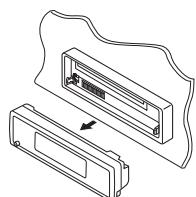
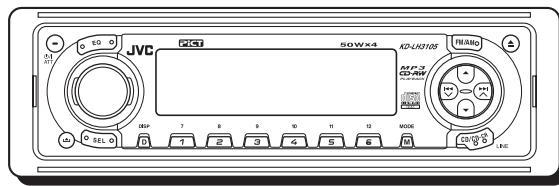


JVC

SERVICE MANUAL

CD RECEIVER

KD-LH3105



PICT

COMPACT
DISC
DIGITAL AUDIO
TEXT

MP3
CD-RW
PLAYBACK

Area Suffix
U ----- Other Areas

TABLE OF CONTENTS

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4 Description of major ICs	28

SPECIFICATION

AUDIO AMPLIFIER SECTION	Maximum Power Output	Front	50 W per channel	
		Rear	50 W per channel	
		Continuous Power Output (RMS)	Front	19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.
			Rear	19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.
		Load Impedance	4 Ω (4 Ω to 8 Ω allowance)	
		Equalizer Control Range	Frequencies	60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 12 kHz
			Level	±10 dB
		Frequency Response	40 Hz to 20 000 Hz	
		Signal-to-Noise Ratio	70 dB	
		Line-In Level/Impedance	1.5 V/20 kΩ load	
		Line-Out Level/Impedance	4.0 V/20 kΩ load (full scale)	
		Output Impedance	1 kΩ	
		Subwoofer-Out Level/Impedance	2.0 V/20 kΩ load (full scale)	
TUNER SECTION	Frequency Range	FM	87.5 MHz to 108.0 MHz	
		AM	531 kHz to 1 602 kHz	
	[FM Tuner]	Usable Sensitivity	11.3 dBf (1.0 µV/75 Ω)	
		50 dB Quieting Sensitivity	16.3 dBf (1.8 µV/75 Ω)	
		Alternate Channel Selectivity (400 kHz)	65 dB	
		Frequency Response	40 Hz to 15 000 Hz	
		Stereo Separation	35 dB	
		Capture Ratio	1.5 dB	
	[AM Tuner]	Sensitivity	20 µV	
		Selectivity	35 dB	
CD PLAYER SECTION	Type	Compact disc player		
	Signal Detection System	Non-contact optical pickup (semiconductor laser)		
	Number of channels	2 channels (stereo)		
	Frequency Response	5 Hz to 20 000 Hz		
	Dynamic Range	96 dB		
	Signal-to-Noise Ratio	98 dB		
	Wow and Flutter	Less than measurable limit		
	MP3 decoding format	MPEG1/2 Audio Layer 3		
GENERAL	Max. Bit Rate	320 Kbps		
	Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)	
	Grounding System	Negative ground		
	Allowable Operating Temperature	0°C to +40°C		
	Dimensions (W × H × D)	Installation Size (approx.)	182 mm × 52 mm × 150 mm	
		Panel Size (approx.)	188 mm × 58 mm × 12 mm	
		Mass (approx.)	1.4 kg (excluding accessories)	

Design and specifications are subject to change without notice.

SECTION 1

Precautions

1.1 Safety Precautions



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.

1.2 Preventing 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.

1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players.

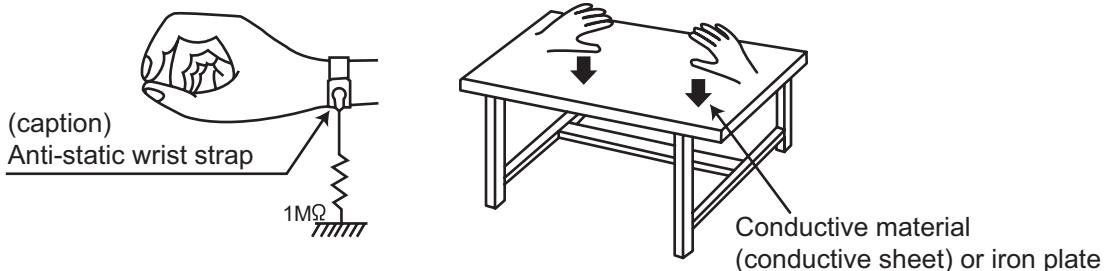
Be careful to use proper grounding in the area where repairs are being performed.

(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) Ground yourself

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



(3) Handling the optical pickup

- 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.)
- 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.

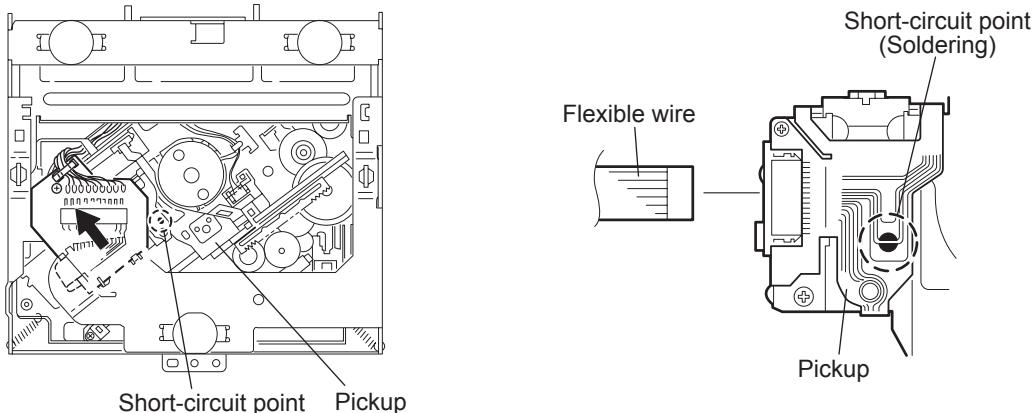
1.3 Handling the traverse unit (optical pickup)

- Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
- 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.
- Handle the flexible cable carefully as it may break when subjected to strong force.
- It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

1.4 Attention when traverse unit is decomposed

*Please refer to "Disassembly method" in the text for the CD pickup unit.

- Apply solder to the short land before the flexible wire is disconnected from the connector on the CD pickup unit.
(If the flexible wire is disconnected without applying solder, the CD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land after connecting the flexible wire.



SECTION 2

Disassembly method

2.1 Main body

2.1.1 Removing the front panel assembly (See Fig.1)

- (1) Push the detach button in the lower left part of the front panel assembly and remove the front panel assembly.

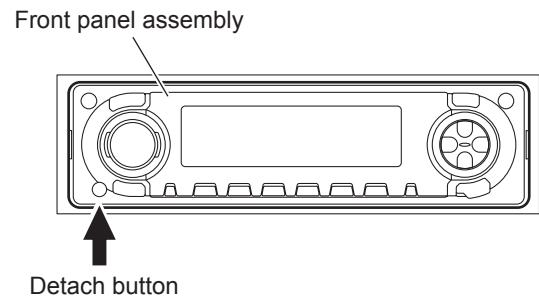


Fig.1

2.1.2 Removing the bottom cover

(See Fig.2)

- Prior to performing the following procedure, remove the front panel assembly as required.
- (1) Turn over the main body and release the two joints **a**, two joints **b** and joint **c**.

Caution:

Do not damage the main board when releasing the joints using a screwdriver.

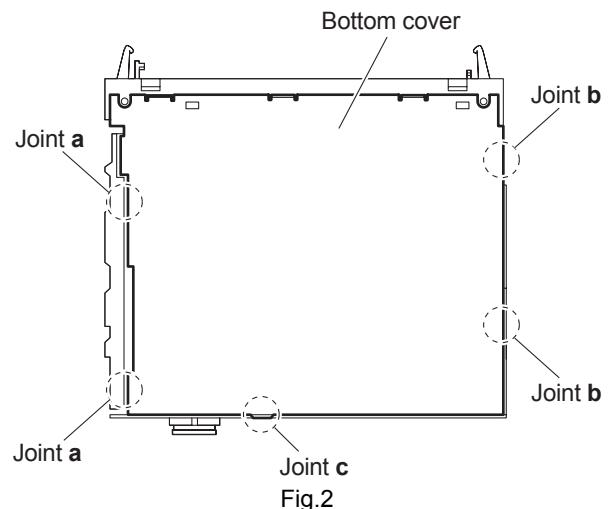
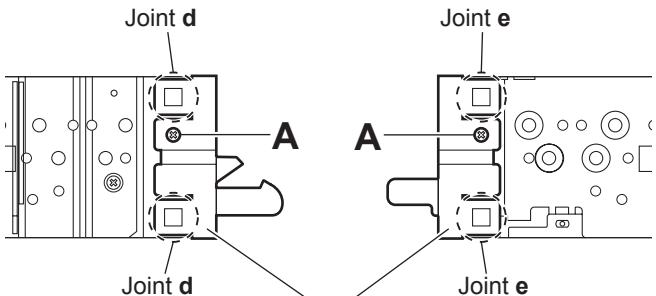


Fig.2

2.1.3 Removing the front chassis assembly

(See Figs.3 and 4)

- Prior to performing the following procedures, remove the front panel assembly and bottom cover.
- (1) Remove the two screws **A** on the both sides of the main body. (See Fig.3.)
- (2) Remove the two screws **B** on the front side of the main body. (See Fig.4.)
- (3) Release the two joints **d** and two joints **e** on the both sides of the main body. (See Fig.3.)



Front chassis assembly

Fig.3

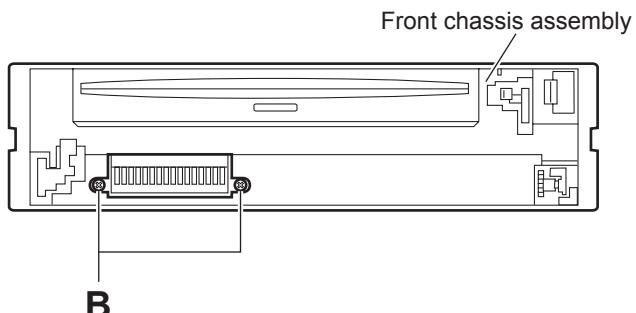


Fig.4

2.1.4 Removing the heat sink

(See Fig.5)

- Prior to performing the following procedure, remove the front panel assembly as required.
- (1) Remove the two screws **C** and two screws **D** on the left side of the main body.

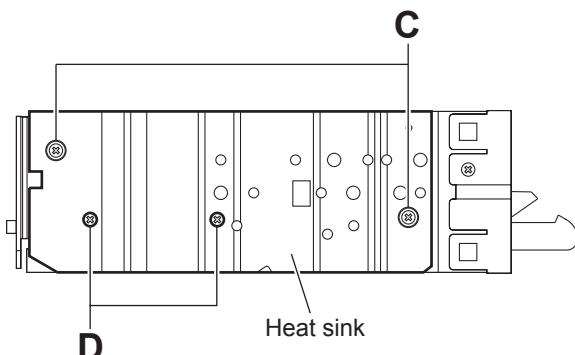


Fig.5

2.1.5 Removing the rear bracket

(See Fig.6)

- Prior to performing the following procedures, remove the bottom cover.
- (1) Remove the three screws **E**, three screws **F** and three screws **G** on the back side of the main body.
- (2) Remove the rear bracket.

Reference:

During reassembly, before fixing the rear bracket onto the main body, insert the SUB WOOFER cable and LINE IN cable into the slots.

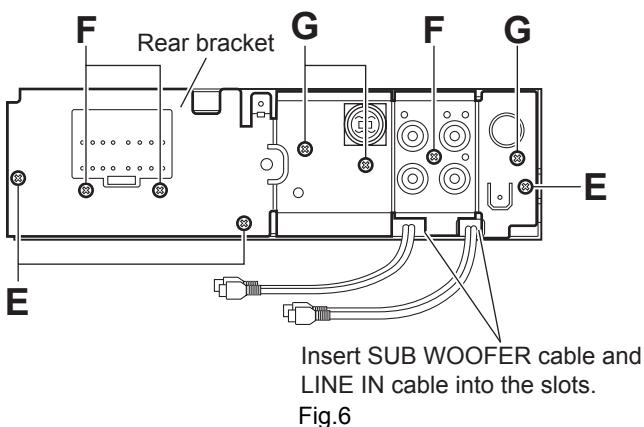


Fig.6

2.1.6 Removing the main board

(See Fig.7)

- Prior to performing the following procedures, remove the front panel assembly, bottom cover, front chassis assembly, heat sink and rear bracket.

- (1) Remove the two screws **H** attaching the main board.
- (2) Disconnect the connector CN601 and remove the main board in an upward direction.

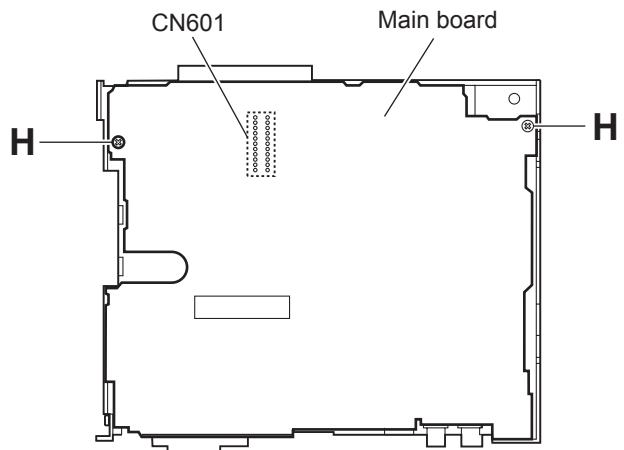


Fig.7

2.1.7 Removing the mecha control board

(See Fig.8)

- Prior to performing the following procedures, remove the front panel assembly, bottom cover, front chassis assembly, heat sink, rear bracket and main board.

- (1) Remove the five screws **J** attaching the mecha control board.
- (2) Disconnect the card wire from the mecha connector.
- (3) Move the mecha control board in the direction of the arrow to release it from the joint **f**.

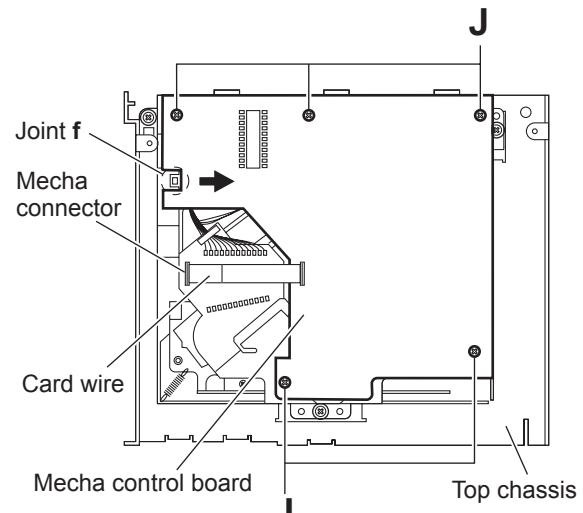


Fig.8

2.1.8 Removing the CD mechanism assembly

(See Fig.9)

- Prior to performing the following procedure, remove the front panel assembly, bottom cover, front chassis assembly, heat sink, rear bracket, main board and mecha control board.

- (1) Remove the three screws **K** attaching the CD mechanism assembly to the top chassis.

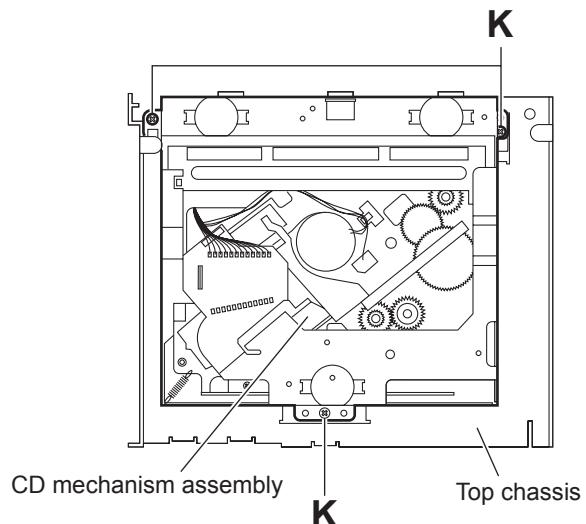


Fig.9

2.1.9 Removing the front board

(See Figs.10 to 12)

- Prior to performing the following procedures, remove the front panel assembly.
 - (1) Remove the five screws **L** attaching the rear cover on the back side of the front panel assembly. (See Fig.10.)
 - (2) Release the eight joints **g**, remove the rear cover from the front panel assembly. (See Fig.11.)
 - (3) Take out the front board. (See Fig.12.)

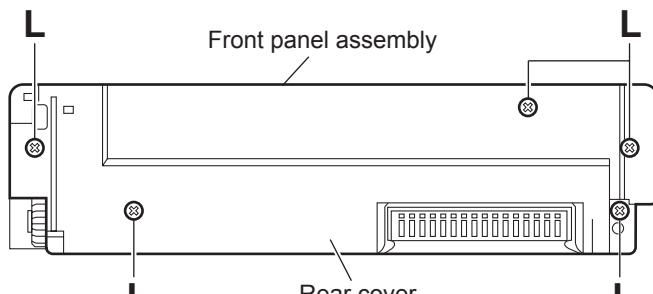


Fig.10

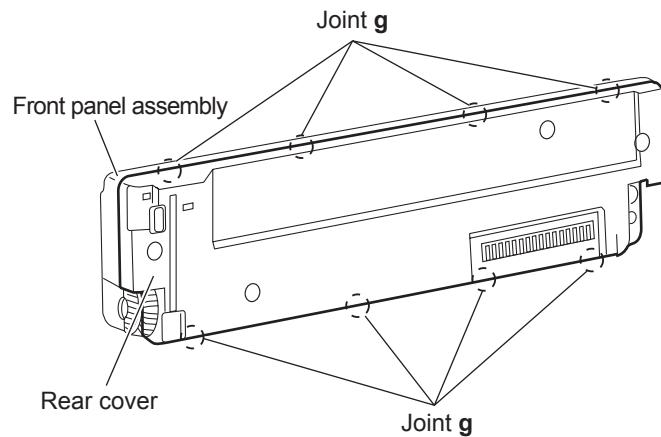


Fig.11

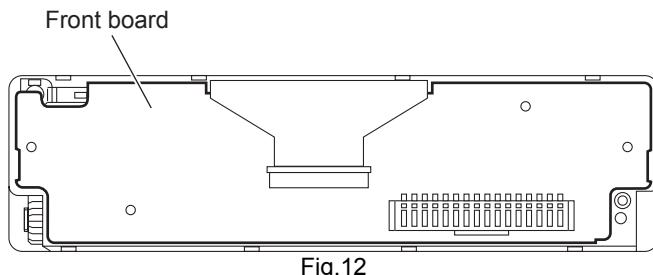


Fig.12

2.2 CD Mechanism section

2.2.1 Removing the top cover

(See Figs.1 and 2)

- (1) Remove the four screws **A** on the both side of the body.
- (2) Lift the front side of the top cover and move the top cover backward to release the two joints **a**.

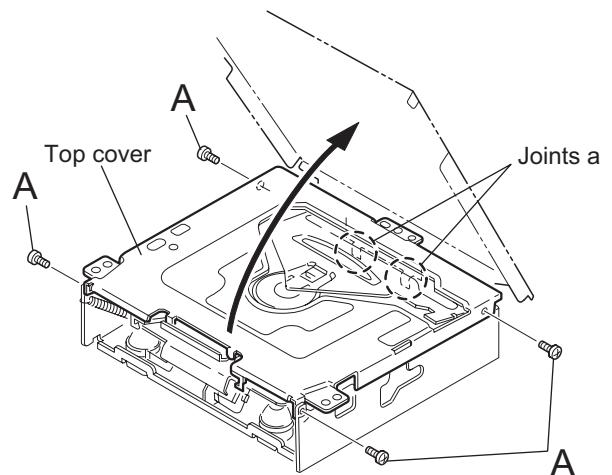


Fig.1

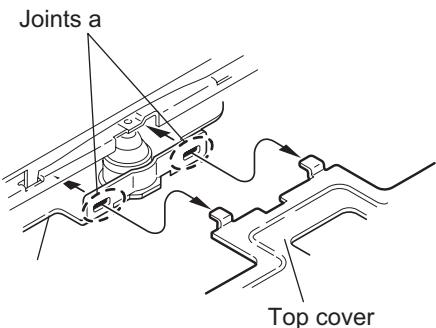


Fig.2

2.2.2 Removing the connector board

(See Figs.3 to 5)

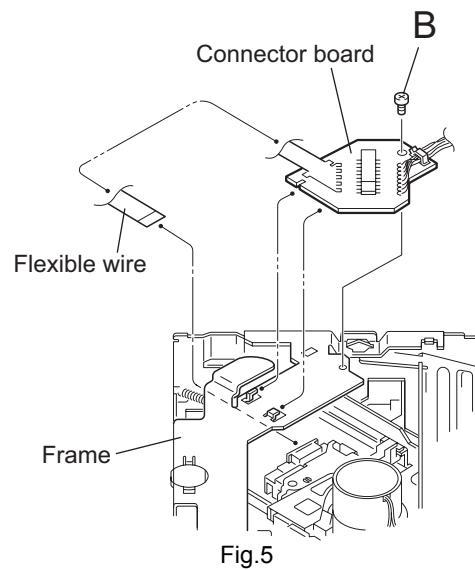
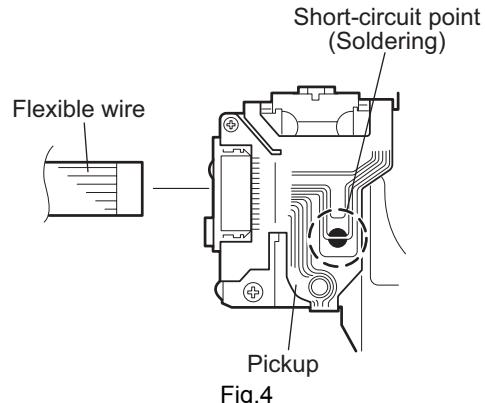
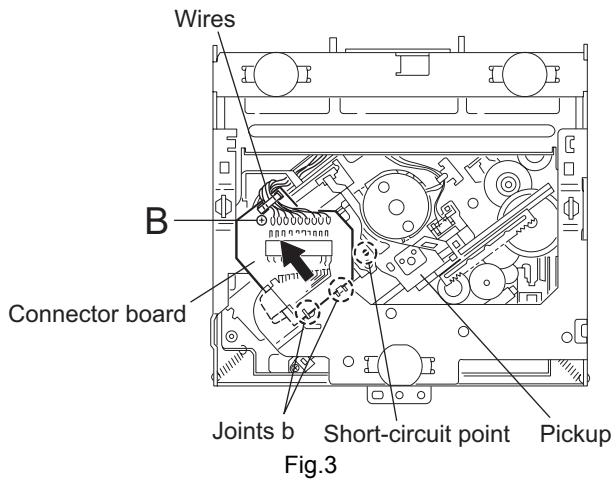
CAUTION:

Before disconnecting the flexible wire from the pickup, solder the short-circuit point on the pickup. No observance of this instruction may cause damage of the pickup.

- (1) Remove the screw **B** fixing the connector board.
- (2) Solder the short-circuit point on the pickup.
- (3) Disconnect the flexible wire from the pickup.
- (4) Move the connector board in the direction of the arrow to release the two joints **b**.
- (5) Unsolder the wires on the connector board if necessary.

CAUTION:

Unsolder the short-circuit point after reassembling.



2.2.3 Removing the DET switch

(See Figs.6 and 7)

- (1) Extend the two tabs c of the feed sw. holder and pull out the switch.
- (2) Unsolder the DET switch wire if necessary.

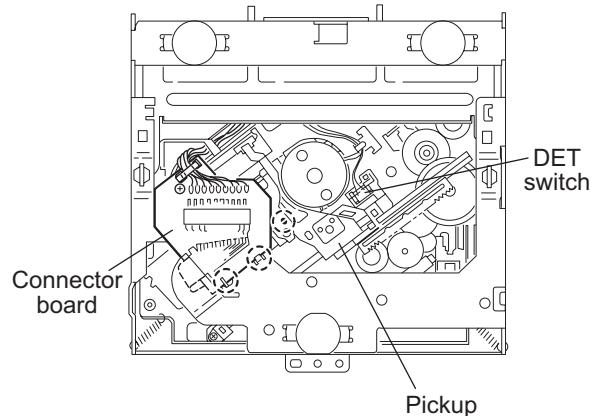


Fig.6

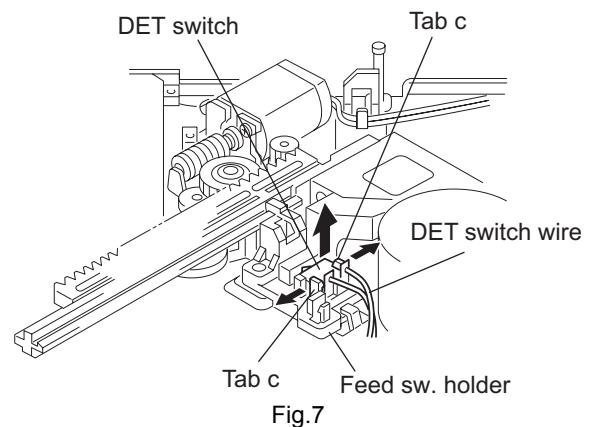


Fig.7

2.2.4 Removing the chassis unit

(See Figs.8 and 9)

- Prior to performing the following procedure, remove the top cover and connector board.
- (1) Remove the two suspension springs (L) and (R) attaching the chassis unit to the frame.

CAUTION:

- The shape of the suspension spring (L) and (R) are different. Handle them with care.
- When reassembling, make sure that the three shafts on the underside of the chassis unit are inserted to the dampers certainly.

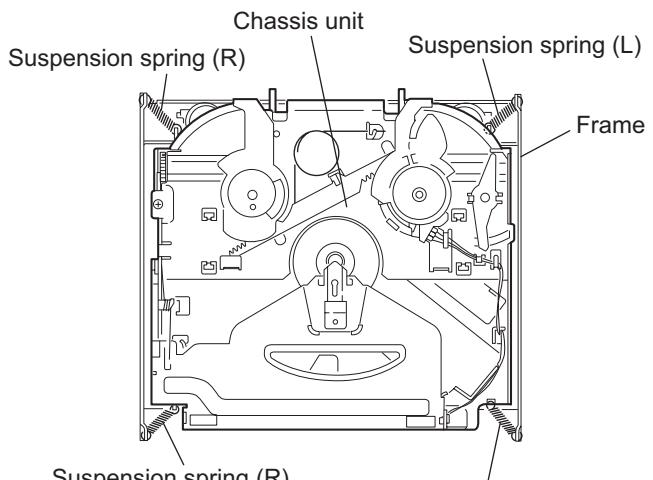


Fig.8

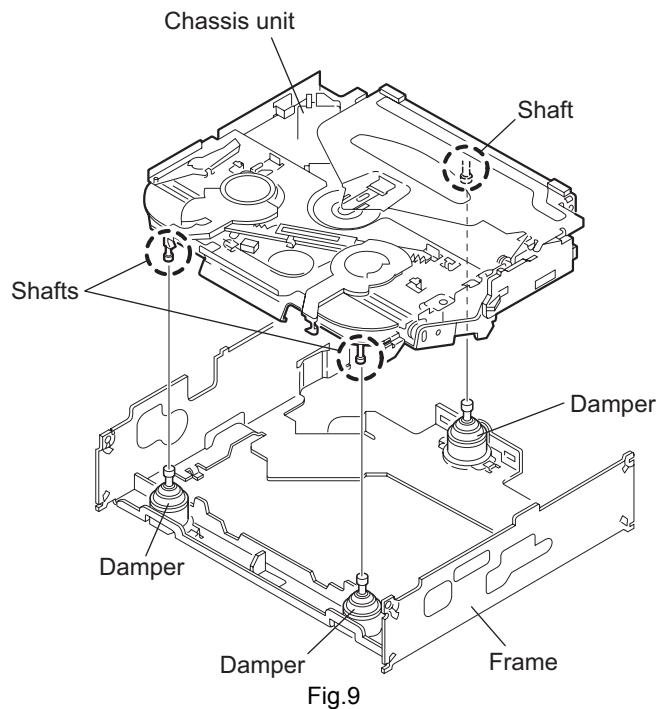


Fig.9

2.2.5 Removing the clamper assembly

(See Figs.10 and 11)

- Prior to performing the following procedure, remove the top cover.
- (1) Remove the clamper arm spring.
- (2) Move the clamper assembly in the direction of the arrow to release the two joints d.

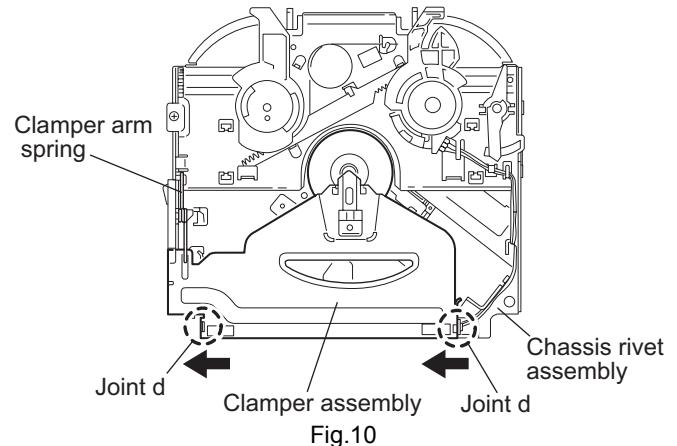


Fig.10

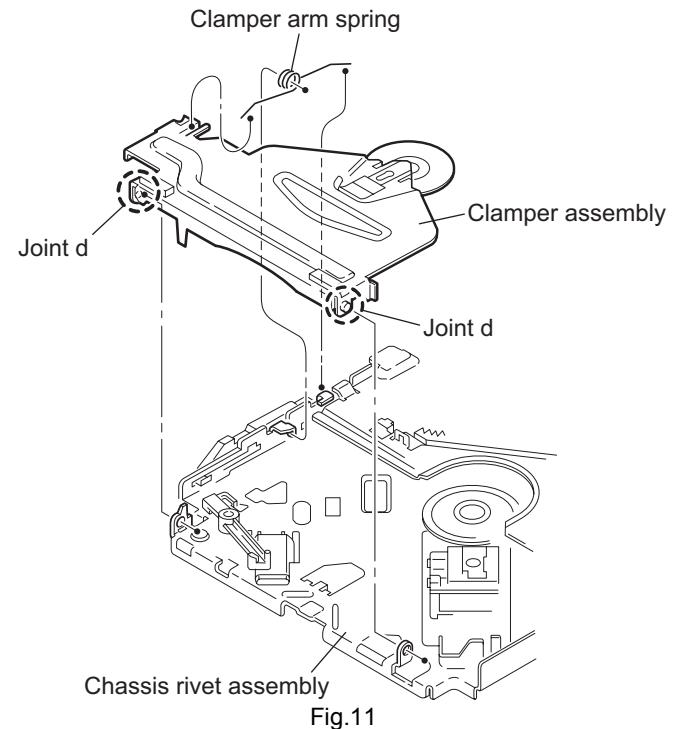


Fig.11

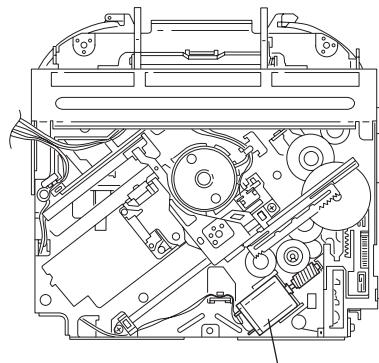
2.2.6 Removing the loading / feed motor assembly

(See Figs.12 and 13)

- Prior to performing the following procedure, remove the top cover, connector board and chassis unit.
- (1) Remove the screw **C** and move the loading / feed motor assembly in the direction of the arrow to remove it from the chassis rivet assembly.
- (2) Disconnect the wire from the loading / feed motor assembly if necessary.

CAUTION:

When reassembling, connect the wire from the loading / feed motor assembly to the flame as shown in Fig.12.



Loading / feed motor assembly
Fig.12

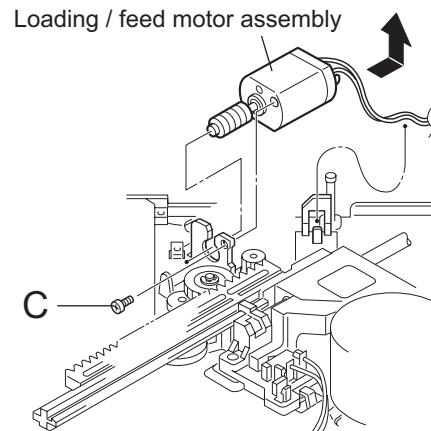


Fig.13

2.2.7 Removing the pickup unit

(See Figs.14 to 18)

- Prior to performing the following procedure, remove the top cover, connector board and chassis unit.
- (1) Remove the screw **D** and pull out the pu. shaft holder from the pu. shaft.
- (2) Remove the screw **E** attaching the feed sw. holder.
- (3) Move the part **e** of the pickup unit upward with the pu. shaft and the feed sw. holder, then release the joint **f** of the feed sw. holder in the direction of the arrow. The joint **g** of the pickup unit and the feed rack is released, and the feed sw. holder comes off.
- (4) Remove the pu. shaft from the pickup unit.
- (5) Remove the screw **F** attaching the feed rack to the pickup unit.

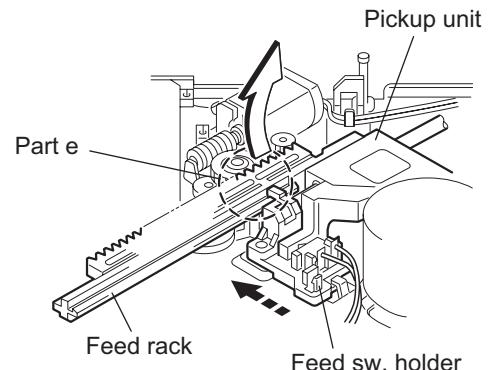


Fig.15

2.2.8 Reattaching the pickup unit

(See Figs.14 to 17)

- (1) Reattach the feed rack to the pickup unit using the screw **F**.
- (2) Reattach the feed sw. holder to the feed rack while setting the joint **g** to the slot of the feed rack and setting the joint **f** of the feed rack to the switch of the feed sw. holder correctly.
- (3) As the feed sw. holder is temporarily attached to the pickup unit, set to the gear of the joint **g** and to the bending part of the chassis (joint **h**) at a time.

CAUTION:

Make sure that the part **i** on the underside of the feed rack is certainly inserted to the slot **j** of the change lock lever.

- (4) Reattach the feed sw. holder using the screw **E**.
- (5) Reattach the pu. shaft to the pickup unit. Reattach the pu. shaft holder to the pu. shaft using the screw **D**.

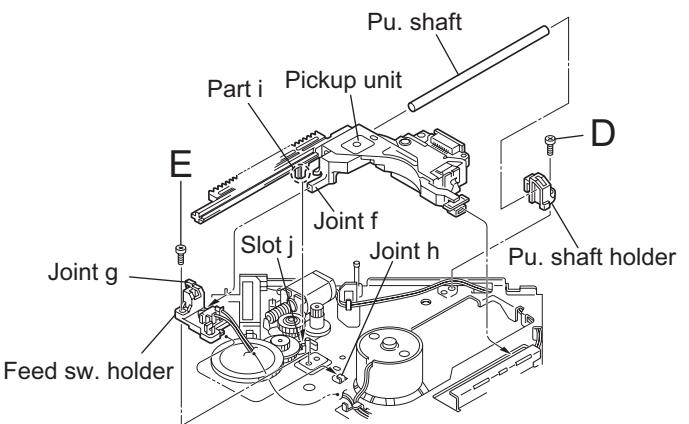


Fig.16

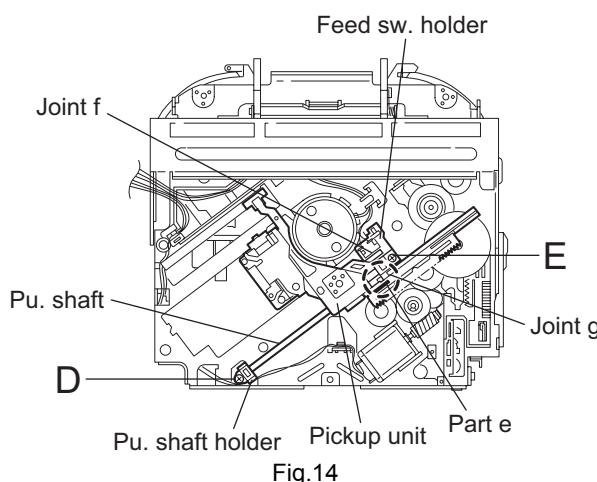


Fig.14

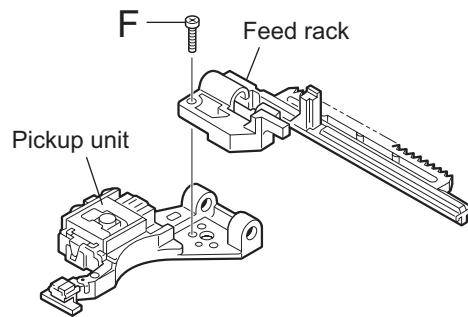


Fig.17

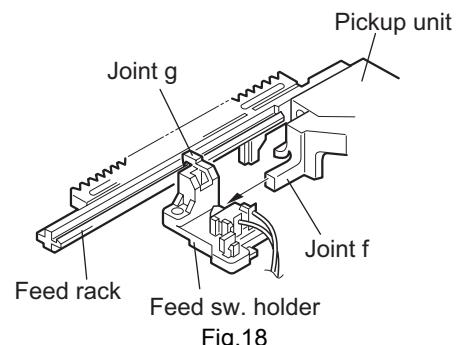


Fig.18

2.2.9 Removing the trigger arm

(See Figs.19 and 20)

- Prior to performing the following procedure, remove the top cover, connector board and clamper unit.
- (1) Turn the trigger arm in the direction of the arrow to release the joint **k** and pull out upward.

CAUTION:

When reassembling, insert the part m and n of the trigger arm into the part p and q at the slot of the chassis rivet assembly respectively and join the joint **k** at a time.

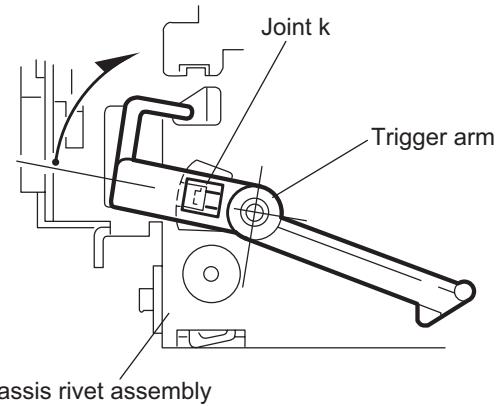


Fig.19

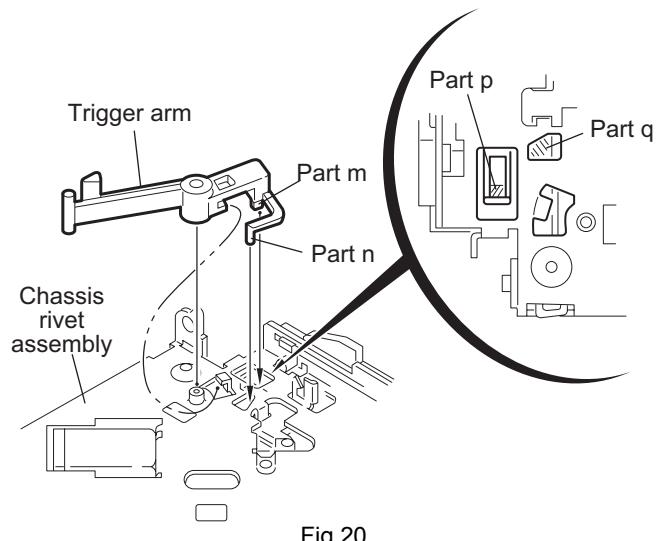


Fig.20

2.2.10 Removing the top plate assembly

(See Fig.21)

- Prior to performing the following procedure, remove the top cover, connector board, chassis unit, and clamper assembly.
- (1) Remove the screw **H**.
- (2) Move the top plate assembly in the direction of the arrow to release the two joints **r**.
- (3) Unsolder the wire marked **s** if necessary.

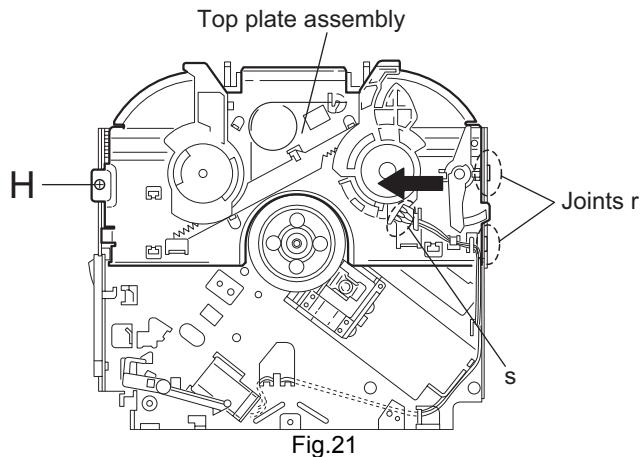


Fig.21

2.2.11 Removing the mode sw. / select lock arm

(See Figs.22 and 23)

- Prior to performing the following procedure, remove the top plate assembly.
- (1) Bring up the mode sw. to release from the link plate (joint t) and turn in the direction of the arrow to release the joint u.
- (2) Unsolder the wire of the mode sw. marked s if necessary.
- (3) Turn the select lock arm in the direction of the arrow to release the two joints v.
- (4) The select lock arm spring comes off the select lock arm at the same time.

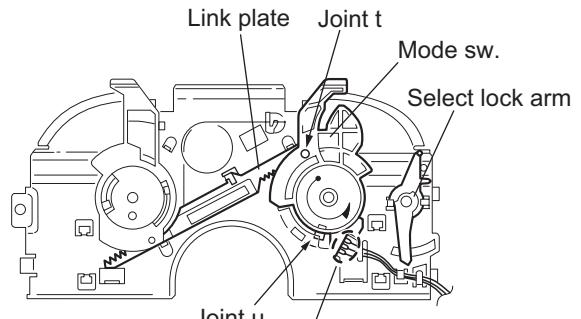


Fig.22

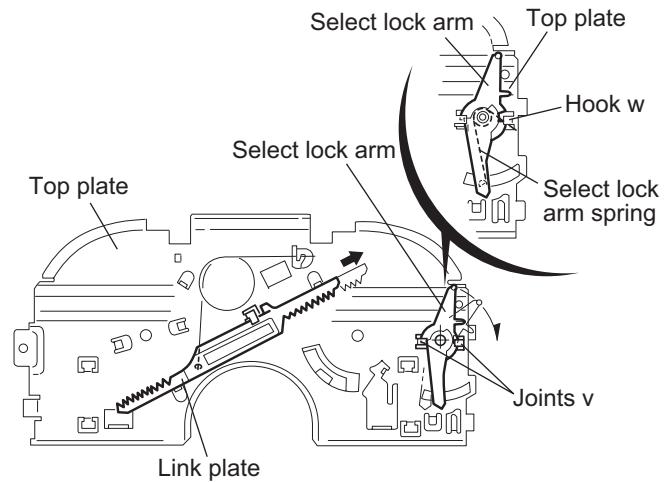


Fig.23

2.2.12 Reassembling the mode sw. / select lock arm (See Figs.24 to 26)

REFERENCE:

Reverse the above removing procedure.

- (1) Reattach the select lock arm spring to the top plate and set the shorter end of the select lock arm spring to the hook w on the top plate.
- (2) Set the other longer end of the select lock arm spring to the boss x on the underside of the select lock arm, and join the select lock arm to the slots (joint v). Turn the select lock arm as shown in the figure.
- (3) Reattach the mode sw. while setting the part t to the first peak of the link plate gear, and join the joint u.

CAUTION:

When reattaching the mode sw., check if the points y and z are correctly fitted and if each part operates properly.

Select lock arm spring

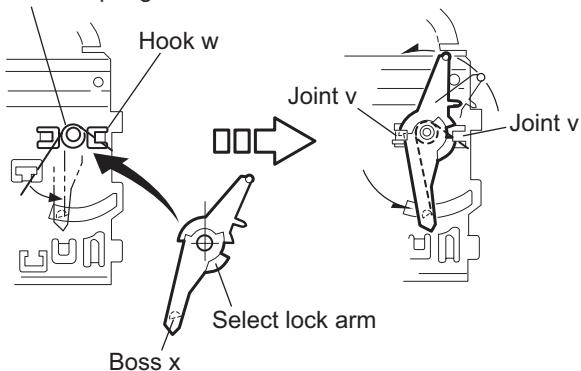


Fig.24

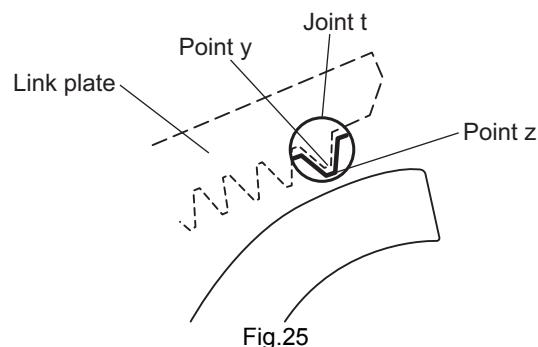


Fig.25

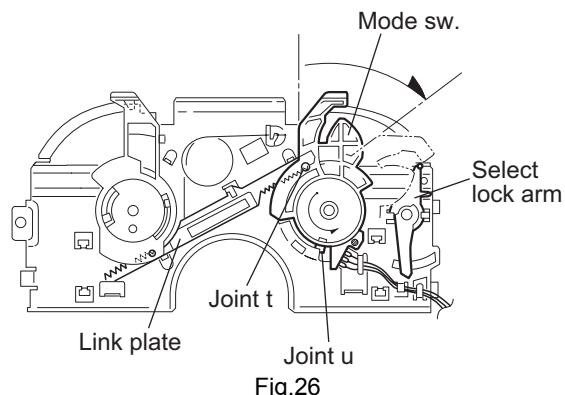


Fig.26

2.2.13 Removing the select arm R / link plate

(See Figs.27 and 28)

- Prior to performing the following procedure, remove the top plate assembly.
- (1) Bring up the select arm R to release from the link plate (joint a') and turn as shown in the figure to release the two joints b' and joint c'.
- (2) Move the link plate in the direction of the arrow to release the joint d'. Remove the link plate spring at the same time.

REFERENCE:

Before removing the link plate, remove the mode sw...

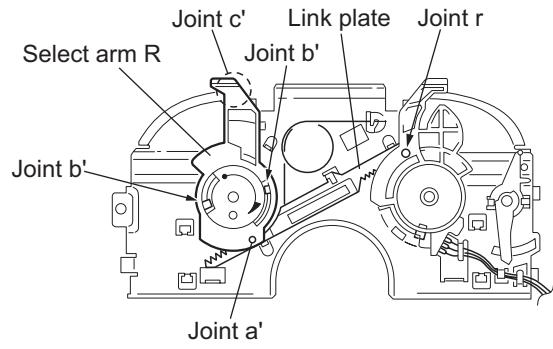


Fig.27

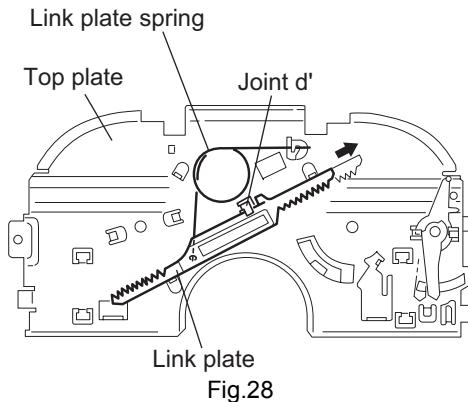


Fig.28

2.2.14 Reattaching the Select arm R / link plate

(See Figs.29 and 30)

REFERENCE:

Reverse the above removing procedure.

- Reattach the link plate spring.
- Reattach the link plate to the link plate spring while joining them at joint d'.
- Reattach the joint a' of the select arm R to the first peak of the link plate while joining the two joints b' with the slots. Then turn the select arm R as shown in the figure. The top plate is joined to the joint c'.

CAUTION:

When reattaching the select arm R, check if the points e' and f' are correctly fitted and if each part operates properly.

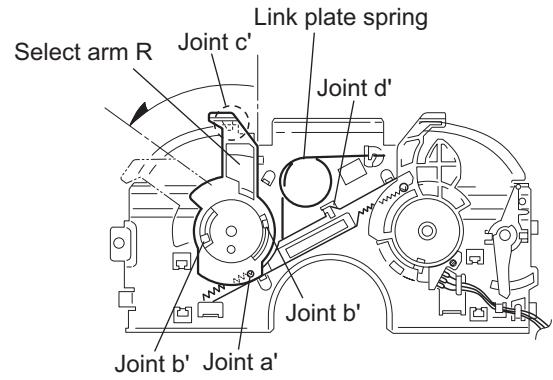


Fig.29

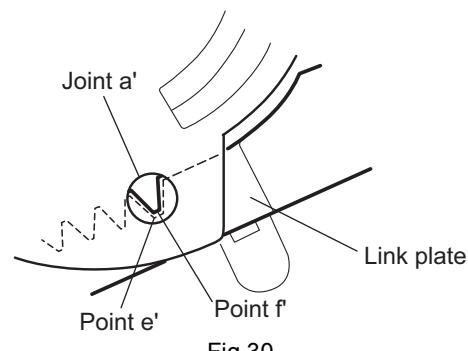


Fig.30

2.2.15 Removing the loading roller assembly

(See Figs.31 to 33)

- Prior to performing the following procedure, remove the clamper assembly and top plate assembly.
- (1) Push inward the loading roller assembly on the gear side and detach it upward from the slot of the joint **g'** of the lock arm rivet assembly.
- (2) Detach the loading roller assembly from the slot of the joint **h'** of the lock arm rivet assembly.

The roller guide comes off the gear section of the loading roller assembly.

Remove the roller guide and the HL washer from the shaft of the loading roller assembly.

- (3) Remove the screw **J** attaching the lock arm rivet assembly.
- (4) Push the shaft at the joint **i'** of the lock arm rivet assembly inward to release the lock arm rivet assembly from the slot of the L side plate.
- (5) Extend the lock arm rivet assembly outward and release the joint **j'** from the boss of the chassis rivet assembly. The roller guide springs on both sides come off at the same time.

CAUTION:

When reassembling, reattach the left and right roller guide springs to the lock arm rivet assembly before reattaching the lock arm rivet assembly to the chassis rivet assembly. Make sure to fit the part **k'** of the roller guide spring inside of the roller guide. (Refer to Fig.34.)

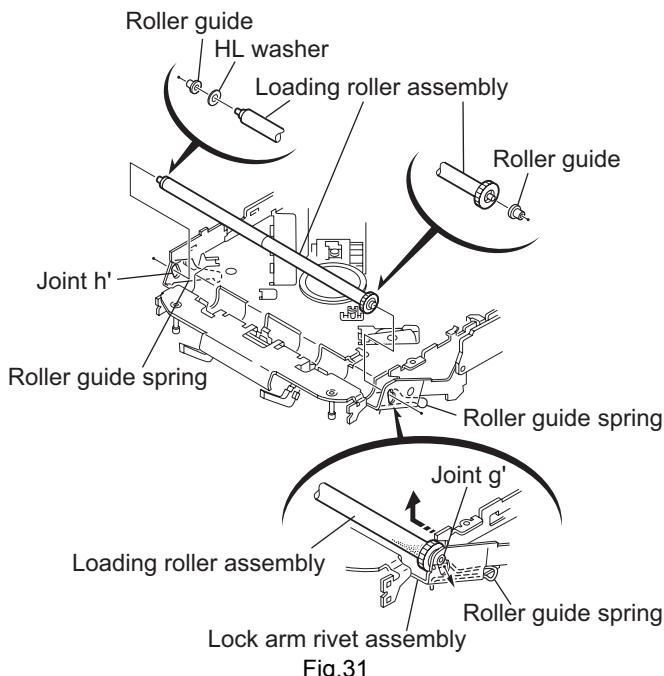


Fig.31

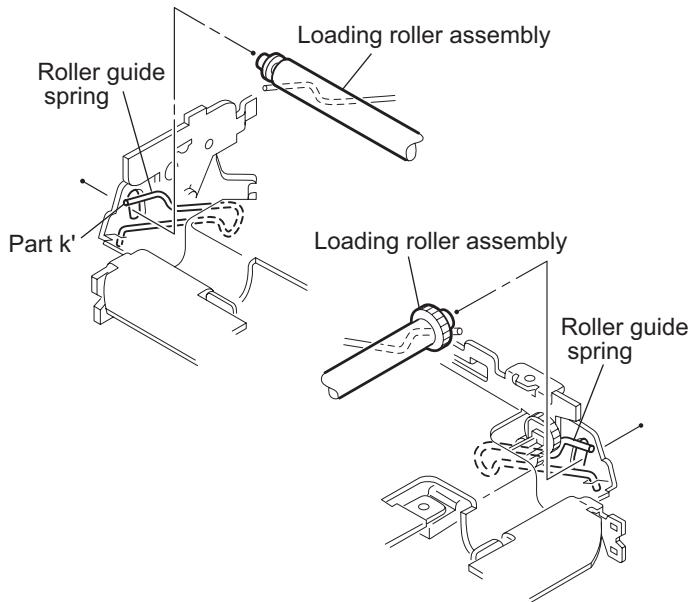


Fig.32

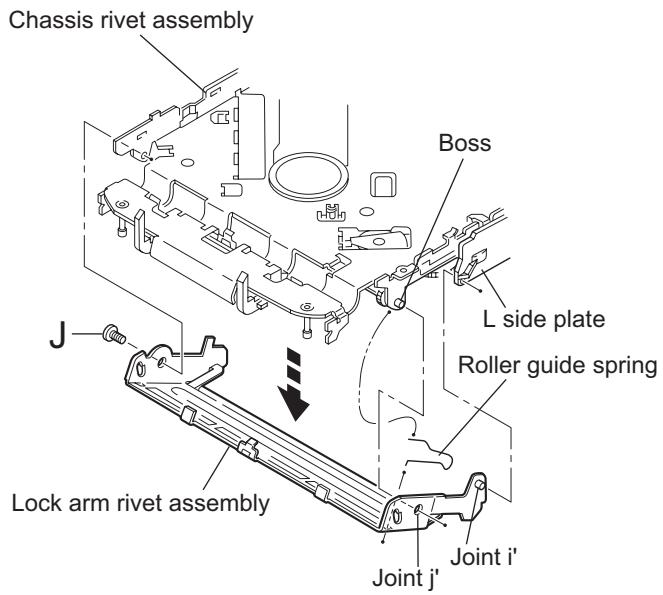


Fig.33

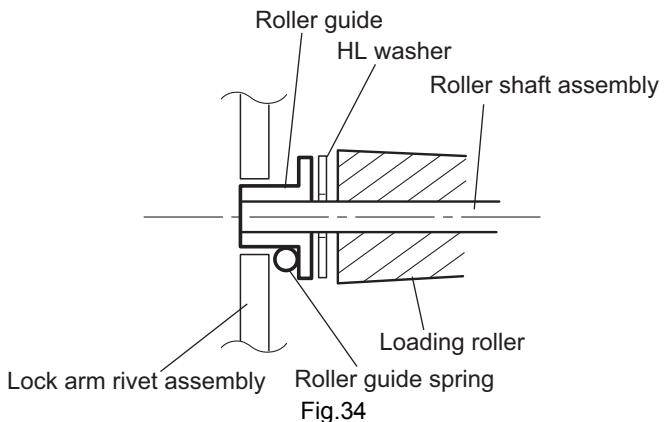


Fig.34

2.2.16 Removing the loading gear 5, 6 and 7

(See Figs.35 and 36)

- Prior to performing the following procedure, remove the top cover, chassis unit, pickup unit and top plate assembly.
- (1) Remove the screw K attaching the loading gear bracket. The loading gear 6 and 7 come off the loading gear bracket.
- (2) Pull out the loading gear 5.

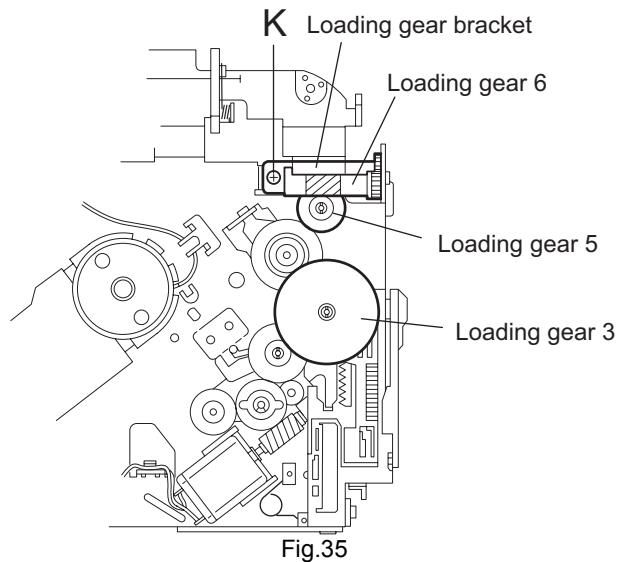


Fig.35

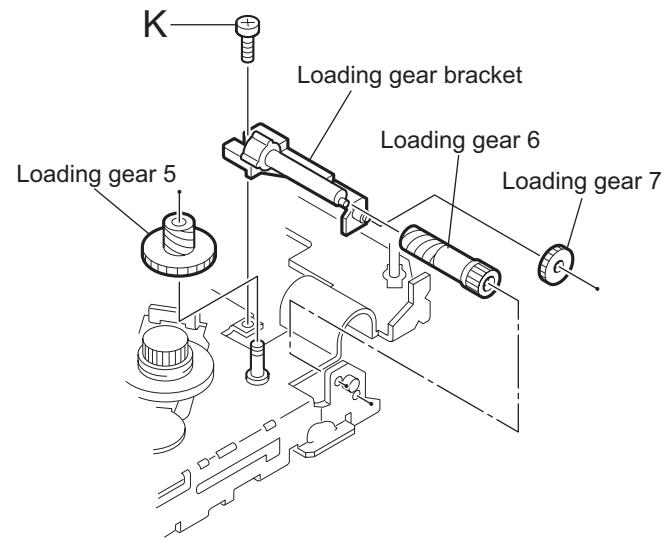


Fig.36

2.2.17 Removing the gears

(See Figs.37 to 40)

- Prior to performing the following procedure, remove the top cover, chassis unit, top plate assembly and pickup unit.
- Pull out the loading gear 3. (See Fig.35.)
- (1) Pull out the feed gear.
- (2) Move the loading plate assembly in the direction of the arrow to release the L side plate from the two slots m' of the chassis rivet assembly. (See Fig.37.)
- (3) Detach the loading plate assembly upward from the chassis rivet assembly while releasing the joint n'. Remove the slide hook and loading plate spring from the loading plate assembly.
- (4) Pull out the loading gear 2 and remove the change lock lever.
- (5) Remove the E ring and washer attaching the change gear 2.
- (6) The change gear 2, change gear spring and adjusting washer come off.
- (7) Remove the loading gear 1.
- (8) Move the change plate rivet assembly in the direction of the arrow to release from the three shafts of the chassis rivet assembly upward. (See Fig.38.)
- (9) Detach the loading gear plate rivet assembly from the shaft of the chassis rivet assembly upward while releasing the joint p'. (See Figs.38 and 40.)
- (10) Pull out the loading gear 4.

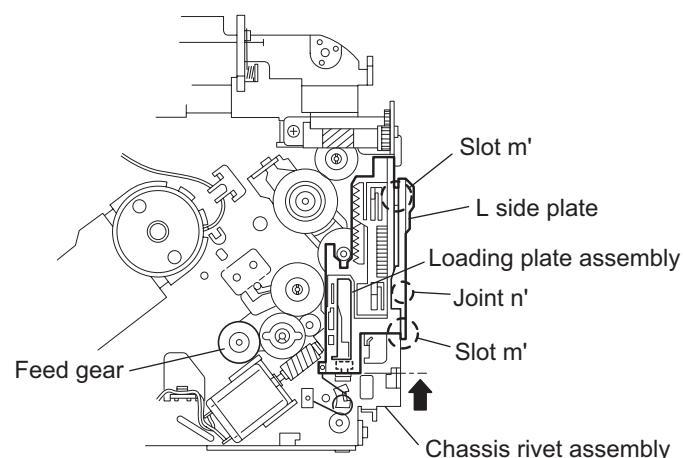


Fig.37

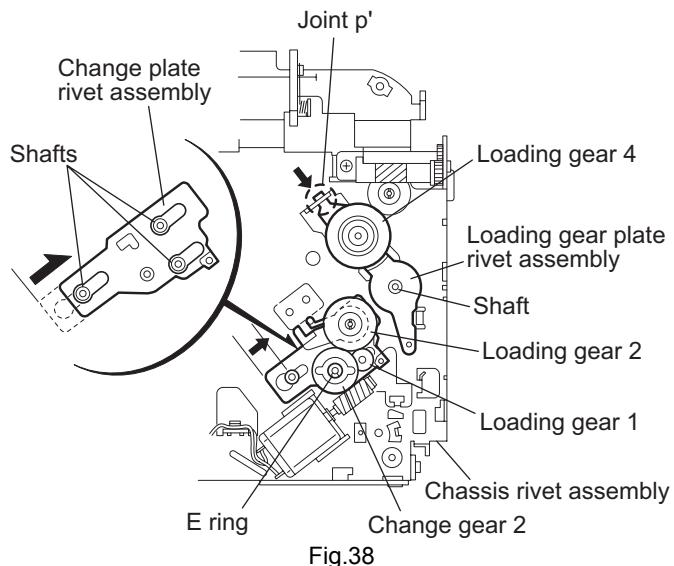


Fig.38

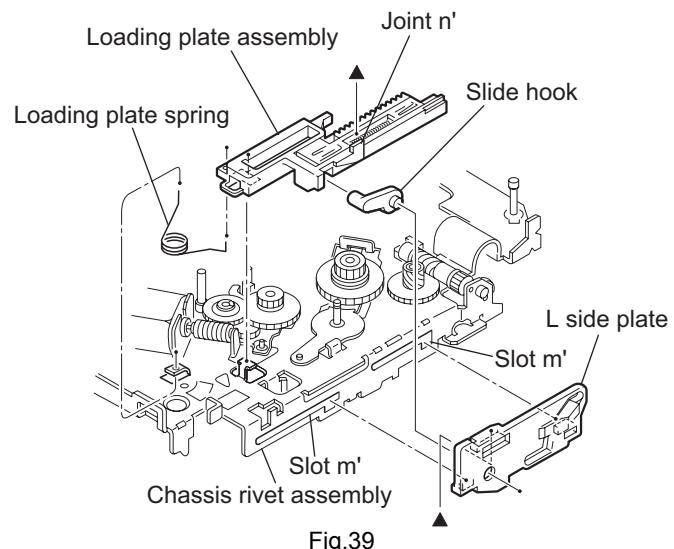


Fig.39

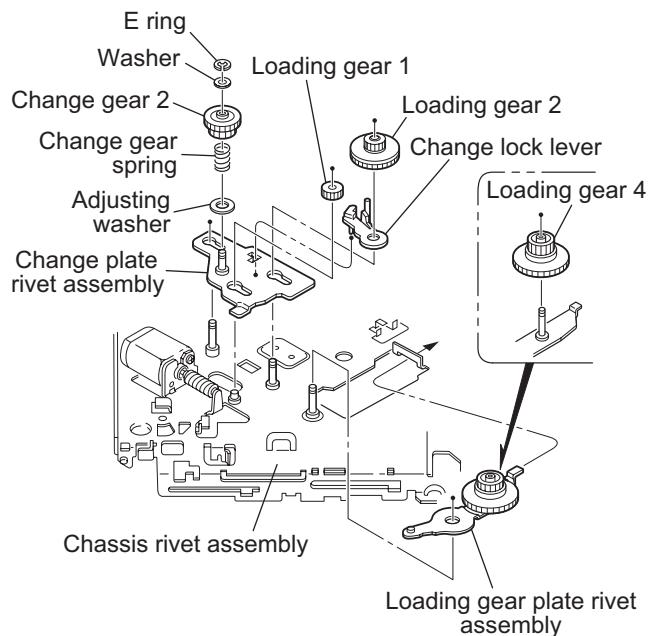


Fig.40

2.2.18 Removing the turn table / spindle motor

(See Figs.41 and 42)

- Prior to performing the following procedure, remove the top cover, connector board, chassis unit and clamper assembly.
- (1) Remove the two screws **L** attaching the spindle motor assembly through the slot of the turn table on top of the body.
- (2) Unsolder the wire on the connector board if necessary.

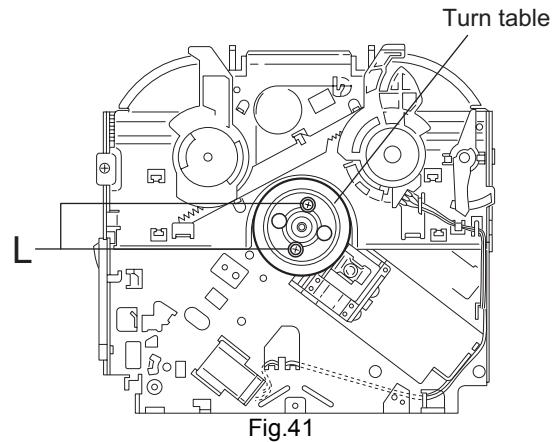


Fig.41

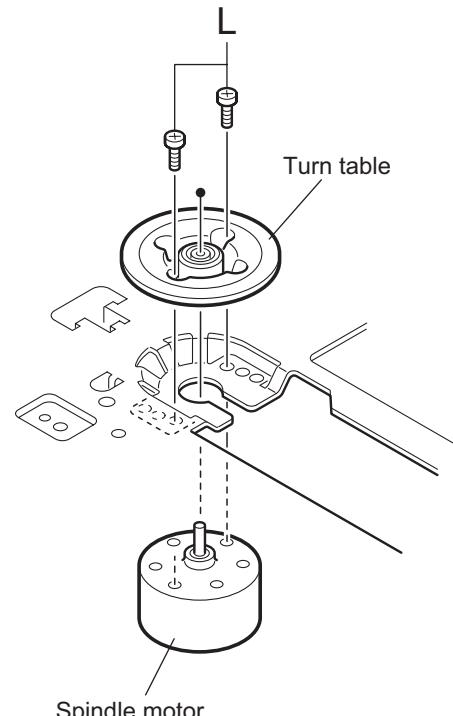


Fig.42

SECTION 3

Adjustment

3.1 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
EXTSH002-22P × 1

■ Standard volume position

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

■ Standard measuring conditions

Power supply voltage DC14.4V(11 to 16V)
Load impedance 20KΩ(2 Speakers connection)
Output Level Line out 2.0V (Vol. MAX)

■ Frequency Band

FM	87.5MHz to 107.9MHz (with channel interval set to 200kHz)
	87.5MHz to 108.0MHz (with channel interval set to 50kHz)
AM	530kHz to 1710kHz (with channel interval set to 10kHz)
	531kHz to 1602kHz (with channel interval set to 9kHz)

■ Dummy load

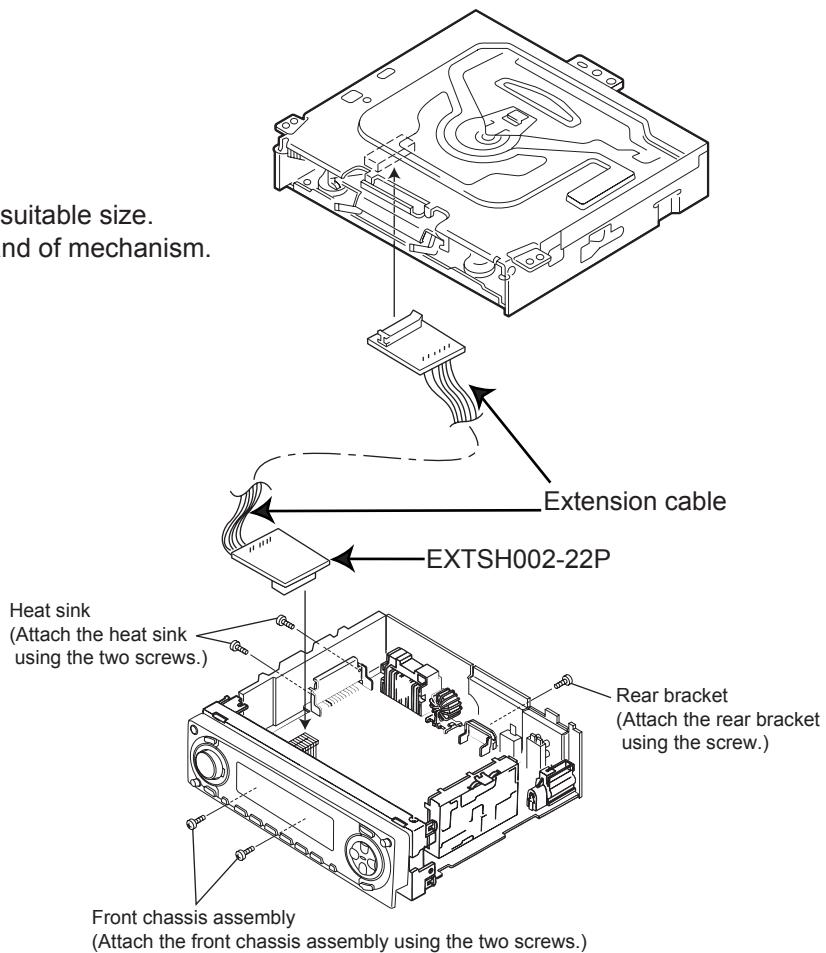
Exclusive dummy load should be used for AM, and FM. For FM dummy load, there is a loss of 6dB between SSG output and antenna input. The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

■ How to connect the extension cable for adjusting

Caution:

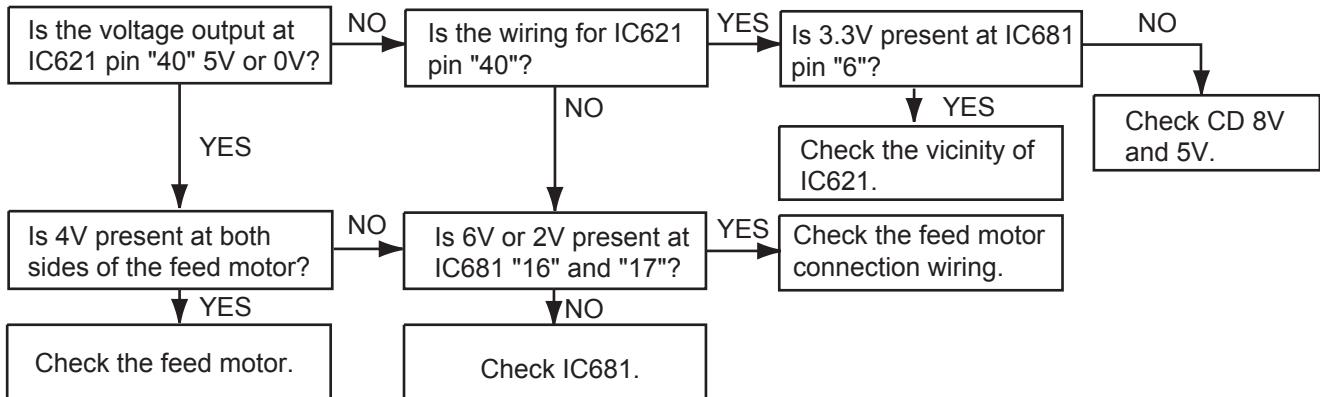
Be sure to attach the heat sink and rear bracket onto the power amplifier IC and regulator IC respectively, before supply the power. If voltage is applied without attaching these parts, the power amplifier IC and regulator IC will be destroyed by heat.

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

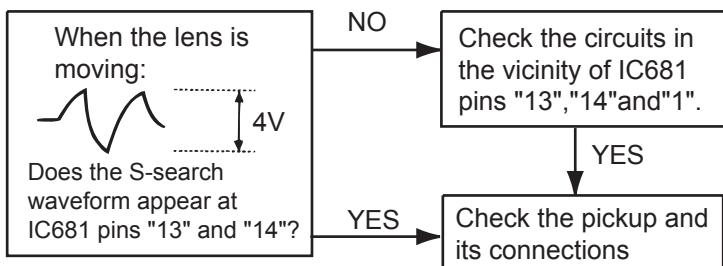


3.2 Troubleshooting

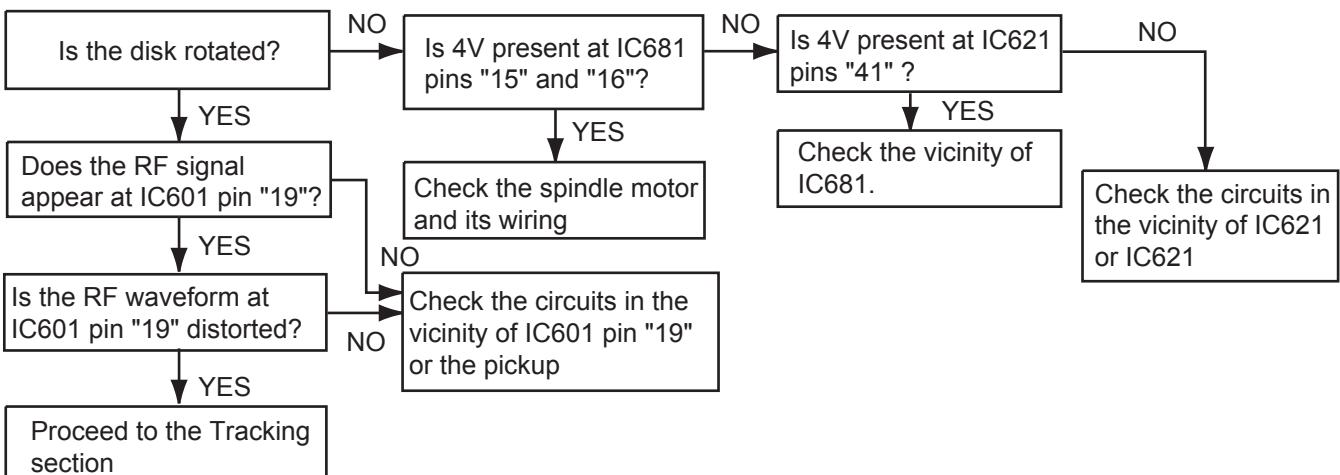
■ Feed section



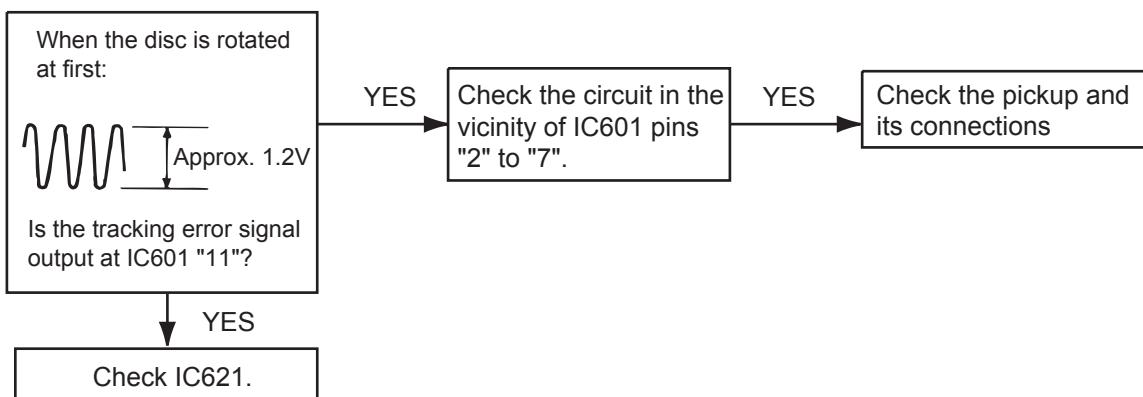
■ Focus section



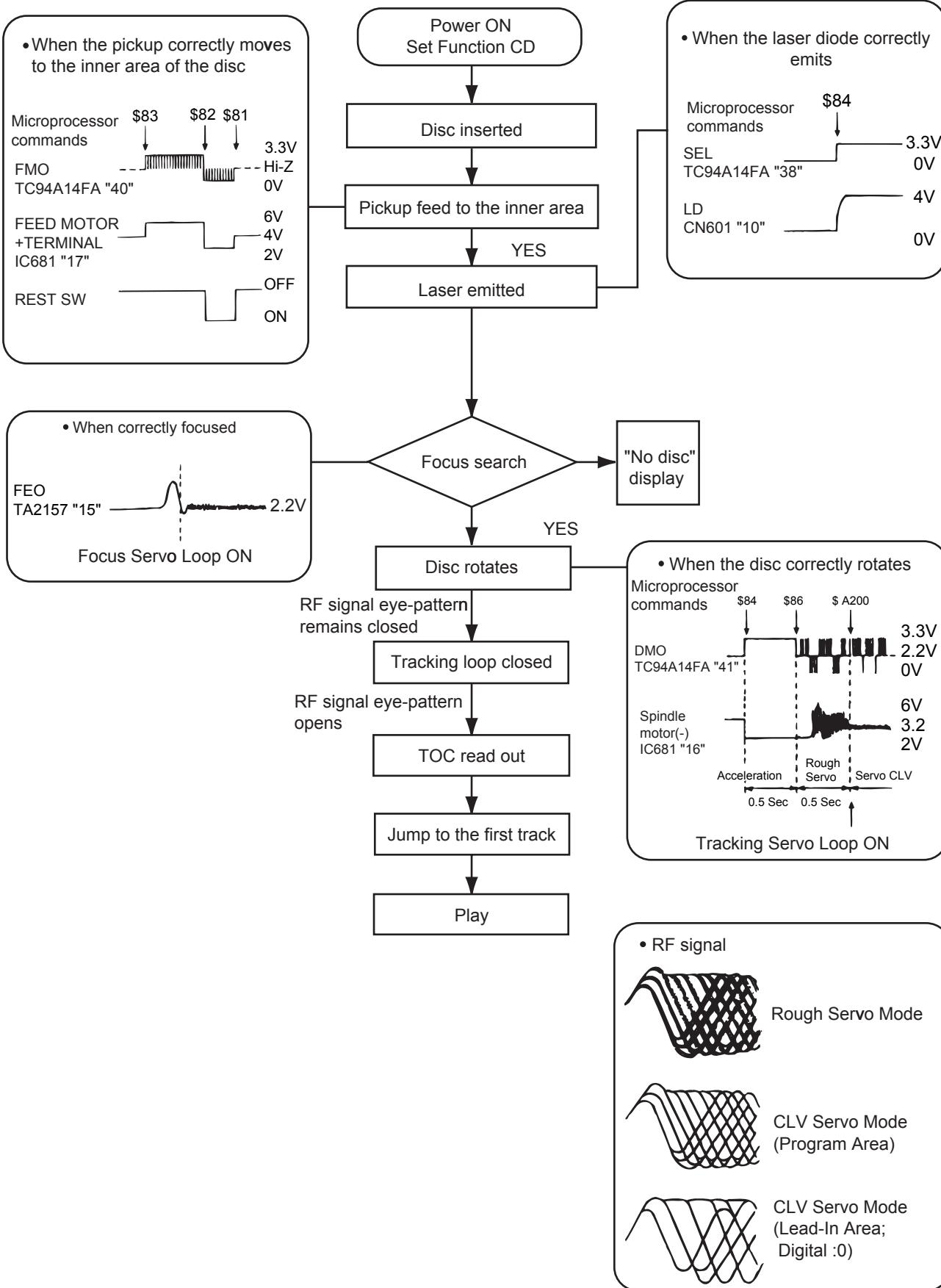
■ Spindle section



■ Tracking section



3.3 Flow of functional operation unit TOC read



3.4 Maintenance of laser pickup

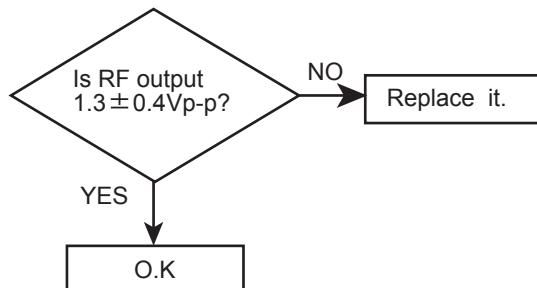
(1) Cleaning the pick up lens

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.

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



(3) Semi-fixed resistor on the APC PC board

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

If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced. If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

3.5 Replacement of laser pickup

Turn off the power switch and, disconnect the power cord from the ac outlet.

Replace the pickup with a normal one.(Refer to "Pickup Removal" on the previous page)

Plug the power cord in, and turn the power on. At this time, check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.

Play a disc.

Check the eye-pattern at RF test point.

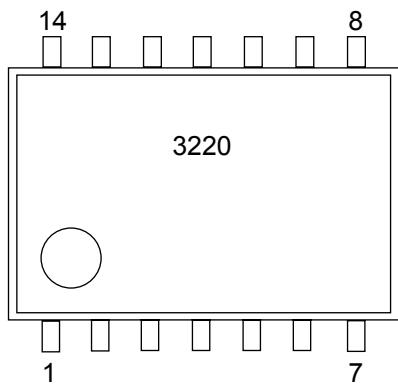
Finish.

SECTION 4

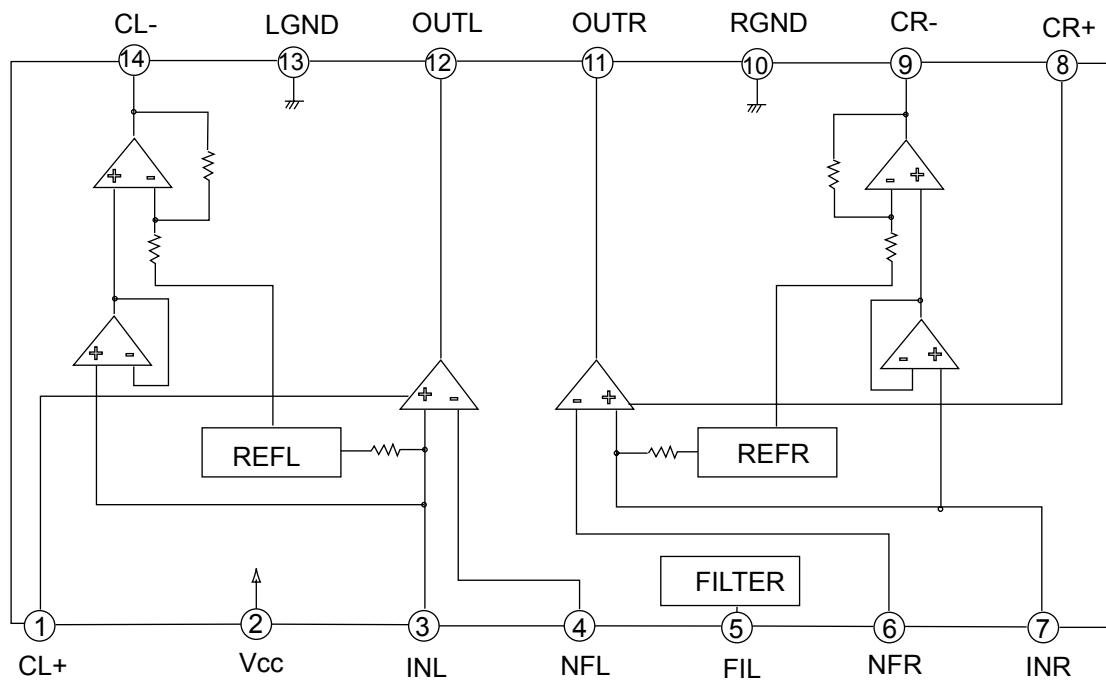
Description of major ICs

4.1 BA3220FV-X (IC301,IC281) : Line out amp

- Pin layout

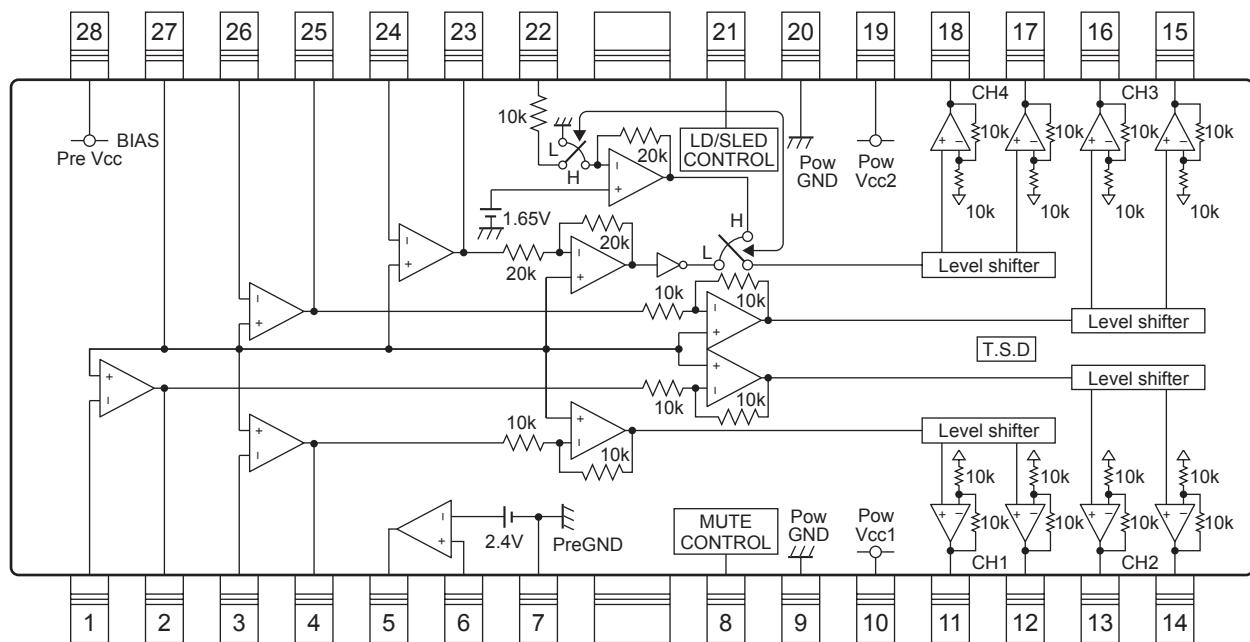


- Block diagram



4.2 BA5830FP-X (IC681) : Power driver

- Pin Layout



T.S.D : thermal shutdown

Unit of resistance : [Ω]

- Pin function

Pin No.	Symbol	Function
1	OPIN2(-)	CH2 Pre OP amplifier invert input
2	OPOUT2	CH2 Pre OP amplifier output
3	OPIN1(-)	CH1 Pre OP amplifier invert input
4	OPOUT1	CH1 Pre OP amplifier output
5	REG-B	Connect to external Tr Base
6	REG(+)	Regulator terminal of output feedback
7	PreGND	Pre Block and Regulator GND
8	MUTE	Mute terminal
9	PowGND	Power Block GND
10	PowVcc1	CH1, 2 Power Block Vcc
11	VO1(-)	Driver CH1 negative output
12	VO1(+)	Driver CH1 positive output
13	VO2(-)	Driver CH2 negative output
14	VO2(+)	Driver CH2 positive output

Pin No.	Symbol	Function
15	VO3(+)	Driver CH3 positive output
16	VO3(-)	Driver CH3 negative output
17	VO4(+)	Driver CH4 positive output
18	VO4(-)	Driver CH4 negative output
19	PowVcc2	CH3, 4 Power Block VCC
20	PowGND	Power Block GND
21	CNT	Control terminal
22	LDIN	Loading input
23	OPOUTSL	SLED Pre OP amplifier output
24	OPINSL(-)	SLED Pre OP amplifier invert input
25	OPOUT3	CH3 Pre OP amplifier output
26	OPIN3(-)	CH3 Pre OP amplifier invert input
27	BIAS	BIAS input
28	PreVcc	Pre-Block VCC

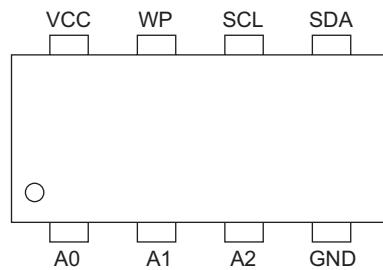
NOTE:

When PIN2,4,22,25 is high ("H"), the positive output pin of the driver is high ("H") and the negative output pin is low ("L").

When PIN23 is high ("H"), the positive output pin of CH4 is low ("L") and negative output pin is high ("H").

4.3 BR24L16F-W-X (IC703) : EEPROM

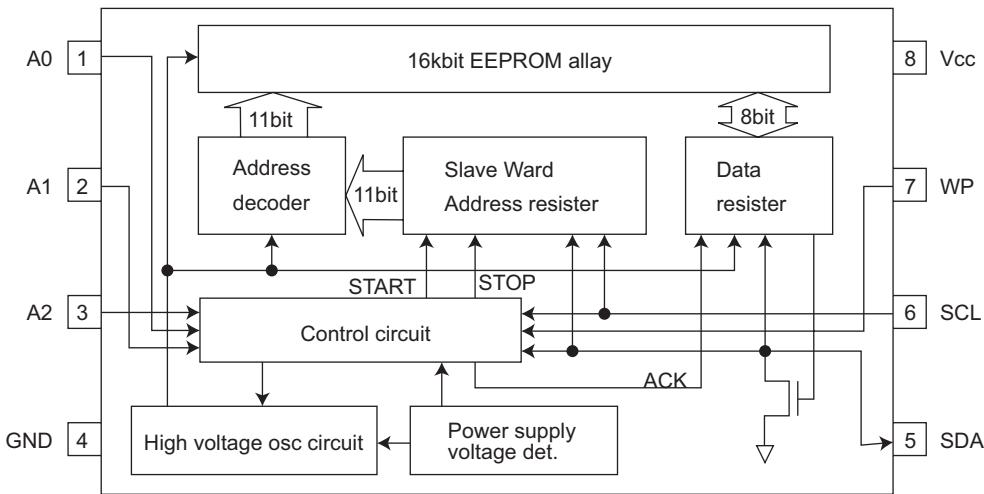
- Pin layout



- Pin function

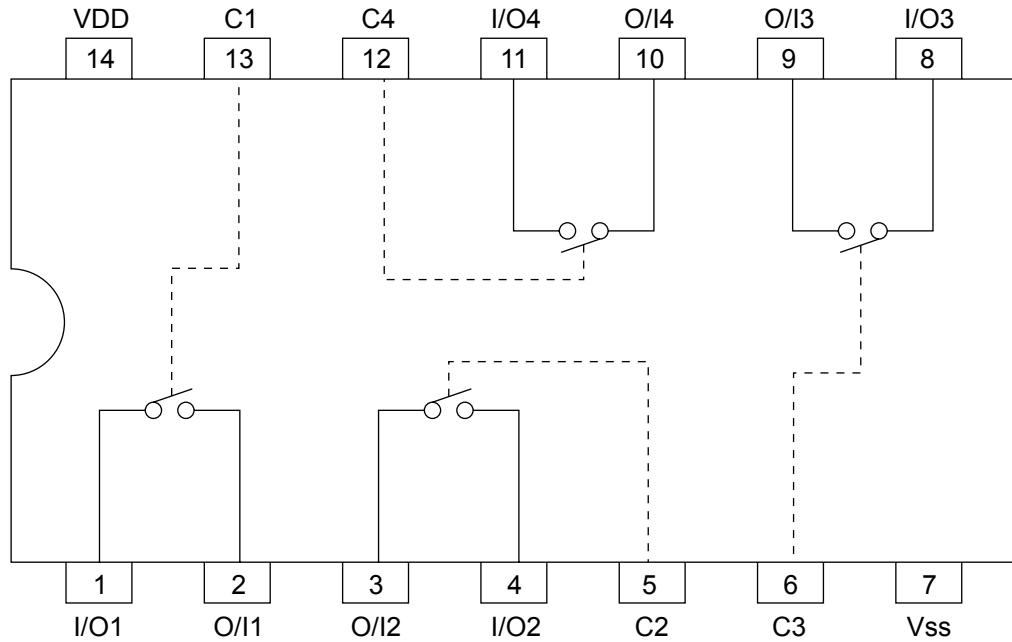
Symbol	I/O	Function
VCC	-	Power supply.
GND	-	GND
A0,A1,A2	I	No use connect to GND.
SCL	I	Serial clock input.
SDA	I/O	Serial data I/O of slave and ward address.
WP	I	Write protect terminal.

- Block diagram



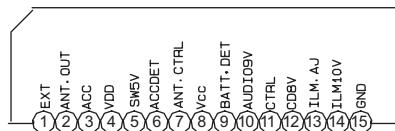
4.4 BU4066BCFV-X (IC131) : Quad analog switch

- Pin layout & Block diagram

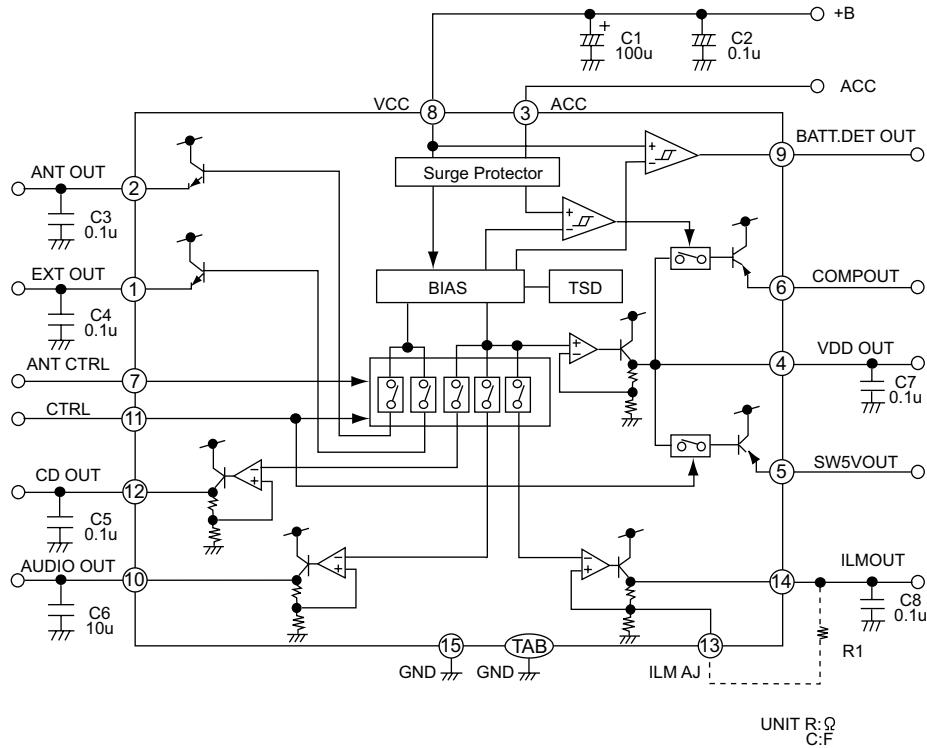


4.5 HA13164A (IC901) : Regulator

- Terminal layout



- Block diagram



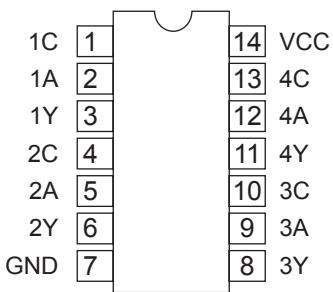
note1) TAB (header of IC)
connected to GND

- 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.

4.6 HD74HC126FP-X (IC781) : Buffer

- Pin layout



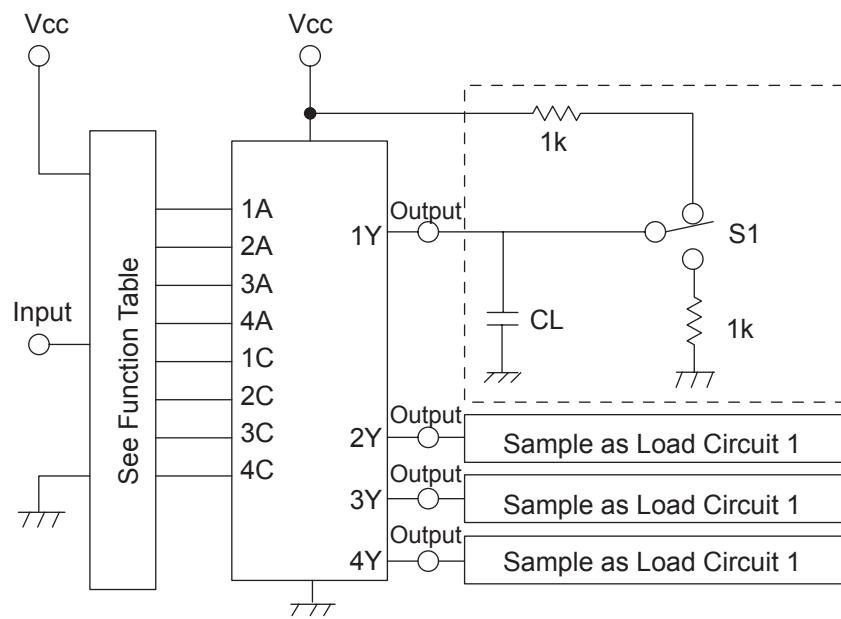
- Pin function

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

Note:

H:High level
L:Low level
X:Irrelevant
Z:Off(High-impedance)
State a 3-state input

- Block diagram

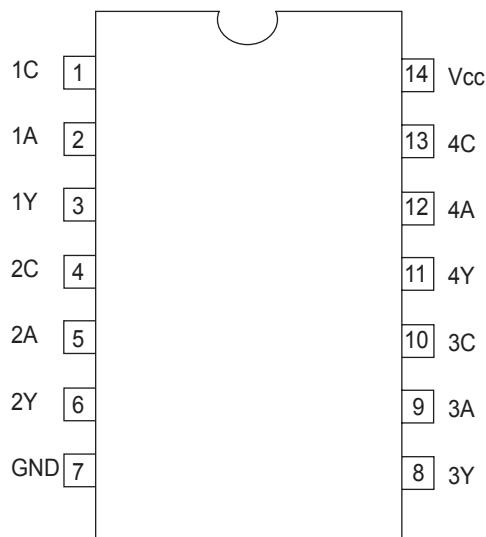


Note:

CL includes probe and jig capacitance

4.7 HD74HCT126T-X : (IC503) Buffer

- Pin arrangement

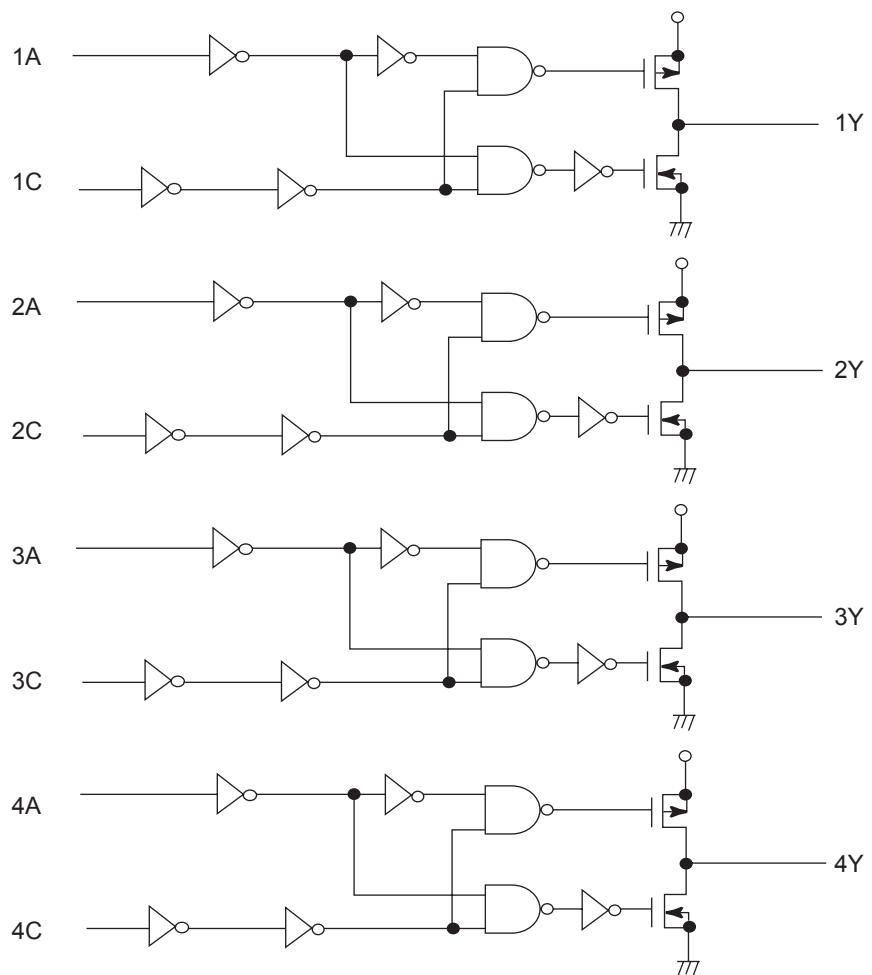


- Pin function

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

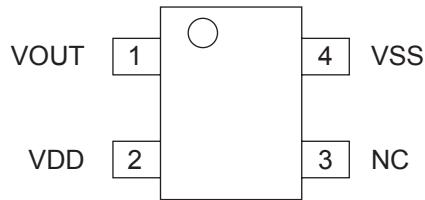
H : High level
 L : Low level
 X : Irrelevant
 Z : Off (High-impedance) state of a 3-stage output

- Block diagram

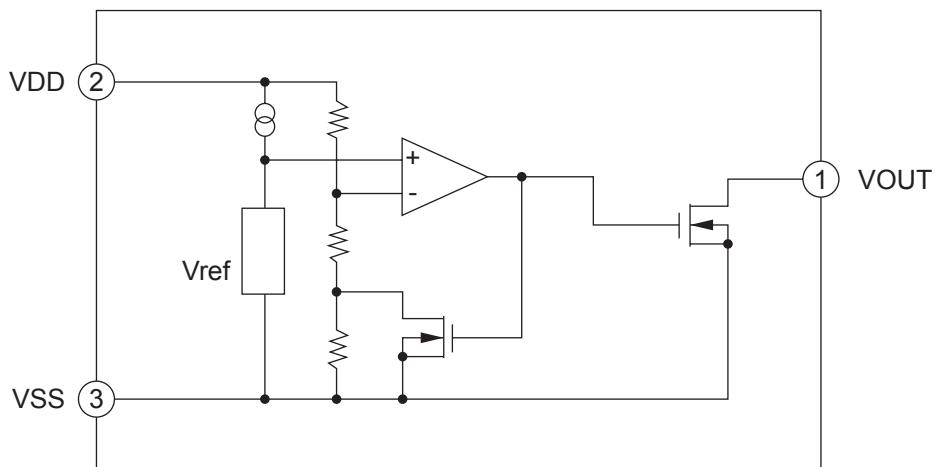


4.8 IC-PST3424U-X (IC803) : Reset

- Pin layout



- Block diagram

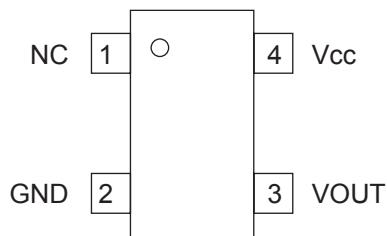


- Pin function

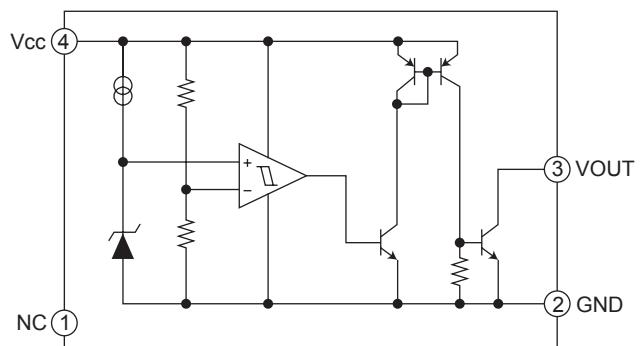
No.	Pin Name	Function
1	Vout	Reset Signal Output PIN
2	VDD	VDD PIN / Voltage Detect PIN
3	NC	Non connect
4	VSS	VSS PIN

4.9 IC-PST9333U-X (IC702) : Regulator

- Pin layout



- Block diagram

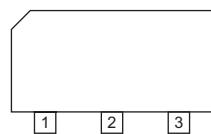


- Pin function

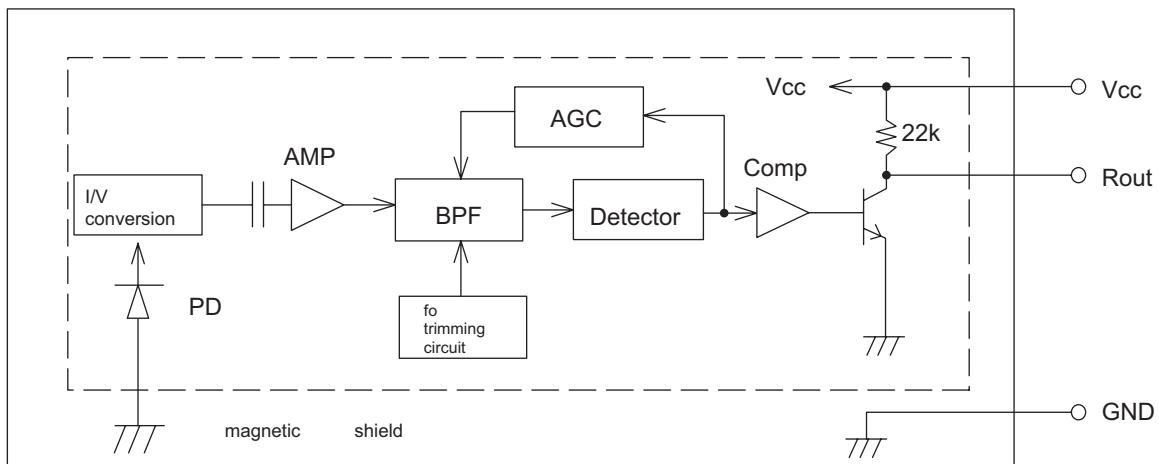
Pin No.	Symbol	Function
1	NC	Non connect
2	GND	GND terminal
3	VOUT	Reset signal output terminal
4	Vcc	Vcc terminal/Voltage detect terminal

4.10 RPM6938-SV4 (IC805) : Remote control receiver

- Pin diagram

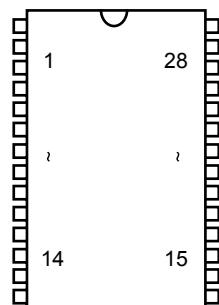


- Block diagram

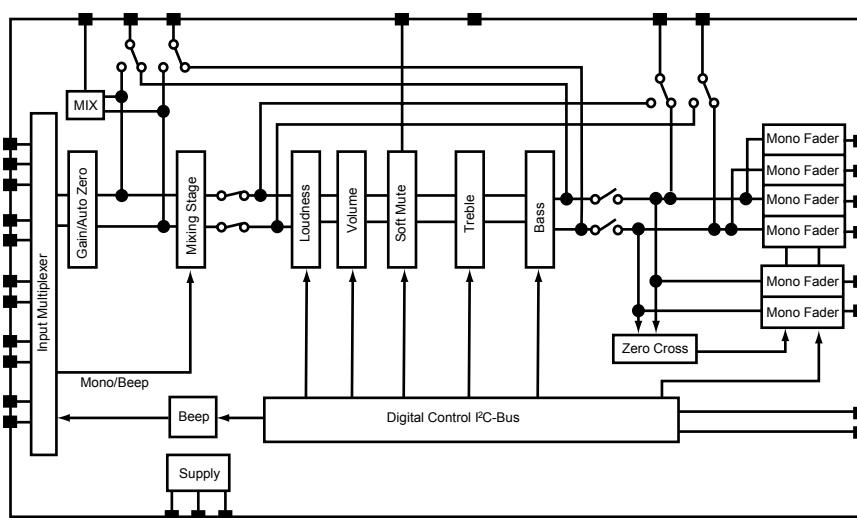


4.11 TDA7404D-X (IC911):Car radio signal processor

- Terminal layout

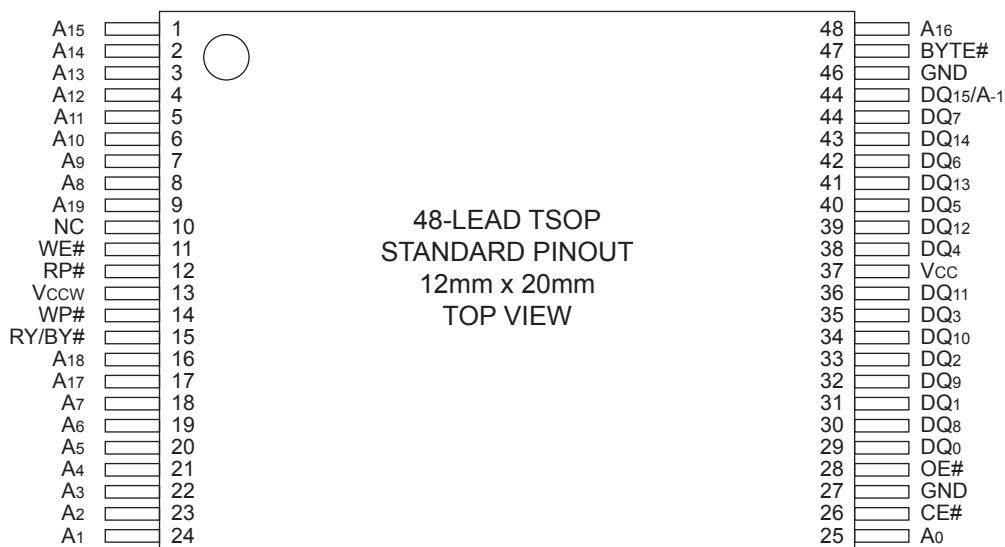


- Block diagram

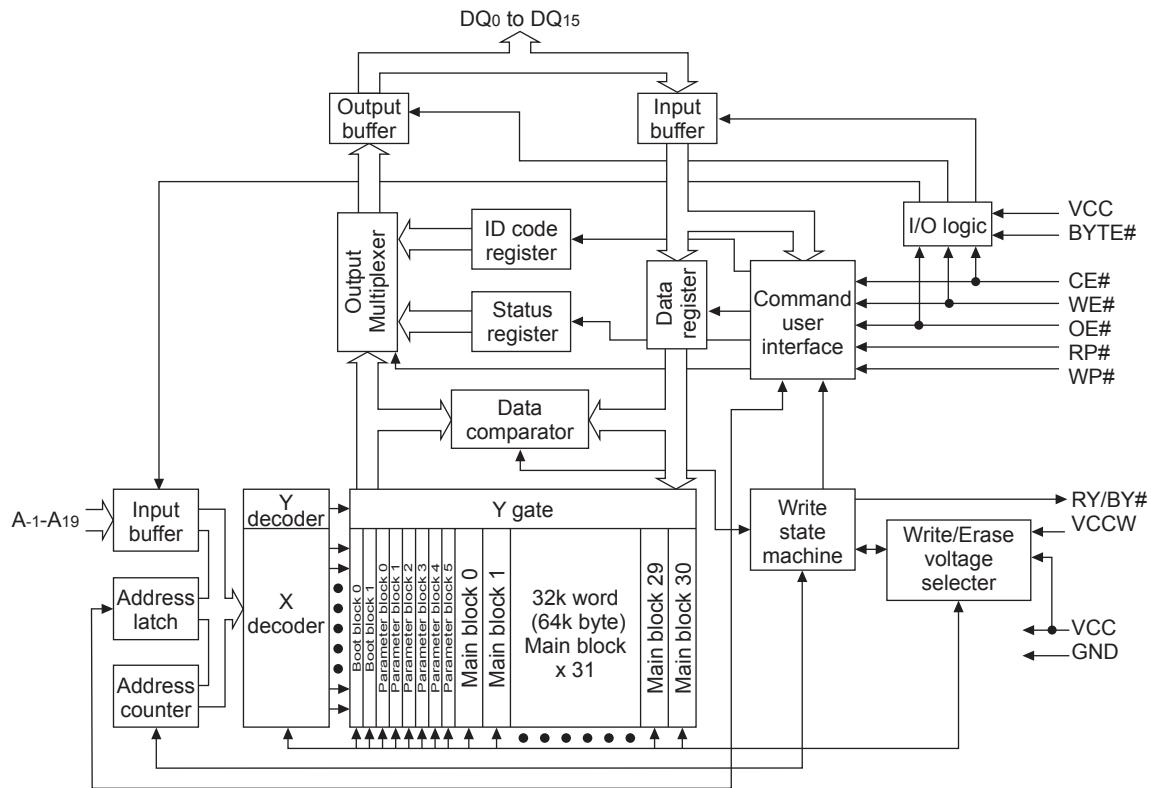


4.12 LH28F160BJHET92 (IC802) : 16M flash memory

- Pin Layout



- Block Diagram



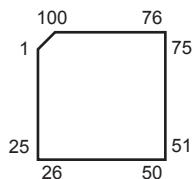
- Pin function

Pin No.	Symbol	I/O	Function
1 to 8	A15 to A8	I	Address input for memory address
9	A19	I	Address input for memory address
10	NC	-	Non connection
11	WE#	I	Write enable
12	RP#	I	Reset
13	VCCW	-	Power supply for write/erase
14	WP#	I	Write protect
15	RY/BY#	O	Ready/Busy
16,17	A18,A17	I	Address input for memory address
18 to 25	A7 to A0	I	Address input for memory address
26	CE#	I	Chip enable
27	GND	-	Ground
28	OE#	I	Output enable
29	DQ0	I/O	Data input/output
30	DQ8	I/O	Data input/output
31	DQ1	I/O	Data input/output
32	DQ9	I/O	Data input/output

Pin No.	Symbol	I/O	Function
33	DQ2	I/O	Data input/output
34	DQ10	I/O	Data input/output
35	DQ3	I/O	Data input/output
36	DQ11	I/O	Data input/output
37	VCC	-	Power supply
38	DQ4	I/O	Data input/output
39	DQ12	I/O	Data input/output
40	DQ5	I/O	Data input/output
41	DQ13	I/O	Data input/output
42	DQ6	I/O	Data input/output
43	DQ14	I/O	Data input/output
44	DQ7	I/O	Data input/output
45	DQ15	I/O	Data input/output
	A-1	I	Address input for memory address
46	GND	-	Ground
47	BYTE#	I	Byte enable
48	A16	I	Address input for memory address

4.13 MN102H60KCG (IC801) : LCD display sub CPU

- Pin Layout

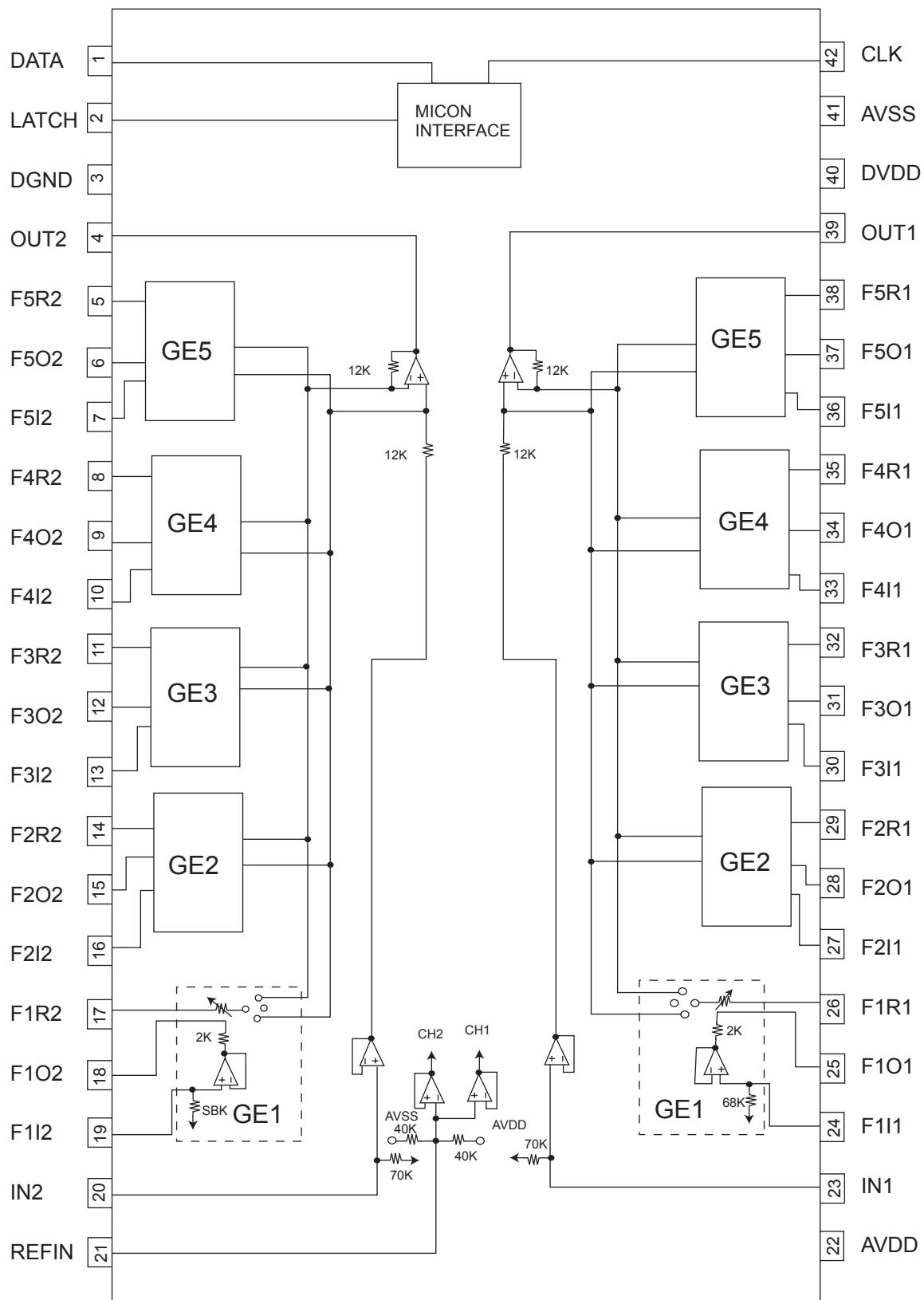


- Pin function

Pin No.	Symbol	I/O	Function
1	RES	O	LCD reset output
2	RE	O	Read enable output for extension memory
3	WE	O	Write enable output for extension memory
4	VccWCNT	O	Writing voltage control for external ROM
5	RY/BY	I	Read/Busy input for extension memory
6	CS1	O	Chip select1 output for extension memory
7	NC	O	Not use
8	SWLED4	O	SW_LED flashing output 4 for [PRESET1-6] key LED
9	SWLED5	O	SW_LED flashing output 5 for [SEEKUP]+[SEEKDOWN] key LED
10	SWLED6	O	SW_LED flashing output 6 for [DISCUP]+[DISCDOWN] key LED
11	NC	O	Not use
12	/WORD	I	Bus width setting for extension memory (H: 8-bit width)
13 to 16	A0 to A3	O	Extension memory output 0 to 3
17	VDD	-	Power supply
18	NC	O	Base clock output
19	GND	-	Ground
20	XI	I	Connect to ground
21	NC	O	Not connect
22	VDD	-	Power supply
23	OSCI	I	Crystal connecting terminal (25MHz)
24	OSCO	O	Crystal connecting terminal (25MHz)
25	MODE	I	Mode setting input, pull up (H: memory extension mode)
26 to 33	A4 to A11	O	Extension memory output 4 to 11
34	AVDD	-	Analog power supply
35 to 42	A12 to A19	O	Extension memory output 12 to 19
43	VREF-	-	Analog reference power supply, connect to ground
44	A20	O	Extension memory output 20
45	Thermal	I	Thermal fuse input
46	ANA	I	Audio level input for spectrum analyzer
47	WDOUT	O	Watch dog timer over flow output (H: over flow)
48	PON	O	Power on output
49	RD	O	LCD read strobe output
50	LCDCLK	O	LCD driver clock output (300kHz)
51	WR	O	LCD write strobe output
52,53	NC	-	Not use
54	VREF+	-	Analog reference power supply, connect to AVDD
55	RS	O	LCD regist select output
56	CS	O	LCD chip select output

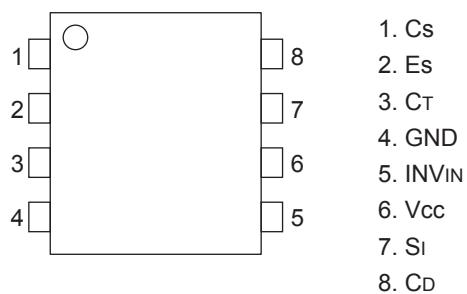
Pin No.	Symbol	I/O	Function
57	NC	O	Not use
58	VOL1	I	Rotary encoder input 1
59	VOL2	I	Rotary encoder input 2
60	NC	-	Not use
61	AGND	-	Analog ground
62 to 65	KEY0 to KEY3	I	Key 0 to 3 input AD terminal
66	VDD	-	Power supply
67	SWLED0	O	SW_LED flashing output 0 for [VOL] key LED
68	SWLED1	O	SW_LED flashing output 1 for [SEL] key LED
69	SWLED2	O	SW_LED flashing output 2 for [DISP] key LED
70	DISPCLK	I	Serial communication clock input
71	DISPDATA	I	Displaying data input (Serial)
72	KEYDATA	O	Key code data output (Serial)
73	SIFDA	I/O	On board serial writing data input/output, pull up
74	SIFCK	I	On board serial writing clock input, pull up
75	NMI	I	NMI (H fix)
76	DISPCE	I	Chip enable input for serial communication
77		-	Ground
78	PSAVE2	I	POWER SAVE2 (Memory power supply off) detecting input
79	NC	-	Not use
80	KEY_IN	I	Key interrupt input
81	ADSEP	I	Address data separate/common mode setting terminal H: separate mode
82	RESET	I	Reset input (L: reset)
83	VDD	-	Power supply terminal
84 to 91	D0 to D7	I	Extension memory input 0 to 7
92	GND	-	Ground
93 to 100	P10 to P17	I	LCD data bus input/output 0 to 7

4.14 M62449FP-X (IC912) : Equalizer

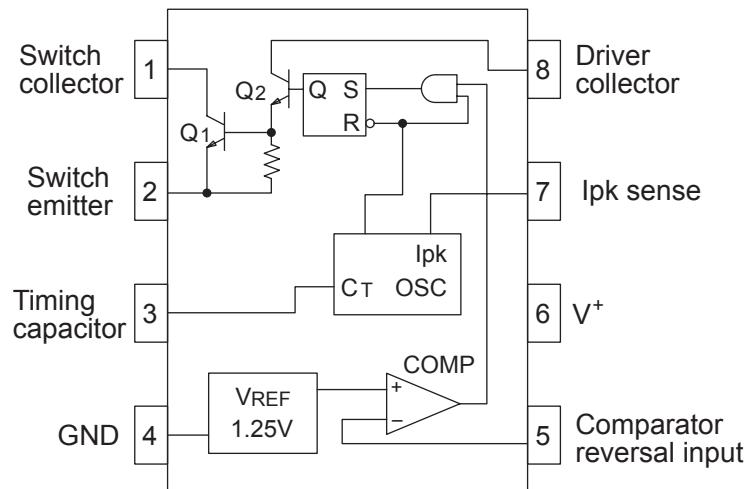


4.15 NJM2360AM-X (IC921) : DC-DC convertor

- Pin layout

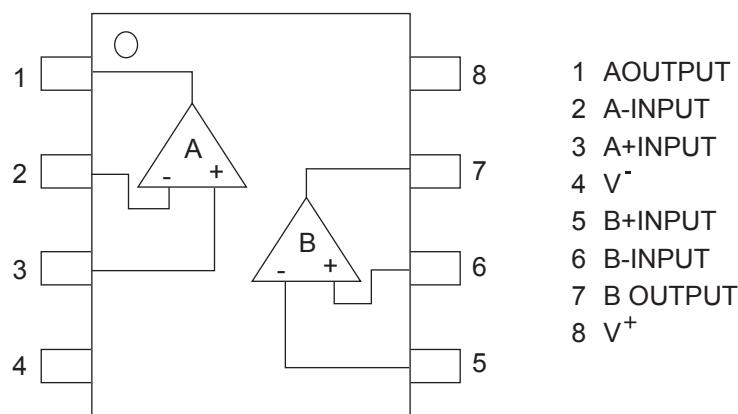


- Block diagram



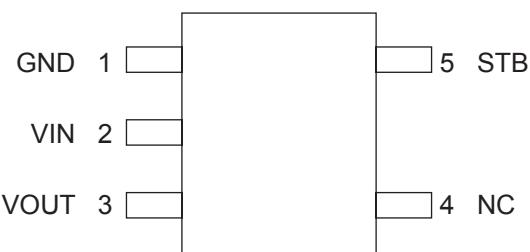
4.16 NJM4565V-X (IC132, IC572) : Dual ope amp

- Terminal layout & Pin function

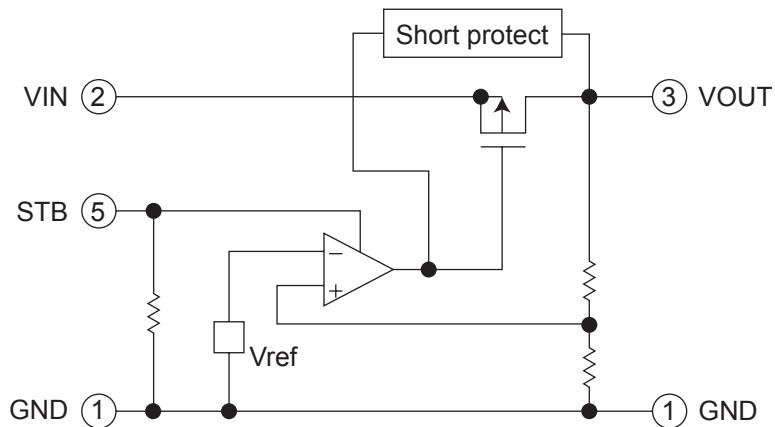


4.17 NJU7241F25-X (IC651) : Regulator

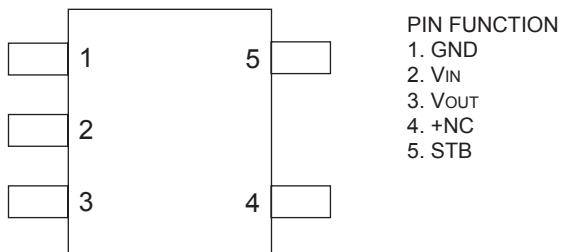
- Pin layout



- Block diagram

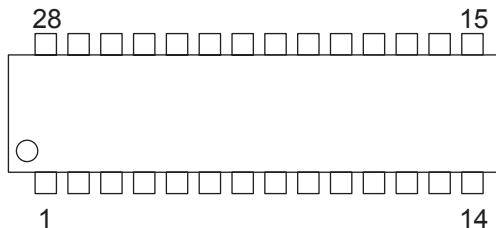


4.18 NJU7241F33-X (IC504, IC804) : Voltage regulator

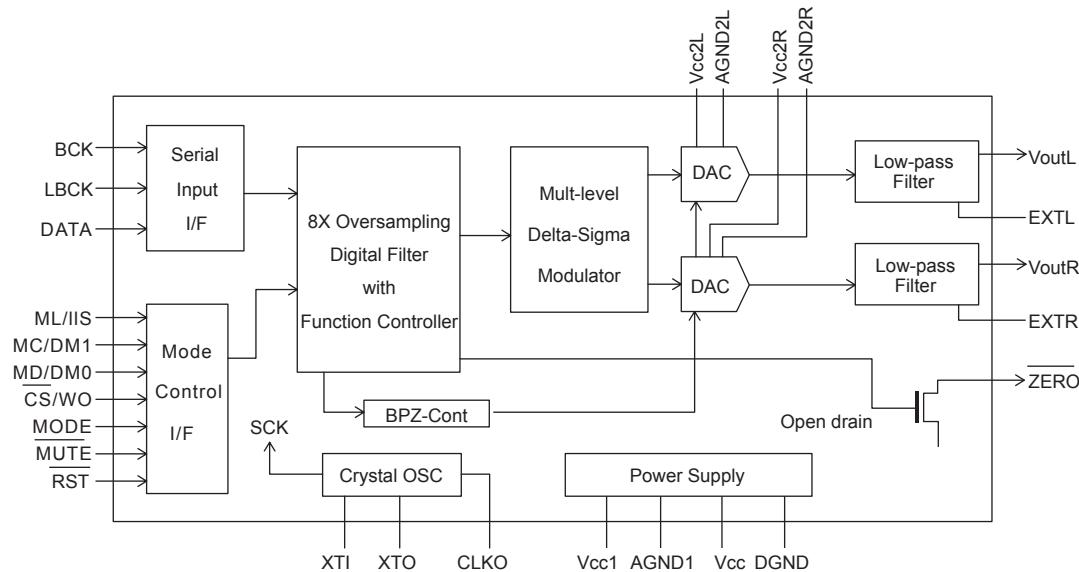


4.19 PCM1716E-X (IC571) : D/A converter

- Pin layout



- Block diagram



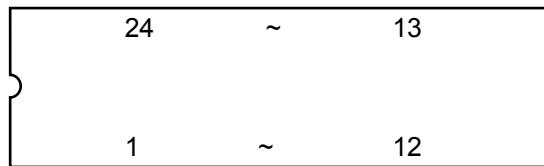
- Pin function

Pin No.	Symbol	I/O	Function
1	LRCK	I	LRCK clock input
2	DATA	I	Serial audio data input
3	BCK	I	Bit clock input for serial audio data
4	CLKO	O	Buffered output of system clock
5	XTI	I	Oscillator input / External clock input
6	XTO	O	Oscillator output
7	DGND	-	Digital ground
8	VDD	-	Digital power +5V
9	VDD2R	-	Analog power +5V
10	AGND2R	-	Analog ground
11	EXTR	O	Rch analog voltage output of audio signal
12	NC	-	Non connection
13	VOUTR	O	Rch analog voltage output of audio signal
14	AGND1	-	Analog ground
15	Vcc1	-	Analog power +5V

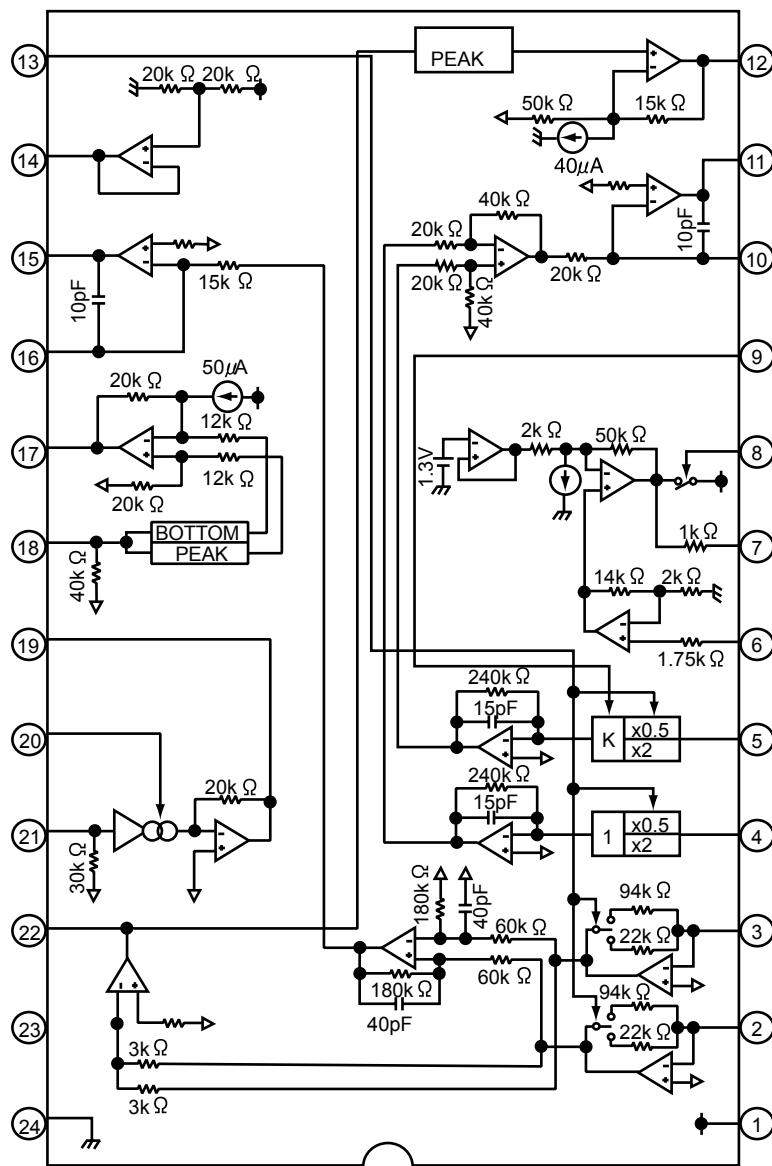
Pin No.	Symbol	I/O	Function
16	VOUTL	O	Lch analog voltage output of audio signal
17	NC	-	Non connection
18	EXTL	O	Lch common pin of analog output amp
19	AGND2L	-	Analog ground
20	Vcc2L	-	Analog power +5V
21	ZERO	O	Zero data flag
22	RST	I	Reset
23	CS/IWO	I	Chip select / Input format selection
24	MODE	I	Mode control select
25	MUTE	I	Mute control
26	MD/DM0	I	Mode control, Data / De-emphasis selection 1
27	MC/DM1	I	Mode control, BCK / De-emphasis selection 2
28	ML/IIS	I	Mode control, WDCK / Input format selection

4.20 TA2157FN-X (IC601):RF amp

- Terminal layout



- Block diagram



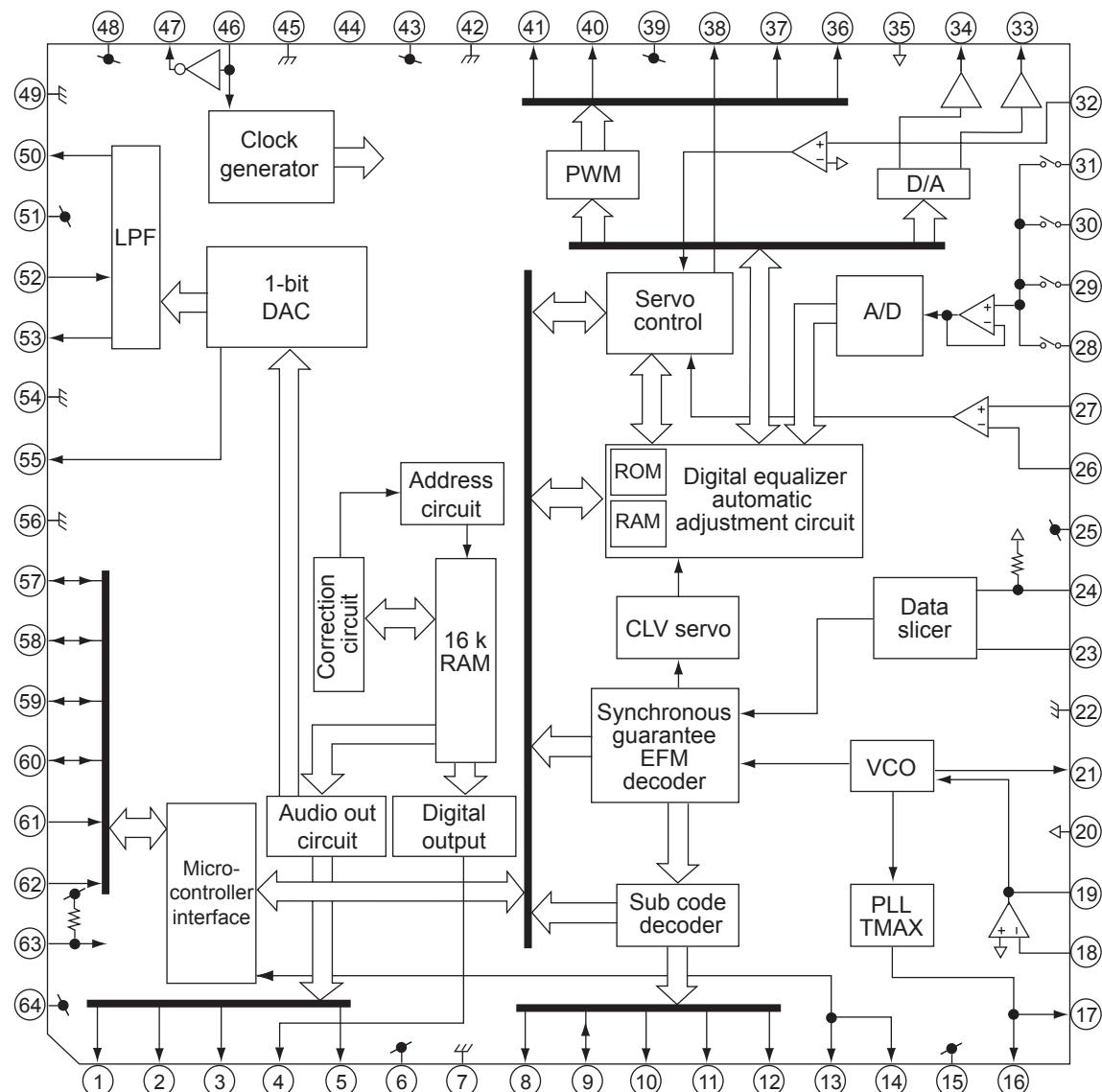
PIN	SEL (APC SW)	TEB (TE BAL)	RFGC (AGC Gain)	TEB (TE BAL)
VCC	APC ON	-50%	+12dB	Normal mode (0dB)
HIZ	APC ON	0%	+6dB	Normal mode (0dB)
GND	APC OFF (LDO=H)	50%	0dB	CD-RW mode (+12dB)

- Pin function

Pin No.	Symbol	I/O	Function												
1	VCC	-	3.3V power supply pin												
2	FNI	I	Main-beam amp input pin												
3	FPI	I	Main-beam amp input pin												
4	TPI	I	Sub-beam amp input pin												
5	TNI	I	Sub-beam amp input pin												
6	MDI	I	Monitor photo diode amp input pin												
7	LDO	O	Laser diode amp output pin												
8	SEL	I	APC circuit ON/OFF control signal, laser diode (LDO) control signal input or bottom/peak detection frequency change pin. <table border="1" style="margin-left: 20px;"> <tr> <td>SEL</td> <td>APC circuit</td> <td>LDO</td> </tr> <tr> <td>GND</td> <td>OFF</td> <td>Connected VCC through 1kΩ resistor</td> </tr> <tr> <td>Hiz</td> <td>ON</td> <td>Control signal output</td> </tr> <tr> <td>VCC</td> <td>ON</td> <td>Control signal output</td> </tr> </table>	SEL	APC circuit	LDO	GND	OFF	Connected VCC through 1kΩ resistor	Hiz	ON	Control signal output	VCC	ON	Control signal output
SEL	APC circuit	LDO													
GND	OFF	Connected VCC through 1kΩ resistor													
Hiz	ON	Control signal output													
VCC	ON	Control signal output													
9	TEB	I	Tracking error balance adjustment signal input pin Adjusts TE signal balance by eliminating carrier component from PWM signal (3-state output, PWM carrier = 88.2kHz) output from TC94A14F/FA TEBC pin using RC-LPF and inputting DC. TEBC input voltage:GND~VCC												
10	TEN	I	Tracking error signal generation amp negative-phase input pin												
11	TEO	O	Tracking error signal generation amp output pin. Combining TEO signal RFRP signal with TC94A14F/FA configures tracking search system.												
12	RFDC	O	RF signal peak detection output pin												
13	GVSW	I	AGC/FE/TE amp gain change pin <table border="1" style="margin-left: 20px;"> <tr> <td>GVSW</td> <td>Mode</td> </tr> <tr> <td>GND</td> <td>CD-RW</td> </tr> <tr> <td>Hiz</td> <td>Normal</td> </tr> <tr> <td>VCC</td> <td></td> </tr> </table>	GVSW	Mode	GND	CD-RW	Hiz	Normal	VCC					
GVSW	Mode														
GND	CD-RW														
Hiz	Normal														
VCC															
14	VRO	O	Reference voltage (VRO) output pin *VRO=1/2VCC When VCC=3.3V												
15	FEO	O	Focus error signal generation amp output pin												
16	FEN	I	Focus error signal generation amp negative-phase input pin												
17	RFRP	O	Signal amp output pin for track count Combining RFRP signal and TEO signal with TC94A14F/FA configures tracking search system.												
18 19 20	REIS RFGO RGFC	I O I	RF signal amplitude adjustment amp output pin RF amplitude adjustment control signal input pin Adjusts RF signal amplitude by eliminating carrier component from PWM signal (3-state output, PWM carrier=88.2kHz) output from TC94A14F/14FA *RGFC pin using RC-LPF and inputting DC. *RGFC input voltage:GND~VCC												
21	AGCIN	I	RF signal amplitude adjustment amp input pin												
22	RFO	O	RF signal generation amp output pin												
23	RFI	I	RF signal generation amp input pin												
24	GND	-	GND pin												

4.21 TC94A14FA (IC621) : DSP & DAC

- Terminal layout & block diagram



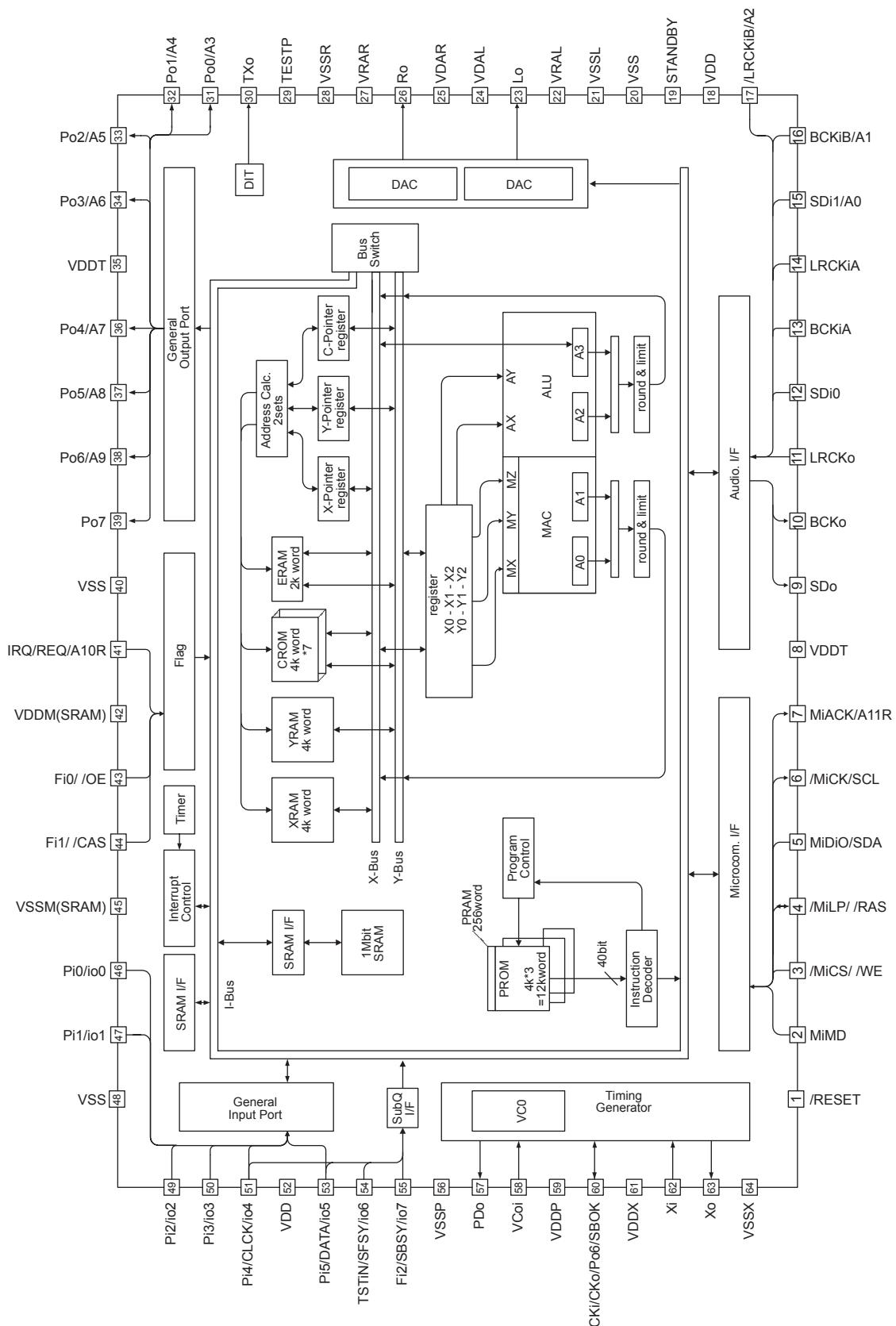
- Pin function

Pin No	Symbol	I/O	Description
1	BCK	O	Bit clock output pin.32fs48fsor 64fs selectable by command.
2	LRCK	O	L/R channel clock output pin."L" for L channel and "H" for R channel. Output polarity can be inverted by command.
3	AOUT	O	Audio data output pin. MSB-first or LSB-first selectable by command.
4	DOUT	O	Digital data output pin.Outputs up to double-speed playback.
5	IPF	O	Correction flag output pin. When set to "H" AOUT output cannot be corrected by C2 correction processing.
6	V _{DD3}	-	Digital 3.3V power supply voltage pin.
7	V _{SS3}	-	Digital GND pin.
8	SBOK	O	Subcode Q data CRCC result output pin. "H" level when result is OK.
9	CLK	O	Subcode P-W data read I/O pin. I/O polarity selectable by command.
10	DATA	O	Subcode P-W data output pin.
11	SFSY	O	Playback frame sync signal output pin.
12	SBSY	O	Subcode block sync signal output pin. "H" level at S1 when subcode sync is detected.
13	HSO	I/O	General-purpose input / output pins.Input port at reset.
14	UHSO	-	
15	PV _{DD3}	-	PLL-only 3.3V power supply voltage pin.
16	PDO	O	EFM and PLCK phase difference signal output pin.

Pin No	Symbol	I/O	Description								
17	TMAX	O	TMAX detection result output pin. <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>TMAX Detection Result</td><td>TMAX Output</td></tr> <tr><td>Longer than fixed period</td><td>"PVDD3"</td></tr> <tr><td>Within fixed period</td><td>"HiZ"</td></tr> <tr><td>Shorter than fixed period</td><td>"AVSS3"</td></tr> </table>	TMAX Detection Result	TMAX Output	Longer than fixed period	"PVDD3"	Within fixed period	"HiZ"	Shorter than fixed period	"AVSS3"
TMAX Detection Result	TMAX Output										
Longer than fixed period	"PVDD3"										
Within fixed period	"HiZ"										
Shorter than fixed period	"AVSS3"										
18	LPFN	I	Inverted input pin for PLL LPF amp.								
19	LPFO	O	Output pin for PLL LPF amp.								
20	PVREF	-	PLL-only VREF pin.								
21	VCOF	O	VCO filter pin.								
22	AV _{SS3}	-	Analog GND pin.								
23	SLCO	O	DAC output pin for data slice level generation.								
24	RFI	I	RF signal input pin. Zin selectable by command.								
25	AV _{DD3}	-	Analog 3.3V power supply voltage pin.								
26	RFCT	I	RFRP signal center level input pin.								
27	RFZI	I	RFRP signal zero-cross input pin.								
28	RFRP	I	RF ripple signal input pin.								
29	FEI	I	Focus error signal input pin.								
30	SBAD	I	Sub-beam adder signal input pin.								
31	TEI	I	Tracking error input pin. Inputs when tracking servo is on.								
32	TEZI	I	Tracking error signal zero-cross input pin.								
33	FOO	O	Focus equalizer output pin.								
34	TRO	O	Tracking equalizer output pin.								
35	VREF	-	Analog reference power supply voltage pin.								
36	RGFC	O	RF amplitude adjustment control signal output pin.								
37	TEBC	O	Tracking balance control signal output pin.								
38	SEL	O	APC circuit ON/OFF signal output pin. At laser on, high impedance with UHS="L", H output with UHS="H".								
39	AV _{DD3}	-	Analog 3.3V power supply voltage pin.								
40	FMO	O	Feed equalizer output pin.								
41	DMO	O	Disc equalizer output pin.								
42	V _{SS3}	-	Digital GND pin.								
43	V _{DD3}	-	Digital 3.3V power supply voltage pin.								
44	TESIN	I	Test input pin. Normally, fixed to "L".								
45	XV _{SS3}	-	System clock oscillator GND pin.								
46	XI	I	System clock oscillator input pin.								
47	XO	O	System clock oscillator output pin.								
48	XV _{DD3}	-	System clock oscillator 3.3V power supply voltage pin.								
49	DV _{SS3R}	-	DA converter GND pin.								
50	RO	O	R-channel data forward output pin.								
51	DV _{DD3}	-	DA converter 3.3V power supply pin.								
52	DVR	-	Reference voltage pin.								
53	LO	O	L-channel data forward output pin.								
54	DV _{SS3L}	-	DA converter GND pin.								
55	ZDET	O	1 bit DA converter zero detection flag output pin.								
56	V _{SS5}	-	Microcontroller interface GND pin.								
57	BUS0										
58	BUS1										
59	BUS2	I/O	Microcontroller interface data I/O pins.								
60	BUS3										
61	BUCK	I	Microcontroller interface clock input pin.								
62	/CCE	I	Microcontroller interface chip enable signal input pin. At "L", BUS0 to BUS3 are active.								
63	/RST	I	Reset signal input pin. At reset, "L".								
64	V _{DD5}	-	Microcontroller interface 5V power supply pin.								

4.22 TC94A20F-008 (IC652) : Audio digital processor with DAC and SRAM

- Pin layout & Block diagram

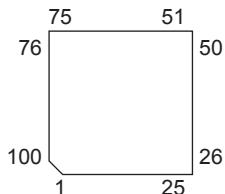


- Pin function

Pin No.	Symbol	I/O	Function
1	/RESET	I	Hard reset input (H:Operation L:Reset)
2	MiMD	I	Mode select input for MCU interface (H:IIC L:Serial)
3	/MiCS	I	Chip select input for MCU interface
	/WE	O	Write-enable for external DRAM
4	/MiLP	I	Latch pulse input for MCU interface
	/RAS	O	Low address strobe for external DRAM
5	MiDio	I/O	Data input and output for MCU interface (IIC:SDA)
6	/MiCK	I	Clock input for MCU interface (IIC:SCL)
7	MiACK	O	Acknowledge output for MCU interface
	A11R	O	Address output-11 for external DRAM
8	VDDT	-	Power supply for digital circuit (3.3V)
9	SDo	O	Data output
10	BCKo	O	Bit clock output
11	LRCKo	O	LR clock output
12	SDi0	I	Data input-0
13	BCKiA	I	Bit clock input-A
14	LRCKiA	I	LR clock input-A
15	SDi1	I	Data input-1 (Address output-5 for external SRAM)
	A0	O	Address output-1 for external DRAM
16	BCKiB	I	Bit clock input-B
	A1	O	External DRAM address output-1
17	LRCKiB	I	LR clock input-B (Enable signal output for external SRAM)
	A2	O	Address-2 for external DRAM
18	VDD	-	Power supply for digital circuit (2.5V)
19	STANBY	I	Control input for stand-by mode (H:STB,L:Normal)
20	VSS	-	Ground for digital circuit
21	VSSL	-	Ground for DAC Lch
22	VRAL	-	Reference voltage for DAC Lch
23	LO	O	DAC Lch output
24	VDAL	-	Power supply for DAC Lch (2.5V)
25	VDAR	-	Power supply for DAC Rch (2.5V)
26	RO	O	DAC Rch output
27	VRAR	-	Reference voltage for DAC Rch
28	VSSR	-	Ground for DAC Rch
29	TESTP	I	Test terminal (H:Test mode L:Normal)
30	TXO	O	SPDIF output
31	Po0	O	General output port-0
	A3	O	Address-3 for external DRAM
32	Po1	O	General output port-1
	A4	O	Address-4 for external DRAM
33	Po2	O	General output port-2
	A5	O	Address-5 for external DRAM
34	Po3	O	General output port-3
	A6	O	Address-6 for external DRAM
35	VDDT	-	Power supply for digital circuit (3.3V)
36	Po4	O	General output port-4
	A7	O	Address-7 for external DRAM
37	Po5	O	General output port-5 (Address output-7 for external SRAM)
	A8	O	Address-8 for external DRAM
38	Po6	O	General output port-6 (Address output-6 for external SRAM)
	A9	O	Address-9 for external DRAM
39	Po7	O	General output port-7
40	VSS	-	Ground for digital circuit
41	IRQ/REQ	I/O	Interruption input (BS I/F:REQ output)
	A11R	O	Address-11 for external DRAM
42	VDDM	-	Power supply for built-in 1Mbit SRAM (2.5V)
43	Fi0	I	Flag input-0
	/OE	O	Enable output for external up DRAM
44	Fi1	I	Flag input-1
	/CAS	O	Column address strobe for external DRAM
45	VSSM	-	Ground for built-in 1Mbit SRAM

4.23 TMP91CW12AF4R31 (IC501) : CPU

- Pin Layout



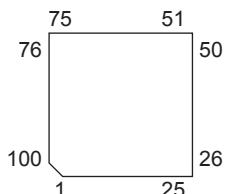
- Pin function

Pin No	Symbol	I/O	Function
1	VREFL	-	Connect to ground
2	AVSS	-	Connect to ground
3	AVCC	-	Connect to 3.3V
4	CDON	O	CD power supply (3.3V) control
5	CDREQ	O	CD mechanism power supply request
6	CDMUTE	O	ICD mute
7	MP3RESET	O	CD MP3 reset
8	MP3STB	O	CD MP3 standby (H: Standby)
9 to 11	NC	-	Not connect
12	SW2	I	CD mechanism SW2
13	REST	I	CD mechanism rest SW
14 to 17	NC	-	Not connect
18	LCDCE/SO	O	Chip enable to LCD driver (Not connect)
19	LCDDA/SI	O	Data to LCD driver (Not connect)
20	LCDCK	O	Clock to LCD driver (Not connect)
21	BUSS0	I	JVC BUS data
22	BUSSI	O	JVC BUS data
23	BUSSCK	I/O	JVC BUS clock
24	AM0		Pull up to 3.3V
25	DVCC	-	Connect to 3.3V
26	X2		Crystal oscillator (24.576MHz)
27	DVSS	-	Connect to ground
28	X1		Crystal oscillator (24.576MHz)
29	AM1		Pull up to 3.3V
30	RESET	I	Reset
31,32	NC	-	Not connect
33	EMU0	-	Not connect
34	EMU1	-	Not connect
35	B.DET	I	Back up power supply detection (H: STOP mode)
36	SW1	I	CD mechanism SW1
37	P.DET	I	Main power off detection (H: HALT mode)
38 to 42	NC	-	Not connect
43	ALE	-	Not connect
44	BUS3	I/O	CD DSP data3
45	BUS2	I/O	CD DSP data2
46	BUS1	I/O	CD DSP data1
47	BUS0	I/O	CD DSP data0
48	BUCK	O	Clock to CD DSP data

Pin No	Symbol	I/O	Function
49	CCE	O	CD DSP chip enable
50	DSPRESET	O	CD DSP reset
51	NC		Not connect
52	DISCSEL	I	8cm DISC mode (L)
53	DACSEL	I	DAC mode (H)
54	WMASEL	I	WMA mode (H)
55	TESTMODE	I	LCD/AD key/Remocon invalidity selection (L)
56	RWSEL	O	CD-RW switching (RW:L)
57	LD/FE	O	LOADING/FEED switching (H:LD,L:FE)
58	LOAD	O	Loading (L:Loading,H:Eject)
59	/BUSIO	O	JVC BUS input/output control (Inverting output)
60	BUSIO	O	JVC BUS input/output control
61	NC	-	Not connect
62	DVSS	-	Connect to ground
63	NMI	I	Connect to P.DET
64	DVCC	-	Connect to 3.3V
65	DACML	O	DAC mode control latch
66	DACMC	O	DAC mode control BCk
67	DACMD	O	DAC mode control data
68	DACCS	O	DAC chip select
69 to 77	NC	-	Not connect
78	BOOT		
79	NC	-	Not connect
80	8VDET	I	CD mechanism power supply detection (L: 8V exist)
81	MP3REQ	I	CD MP3 request
82,83	NC	-	Not connect
84	MP3DI	I	CD MP3 data
85	MP3CK	O	Clock for CD MP3 data
86	BUSINT	I	Interrupt for JVC BUS transmission start
87,88	NC	-	Not connect
89	DVCC	-	Connect to 3.3V
90	NC	-	Not connect
91	DVSS	-	Connect to ground
92	KEY0	I	Key input0 (8-bits A/D input)
93	KEY1	I	Key input1 (8-bits A/D input)
94	TEMP	I	detecting signal for high temperture
95	IOP	I	IOP measuring signal of pick
96 to 99	NC	-	Not connect
100	VREFH	-	Connect to 3.3V

4.24 UPD784217AGC205 (IC701) : CPU

- Pin Layout



- Pin function

Pin No	Symbol	I/O	Function
1 to 7	NC	-	Not use
8	ANT CONT	-	Antenna remote control
9	VDD	-	Power supply
10	X2	-	
11	X1	-	
12	VSS	-	Ground
13	XT2	-	
14	XT1	-	
15	RESET	I	System reset
16	REMOCON	I	Remocon input
17	BUS-INT	I	J-BUS INT
18	PS2	I	Power save2, H means STOP mode
19	CD-REQ	I	CD REQ INPUT
20	RDS-SCK	I	Not use
21	STEERING REMOCON	I	Steering remocon input
22	KEY DATA	I	KEY DATA
23	AVDD	-	A/D converter power supply
24	AVREF0	-	A/D reference voltage
25	VOL1	I	Volume encoder pulse input 1
26	VOL2	I	Volume encoder pulse input 2
27 to 29	NC	-	Not use
30	MRC	I	MRC input
31	SQ	I	Not use, pull down
32	SM	I	S.METER input
33	AVSS	-	Ground
34	NC	-	Not use
35	STAGE3	I	Feature selection, pull up
36	AVREF	-	
37	BUS-SI	I	J-BUS data input
38	BUS-SO	O	J-BUS data output
39	BUS-SCK	I/O	J-BUS clock input/output
40	BUS-I/O	O	J-BUS I/O selection output:H, input:L
41	DISP DA	O	DISPLAY DATA output
42	DISP SCK	O	DISPLAY SCK
43	DISP CE	O	DISPLAY CE
44	BUZZER	O	Buzzer output
45	E2PROM-DI	I	I2C data input
46	E2PROM-DO	O	I2C data output
47	E2PROM-CLK	O	I2C clock output
48	OPEN	I	DOOR OPEN SW

Pin No	Symbol	I/O	Function
49	DETACH	I	Detach detect input; H means detaching
50	NC	-	Not use
51 to 53	NC	-	Not use
54	EQ-CLK	O	Clock output for e-EQ IC
55	EQ-DA	O	Data output for e-EQ IC
56	EQ-LA	O	Latch output for e-EQ IC
57 to 59	NC	-	Not use
60	RDS DA	I	Not use
61	SD/ST	I	Station detector or stereo indicator input; H means a station is there, L means the program is stereo.
62	AFCK	O	Not use
63	SEEK/STOP	O	Auto seek and stop selecting output; H means seeking, L means receiving.
64	CF SEL	O	Wide & Narrow
65	FM/AM	O	FM,AM band selecting output; H=FM, L=AM
66	PLL-CE	O	CE output for PLL IC
67	PLL-DO	O	Data output for PLL IC
68	PLL-CLK	O	Clock output for PLL IC
69	PLL-DI	I	Data input from PLL IC
70	TEL-MUTING	I	Telephone muting detection input; Active level can be selected H or L in PSM
71	DIM-OUT	O	Dimmer detector output
72	VSS	-	Ground
73	DIM-IN	I	Dimmer detector input L=dimmer on
74	PS1	I	Power save1 L=ACC off
75	POWER	O	Power on/off control output H=power on
76	CD-ON	-	Not use
77	MUTING	O	Muting output L=muting on
78	CD MUTING	I	CD mute input L=mute on
79	CD RESET	O	CD reset control out H=reset on
80	LINE SEL	I	Feature selection H: line input (U57:not support), L: support
81	VDD	-	Power supply
82	NC	-	Not use
83	VOL-DA	O	Data output for e-vol IC
84	VOL-CLK	O	Clock output for e-vol IC
85	WOOFER SEL	I	Feature selection H:support L:Not support
86	SUB MUTING	O	Muting control output for subwoofer
87	LPF1	O	LPF control1
88	LPF2	O	LPF control2
89	STAGE2	I	Feature selection H: R or Do L: J or U
90	STAGE1	I	Feature selection H: R or U L: J or Do
91 to 93	NC	-	Not use
94	TEST		For rewriting flash memory
95 to 100	NC	-	Not use



VICTOR COMPANY OF JAPAN, LIMITED

AV & MULTIMEDIA COMPANY MOBILE ENTERTAINMENT CATEGORY 10-1, 1chome, Ohwatari-machi, Maebashi-city, 371-8543, Japan

(No.49839)

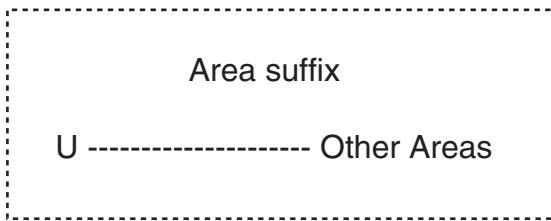


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WPC

PARTS LIST

[KD-LH3105]

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

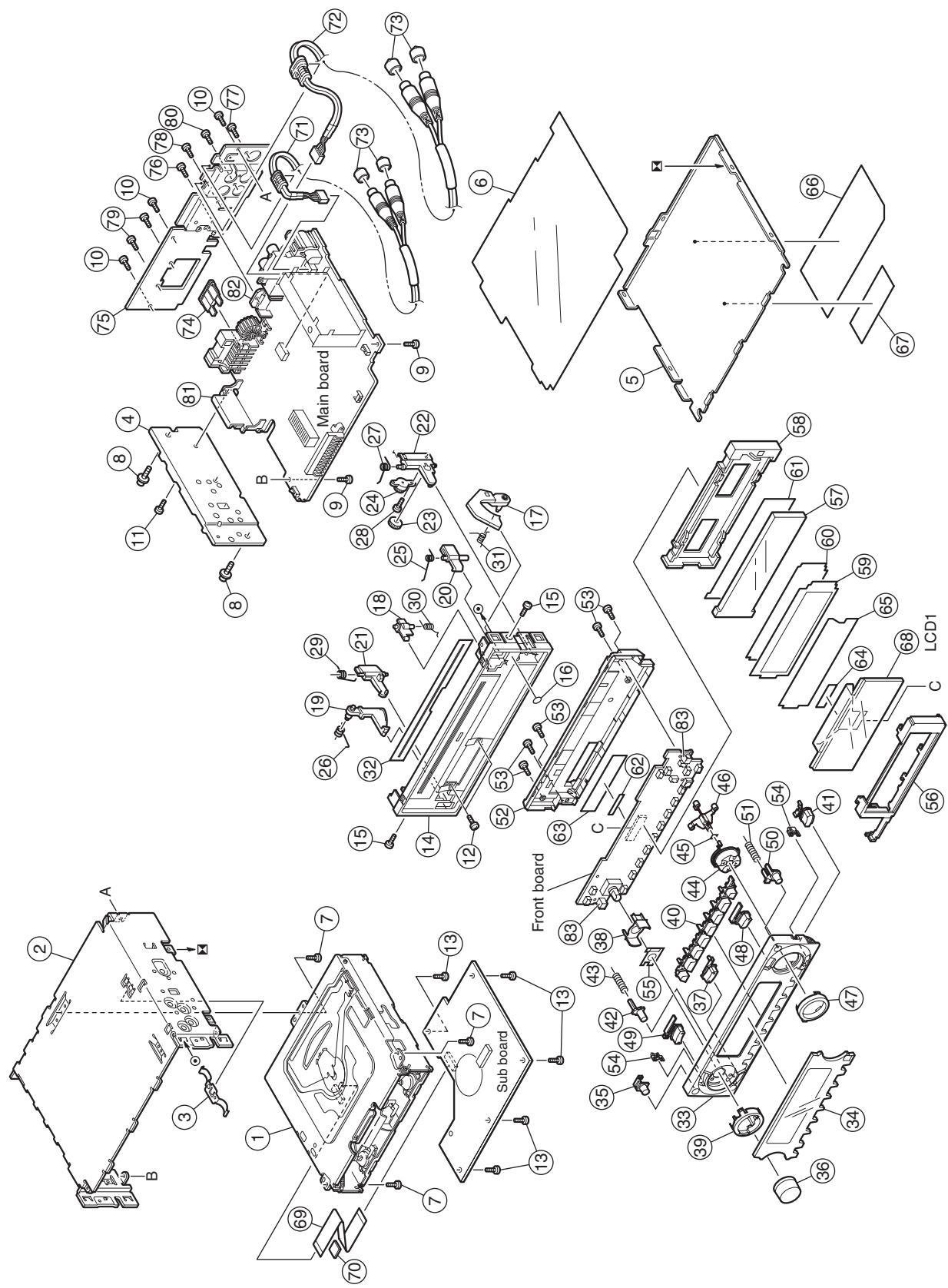


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Exploded view of general assembly and parts list

Block No. M 1 M M



General assembly

Block No. [M][1][M][M]

△Symbol No.	Part No.	Part Name	Description	Local	△Symbol No.	Part No.	Part Name	Description	Local
1	-----	CD MECHA			75	GE30912-006A	REAR BRACKET		
2	GE10043-210A	TOP CHASSIS			76	QYSDST2606Z	SCREW	2.6mm x 6mm	
3	GE40135-001A	EARTH PLATE			77	QYSDST2606Z	SCREW	2.6mm x 6mm	
4	GE30938-003A	HEAT SINK			78	QYSDST2606Z	SCREW	2.6mm x 6mm	
5	GE30393-002A	BOTTOM COVER			79	QYSDF2606Z	SCREW	2.6mm x 6mm(x2)	
6	FMSA3005-001	INSULATOR			80	QYSDF2606Z	SCREW	2.6mm x 6mm	
7	QYSDST2604Z	SCREW	2.6mm x 4mm(x3)		81	GE40172-002A	IC BRACKET	2.6mm x 6mm	
8	FSKZ4005-001	SCREW	(x2)		82	GE40124-001A	REG BRACKET		
9	QYSDST2606Z	SCREW	2.6mm x 6mm(x2)		83	GE30857-001A	LED HOLDER	(x2)	
10	QYSDST2604Z	SCREW	2.6mm x 4mm(x3)						
11	QYSDST2610Z	SCREW	2.6mm x 10mm						
12	QYSDF2006M	SCREW	2mm x 6mm(x2)						
13	QYSDST2004Z	SCREW	2mm x 4mm(x5)						
14	GE30823-002A	F. CHASSIS ASSY							
15	QYSDST2004M	MINI SCREW	2mm x 4mm(x2)						
16	FSYH4036-046	SHEET							
17	GE30827-001A	OPEN LEVER							
18	GE30824-002A	LOCK LEVER(O.L)							
19	GE30826-001A	RELEASE LEVER							
20	GE30829-001A	LOCK LEVER(TOP)							
21	GE30825-001A	LOCK LEVER(L)							
22	GE30828-001A	LOCK LEVER(R)							
23	GE40154-001A	GEAR							
24	QZW0108-002	OIL DAMPER							
25	FSKW4012-002	T.SPRING							
26	VKW5264-005	T.SPRING							
27	GE40155-001A	T.SPRING							
28	QYSDF2006M	SCREW	2mm x 6mm						
29	VKW5263-002	T.SPRING							
30	GE40157-001A	T.SPRING							
31	GE40153-001A	T.SPRING							
32	GE40156-001A	BLIND							
33	GE10061-004A	FRONT PANEL							
34	GE30917-005A	FINDER ASSY							
35	GE30832-001A	POWER BUTTON							
36	GE30856-001A	KNOB							
37	GE30859-001A	SEL BUTTON							
38	GE30834-001A	RIM LENS							
39	GE30836-001A	RIM COVER(L)							
40	GE20152-001A	RESET BUTTON							
41	GE30838-004A	CD BTN							
42	GE30934-001A	DETACH BUTTON							
43	GE30999-001A	COMP.SPRING							
44	GE30835-001A	NAVIGATION BTN							
45	FSYH4036-013	SHEET							
46	GE30937-002A	NAVI BASE							
47	GE30858-001A	RIM COVER(R)							
48	GE30860-001A	FM/AM BTN							
49	GE30861-002A	EQ BTN							
50	GE30914-002A	EJECT BUTTON							
51	VKW3001-330	COMP.SPRING							
52	GE10062-003A	REAR COVER							
53	VKZ4777-001	MINI SCREW	(x5)						
54	GE40158-001A	SIDE LENS	(x2)						
55	GE40174-001A	INSULATOR							
56	GE30837-001A	LCD CASE							
57	LV42850-002A	L.C.D.LENS							
58	LV33404-001A	LIGHT CASE							
59	LV42884-001A	LENS FILTER							
60	LV42995-001A	LENS FILTER							
61	LV42955-002A	LENS SHEET							
62	LV43084-001A	DOUBLE FACE							
63	LV40848-034A	SPACER							
64	LV40846-036A	SPACER							
65	LV42894-001A	BRIGHT SHEET							
66	GE30789-001A	NAME PLATE							
67	LV41843-001A	LASER CAUTION							
68	QLD0232-001	LCD MODULE							
69	QUQ105-2207AE	FFC WIRE							
70	VYSH101-009	SPACER							
71	QAM0419-001	CAR PLUG CORD							
72	QAM0447-001	L-INCABLE							
73	VYTA500-001	PIN CAP	(x4)						
74	QMFZ047-150-T	FUSE	15A						

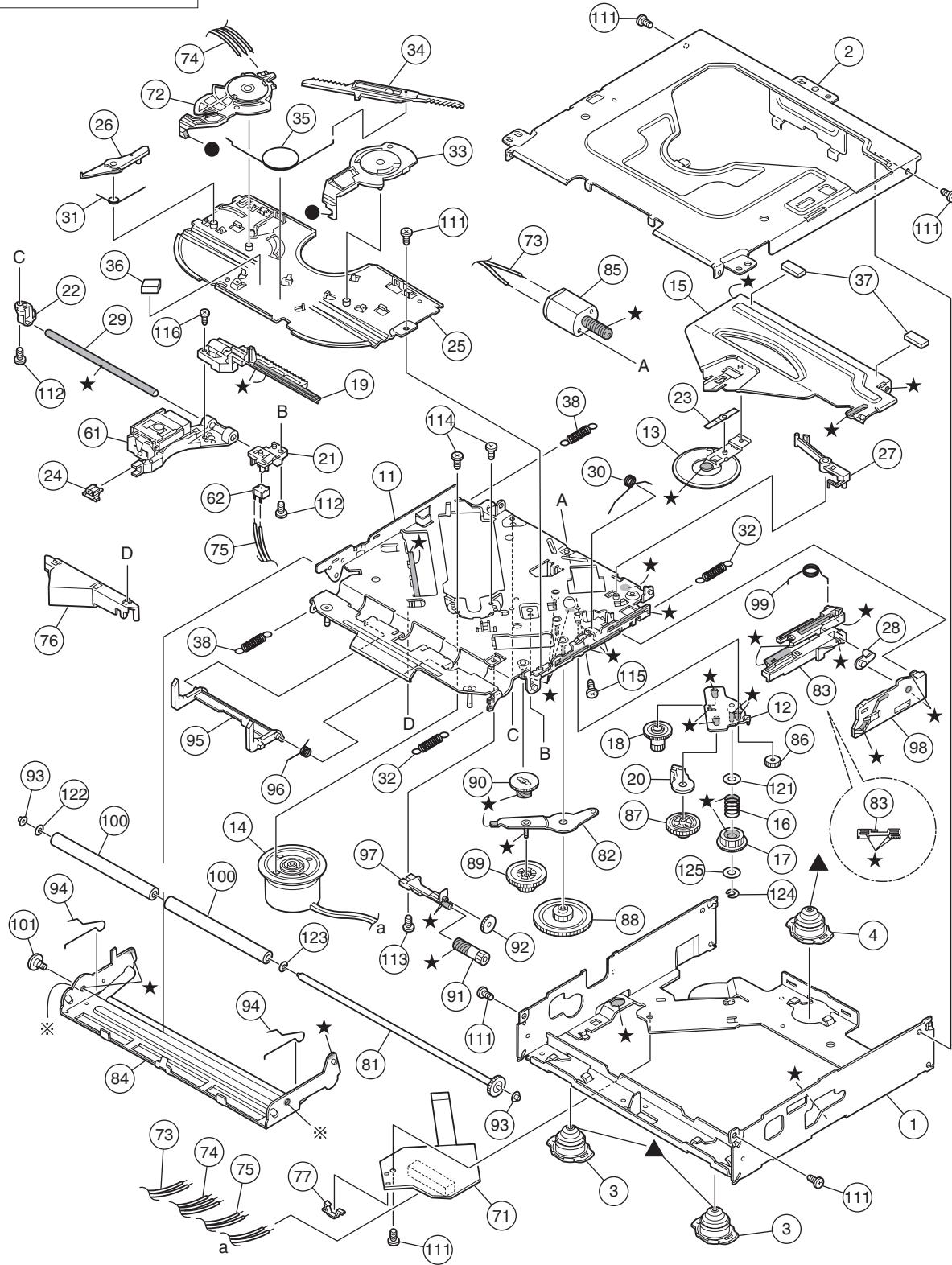
CD mechanism assembly and parts list

Grease

- ★ TNG-87
- ※ GP-501MK
- CFD-005Z
- ▲ GP-501A

Block No. M B M M

TN-2001-1013



CD mechanism

Block No. [M][B][M][M]

△Symbol No.	Part No.	Part Name	Description	Local
1	30320101T	FRAME		
2	30320102T	TOP COVER		
3	30320115T	DANPER F	(x2)	
4	30320116T	DANPER R		
11	303205505T	CHASSIS RIVET		
12	303205503T	CHANGE P. RVT A		
13	303205301T	CLAMPER ASSY		
14	303205304T	SPINDLE MOTOR A		
15	30320502T	CLAMPER ARM		
16	30320503T	CHANGE GEAR SPG		
17	30320505T	CHANGE GEAR 2		
18	30320506T	FEED GEAR		
19	30320507T	FEED RACK		
20	30320509T	CHANGE LOCK RAR		
21	30320510T	FEED SW HOLDER		
22	30320511T	PU SHAFT HOLDER		
23	30320513T	CLAMPER SUB SPG		
24	30320514T	FD SUB HOLDER		
25	30320518T	TOP PLATE		
26	30320519T	SELECT LOCK ARM		
27	30320520T	TRIGGER ARM		
28	30320521T	SLIDE HOOK		
29	30320522T	PU SHAFT		
30	30320525T	CLAMPER ARM SPG		
31	30320526T	SELECT L ARM SP		
32	30320538T	SUSPENSION SP R	(x2)	
33	30320529T	SELECT ARM R		
34	30320530T	LINK PLATE		
35	30320531T	LINK PLATE SPG		
36	30320523T	CUSHION F		
37	30320524T	CUSHION R	(x2)	
38	30320539T	SUSPENSION SP L	(x2)	
61	69011614T	PICKUP OPT-725		
62	64180406T	DET SW ESE22		
71	303210302T	CONN BOARD ASSY		
72	30321002T	MODE SW		
73	30321003T	LOAD MOTOR WIRE		
74	30321005T	MODE SW WIRE		
75	30321009T	SL WIRE		
76	30321011T	WIRE HOLDER		
77	19501403T	WIRE CLUMPER		
81	303211301T	ROLLER SHAFT AS		
82	303211501T	L GEAR PLATE RV		
83	303211302T	LOADING PLATE A		
84	303211502T	LOCK ARM RV ASS		
85	303211303T	L/F MOTOR ASSY		
86	30321101T	LOADING GEAR 1		
87	30321102T	LOADING GEAR 2		
88	30321103T	LOADING GEAR 3		
89	30321104T	LOADING GEAR 4		
90	30321105T	LOADING GEAR 5		
91	30321106T	LOADING GEAR 6		
92	30321107T	LOADING GEAR 7		
93	30321111T	ROLLER GUIDE	(x2)	
94	30321114T	ROLLER GUIDE SP	(x2)	
95	30321116T	DISC STOPPER AR		
96	30321117T	DISC ST ARM SPG		
97	30321118T	LD GEAR BRACKET		
98	30321125T	L SIDE PLATE		
99	30321131T	LOAD PLATE SPG		
100	30321133T	LDG ROLLER	(x2)	
101	18211223T	COLLAR SCREW		
111	9P0420031T	SCREW	(x6)	
112	9P0420041T	TAP SCREW	(x2)	
113	9B0320041T	SCREW		
114	9C0117183T	SCREW	(x2)	
115	9C0120203T	SCREW		
116	9C0317503T	SCREW		
121	9W0130170T	PW 3.5X8X0.3		
122	9W0513060T	HL WASHER		
123	9W0710070T	L WASHER		
124	9E0100152T	E RING		
125	9W0113020T	PW 2.1X4X0.13		

Electrical parts list

Main board

Block No. [0][1][0][0]				△Symbol No.	Part No.	Part Name	Description	Local
△Symbol No.	Part No.	Part Name	Description	Local				
IC131	BU4066BCFV-X	IC		D941	UDZS11B-X	Z DIODE		
IC132	NJM4565V-X	IC		D942	1SS355-X	SI DIODE		
IC281	BA3220FV-X	IC		D951	1SS355-X	SI DIODE		
IC301	BA3220FV-X	IC		C1	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
IC701	UPD784217AGC205	IC		C2	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
IC702	IC-PST933U-X	IC		C3	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
IC703	BR24L16F-W-X	IC		C4	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
IC781	HD74HC126FP-X	IC		C6	QERF1AM-107Z	E CAPACITOR	100uF 10V M	
IC901	HA13164A	IC		C7	QERF1AM-107Z	E CAPACITOR	100uF 10V M	
IC911	TDA7404D-X	IC		C10	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
IC912	M62449FP-X	IC		C25	NCS31HJ-331X	C CAPACITOR	330pF 50V J	
IC921	NJM2360AM-X	IC		C27	QERF1HM-104Z	E CAPACITOR	0.1uF 50V M	
IC951	LA47505	IC		C101	NCB31EK-123X	C CAPACITOR	0.012uF 25V K	
Q1	2SB624/4-X	TRANSISTOR		C102	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M	
Q2	UN2211-X	TRANSISTOR		C103	NCS31HJ-821X	C CAPACITOR	820pF 50V J	
Q3	2SB624/4-X	TRANSISTOR		C104	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
Q121	2SD1781K/QR-X	TRANSISTOR		C110	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
Q122	2SD1781K/QR-X	TRANSISTOR		C115	NFV81CM-105X	TS E. CAPACITOR	1uF 16V M	
Q131	UN2211-X	TRANSISTOR		C116	NFV81CM-105X	TS E. CAPACITOR	1uF 16V M	
Q132	UN2211-X	TRANSISTOR		C117	NCB31HK-331X	C CAPACITOR	330pF 50V K	
Q133	2SC2412K/RS-X	TRANSISTOR		C118	NCB31HK-331X	C CAPACITOR	330pF 50V K	
Q191	2SD601A/R-X	TRANSISTOR		C120	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
Q221	2SD1781K/QR-X	TRANSISTOR		C122	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q222	2SD1781K/QR-X	TRANSISTOR		C123	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
Q701	UN2213-X	DIGI TRANSISTOR		C124	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
Q702	UN2214-X	TRANSISTOR		C125	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
Q703	UN2211-X	TRANSISTOR		C126	QERF1AM-107Z	E CAPACITOR	100uF 10V M	
Q750	UN2211-X	TRANSISTOR		C127	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
Q751	UN2211-X	TRANSISTOR		C131	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
Q752	UN2213-X	DIGI TRANSISTOR		C132	NCB31EK-333X	C CAPACITOR	0.033uF 25V K	
Q753	UN2211-X	TRANSISTOR		C133	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	
Q754	UN2211-X	TRANSISTOR		C134	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	
Q795	UN2211-X	TRANSISTOR		C135	NCB31HK-562X	C CAPACITOR	5600pF 50V K	
Q901	UN2111-X	TRANSISTOR		C136	NCB31EK-123X	C CAPACITOR	0.012uF 25V K	
Q902	UN2211-X	TRANSISTOR		C137	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
Q903	2SB709A/QR-X	TRANSISTOR		C138	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
Q904	2SD601A/R-X	TRANSISTOR		C139	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
Q905	UN2211-X	TRANSISTOR		C140	NCB31HK-682X	C CAPACITOR	6800pF 50V K	
Q941	UN2111-X	TRANSISTOR		C141	NCB31EK-823X	C CAPACITOR	0.082uF 25V K	
Q942	UN2111-X	TRANSISTOR		C142	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
Q951	UN2211-X	TRANSISTOR		C143	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
D1	1SS355-X	SI DIODE		C144	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
D2	1SS355-X	SI DIODE		C151	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M	
D3	MA152WK-X	DIODE		C152	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M	
D121	MA152WA-X	DIODE		C161	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
D131	MA152WK-X	DIODE		C162	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
D192	1SS355-X	SI DIODE		C165	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
D193	1SS355-X	SI DIODE		C166	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
D221	MA152WA-X	DIODE		C181	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
D701	1SS355-X	SI DIODE		C191	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
D702	1SS355-X	SI DIODE		C192	QERF1CM-226Z	E CAPACITOR	22uF 16V M	
D703	1SS355-X	SI DIODE		C193	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
D704	1SS355-X	SI DIODE		C194	QERF1HM-224Z	E CAPACITOR	0.22uF 50V M	
D711	UDZS6.2B-X	Z DIODE		C201	NCB31EK-123X	C CAPACITOR	0.012uF 25V K	
D712	UDZS6.2B-X	Z DIODE		C202	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M	
D713	UDZS6.2B-X	Z DIODE		C203	NCS31HJ-821X	C CAPACITOR	820pF 50V J	
D714	UDZS6.2B-X	Z DIODE		C204	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
D715	UDZS6.2B-X	Z DIODE		C210	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
D716	UDZS6.2B-X	Z DIODE		C215	NFV81CM-105X	TS E. CAPACITOR	1uF 16V M	
D717	SML-310LT/MN/-X	LED		C216	NFV81CM-105X	TS E. CAPACITOR	1uF 16V M	
D718	SML-310LT/MN/-X	LED		C217	NCB31HK-331X	C CAPACITOR	330pF 50V K	
D719	SML-310LT/MN/-X	LED		C218	NCB31HK-331X	C CAPACITOR	330pF 50V K	
D720	UDZS6.2B-X	Z DIODE		C224	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
D901	1N5404-TU-15	DIODE		C251	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M	
D902	RB160M-30-X	SB DIODE		C252	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M	
D903	RB160M-30-X	SB DIODE		C254	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
D904	RB160M-30-X	SB DIODE		C255	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
D905	RB160M-30-X	SB DIODE		C261	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
D906	MA152WA-X	DIODE		C262	QERF1HM-105Z	E CAPACITOR	1uF 50V M	
D921	RB160M-30-X	SB DIODE		C263	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	
				C264	NCB31CK-393X	C CAPACITOR	0.039uF 16V K	
				C265	NCB31HK-123X	C CAPACITOR	0.012uF 50V K	
				C266	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	

△Symbol No.	Part No.	Part Name	Description	Local	△Symbol No.	Part No.	Part Name	Description	Local
C267	NCB31HK-472X	C CAPACITOR	4700pF 50V K		C924	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C268	NCB31HK-682X	C CAPACITOR	6800pF 50V K		C929	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C269	NCB31HK-182X	C CAPACITOR	1800pF 50V K		C930	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
C270	NCB31HK-272X	C CAPACITOR	2700pF 50V K		C941	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
C271	NCB31CK-823X	C CAPACITOR	0.082uF 16V K		C942	QERF0JM-107Z	E CAPACITOR	100uF 6.3V M	
C272	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C945	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C281	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C951	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
C282	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C952	NCB31AK-224X	C CAPACITOR	0.22uF 10V K	
C283	QERF1CM-476Z	E CAPACITOR	47uF 16V M		C953	QERF1CM-107Z	E CAPACITOR	100uF 16V M	
C284	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C954	QERF1CM-226Z	E CAPACITOR	22uF 16V M	
C287	QERF1AM-107Z	E CAPACITOR	100uF 10V M		C955	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M	
C288	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C956	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C289	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C957	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C290	QERF1AM-107Z	E CAPACITOR	100uF 10V M		C958	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C294	QERF1AM-107Z	E CAPACITOR	100uF 10V M		C959	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C301	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C961	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C302	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C962	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C303	QERF1CM-476Z	E CAPACITOR	47uF 16V M		C963	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C304	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C964	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C307	QERF1AM-107Z	E CAPACITOR	100uF 10V M		C965	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C308	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C966	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C309	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		C967	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C310	QERF1AM-107Z	E CAPACITOR	100uF 10V M		C968	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C351	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M		C969	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
C352	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M		C970	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
C361	NCB31CK-823X	C CAPACITOR	0.082uF 16V K		C971	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C362	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C972	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C363	NCB31EK-273X	C CAPACITOR	0.027uF 25V K		R1	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C364	NCB31CK-393X	C CAPACITOR	0.039uF 16V K		R2	NRSA63J-270X	MG RESISTOR	27Ω 1/16W J	
C365	NCB31HK-123X	C CAPACITOR	0.012uF 50V K		R3	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
C366	NCB31HK-153X	C CAPACITOR	0.015uF 50V K		R4	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
C367	NCB31HK-472X	C CAPACITOR	4700pF 50V K		R5	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
C368	NCB31HK-682X	C CAPACITOR	6800pF 50V K		R6	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
C369	NCB31HK-182X	C CAPACITOR	1800pF 50V K		R7	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C370	NCB31HK-272X	C CAPACITOR	2700pF 50V K		R8	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
C701	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R9	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C702	QERF1AM-227Z	E CAPACITOR	220uF 10V M		R10	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
C703	NCS31HJ-8R0X	C CAPACITOR	8pF 50V J		R11	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C704	NCS31HJ-270X	C CAPACITOR	27pF 50V J		R30	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C705	NCS31HJ-270X	C CAPACITOR	27pF 50V J		R101	NRSA63J-912X	MG RESISTOR	9.1kΩ 1/16W J	
C706	NCS31HJ-220X	C CAPACITOR	22pF 50V J		R102	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
C707	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R111	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C708	QERF1AM-227Z	E CAPACITOR	220uF 10V M		R113	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C709	NCS31HJ-471X	C CAPACITOR	470pF 50V J		R114	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C710	NCB31EK-473X	C CAPACITOR	0.047uF 25V K		R115	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
C711	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R116	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C713	QERF0JM-476Z	E CAPACITOR	47uF 6.3V M		R117	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
C714	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R118	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
C715	QERF1AM-227Z	E CAPACITOR	220uF 10V M		R119	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
C716	NCB31EK-473X	C CAPACITOR	0.047uF 25V K		R121	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
C717	NCS31HJ-101X	C CAPACITOR	100pF 50V J		R122	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
C751	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R123	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
C752	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R124	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
C753	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R125	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C755	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R126	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C768	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R127	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
C769	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R129	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C781	NCB31EK-473X	C CAPACITOR	0.047uF 25V K		R131	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
C795	QERF1HM-105Z	E CAPACITOR	1uF 50V M		R132	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
C901	QEZO625-338	E CAPACITOR	3300uF		R133	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C902	QERF1CM-226Z	E CAPACITOR	22uF 16V M		R134	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
C903	QERF1CM-226Z	E CAPACITOR	22uF 16V M		R135	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
C904	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R136	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C905	QERF1AM-107Z	E CAPACITOR	100uF 10V M		R137	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
C906	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R138	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C907	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R139	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C908	QERF1AM-227Z	E CAPACITOR	220uF 10V M		R140	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
C909	NCB31EK-104X	C CAPACITOR	0.1uF 25V K		R141	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C910	QERF1CM-106Z	E CAPACITOR	10uF 16V M		R142	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C911	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R143	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
C912	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M		R144	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
C913	NCB31EK-104X	C CAPACITOR	0.1uF 25V K		R145	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
C914	QEJK1CM-226Z	E CAPACITOR	22uF 16V M		R146	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C917	NCB31CK-473X	C CAPACITOR	0.047uF 16V K		R147	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
C920	QERF1EM-475Z	E CAPACITOR	4.7uF 25V M		R148	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
C921	QERF1AM-227Z	E CAPACITOR	220uF 10V M		R149	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
C922	NCB31HK-272X	C CAPACITOR	2700pF 50V K		R161	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C923	QERF1CM-107Z	E CAPACITOR	100uF 16V M						

△Symbol No.	Part No.	Part Name	Description	Local	△Symbol No.	Part No.	Part Name	Description	Local
R182	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R751	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R183	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R754	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R184	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R755	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R191	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R756	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R192	NRSA63J-184X	MG RESISTOR	180kΩ 1/16W J		R757	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R193	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R758	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R194	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J		R759	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R195	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J		R760	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R196	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R763	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R197	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J		R767	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R201	NRSA63J-912X	MG RESISTOR	9.1kΩ 1/16W J		R773	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R202	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R774	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R211	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R775	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R213	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R776	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R214	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R777	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R215	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J		R778	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R216	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R779	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R217	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J		R780	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R218	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J		R781	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R219	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J		R782	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R221	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J		R783	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R222	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J		R784	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R223	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J		R785	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R224	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J		R786	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R225	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R787	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R226	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R788	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R229	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R789	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R261	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R790	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R282	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R791	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R291	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J		R792	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R292	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J		R793	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R293	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		R795	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R294	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		R797	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R295	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J		R798	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R301	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J		R799	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R302	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J		R901	NRSA63J-912X	MG RESISTOR	9.1kΩ 1/16W J	
R303	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		R902	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R304	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		R903	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R305	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J		R904	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R707	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R905	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R708	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J		R906	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R709	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R907	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R710	NRSA63J-106X	MG RESISTOR	10MΩ 1/16W J		R908	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R711	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R909	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R712	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R910	QRE142J-102X	C RESISTOR	1kΩ 1/4W J	
R713	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R911	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R714	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R912	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R716	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R913	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R717	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R914	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R718	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R915	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R719	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R916	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R720	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R917	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R721	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R918	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R722	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R919	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R724	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R921	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R725	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R922	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R726	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R923	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R727	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R924	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R728	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R925	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R729	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R926	NRSA63D-473X	MG RESISTOR	47kΩ 1/16W D	
R730	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R927	NRSA63D-472X	MG RESISTOR	4.7kΩ 1/16W D	
R731	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		R928	NRSA63D-273X	MG RESISTOR	27kΩ 1/16W D	
R732	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		R929	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R733	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R951	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R734	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R953	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R735	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		R954	NRSA63J-4R7X	MG RESISTOR	4.7Ω 1/16W J	
R736	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		R955	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R737	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		R961	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R739	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R962	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R742	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R963	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R743	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R981	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R744	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R982	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R745	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R984	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R746	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R985	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R747	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R986	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R748	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R987	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R749	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R989	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R750	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R990	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	

△Symbol No.	Part No.	Part Name	Description	Local	△Symbol No.	Part No.	Part Name	Description	Local
R992	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		D401	MA152WK-X	DIODE		
R993	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		D402	SML-310LT/MN/-X	LED		
R996	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		D403	SML-310LT/MN/-X	LED		
R997	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		D405	SML-310LT/MN/-X	LED		
R998	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		D406	SML-310LT/MN/-X	LED		
R999	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		D407	SML-310LT/MN/-X	LED		
L1	NQL114K-100X	COIL	10uH K		D408	SML-310LT/MN/-X	LED		
L701	NQL114K-470X	INDUCITOR	47uH K		D409	SML-310LT/MN/-X	LED		
L702	NQL114K-470X	INDUCITOR	47uH K		D410	SML-310LT/MN/-X	LED		
L753	NQL114K-470X	INDUCITOR	47uH K		D411	SML-310LT/MN/-X	LED		
L901	QQR1378-001	CHOKE COIL			D412	SML-310LT/MN/-X	LED		
L921	NQLZ007-151X	COIL	150uH		D413	SML310BAT/JKL-X	LED		
L922	NQL114M-4R7X	COIL	4.7uH M		D414	SML310BAT/JKL-X	LED		
BZ795	QAN0023-001Z	BUZZER			D415	SML-310LT/MN/-X	LED		
CN131	QGA2006C1-04	CONNECTOR	W-B (1-4)		D416	SML-310LT/MN/-X	LED		
CN141	QGA2006F1-04	CONNECTOR	W-B (1-4)		D417	SML-310LT/MN/-X	LED		
CN601	QGB2027M4-22S	CONNECTOR	B-B (1-22)		D418	SML-310LT/MN/-X	LED		
CN701	QNZ0605-001	CAR CONNECTOR			D419	SML-310LT/MN/-X	LED		
CN901	QNZ0611-001	16P CONNECTOR			D420	SML-310LT/MN/-X	LED		
CN902	QNZ0095-001	CONNECTOR			D421	SML-310LT/MN/-X	LED		
J1	QNB0100-002	CAR ANT JACK			D422	SML-310LT/MN/-X	LED		
J121	QNN0490-001	PIN JACK			D423	UDZS6.2B-X	Z DIODE		
PP1	QZW0010-001	STYLE PIN			D424	UDZS6.2B-X	Z DIODE		
S701	QSW0451-001	DETECT SW			D425	UDZS6.2B-X	Z DIODE		
S702	QSW0451-001	DETECT SW			D426	UDZS6.2B-X	Z DIODE		
S703	QSQ1A11-V06Z	TACT SW I/M			D427	UDZS6.2B-X	Z DIODE		
TU1	QAU0204-002	TUNER			D428	UDZS6.2B-X	Z DIODE		
X701	QAX0617-001Z	CRYSTAL	12.500MHz		D429	UDZS6.2B-X	Z DIODE		
X702	QAX0401-001	CRYSTAL	32.768KHz		D430	UDZS6.2B-X	Z DIODE		

Front board

Block No. [0][2][0][0]

△Symbol No.	Part No.	Part Name	Description	Local	△Symbol No.	Part No.	Part Name	Description	Local
IC801	MN102H60KCG	IC			C451	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
IC802	LH28F160BJHET92	I.C (FLASH ROM)			C452	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
IC803	IC-PST3424U-X	IC			C453	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
IC804	NJU7241F33-X	IC			C454	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
IC805	RPM6938-SV4	REMOCON RCV			C455	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q401	UN2211-X	TRANSISTOR			C456	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q402	UN2211-X	TRANSISTOR			C457	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q403	UN2211-X	TRANSISTOR			C458	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q404	UN2211-X	TRANSISTOR			C459	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q405	UN2211-X	TRANSISTOR			C801	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
Q406	UN2211-X	TRANSISTOR			C802	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q407	UN2211-X	TRANSISTOR			C804	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
Q408	2SD601A/R/-X	TRANSISTOR			C805	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
Q409	2SD601A/R/-X	TRANSISTOR			C806	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q410	2SD601A/R/-X	TRANSISTOR			C807	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
Q411	2SD601A/R/-X	TRANSISTOR			C808	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
Q412	2SD601A/R/-X	TRANSISTOR			C809	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
Q413	2SD601A/R/-X	TRANSISTOR			C810	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q414	2SD601A/R/-X	TRANSISTOR			C811	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q415	2SD601A/R/-X	TRANSISTOR			C812	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
Q416	2SD601A/R/-X	TRANSISTOR			C813	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
Q417	2SD601A/R/-X	TRANSISTOR			C814	NCB31AK-474X	C CAPACITOR	0.47uF 10V K	
Q418	2SD601A/R/-X	TRANSISTOR			C815	NCB31AK-474X	C CAPACITOR	0.47uF 10V K	
Q419	2SD601A/R/-X	TRANSISTOR			C816	NCB31AK-474X	C CAPACITOR	0.47uF 10V K	
Q420	2SD601A/R/-X	TRANSISTOR			C817	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q421	2SD601A/R/-X	TRANSISTOR			C818	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q422	2SD601A/R/-X	TRANSISTOR			C819	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q423	2SD601A/R/-X	TRANSISTOR			C820	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q424	2SD601A/R/-X	TRANSISTOR			C821	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q425	2SD601A/R/-X	TRANSISTOR			C822	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q426	2SD601A/R/-X	TRANSISTOR			C823	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
Q801	2SB709A/QR/-X	TRANSISTOR							
Q802	2SB709A/QR/-X	TRANSISTOR							
Q803	2SD601A/R/-X	TRANSISTOR							
Q804	UN2111-X	TRANSISTOR							

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R888	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J		C506	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R889	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J		C507	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R890	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J		C508	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R891	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J		C509	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R892	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J		C510	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R893	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J		C511	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R894	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J		C512	NEAD0JM-107X	E CAPACITOR	100uF 6.3V M	
R895	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J		C513	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R896	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		C514	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
R897	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J		C551	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R898	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		C571	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
R899	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		C572	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
L801	NQL114K-470X	INDUCITOR	47uH K		C573	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
CN801	NNZ0087-001	CAR CONNECTOR			C574	NEAD1CM-106X	E CAPACITOR	10uF 16V M	
CN802	QGF0523F1-40W	CONNECTOR	FFC/FPC (1-40)		C575	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
EN801	QSW0976-001	ROTARY ENCODER			C576	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S802	NSW0066-001X	TACT SW			C577	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S803	NSW0066-001X	TACT SW			C578	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
S804	NSW0066-001X	TACT SW			C579	NEAD1CM-106X	E CAPACITOR	10uF 16V M	
S805	NSW0066-001X	TACT SW			C580	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S806	NSW0066-001X	TACT SW			C581	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
S807	NSW0066-001X	TACT SW			C582	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
S808	NSW0066-001X	TACT SW			C583	NCS31HJ-821X	C CAPACITOR	820pF 50V J	
S809	NSW0066-001X	TACT SW			C584	NCS31HJ-821X	C CAPACITOR	820pF 50V J	
S810	NSW0066-001X	TACT SW			C585	NEAD1VM-475X	E CAPACITOR	4.7uF 35V M	
S811	NSW0066-001X	TACT SW			C586	NEAD1VM-475X	E CAPACITOR	4.7uF 35V M	
S812	NSW0066-001X	TACT SW			C587	NCS31HJ-121X	C CAPACITOR	120pF 50V J	
S813	NSW0066-001X	TACT SW			C588	NCS31HJ-121X	C CAPACITOR	120pF 50V J	
S814	NSW0066-001X	TACT SW			C589	NEAD1VM-475X	E CAPACITOR	4.7uF 35V M	
S815	NSW0066-001X	TACT SW			C590	NEAD1VM-475X	E CAPACITOR	4.7uF 35V M	
S816	NSW0066-001X	TACT SW			C591	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
S817	NSW0066-001X	TACT SW			C592	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
S818	NSW0066-001X	TACT SW			C593	NEAD1CM-476X	E CAPACITOR	47uF 16V M	
TH801	NAD0022-103X	N THERMISTOR	10kΩ 10mW F		C594	NCS31HJ-102X	C CAPACITOR	1000pF 50V J	
X801	NAX0586-001X	RESONATOR	25.000MHz		C595	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	

Sub board

Block No. [0][3][0][0]

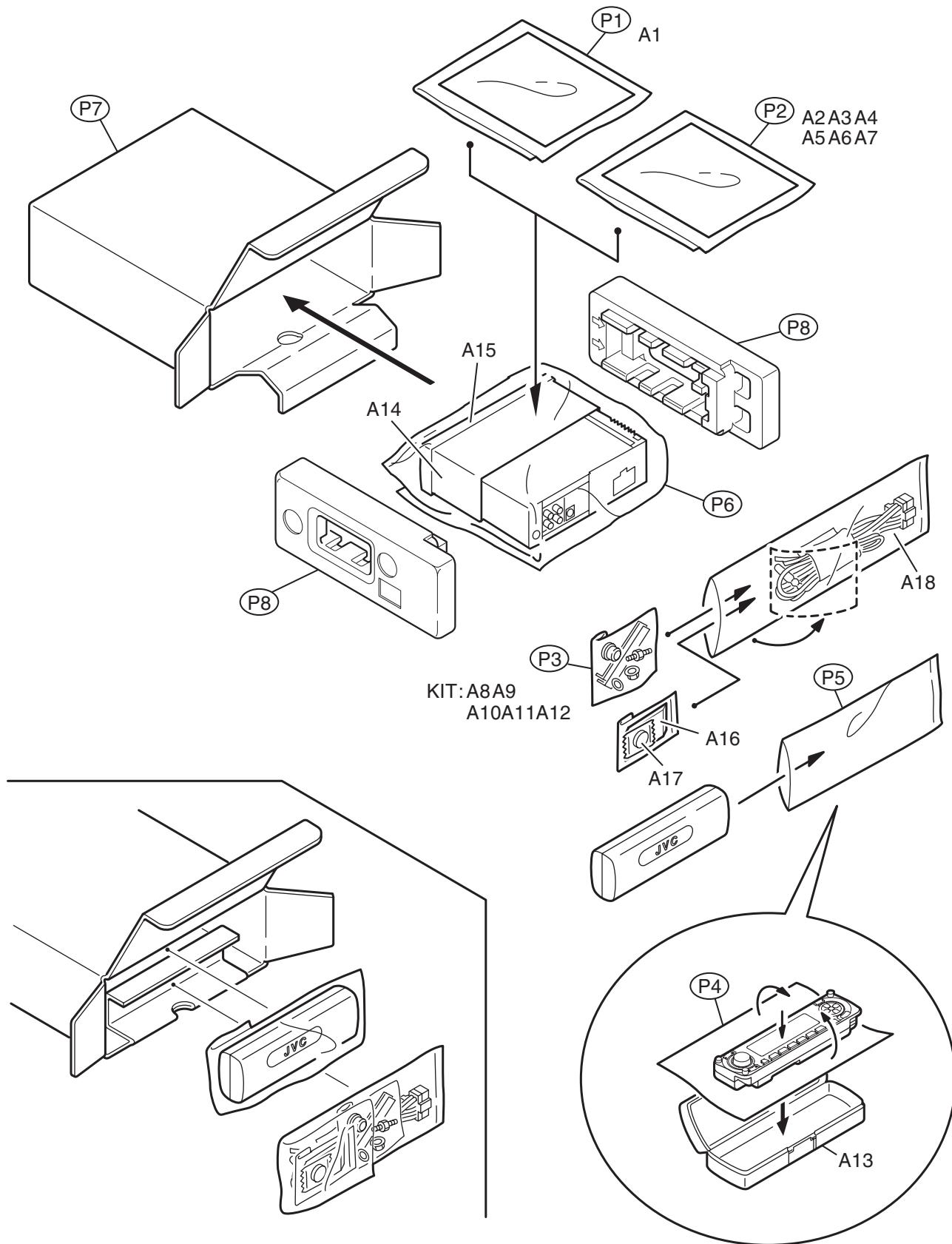
△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
IC501	TMP91CW12AF4R31	IC			C609	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
IC503	HD74HCT126T-X	IC			C610	NDC31HJ-5R0X	C CAPACITOR	5pF 50V J	
IC504	NJU7241F33-X	IC			C611	NCS31HJ-680X	C CAPACITOR	68pF 50V J	
IC571	PCM1716E-X	IC			C612	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
IC572	NJM4565V-X	IC			C613	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
IC601	TA2157FN-X	RF AMP IC			C614	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
IC621	TC94A14FA	CD LSI IC			C616	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
IC651	NJU7241F25-X	IC			C621	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
IC652	TC94A20F-008	IC			C622	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
IC681	BA5830FP-X	IC			C623	NCS31HJ-470X	C CAPACITOR	47pF 50V J	
Q501	UN2111-X	TRANSISTOR			C624	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	
Q502	UN2211-X	TRANSISTOR			C625	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
Q571	UN2111-X	TRANSISTOR			C626	NCB31HK-272X	C CAPACITOR	2700pF 50V K	
Q572	UN2211-X	TRANSISTOR			C627	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
Q601	2SB1132QR/-W	TRANSISTOR			C628	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
Q681	2SB1184/QR-X	TRANSISTOR			C629	NCB31EK-333X	C CAPACITOR	0.033uF 25V K	
D501	1SS355-X	SI DIODE			C630	NCB31EK-333X	C CAPACITOR	0.033uF 25V K	
D502	1SS355-X	SI DIODE			C631	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
D503	1SS355-X	SI DIODE			C632	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
D504	1SS355-X	SI DIODE			C633	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
D505	1SS355-X	SI DIODE			C634	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
D506	RB160M-30-X	SB DIODE			C635	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
D682	1SR154-400-X	DIODE			C636	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C501	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C637	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C502	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C638	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C503	NEAD0JM-107X	E CAPACITOR	100uF 6.3V M		C639	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
C504	NDC31HJ-270X	C CAPACITOR	27pF 50V J		C640	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C505	NDC31HJ-220X	C CAPACITOR	22pF 50V J		C641	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	
					C642	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
					C643	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
					C644	NCB31AK-334X	C CAPACITOR	0.33uF 10V K	
					C645	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C646	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R554	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
C651	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M		R555	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
C652	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R556	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C653	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M		R557	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
C654	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R558	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
C655	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R559	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C656	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R560	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
C657	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R561	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
C658	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R562	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
C659	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R563	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
C660	NCS31HJ-101X	C CAPACITOR	100pF 50V J		R564	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
C661	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R568	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
C662	NCS31HJ-101X	C CAPACITOR	100pF 50V J		R569	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
C663	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R570	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
C664	NCB31EK-273X	C CAPACITOR	0.027uF 25V K		R572	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C665	NCB31AK-334X	C CAPACITOR	0.33uF 10V K		R573	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C666	NCS31HJ-101X	C CAPACITOR	100pF 50V J		R574	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
C667	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R581	NRSA63J-203X	MG RESISTOR	20kΩ 1/16W J	
C668	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M		R582	NRSA63J-203X	MG RESISTOR	20kΩ 1/16W J	
C669	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R583	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
C671	NEAD0JM-476X	E CAPACITOR	47uF 6.3V M		R584	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
C672	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R585	NRSA63J-303X	MG RESISTOR	30kΩ 1/16W J	
C673	NCS31HJ-101X	C CAPACITOR	100pF 50V J		R586	NRSA63J-303X	MG RESISTOR	30kΩ 1/16W J	
C682	NEAD1CM-106X	E CAPACITOR	10uF 16V M		R587	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C683	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R588	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C684	NEAD1CM-476X	E CAPACITOR	47uF 16V M		R589	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C689	NEAD1CM-476X	E CAPACITOR	47uF 16V M		R590	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C690	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M		R591	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R501	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R592	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R502	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R593	NRSA63J-4R7X	MG RESISTOR	4.7Ω 1/16W J	
R503	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R601	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R504	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R602	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R505	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R603	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R506	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R604	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R507	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R605	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R508	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R606	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R509	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R607	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R510	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R608	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R511	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R609	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R512	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R610	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R513	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R611	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R514	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R612	NRSA63J-202X	MG RESISTOR	2kΩ 1/16W J	
R515	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R613	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R516	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R614	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R517	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R615	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R518	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R616	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R519	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R621	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R520	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R622	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R521	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R623	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R522	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R624	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R523	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R625	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R524	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R626	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
R525	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		R627	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R526	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R628	NRSA63J-155X	MG RESISTOR	1.5MΩ 1/16W J	
R528	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R629	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R529	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R630	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R531	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R631	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R532	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R632	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R533	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R633	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R534	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R535	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R635	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R536	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R636	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R537	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R637	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R538	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R638	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R539	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R639	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R540	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R640	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R541	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R641	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R542	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R642	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R543	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R651	NRSA63J-104X	MG RESISTOR	100Ω 1/16W J	
R544	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R654	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R545	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R668	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R548	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J		R674	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R549	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R675	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R550	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R677	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R551	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		R681	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R552	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		R682	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R553	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J		R683	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
					R684	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	

△Symbol	No.	Part No.	Part Name	Description	Local
R685		NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R686		NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R687		NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R688		NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R689		NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R690		NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R691		NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
L501		NQL114K-470X	INDUCITOR	47uH K	
L502		NQL114K-470X	INDUCITOR	47uH K	
L571		NQL114K-470X	INDUCITOR	47uH K	
L572		NQL114K-470X	INDUCITOR	47uH K	
L621		NQL114K-470X	INDUCITOR	47uH K	
L622		NQL114K-470X	INDUCITOR	47uH K	
L623		NQL114K-470X	INDUCITOR	47uH K	
L651		NQL114K-470X	INDUCITOR	47uH K	
L652		NQL114K-470X	INDUCITOR	47uH K	
L653		NQL114K-470X	INDUCITOR	47uH K	
CN501		QGB2027L1-22X	CONNECTOR	B-B (1-22)	
CN601		QGF0527F2-22W	CONNECTOR	FFC/FPC (1-22)	
TH501		NAD0022-103X	N THERMISTOR	10kΩ 10mW F	
X501		NAX0385-001X	CRYSTAL	24.576MHz	
X571		NAX0375-001X	CRYSTAL	16.9344MHz	

Packing materials and accessories parts list

Block No. M 3 M M



Packing and accessories

Block No. [M][3][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
A 1	GET0149-001A	INST BOOK	ENG ARA CHI THA	
A 2	GET0149-002A	INST BOOK	KOR	
A 3	GET0149-003A	INSTALL MANUAL	ENG ARA CHI THA	
A 4	GET0149-004A	INSTALL MANUAL	KOR	
A 5	GET0165-003A	DEMO MODE SHEET		
A 6	LVT1042-004A	IMAGE CONVERTER		
A 7	LVT1046-003A	MP3 SHEET		
A 8	VKZ4027-202	PLUG NUT		
A 9	VKH4871-001SS	MOUNT BOLT		
A 10	VKZ4328-001	LOCK NUT		
A 11	WNS5000Z	WASHER		
A 12	GE40130-001A	HOOK	(x2)	
A 13	FSJB3002-00C	HARD CASE		
A 14	GE20137-003A	MOUNTING SLEEVE		
A 15	GE20150-001A	TRIM PLATE ASSY		
A 16	RM-RK60	REMOCON UNIT		
A 17	-----	BATTERY		
A 18	QAM0308-001	16 CORD ASSY		
KIT	KSFX480K-SCREW1	SCREW PARTS KIT	A8 to A12	
P 1	FSPG4002-001	POLY BAG		
P 2	FSPG4002-001	POLY BAG		
P 3	QPA00801205	POLY BAG	8cm x 12cm	
P 4	FSYH4036-068	SHEET		
P 5	QPA01003003	POLY BAG	10cm x 30cm	
P 6	QPC03004315P	POLY BAG	30cm x 43cm	
P 7	GE30790-001A	CARTON		
P 8	GE10070-001A	EPS CUSHION		

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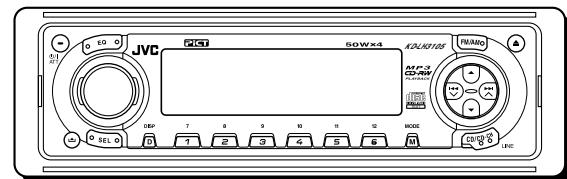
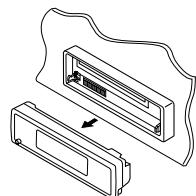
SCHEMATIC DIAGRAMS

CD RECEIVER

KD-LH3105

Area Suffix

U ----- Other Areas

**PICT****COMPACT
dISC
DIGITAL AUDIO
TEXT****MP3
CD-RW
PLAYBACK**

Contents

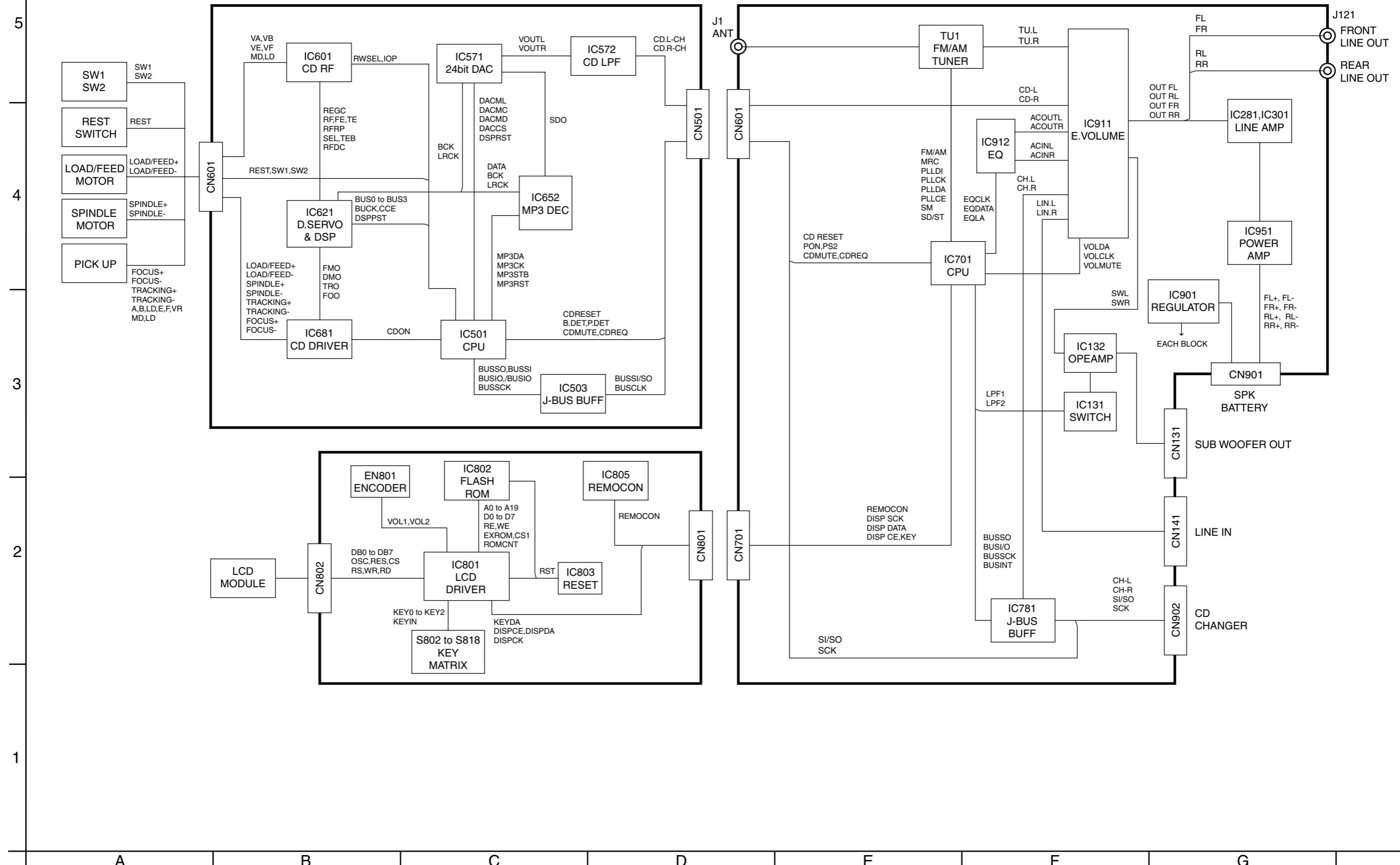
Block diagram	2-1
Standard schematic diagrams	2-2
Printed circuit boards	2-5,6

Safety precaution

 **CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

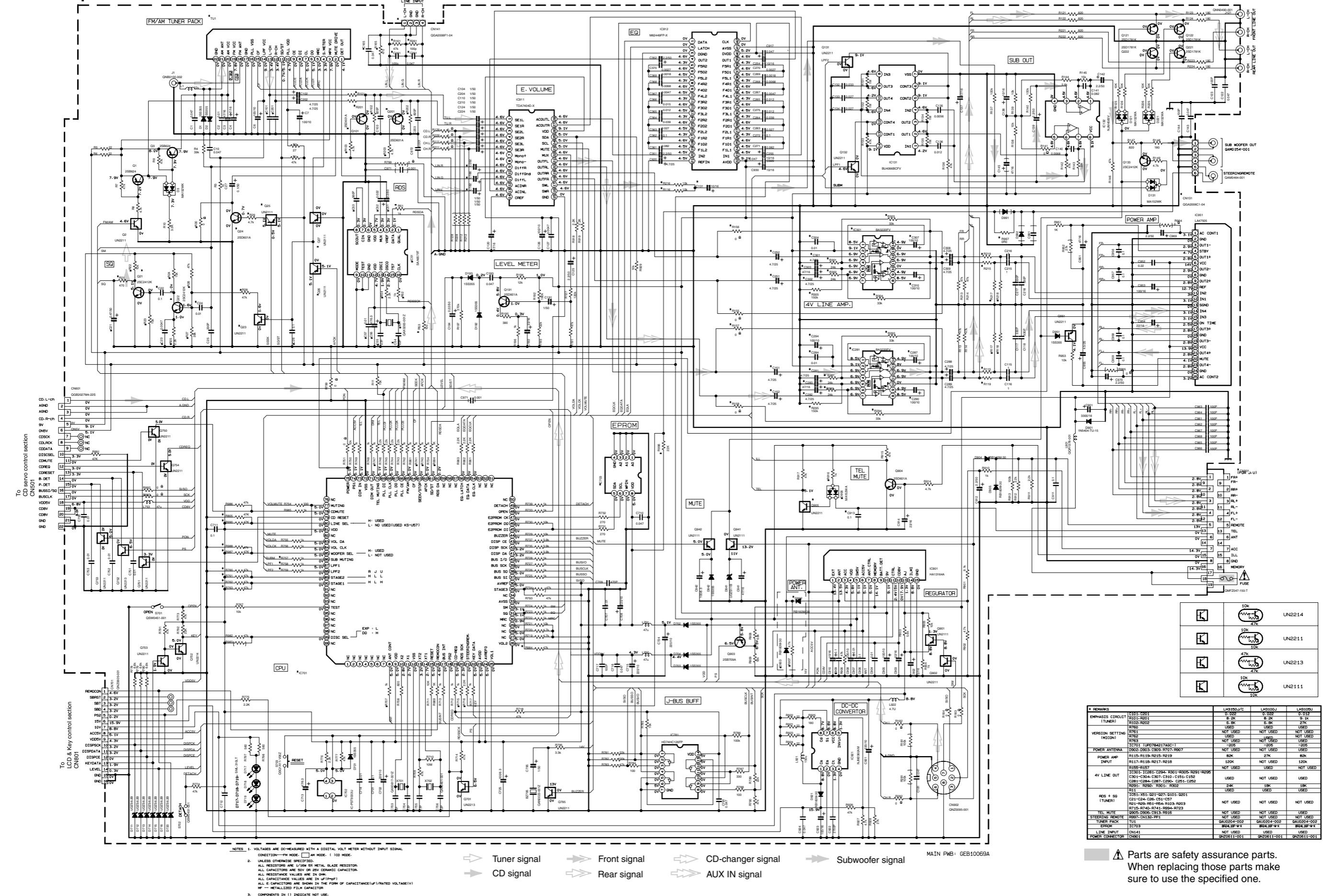
 **CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

Block diagram

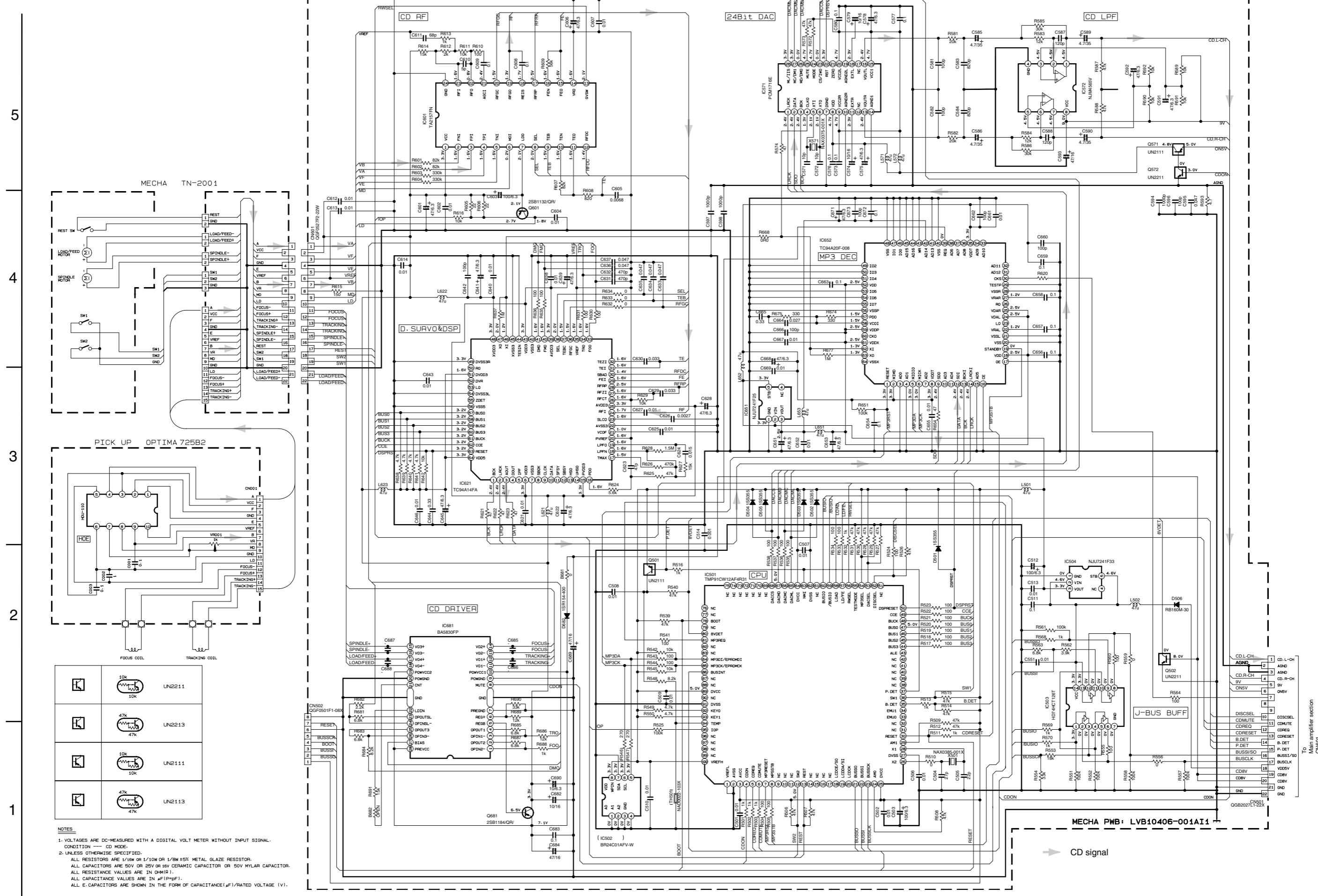


Standard schematic diagrams

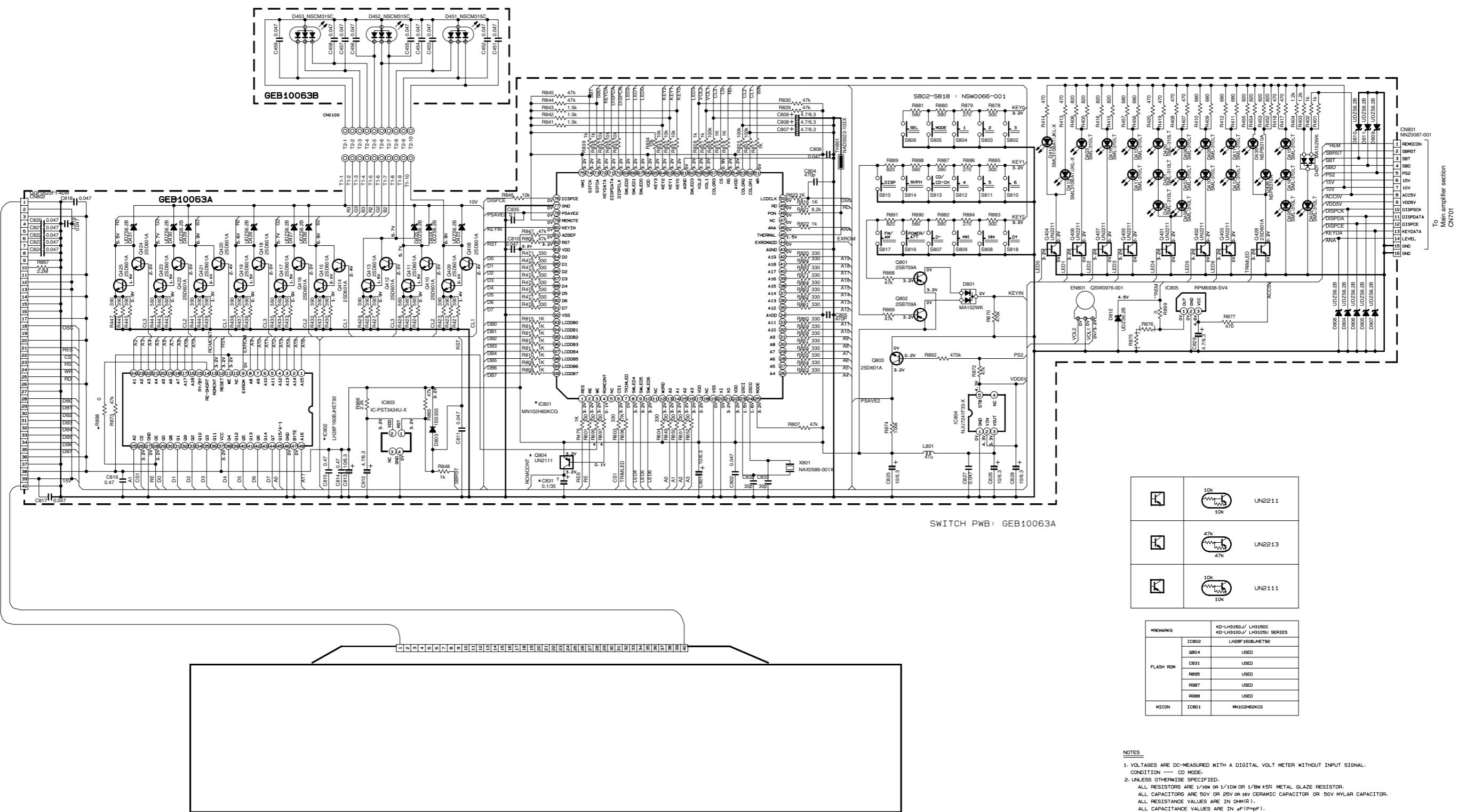
■ Main amplifier section



■ CD servo control section



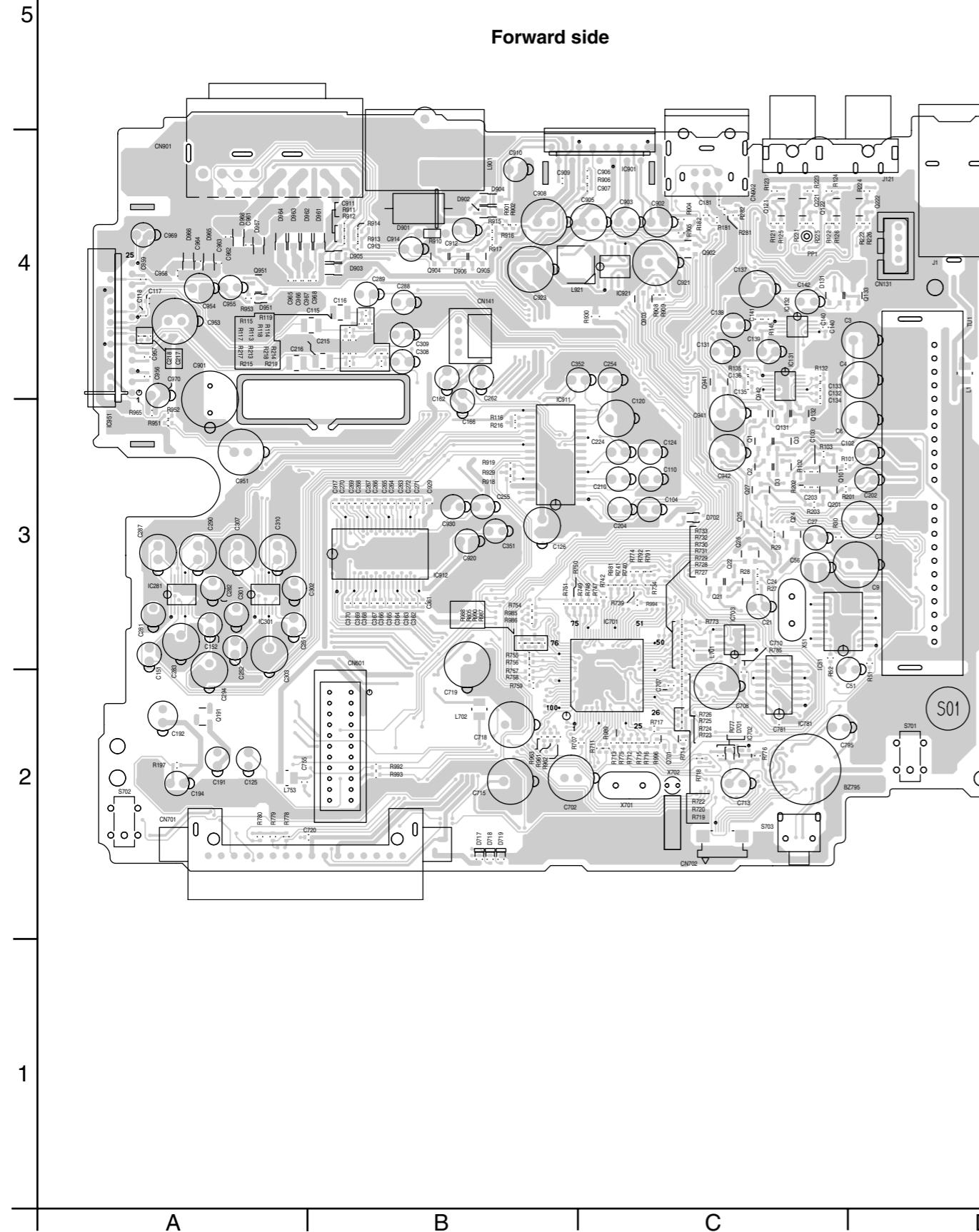
■ LCD & Key control section

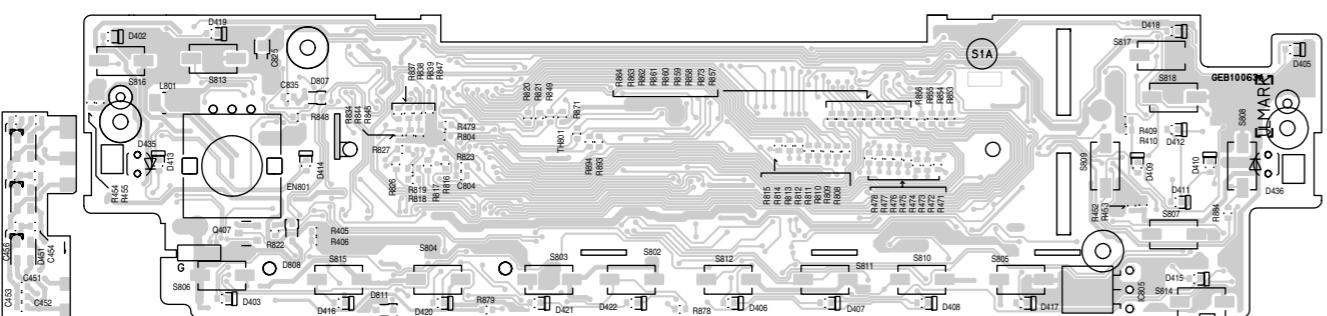
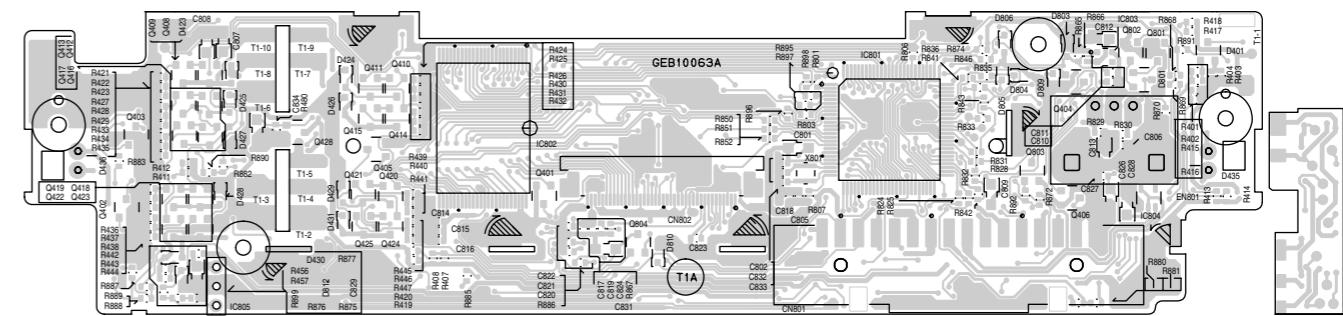
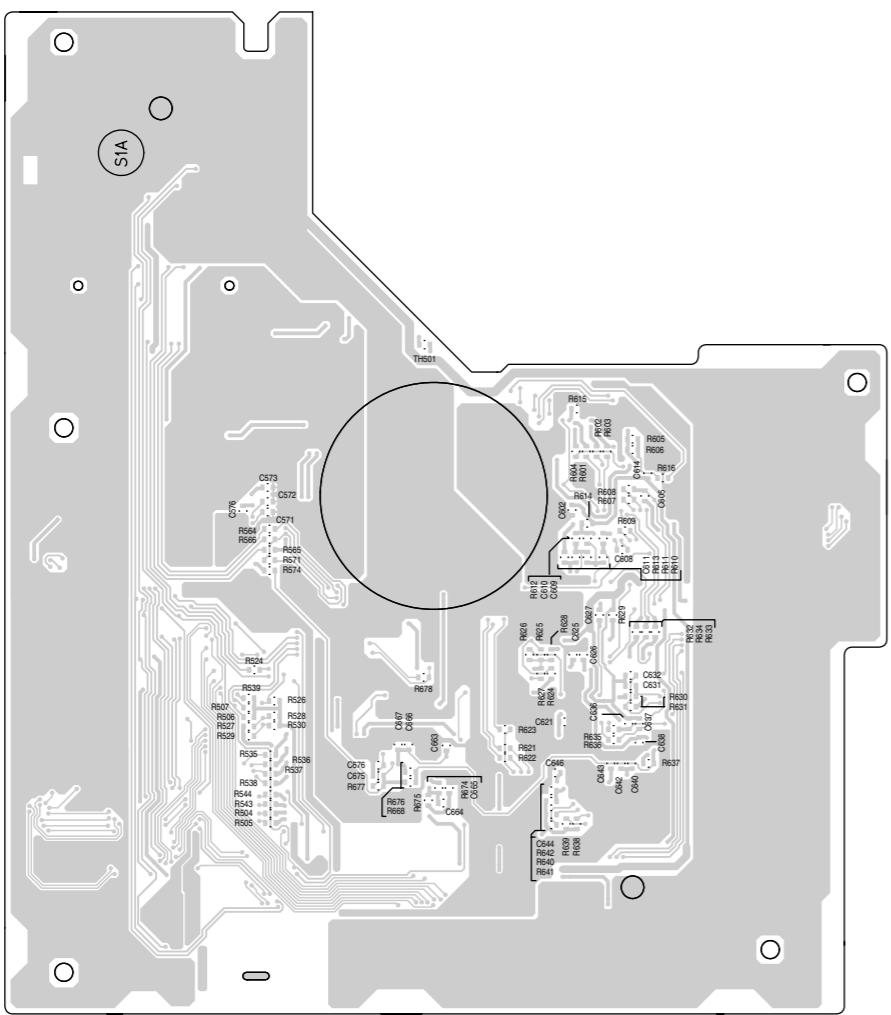
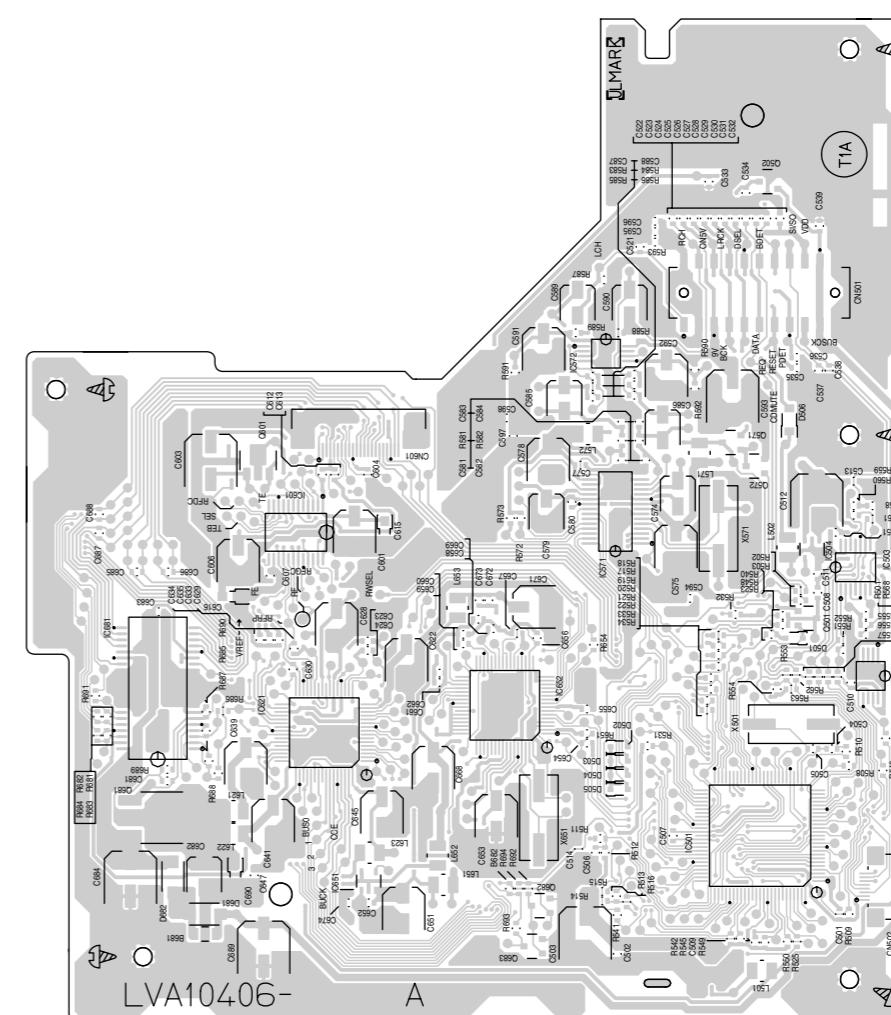


LCD MODULE
QLD0232-001

Printed circuit boards

■ Main board



■ Front board**Forward side****■ Front board****Reverse side****■ Mecha control board****Forward side****■ Mecha control board****Reverse side**

A B C D 2-6 E F G H

< MEMO >

KD-LH3105

JVC

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