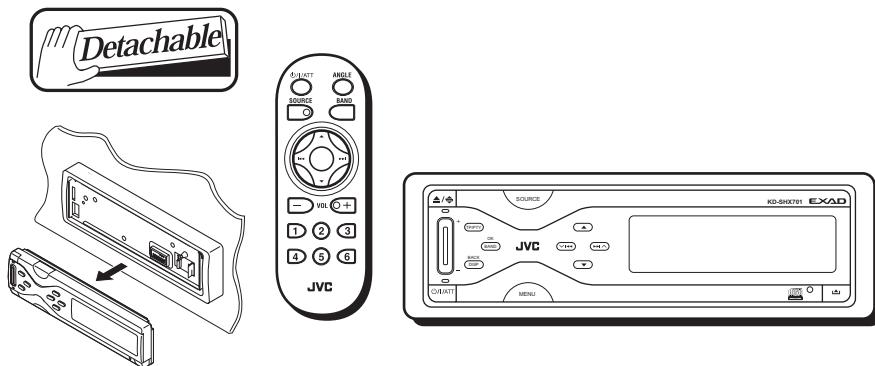


JVC

SERVICE MANUAL

CD RECEIVER

KD-SHX701, KD-SHX701T



KD-SHX701

Area suffix

E ----- Continental Europe

KD-SHX701T

Area suffix

E ----- Continental Europe

EX ----- Central Europe

EU ----- Turkey

EXAD

PICT

RDS

BBE
DIGITAL

**COMPACT
DISC
DIGITAL-AUDIO
TEXT**

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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	LINE IN	1.5 V/20 kΩ load
Line-Out Level/Impedance	LINE OUT	5.0 V/20 kΩ load (full scale)
Output Impedance	1 kΩ	
Other Terminals	SUBWOOFER OUT	
	Changer control	
	Steering wheel remote input	
TUNER SECTION		
Frequency Range	FM	87.5 MHz to 108.0 MHz
	AM	MW:522 kHz to 1 620 kHz LW:144 kHz to 279 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	65 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	98 dB	
Signal-to-Noise Ratio	102 dB	
Wow and Flutter	Less than measurable limit	
MP3 (MPEG Audio Layer 3)	Max. Bit rate	320 Kbps
WMA (Windows Media Audio)	Max. Bit rate	192 Kbps
GENERAL		
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	182 mm × 52 mm × 157 mm
	Panel Size	188 mm × 58 mm × 13 mm
Mass	1.7 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.

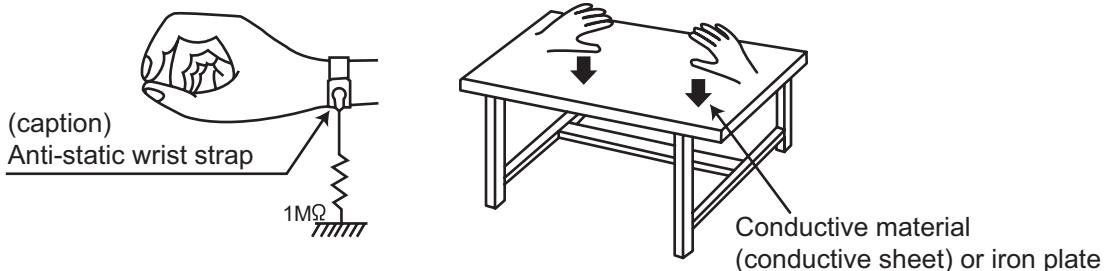
Be careful to use proper grounding in the area where repairs are being performed.

(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.

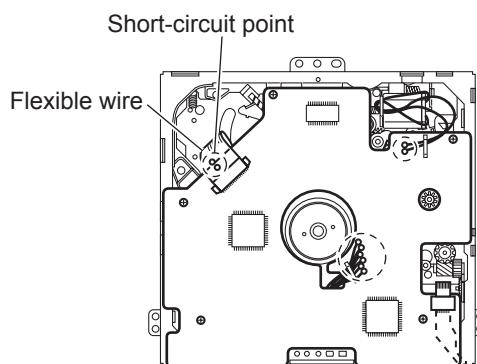
1.3 Handling the traverse unit (optical pickup)

- 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.



1.5 Important for laser products

1.CLASS 1 LASER PRODUCT

2.DANGER : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The CD,MD and DVD player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.



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

CAUTION : Visible and invisible laser radiation when open and interlock failed or defeated.

AVOID DIRECT EXPOSURE TO BEAM.

ADVARSEL : Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling.

WARNING : Synlig och osynlig laserstråling när den öppnas och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohittuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

CLASS 1
LASER PRODUCT

CAUTION : Visible and invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)	ADVARSEL : Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling. (d)	WARNING : Synlig och osynlig laserstråling när den öppnas och spärren är urkopplad. Betrakta ej strålen. (s)	VARO : Avattaessa ja suojalukitus ohittuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi. (f)
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SECTION 2

SPECIFIC SERVICE INSTRUCTIONS

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

SECTION 3 DISASSEMBLY

3.1 Main body section

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

- (1) Push the detach button in the lower right part of the front panel assembly.
- (2) Remove the front panel assembly.

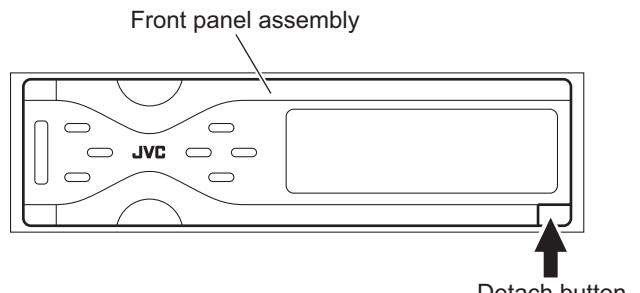


Fig.1

3.1.2 Removing the heat sink (See Fig.2)

- (1) From the left side of the main body, remove the two screws **A** and three screws **B** attaching the heat sink.

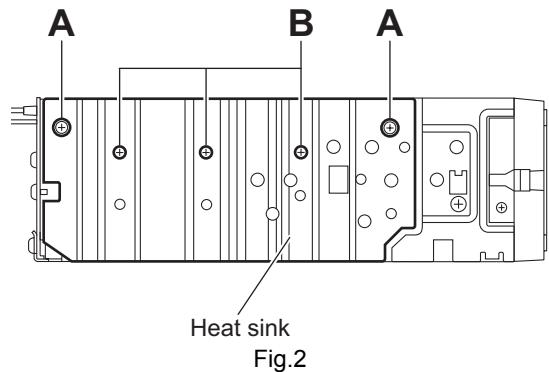


Fig.2

3.1.3 Removing the top chassis assembly

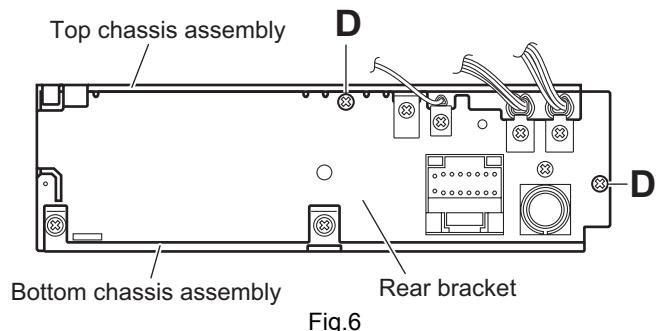
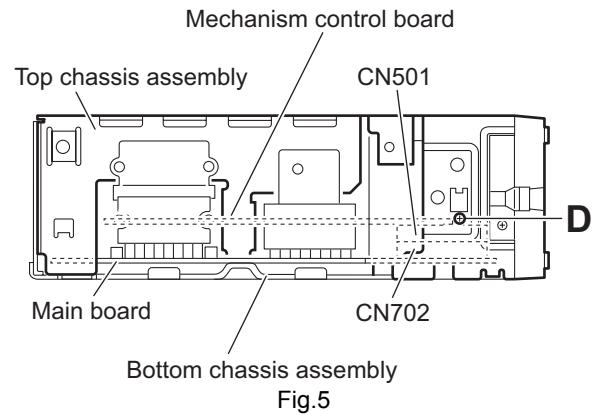
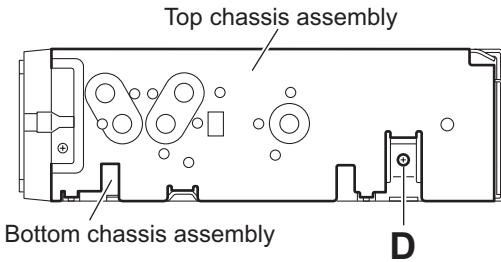
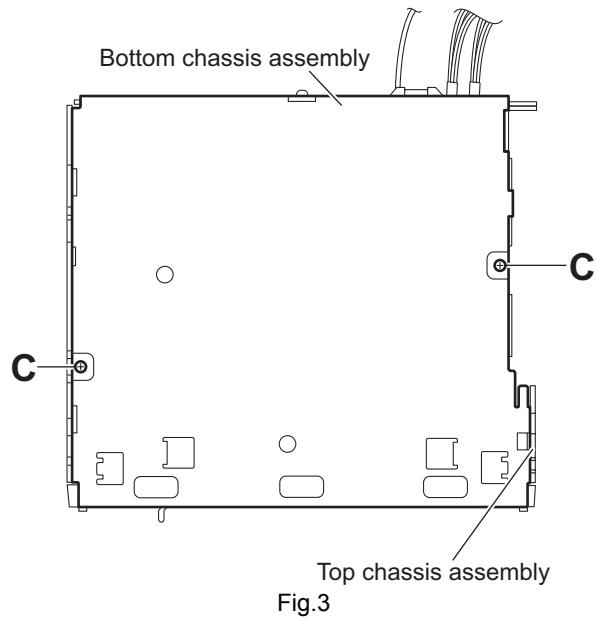
(See Figs.3 to 6)

- Prior to performing the following procedures, remove the heat sink.

Reference:

Remove the front panel assembly as required.

- From the bottom side of the main body, remove the two screws **C** attaching the top chassis assembly to the bottom chassis assembly. (See Fig.3)
- From the both and rear sides of the main body, remove the four screws **D** attaching the top chassis assembly to the bottom chassis assembly. (See Figs.4 to 6)
- Lift the top chassis assembly in the direction of the arrow, and disconnect the connector CN501 on the mechanism control board from the connector CN702 on the main board. (See Figs.5 and 6)
- Take out the top chassis assembly from the bottom chassis assembly.



3.1.4 Removing the front chassis

(See Figs.7 and 8)

- Prior to performing the following procedure, remove the front panel assembly, heat sink and top chassis assembly.
- (1) From the both sides of the top chassis assembly, remove the two screws **E** attaching the front chassis.

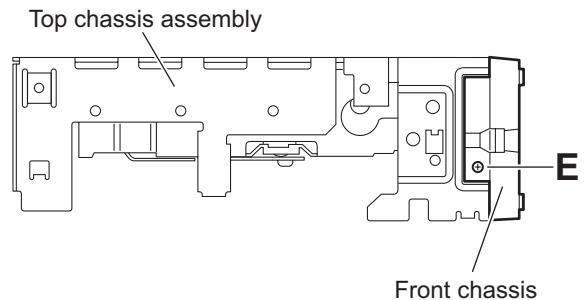


Fig.7

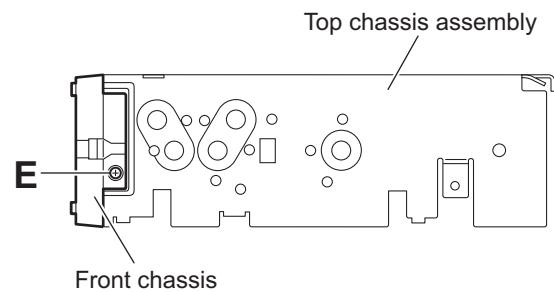


Fig.8

3.1.5 Removing the CD mechanism assembly

(See Fig.9)

- Prior to performing the following procedures, remove the front panel assembly, heat sink and top chassis assembly.
- (1) From the inside of the top chassis assembly, remove the three screws **F** attaching the CD mechanism assembly.
- (2) Take out the CD mechanism assembly from the top chassis.

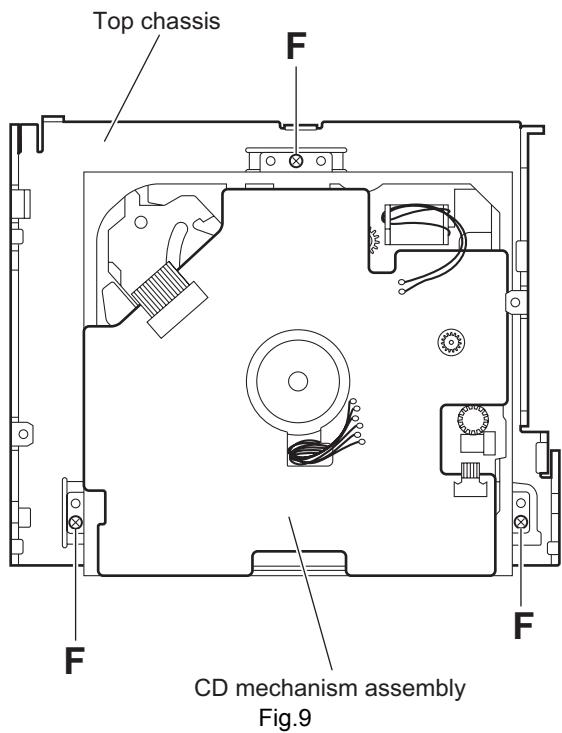


Fig.9

3.1.6 Removing the main board

(See Figs.10 and 11)

- Prior to performing the following procedures, remove the front panel assembly, heat sink and top chassis assembly.
- (1) From the rear side of the bottom chassis assembly, remove the two screws **G** attaching the rear bracket to the bottom chassis assembly. (See Fig.10)
- (2) From the top side of the bottom chassis assembly, remove the two screws **H** attaching the main board to the bottom chassis assembly. (See Fig.11)
- (3) Release the stopper of the connector [CN701](#) on the main board in an upward direction, disconnect the card wire from the connector [CN701](#). (See Fig.11)
- (4) Disconnect the wire from the connector of the front door mechanism assembly. (See Fig.11)
- (5) Disconnect the wire from the connectors [CN991](#) and [CN992](#) on the main board. (See Fig.11)

Reference:

After connecting the wires, fix the wires with the wire holders.

- (6) Take out the main board from the bottom chassis assembly.

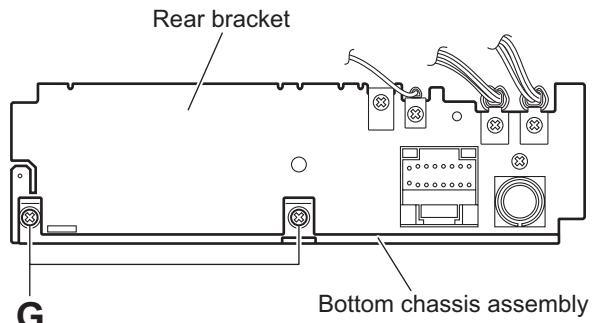


Fig.10

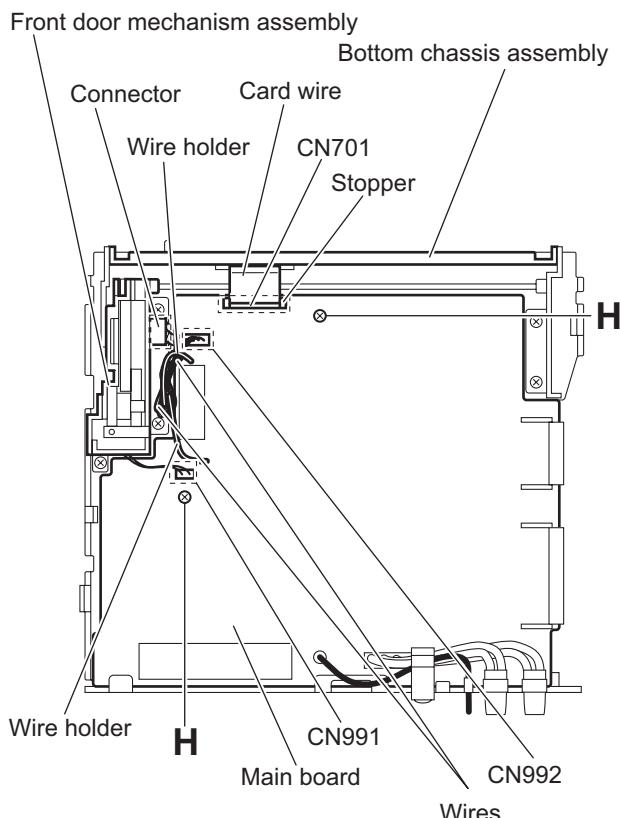


Fig.11

3.1.7 Removing the rear bracket

(See Fig.12)

- Prior to performing the following procedures, remove the front panel assembly, heat sink, top chassis assembly and main board.
- (1) From the rear side of the main board, remove the wires from the rear bracket in the direction of the arrow.
- (2) Remove the four screws **J** attaching the rear bracket to the main board.

Reference:

After attaching the rear bracket to the main board, pass the wires through the wire holder and insert them into the slots of the rear bracket.

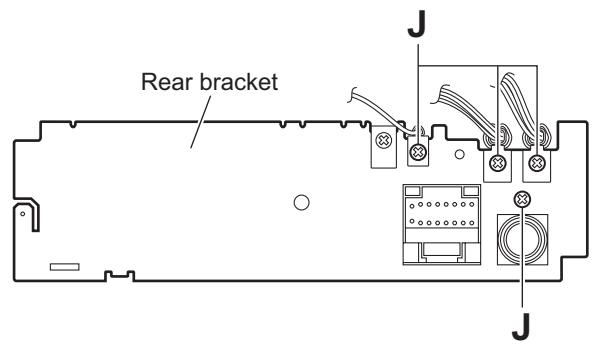


Fig.12

3.1.8 Removing the front door mechanism assembly

(See Fig.13)

- Prior to performing the following procedures, remove the front panel assembly, heat sink, top chassis assembly and main board.

- From the top side of the bottom chassis assembly, remove the screw **K** attaching the shaft holder to the bottom chassis.
- Remove the five screws **L** attaching the front door mechanism assembly to the bottom chassis.

Reference:

When attaching the screws **M** and **N**, apply a locking agent them.

- Take out the front door mechanism assembly from the bottom chassis.

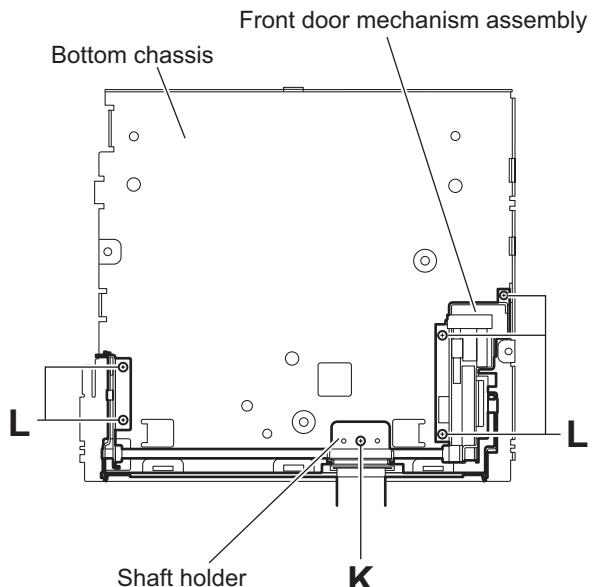


Fig.13

3.1.9 Removing the front board

(See Figs.14 to 16)

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

- From the rear side of the front panel assembly, remove the six screws **M** attaching the rear cover assembly to the front panel assembly. (See Fig.14)
- Release the twelve joints **a** of the front panel assembly and remove the rear cover assembly. (See Fig.15)
- Take out the front board from the front panel assembly. (See Fig.16)

Caution:

Take care not to lose the spring.

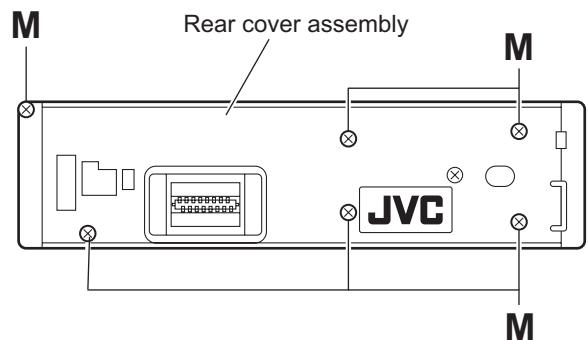


Fig.14

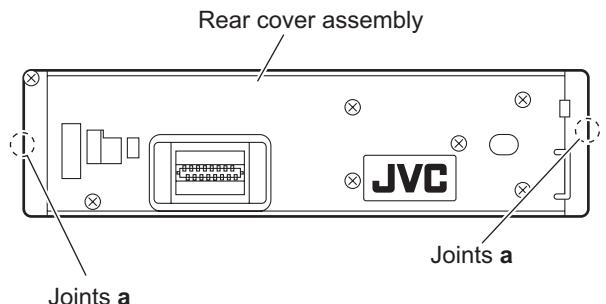


Fig.15

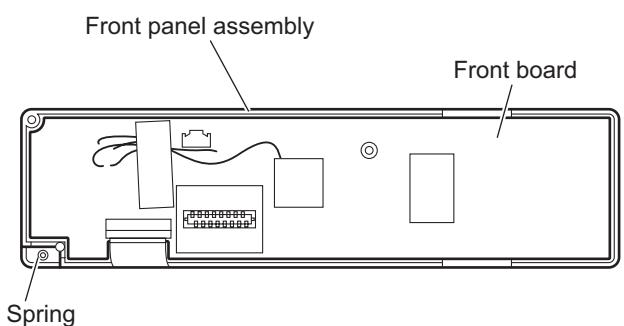


Fig.16

3.2 CD mechanism assembly

- Prior to performing the following procedure "Removing the CD mechanism assembly".

3.2.1 Removing the front-end board

(See Fig.1)

- From the top side of the CD mechanism assembly, solder the short-circuit point on the flexible wire extending from the CD pickup.

Caution:

Solder the short-circuit points on the flexible wire extending from the DVD pickup. If you do not follow this instruction, the DVD pickup may be damaged.

- Disconnect the flexible wire from connector [CN601](#) on the front-end board.
- Disconnect the flexible wire from connector [CN503](#) on the front-end board.
- Remove the solders from two solder points **a** on the front-end board and disconnect the wire extending from the feed motor.
- Remove the solders from six solder points **b** on the front-end board disconnect the wires extending from the spindle motor, SW board and reset SW board.
- Remove the five screws **A** attaching the front-end board.

Caution:

Unsolder the solders from the short-circuit points after reassembling.

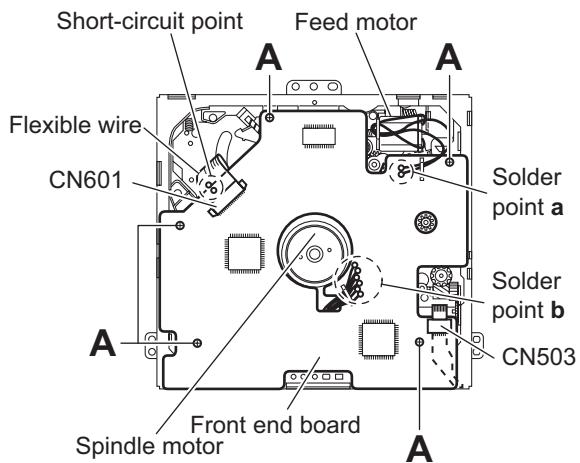


Fig.1

3.2.2 Removing the top cover

(See Fig.2)

- (1) From the back side of the CD mechanism assembly, remove the two screws **B** attaching the top cover.
- (2) Take out the top cover upward.

Reference:

When reassembling the top cover, set parts **c** of the top cover under the bending parts **d** of the chassis base.

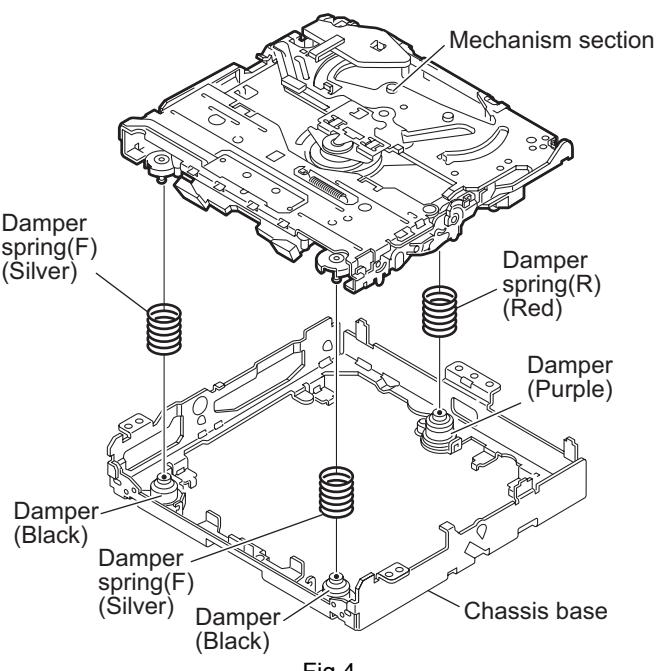
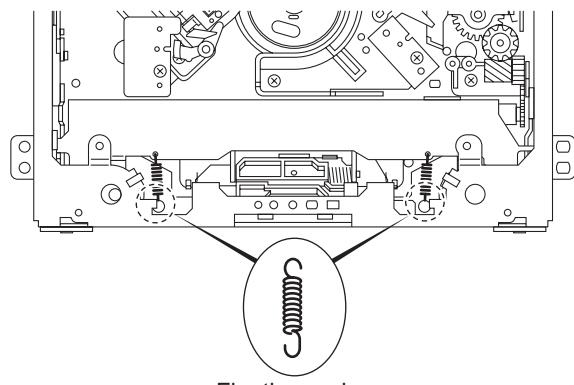
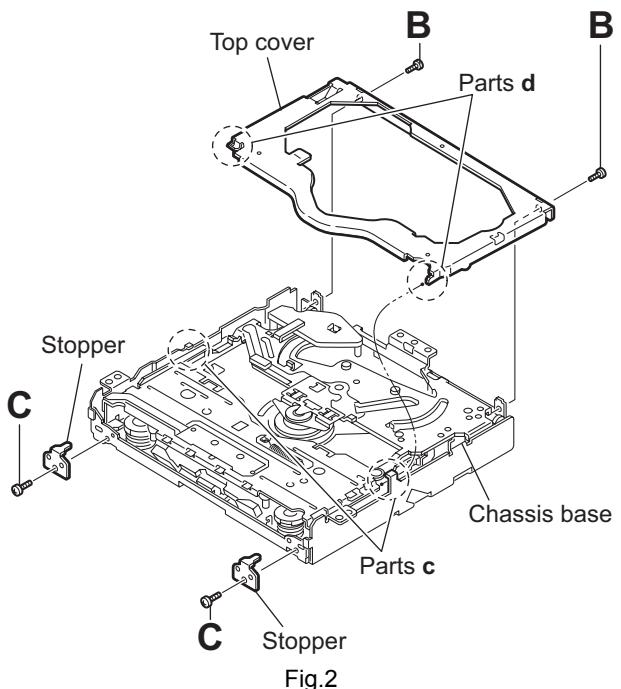
3.2.3 Removing the mechanism section

(See Figs.2 to 4)

- Prior to performing the following procedure, remove the top cover.
- (1) From the front side of the CD mechanism assembly, remove the two screws **C** attaching the right and left stoppers. (See Fig.2)
- (2) Remove the two floating springs on the bottom of the body. (See Fig.3)
- (3) Take out the mechanism section upward, and remove the three damper springs from the dampers. (See Fig.4)

Caution:

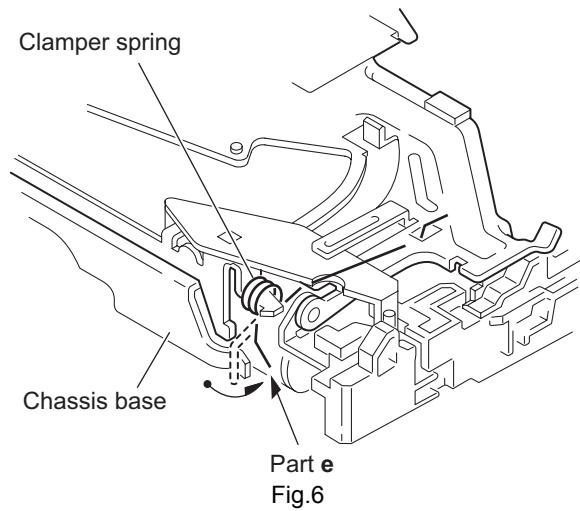
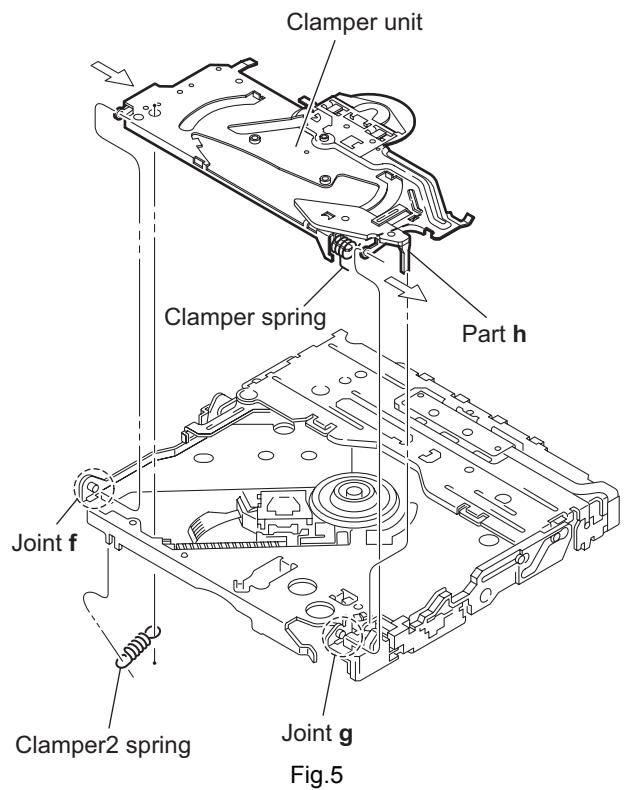
- When reassembling the mechanism section, reattach the damper spring to the damper respectively and insert the three shafts on the bottom of the mechanism to the dampers. (See Fig.4)
- Before inserting the shaft to the dampers, apply IPA to the hole of damper.



3.2.4 Removing the clamper unit

(See Figs.5 and 6)

- Prior to performing the following procedures, remove the top cover and mechanism section.
- (1) From the bottom of the mechanism section, remove the clamper spring2. (See Fig.5)
- (2) Release part e of the clamper spring from the bending part of the chassis base assembly. (See Fig.6)
- (3) Move the clamper unit in the direction of the arrow, and release the two joints f and g. (See Fig.5)
- (4) Take out the clamper unit upward. (See Fig.5)



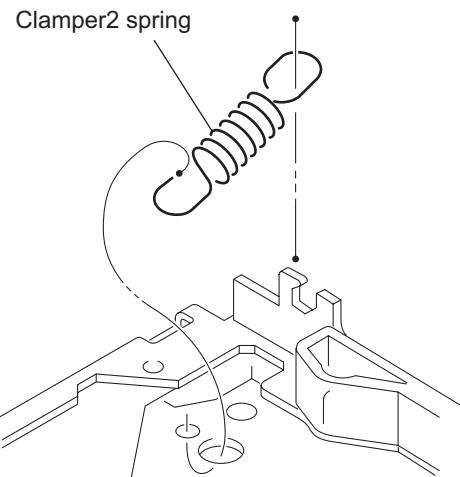
3.2.5 Reattaching the clamper unit

(See Figs.5 to 9)

- (1) From the bottom of the mechanism section, attach the clamper spring2 to the clamper unit. (See Figs.5 and 7)
- (2) Move the clamper unit to set the side joints **f** and **g** to each boss of the chassis base. (See Fig.5)
- (3) Make sure that part **h** is inserted to the notch of the chassis base. (See Figs.5 and 8)
- (4) Move the clamper spring to the outside of the bending part of the chassis base. (See Fig.9)

Caution:

When reattaching the clamper unit, temporarily hook the end of the clamper spring as shown in the figure to make the work easy. (See Fig.9)



Chassis base
Fig.7

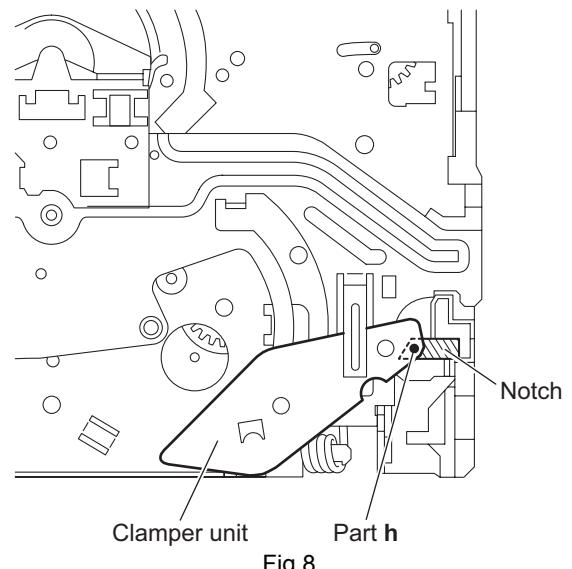


Fig.8

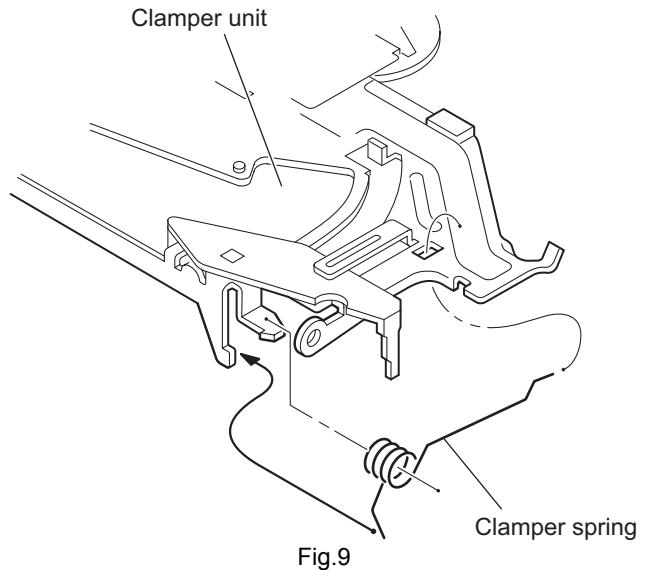


Fig.9

3.2.6 Removing the front unit

(See 10 to 12)

- Prior to performing the following procedures, remove the top cover and mechanism section.
- (1) From the bottom side of the mechanism section, disconnect the flexible wire from connector [CN503](#) on the front-end board. (See Fig.10)
- (2) From the top of the mechanism section, remove the screw **D** attaching the front unit. (See Fig.11)
- (3) Move the front unit toward the front to release joint **i**. (See Fig.11)
- (4) Release two joints **j** and **k** on the right side of the chassis base. (See Fig.12)
- (5) Take out the front unit upward, and remove the two screws **E** attaching the switch wire. (See Fig.12)

Reference:

You can remove the switch wire only without removing the front unit.

Caution:

When reassembling, attach the flexible wire extending from the switch wire using a double-stick tape. (See Fig.12)

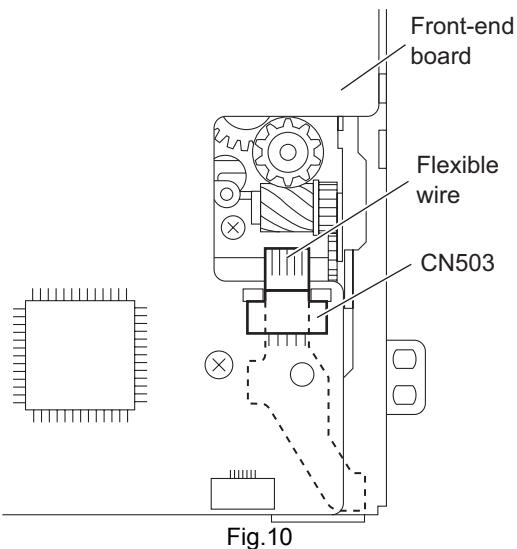


Fig.10

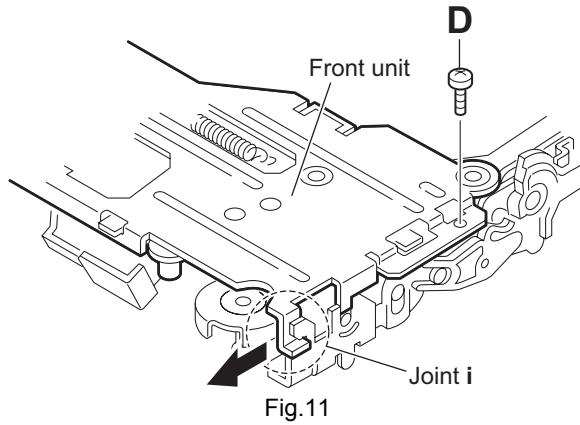


Fig.11

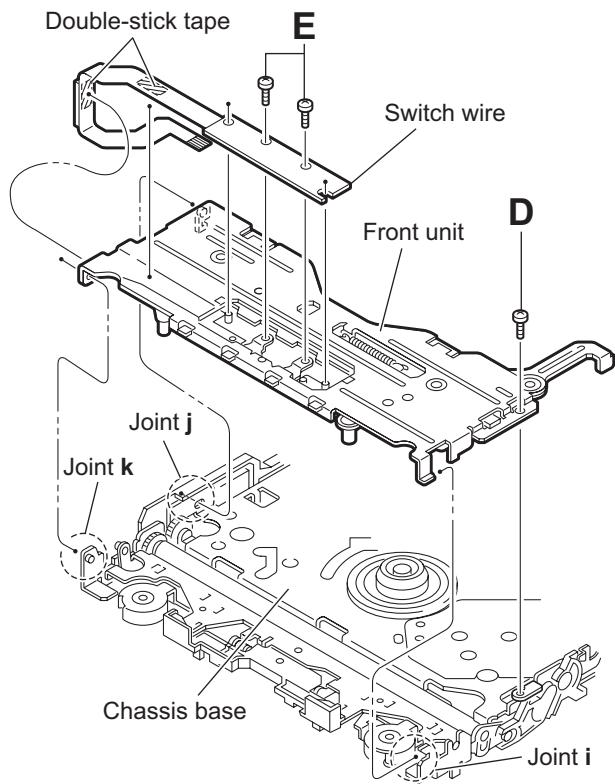


Fig.12

3.2.7 Removing the loading arm S.A.

(See Figs.13 and 14)

- Prior to performing the following procedures, remove the top cover, mechanism section and front unit.
- (1) From top side of the front unit, move the loading arm S.A. from the front upwards. (See Fig.13)
- (2) Release the bosses from the right and left joints **m** and **n** of the chassis base. (See Figs.13 and 14)
- (3) Release the boss from notch **p** of the connect arm on the right side of the body, and release the boss from notch **q** of the slide cam assembly on the left side. (See Fig.14)

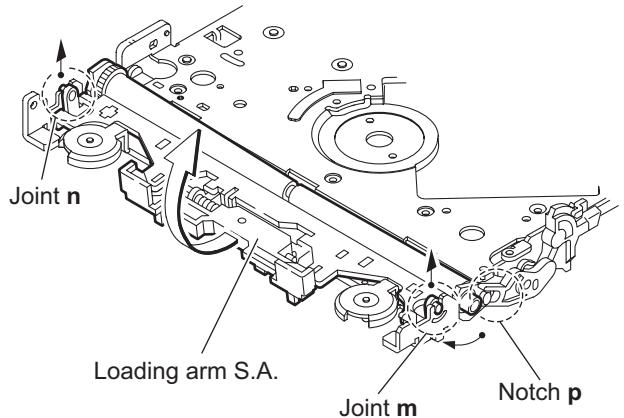


Fig.13

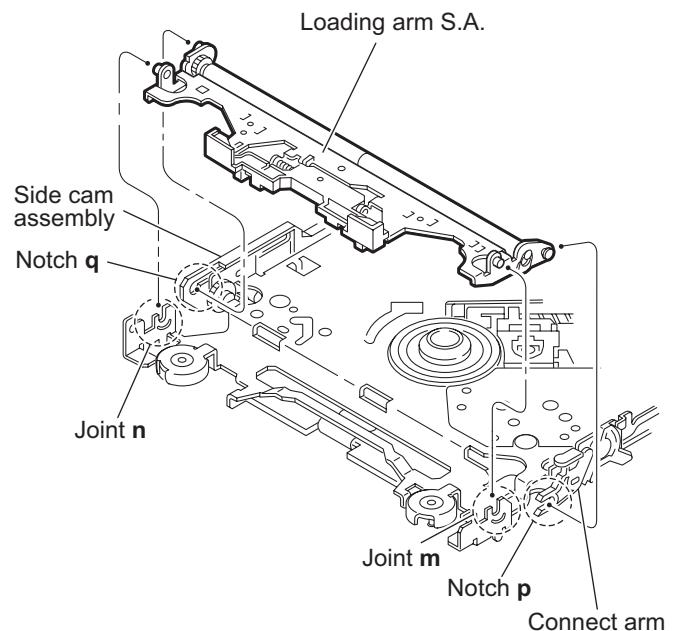


Fig.14

3.2.8 Removing the rod (L)(R) and roller assembly

(See Figs.15 and 16)

- Prior to performing the following procedures, remove the top cover, mechanism section, front unit and loading arm S.A.
- (1) From the bottom side of the loading arm S.A., release the rod (L) and (R) from the joints r. (See Fig.15)
- (2) Remove the roller assembly from the loading assembly. (See Fig.16)
- (3) Remove the two collars and washer from the roller assembly. (See Fig.16)

Caution:

After attaching the roller assembly to the loading arm S.A., attach the rod (L) and (R). Attach the rods to the right and left collars of the roller. (See Fig.15)

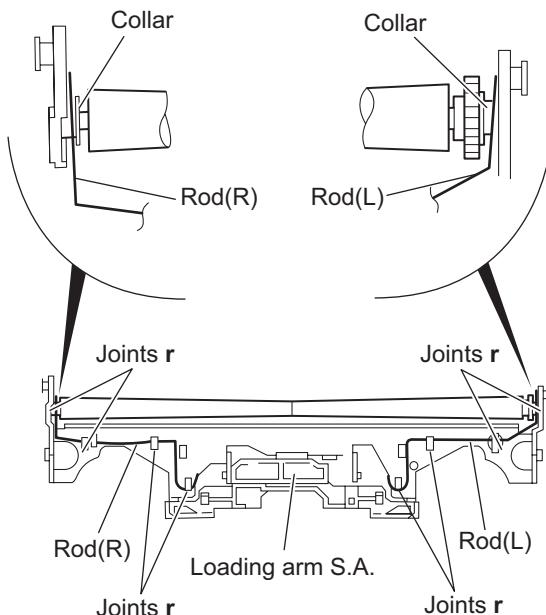


Fig.15

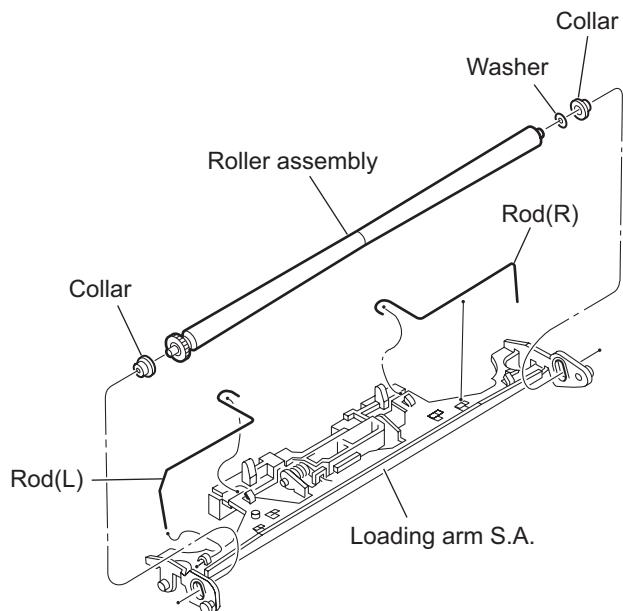


Fig.16

3.2.9 Removing the CD pickup assembly

(See Figs.17 to 19)

- Prior to performing the following procedure, remove the front-end board.
- (1) From the bottom of the CD mechanism assembly, turn the feed gear in the direction of the arrow to move the CD pickup assembly outwards. (See Fig.17)
- (2) Remove the screw **F** attaching the thrust spring. (See Fig.17)
- (3) Remove the CD pickup assembly upward from the side of L.S.gear and release sub shaft from joint **s**. (See Fig.18)
- (4) Move the lead screw of the CD pickup assembly in the direction of the arrow to release at joint **t**. (See Fig.18)
- (5) Remove the screw **G** attaching the rack spring and rack plate on the CD pickup. (See Fig.19)
- (6) Pull out the lead screw. (See Fig.19)

Caution:

- When reattaching the CD pickup assembly, reattach the sub shaft at section **s** of the CD pickup assembly to the sub guide first, and attach the lead screw shaft to the joint **t** on the L.S.holder2. (See Fig.18)
- Perform adjustment after replacing the pickup.

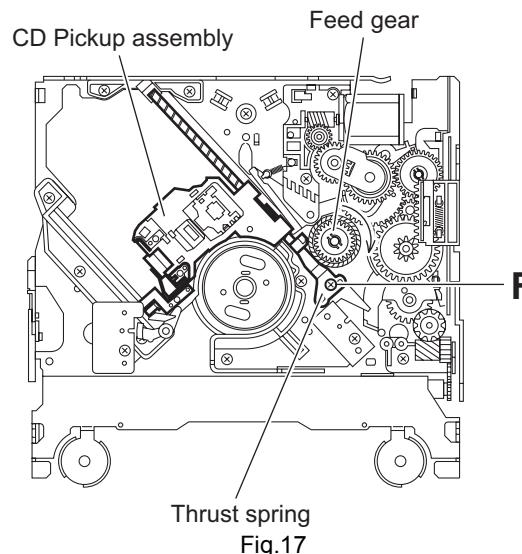


Fig.17

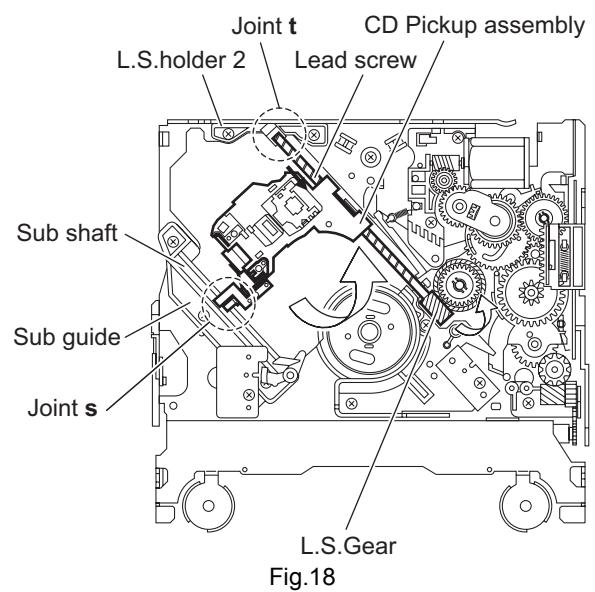


Fig.18

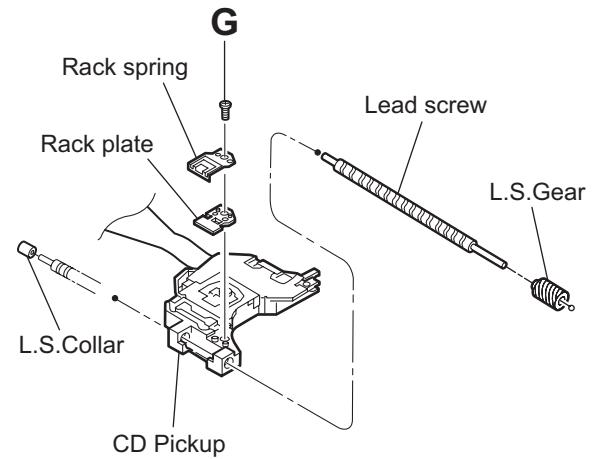


Fig.19

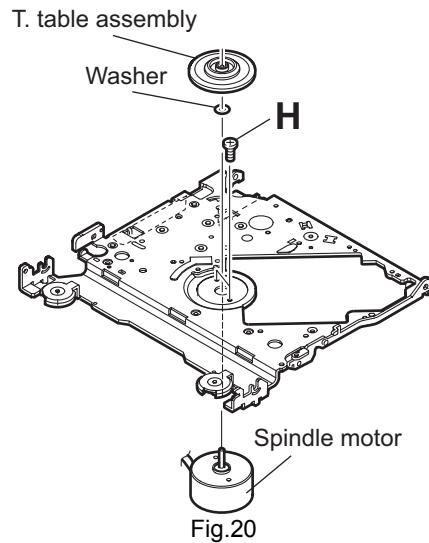
3.2.10 Removing the spindle motor

(See Fig.20)

- Prior to performing the following procedure, remove the front-end board.
- (1) From the bottom side of the CD mechanism assembly, remove the T.table assembly and washer from the spindle motor.
- (2) Remove the two screws **H** attaching the spindle motor.

Caution:

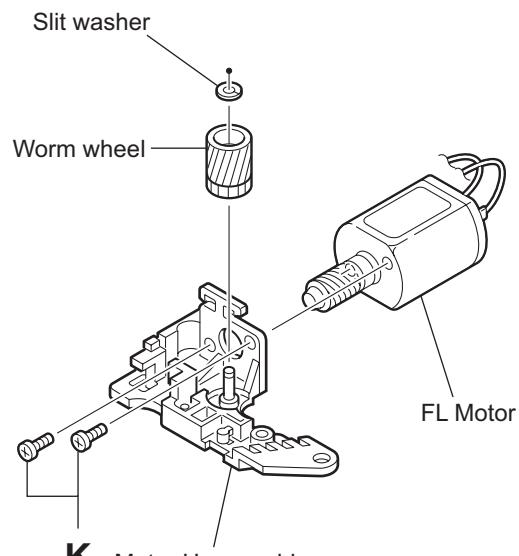
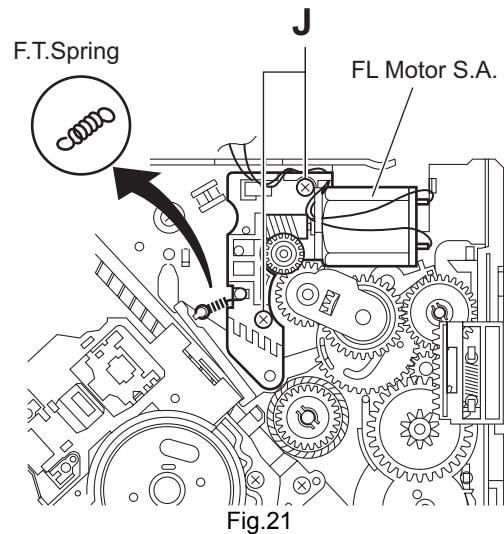
Perform adjustment when reattaching the spindle motor.



3.2.11 Removing the FL motor S.A.

(See Figs.21 and 22)

- Prior to performing the following procedure, remove the front-end board.
- (1) From the top side of the CD mechanism assembly, remove the F.T.spring. (See Fig.21)
- (2) Remove the two screws **J** attaching the FL motor S.A. (See Fig.21)
- (3) Remove the slit washer from the motor H.assembly and pull out the worm wheel. (See Fig.22)
- (4) Remove the two screws **K** attaching the FL motor. (See Fig.22)



3.2.12 Removing the SW board and reset SW board

(See Fig.23)

- Prior to performing the following procedure, remove the front-end board.
- (1) From the top side of the CD mechanism assembly, remove the screw **L** attaching the SW board.
- (2) Remove the screw **M** attaching the reset SW board.

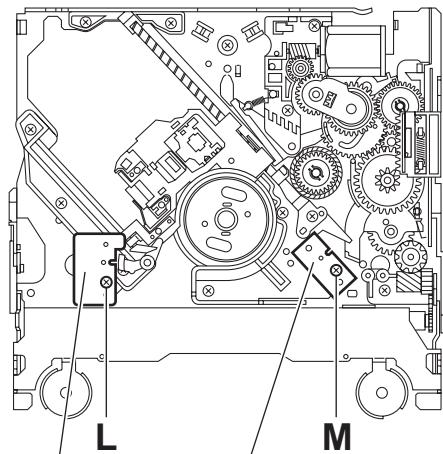


Fig.23

SECTION 4 ADJUSTMENT

4.1 Adjustment method

■ Test instruments required for adjustment

- (1) Digital oscilloscope (100MHz)
- (2) Electric voltmeter
- (3) Digital tester
- (4) Tracking offset meter
- (5) Test Disc JVC :CTS-1000
- (6) Extension cable for check
EXTSH002-22P × 1

■ Standard volume position

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

■ 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.

■ Standard measuring conditions

Power supply voltage DC14.4V(11 to 16V)

Load impedance 20KΩ(2 Speakers connection)

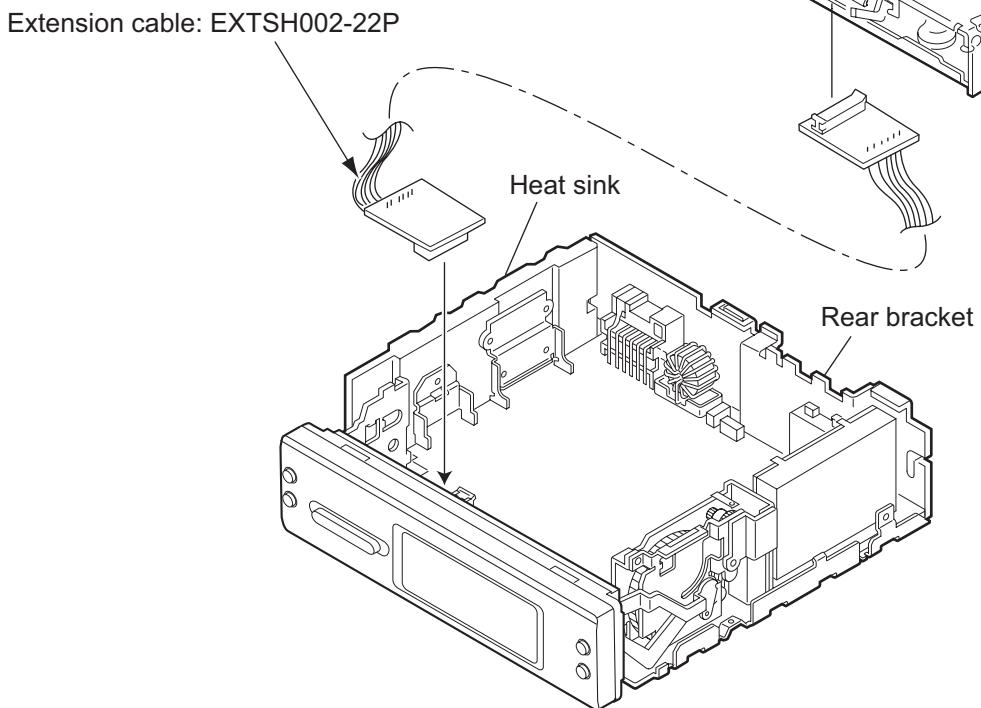
Output Level

KD-AR7000 Line out 5.0V (Vol. MAX)

KD-SHX700 Line out 4.0V (Vol. MAX)

■ 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.



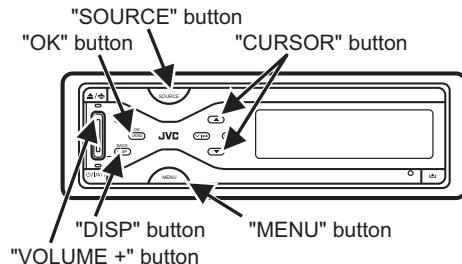
4.2 Service mode

4.2.1 Service mode setting

(1) Push POWER BOTTON (Power ON)

(2) Set to service mode

By pushing and holding "DISP" button + "VOLUME +" button + "MENU" button sequentially.



SERVICE MODE (MENU)

SERVICE MODE
RUNNING MODE
DATA CLEAR
ROM COLLECTION
DSP TUNER S MODE
DSP TUNER ADJUST

SERVICE MODE

VERSION
ERR READ
CD DATA READ

VERSION

VERSION

MAIN V*** CD V***
CH V**

CD ERROR READ

CD ERROR READ
CH ERROR READ
PANEL MECHA ERROR READ
A.DSP ERROR READ
T.DSP ERROR READ

CD ERROR READ

TOTAL ERROR : ****
E1 **** E3 ***
E2 ***
1 **** 4****
2 **** 5****
3 ****

CH ERROR READ

TOTAL ERROR : ****
E1 **** E3 ***
E2 ***
1 **** 4****
2 **** 5****
3 ****

PANEL MECHA ERROR READ

TOTAL ERROR : ****
E1 **** E3 ***
E2 ***
1 **** 4****
2 **** 5****
3 ****

A.DSP ERROR READ

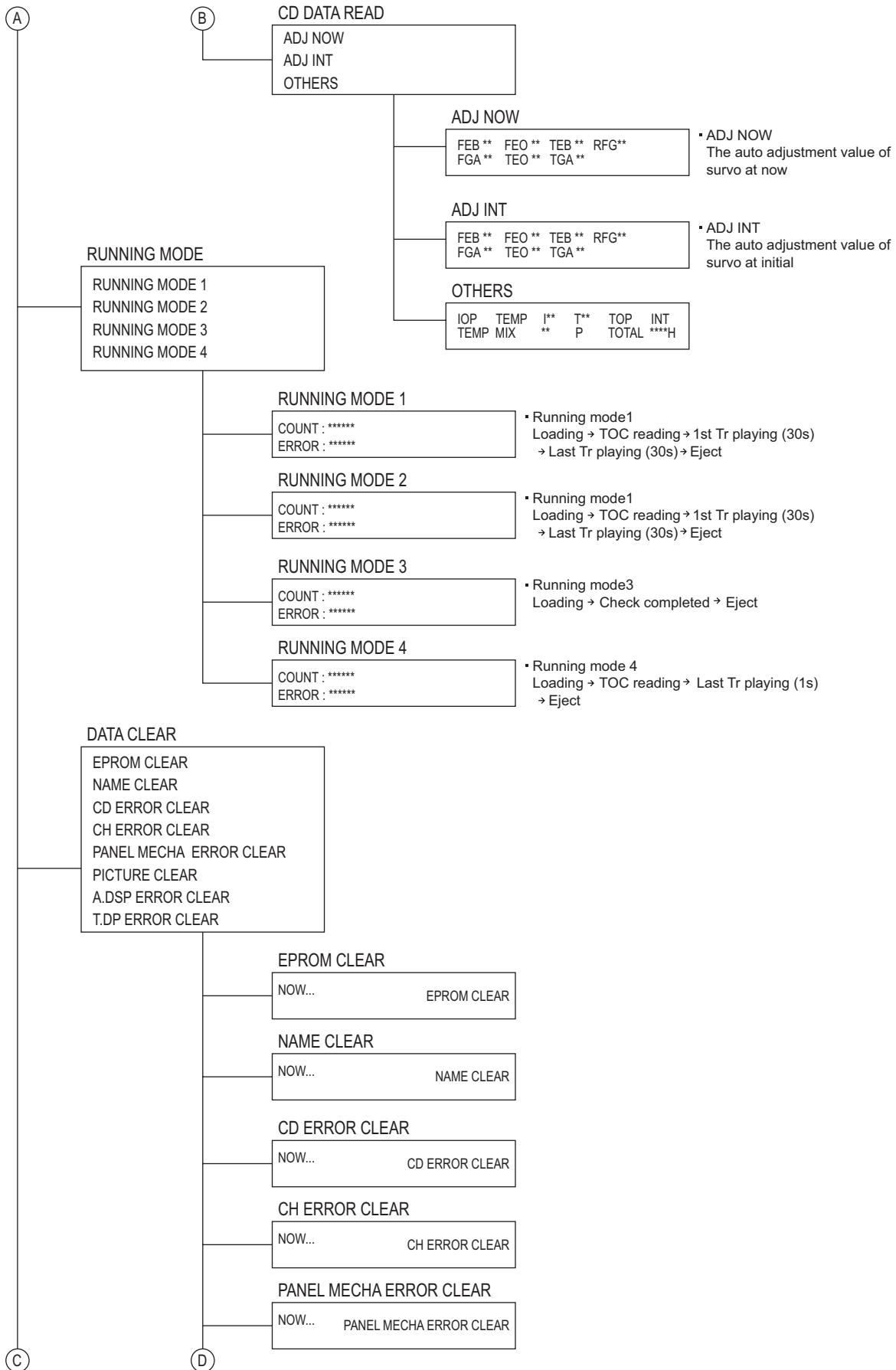
ERROR COUNT ***
RETRY OVER ***

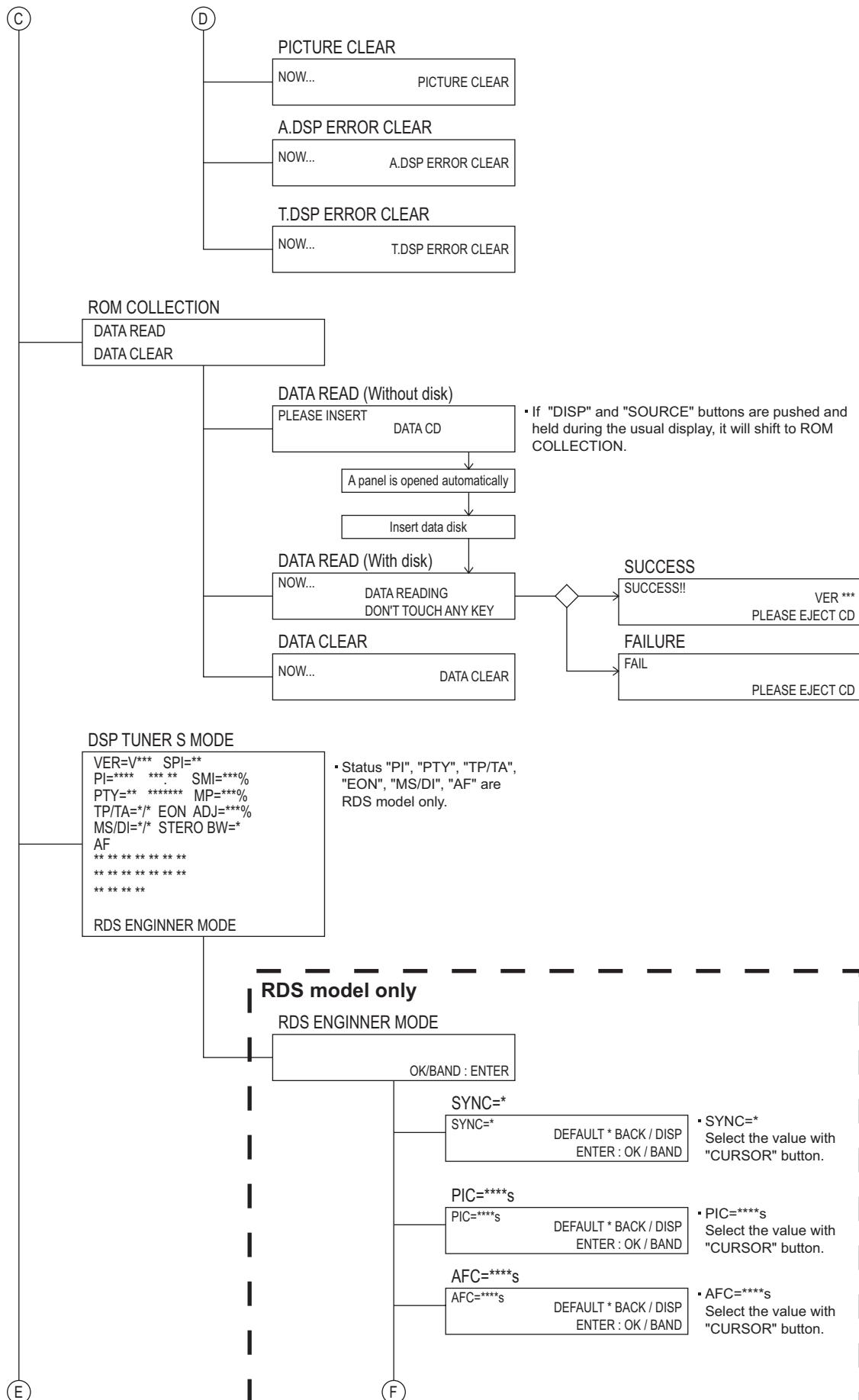
T.DSP ERROR READ

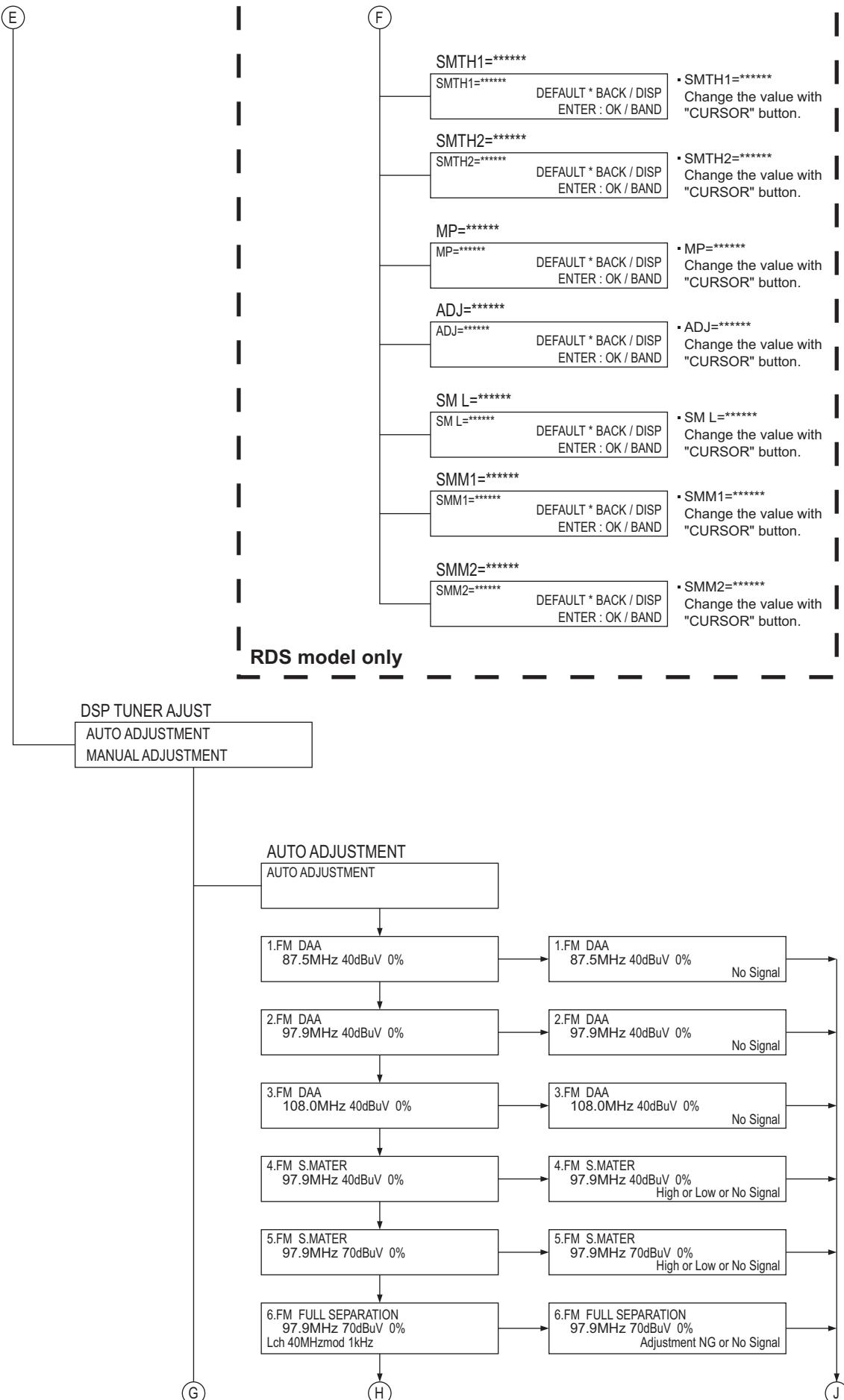
RETRY ***
NG ***

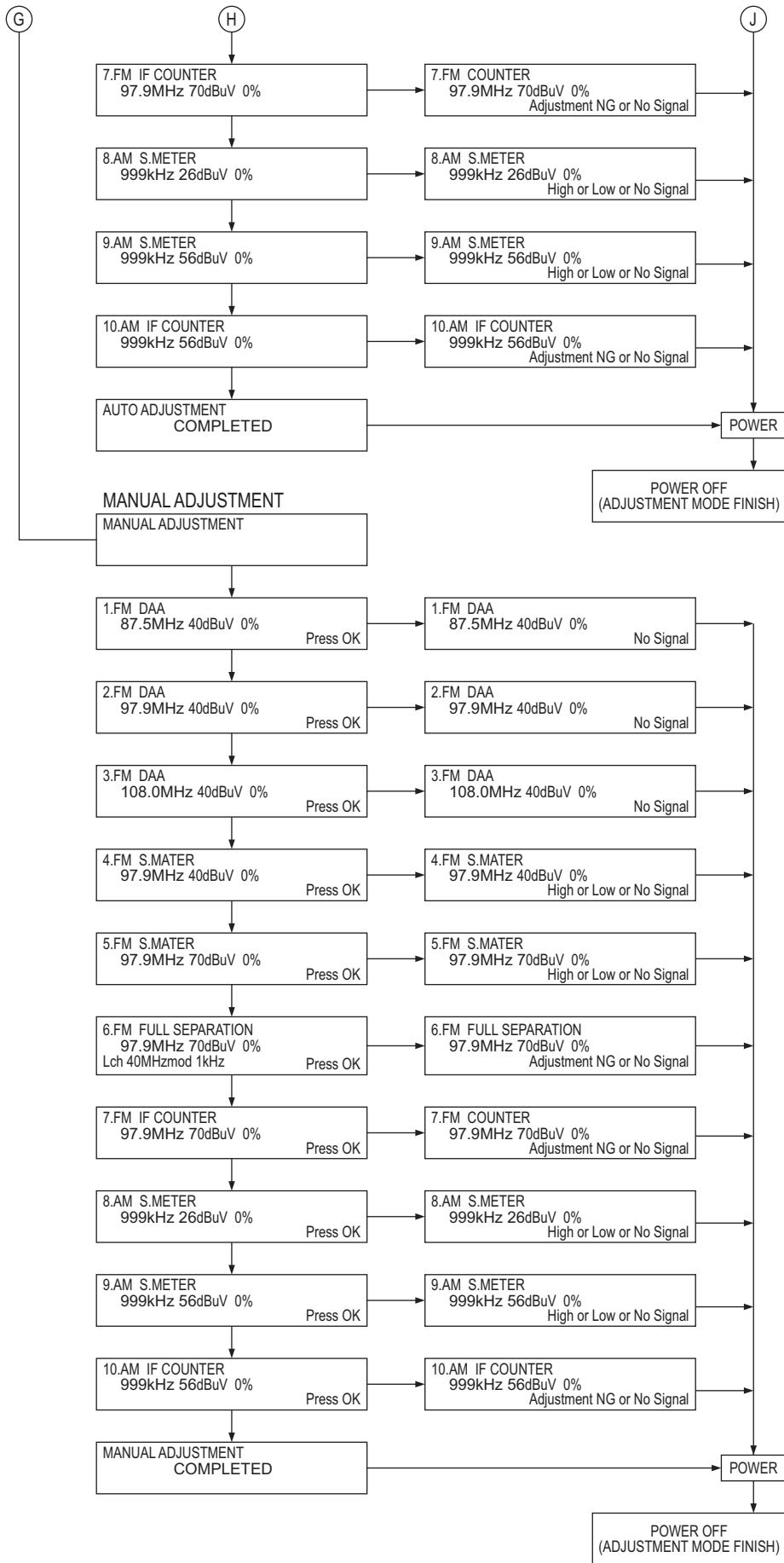
A

B









4.2.2 Detailed CD error code

Error	Details of error	Error code	Detailed error code
Focus search error Focus is not adjusted by 3-round focus search	When focus is not adjusted by 3-round(1set) focus search after disc change or focus shock, the result is NG	81H	0053
Tracking balance adjustment error Time over(1s)	Tracking balance adjustment is not finished 1s after adjustment command(TBA) is executed	82H	0054
TOC area search error Time over(10s)	TOC area search is not finished after 10s	80H	0055
Focus balance adjustment error Time over(2s)	Focus balance adjustment is not finished 2s after the adjustment command(FBA) is executed	82H	0056
Focus gain adjustment error Time over(0.6s)	Focus gain adjustment error is not finished 0.6s after the adjustment command(FGA) is executed	82H	0057
Tracking gain adjustment error Time over(0.6s)	Tracking gain adjustment error is not finished 0.6s after the adjustment command(TGA) is executed	82H	0058
TOC read error Time over(30s)	TOC read operation is not finished after 30s	84H	0059
1st track access error Time over(10s)	1st track access is not finished 10s after TOC reading is finished	80H	0060
Last track access error Time over(10s)	Last track access is not finished 10s after 1st track in running mode	80H	0061
Q code read error Time over(0.6s)	Q code is not read for 0.6s during playback of TOC and program area	80H	0062
TEXT data read error	ALL TEXT data are not read	80H	0063
RF read error	RF is not read RFOK is recognized as L	81H	0064

4.2.3 Detailed error code of mechanism error

Error	Details of error	Error code	Detailed error code
Disc loading error 1.B1 Time out 2.C1 Time out 3.D1 Time out 4.C2 Time out 5.B2 Time out 6.A2 Time out 7.F1 Time out 8.A0 (State of the non-existing switch) 9.G1 Time out		09H	0011
Eject error 1.F2 Time out 2.A1 Time out 3.B1 Time out 4.C1 Time out 5.D1 Time out 6.C2 Time out 7.B2 Time out 8.A0 (State of the non-existing switch) 9.G2 Time out		01H	0021
Error while waiting for loading While waiting for loading (15 seconds), SW1 becomes L before stating loading motor	When a disc is removed	09H	0031
Pickup movement error 1.Time over of the pickup movement around inner circumference (10 sec.) 2.Time over of the pickup movement around inner circumference (10 sec.)	Time over at PUBWD and PUFWD by monitoring RESET SW	04H 04H	0051 0052

4.2.4 CD error

Indication	Details
R1_???? E1_???? E2_???? E3_???? ##E????	Displaying running count Last error Second last error Third last error Displaying CD error ##: Amount of errors

4.2.5 Detailed CD changer mechanism error code

Error	Details of error	Error code	Detailed error code
Tray extension error 1.Tray-in switch time out (Tray-in switch Low,Tray-out switch High) 2.Tray-out switch time out (Tray-in switch High,Tray-out switch High) 3.Tray-in switch time out (Tray-in switch Low,Tray-out switch Low) 4.MAG-in switch Low to high	Tray stops part way Tray stops part way Tray-in switch faulty or other defect Magazine removed when tray partly extended	03H 03H 03H 03H	0011 0012 0013 0014
Tray retraction error 1.Tray-in switch time out (Tray-in switch Low,Tray-out switch High) 2.Tray-out switch time out (Tray-in switch High,Tray-out switch High) 3.Tray-in switch time out (Tray-in switch Low,Tray-out switch Low) 4.MAG-in switch Low to high	Tray motor inoperative Tray retraction stops part way Tray-in switch faulty or other defect Magazine removed when tray partly retracted	03H 03H 03H 03H	0016 0017 0018 0019
Lifter raise error 1.Wait position time out 2.Wait position time out 3.Wait position time out	Position motor inoperative Position not stable in fine adjust mode Other fault	02H 02H 02H	0021 0022 0023
Lifter lower error 1.Wait position time out 2.Wait position time out 3.Wait position time out	Position motor inoperative Position not stable in fine adjust mode Other fault	02H 02H 02H	0026 0027 0028
Chuck error 1.Play position time out 2.Play position time out 3.Play position time out	Position motor inoperative Position not stable in fine adjust mode Other fault	02H 02H 02H	0031 0032 0033
Unchuck error 1.Wait position time out 2.Wait position time out 3.Wait position time out	Position motor inoperative Position not stable in fine adjust mode Other fault	02H 02H 02H	0036 0037 0038
Eject error 1.Eject position time out 2.Eject position time out 3.MAG in switch time out	Position motor inoperative Eject position not attained* Magazine not ejected	02H 02H 01H	0041 0042 0043
Initialize error 1.Mechanism switch NG error 2.Absolute position time out	Both Tray-in and Tray-out Low Not stable at absolute position*	02H 02H	0046 0047

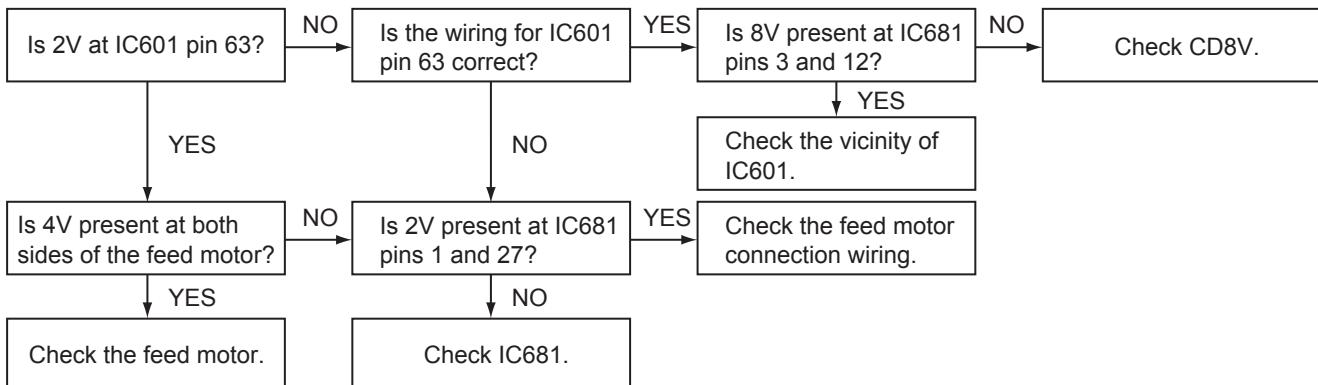
Note*:Wait position,play position,not stable at absolute position and eject position not attained,
all error is position motor time out.

4.2.6 Detailed CD changer error code

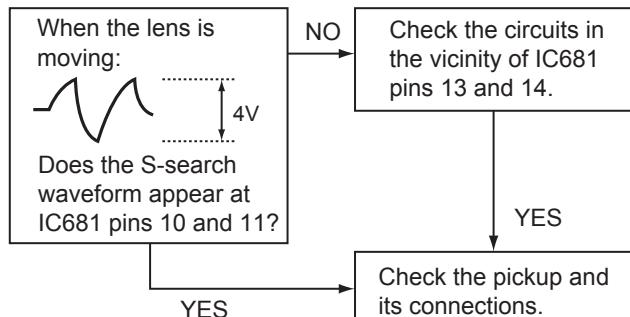
Error	Details of error	Error code	Detailed error code
Pickup movement error 1.Time over of pickup movement around inner circumference (10s) 2.Time over of pickup movement around outer circumference (10s)	Time over at PUBWD and PUFWD by monitoring RESET SW Pickup cannot move to an inner circumference. RESET SW is not on. Pickup cannot move to an outer circumference. RESET SW is not off.	04H 04H	51H 52H
Focus serch error Focus is not adjusted by 3-round focus serch	When focus is not adjusted by 3-round(1set) focus serch after disc change or focus shock, the result is NG	81H	53H
Tracking balance adjustment error Time over(1s)	Tracking balance adjustment is not finished 1s after adjustment command(TBA) is executed	82H	54H
TOC area search error Time over(10s)	TOC area search is not finished after 10s	80H	55H
Focus balance adjustment error Time over(2s)	Focus balance adjustment is not finished 2s after the adjustment command is executed	82H	56H
Focus gain adjustment error Time over(0.6s)	Focus gain adjustment error is not finished 0.6s after the adjustment command is executed	82H	57H
Tracking gain adjustment error Time over(0.6s)	Tracking gain adjustment error is not finished 0.6s after the adjustment command is executed	82H	58H
TOC read error Time over(20s)	TOC read operation is not finished after 20s	84H	59H
1st track access error Time over(10s)	1st track access is not finished 10s after TOC reading is finished	80H	60H
Last track access error Time over(10s)	Last track access is not finished 10s after 1st track in running mode	80H	61H
Q code read error Time over(0.6s)	Q code is not read for 0.6s during playback of TOC and program area	80H	62H

SECTION 5 TROUBLESHOOTING

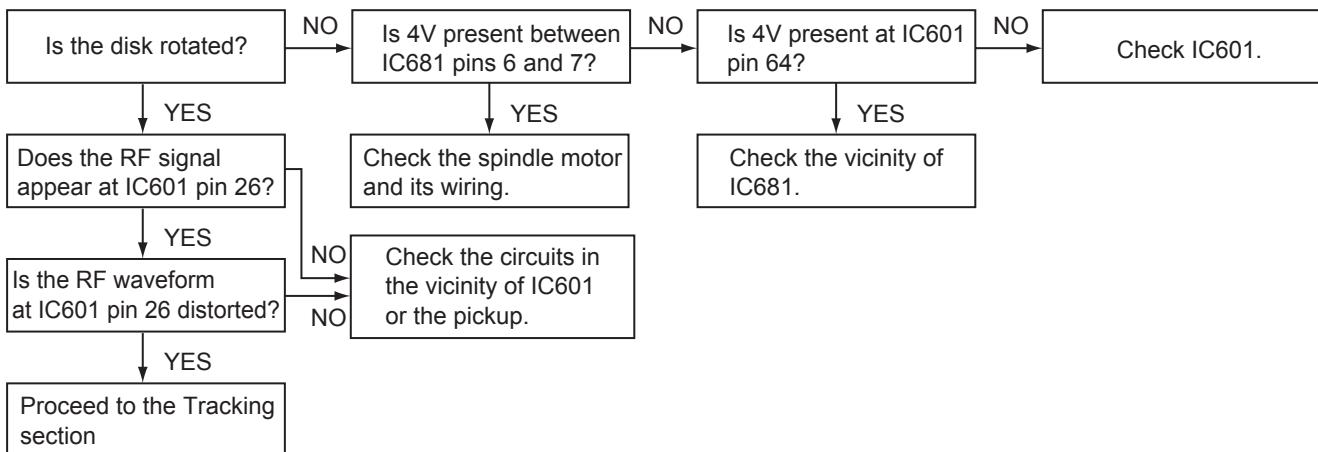
5.1 Feed section



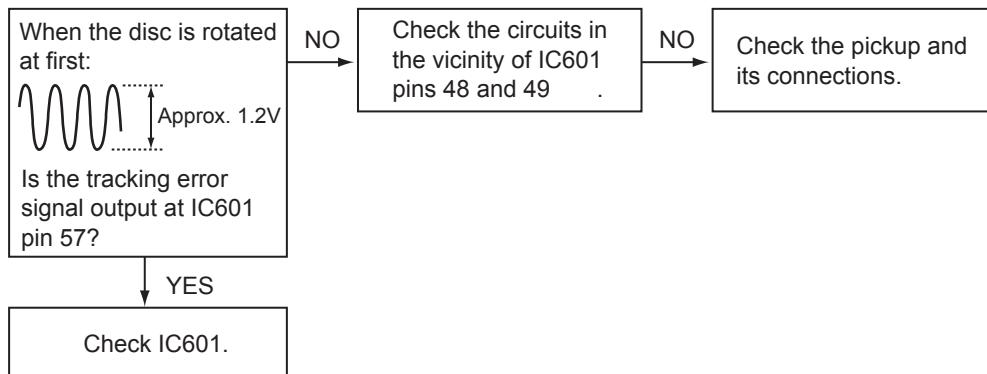
5.2 Focus section



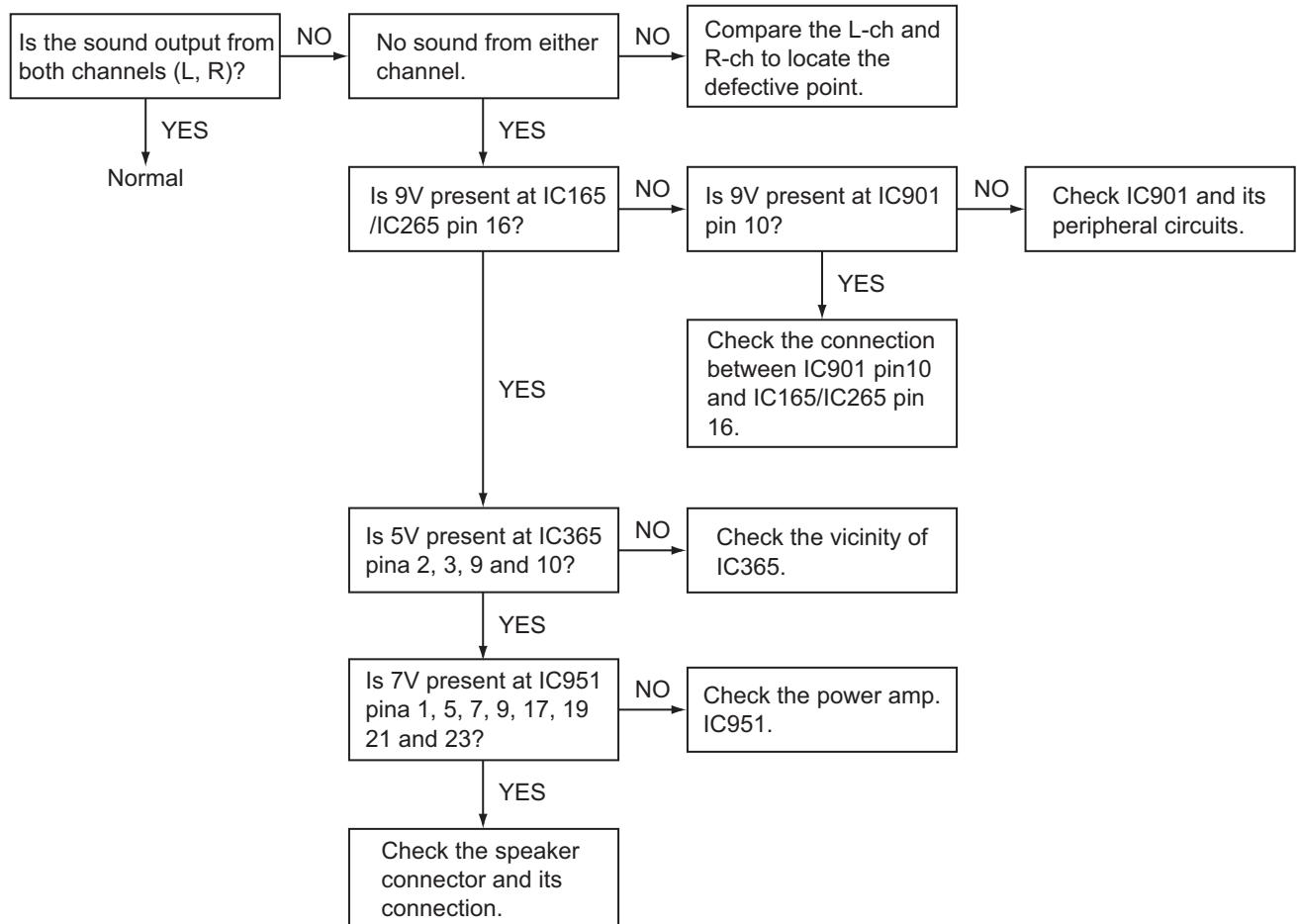
5.3 Spindle section



5.4 Tracking section



5.5 Signal processing section



5.6 Maintenance of laser pickup

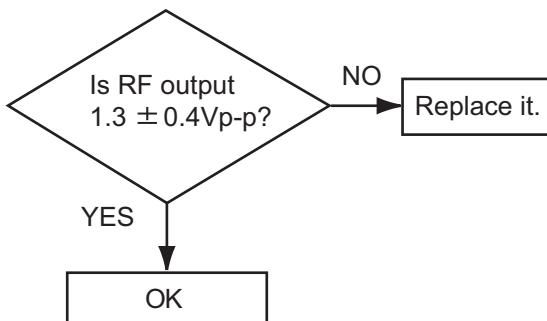
(1) Cleaning the pick up lens

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.

5.7 Replacement of laser pickup

Turn off the power switch and, disconnect the power cord.

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

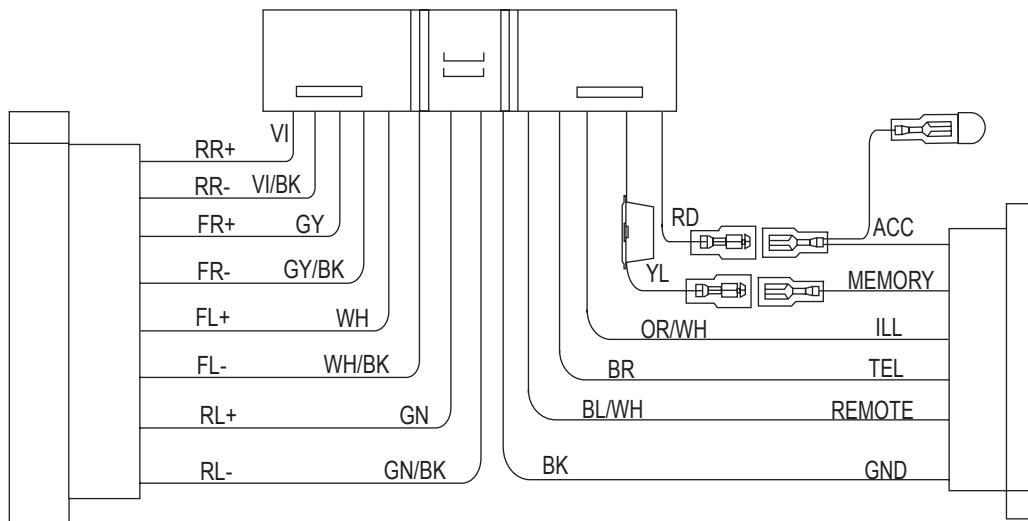
Plug the power cord in, and turn the power on. At this time, check that the laser emits for about seconds and the objective lens moves up and down. Note: Do not observe the laser beam directly.

Play a disc.

Check the eye-pattern at RF test point.

Finish.

5.8 16P CORD DIAGRAM



RR	Rear Right	ANT	Auto Antenna
FR	Front Right	ACC	ACC Line
FL	Front Left	TEL	Telephone Muting
RL	Rear Left	GND	Ground
REMOTE	Remote out	MEMORY	Memory Backup Battery +
ILL	Illuminations Control		



VICTOR COMPANY OF JAPAN, LIMITED

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

(No.MA047)



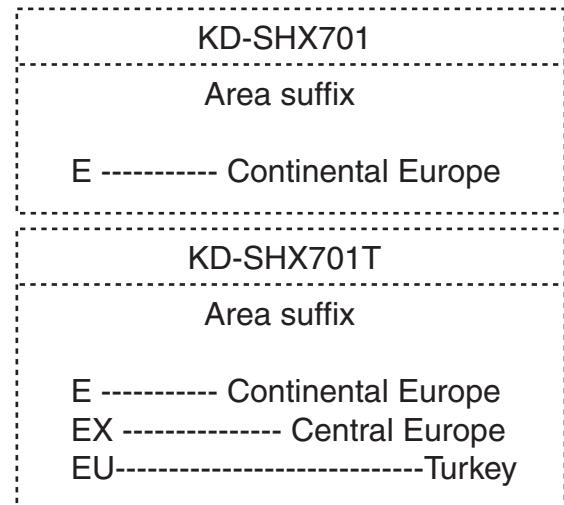
Printed in Japan
WPC

PARTS LIST

[KD-SHX701]

[KD-SHX701T]

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

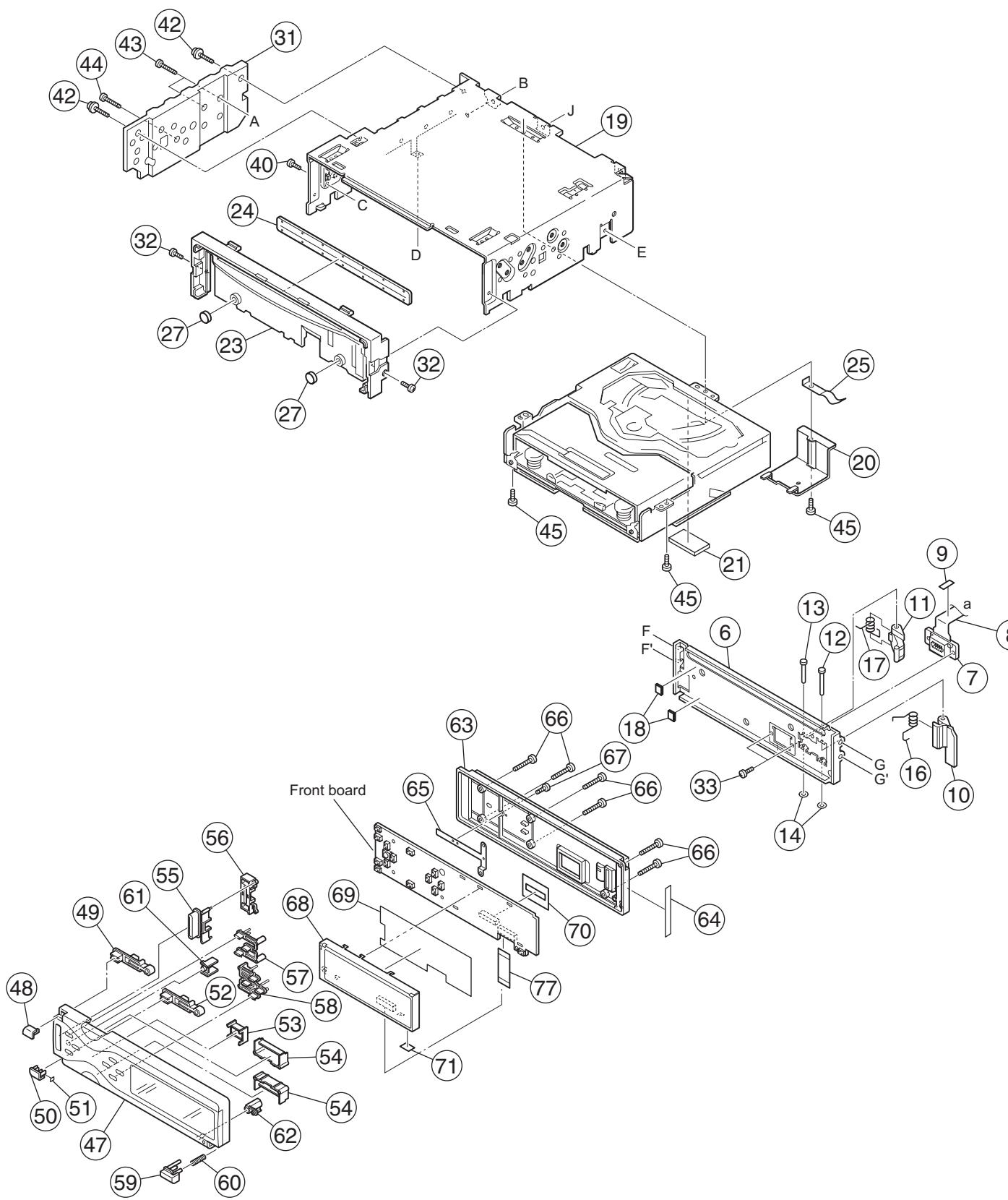


- Contents -

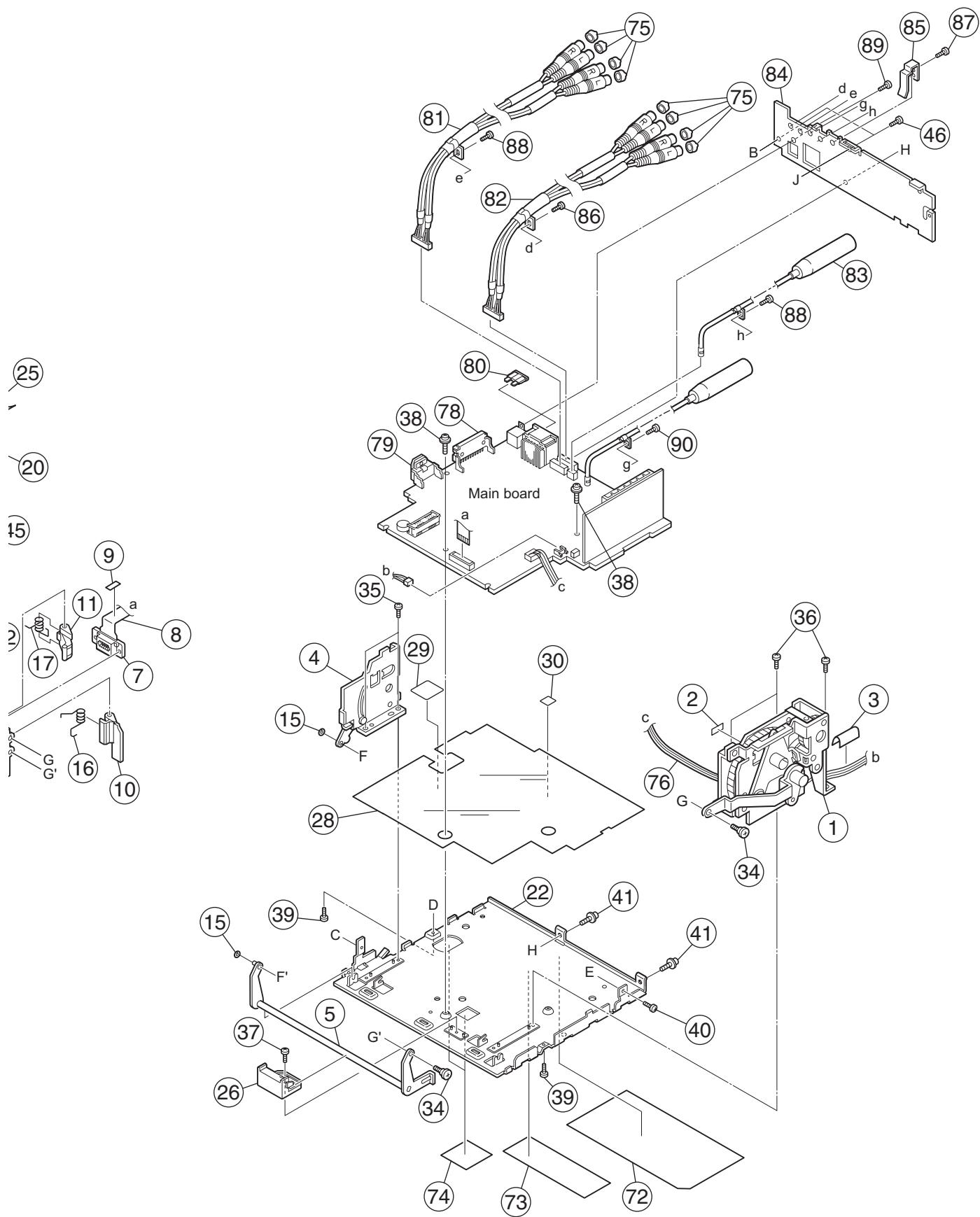
Exploded view of general assembly and parts list (Block No.M1)	3- 2
CD mechanism assembly and parts list (Block No.MB)	3- 6
Electrical parts list (Block No.01~03)	3- 9
Packing materials and accessories parts list (Block No.M3).....	3-18

Exploded view of general assembly and parts list

Block No. M 1 M M



□ M M



General Assembly

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

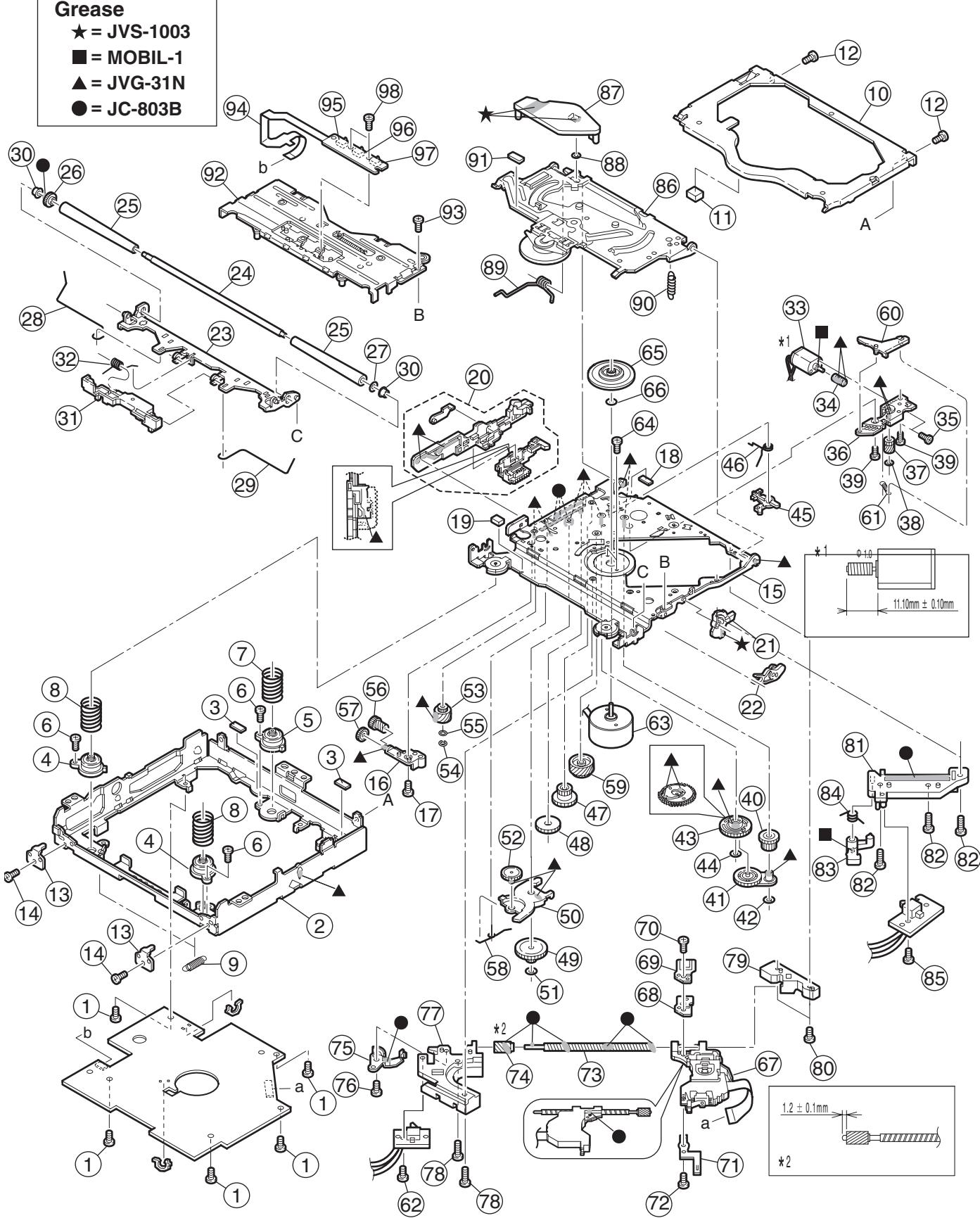
△	Symbol No.	Part No.	Part Name	Description	Local
1		GE20156-002A	GEAR BKT UNIT		
2		LV40847-002A	SPACER		
3		FSYH4036-100	SHEET		
4		GE30968-001A	LEVER BKT UNIT		
5		GE30964-002A	LOWER LEVER ASS		
6		GE30975-003A	FRONT BKT ASSY		
7		QNZ0664-002	CAR CONNECTOR		
8		QAL0587-001	FPC		
9		FSYH4036-100	SHEET		
10		GE30972-001A	DETACH LEVER		
11		GE30973-001A	KICK LEVER		
12		GE40192-001A	SHAFT		
13		GE40193-001A	SHAFT		
14		WDL123525	SLIT WASHER	(x2)	
15		WDL215025	WASHER	(x2)	
16		GE40194-001A	T SPRING		
17		GE40195-002A	T SPRING		
18		LV43971-001A	ABSORBER	(x2)	
19		LV10884-001A	TOP CHASSIS		
20		LV35317-001A	MECHA HEAT SINK		
21		LV43854-003A	COOLING RUBBER		
22		GE10074-001A	BOTTOM CHASSIS		
23		LV34930-006A	F CHASSIS ASSY		
24		GE40156-001A	BLIND		
25		LV35233-001A	EARTH SPRING2		
26		GE30974-001A	FPC GUIDE		
27		GE40196-001A	ABSORBER	(x2)	
28		LV35332-001A	INSULATOR		
29		LV43854-001A	COOLING RUBBER		
30		LV43854-002A	COOLING RUBBER		
31		GE31206-003A	HEAT SINK		
32		QYSPSP2003M	SCREW	2mm x 3mm(x2)	
33		QYSPSGU2040M	TAP SCREW	M2 x 4mm(x2)	
34		LV42181-002A	SPECIAL SCREW	(x2)	
35		LV40865-001A	MINI SCREW	(x2)	
36		LV40865-001A	MINI SCREW	(x3)	
37		LV40865-001A	MINI SCREW		
38		LV41200-001A	SPECIAL SCREW	(x2)	
39		FSKZ4005-001	SCREW	(x2)	
40		QYSDST2604Z	SCREW	2.6mm x 4mm(x2)	
41		LV41200-001A	SPECIAL SCREW	(x2)	
42		FSKZ4005-002	SCREW	(x2)	
43		QYSDST2614Z	TAPPING SCREW	M2.6 x 14mm(x2)	
44		QYSDST2614Z	TAPPING SCREW	M2.6 x 14mm	
45		QYSDST2605Z	SCREW	2.6mm x 5mm(x3)	
46		QYSDST2604Z	SCREW	2.6mm x 4mm(x2)	
47		LV34975-002A	FRONT PANEL ASS		SHX701E
47		LV34975-006A	FRONT PANEL ASS		SHX701TE,SHX701TEU,SHX701TEX
48		LV34806-003A	EJECT BUTTON		SHX701E
48		LV34806-001A	EJECT BUTTON		SHX701TE,SHX701TEU,SHX701TEX
49		LV34807-001A	EJECT BUTTON BA		
50		LV34808-003A	POWER BUTTON		SHX701E
50		LV34808-001A	POWER BUTTON		SHX701TE,SHX701TEU,SHX701TEX
51		LV43999-001A	SHEET		
52		LV34809-001A	POWER BUTTON BA		
53		LV34815-001A	SHADING WALL 1		
54		LV34805-001A	SHADING WALL 2	(x2)	
55		LV34810-001A	VOL BUTTON		
56		LV34816-001A	SHADING WALL 3		
57		LV34800-004A	3 BUTTON		
58		LV34801-002A	4 BUTTON		
59		LV34799-003A	DETACH BUTTON		SHX701E
59		LV34799-001A	DETACH BUTTON		SHX701TE,SHX701TEU,SHX701TEX
60		LV43723-001A	COMPRESSION SPRING		
61		LV34817-001A	IR FILTER		
62		LV34818-003A	RESET BUTTON		SHX701E
62		LV34818-001A	RESET BUTTON		SHX701TE,SHX701TEU,SHX701TEX
63		LV10882-001A	REAR COVER		
64		LV40848-051A	SPACER(P)		
65		LV34812-001A	EARTH SPRING		
66		VKZ4777-001	MINI SCREW	(x6)	
67		QYSPSPU1730M	SCREW	1.7mm x 3mm	
68		QLE0031-001	OEL MODULE		
69		LV43972-001A	OEL INSULATOR		

△	Symbol No.	Part No.	Part Name	Description	Local
	70	LV43889-001A	SW PWB SHEET		
	71	LV40848-050A	SPACER(P)		
	72	LV34937-001A	NAME PLATE		SHX701E
	72	LV35345-001A	NAME PLATE		SHX701TE,SHX701TEU,SHX701TEX
	73	LV41843-002A	LASER CAUTION		
	74	GE40218-011A	SHEET	(x2)	
	75	GE40101-001A	PIN CAP	(x8)	
	76	QJJ010-040904	SIN CR C-C WIR		
	77	QUQ105-3003AB	FFC WIRE		
	78	LV43349-001A	POWE IC BKT		
	79	LV43373-001A	REG IC BKT		
△	80	QMFZ039-150-T	FUSE	15A	
	81	QAM0561-001	CAR CABLE		
	82	QAM0560-001	CAR CABLE		
	83	QAM0568-001	CAR CABLE		
	84	LV34596-004A	REAR BRACKET		
	85	LV43864-001A	WIRE BRACKET		
	86	QYSDST2604Z	SCREW	2.6mm x 4mm	
	87	QYSDST2604Z	SCREW	2.6mm x 4mm	
	88	QYSDST2604Z	SCREW	2.6mm x 4mm(x2)	
	89	QYSDST2604Z	SCREW	2.6mm x 4mm	
	90	QYSDST2604Z	SCREW	2.6mm x 4mm	

CD mechanism assembly and parts list

Block No. M B M M

FLM-JC1-1D



CD mechanism

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

△	Symbol No.	Part No.	Part Name	Description	Local
1	VKZ4539-026		MINI SCREW	(x5)	
2	LV10857-001A		CHASSIS FRAME 2		
3	LV30225-0J6A		SPACER	(x2)	
4	LV35272-001A		DAMPER(F)	(x2)	
5	LV35273-001A		DAMPER(R)		
6	QYSPSTU2045M		TAP SCREW	M2 x 4.5mm(x3)	
7	LV43039-001A		DAMPER SP.(R)		
8	LV43849-001A		DAMPER SP(F2)	(x2)	
9	LV43041-001A		FLOATING SPRING	(x2)	
10	LV10675-001A		TOP COVER		
11	LV30225-0J5A		SPACER		
12	VKZ4539-026		MINI SCREW	(x2)	
13	LV33669-001A		STOPPER	(x2)	
14	VKZ4539-026		MINI SCREW	(x2)	
15	LV21615-001A		CD CHASSIS ASSY		
16	LV33608-001A		GEAR HOLDER		
17	VKZ4539-026		MINI SCREW		
18	LV43561-001A		ABSORBER		
19	LV30225-0J5A		SPACER		
20	LV33683-003A		SLIDE CAM ASSY		
21	LV33610-001A		FLOATING ARM		
22	LV33611-001A		CONNECT ARM		
23	LV33678-003A		LOADING A. ASSY		
24	LV43049-001A		LOADING SHAFT		
25	LV43052-003A		ROLLER	(x2)	
26	LV33612-001A		LOADING GEAR		
27	QYWFM124013		WASHER	4mm/1.2mm x 0.13mm	
28	LV43053-002A		ROD(L)		
29	LV43725-001A		ROD(R)		
30	LV43001-001A		COLLAR	(x2)	
31	LV21285-001A		PROTECTOR		
32	LV43055-001A		PROTECTOR SP.		
33	QAR0144-003		MOTOR		
34	LV43002-002A		WORM GEAR		
35	QYSPSP2025M		MINI SCREW	2mm x 2.5mm(x2)	
36	LV33679-001A		MOTOR H. ASSY		
37	LV33614-002A		WORM WHEEL		
38	QYWDL1230250		SLIT WASHER	3mm/1.2mm x 0.25mm	
39	VKZ4539-026		MINI SCREW	(x2)	
40	LV33615-001A		GEAR 2		
41	LV43057-003A		IDLER ARM ASSY		
42	QYWDL1635252		SLIT WASHER	3.5mm/1.6mm x 0.25mm	
43	LV21286-001A		CONTROL CAM		
44	QYWDL1230250		SLIT WASHER	3mm/1.2mm x 0.25mm	
45	LV33616-001A		LOAD LOCK LEVER		
46	LV43060-001A		CAM SPRING		
47	LV43005-001A		GEAR 4		
48	LV43006-001A		GEAR 5		
49	LV33617-001A		GEAR 6		
50	LV33618-002A		LOADING G. ARM		
51	QYWDL1635252		SLIT WASHER	3.5mm/1.6mm x 0.25mm	
52	LV43007-001A		GEAR 7		
53	LV33619-002A		GEAR 8		
54	LV42132-001A		E RING		
55	QYWFM215013		WASHER	5mm/2.1mm x 0.13mm	
56	LV33620-001A		GEAR 9		
57	LV43008-001A		GEAR10		
58	LV43061-001A		LOAD SPRING		
59	LV33621-001A		FEED GEAR		
60	LV33622-001A		TRIGGER ARM		
61	LV43062-001A		FEED TRI.SPRING		
62	QYSPSFT2040Z		TAP SCREW	M2 x 4mm	
63	QAR0305-001		SPINDLE MOTOR		
64	QYSPSP1720M		SCREW	M1.7 x 2mm(x2)	
65	LV43669-002A		T.TABLE ASSY		
66	QYWFM214025		WASHER	4mm/2.1mm x 0.25mm	
67	QAL0563-001		PICK UP		
68	LV34583-002A		CD RACK PLATE		
69	LV34579-001A		CD RACK SPRING		
70	LV43903-001A		MINI TAP SCREW		
71	LV34580-001A		P.S.SPRING		
72	QYSPSGT1425M		TAP SCREW	1.4mm x 2.5mm	
73	LV43670-001A		LEAD SCREW		
74	LV43010-001A		L.S.GEAR		

△	Symbol No.	Part No.	Part Name	Description	Local
75	LV43011-001A		THRUST SPRING		
76	QYSPSFT2040Z		TAP SCREW	M2 x 4mm	
77	LV21604-003A		L.S.HOLDER 1		
78	VKZ4539-026		MINI SCREW	(x2)	
79	LV34582-002A		L.S.HOLDER 2		
80	VKZ4539-026		MINI SCREW	(x2)	
81	LV34581-001A		SUB GUIDE		
82	VKZ4539-026		MINI SCREW	(x3)	
83	LV34915-001A		SW LEVER		
84	LV43898-001A		S.L.SPRING		
85	QYSPSFT2040Z		TAP SCREW	M2 x 4mm	
86	LV34602-002A		CLAMPER UNIT 2		
87	LV34585-001A		KICK ARM 2		
88	LV43507-001A		SPL WASHER		
89	LV43070-001A		CLAMPER SPRING		
90	LV43355-001A		CLAMPER2 SPRING		
91	LV30225-0J6A		SPACER		
92	LV21616-003A		FRONT UNIT 2		
93	VKZ4539-026		MINI SCREW		
94	LVB30016-001A		SW FPC2		
95	NSW0187-001		SWITCH	S1	
96	NSW0187-001		SWITCH	S2	
97	NSW0187-001		SWITCH	S3	
98	VKZ4539-025		MINI SCREW	(x2)	

Electrical parts list

Main board

Block No. [0][1][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local
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△ IC10	SAF7730HV/N114F	IC		
IC11	PHK04P02T-X	POWER MOS FET		
IC165	BD3805F-X	IC		
IC171	LA2900M-X	IC		
IC265	BD3805F-X	IC		
IC271	LA2900M-X	IC		
IC360	NJM4580V-X	IC		
IC362	NJM4565V-X	IC		
IC365	CD4066BPW-X	IC		
IC381	NJM4565V-X	IC		
△ IC401	AK7740VT	IC		
IC411	JCV8009-W	IC		
IC412	AK4385VT-X	IC		
△ IC701	MN101E01LCX	IC		
IC702	PST9121N-X	IC		
IC703	BR24L32F-W-X	IC		
IC710	SN74AHCT126PW-X	IC(DIGITAL)		
IC901	HA13164A	IC		
IC921	NAL0026-001X	D/D CONVERTER		
IC951	TB2901HB	IC		
IC971	NAL0024-002X	D/D CONVERTER		
IC973	TA48033F-X	IC		
IC975	BA33BC0FP-X	IC		
IC976	BA00BC0WF-X	IC(DIGITAL)		
IC991	BA6956AN	IC		
Q1	2SB815/7-X	TRANSISTOR		
Q2	UN2211-X	TRANSISTOR		
Q30	UN2211-X	TRANSISTOR		
Q703	UN2213-X	DIGI TRANSISTOR		
Q791	UN2211-X	TRANSISTOR		
Q901	UN2111-X	TRANSISTOR		
Q902	UN2211-X	TRANSISTOR		
Q903	2SB709A/QR/-X	TRANSISTOR		
Q905	UN2111-X	TRANSISTOR		
Q906	UN2211-X	TRANSISTOR		
Q907	UN2111-X	TRANSISTOR		
Q908	UN2211-X	TRANSISTOR		
Q921	2SD601A/RS/-X	TRANSISTOR		
Q922	UN2211-X	TRANSISTOR		
Q941	UN2111-X	TRANSISTOR		
Q942	UN2113-X	TRANSISTOR		
Q943	UN2113-X	TRANSISTOR		
Q951	2SD601A/QR/-X	TRANSISTOR		
Q952	UN2211-X	TRANSISTOR		
Q953	UN2213-X	DIGI TRANSISTOR		
Q954	UN2113-X	TRANSISTOR		
Q971	2SD601A/RS/-X	TRANSISTOR		
Q972	UN2211-X	TRANSISTOR		
Q991	UN2211-X	TRANSISTOR		
Q1451	2SD2114K/VW/-X	TRANSISTOR		
Q1452	2SD2114K/VW/-X	TRANSISTOR		
Q2451	2SD2114K/VW/-X	TRANSISTOR		
Q2452	2SD2114K/VW/-X	TRANSISTOR		
Q3655	UN2211-X	TRANSISTOR		
Q3656	UN2211-X	TRANSISTOR		
Q3801	2SD1781K/QR/-X	TRANSISTOR		
Q7201	UN2211-X	TRANSISTOR		
Q7202	UN2211-X	TRANSISTOR		
Q9001	2SD601A/QR/-X	TRANSISTOR		
Q9051	UN2211-X	TRANSISTOR		
D1	1SS355-X	SI DIODE		
D2	1SS355-X	SI DIODE		
D701	1SS355-X	SI DIODE		
D702	1SS355-X	SI DIODE		
D709	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D710	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D711	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D712	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D713	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D714	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	

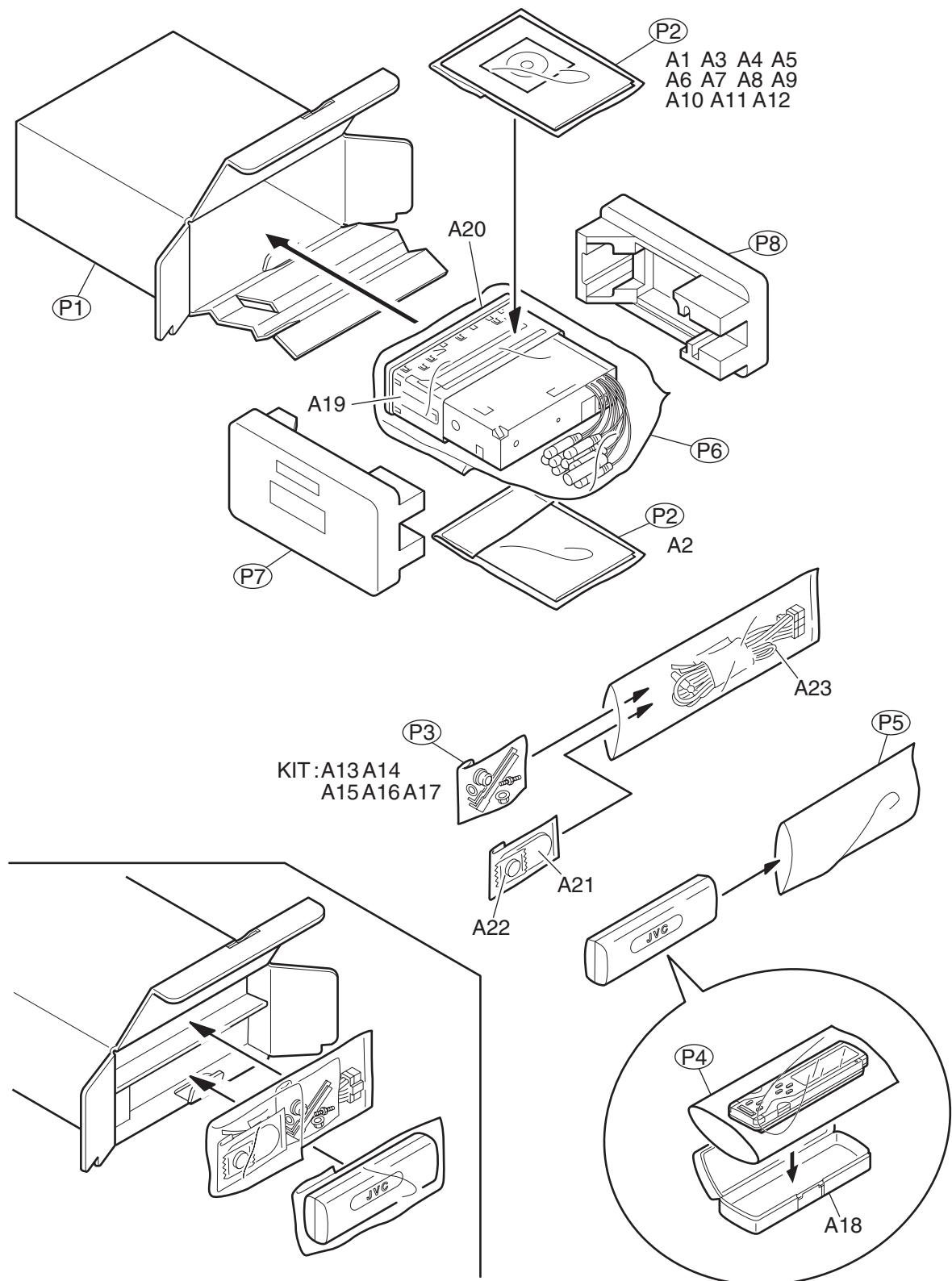
△ Symbol No.	Part No.	Part Name	Description	Local
D715	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D716	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D717	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D718	SML-310LT/MN/-X	LED		
D719	SML-310LT/MN/-X	LED		
D722	UDZS5.6B-X	Z DIODE	1.5kΩ 1/10W J	
D901	1N5401-F64	DIODE		
D904	RB160M-30-X	SB DIODE		
D905	RB160M-30-X	SB DIODE		
D921	1SR154-400-X	DIODE		
D940	UDZS3.3B-X	Z DIODE		
D941	UDZS11B-X	Z DIODE		
D942	MA152WA-X	DIODE		
D943	MA152WA-X	DIODE		
D944	1SS355-X	SI DIODE		
D952	UDZS11B-X	Z DIODE		
D971	1SR154-400-X	DIODE		
D975	RB160M-30-X	SB DIODE		
D976	RB160M-30-X	SB DIODE		
D991	UDZS3.9B-X	Z DIODE		
D1451	MA152WA-X	DIODE		
D2451	MA152WA-X	DIODE		
D3801	1SS355-X	SI DIODE		
D9051	MA152WA-X	DIODE		
C1	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C2	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
C3	NCS31HJ-391X	C CAPACITOR	390pF 50V J	
C4	QERF1CM-476Z	E CAPACITOR	47uF 16V M	
C5	NCS31HJ-391X	C CAPACITOR	390pF 50V J	
C7	NCS31HJ-391X	C CAPACITOR	390pF 50V J	
C13	NCS31HJ-391X	C CAPACITOR	390pF 50V J	
C14	NCS31HJ-391X	C CAPACITOR	390pF 50V J	
C21	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C22	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C28	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C29	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C31	NCS31HJ-221X	C CAPACITOR	220pF 50V J	
C32	NCS31HJ-180X	C CAPACITOR	18pF 50V J	
C33	NCS31HJ-100X	C CAPACITOR	10pF 50V J	
C34	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C35	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C36	NCS31HJ-181X	C CAPACITOR	180pF 50V J	
C37	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C40	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C41	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C42	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C43	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C44	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C45	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C46	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C47	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C48	QERFOJM-107Z	E CAPACITOR	100uF 6.3V M	
C50	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C51	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C53	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C54	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C55	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C56	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C57	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C58	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C59	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	
C60	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C61	QERFOJM-107Z	E CAPACITOR	100uF 6.3V M	
C62	QERFOJM-227Z	E CAPACITOR	220uF 6.3V M	
C63	NCB31EK-223X	C CAPACITOR	0.022uF 25V K	
C64	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C65	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C66	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C67	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C68	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C69	NCS31HJ-221X	C CAPACITOR	220pF 50V J	
C70	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C71	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C72	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C73	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
TH901	NAD0036-224X	N THERMISTOR	220kΩ		C806	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
TH902	NAD0031-002X	N THERMISTOR	Ω		C807	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
△ TU1	QAU0325-001	TUNER PACK			C871	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
X1	QAX0781-001Z	CRYSTAL			C872	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
X701	QAX0782-001Z	CRYSTAL			C873	NCB11EM-105X	C CAPACITOR	1uF 25V M	
X702	QAX0401-001	CRYSTAL	32.768KHz		C874	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
X4001	NAX0664-001X	CRYSTAL			C875	NQR0450-001X	EMI FILTER	0.022uF 50V M	
					C876	NQR0450-001X	EMI FILTER	0.022uF 50V M	
					C881	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
					C882	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
					C891	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
					C892	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
Front board									
Block No. [0][2][0][0]									
△ Symbol No.	Part No.	Part Name	Description	Local	R408	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R409	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R410	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R411	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R412	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R413	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R414	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R415	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R416	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R417	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R418	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R419	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R420	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R421	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R422	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R423	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R424	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R425	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
					R426	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
					R427	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
					R428	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
					R429	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
					R430	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
					R431	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
					R432	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R433	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R434	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
					R441	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
					R442	NRSA63J-301X	MG RESISTOR	300Ω 1/16W J	
					R443	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
					R444	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J	
					R445	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
					R446	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R447	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
					R448	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
					R449	NRSA63J-301X	MG RESISTOR	300Ω 1/16W J	
					R450	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
					R451	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J	
					R452	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
					R453	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
					R454	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
					R455	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
					R456	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J	
					R463	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
					R464	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
					R482	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
					R483	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
					R492	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
					R801	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R802	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R803	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R804	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R805	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R806	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R807	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R808	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R809	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R810	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R811	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R812	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R813	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R814	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R815	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R816	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R817	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R818	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R819	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R820	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
					R821	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	

△ Symbol No.	Part No.	Part Name	Description	Local
R642	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R643	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R651	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R653	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R654	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R655	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R656	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R657	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R668	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R675	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R678	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R680	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J	
R681	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R682	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R683	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R684	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R685	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R686	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R687	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R688	NRSA63D-163X	MG RESISTOR	16kΩ 1/16W D	
R689	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	
R693	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L501	NQL114K-470X	INDUCITOR	47uH K	
L502	NQL114K-470X	INDUCITOR	47uH K	
L621	NQL114K-470X	INDUCITOR	47uH K	
L622	NQL114K-470X	INDUCITOR	47uH K	
L623	NQL114K-470X	INDUCITOR	47uH K	
L624	NQL114K-470X	INDUCITOR	47uH K	
L651	NQL114K-470X	INDUCITOR	47uH K	
L652	NQL114K-470X	INDUCITOR	47uH K	
L653	NQL114K-470X	INDUCITOR	47uH K	
CN503	QGB2027L5-20X	CONNECTOR	B-B (1-20)	
CN601	QGF1006F2-15W	CONNECTOR	FFC/FPC (1-15)	
CN602	QGF1038F1-05X	CONNECTOR	FFC/FPC (1-5)	
SW4	NSW0219-001X	PUSH SWITCH		
SW5	NSW0219-001X	PUSH SWITCH		
TH501	NAD0028-103X	N THERMISTOR	10kΩ	
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	LVT1159-004A	INST BOOK	ENG SPA FRE TUR	SHX701TEU	
A 1	LVT1159-001A	INST BOOK	ENG GER FRE DUT	SHX701E,SHX701TE,SHX701TEX	
A 2	LVT1159-002A	INST BOOK	SPA ITA POL RUS	SHX701E,SHX701TE	
A 2	LVT1159-005A	INST BOOK	PER	SHX701TEU	
A 2	LVT1159-003A	INST BOOK	SWE DAN FIN GRE	SHX701TEX	
A 3	LVT1159-009A	INSTALL MANUAL		SHX701TEU	
A 3	LVT1159-006A	INSTALL MANUAL		SHX701E,SHX701TE,SHX701TEX	
A 4	LVT1159-007A	INSTALL MANUAL		SHX701E,SHX701TE	
A 4	LVT1159-010A	INSTALL MANUAL		SHX701TEU	
A 4	LVT1159-008A	INSTALL MANUAL		SHX701TEX	
A 5	GET0213-001A	CAUTION SHEET			
A 6	VND3046-001	SERIAL TICKET			
A 7	VND3050-002	IDENTITY CARD			
A 8	BT-54013-7	WARRANTY CARD		SHX701E,SHX701TE,SHX701TEX	
A 9	LVT1120-002A	MP3 GUIDE			
A 10	LVT1161-001A	DEMO MODE SHEET			
A 11	LVT1157-001A	IMAGE CONV.SHEE			
A 12	QAM0555-001	CD ROM			
A 13	VKZ4027-202	PLUG NUT			
A 14	VKH4871-001SS	MOUNT BOLT			
A 15	VKZ4328-001	LOCK NUT			
A 16	WNS5000Z	WASHER			
A 17	GE40130-002A	HOOK	(x2)		
A 18	FSJB3002-00F	HARD CASE ASSY			
A 19	GE20137-003A	MOUNTING SLEEVE			
A 20	LV21648-006A	TRIM PLATE		SHX701E	
A 20	LV21648-004A	TRIM PLATE		SHX701TE,SHX701TEU,SHX701TEX	
A 21	RM-RK300	REMOCON			
A 22	-----	BATTERY			
A 23	QAM0566-002	CAR CABLE			
KIT	SRW-200J	SCREW PARTS KIT	A13 A14 A15 A16 A17		
P 1	LV35284-003A	CARTON		SHX701E	
P 1	LV35346-001A	CARTON		SHX701TE,SHX701TEU,SHX701TEX	
P 2	QPA01703505P	POLY BAG	17cm x 35cm(x2)	SHX701E	
P 2	FSPG4002-001	POLY BAG	(x2)	SHX701TE,SHX701TEU,SHX701TEX	
P 3	QPA00801205	POLY BAG	8cm x 12cm		
P 4	QPC01002515	POLY BAG	10cm x 25cm		
P 5	QPA01003003	POLY BAG	10cm x 30cm		
P 6	QPC03004315P	POLY BAG	30cm x 43cm		
P 7	LV10967-002A	CUSHION(L)			
P 8	LV10968-002A	CUSHION(R)			

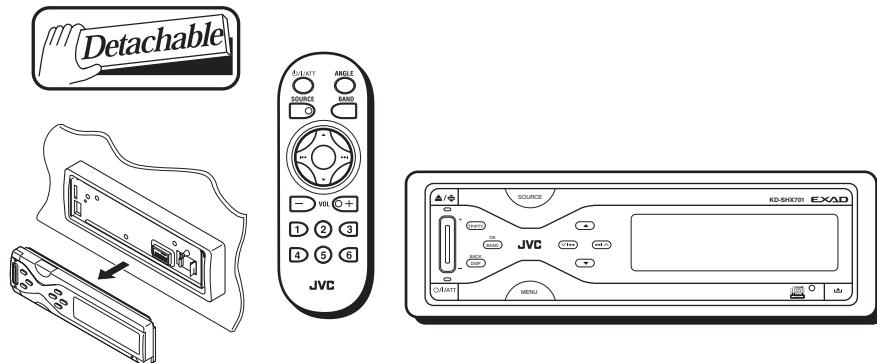
JVC

SCHEMATIC DIAGRAMS

CD RECEIVER

KD-SHX701, KD-SHX701T

CD-ROM No.SML200405



KD-SHX701

Area suffix

E ----- Continental Europe

KD-SHX701T

Area suffix

E ----- Continental Europe

EX ----- Central Europe

EU ----- Turkey

EXAD

PICT



**BBE®
DIGITAL**



Contents

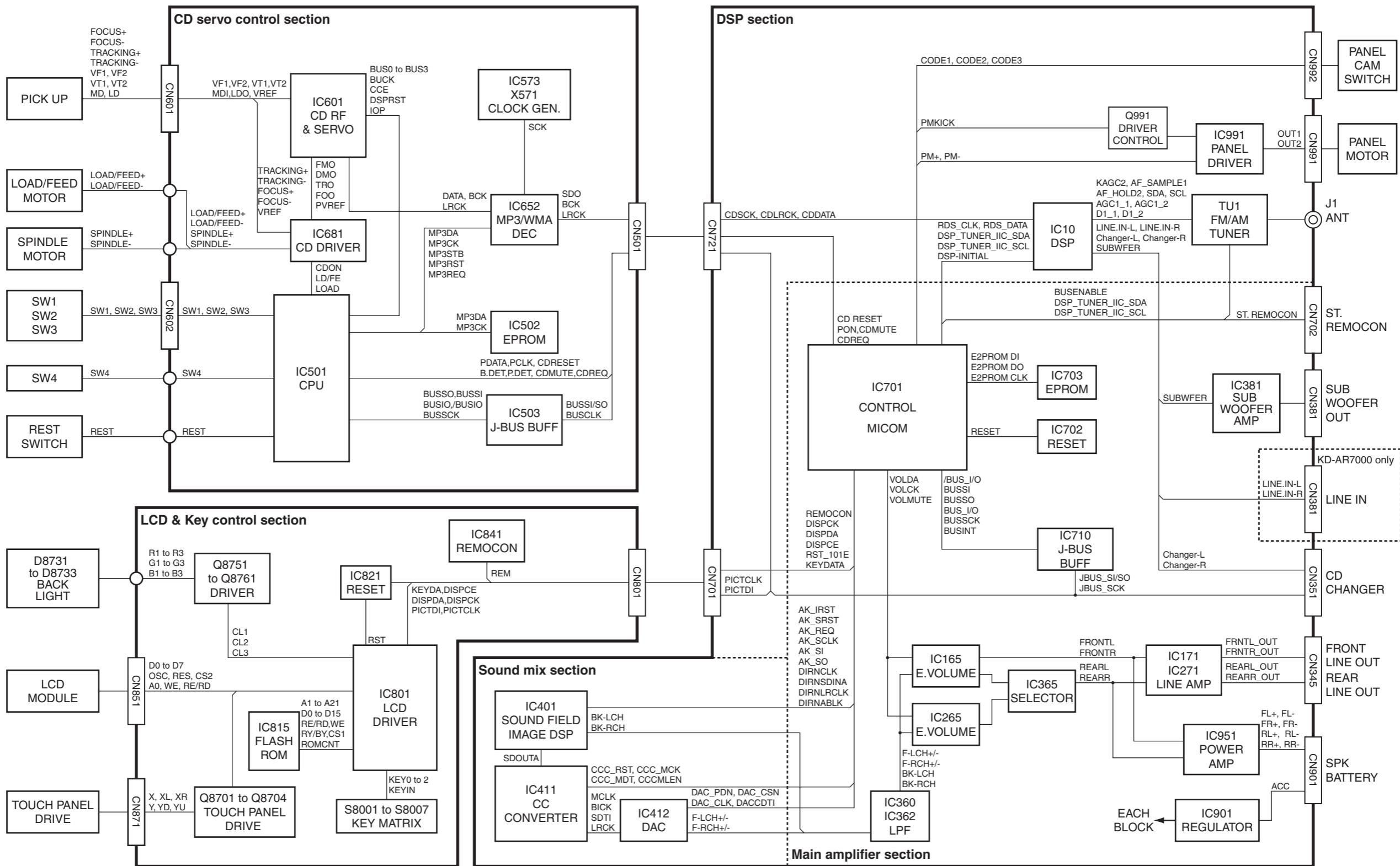
- Block diagram ----- 2-1
- Standard schematic diagrams ----- 2-2 to 6
- Printed circuit boards ----- 2-7 to 9

Safety precaution

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

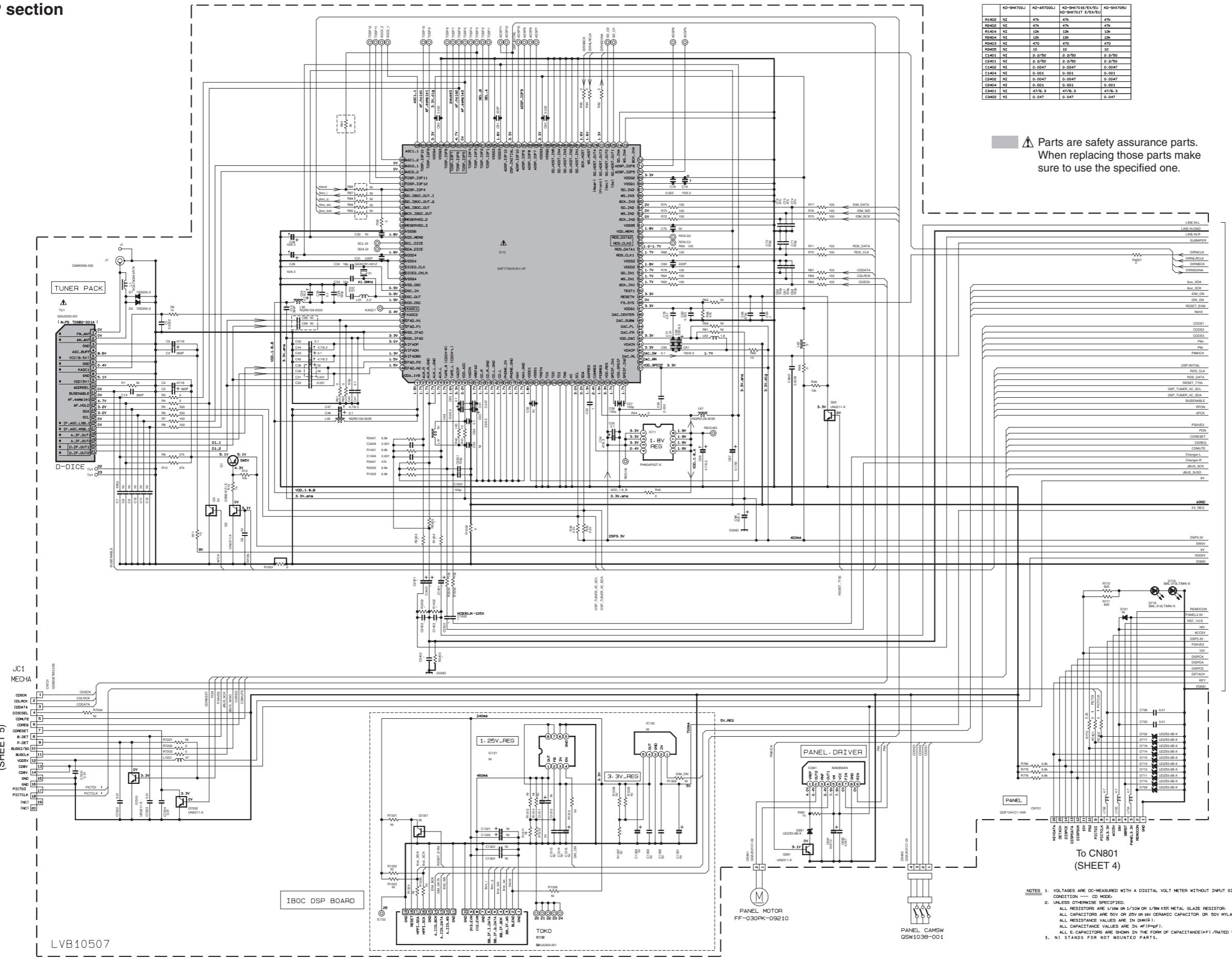
 **CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

Block diagram



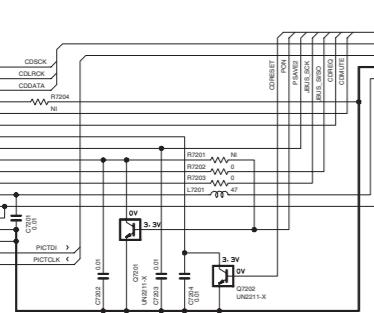
Standard schematic diagrams

DSP section



To CN501
(SHEET 5)

MECHA
JC1



IBOC DSP BOARD

LVB10507

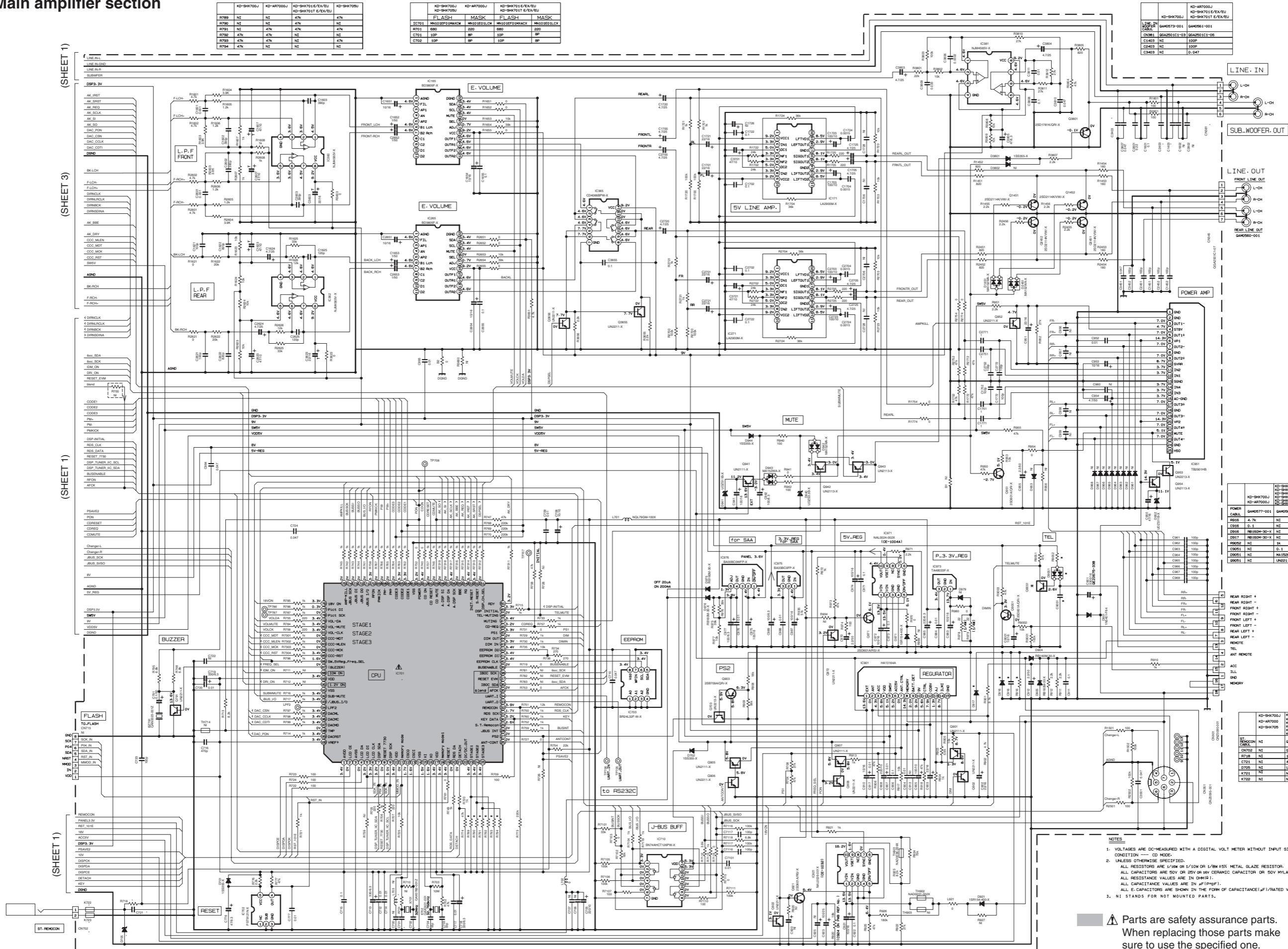
NOTES:

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL-CONDITIONING — CD MODE.
- UNLESS OTHERWISE SPECIFIED:
ALL RESISTORS ARE 1/10W OR 1/8W ±5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V OR 25V ±5% CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM'S.
ALL CAPACITANCE VALUES ARE IN MF (10⁻⁶ F).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (MF)/RATED VOLTAGE (V).
- NI STANDS FOR NOT MOUNTED PARTS.

To CN801
(SHEET 4)

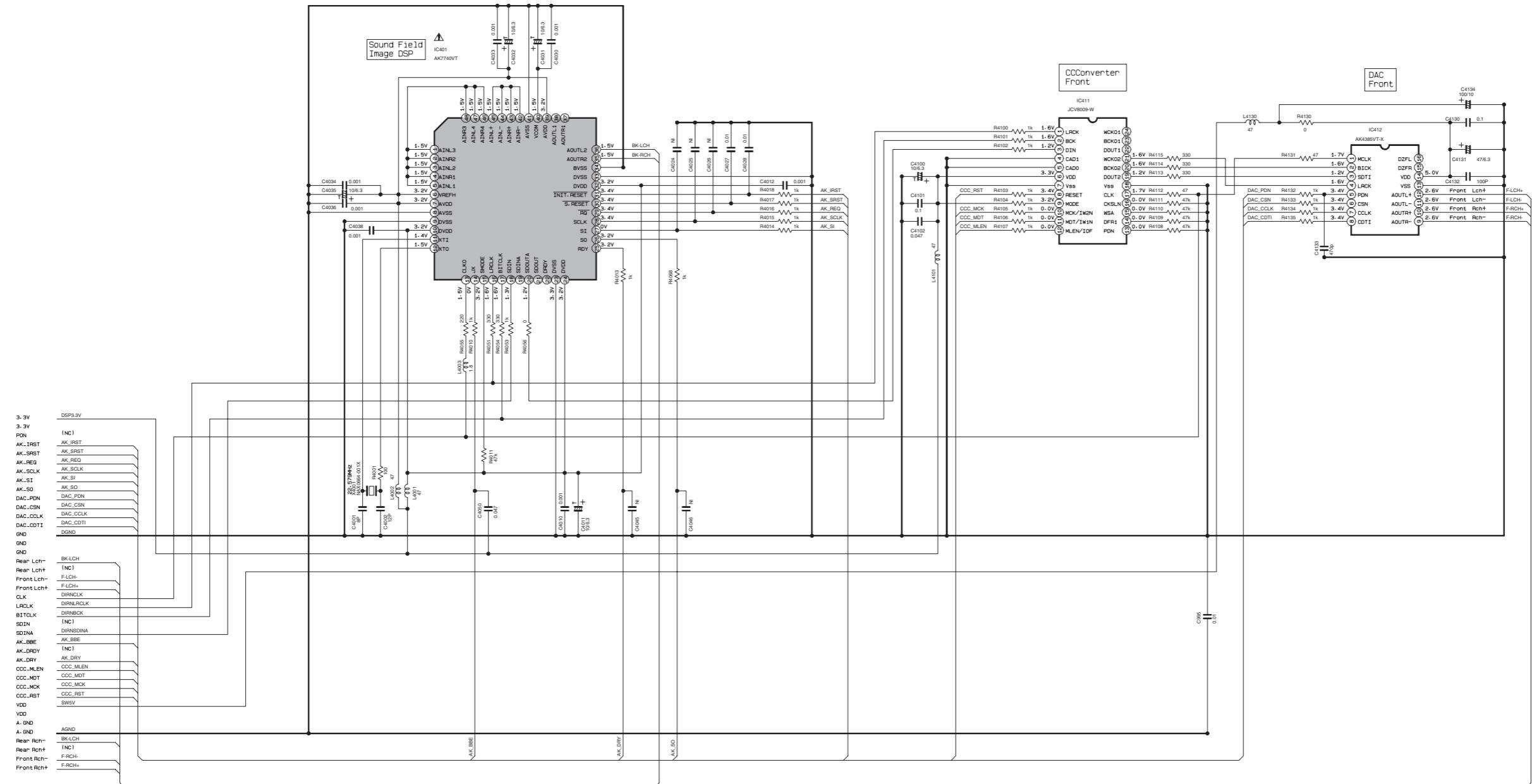
(SHEET 1)

Main amplifier section



■ Sound mix section

(SHEET 2)



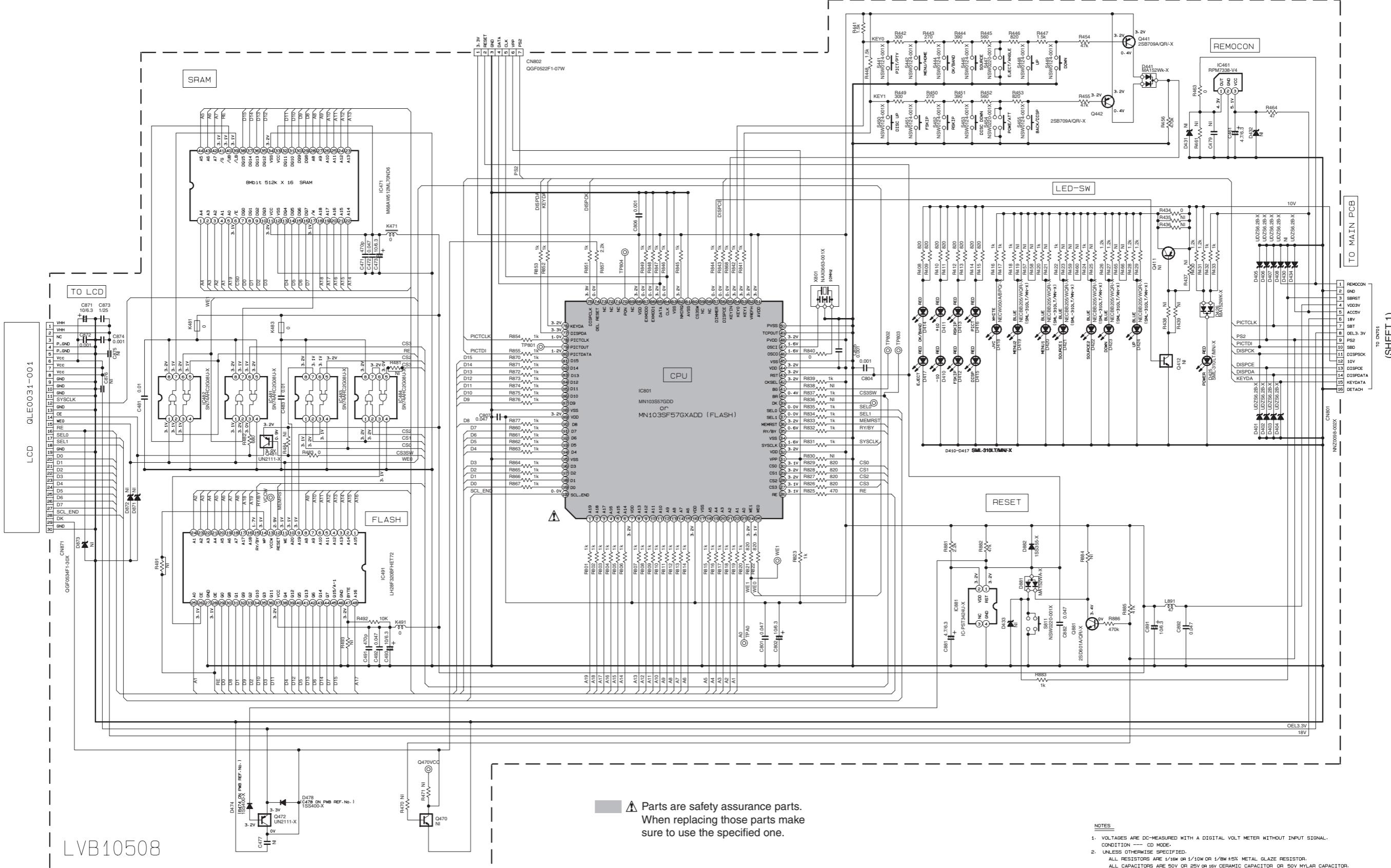
⚠ Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL CONDITION — CD MODE.
2. UNLESS OTHERWISE SPECIFIED:
ALL RESISTORS ARE 1/10W OR 1/10W ±5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V OR 25V OR 16V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM.
ALL CAPACITANCE VALUES ARE IN μF OR nF .
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(fF)/RATED VOLTAGE (V).
3. NI STANDS FOR NOT MOUNTED PARTS.

10k	10k	UN2211
47k	47k	UN2213
10k	10k	UN2211
10k	47k	UN2214

LCD & Key control section

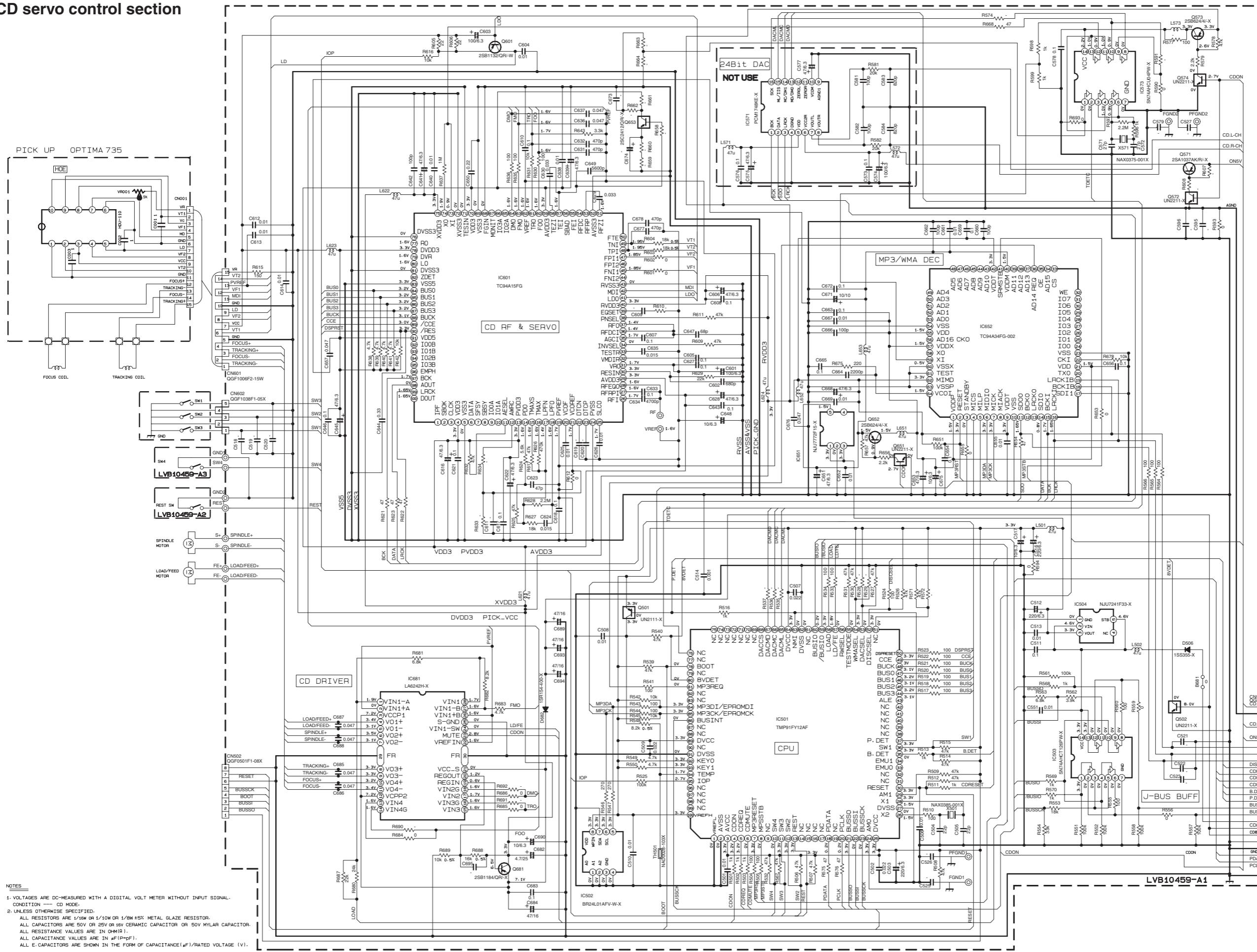


(SHEET 1)

TO CH01

TO CH01

CD servo control section

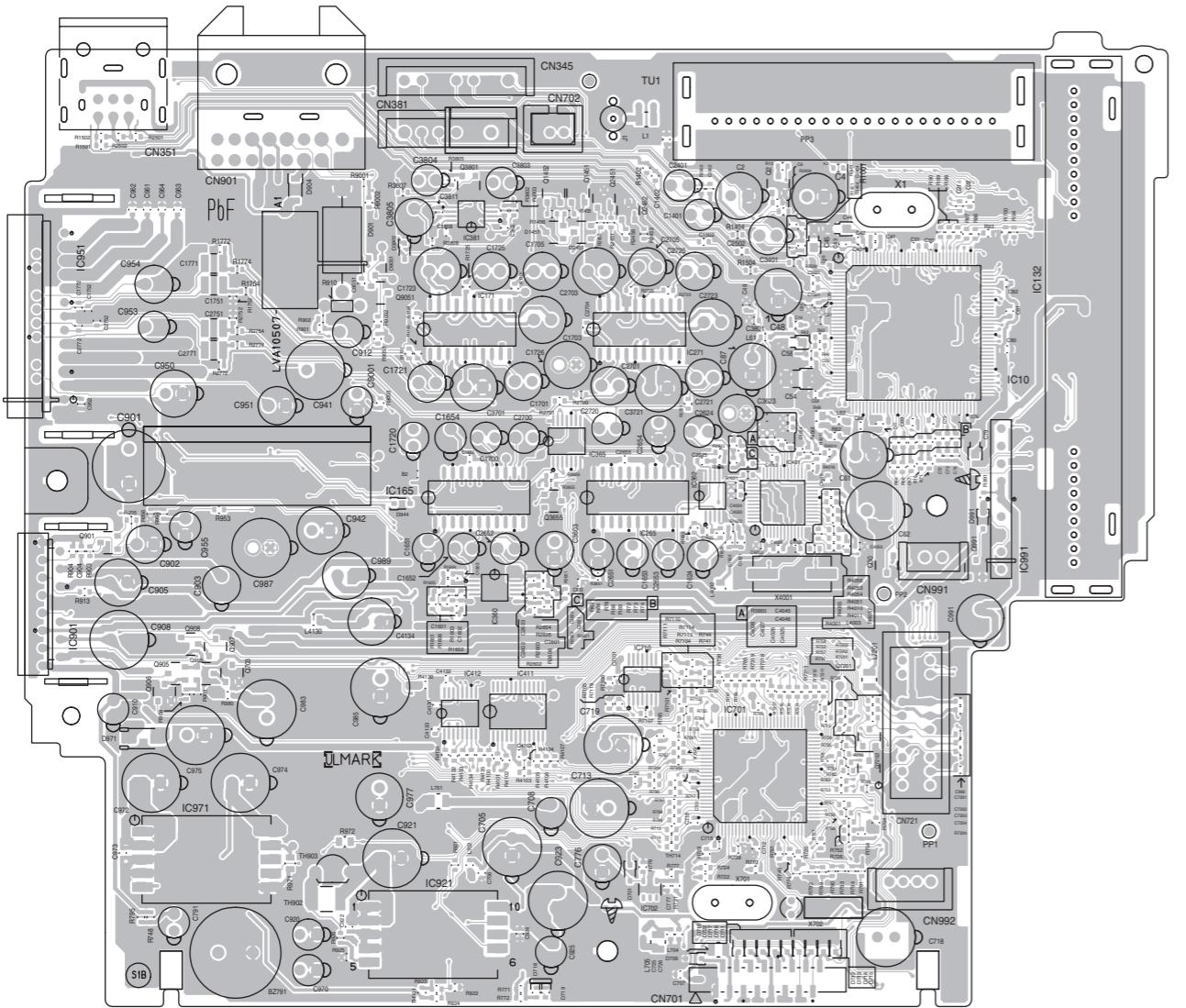


To CN721
(SHEET 1)

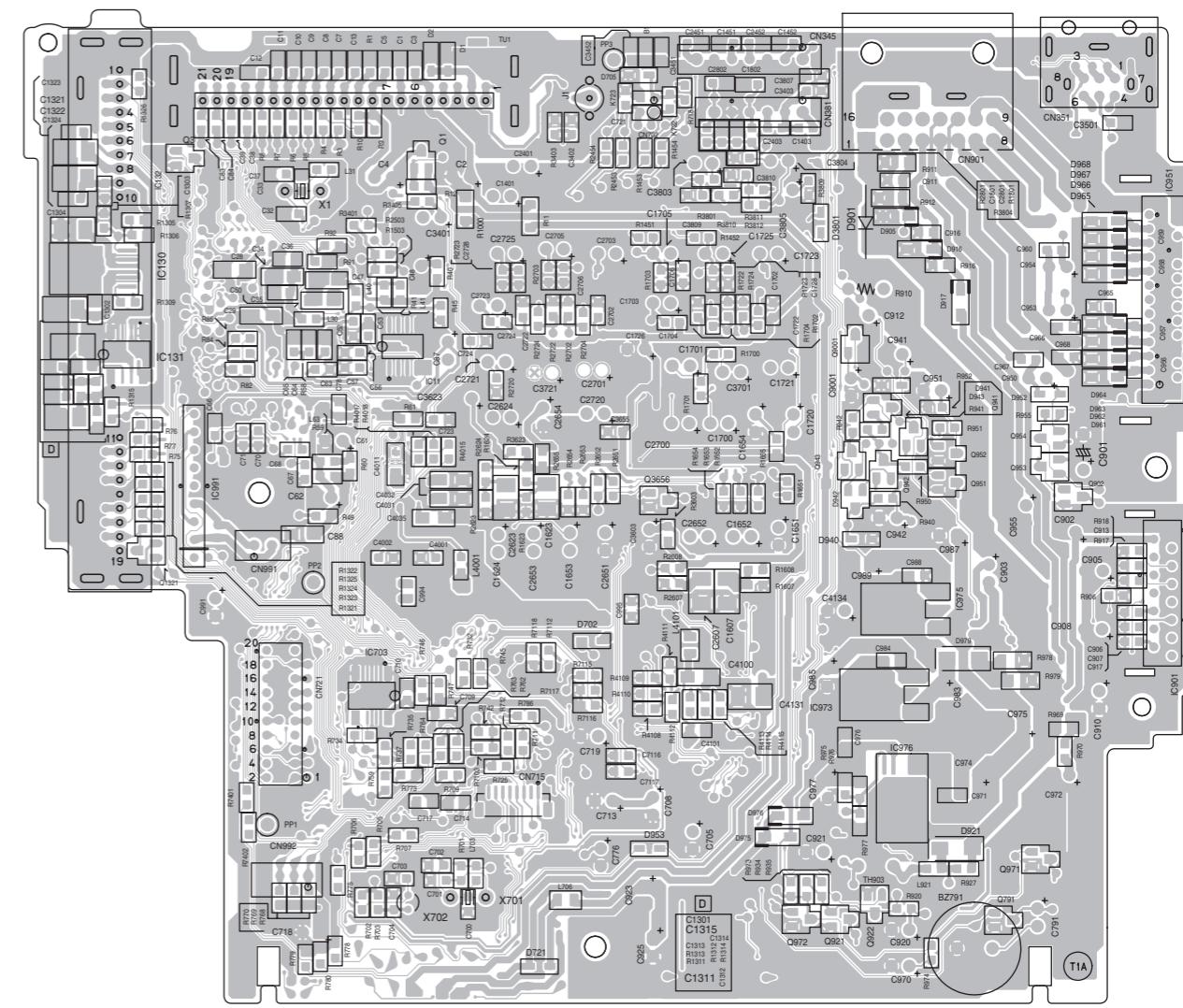
Printed circuit boards

■ Main board

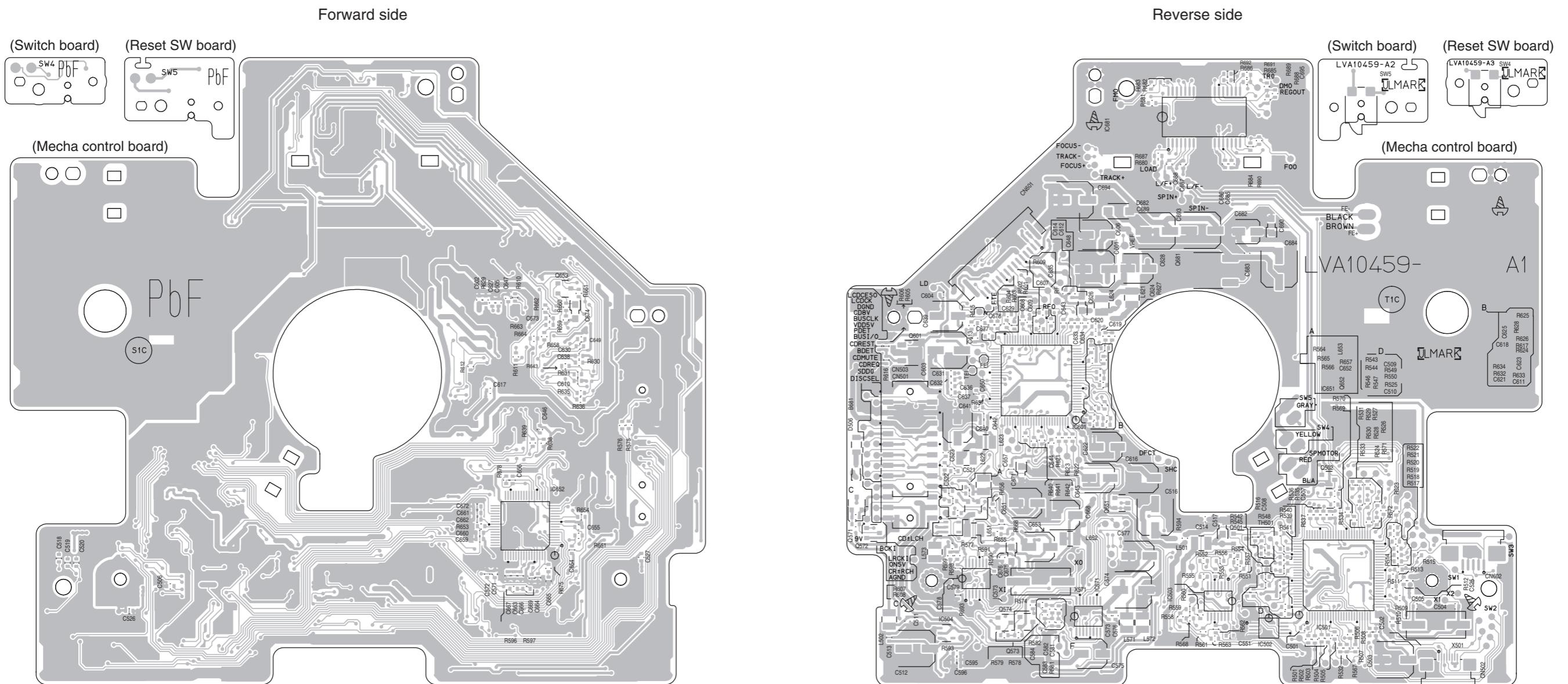
Forward side



Reverse side

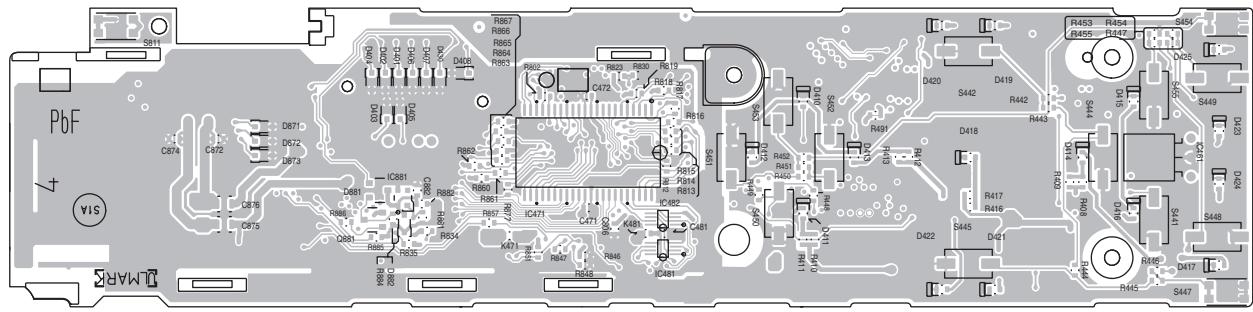


■ Mecha control board

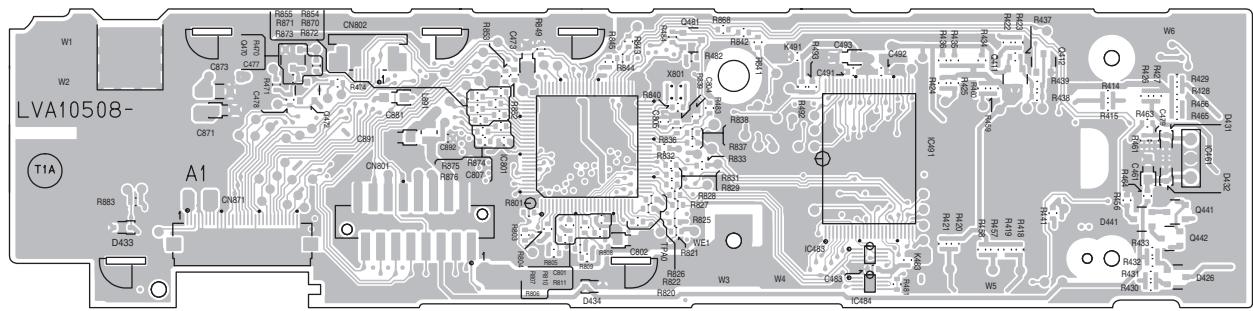


■ Front board

Forward side



Reverse side



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