R 558	NRS181J-101X	MG RESISTOR		
	R 581	NRSA63J-243X	MG RESISTOR		
	R 582	NRSA63J-223X	MG RESISTOR		
	R 583	NRSA63J-223X	MG RESISTOR		
	R 584	NRSA63J-333X	MG RESISTOR		
	R 585	NRSA63J-123X	MG RESISTOR		
	R 586	NRSA63J-152X	MG RESISTOR		
	R 591	NRSA63J-243X	MG RESISTOR		
	R 592	NRSA63J-223X	MG RESISTOR		
	R 593	NRSA63J-223X	MG RESISTOR		
	R 594	NRSA63J-333X	MG RESISTOR		
	R 595	NRSA63J-123X	MG RESISTOR		
	R 596	NRSA63J-152X	MG RESISTOR		
	R 685	NRSA63J-103X	MG RESISTOR		
	R 686	NRSA63J-103X	MG RESISTOR		
	R 701	NRSA63J-102X	MG RESISTOR		
	R 702	NRSA63J-122X	MG RESISTOR		
	R 703	NRSA63J-222X	MG RESISTOR		
	R 704	NRSA63J-222X	MG RESISTOR		
	R 705	NRSA63J-222X	MG RESISTOR		
	R 706	NRSA63J-103X	MG RESISTOR		
	R 707	NRSA63J-473X	MG RESISTOR		
	R 708	NRSA63J-473X	MG RESISTOR		
	R 709	NRSA63J-472X	MG RESISTOR		
	R 710	NRSA63J-472X	MG RESISTOR		
	R 711	NRSA63J-472X	MG RESISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 712	NRSA63J-472X	MG RESISTOR		
	R 713	NRSA63J-103X	MG RESISTOR		
	R 714	NRSA63J-103X	MG RESISTOR		
	R 715	NRSA63J-103X	MG RESISTOR		
	R 716	NRSA63J-103X	MG RESISTOR		
	R 717	NRSA63J-103X	MG RESISTOR		
	R 718	NRSA63J-103X	MG RESISTOR		
	R 719	NRSA63J-472X	MG RESISTOR		
	R 720	NRSA63J-472X	MG RESISTOR		
	R 721	NRSA63J-472X	MG RESISTOR		
	R 722	NRSA63J-0R0X	MG RESISTOR		
	R 723	NRSA63J-104X	MG RESISTOR		
	R 724	NRSA63J-472X	MG RESISTOR		
	R 725	NRSA63J-104X	MG RESISTOR		
	R 726	NRSA63J-473X	MG RESISTOR		
	R 727	NRSA63J-473X	MG RESISTOR		
	R 728	NRSA63J-473X	MG RESISTOR		
	R 729	NRSA63J-473X	MG RESISTOR		
	R 730	NRSA63J-104X	MG RESISTOR		
	R 731	NRSA63J-104X	MG RESISTOR		
	R 732	NRSA63J-473X	MG RESISTOR		
	R 733	NRSA63J-473X	MG RESISTOR		
	R 734	NRSA63J-103X	MG RESISTOR		
	R 736	NRSA63J-103X	MG RESISTOR		
	R 737	NRSA63J-473X	MG RESISTOR		
	R 738	NRSA63J-103X	MG RESISTOR		
	R 739	NRSA63J-473X	MG RESISTOR		
	R 740	NRSA63J-103X	MG RESISTOR		
	R 742	NRSA63J-473X	MG RESISTOR		
	R 744	NRSA63J-222X	MG RESISTOR		
	R 745	NRSA63J-222X	MG RESISTOR		
	R 747	NRSA63J-473X	MG RESISTOR		
	R 781	NRS181J-273X	MG RESISTOR		
	R 782	NRS181J-102X	MG RESISTOR		
	R 801	NRSA63J-104X	MG RESISTOR		
	R 802	NRSA63J-104X	MG RESISTOR		
	R 803	NRSA63J-104X	MG RESISTOR		
	R 806	NRSA63J-223X	MG RESISTOR		
	R 807	NRSA63J-104X	MG RESISTOR		
	R 809	NRSA63J-104X	MG RESISTOR		
	R 891	NRSA63J-473X	MG RESISTOR		
	R 892	NRSA63J-102X	MG RESISTOR		
	R 905	NRSA63J-472X	MG RESISTOR		
	R 906	NRSA63J-103X	MG RESISTOR		
	R 907	QRZ0125-470X	C RESISTOR	47 1W	
	R 911	NRSA63J-100X	MG RESISTOR		
	R 977	NRSA63J-333X	MG RESISTOR		
	R 978	NRSA63J-123X	MG RESISTOR		
	TU 1	QAU0222-001	TUNER		
	X 71	QAX0263-001Z	CRYSTAL		
	X 541	QAX0413-001Z	CRYSTAL		
	X 701	QAX0406-002Z	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 681	NCB31HK-223X	C CAPACITOR		
	C 682	NCB31HK-223X	C CAPACITOR		
	CJ601	VMC0335-001	CONNECTOR		
	D 601	SML-310VT/JK/-X	LED	KD-S733R	
	D 601	LNJ308G81/1-3/X	LED	KD-S731R	
	D 602	LNJ308G81/1-3/X	LED	KD-S731R	
	D 602	SML-310VT/JK/-X	LED	KD-S733R	
	D 603	SML-310VT/JK/-X	LED	KD-S733R	
	D 603	LNJ308G81/1-3/X	LED	KD-S731R	
	D 604	LNJ308G81/1-3/X	LED	KD-S731R	
	D 604	SML-310VT/JK/-X	LED	KD-S733R	
	D 605	SML-310VT/JK/-X	LED	KD-S733R	
	D 605	LNJ308G81/1-3/X	LED	KD-S731R	
	D 606	LNJ308G81/1-3/X	LED	KD-S731R	
	D 606	SML-310VT/JK/-X	LED	KD-S733R	
	D 607	SML-310VT/JK/-X	LED	KD-S733R	
	D 607	LNJ308G81/1-3/X	LED	KD-S731R	
	D 608	LNJ308G81/1-3/X	LED	KD-S731R	
	D 608	SML-310VT/JK/-X	LED	KD-S733R	
	D 609	SML-310VT/JK/-X	LED	KD-S733R	
	D 609	LNJ308G81/1-3/X	LED	KD-S731R	
	D 610	LNJ308G81/1-3/X	LED	KD-S731R	
	D 610	SML-310VT/JK/-X	LED	KD-S733R	
	D 611	SML-310VT/JK/-X	LED	KD-S733R	
	D 611	LNJ308G81/1-3/X	LED	KD-S731R	
	D 613	LNJ308G81/1-3/X	LED	KD-S731R	
	D 613	SML-310VT/JK/-X	LED	KD-S733R	
	D 614	SML-310VT/JK/-X	LED	KD-S733R	
	D 614	LNJ308G81/1-3/X	LED	KD-S731R	
	D 615	LNJ308G81/1-3/X	LED	KD-S731R	
	D 615	SML-310VT/JK/-X	LED	KD-S733R	
	D 616	SML-310VT/JK/-X	LED	KD-S733R	
	D 616	LNJ308G81/1-3/X	LED	KD-S731R	
	D 617	LNJ308G81/1-3/X	LED	KD-S731R	
	D 617	SML-310VT/JK/-X	LED	KD-S733R	
	D 618	LNJ308G81/1-3/X	LED	KD-S733R	
	D 618	SML-310VT/JK/-X	LED	KD-S731R	
	D 619	SML-310VT/JK/-X	LED	KD-S733R	
	D 619	LNJ308G81/1-3/X	LED	KD-S731R	
	D 620	LNJ308G81/1-3/X	LED	KD-S731R	
	D 620	SML-310VT/JK/-X	LED	KD-S733R	
	D 621	SML-310VT/JK/-X	LED	KD-S733R	
	D 621	LNJ308G81/1-3/X	LED	KD-S731R	
	D 622	LNJ308G81/1-3/X	LED	KD-S731R	
	D 622	SML-310VT/JK/-X	LED	KD-S733R	
	D 623	SML-310VT/JK/-X	LED	KD-S733R	
	D 623	LNJ308G81/1-3/X	LED	KD-S731R	
	D 624	LNJ308G81/1-3/X	LED	KD-S731R	
	D 624	SML-310VT/JK/-X	LED	KD-S733R	
	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	WHITE LED	
	D 645	NSPW310BS/BRS/	LED	WHITE LED	
	IC601	LC75823W	IC		
	JS690	QSW0863-001	JOG SHUTTLE SW		
	R 601	NRSA63J-182X	MG RESISTOR		
	R 602	NRSA63J-122X	MG RESISTOR		
	R 603	NRSA63J-182X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	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-182X	MG RESISTOR	KD-S733R	
	R 632	NRSA63J-122X	MG RESISTOR	KD-S731R	
	R 633	NRSA63J-182X	MG RESISTOR	KD-S733R	
	R 633	NRSA63J-122X	MG RESISTOR	KD-S731R	
	R 634	NRSA63J-182X	MG RESISTOR	KD-S733R	
	R 634	NRSA63J-911X	MG RESISTOR	KD-S731R	
	R 635	NRSA63J-911X	MG RESISTOR	KD-S731R	
	R 635	NRSA63J-182X	MG RESISTOR	KD-S733R	
	R 636	NRSA63J-182X	MG RESISTOR	KD-S733R	
	R 636	NRSA63J-511X	MG RESISTOR	KD-S731R	
	R 637	NRSA63J-511X	MG RESISTOR	KD-S731R	
	R 637	NRSA63J-182X	MG RESISTOR	KD-S733R	
	R 638	NRSA63J-511X	MG RESISTOR		
	R 639	NRSA63J-511X	MG RESISTOR		
	R 640	NRSA63J-511X	MG RESISTOR		
	R 641	NRSA63J-511X	MG RESISTOR		
	R 642	NRSA63J-821X	MG RESISTOR	KD-S733R	
	R 642	NRSA63J-471X	MG RESISTOR	KD-S731R	
	R 643	NRSA63J-471X	MG RESISTOR	KD-S731R	
	R 643	NRSA63J-821X	MG RESISTOR	KD-S733R	
	R 644	NRSA63J-182X	MG RESISTOR	KD-S733R	
	R 644	NRSA63J-821X	MG RESISTOR	KD-S731R	
	R 645	NRSA63J-821X	MG RESISTOR	KD-S731R	
	R 645	NRSA63J-182X	MG RESISTOR	KD-S733R	
	R 646	NRSA63J-821X	MG RESISTOR		
	R 647	NRSA63J-821X	MG RESISTOR		
	R 648	NRSA63J-911X	MG RESISTOR	KD-S733R	
	R 648	NRSA63J-122X	MG RESISTOR	KD-S731R	
	R 649	NRSA63J-122X	MG RESISTOR	KD-S731R	
	R 649	NRSA63J-911X	MG RESISTOR	KD-S733R	
	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 681	NRSA63J-101X	MG RESISTOR		
	S 601	NSW0066-001X	TACT SWITCH	POWER	
	S 602	NSW0066-001X	TACT SWITCH	1	
	S 603	NSW0066-001X	TACT SWITCH	2	
	S 604	NSW0066-001X	TACT SWITCH	3	
	S 605	NSW0066-001X	TACT SWITCH	4	
	S 606	NSW0066-001X	TACT SWITCH	5	
	S 607	NSW0066-001X	TACT SWITCH	SELECT	
	S 608	NSW0066-001X	TACT SWITCH	LOUD	

■ Electrical parts list (Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	S 609	NSW0066-001X	TACT SWITCH	DISP	
	S 610	NSW0066-001X	TACT SWITCH	SCAN/RPT	
	S 611	NSW0066-001X	TACT SWITCH	MO/RND	
	S 612	NSW0066-001X	TACT SWITCH	EJECT	
	S 613	NSW0066-001X	TACT SWITCH		
	S 614	NSW0066-001X	TACT SWITCH	6	
	S 615	NSW0066-001X	TACT SWITCH	SCM	
	S 616	NSW0066-001X	TACT SWITCH	AM	
	S 617	NSW0066-001X	TACT SWITCH	CD	
	S 618	NSW0066-001X	TACT SWITCH	FM	
	S 619	NSW0066-001X	TACT SWITCH		

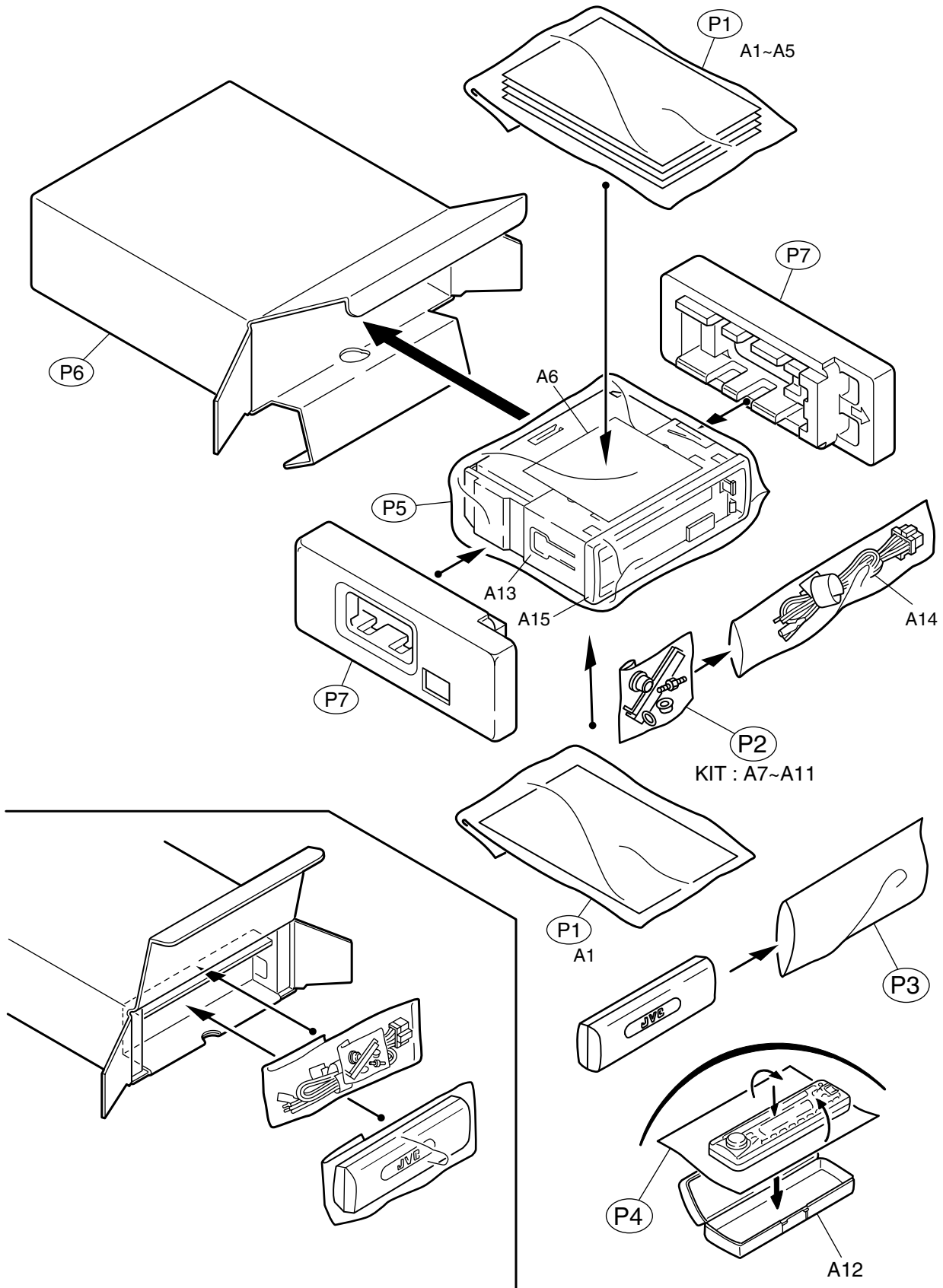
Packing materials and accessories parts list

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	FOR INST BOOK	EX
		FSPG4002-001	POLY BAG	2	FOR INST BOOK	E
	P 2	QPA00801205	POLY BAG	1	FOR SCREW KIT	
	P 3	QPA01003003	POLY BAG	1	FOR HARD CASE	
	P 4	FSYH4036-068	SHEET	1		
	P 5	QPC03004315P	POLY BAG	1	FOR SET	
	P 6	GE30407-005A	PACKING CASE	1	KD-S733R	
		GE30407-004A	PACKING CASE	1	KD-S731R	
	P 7	GE10036-001A	EPS CUSHION	2		

Parts list (Accessories)

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	GET0059-001A	INST BOOK	1	ENG, GER, FRE, DUT	
	A 2	GET0059-002A	INST BOOK	1	SPA, ITA, SWE, RUS	E
	A 3	GET0059-003A	INSTALL MANUAL	1	ENG, GER, FRE, DUT	
	A 4	GET0059-004A	INSTALL MANUAL	1	SPA, ITA, SWE, RUS	E
	A 5	BT-54013-2	W.CARD	1		
	A 6	LV40978-001A	CAUTION SHEET	1		
	A 7	VKZ4027-202	PLUG NUT	1		
	A 8	VKH4871-001SS	MOUNT BOLT	1		
	A 9	VKZ4328-001	LOCK NUT	1		
	A 10	WNS5000Z	WASHER	1		
	A 11	FSKL4010-002	HOOK	2		
	A 12	FSJB3001-30C	HARD CASE	1		
	A 13	FSKM2004-202	MOUNTING SLEEVE	1		
	A 14	QAM0175-001	POWER CORD	1		
	A 15	FSJD2034-001	TRIM PLATE	1		
	KIT	KDGS717K-SCREW1	SCREW PARTS KIT	1	A7-A11	