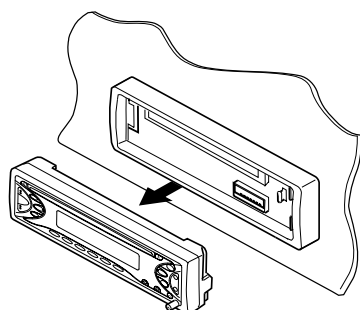
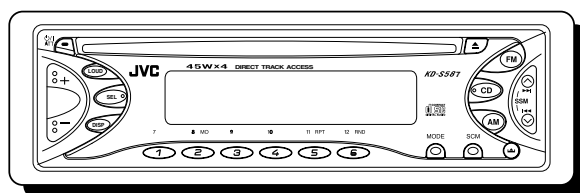


JVC

SERVICE MANUAL

CD RECEIVER

KD-S587




Area Suffix

UR ----- Brazil

Contents

Safety precaution	1-2	Flow of functional	
Preventing static electricity	1-3	operation unit TOC read	1-12
Disassembly method	1-4	Maintenance of laser pickup	1-14
Adjustment method	1-11	Replacement of laser pickup	1-14
		Description of major ICs	1-15~28

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

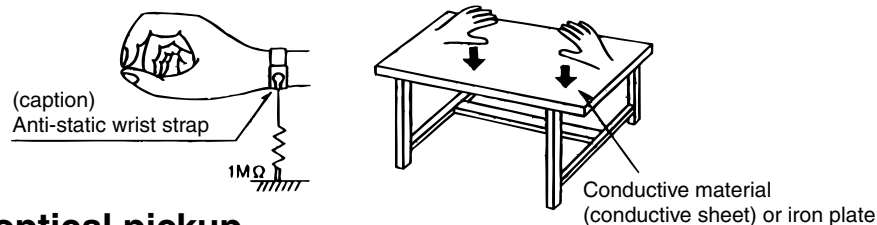
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

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.

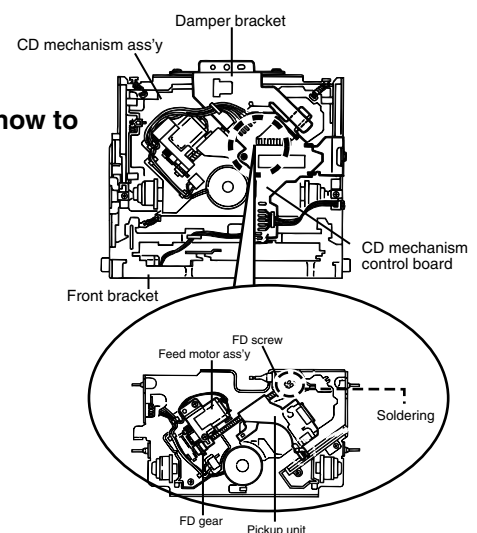
4. Handling the traverse unit (optical pickup)

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.

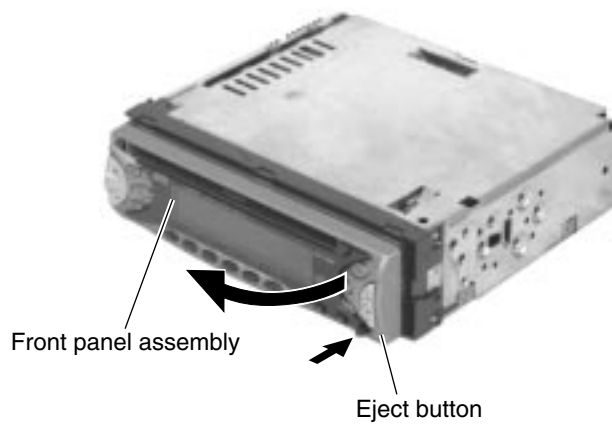


Fig.1

■ 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.

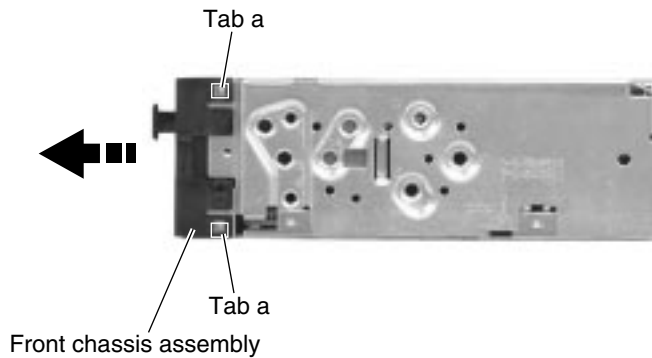


Fig.2

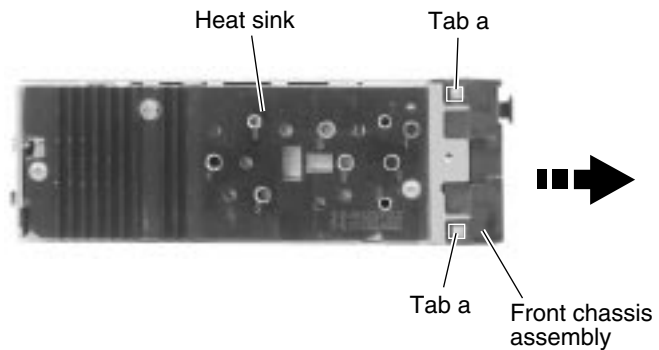


Fig.3

■ Removing the heat sink (See Fig.4)

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

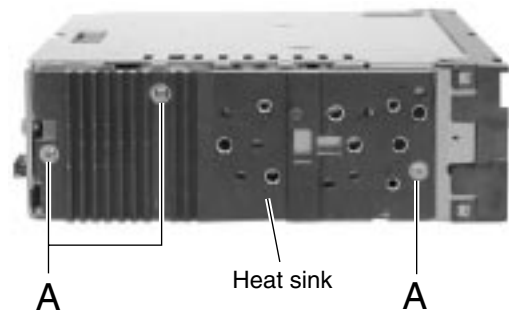


Fig.4

■ 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.

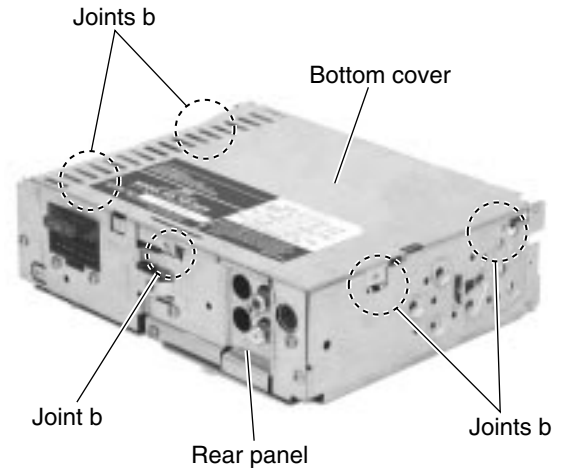


Fig.5

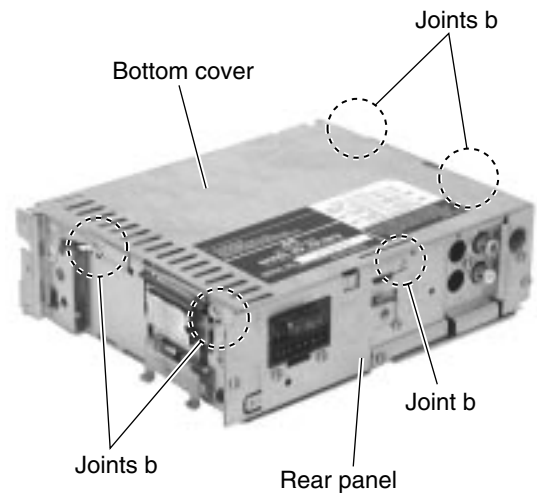


Fig.6

■ 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 four 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.

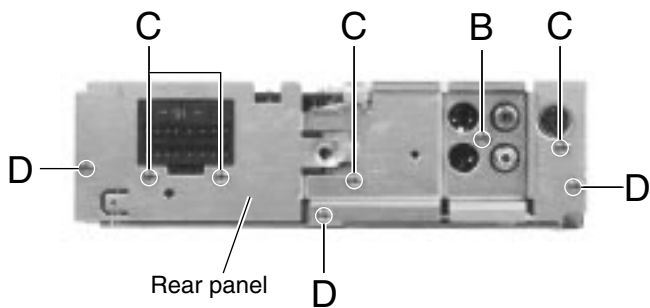


Fig.7

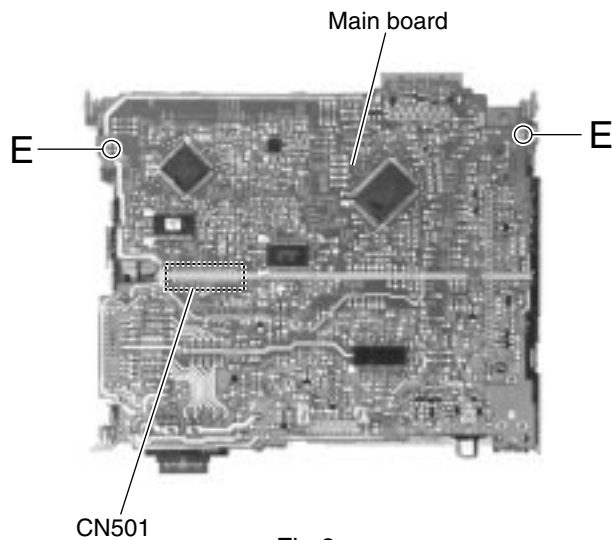


Fig.8

■ 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.

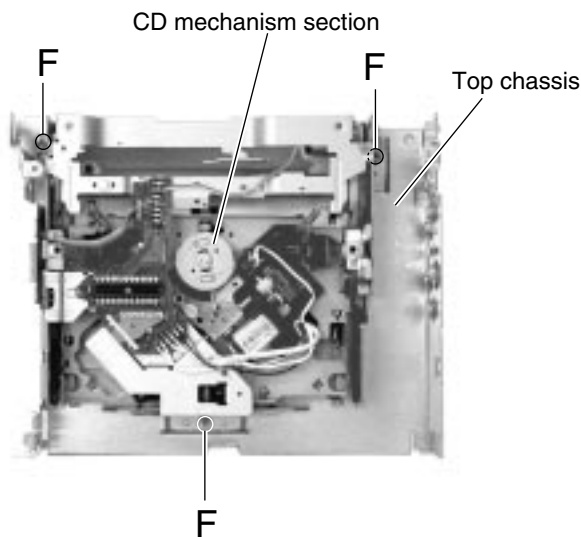


Fig.9

**■ 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 nine joints **c** with the front panel and the rear cover.
3. Remove the control switch board on the back of the front panel.

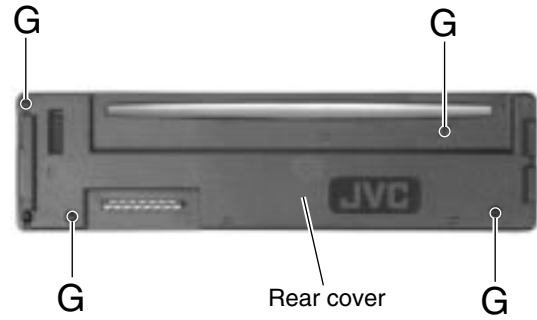


Fig.10

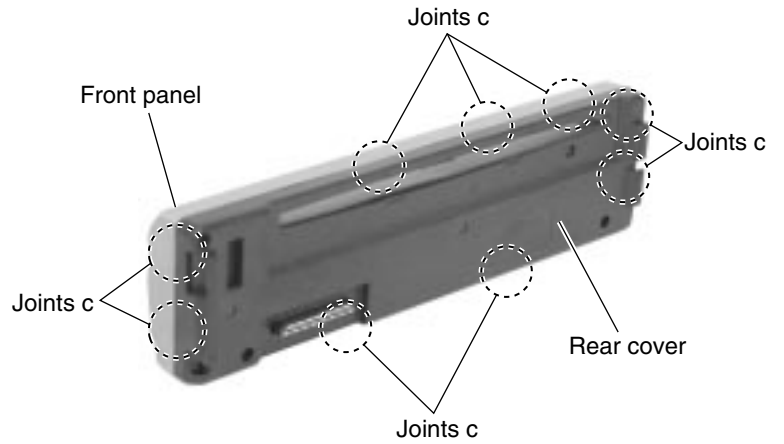


Fig.11

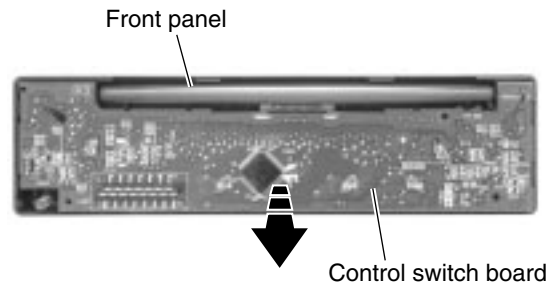


Fig.12

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

Unsolder the part f and g on the CD mechanism control board.

Remove the stator fixing the CD mechanism control board and the damper bracket (To remove the stator smoothly, pick up the center part).

Remove the screw F attaching the CD mechanism control board.

Remove the CD mechanism control board in the direction of the arrow while releasing it from the two damper bracket slots i and the front bracket slot j.

Disconnect the flexible wire from connector on the pickup unit.

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).

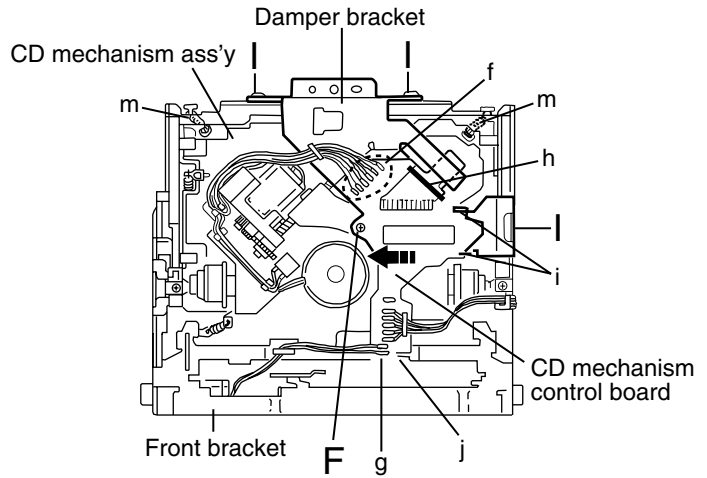


Fig.1

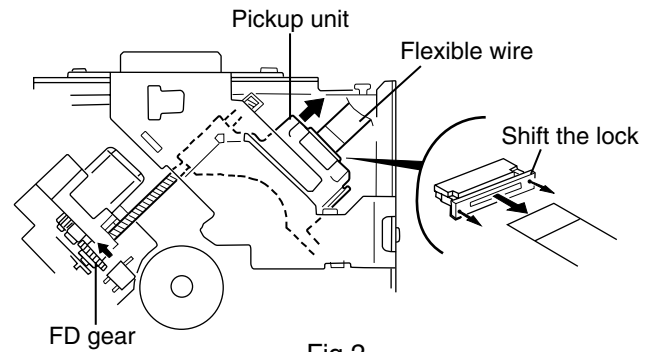


Fig.2

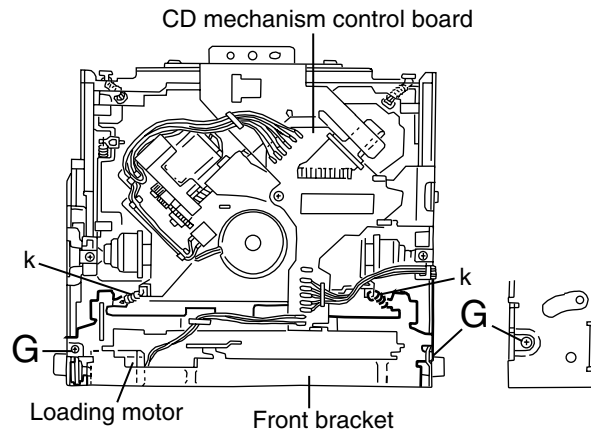


Fig.3

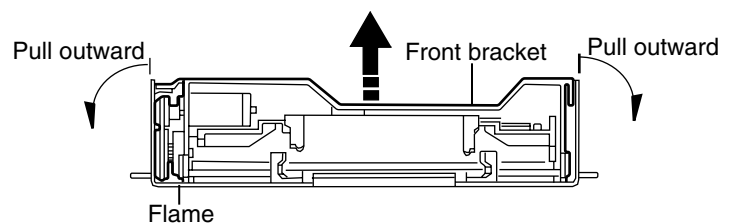


Fig.4

**■ 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 k attaching the CD mechanism ass'y and the front bracket.
2. Remove the two screws G and the front bracket while pulling the flame outward.
3. Remove the belt and the screw H from the loading motor.

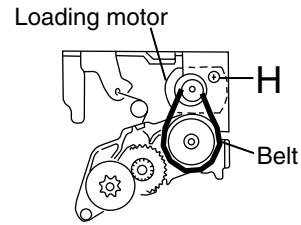


Fig.5

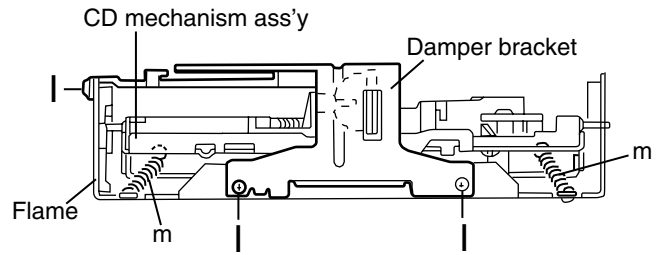


Fig.6

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

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

1. Remove the three screws I 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 I as shown in Fig.8 and 9.
3. Remove the CD mechanism ass'y and the two springs m attaching the flame.
4. Remove the two screws J and both sides rear damper brackets from the dampers. Detach the CD mechanism ass'y from the left side to the right side.

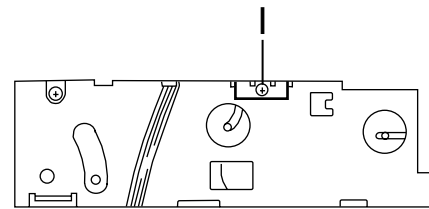


Fig.7

ATTENTION: The CD mechanism ass'y can be removed if only the rear damper bracket on the left side is removed.

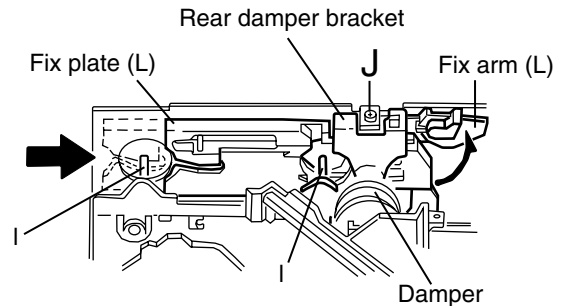


Fig.8

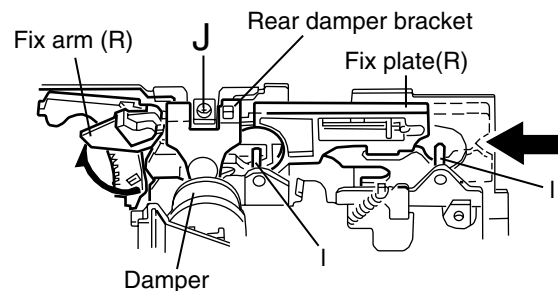


Fig.9

■ Removing the feed motor ass'y
(See Fig.10)

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

1. Remove the two screws K and the feed motor ass'y.

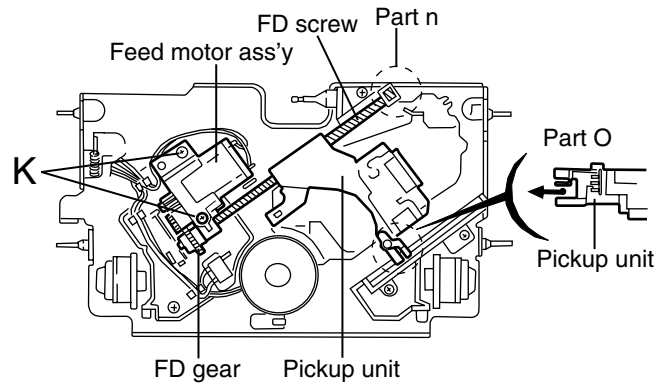


Fig.10

■ 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 ass'y and the feed motor ass'y.

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

ATTENTION: When reattaching the pickup unit, reattach the part o of the pickup unit, then the part n of the FD screw.

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

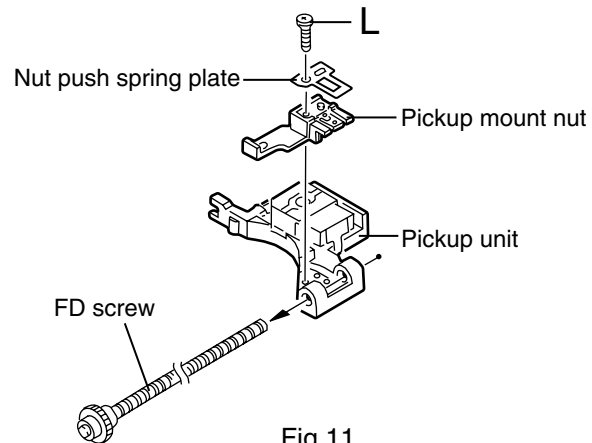


Fig.11

■ 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 ass'y and the feed motor ass'y.

1. Turn up the CD mechanism ass'y and remove the two springs p on both sides of the clamber arms. Open the clamber arm upward.

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

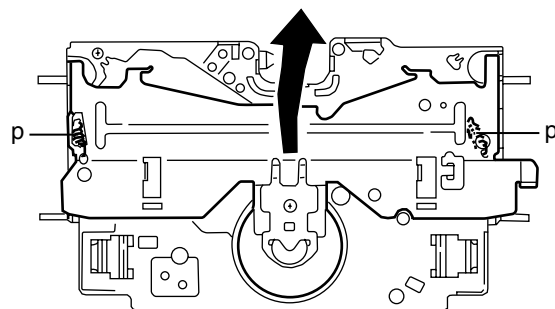


Fig.12

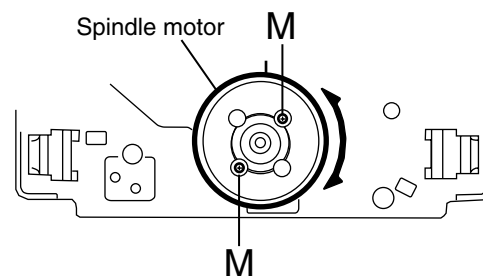


Fig.13

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

■ Frequency Band

FM 87.5MHz ~ 108.0MHz
AM 531kHz ~ 1620 kHz

■ Dummy load

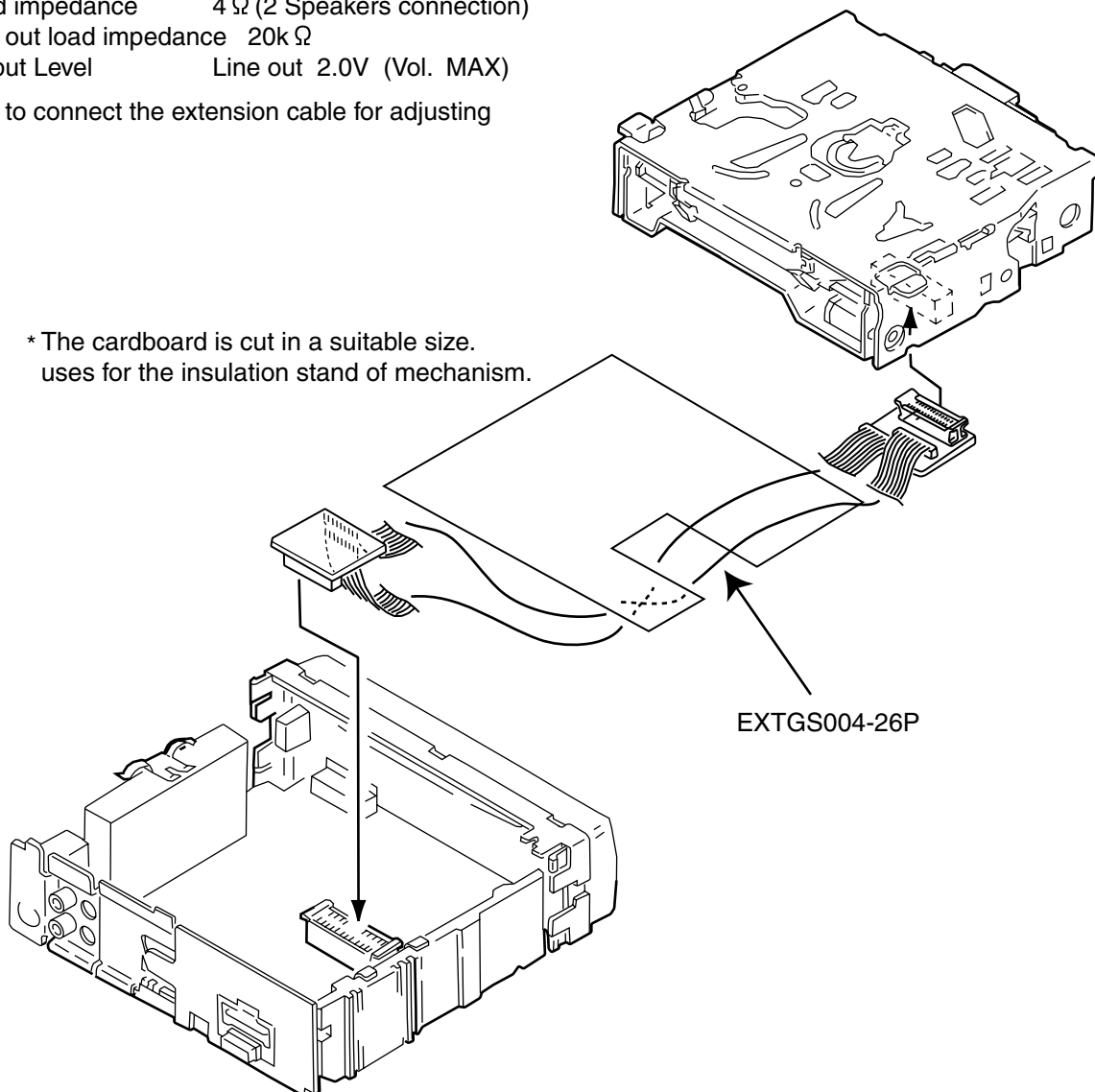
Exclusive dummy load should be used for AM, and FM. For FM dummy load, there is a loss of 6dB between SSG output and antenna input. The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

■ Standard measuring conditions

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

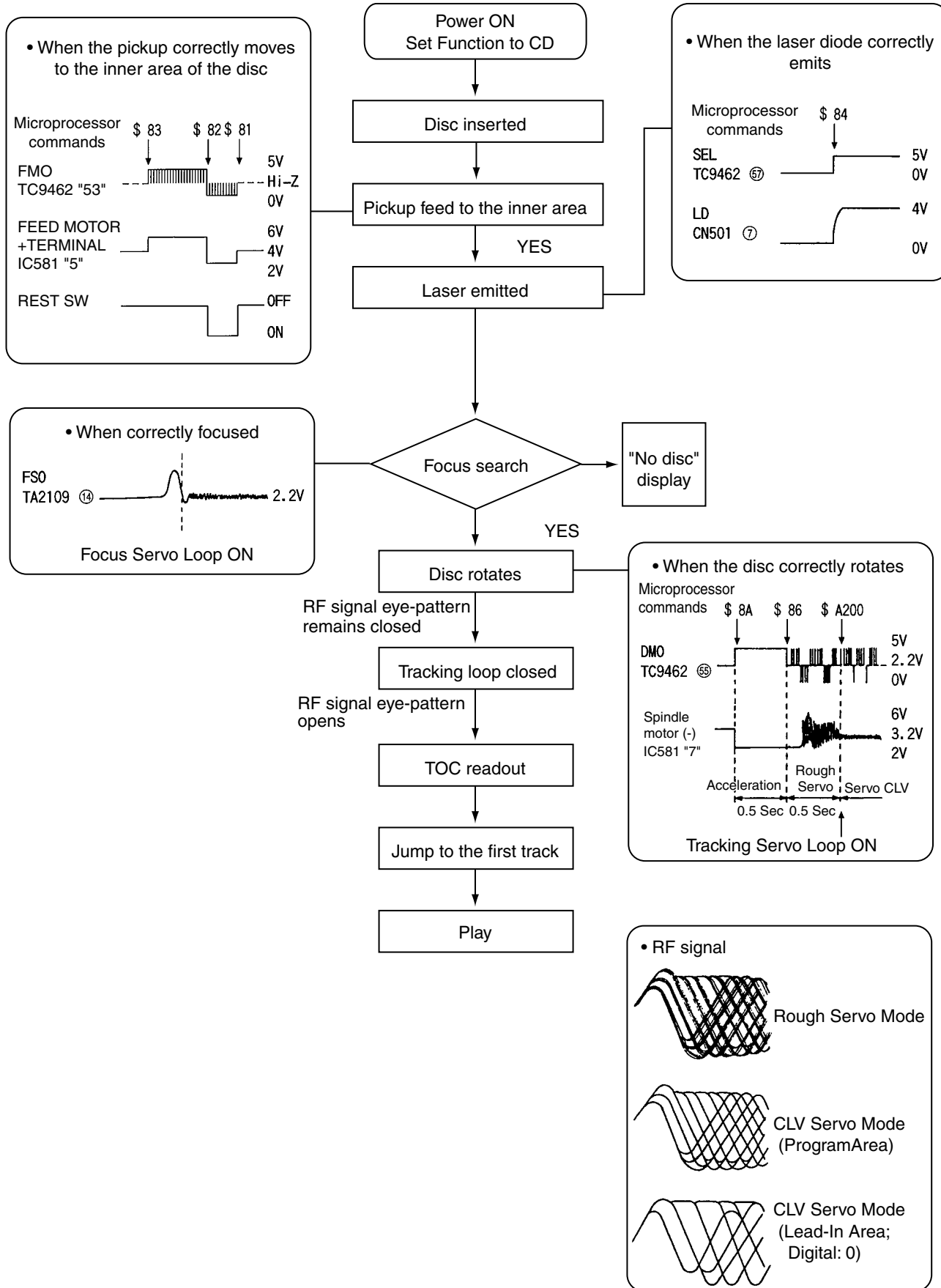
■ How to connect the extension cable for adjusting

* The cardboard is cut in a suitable size.
uses for the insulation stand of mechanism.

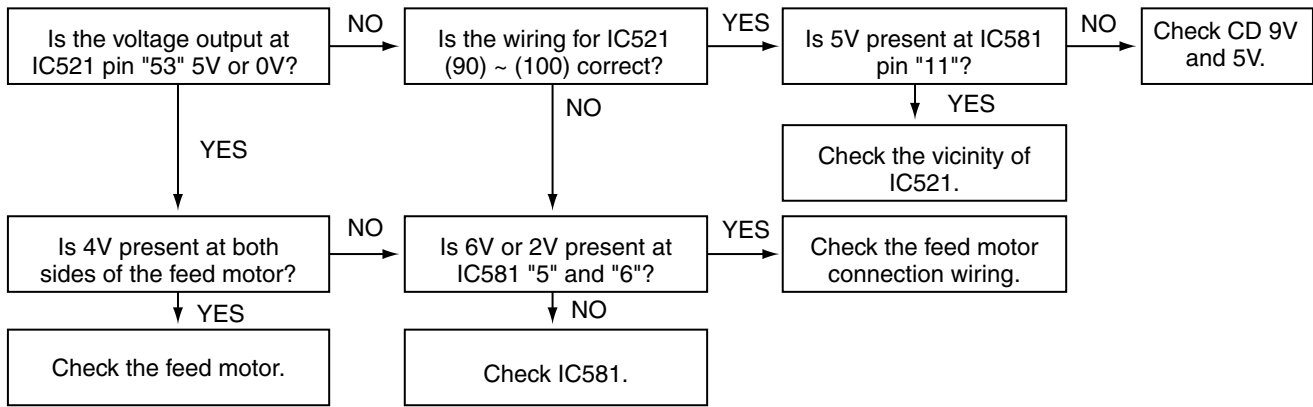


EXTGS004-26P

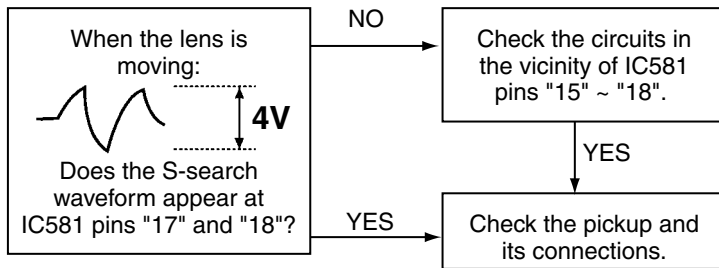
Flow of functional operation until TOC read



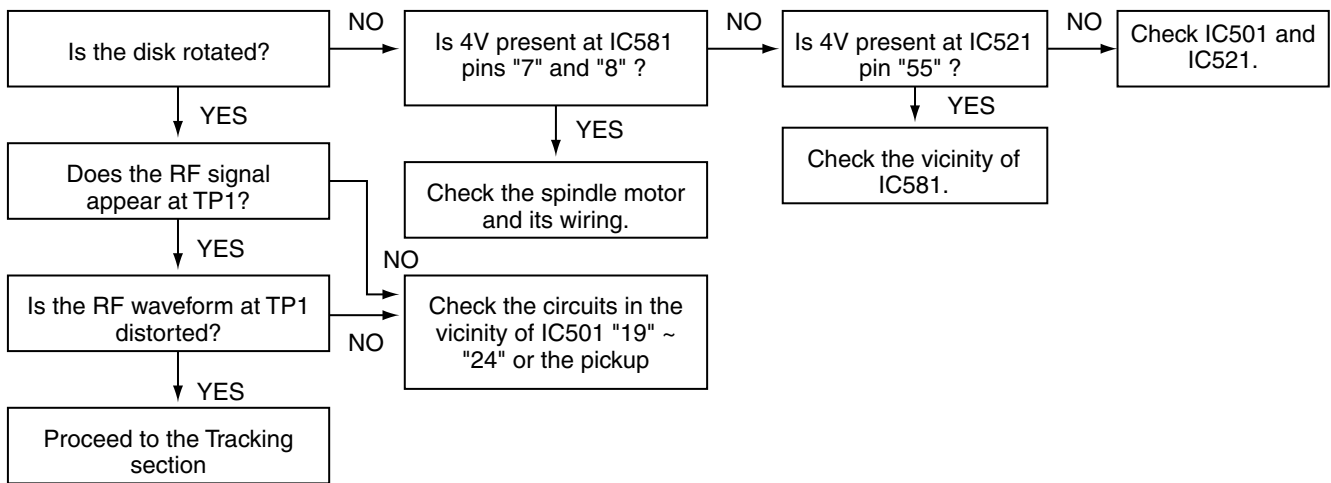
■ Feed Section



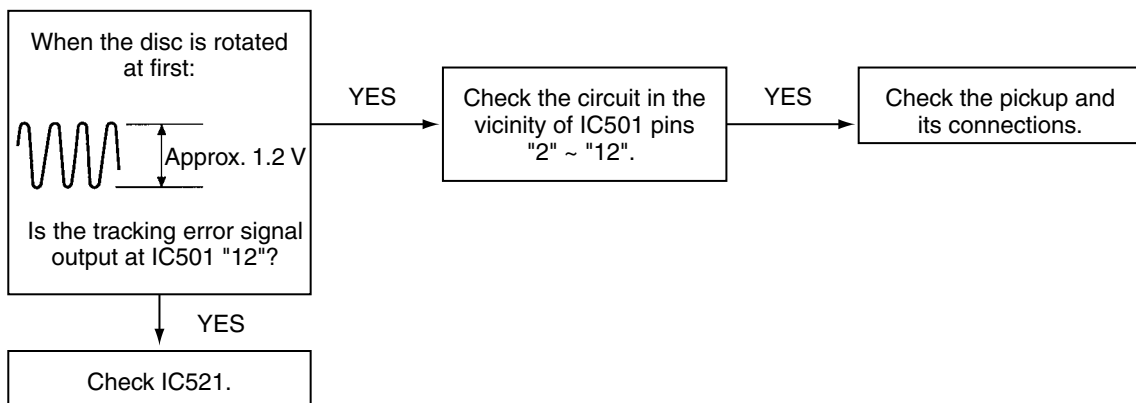
■ Focus Section



■ Spindle Section



■ Tracking Section

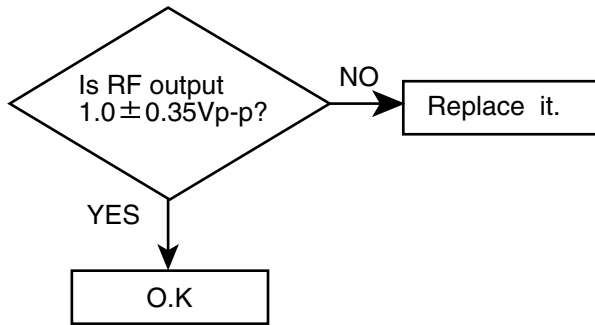


Maintenance of laser pickup

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

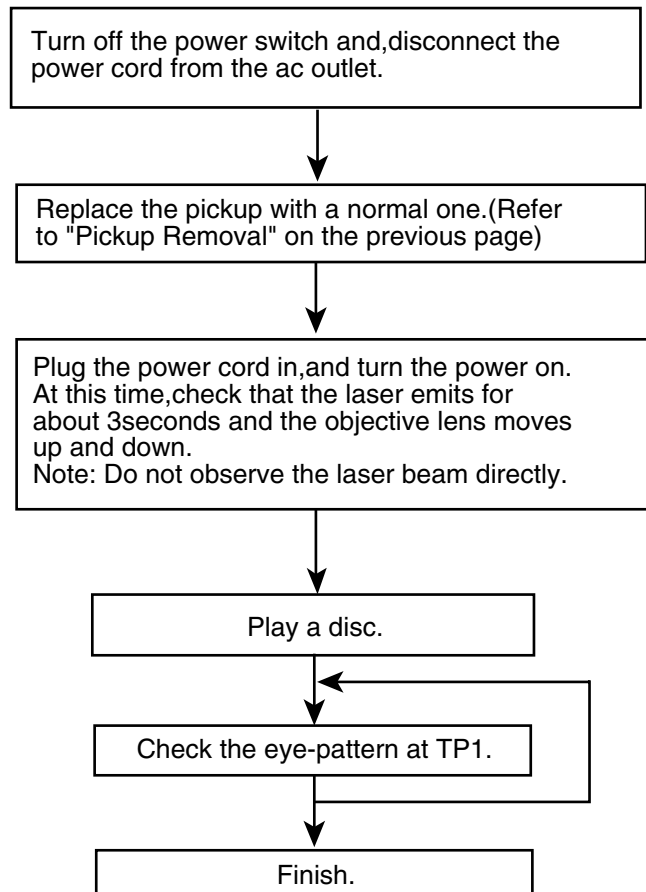
(2) Life of the laser diode
 When the life of the laser diode has expired, the following symptoms will appear.

(1) The level of RF output (EFM output: amplitude of eye pattern) will be low.



Replacement of laser pickup

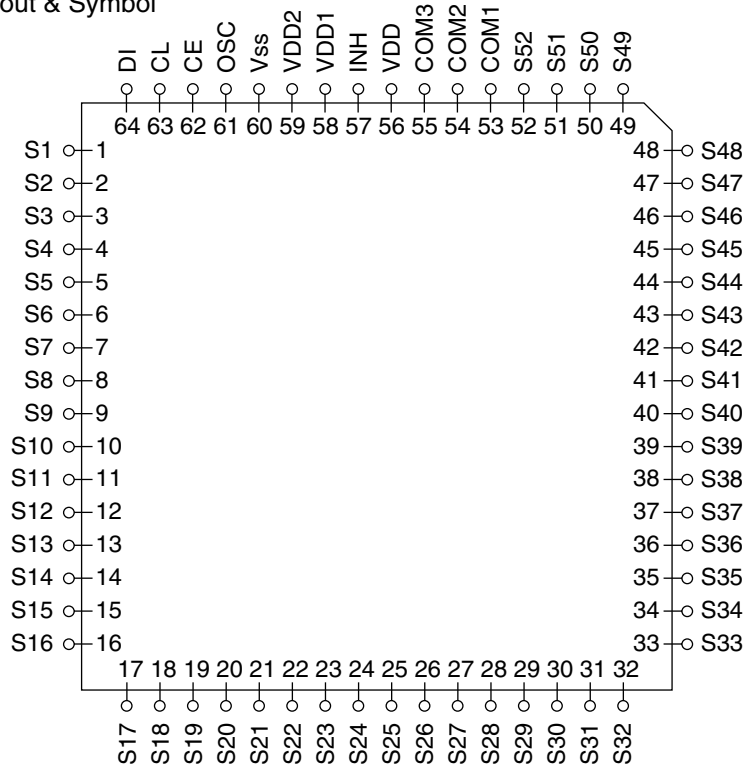
(3) Semi-fixed resistor on the APC PC board
 The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.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

■ LC75823W (IC601) : LCD driver

1. Pin Layout & Symbol



2. Pin Function

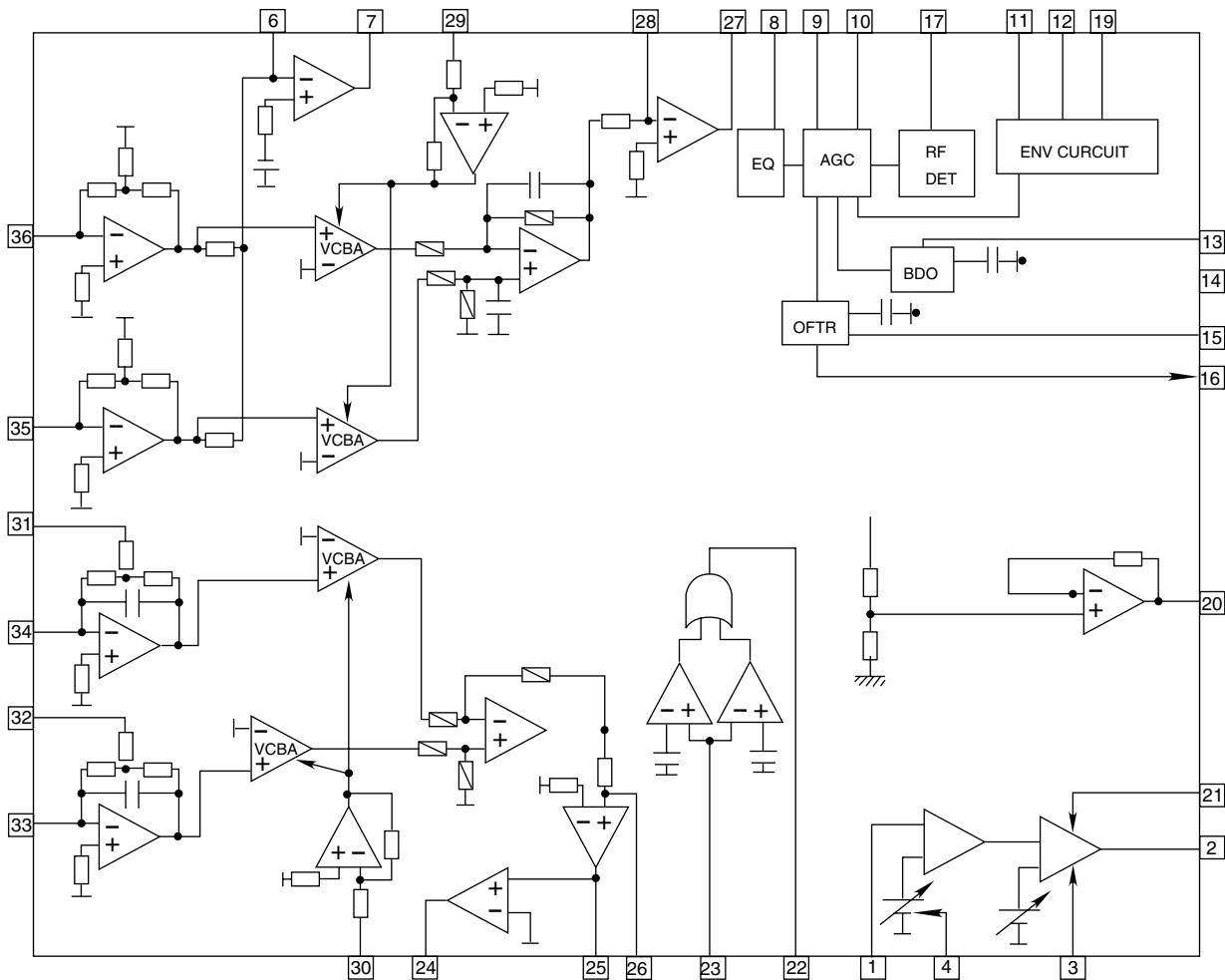
Pin No.	Symbol	I/O	Function
1 to 52	S1 to S52	O	Segment output pins used to display data transferred by serial data input.
53 to 55	COM1 to COM3	O	Common driver output pins. The frame frequency is given by : $t_0=(f_{osc}/384)Hz$.
56	VDD	--	Power supply connection. Provide a voltage of between 4.5 and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

■ AN8806SB-W (IC501) : RF & Servo amp.

1.Pin layout

PD	1	36	PDAC
LD	2	35	PDBD
LDON	3	34	PDF
LDP	4	33	PDE
VCC	5	32	PDER
RF-	6	31	PDFR
RF OUT	7	30	TBAL
RF IN	8	29	FBAL
C.AGC	9	28	EF-
ARF	10	27	EF OUT
C.ENV	11	26	TE-
C.EA	12	25	TE OUT
CS BDO	13	24	CROSS
BDO	14	23	TE BPF
CS BRT	15	22	VDET
OFTR	16	21	LD OFF
/NRFDET	17	20	VREF
GND	18	19	ENV

2.Block diagram

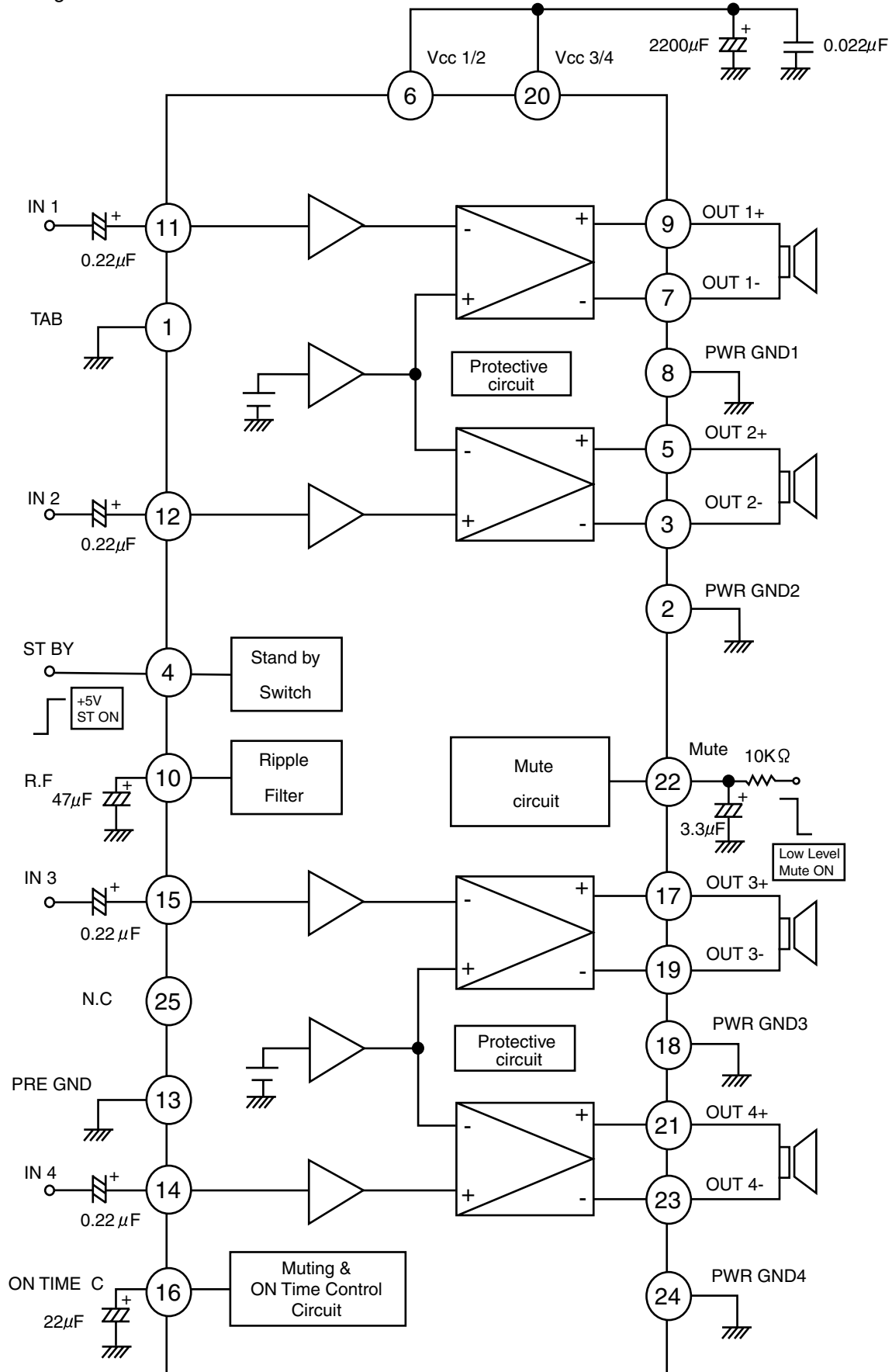


3. Pin function

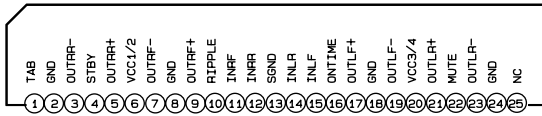
Pin No.	Symbol	I/O	Description
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ LA4743K (IC321) : Power amp

1. Block diagram



2.Pin layout

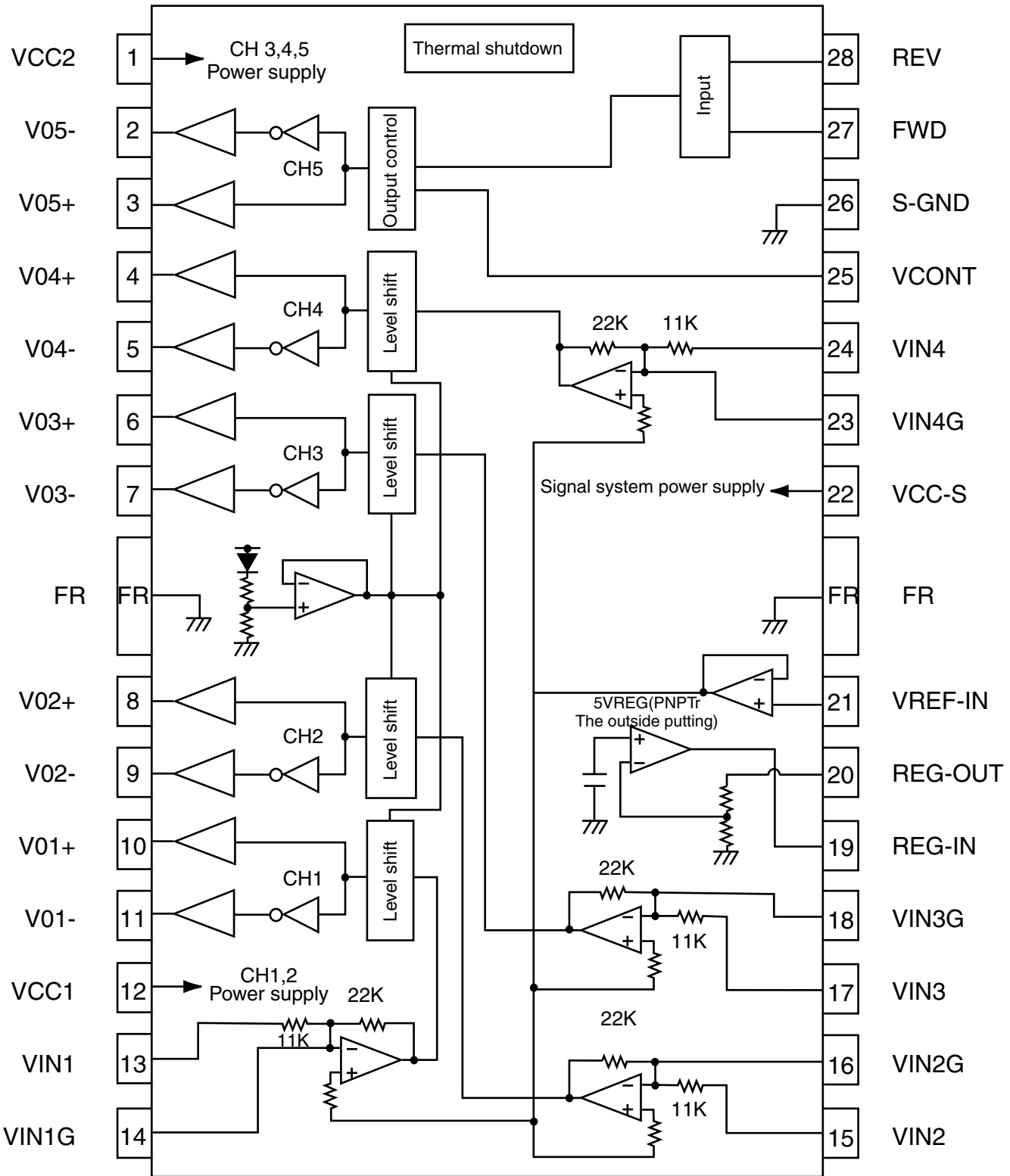


3.Pin function

Pin No.	Symbol	Function
1	TAB	Header of IC
2	GND	Power GND
3	RFO-	Output(-) for front Rch
4	STBY	Stand by input
5	RFO+	Output (+) for front Rch
6	VCC1/2	Power input
7	RRO-	Output (-) for rear Rch
8	GND	Power GND
9	RRO+	Output (+) for rear Rch
10	VREF	Ripple filter
11	RRIN	Rear Rch input
12	RFIN	Front Rch input
13	SGND	Signal GND
14	LFIN	Front Lch input
15	LRIN	Rear Lch input
16	ONTIME	Power on time control
17	LRO+	Output (+) for rear Lch
18	GND	Power GND
19	LRO-	Output (-) for rear Lch
20	VCC3/4	Power input
21	LFO+	Output (+) for front
22	MUTE	Muting control input
23	LFO-GND	Output (-) for front
24	NC	Power GND
25		No connection

■ LA6567H-X (IC541) : CD driver

1.Pin layout & Blockdiagram



2. Pin function

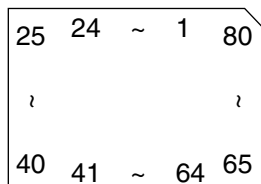
Pin no.	Symbol	Function
1	VCC2	CH3,4,5 Power supply(It is short with VCC1,VCC-S)
2	V05-	Loading output(-)
3	V05+	Loading terminal (+)
4	V04+	CH4 Output terminal(+)
5	V04-	CH4 Output terminal(-)
6	V03+	CH3 Output terminal(+)
7	V03-	CH3 Output terminal(-)
8	V02+	CH2 Output terminal(+)
9	V02-	CH2 Output 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.

■ LC72366-9A73 (IC801) : System CPU

1. Pin layout



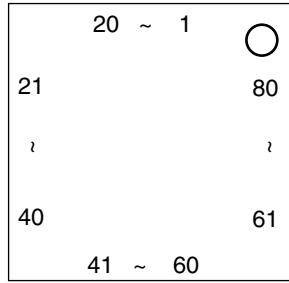
2. Pin function

Pin No.	Symbol	I/O	Function
1	XIN	I	Crystal oscillator input port
2	TEST2	I	Connect to ground
3	J-BUS SI	-	No use
4	J-BUS SO	-	No use
5	J-BUS SCK	-	No use
6	J-BUS I/O	-	No use
7	SUBQ	I/O	CD LSI subcode data input
8		-	No use
9	SQCK	I/O	CD LSI subcode clock
10	RESET	I	Micon reset pin
11	LCD SI	-	No use
12	LCD SO	O	LCD driver data output
13	LCD SCK	O	LCD driver clock signal
14	LCD CE	O	LCD driver chip enable port
15	FM ILLUMI	-	No use
16	AM ILLUMI	-	No use
17	CD ILLUMI	-	No use
18	DIMMER OUT	-	No use
19	LM0	O	CD loading motor output
20	LM1	O	CD loading motor output
21		-	No use
22		-	No use
23		-	No use
24	KS2	O	Output for initial setting diode matrix
25	KS1	O	Output for initial setting diode matrix
26	KS0	O	Output for initial setting diode matrix
27	DETACH	I	Front panel detect
28	K2	-	No use
29	K1	I	Input for initial setting diode matrix
30	K0	I	Input for initial setting diode matrix
31	Vdd	-	5V power supply port (+B)
32	SW2	I	CD mechanism detect switch
33	CD LSI RESET	O	CD LSI reset
34	MCLK	O	CD LSI command clock signal
35	MDATA	O	CD LSI command data output
36	MLD	O	CD LSI command load signal
37		-	No use
38		-	No use
39	SCL	O	E.volume clock output
40	SDA	O	E.volume data output

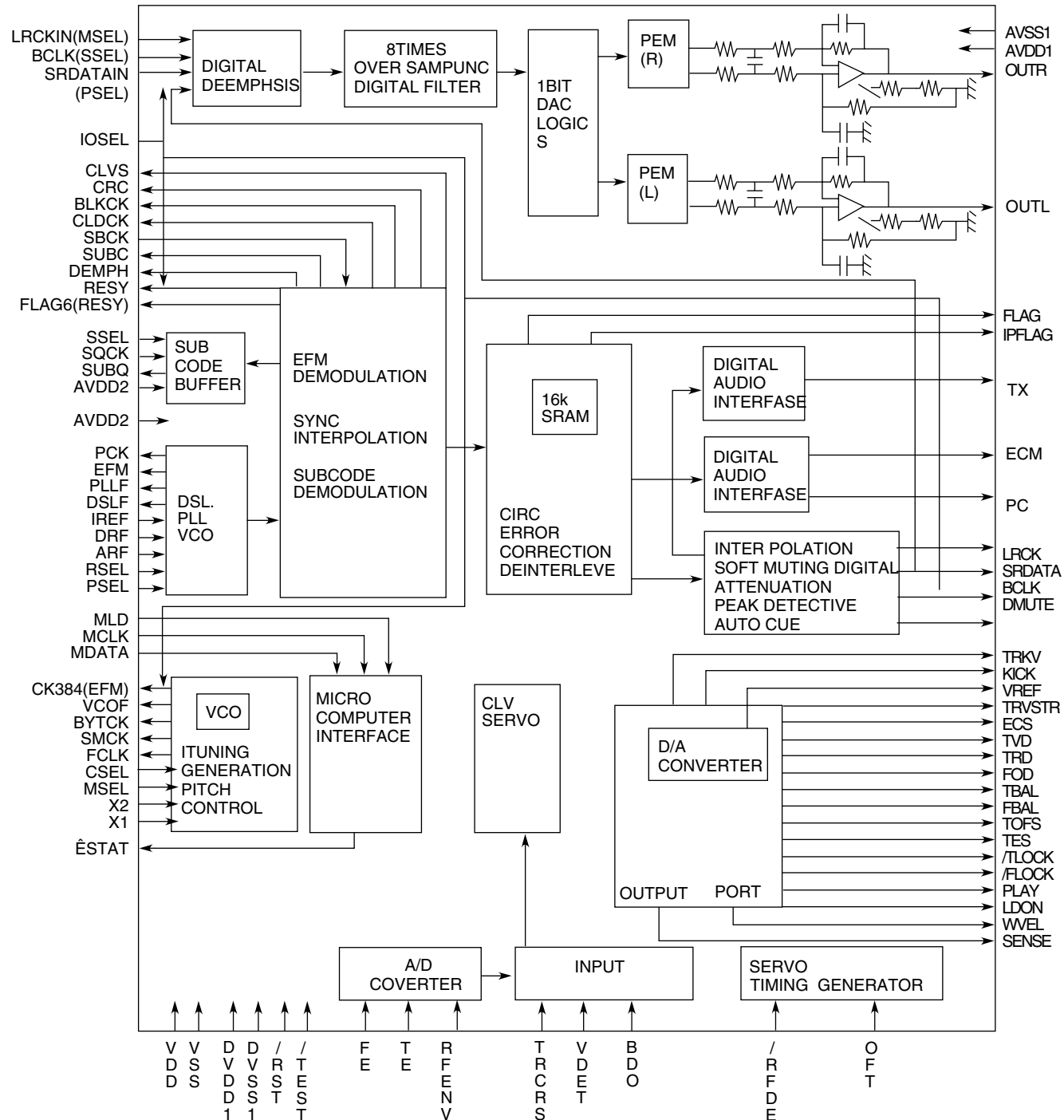
Pin No.	Port Name	I/O	Function
41	CD ON	-	CD 8V supply on
42	RELAY	-	5V power control
43	BLKCK	I	Sub-code/block/clock signal output
44	BEEP	-	No use
45	SW4	I	CD mechanism detect switch
46	SW1	I	CD mechanism detect switch
47	SW3	I	CD mechanism detect switch
48	REST	I	CD pickup rest position
49	FLOCK	I	Focus lock signal output Active:Low
50	TLOCK	I	Tracking lock signal output Active :low
51	CD SENSE	I	CD LSI sense signal
52	STATUS	I	CD LDI status signal
53	P.SAVES2	I	power save 2:+B detect
54	SD/ST	I	Station detection,Stereo signal input H:SD
55	REMOCON	I	Remocon input
56	J BUS INT	-	No use
57	BAND	O	FM/AM band selection
58	MONO	-	FM mono selection
59	IFRQ/AGC	O	During FM auto search,IF request output H after SD detected. During AM auto search,AGC output
60	MUTE	O	Muting switch
61	LEVEL	I	Level meter input
62	S.METER	I	S meter input
63	KEY CHANGE	-	Control to GND
64	KEY2	I	Key 2 input port
65	KEY1	I	Key 1 input port
66	KEY0	I	Key 0 input port
67	P.SAVE1	I	Power save 1,ACC power detection
68	SENSE	I	Voltage sensor port
69		-	No use
70	FM IF COUNT	I	FM frequency detecting
71	NC	-	No use
72	NC	-	No use
73	Vdd	-	5V power supply (+B)
74	AM OSC	I	No use
75	FM OSC	I	FM limited signal input
76	VSS	-	Ground port for power supply
77	NC	-	No use
78	E0	O	Error signal output port for PLL
79	TEST1	-	Test port for LSI, To connect ground
80	XOUT	O	4.5MHz crystal oscillator output

■ MN6627482WA (IC561) : Digital servo & Digital signal processor D/A converter

1. Pin layout



2. Block diagram

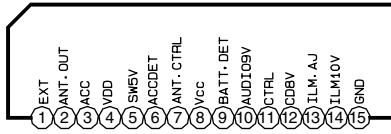


3. Pin function

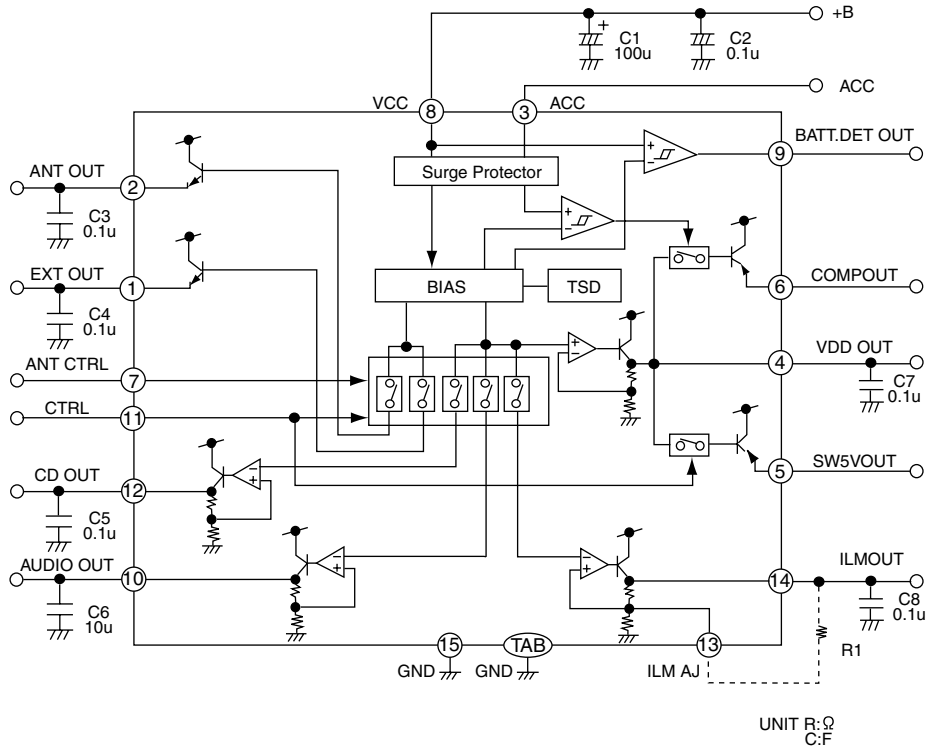
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output (H:shunt)
2	LRCK	O	Not used	42	PLAY	—	Not used
3	SRDATA	O	Not used	43	WVEL	—	Not used
4	DVDD1	—	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	—	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Not used	46	DRF	I	Bias pin for DSL
7	MCLK	I	CPU command clock signal input (Data is latched at signal's rising point)	47	DSLIF	I/O	Loop filter pin for DSL
8	MDATA	I	CPU command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	CPU command load signal input	49	VCOF	—	Not used
10	SENSE	O	Sense signal output	50	AVDD2	—	Power supply (Analog)
11	FLOCK	O	Focus lock signal output Active :Low	51	AVSS2	—	Connected to GND (Analog)
12	TLOCK	O	Tracking lock signal output Active :Low	52	EFM	—	Not used
13	BLKCK	O	sub-code/block/clock signal output	53	PCK	—	Not used
14	SQCK	I	Outside clock for sub-code Q resistor input	54	PDO	—	PLL data slice output
15	SUBQ	O	Sub-code Q -code output	55	SUBC	—	Not used
16	DMUTE	—	Connected to GND	56	SBCK	—	Not used
17	STAT	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	—	Connected to GND (for X'tal oscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	X1	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	—	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	—	Not used	60	VDD	—	Power supply (for X'tal oscillation circuit)
21	TRV	O	Traverse enforced output	61	BYTCK	—	Not used
22	TVD	O	Traverse drive output	62	CLOCK	—	Not used
23	PC	—	Not used	63	FLAG	—	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	—	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	—	Not used
26	KICK	O	Kick pulse output	66	CLVS	—	Not used
27	TRD	O	Tracking drive output	67	CRC	—	Not used
28	FOD	O	Focus drive output	68	DEMPH	—	Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	—	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	—	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	—	pull up
32	FE	I	Focus error signal input (Analog input)	72	AVDD1	—	Power supply (Digital)
33	TE	I	Tracking error signal input (Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input (Analog input)	74	AVSS1	—	Connected to GND
35	VDET	I	Vibration detect signal input (H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input (H:off track)	76	RSEL	—	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	—	Connected to GND
38	RFDET	I	RF detect signal input (L:detect)	78	PSEL	—	Connected to GND
39	BDO	I	BDO input pin (L:detect)	79	MSEL	—	Connected to GND
40	LDON	O	Laser ON signal output (H:on)	80	SSEL	—	Pull up

HA13164A(IC901):Regulator

1.Terminal layout



2.Block diagram



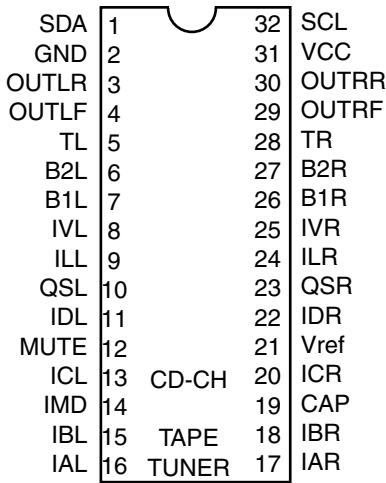
note1) TAB (header of IC)
connected to GND

3.Pin function

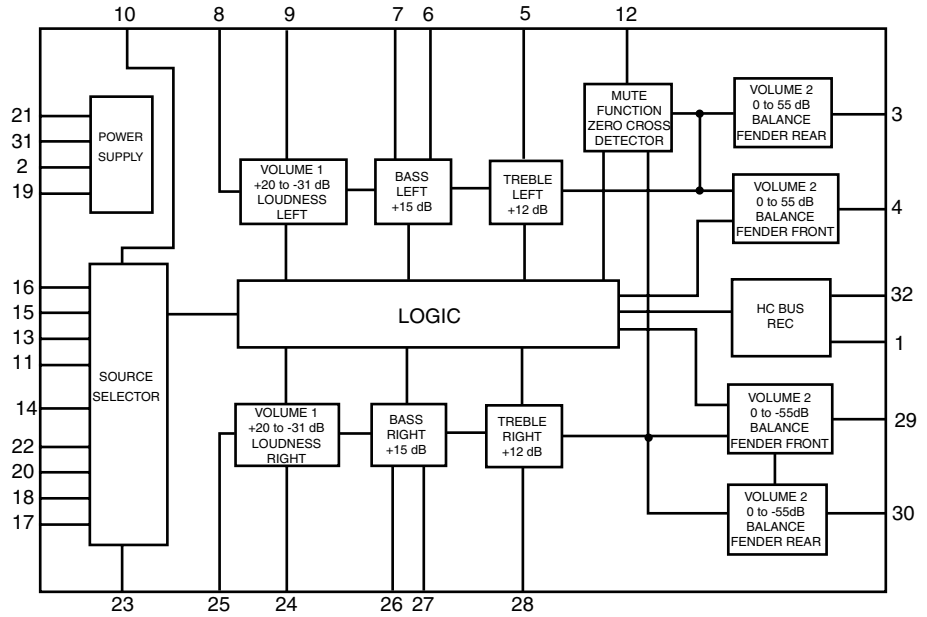
Pin No.	Symbol	Function
1	EXTOUT	Output voltage is VCC-1 V when M or H level applied to CTRL pin.
2	ANTOUT	Output voltage is VCC-1 V when M or H level to CTRL pin and H level to ANT-CTRL.
3	ACCIN	Connected to ACC.
4	VDDOUT	Regular 5.7V.
5	SW5VOUT	Output voltage is 5V when M or H level applied to CTRL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

TEA6320T-X (IC301) : E.volume

1.Pin layout



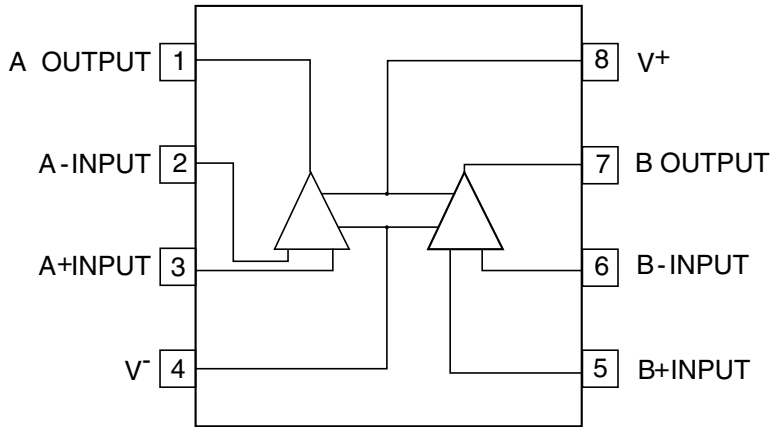
2.Block diagram



3.Pin functions

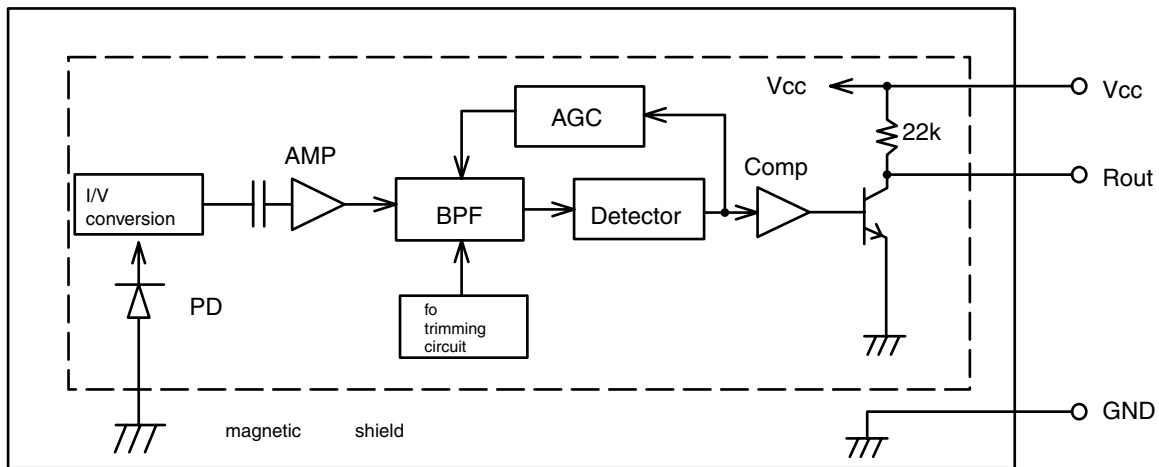
Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	SDA	I/O	Serial data input/output.	17	IAR	I	Input A right source.
2	GND	-	Ground.	18	IBR	I	Input B right source.
3	OUTLR	O	output left rear.	19	CAP	-	Electronic filtering for supply.
4	OUTLF	O	output left front.	20	ICR	I	Input C right source.
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 (IC151) : Ope. amp



■ RPM6938-SV4 (IC602) : Remote sensor

1. Block diagram



< MEMO >



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-S587]

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

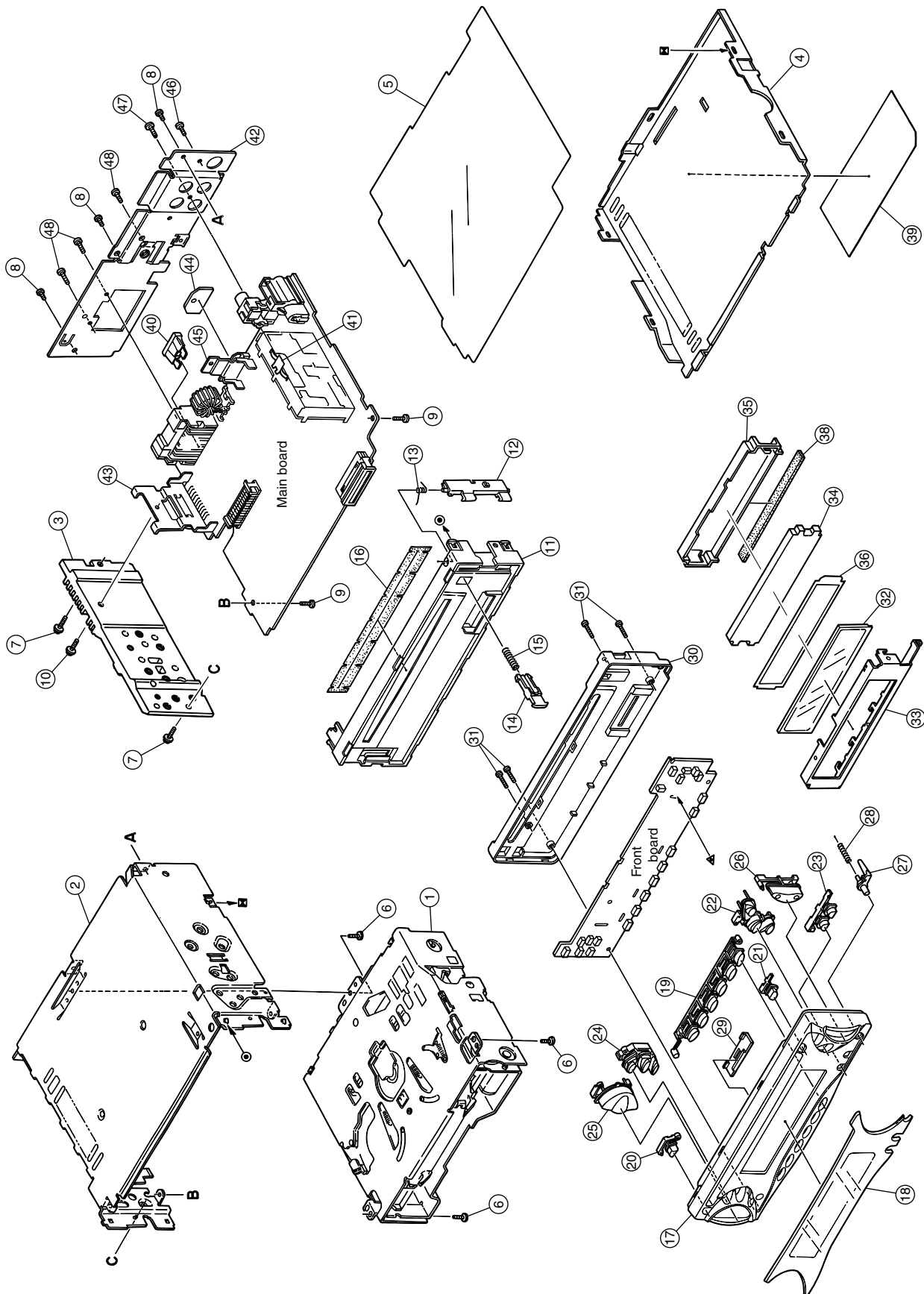
Area suffix
 UR ----- Brazil

- Contents -

Exploded view of general assembly and parts list (Block No.M1)	3- 2
CD mechanism assembly and parts list (Block No.MB)	3- 4
Electrical parts list (Block No.01~02)	3- 7
Packing materials and accessories parts list (Block No.M3,M5)	3-12

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	1	TN-CCD1001Z	
	2	FSJC1029-401SSF	TOP CHASSIS	1		
	3	FSMH3001-202SSF	SIDE PANEL	1		
	4	FSKM3011-002SSF	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 BKT	
	11	FSJC2013-014SSF	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	GE10037-003ASSF	FRONT PANEL	1		
	18	GE30300-011A	FINDER ASSY	1		
	19	GE20119-001A	PRESET BUTTON	1	1-6	
	20	GE30304-001A	POWER BUTTON	1		
	21	GE30305-001A	EJECT BUTTON	1		
	22	GE20131-002A	D FUNC BUTTON	1	FM/CD/AM	
	23	GE30307-001A	SND FTN BUTTON	1		
	24	GE20130-002A	PUSH BUTTON	1		
	25	GE20118-002A	+/- BUTTON	1		
	26	GE20120-001A	UP/DOWN BUTTON	1		
	27	GE30306-001A	DETACH BUTTON	1		
	28	FSKW3002-012	COMP. SPRING	1	FOR DETACH BUTTON	
	29	GE30117-001A	CD LENS	1		
	30	GE10038-002ASSF	REAR COVER	1		
	31	VKZ4777-001	MINI SCREW	4	FRONT+REAR	
	32	QLD0210-002	LCD MODULE	1		
	33	GE30302-002ASSF	LCD CASE	1		
	34	FSJK3035-001	LCD LENS	1		
	35	FSKS3022-003	LENS CASE	1		
	36	FSYH4078-002	LIGHTING SHEET	1		
	38	QNZ0442-001	RUBBER CONNE	1		
	39	-----	RATING LABEL	1	FOR NAME PLATE	
△	40	QMFZ047-150-T	FUSE	1		
	41	VMA4652-001SS	EARTH PLATE	1		
	42	FSKM3010-020SSF	REAR BRACKET	1		
	43	FSKL4024-001	IC BRACKET	1	FOR 45W IC	
	44	GE40104-001B	HEAT SINK	1		
	45	GE40103-001A	REG BRACKET	1		
	46	QYSDST2606Z	SCREW	1	FOR ANT	
	47	QYSDSF3006Z	SCREW	1	LINE OUT	
	48	QYSDST2606Z	SCREW	3	16P & TR BRACK	

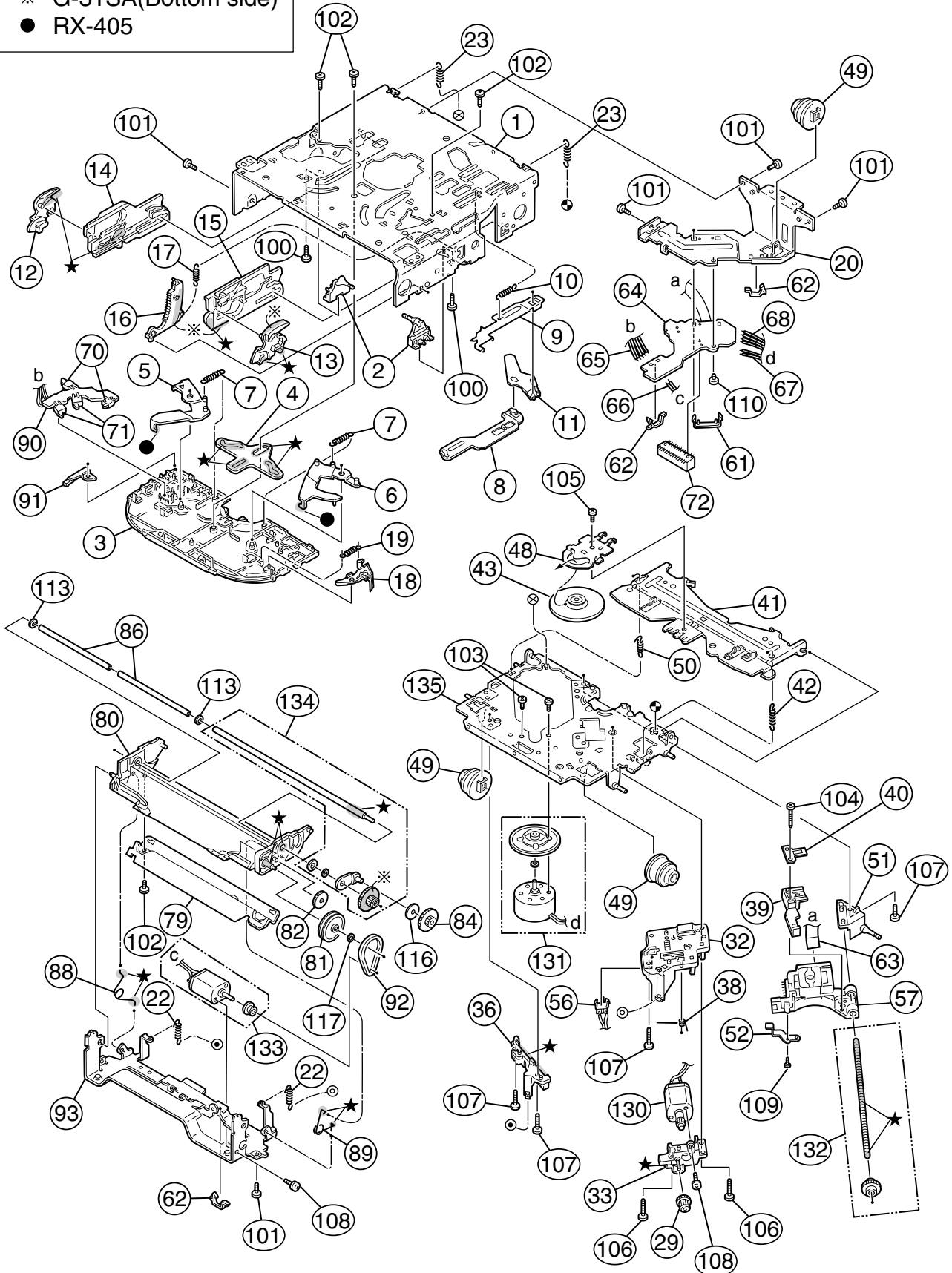
CD mechanism assembly and parts list

TN-CCD1001Z-136J

Block No. M B M M

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	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	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	
	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	△	Item	Parts number	Parts name	Remarks	Area
	C 101	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 516	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 151	NCB31HK-102X	C CAPACITOR				C 518	NCB31AK-224X	C CAPACITOR		
	C 152	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 519	NCB31EK-473X	C CAPACITOR		
	C 153	NDC31HJ-151X	C CAPACITOR				C 520	NDC31HJ-470X	C CAPACITOR		
	C 155	QEKJ0JM-476Z	E CAPACITOR	47MF 20% 6.3V			C 521	NDC31HJ-561X	C CAPACITOR		
	C 201	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 522	NCB31HK-223X	C CAPACITOR		
	C 251	NCB31HK-102X	C CAPACITOR				C 523	NCB31HK-223X	C CAPACITOR		
	C 252	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 524	NCB31HK-102X	C CAPACITOR		
	C 253	NDC31HJ-151X	C CAPACITOR				C 525	NCB31HK-102X	C CAPACITOR		
	C 255	QERF0JM-476Z	E CAPACITOR	47MF 20% 6.3V			C 527	NCB31EK-223X	C CAPACITOR		
	C 256	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			C 528	NCB31HK-182X	C CAPACITOR		
	C 302	NCB31HK-822X	C CAPACITOR				C 529	NCB31HK-122X	C CAPACITOR		
	C 303	NCB21CK-184X	C CAPACITOR				C 530	NDC31HJ-680X	C CAPACITOR		
	C 304	NCB21CK-224X	C CAPACITOR				C 541	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 305	NCB21HK-333X	C CAPACITOR				C 542	NCB31HK-472X	C CAPACITOR		
	C 306	NCB31HK-562X	C CAPACITOR				C 543	NCB31EK-333X	C CAPACITOR		
	C 307	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 551	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 308	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 552	NCB31EK-103X	C CAPACITOR		
	C 309	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V			C 561	NCB31EK-103X	C CAPACITOR		
	C 310	NCB31HK-103X	C CAPACITOR				C 562	NCB31EK-103X	C CAPACITOR		
	C 311	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V			C 563	NCB31HK-102X	C CAPACITOR		
	C 312	QEKJ1CM-476Z	E CAPACITOR	47MF 20% 16V			C 564	NCB21CK-274X	C CAPACITOR		
	C 319	NCS31HJ-221X	C CAPACITOR				C 565	NCB31EK-104X	C CAPACITOR		
	C 320	NCS31HJ-221X	C CAPACITOR				C 566	NCB31AK-474X	C CAPACITOR		
	C 321	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V			C 567	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 327	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 568	NCB31EK-103X	C CAPACITOR		
	C 328	QEKJ1CM-476Z	E CAPACITOR	47MF 20% 16V			C 571	NCB31EK-103X	C CAPACITOR		
	C 329	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 572	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 330	NCB31HK-223X	C CAPACITOR				C 573	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 331	NCB31HK-223X	C CAPACITOR				C 574	NCB31EK-103X	C CAPACITOR		
	C 332	NCB31EK-104X	C CAPACITOR				C 576	NCB31HK-152X	C CAPACITOR		
	C 333	NCB31EK-104X	C CAPACITOR				C 577	NCB31EK-104X	C CAPACITOR		
	C 334	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 579	NCB31HK-102X	C CAPACITOR		
	C 335	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 701	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 402	NCB31HK-822X	C CAPACITOR				C 702	QEKJ1HM-104Z	E CAPACITOR	.10MF 20% 50V	
	C 403	NCB21CK-184X	C CAPACITOR				C 703	QERF1HM-104Z	E CAPACITOR	.10MF 20% 50V	
	C 404	NCB21CK-224X	C CAPACITOR				C 709	NCB31EK-333X	C CAPACITOR		
	C 405	NCB21HK-333X	C CAPACITOR				C 710	NCB31EK-333X	C CAPACITOR		
	C 406	NCB31HK-562X	C CAPACITOR				C 711	NCB31EK-103X	C CAPACITOR		
	C 407	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 712	QEKJ1HM-104Z	E CAPACITOR	.10MF 20% 50V	
	C 408	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 714	NCS31HJ-121X	C CAPACITOR		
	C 419	NCS31HJ-221X	C CAPACITOR				C 717	NCS31HJ-221X	C CAPACITOR		
	C 420	NCS31HJ-221X	C CAPACITOR				C 718	NCB31EK-223X	C CAPACITOR		
	C 427	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V			C 720	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 432	NCB31EK-104X	C CAPACITOR				C 725	NCB31EK-103X	C CAPACITOR		
	C 433	NCB31EK-104X	C CAPACITOR				C 731	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 434	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 732	NCB31HK-102X	C CAPACITOR		
	C 435	QERF1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 733	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 501	NCB31EK-103X	C CAPACITOR				C 801	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 502	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V			C 802	NCB31EK-103X	C CAPACITOR		
	C 503	NCS31HJ-680X	C CAPACITOR				C 803	NDC31HJ-220X	C CAPACITOR		
	C 504	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V			C 804	NDC31HJ-330X	C CAPACITOR		
	C 505	NCB31EK-103X	C CAPACITOR				C 807	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 506	NDC31HJ-3R0X	C CAPACITOR				C 821	NCB31EK-104X	C CAPACITOR		
	C 507	NCB31EK-104X	C CAPACITOR				C 822	NCB31EK-104X	C CAPACITOR		
	C 508	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 823	NCB31EK-104X	C CAPACITOR		
	C 509	NDC31HJ-101X	C CAPACITOR				C 861	QEKJ0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C 510	NCB31EK-273X	C CAPACITOR				C 862	NCB31EK-823X	C CAPACITOR		
	C 511	NCB31HK-472X	C CAPACITOR				C 901	QEZ0337-228	E CAPACITOR	2200MF	
	C 512	NCB31HK-103X	C CAPACITOR				C 902	NCB31HK-103X	C CAPACITOR		
	C 513	NDC31HJ-331X	C CAPACITOR				C 903	QEKJ1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 514	NCB31EK-104X	C CAPACITOR				C 904	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 515	NCB31EK-103X	C CAPACITOR				C 905	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	C 906	NCB31EK-104X	C CAPACITOR		
	C 907	NCB31HK-103X	C CAPACITOR		
	C 908	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 909	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 910	NCB31HK-103X	C CAPACITOR		
	C 911	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 914	NCB31EK-104X	C CAPACITOR		
	C 915	NCB11CK-225X	C CAPACITOR		
	C 916	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	CJ321	QNN0170-001	PIN JACK (REEL)		
	CJ701	QNB0100-002	ANT TERMINAL		
	CN501	QGB2027M1-26S	CONNECTOR		
	CN801	VMC0334-001	CONNECTOR		
	CN901	QNZ0002-001	JACK UNIT		
	D 321	1SS254-T2	SI DIODE		
	D 332	1SS355-X	DIODE		
	D 333	1SS355-X	DIODE		
	D 551	DSK10C-T1	DIODE		
	D 701	1SS254-T2	SI DIODE		
	D 702	1SS254-T2	SI DIODE		
	D 731	MTZJ10B-T2	Z DIODE		
	D 791	1SS355-X	DIODE		
	D 792	1SS355-X	DIODE		
	D 810	1SS355-X	DIODE		
	D 821	UDZS6.2B-X	SI DIODE		
	D 822	UDZS6.2B-X	SI DIODE		
	D 823	UDZS6.2B-X	SI DIODE		
	D 824	UDZS6.2B-X	SI DIODE		
	D 825	UDZS6.2B-X	SI DIODE		
	D 826	UDZS6.2B-X	SI DIODE		
	D 827	UDZS6.2B-X	SI DIODE		
	D 828	UDZS6.2B-X	SI DIODE		
	D 861	MTZJ4.7B-T2	Z DIODE		
	D 866	1SS355-X	DIODE		
	D 867	1SS355-X	DIODE		
	D 868	1SS355-X	DIODE		
	D 869	1SS355-X	DIODE		
	D 901	1N5401-F64	SI DIODE		
	D 903	1SS254-T2	SI DIODE		
	D 904	CRS03-W	SB DIODE		
	D 905	CRS03-W	SB DIODE		
	IC151	NJM4565M-WE	IC		
	IC301	TEA6320T-X	IC		
	IC321	LA4743K	IC		
	IC501	AN8806SB-W	IC		
	IC541	LA6567H-X	IC		
	IC561	MN6627482WA	IC		
	IC801	LC72366-9A73	IC		
	IC901	HA13164A	IC		
	L 501	QQL231K-4R7Y	INDUCTOR		
	L 561	QQL231K-4R7Y	INDUCTOR		
	L 562	QQL231K-4R7Y	INDUCTOR		
	L 701	QQL231K-4R7Y	INDUCTOR		
	L 801	QQL231K-4R7Y	INDUCTOR		
	L 901	QQR0703-001	CHOKE COIL		
	Q 321	DTC114EKA-X	TRANSISTOR		
	Q 332	2SD1781K/QR/-X	TRANSISTOR		
	Q 432	2SD1781K/QR/-X	TRANSISTOR		
	Q 501	2SA1706/ST/-T	TRANSISTOR		
	Q 541	2SA1706/ST/-T	TRANSISTOR		
	Q 701	DTC114EKA-X	TRANSISTOR		
	Q 731	2SC2412K/R/-X	TRANSISTOR		
	Q 732	2SC2412K/R/-X	TRANSISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	Q 791	2SB1197K/QR/-X	TRANSISTOR		
	Q 792	2SA1037AK/RS/-X	TRANSISTOR		
	Q 793	DTC114EKA-X	TRANSISTOR		
	Q 861	DTA114EKA-X	DIGI TRANSISTOR		
	Q 902	2SC2412K/R/-X	TRANSISTOR		
	Q 903	2SA1037AK/RS/-X	TRANSISTOR		
	R 101	NRSA63J-272X	MG RESISTOR		
	R 102	NRSA63J-512X	MG RESISTOR		
	R 151	NRSA63J-183X	MG RESISTOR		
	R 152	NRSA63J-123X	MG RESISTOR		
	R 153	NRSA63J-273X	MG RESISTOR		
	R 154	NRSA63J-223X	MG RESISTOR		
	R 155	NRSA63J-152X	MG RESISTOR		
	R 156	NRS181J-223X	MG RESISTOR		
	R 201	NRSA63J-272X	MG RESISTOR		
	R 202	NRSA63J-512X	MG RESISTOR		
	R 251	NRSA63J-183X	MG RESISTOR		
	R 252	NRSA63J-123X	MG RESISTOR		
	R 253	NRSA63J-273X	MG RESISTOR		
	R 254	NRSA63J-223X	MG RESISTOR		
	R 255	NRSA63J-152X	MG RESISTOR		
	R 256	NRS181J-223X	MG RESISTOR		
	R 301	NRSA63J-223X	MG RESISTOR		
	R 302	NRSA63J-222X	MG RESISTOR		
	R 303	NRSA63J-473X	MG RESISTOR		
	R 304	NRSA63J-473X	MG RESISTOR		
	R 307	NRSA63J-273X	MG RESISTOR		
	R 308	NRSA63J-273X	MG RESISTOR		
	R 321	NRS181J-473X	MG RESISTOR		
	R 322	NRS181J-471X	MG RESISTOR		
	R 323	NRS181J-102X	MG RESISTOR		
	R 333	NRSA63J-102X	MG RESISTOR		
	R 334	NRSA63J-101X	MG RESISTOR		
	R 336	NRSA63J-222X	MG RESISTOR		
	R 401	NRSA63J-223X	MG RESISTOR		
	R 402	NRSA63J-222X	MG RESISTOR		
	R 403	NRSA63J-473X	MG RESISTOR		
	R 404	NRSA63J-473X	MG RESISTOR		
	R 407	NRSA63J-273X	MG RESISTOR		
	R 408	NRSA63J-273X	MG RESISTOR		
	R 433	NRSA63J-102X	MG RESISTOR		
	R 434	NRSA63J-101X	MG RESISTOR		
	R 436	NRSA63J-222X	MG RESISTOR		
	R 501	NRS181J-220X	MG RESISTOR		
	R 502	NRS181J-220X	MG RESISTOR		
	R 503	NRS181J-102X	MG RESISTOR		
	R 504	NRSA63J-392X	MG RESISTOR		
	R 505	NRSA63J-224X	MG RESISTOR		
	R 506	NRSA63J-223X	MG RESISTOR		
	R 507	NRSA63J-822X	MG RESISTOR		
	R 508	NRSA63J-104X	MG RESISTOR		
	R 509	NRSA63J-223X	MG RESISTOR		
	R 510	NRSA63J-154X	MG RESISTOR		
	R 511	NRSA63J-274X	MG RESISTOR		
	R 512	NRSA63J-563X	MG RESISTOR		
	R 513	NRSA63J-563X	MG RESISTOR		
	R 514	NRSA63J-123X	MG RESISTOR		
	R 515	NRSA63J-123X	MG RESISTOR		
	R 516	NRSA63J-123X	MG RESISTOR		
	R 517	NRSA63J-123X	MG RESISTOR		
	R 518	NRSA63J-822X	MG RESISTOR		
	R 519	NRSA63J-105X	MG RESISTOR		
	R 541	NRS181J-621X	MG RESISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 542	NRSA63J-432X	MG RESISTOR		
	R 543	NRSA63J-303X	MG RESISTOR		
	R 544	NRSA63J-332X	MG RESISTOR		
	R 545	NRSA63J-123X	MG RESISTOR		
	R 546	NRSA63J-563X	MG RESISTOR		
	R 547	NRSA63J-154X	MG RESISTOR		
	R 548	NRSA63J-432X	MG RESISTOR		
	R 549	NRSA63J-203X	MG RESISTOR		
	R 550	NRSA63J-682X	MG RESISTOR		
	R 551	NRSA63J-822X	MG RESISTOR		
	R 560	NRS181J-101X	MG RESISTOR		
	R 561	NRSA63J-102X	MG RESISTOR		
	R 562	NRSA63J-102X	MG RESISTOR		
	R 563	NRSA63J-102X	MG RESISTOR		
	R 564	NRSA63J-102X	MG RESISTOR		
	R 567	NRSA63J-102X	MG RESISTOR		
	R 568	NRSA63J-102X	MG RESISTOR		
	R 569	NRSA63J-102X	MG RESISTOR		
	R 570	NRSA63J-102X	MG RESISTOR		
	R 571	NRS181J-333X	MG RESISTOR		
	R 573	NRSA63J-333X	MG RESISTOR		
	R 574	NRSA63J-221X	MG RESISTOR		
	R 575	NRSA63J-221X	MG RESISTOR		
	R 576	NRSA63J-0R0X	MG RESISTOR		
	R 577	NRSA63J-104X	MG RESISTOR		
	R 579	NRSA63J-102X	MG RESISTOR		
	R 580	NRSA63J-224X	MG RESISTOR		
	R 581	NRSA63J-0R0X	MG RESISTOR		
	R 701	NRSA63J-102X	MG RESISTOR		
	R 702	NRSA63J-0R0X	MG RESISTOR		
	R 703	NRSA63J-102X	MG RESISTOR		
	R 704	NRSA63J-0R0X	MG RESISTOR		
	R 705	NRSA63J-103X	MG RESISTOR		
	R 708	NRSA63J-822X	MG RESISTOR		
	R 725	NRSA63J-820X	MG RESISTOR		
	R 731	NRS181J-152X	MG RESISTOR		
	R 732	NRSA63J-102X	MG RESISTOR		
	R 733	NRSA63J-103X	MG RESISTOR		
	R 734	NRS181J-471X	MG RESISTOR		
	R 791	NRSA63J-103X	MG RESISTOR		
	R 792	NRSA63J-102X	MG RESISTOR		
	R 793	NRSA63J-103X	MG RESISTOR		
	R 794	NRSA63J-222X	MG RESISTOR		
	R 795	NRS181J-150X	MG RESISTOR		
	R 796	NRS181J-150X	MG RESISTOR		
	R 797	NRS181J-100X	MG RESISTOR		
	R 798	NRSA63J-223X	MG RESISTOR		
	R 799	NRSA63J-473X	MG RESISTOR		
	R 801	NRS181J-103X	MG RESISTOR		
	R 803	NRS181J-332X	MG RESISTOR		
	R 804	NRS181J-332X	MG RESISTOR		
	R 805	NRS181J-332X	MG RESISTOR		
	R 807	NRS181J-473X	MG RESISTOR		
	R 808	NRS181J-102X	MG RESISTOR		
	R 809	NRS181J-103X	MG RESISTOR		
	R 810	NRSA63J-104X	MG RESISTOR		
	R 811	NRSA63J-332X	MG RESISTOR		
	R 812	NRSA63J-332X	MG RESISTOR		
	R 813	NRSA63J-473X	MG RESISTOR		
	R 814	NRSA63J-473X	MG RESISTOR		
	R 815	NRSA63J-473X	MG RESISTOR		
	R 816	NRSA63J-473X	MG RESISTOR		
	R 817	NRS181J-472X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 822	NRSA63J-222X	MG RESISTOR		
	R 823	NRSA63J-473X	MG RESISTOR		
	R 825	NRS181J-473X	MG RESISTOR		
	R 826	NRSA63J-473X	MG RESISTOR		
	R 827	NRSA63J-473X	MG RESISTOR		
	R 828	NRSA63J-473X	MG RESISTOR		
	R 829	NRS181J-473X	MG RESISTOR		
	R 830	NRS181J-223X	MG RESISTOR		
	R 831	NRS181J-472X	MG RESISTOR		
	R 832	NRS181J-223X	MG RESISTOR		
	R 833	NRS181J-472X	MG RESISTOR		
	R 834	NRS181J-223X	MG RESISTOR		
	R 835	NRS181J-472X	MG RESISTOR		
	R 836	NRSA63J-473X	MG RESISTOR		
	R 840	NRSA63J-473X	MG RESISTOR		
	R 841	NRSA63J-473X	MG RESISTOR		
	R 842	NRSA63J-473X	MG RESISTOR		
	R 843	NRSA63J-0R0X	MG RESISTOR		
	R 844	NRSA63J-0R0X	MG RESISTOR		
	R 845	NRSA63J-0R0X	MG RESISTOR		
	R 861	NRS181J-471X	MG RESISTOR		
	R 862	NRS181J-471X	MG RESISTOR		
	R 901	NRSA63J-912X	MG RESISTOR		
	R 902	QRZ0125-102X	C RESISTOR	1.0K 1W	
	R 903	NRSA63J-472X	MG RESISTOR		
	R 904	NRSA63J-104X	MG RESISTOR		
	R 905	NRSA63J-472X	MG RESISTOR		
	R 906	NRSA63J-472X	MG RESISTOR		
	R 907	NRSA63J-393X	MG RESISTOR		
	R 908	NRSA63J-683X	MG RESISTOR		
	R 909	NRSA63J-273X	MG RESISTOR		
	R 910	NRSA63J-473X	MG RESISTOR		
	R 911	NRS181J-473X	MG RESISTOR		
	TU701	QAU0257-001	TUNER		
	X 561	QAX0714-001Z	C RESONATOR		
	X 801	QAX0406-001Z	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	VOL+ R LED	
	D 602	SML-310VT/JK/-X	LED	VOL- R LED	
	D 603	SML-310VT/JK/-X	LED	LOUD R LED	
	D 604	SML-310VT/JK/-X	LED	SEL R LED	
	D 605	SML-310VT/JK/-X	LED	DISP R LED	
	D 606	SML-310VT/JK/-X	LED	1 R LED	
	D 607	SML-310VT/JK/-X	LED	2 R LED	
	D 608	SML-310VT/JK/-X	LED	3 R LED	
	D 609	SML-310VT/JK/-X	LED	4 R LED	
	D 610	SML-310VT/JK/-X	LED	5 R LED	
	D 611	SML-310VT/JK/-X	LED	6 R LED	
	D 612	SML-310VT/JK/-X	LED	MODE R LED	
	D 613	LT1F67AF-W	LED	SCM G LED	
	D 614	SML-310VT/JK/-X	LED	EJECT R LED	
	D 615	SML-310VT/JK/-X	LED	FM R LED	
	D 616	SML-310VT/JK/-X	LED	CD R LED	
	D 617	SML-310VT/JK/-X	LED	AM R LED	
	D 618	SML-310VT/JK/-X	LED	UP R LED	
	D 619	SML-310VT/JK/-X	LED	DOWN R LED	
	D 620	SML-310LT/MN/-X	LED	POWER R LED	
	D 641	UDZS5.1B-X	Z DIODE		
	D 642	1SS355-X	DIODE		
	D 643	1SS355-X	DIODE		
	D 644	UDZS5.1B-X	Z DIODE		
	D 645	UDZS6.2B-X	SI DIODE		
	IC601	LC75823W	IC		
	IC602	RPM6938-SV4	IC		
	PL601	QLL0033-003	LAMP		
	PL602	QLL0033-003	LAMP		
	R 601	NRSA63J-681X	MG RESISTOR		
	R 602	NRSA63J-561X	MG RESISTOR		
	R 603	NRSA63J-681X	MG RESISTOR		
	R 604	NRSA63J-911X	MG RESISTOR		
	R 605	NRSA63J-122X	MG RESISTOR		
	R 606	NRSA02J-681X	MG RESISTOR		
	R 607	NRSA02J-561X	MG RESISTOR		
	R 608	NRSA02J-681X	MG RESISTOR		
	R 609	NRSA02J-911X	MG RESISTOR		
	R 610	NRSA63J-122X	MG RESISTOR		
	R 611	NRSA63J-152X	MG RESISTOR		
	R 612	NRSA63J-681X	MG RESISTOR		
	R 613	NRSA63J-561X	MG RESISTOR		
	R 614	NRSA63J-681X	MG RESISTOR		
	R 615	NRSA63J-911X	MG RESISTOR		
	R 616	NRSA63J-122X	MG RESISTOR		
	R 617	NRSA63J-152X	MG RESISTOR		
	R 631	NRSA02J-821X	MG RESISTOR		
	R 632	NRSA02J-222X	MG RESISTOR		
	R 633	NRSA02J-222X	MG RESISTOR		
	R 634	NRSA02J-102X	MG RESISTOR		
	R 635	NRSA02J-102X	MG RESISTOR		
	R 636	NRSA02J-122X	MG RESISTOR		
	R 637	NRSA02J-122X	MG RESISTOR		
	R 638	NRSA02J-391X	MG RESISTOR		
	R 639	NRSA02J-391X	MG RESISTOR		
	R 640	NRSA02J-391X	MG RESISTOR		
	R 641	NRSA02J-391X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 642	NRSA02J-681X	MG RESISTOR		
	R 643	NRSA02J-681X	MG RESISTOR		
	R 644	NRSA02J-102X	MG RESISTOR		
	R 645	NRSA02J-102X	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 661	NRSA63J-103X	MG RESISTOR		
	R 662	NRSA63J-471X	MG RESISTOR		
	S 601	NSW0066-001X	TACT SWITCH	POWER	
	S 602	NSW0066-001X	TACT SWITCH	VOL-	
	S 603	NSW0066-001X	TACT SWITCH	VOL+	
	S 604	NSW0066-001X	TACT SWITCH	LOUD	
	S 605	NSW0066-001X	TACT SWITCH	DISP	
	S 606	NSW0066-001X	TACT SWITCH	1	
	S 607	NSW0066-001X	TACT SWITCH	SELECT	
	S 608	NSW0066-001X	TACT SWITCH	2	
	S 609	NSW0066-001X	TACT SWITCH	3	
	S 610	NSW0066-001X	TACT SWITCH	4	
	S 611	NSW0066-001X	TACT SWITCH	5	
	S 612	NSW0066-001X	TACT SWITCH	EJECT	
	S 613	NSW0066-001X	TACT SWITCH	UP	
	S 614	NSW0066-001X	TACT SWITCH	6	
	S 615	NSW0066-001X	TACT SWITCH	MODE	
	S 616	NSW0066-001X	TACT SWITCH	SCM	
	S 617	NSW0066-001X	TACT SWITCH	DOWN	
	S 618	NSW0066-001X	TACT SWITCH	AM	
	S 619	NSW0066-001X	TACT SWITCH	FM	
	S 620	NSW0066-001X	TACT SWITCH	CD	

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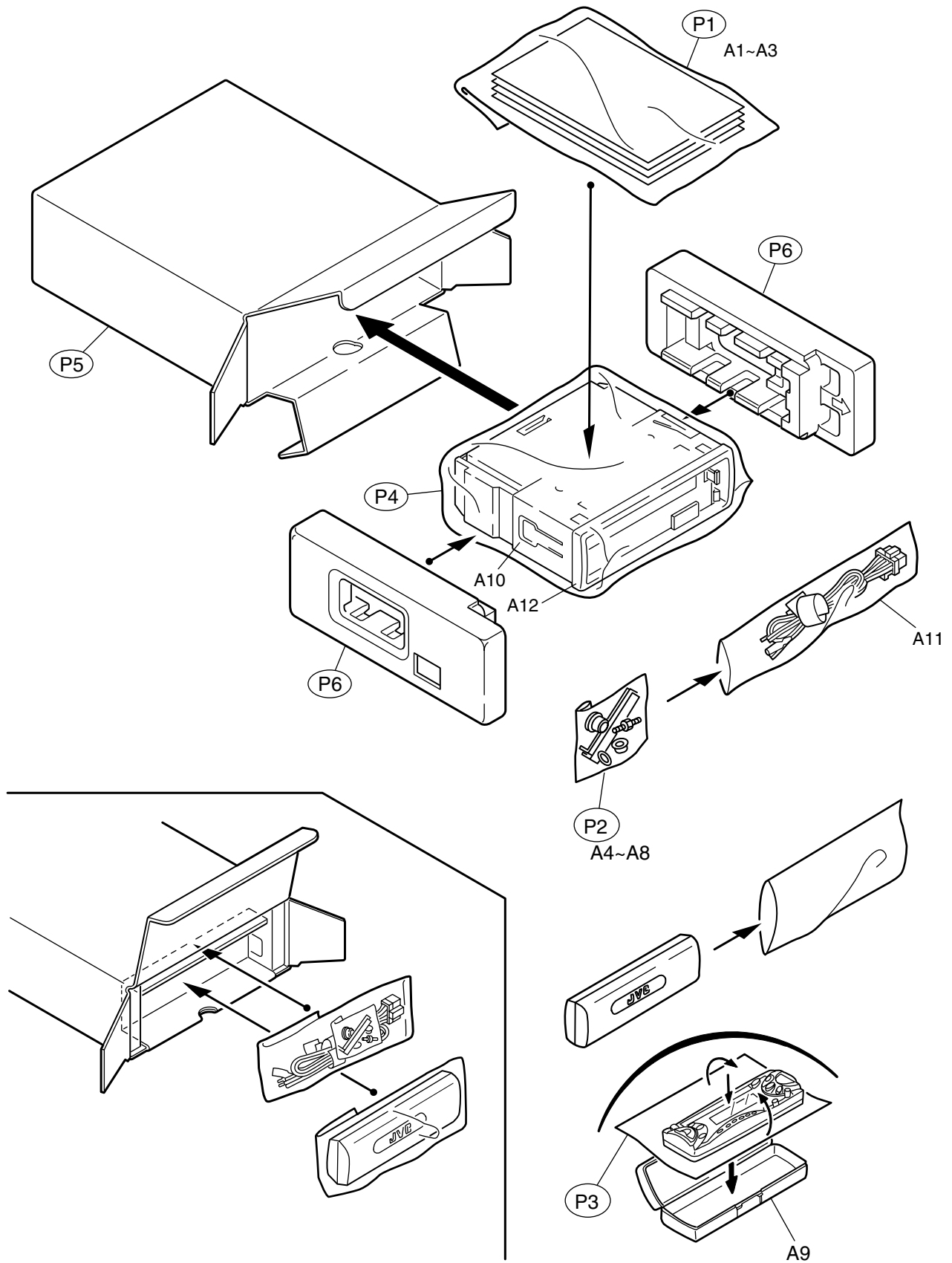
Packing materials and accessories parts list

Block No.

M	3	M	M
---	---	---	---

Block No.

M	5	M	M
---	---	---	---



■ **Parts list (Packing)**

Block No. M3MM

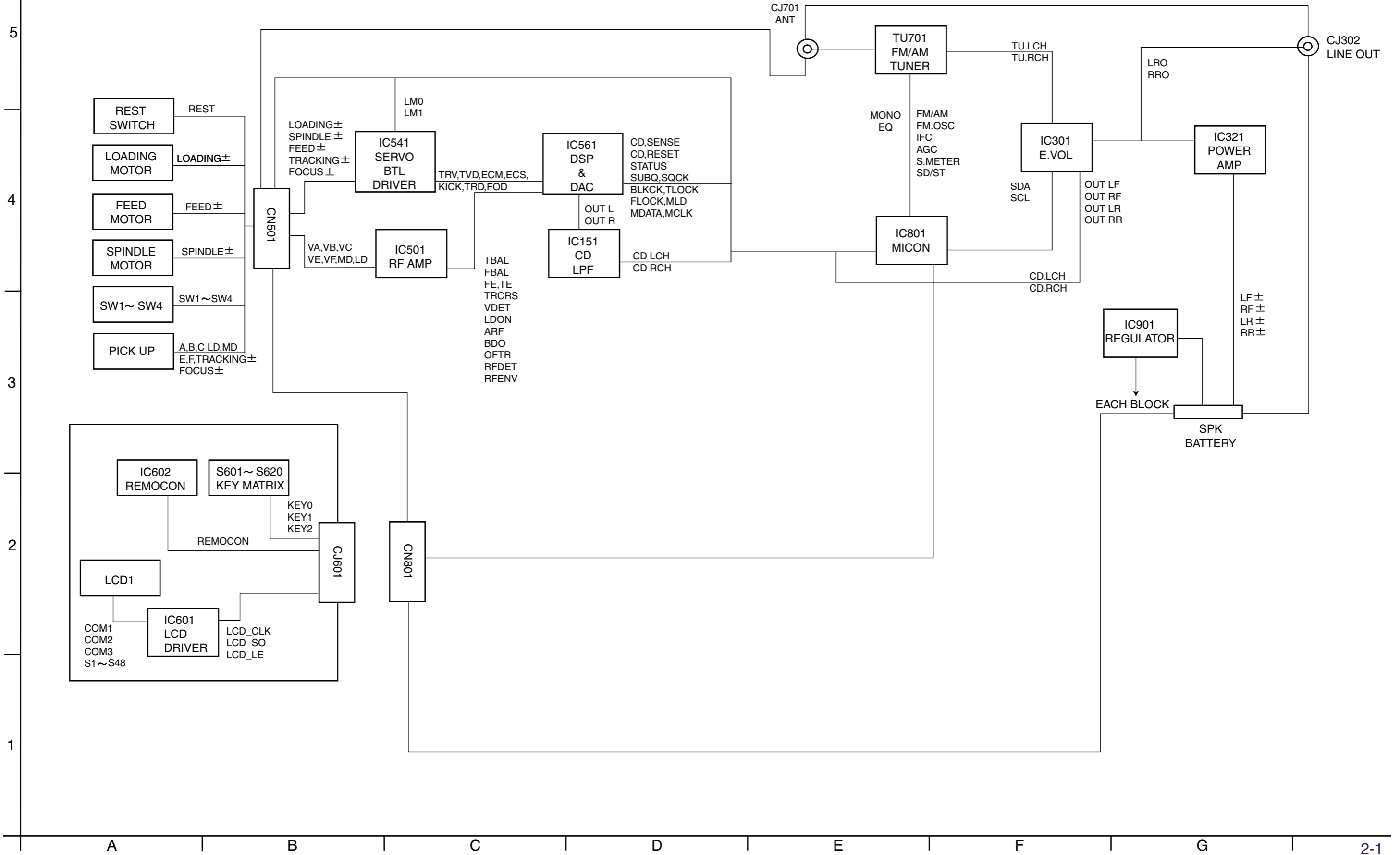
△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	-----	POLY BAG	1	FOR INST BOOK	
	P 2	-----	POLY BAG	1	FOR SCRWE KIT	
	P 3	-----	SHEET	1		
	P 4	-----	POLY BAG	1	FOR SET	
	P 5	-----	PACKING CASE	1		
	P 6	-----	CUSHION	2		

■ **Parts list (Accessories)**

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	-----	INST BOOK	1		
	A 2	-----	INSTALL MANUAL	1		
	A 3	-----	SERVICE ST LIST	1		
	A 4	VKZ4027-202	PLUG NUT	1		
	A 5	VKH4871-001SS	MOUNT BOLT	1		
	A 6	VKZ4328-001	LOCK NUT	1		
	A 7	WNS5000Z	WASHER	1		
	A 8	FSKL4010-002	HOOK	2		
	A 9	FSJB3001-30A	HARD CASE	1		
	A 10	FSKM2004-003SSF	MOUNTING SLEEVE	1		
	A 11	QAM0089-001SSF	16P CORD ASSY	1		
	A 12	FSJD2034-005SSF	TRIM PLATE	1		

Block diagram

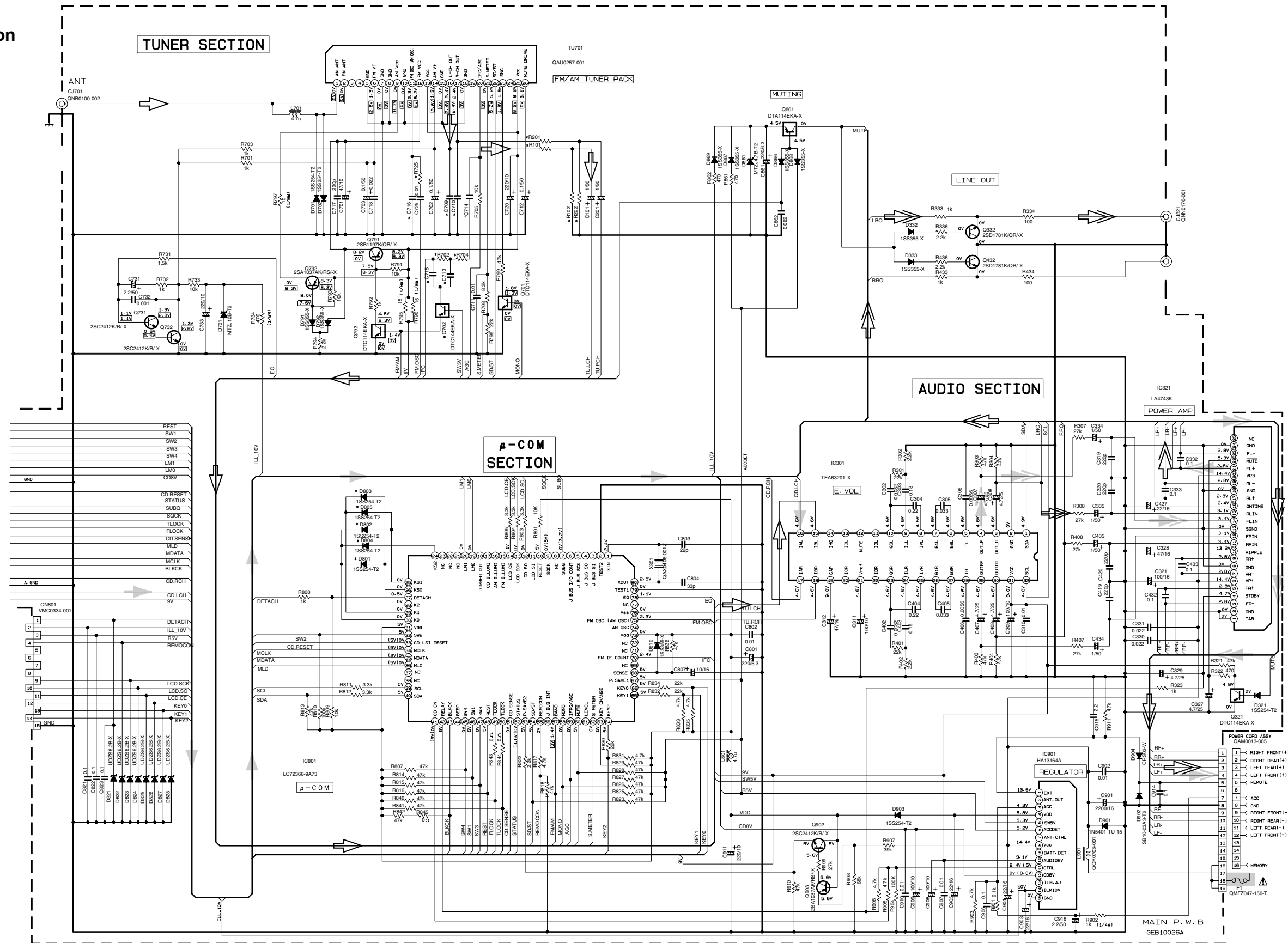


Standard schematic diagrams

KD-S587

KD-S587

Main amp section



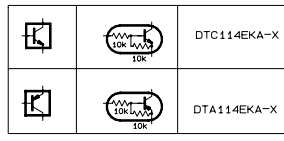
5
4
3
2
1

A B C 2-2 D E F G H

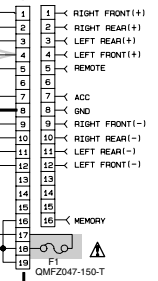
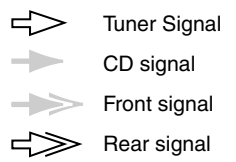
REMARK 1

C709-C710	0.003	J-ZUR
R101-R103	1.5k	1/16W
R104	10k	1/16W
R105	10k	1/16W
R106	10k	1/16W
R107	10k	1/16W
R108	10k	1/16W
R109	10k	1/16W
R110	10k	1/16W
R111	10k	1/16W
R112	10k	1/16W
R113	10k	1/16W
R114	10k	1/16W
R115	10k	1/16W
R116	10k	1/16W
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R198	10k	1/16W
R199	10k	1/16W
R200	10k	1/16W

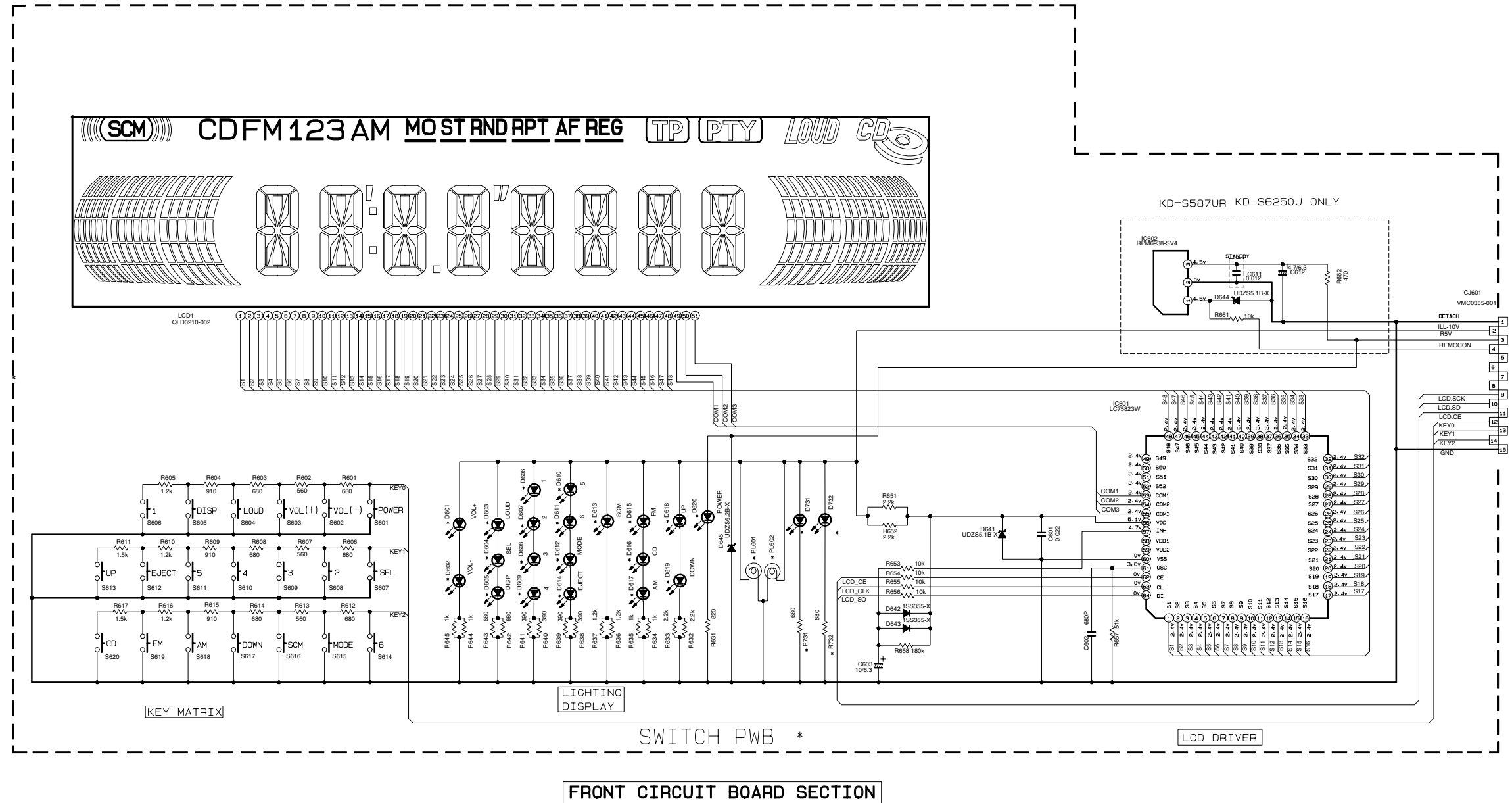
NOTES:
1. VOLTAGE ARE DC-MEASURED WITH A DIGITAL VOLTMETER WITHOUT INPUT SIGNAL CONDITION.
---FM [] AM MODE, --- [] CD MODE!
2. UNLESS OTHERWISE SPECIFIED, ALL RESISTOR ARE 1/16W 50METAL GLAZE RESISTOR.
ALL CAPACITOR ARE 50V OR 25V CERAMIC CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM.
ALL CAPACITANCE VALUES ARE IN UF(p=pF).
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(UF)/RATED VOLTAGE(V)



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



■ LCD & key control section



FRONT CIRCUIT BOARD SECTION

REMARK:

	KD-S587UR	KD-S6250J	KD-S587UR
D731 D732	NSPK10BS/BR/		
D601 - D612	SM-310VT/JK-X	SM-310VT/JK-X	
D614 - D619	SM-310LT/AV-X	SM-310LT/AV-X	
D620	SM-310LT/AV-X	SM-310LT/AV-X	
D613	LT1F87AF-M	LT1F87AF-M	
S601 - S620	NSW0066-001X	NSW0066-001X	
R731 R732	NRG181J-BR1X		
PL601 PL602		QLL0033-003	
SW PWB	GBE10037A	GBE10038A	

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
 - UNLESS OTHERWISE SPECIFIED, ALL RESISTOR 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 (PPF). ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (UF)/RATED VOLTAGE(V).

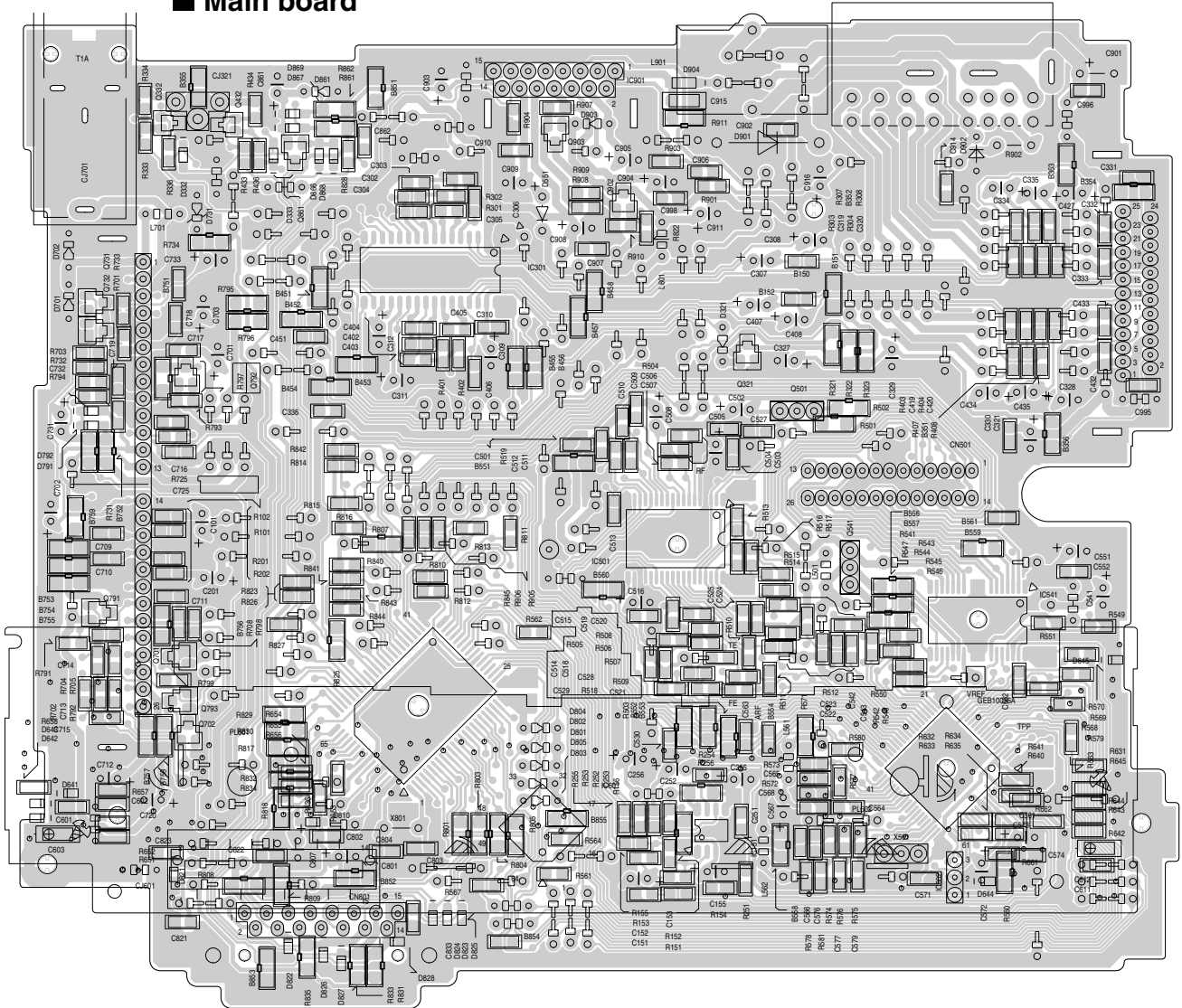
Printed circuit boards

■ Main board

5

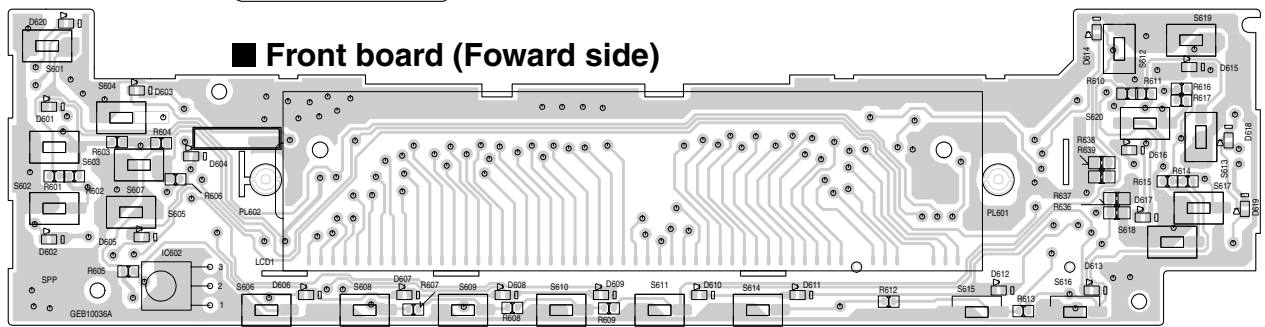
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3



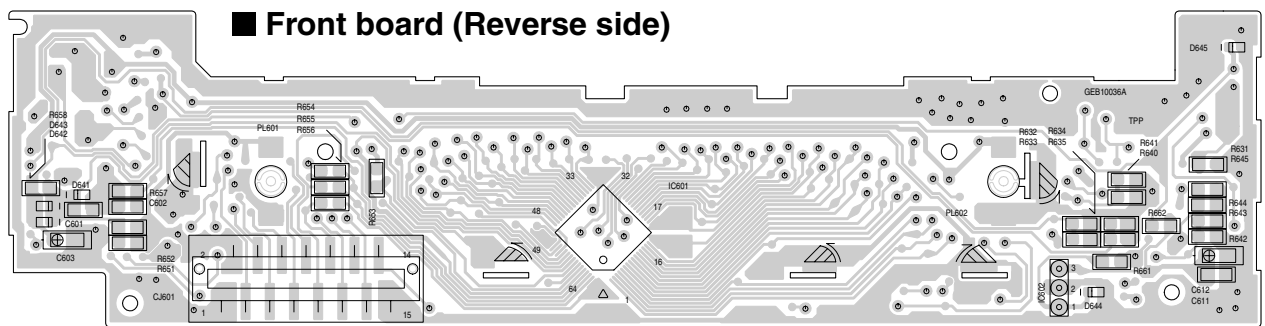
2

■ Front board (Forward side)



1

■ Front board (Reverse side)



A

B

C

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