

JVC

SERVICE MANUAL

DVD VIDEO PLAYER

XV-M5GSL



Area Suffix

J ----- U.S.A.
C ----- Canada

AV COMPU LINK

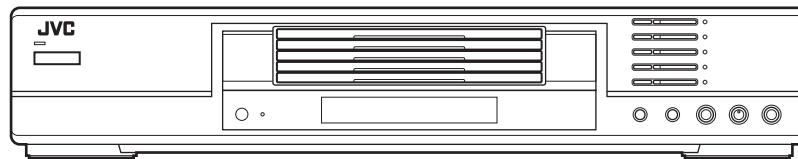


TABLE OF CONTENTS

1	PRECAUTION.....	1-3
2	SPECIFIC SERVICE INSTRUCTIONS.....	1-7
3	DISASSEMBLY	1-8
4	ADJUSTMENT	1-20
5	TROUBLE SHOOTING.....	1-26

SPECIFICATION

General

Readable discs	DVD VIDEO, DVD-R (Video format), DVD-RW (Video format), +RW (Video format), SVCD, Video CD, Audio CD (CD-DA), MP3/WMA format, JPEG, CD-R/RW (CD-DA, SVCD, Video CD, MP3/WMA format, JPEG)
Video format	NTSC, 480i (Interlaced scan)/480p (Progressive scan) selectable

Other

Power requirements	AC 120 V, 60 Hz
Power consumption	12 W (POWER ON) 0.8 W (STANDBY mode)
Mass	4.2 kg (9.3 lbs)
Dimensions (W x H x D)	435mm x 83mm x 322mm (17-3/16 inch x 3-5/16 inc x 12-11/16 inch)

Video outputs

COMPONENT (pin jacks)	Y Output: 1.0 Vp-p (75 ohm)
	Pb/Pr Output: 0.7Vp-p (75 ohm)
VIDEO OUT (pin jack)	1.0 Vp-p (75 ohm)
S-VIDEO OUT (S jack)	Y Output: 1.0 Vp-p (75 ohm)
	C Output: 286 mVp-p (75 ohm)
Horizontal resolution	500 lines or more

Audio outputs

ANALOG OUT (pin jack)	2.0 Vrms (10 kohm)
DIGITAL OUT (COAXIAL)	0.5 Vp-p (75 ohm termination)
DIGITAL OUT (OPTICAL)	-21 dBm to -15 dBm (peak)

Audio characteristics

Frequency response	CD (sampling frequency 44.1 kHz):2 Hz to 20 kHz
	DVD (sampling frequency 48 kHz):2 Hz to 22 kHz (4 Hz to 20 kHz for DTS and Dolby Digital bitstream signals)
	DVD (sampling frequency 96 kHz):2 Hz to 44 kHz
Dynamic range	16 bit: More than 98 dB
	20 bit: More than 100 dB
	24 bit: More than 100 dB
Wow and flutter	Unmeasurable (less than $\pm 0.002\%$)
Total harmonic distortion	less than 0.006%

- Specifications and appearance are subject to change without prior notice.
- Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
- "DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

Digital output signal chart

Disc type	Output		
	PCM ONLY	DOLBY DIGITAL/PCM	STREAM/PCM
DVD with 48/44.1 kHz, 16/20/24 bit linear PCM	48/44.1 kHz, 16 bit, stereo linear PCM		
DVD with 96 kHz, 16/22/24 bit linear PCM	48kHz, 16 bit, stereo linear PCM (Down sampling)		
DVD with DTS	48kHz, 16bit, stereo linear PCM		DTS bitstream
DVD with Dolby Digital	48 kHz, 16 bit, stereo linear PCM	Dolby Digital bitstream	
DVD with MPEG Multichannel	48kHz, 16 bit, stereo linear PCM		MPEG bitstream
SVCD/Video CD/Audio CD	44.1 kHz, 16 bit, stereo linear PCM		
Audio CD with DTS	48kHz, 16bit, stereo linear PCM		DTS bitstream
CD-R/RW with MP3/WMA	Linear PCM		

SECTION 1

PRECAUTION

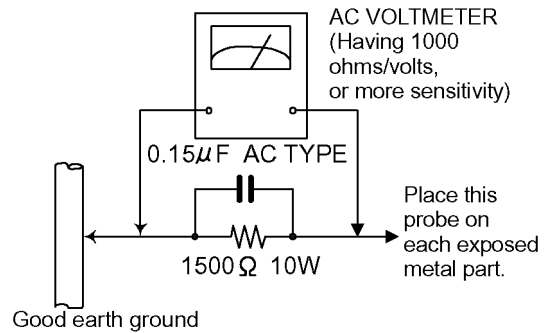
1.1 Safety Precautions

- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
- (4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
- (5) Leakage shock hazard testing

After reassembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
- Alternate check method
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohm 10W resistor paralleled by a 0.15 F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.
Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return

path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



1.2 Warning

- (1) This equipment has been designed and manufactured to meet international safety standards.
- (2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- (3) Repairs must be made in accordance with the relevant safety standards.
- (4) It is essential that safety critical components are replaced by approved parts.
- (5) If mains voltage selector is provided, check setting for local voltage.

1.3 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 pre-forming repair of this system.

1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (▀) and ICP (●) or identified by the " Δ " mark nearby are critical for safety. When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

1.5 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.

1.5.1 Grounding to prevent damage by static electricity

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

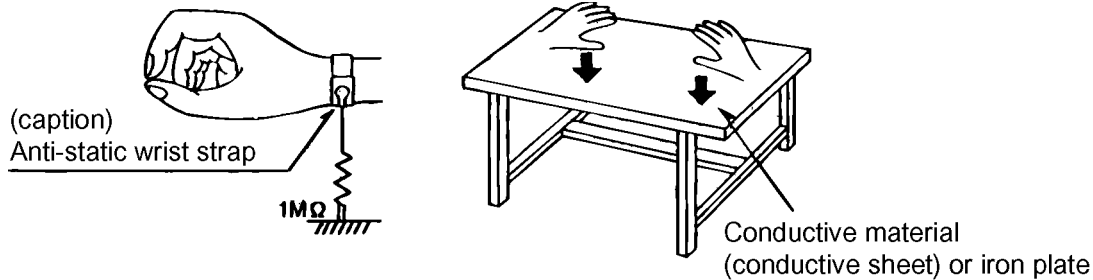
Be careful to use proper grounding in the area where repairs are being performed.

(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.



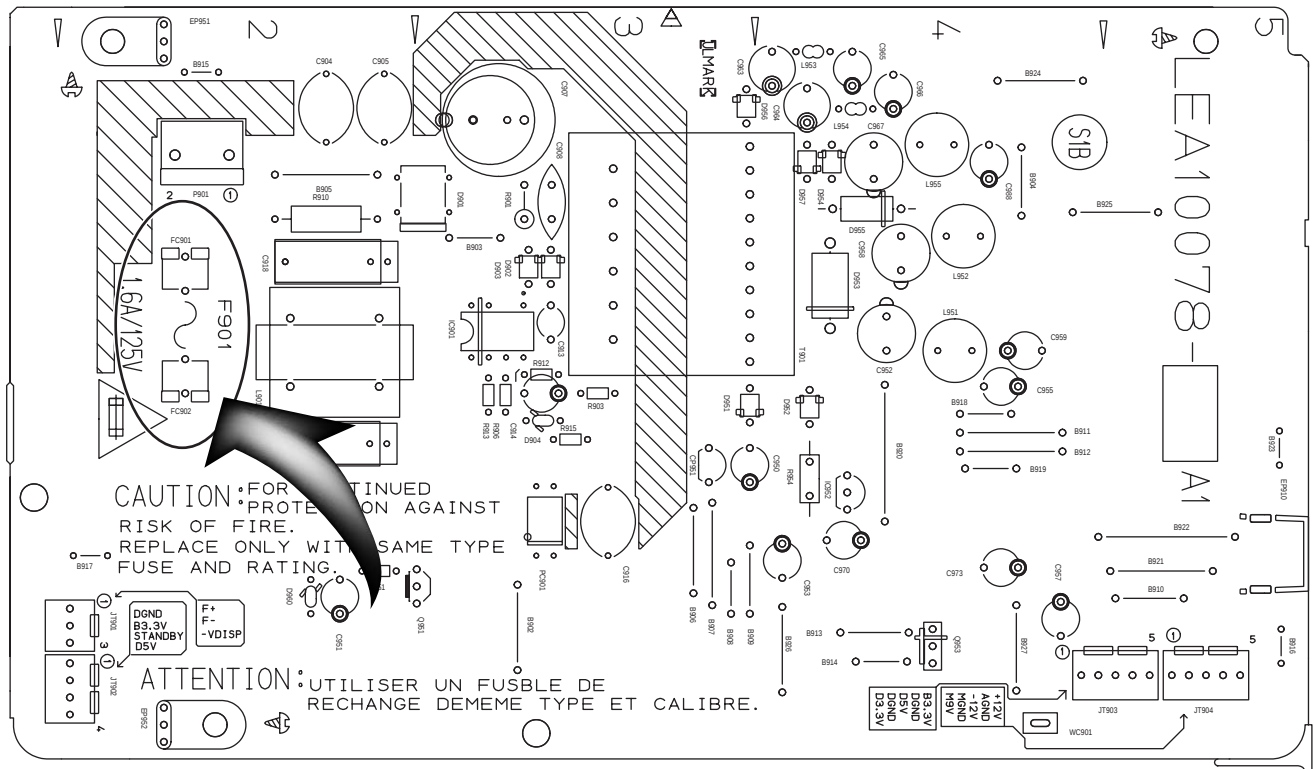
(3) Handling the optical pickup

- 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.

1.6 Handling the traverse unit (optical pickup)

- (1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
- (2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
- (3) Handle the flexible cable carefully as it may break when subjected to strong force.
- (4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

1.7 Importance admistering point on the safety



Full Fuse Replacement Marking

Graphic symbol mark
(This symbol means fast blow type fuse.)



should be read as follows ;

FUSE CAUTION

FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSES ;

F901 : 1.6 A / 125 V

Marquage Pour Le Remplacement Complet De Fusible

Le symbole graphique (Ce symbole signifie fusible de type à fusion rapide.)



doit être interprété comme suit ;

PRECAUTIONS SUR LES FUSIBLES

POUR UNE PROTECTION CONTINUE CONTRE DES RISQUES D'INCENDIE, REMPLACER SEULEMENT PAR UN FUSIBLE DU MEME TYPE ;

F901 : 1.6 A / 125 V

1.8 Precautions for Service

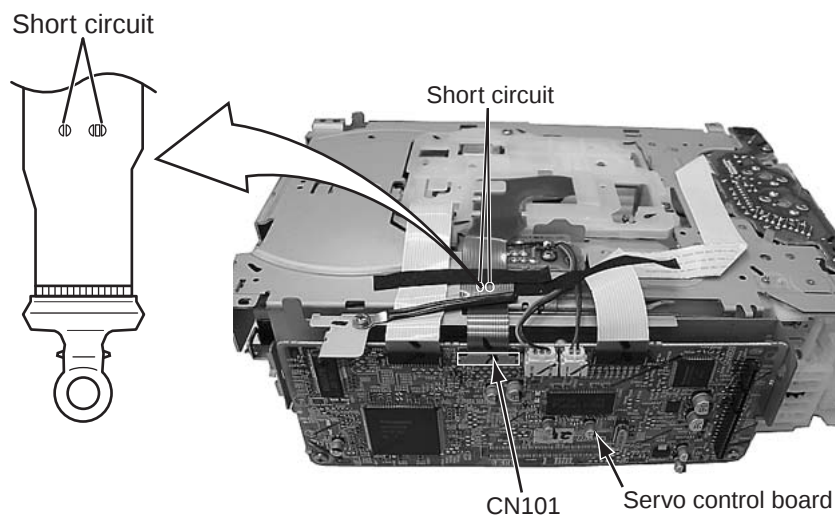
1.8.1 Handling of Traverse Unit and Laser Pickup

- (1) Do not touch any peripheral element of the pickup or the actuator.
- (2) The traverse unit and the pickup are precision devices and therefore must not be subjected to strong shock.
- (3) Do not use a tester to examine the laser diode. (The diode can easily be destroyed by the internal power supply of the tester.)
- (4) To replace the traverse unit, pull out the metal short pin for protection from charging.
- (5) When replacing the pickup, after mounting a new pickup, remove the solder on the short land which is provided at the center of the flexible wire to open the circuit.
- (6) Half-fixed resistors for laser power adjustment are adjusted in pairs at shipment to match the characteristics of the optical block.
Do not change the setting of these half-fixed resistors for laser power adjustment.

1.8.2 Destruction of Traverse Unit and Laser Pickup by Static Electricity

Laser diodes are easily destroyed by static electricity charged on clothing or the human body. Before repairing peripheral elements of the traverse unit or pickup, be sure to take the following electrostatic protection:

- (1) Wear an antistatic wrist wrap.
- (2) With a conductive sheet or a steel plate on the workbench on which the traverse unit or the pick up is to be repaired, ground the sheet or the plate.
- (3) After removing the flexible wire from the connector (CN101), short-circuit the flexible wire by the metal clip.
- (4) Short-circuit the laser diode by soldering the land which is provided at the center of the flexible wire for the pickup.
After completing the repair, remove the solder to open the circuit.



*Please refer to the disassembly method for details.

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 top cover (See Figure 1)

- (1) Remove the four screws **A** attaching the top cover on both sides of the main body.
- (2) Remove the two screws **B** attaching the top cover on the back of the main body.
- (3) Raise the both sides and lower part of the rear of the top cover, with opening them slightly in an outward direction. And the top cover will be removed.



Fig.1

3.1.2 Removing the front panel assembly (See Figure 2, Figure 3, Figure 4)

- Prior to performing the following procedure, remove the top cover.
- There is no need to remove the mechanism assembly.
 - (1) Disconnect the flat wire from connector JT901, JT902 on the power supply board.
 - (2) Disconnect the card wire from connector CN501, CN702 on the servo control board and signal output terminal board respectively.
 - (3) Remove the three screws **C** attaching the front panel assembly on the bottom of the main body.
 - (4) Hook **a** and **b** are removed respectively, and the front panel assembly is removed.

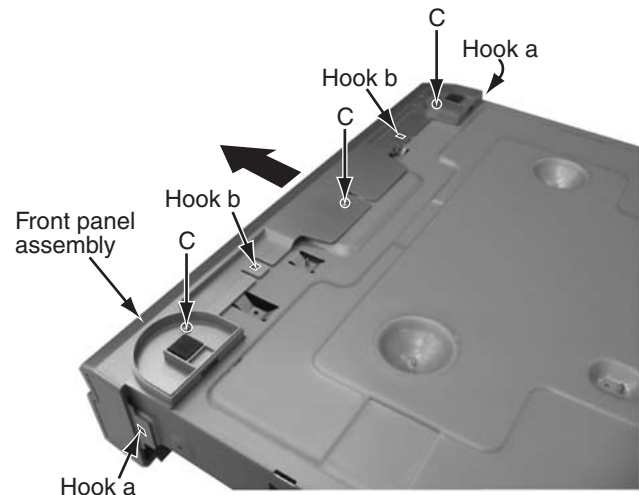


Fig.3

3.1.3 Removing the changer mechanism assembly (See Figure 2, Figure 4)

- Prior to performing the following procedure, remove the top cover.
- There is no need to remove the front panel assembly.
 - (1) Disconnect the card wire from connector CN501, CN502, CN503 on the servo control board.
 - (2) Remove the four screws **D** attaching the changer mechanism assembly.

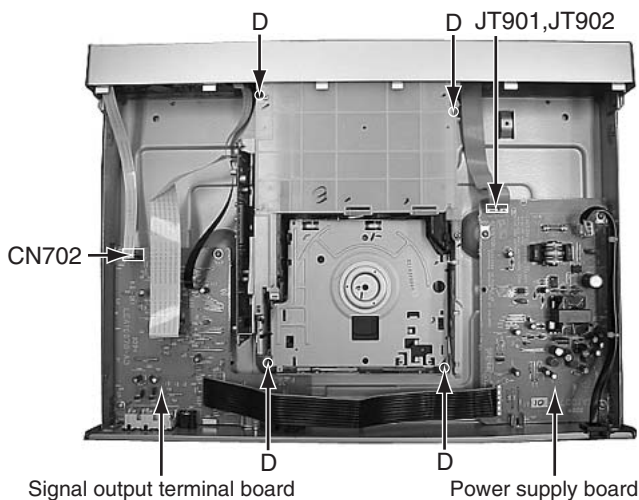


Fig.2

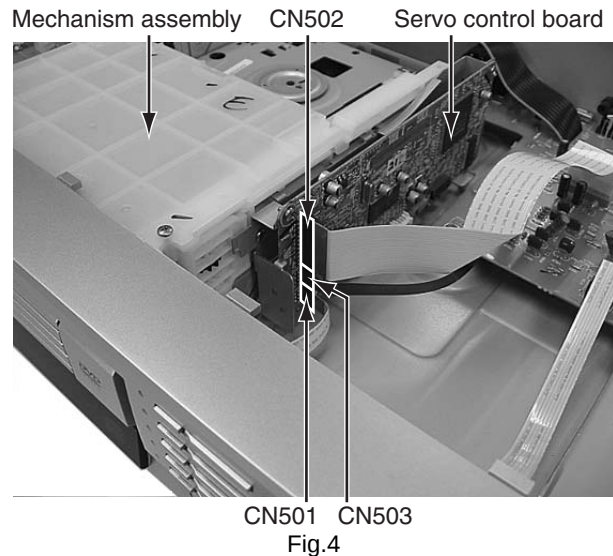


Fig.4

3.1.4 Removing the servo control board (See Figure 5)

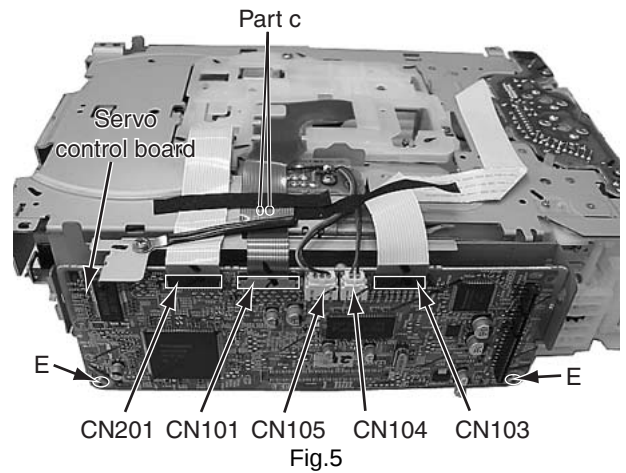
- Prior to performing the following procedure, remove the changer mechanism assembly.

- (1) Disconnect the card wire from connector CN101, CN103, CN104, CN105, CN201 on the servo control board.

ATTENTION :

At this time, please extract the wire after short-circuited of two places on the wire in part **c** with solder. Please remove the solder two places of part **c** after connecting the wire CN101 when reassembling.

- (2) Remove the two screws **E** attaching the servo control board.



3.1.5 Removing the power supply board (See Figure 6, Figure 7)

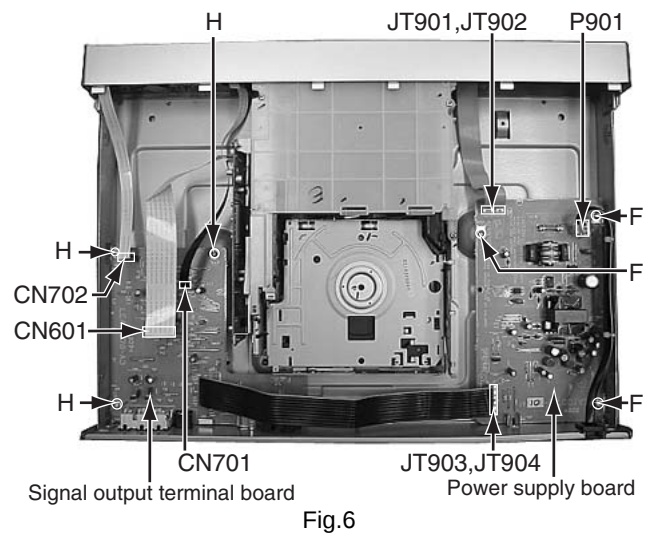
- Prior to performing the following procedure, remove the top cover.

- (1) Disconnect the flat wire from connector JT901, JT902, JT903, JT904 on the power supply board.
- (2) Disconnect the socket wire from connector P901 on the power supply board.
- (3) Remove the three screws **F** attaching the power supply board.
- (4) Remove the one screw **G** attaching the power supply board on the back of the main body.

3.1.6 Removing the signal output terminal board (See Figure 6, Figure 7)

- Prior to performing the following procedure, remove the top cover.

- (1) Disconnect the card wire from connector CN601, CN701, CN702 on the signal output terminal board.
- (2) Disconnect the flat wire from connector JT903, JT904 on the power supply board.
- (3) Remove the three screws **H** attaching the signal output terminal board.
- (4) Remove the six screws **I** attaching the signal output terminal board on the back of the main body.



3.2 Changer mechanism Section

3.2.1 Removing the tray assembly

(See Figs.1 to 5)

- (1) Remove the two screws **A** from the top cover and release the two joints **a** on both sides of the body.
- (2) Remove the top cover with the two rods attached to the top cover and lifter assembly respectively.
- (3) Remove the open det lever on the left side of the body.
- (4) Push part **b** of the slide (R) assembly on the right side of the body to unlock the tray assembly. Draw out the trays toward the front.

Attention:

The tray can be locked if all tray assemblies are attached.

- (5) From top of the body, move the stopper tab **c** in the direction of the arrow and release. Pull out the tray assemblies from the body.

Caution:

Remove the tray assembly from top tray 5 in order.

Attention:

When reattaching the sub tray of the tray assembly, or when removing the DISC remaining inside, refer to another section.

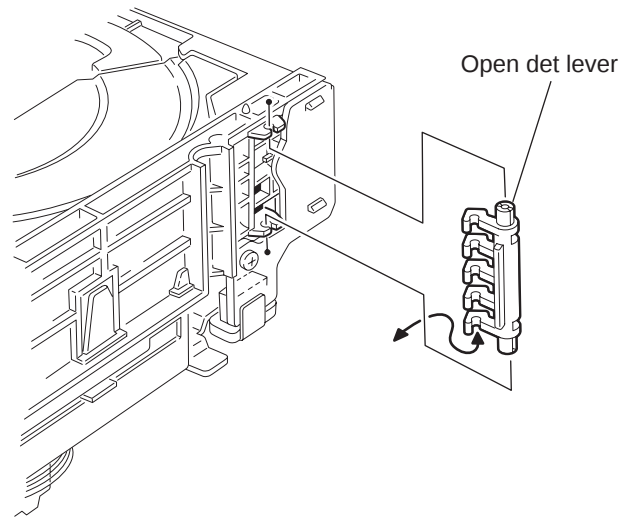


Fig.3

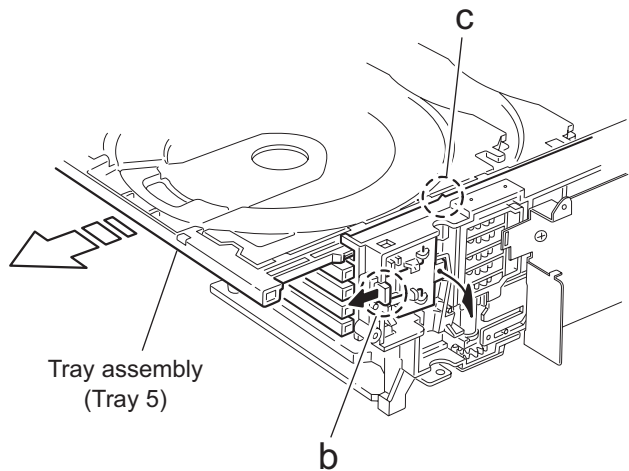


Fig.4

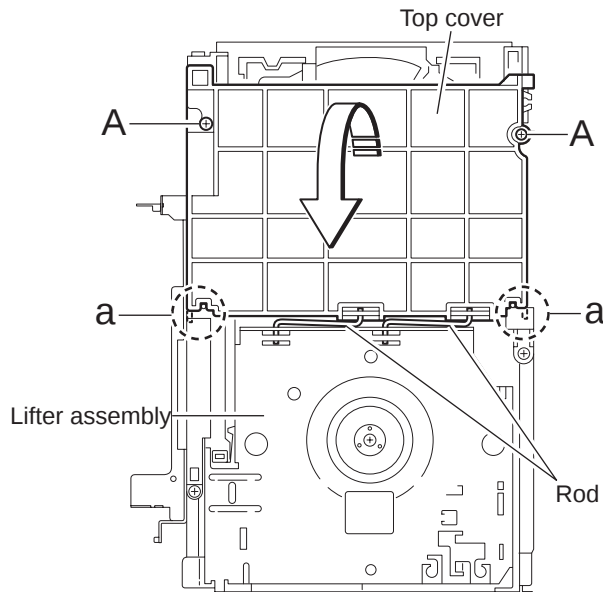


Fig.1

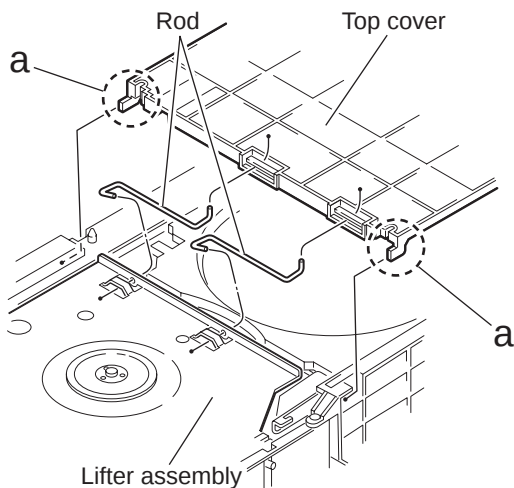


Fig.2

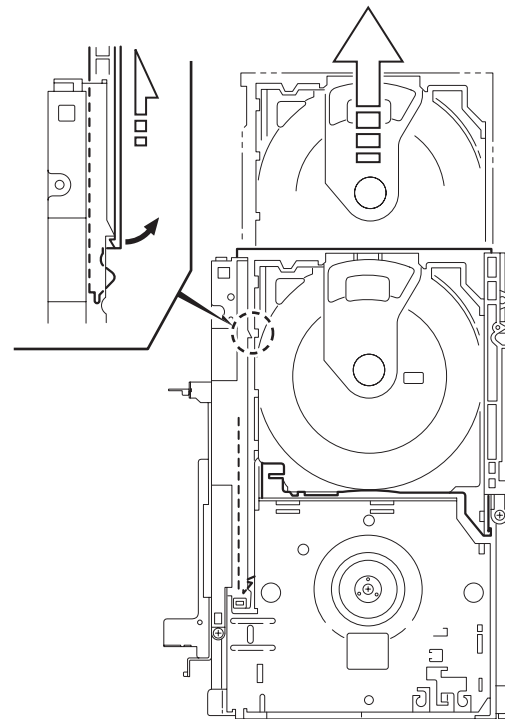


Fig.5

3.2.2 Removing the motor board (See Fig.6)

- (1) Unsolder the four soldered parts on the motor of the motor board.

Caution:

If removing the motor board with the motor, you should remove the screws attaching the motor from top of the body(Refer to another section).

- (2) Remove the two screws **B** attaching the motor board.
- (3) Remove the spacer fixing the motor board and tray switch board, and disconnect connector CN2 on the motor board.
- (4) Disconnect the card wire from connector CN1 on the motor board.

Caution:

When reconnecting the card wire, let the card wire through the slot **d** of the motor board and attach it to the bottom of the body using a double tape.

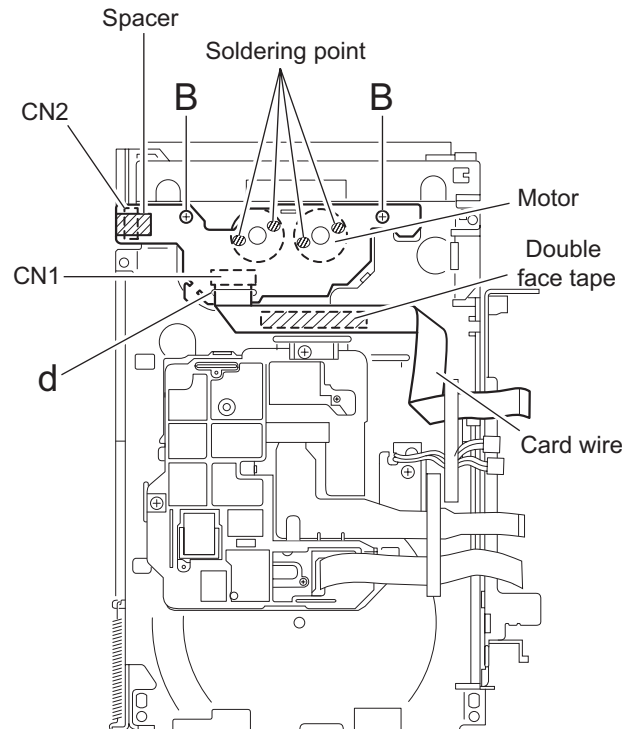
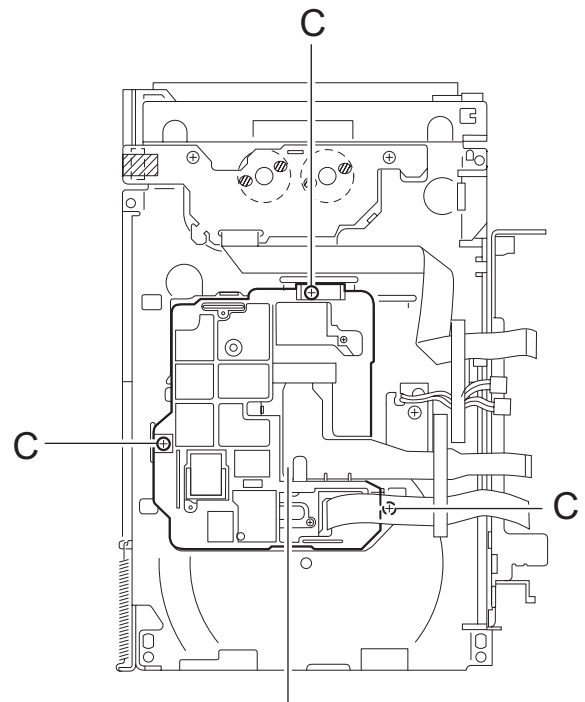


Fig.6

3.2.3 Removing the traverse mechanism assembly (See Fig.7)

- Prior to performing the following procedure, remove the servo control board.

- (1) Turn over the body and remove the three screws **C** attaching the tramecha.



Traverse mechanism assembly

Fig.7

3.2.4 Removing the pickup (See Fig.8-1, 8-2)

- Prior to performing the following procedure, remove the servo control board and traverse mechanism assembly.
 - (1) Remove one screw **D** attaching the bracket. Then the bracket is also removed.
 - (2) Slide **e** part of the worm shaft slightly in a direction of the arrow, and pull out the worm shaft while lifting the worm shaft in a direction of the arrow.
 - The guide collar is also removed.
 - Be sure to solder the short round point **f** on the pickup before removing the flexible wire from the pickup. In assembling procedure, connect the flexible wire to the connector, and then be sure to unsolder the short round point.
 - Insert the guide collar in the worm shaft before attaching the pickup.
 - (3) Remove the two screws **E** attaching the rack plate, and remove the rack plate.
 - (4) Pull out the worm shaft from the pickup.

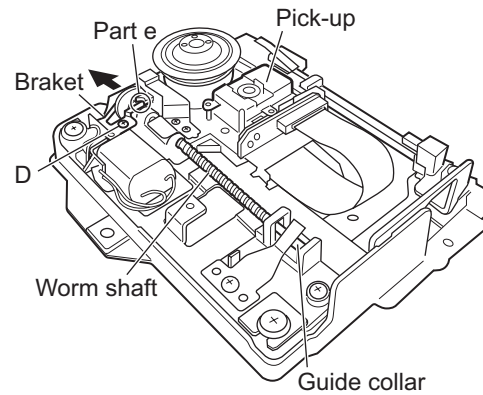


Fig.8-1

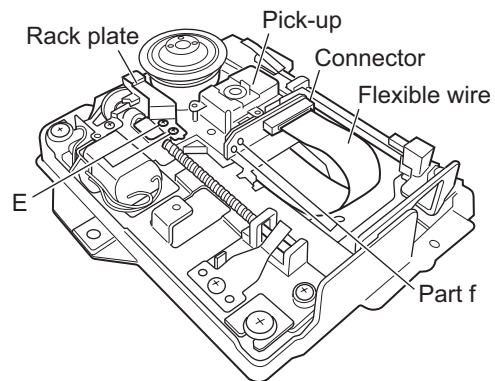


Fig.8-2

3.2.5 Removing the side (L)/ tray switch board (See Figs.9 to 11)

- Prior to performing the following procedure, remove the tray assembly.
 - (1) Remove the two screws **F** attaching the side (L) on top of the body.
 - (2) From the side of the body, remove the spacer fixing the tray switch board and motor board. Disconnect connector CN3 on the tray switch board and detach the side (L) upward.
 - (3) Remove the screw **G** attaching the tray switch board.
 - (4) Push the joint tab **g** of the side (L) in the direction of the arrow and remove the tray switch board outward, then release joint **h**.

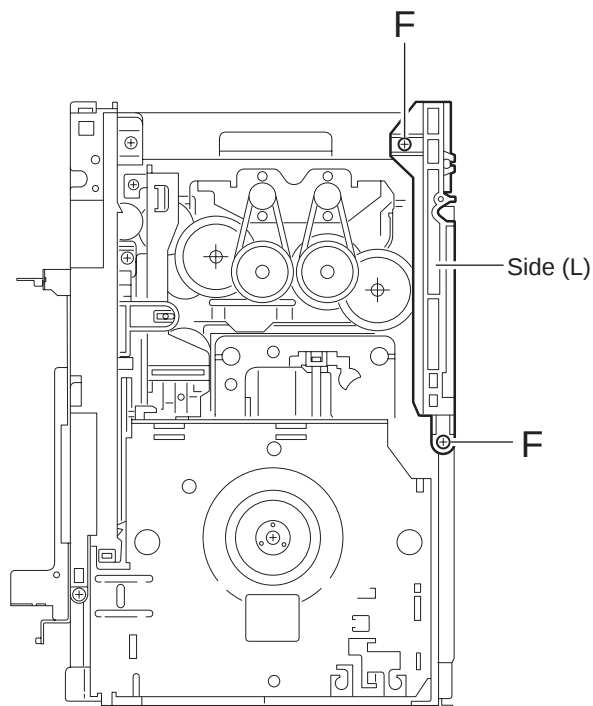


Fig.9

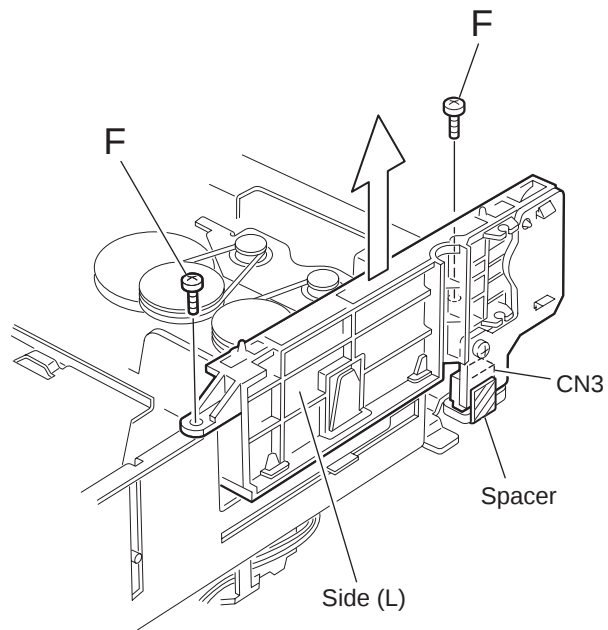
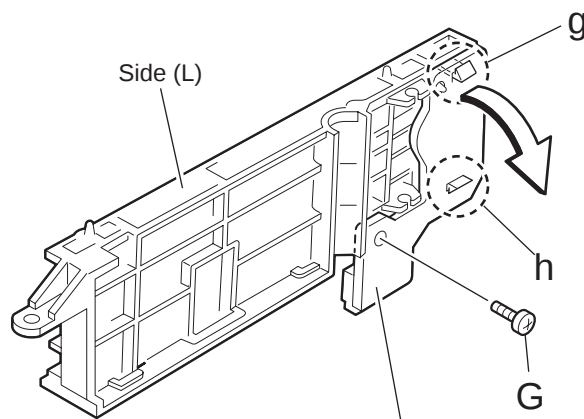


Fig.10



Tray switch board
Fig.11

3.2.6 Removing the side (R) assembly (See Figs.12 to 17)

- Prior to performing the following procedure, remove the tray assembly.
- (1) Bend **i** part of the bracket in a direction of the arrow by using pliers.
- (2) Remove the one screw **H** attaching the bracket.
- (3) Push and release the two tabs **j** of the gear cover through the two notches inside the side (R) assembly. Remove the gear cover outward.
- (4) Remove the spring attached to part **k** of the hook on the right side of the body.
- (5) From top of the body, turn the gear 1 clockwise to move the elevator cam rearward. Move the two slots **l** and joint **m** of the elevator cam as shown in Fig.16 and remove the elevator cam outward.
- (6) Remove the three screws **l** and detach the side (R) upward.

Caution:

When reattaching the side (R) assembly, make sure to fit the shaft(part **n**) into the slot of the select lever.

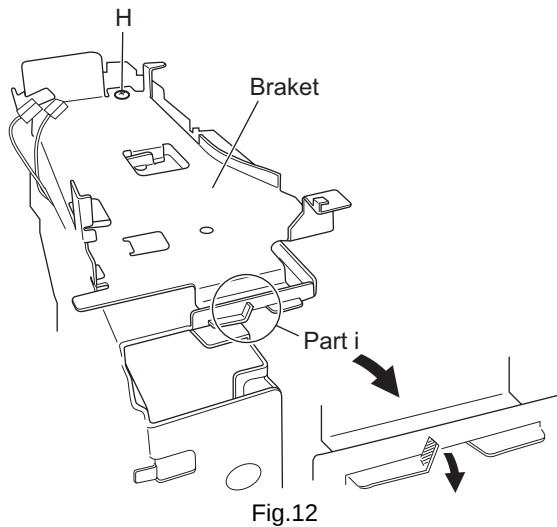


Fig.12

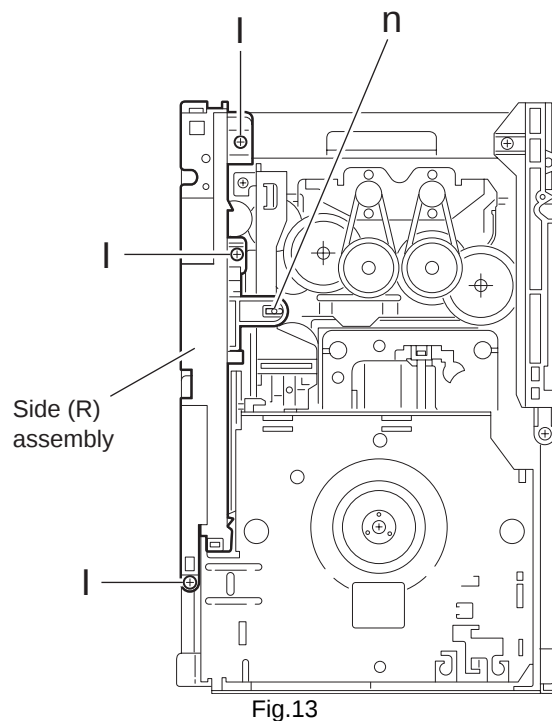


Fig.13

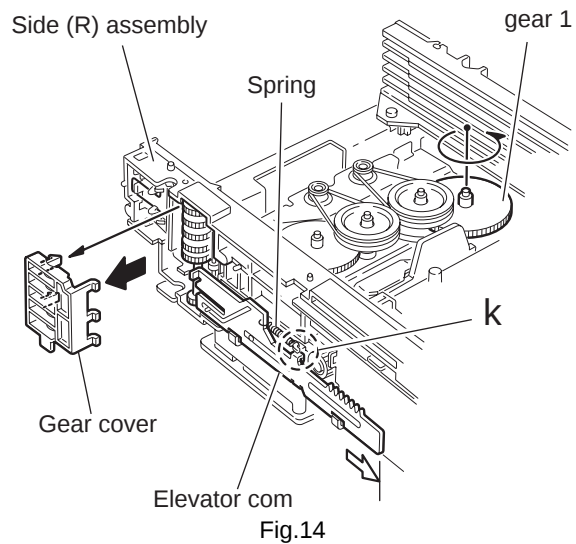


Fig.14

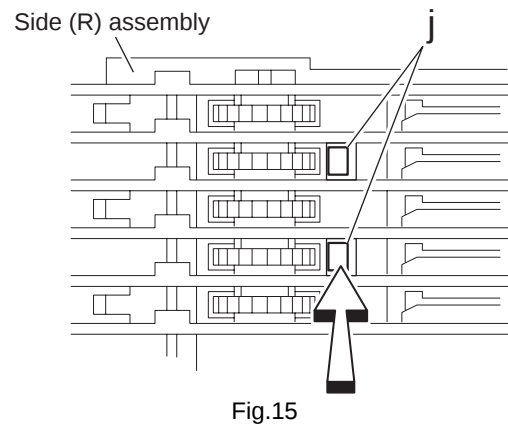


Fig.15

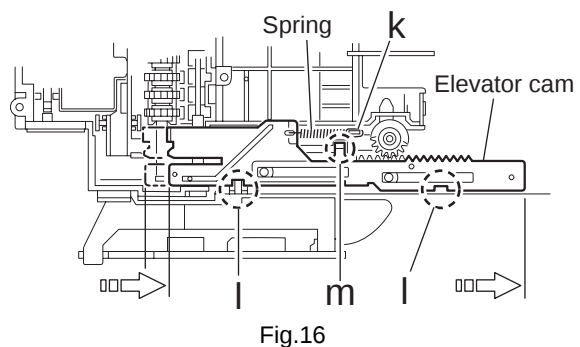


Fig.16

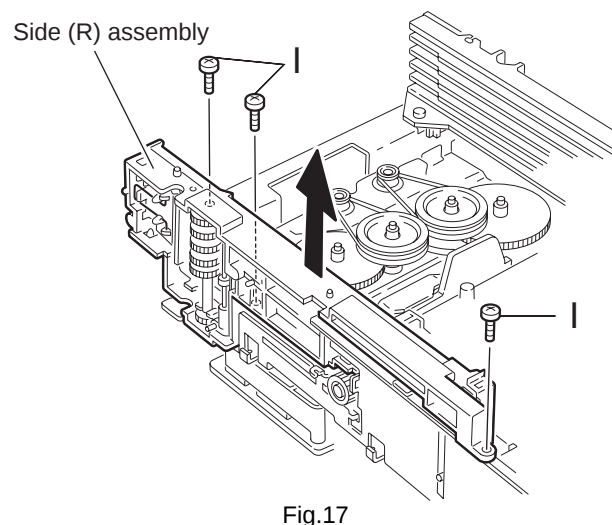
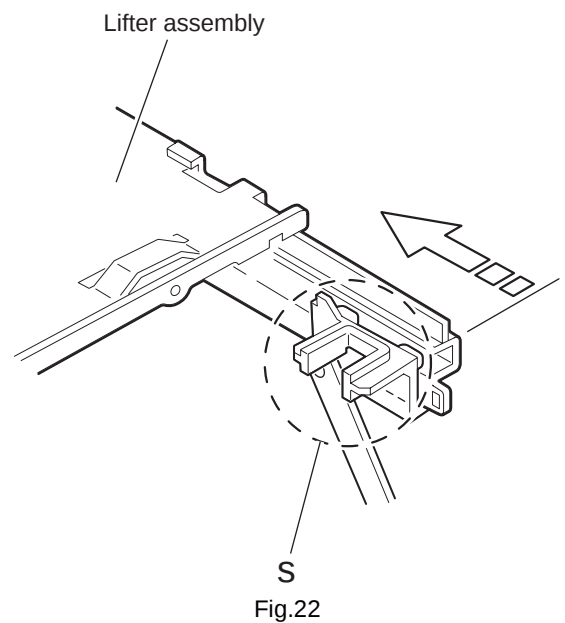
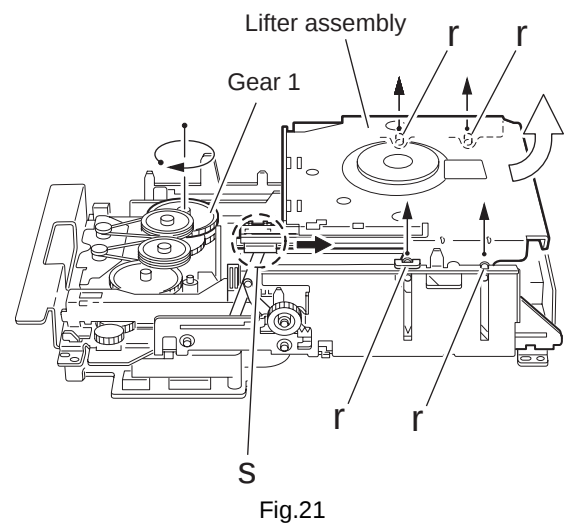
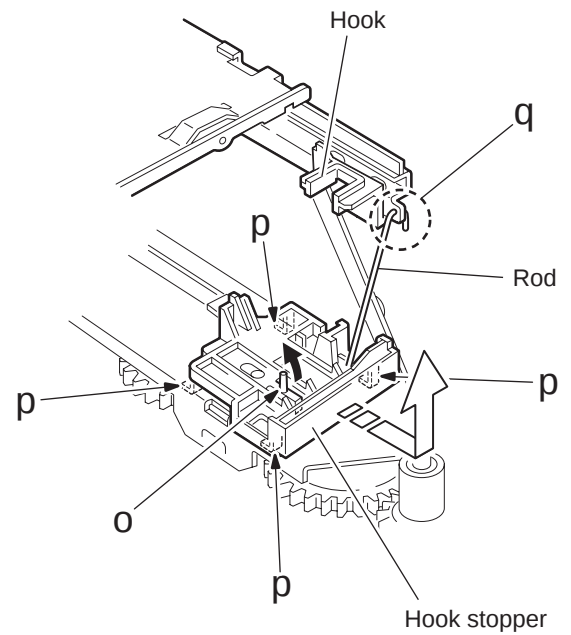
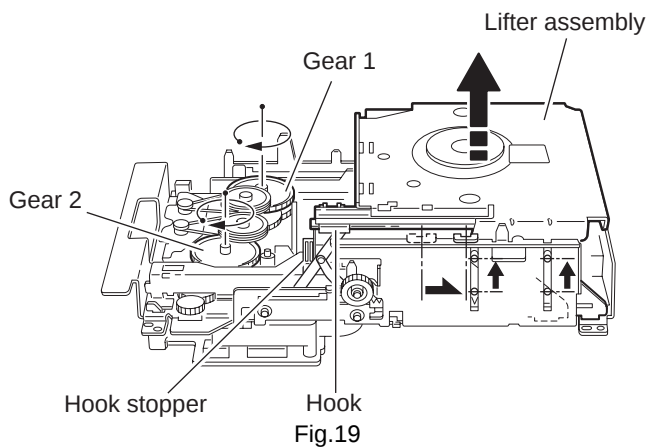
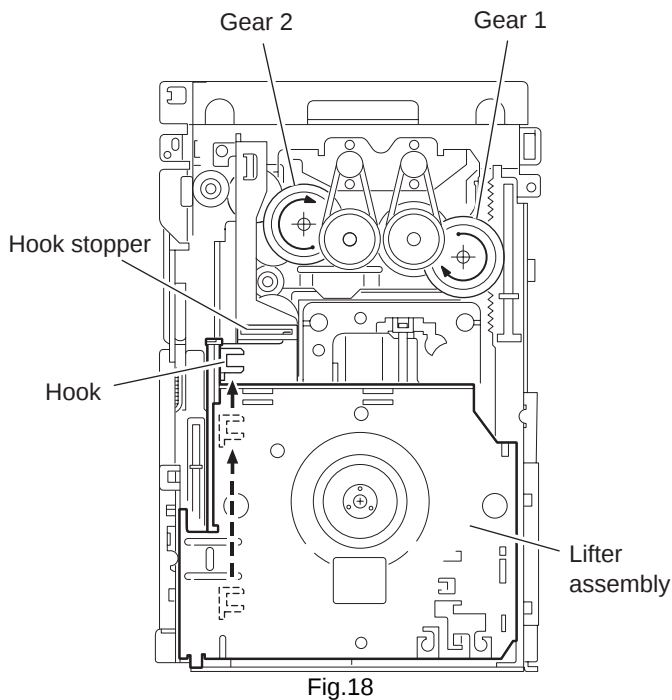


Fig.17

3.2.7 Removing the lifter assembly (See Figs.18 to 22)

- Prior to performing the following procedure, remove the tray assembly and side (L)/ side (R) assembly.
- (1) From top of the body, turn the gear 1 clockwise to move the lifter assembly upward as shown in Fig.19.
- (2) From top of the body, turn the gear 2 clockwise to move the hook toward the front until it stops.
- (3) Move the hook stopper in the direction of the arrow while pushing the tab **o** of the hook stopper to unlock it. Release four joints **p** to detach from the rack holder. Release the rod from part **q**.
- (4) Turn the gear 1 clockwise again to move the lifter assembly upward.
- (5) Remove the lifter assembly from the body upward at position **r** where the four pins on the right and left sides of the lifter assembly fit to the notches of the **s**. Move the lifter assembly toward the front and release from the hook.



3.2.8 Removing the rack holder assembly/ sensor assembly (See Figs.23 to 28)

- Prior to performing the following procedure, remove the tray assembly, side (L)/ side (R) assembly, lifter assembly.

Attention:

If the slide gear of the body places at joint **t** of the rack holder assembly, turn the gear 1 counterclockwise to move the slide gear toward the front. Remove the rack holder assembly.

- (1) Remove the three screws **J** attaching the rack holder assembly. Release joint **t** from the notch.

Caution:

When reattaching the rack holder assembly, do not nip the wire **u** extending from the sensor assembly.

- (2) Remove the two screws **K** attaching the sensor assembly.
- (3) Move the sensor assembly in the direction of the arrow to release from the slot at joint **v**.
- (4) Remove the spring attached to the bottom of the sensor assembly from the boss **w** on the sensor slider.
- (5) Remove the screw **L** and **M** attaching the sensor board and SV resister respectively. If necessary, unsolder the sensor board.

Caution:

When reattaching the SV resister, attach the sensor slider to the sensor bracket and fit the lever on the bottom of the SV resister into slot **x** of the sensor slider.

Caution:

When reattaching the rack holder assembly, turn the gear 1 clockwise to move the slide gear and slide lever inside the body rearward.

- Let the wire extending from the sensor assembly through notch **u** to the bottom of the body.
- Fit pin **y** of the slide lever into hole **z** of the sensor slider on the bottom of the sensor assembly while attaching the spring to the boss **w** of the sensor slider.
- Engage joint **v** of the sensor assembly to the notch of the body.

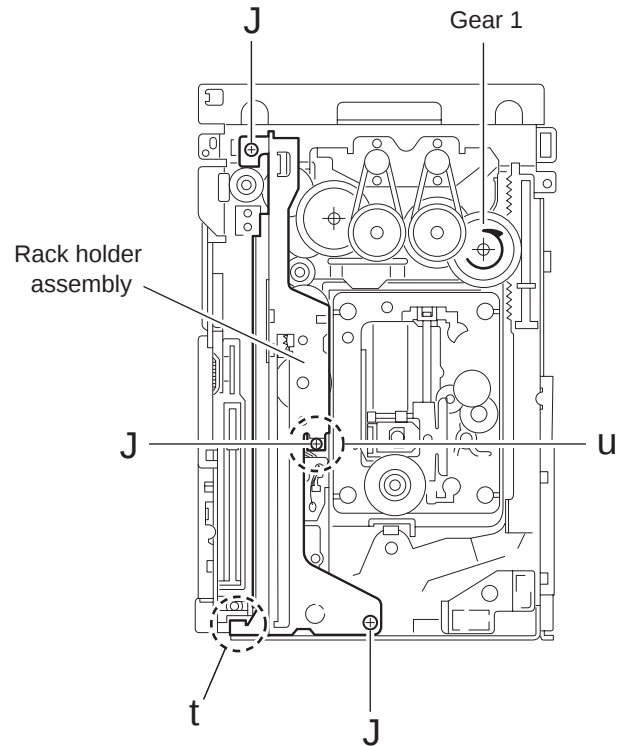


Fig.23

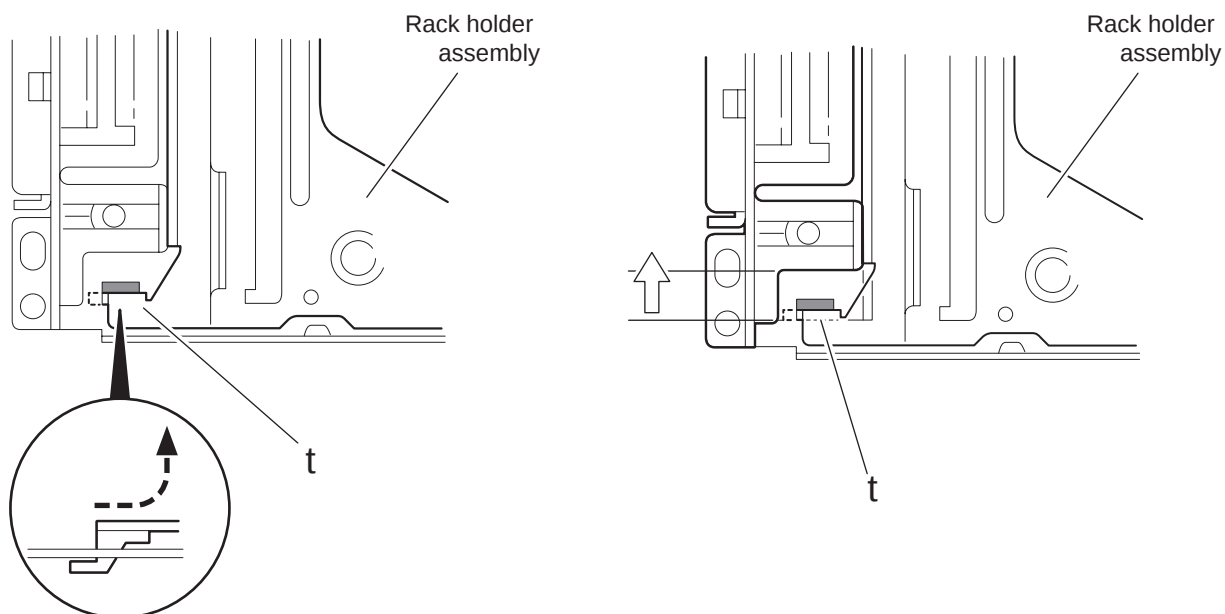


Fig.24

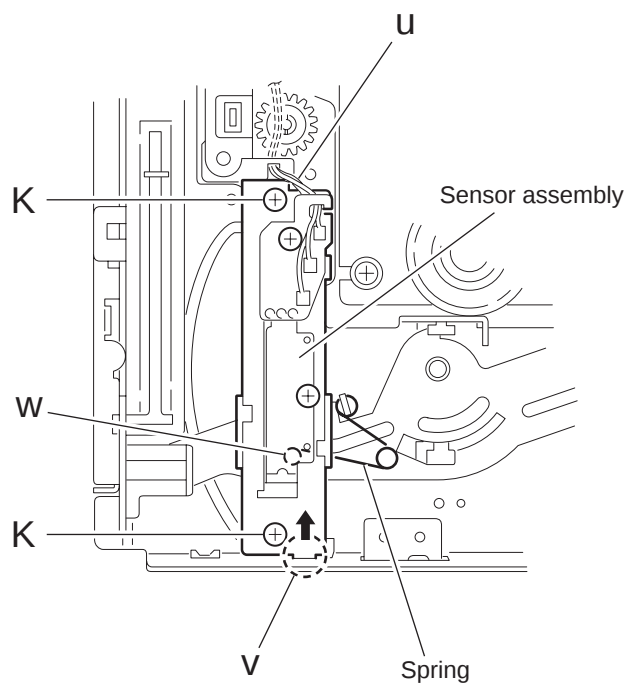


Fig.25

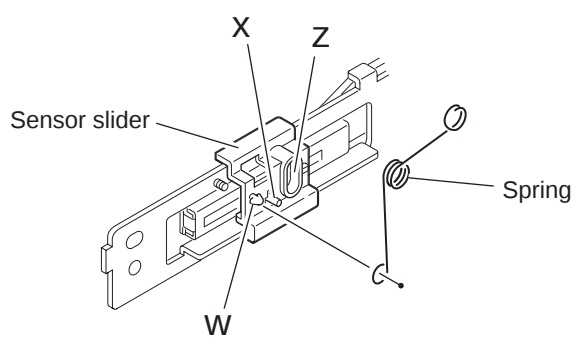


Fig.26

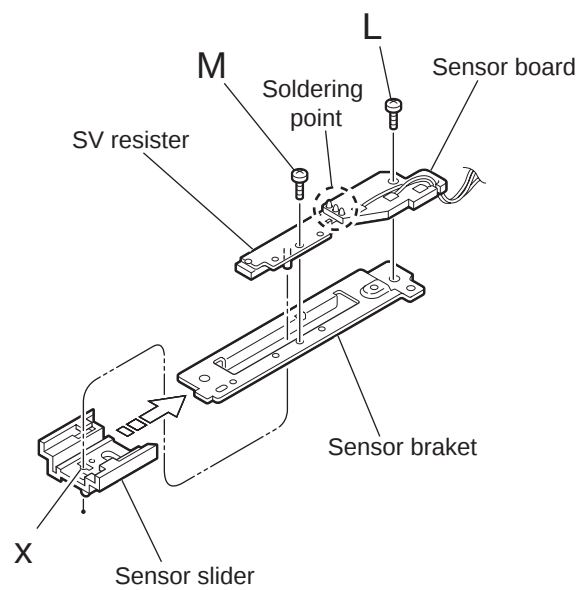


Fig.27

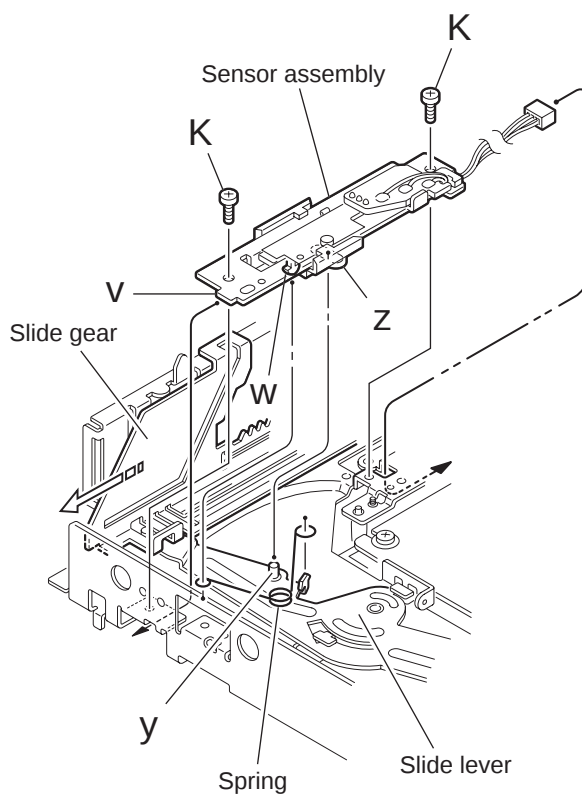


Fig.28

3.2.9 Removing the motor (See Fig.29, 30)

- Prior to performing the following procedure, remove the servo control board and top cover.

Attention:

You need not to remove the tray assembly, and in such case, move it.

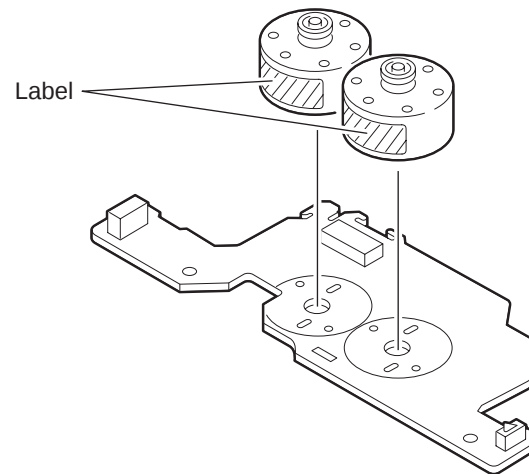
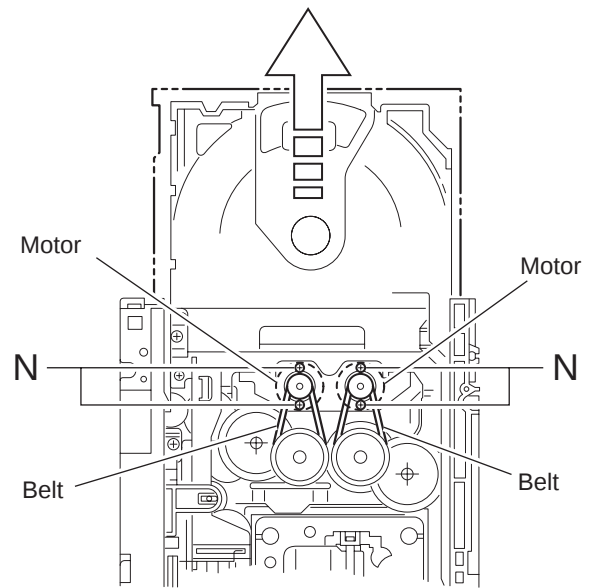
- (1) Remove the two belts on top of the body.
- (2) Remove the four screws **N** attaching the motor.
- (3) Remove the motor board from the bottom of the body.
(Refer to the section "Removing the motor board".)

Attention:

When removing the motor board with the motor, you need not to unsolder four soldered parts.

Caution:

When reattaching the motor, turn the side where the label should be put to the front side.



3.2.10 Taking out the DISC in play mode

(See Figs.31 to 34)

- Prior to performing the following procedure, remove the top cover.
 - You can perform the procedure above even if you don't remove the changer mechanism assembly from the chassis of the unit.
- (1) Remove the three screws attaching the front panel assembly, and move the front panel assembly in the front direction slightly.
 - (2) Remove the top cover upward.
 - (3) Unlock the tray assembly and draw out the tray assembly toward the front.
 - (4) From top of the body, turn the gear 1 clockwise to move the lifter assembly upward.
 - (5) From top of the body, turn the gear 2 clockwise to move the sub tray remaining inside the lifter assembly toward the front, then pull out.
 - (6) Take out the DISC on the sub tray.
 - (7) After clearing away the DISC, insert the sub tray into the main tray.

Caution:

When reattaching the sub tray, move the tray stopper on the bottom of the main tray in the direction of the arrow to lock the sub tray certainly.

- (8) Push the tray assembly toward the body and reattach.

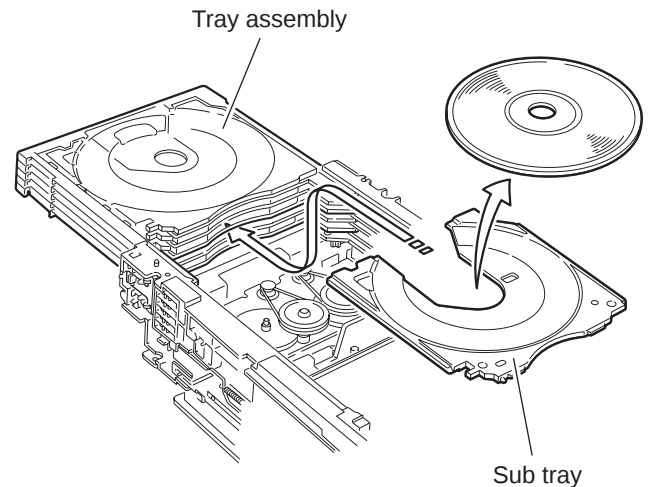


Fig.32

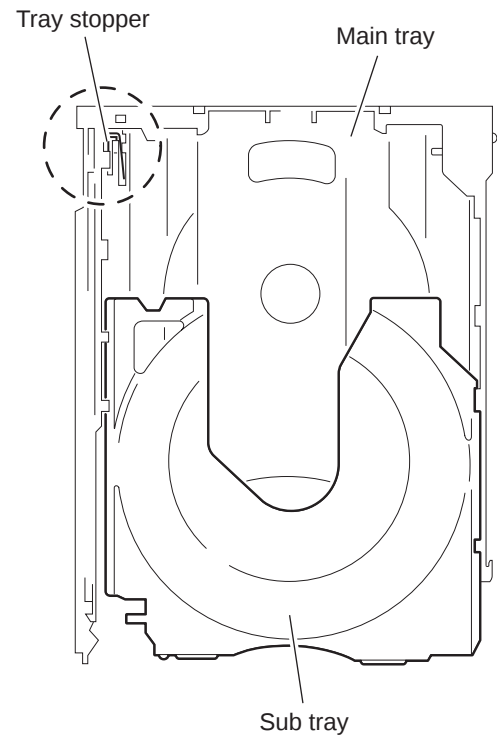


Fig.33

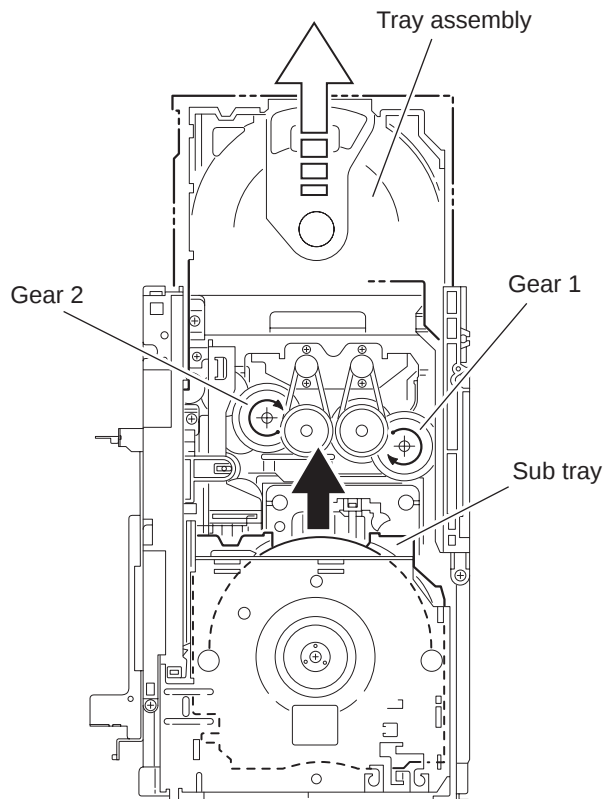


Fig.31

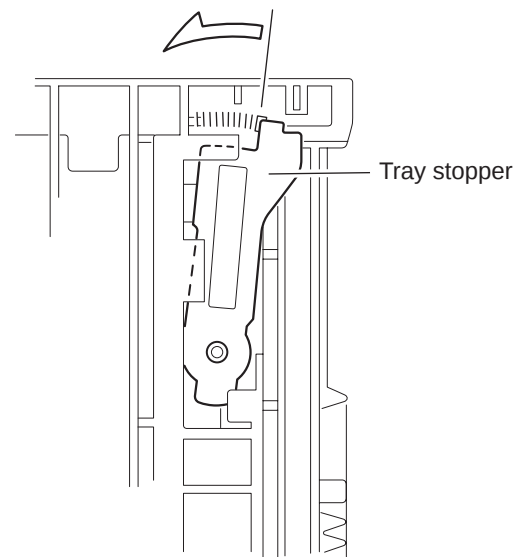


Fig.34

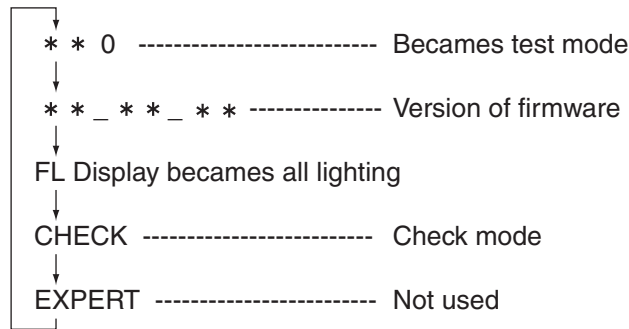
SECTION 4 ADJUSTMENT

4.1 Test mode setting method

- (1) Unplug the power plug.
- (2) Insert power plug into outlet while pressing both "PLAY" key and "STOP" key of the main body.
- (3) The FL display shows "*0", and the main body turns to test mode. "*" means the destination, and "0" means parameter adjustment status.
- (4) To release test mode, press "POWER" key of the main body.

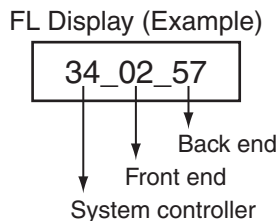
NOTE:

Each pressing of "CHOICE" key of the remote controller in test mode changes the mode as follows.



4.2 Method of displaying version of firmware

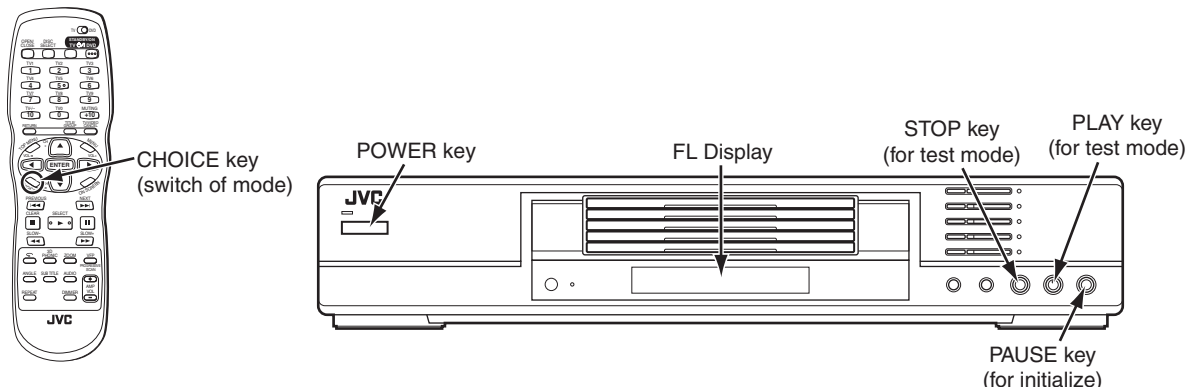
- (1) Set the main body at test mode.
- (2) Press "CHOICE" key of the remote controller once. Then, version number and alphabetical letter of the system controller and the back end are displayed in the FL display as follows:



4.3 Initialization method

Please initialize according to the following procedures in the following case:

- Just after you upgrade the firmware.
 - After you confirm the symptoms that a customer points out. First Initialize, and then confirm whether the symptoms are improved or not.
 - After servicing, before returning the main body to a customer. (Initialized main body should be returned to a customer.)
- (1) Set the main body at test mode.
 - (2) Press "PAUSE" key of the main body.
 - (3) When initialization is completed, the FL display changes from "*0" to "*00". (The left "0" of "00" is not always "0". It shows parameter adjustment status.)



4.4 All-initialization method

Please perform all-initialization according to the following procedures in the following case:

- Just after you exchange the pick-up.
- Just after you exchange the spindle motor.
- Just after you exchange the traverse mechanism base.

NOTE:

Please perform all-initialization when you exchange the parts above and also when you remove the parts above.

- Just after the flap adjustment of the pick-up guide shaft
 - (1) Set the main body at test mode.
 - (2) Press and hold "BACKWARD SKIP" key of the main body for more than 2 seconds.
 - (3) When all-initialization is completed, the FL display changes from "*0" to "*33".

NOTE:

After all-initialization, be sure to perform optimization adjustment of Front End parameter.

4.5 Optimization adjustment of Front End parameter

Adjustment to optimize Front End parameter must be performed in each mechanism assembly of this model for high-speed starting. Please perform optimization according to the following procedures just after all-initialization is completed and when FL display shows anything except "*0" (For example when FL display shows "*1", "*2", and "*3") at test mode.

- (1) Press "POWER" key of the main body to turn the main body on (not to set the main body at test mode).
- (2) Insert the test disc VT-501 or commercial dual-layer DVD software.
- (3) Remove the disc when the FL display changes from "READING" to disc information.
- (4) Perform the same procedures as in (2) and (3) above by using the test disc CTS-1000 or commercial CD-DA software.
- (5) Set the main body at test mode, and check that the FL display shows "*0".

NOTE:

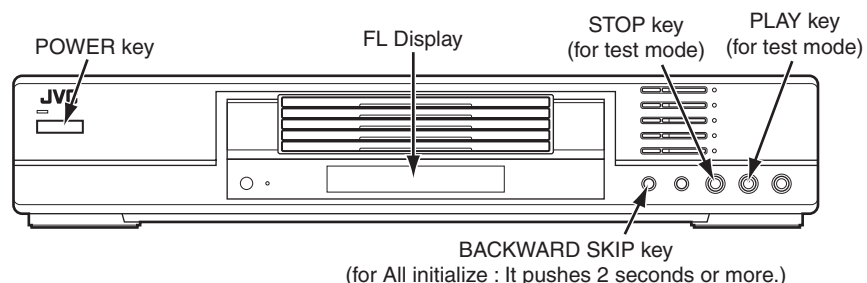
Status of this adjustment can be judged by the number displayed at test mode as follows:

DVD adjustment	CD adjustment	FL display at test mode
Adjusted	Adjusted	*0
Not adjusted	Adjusted	*1
Adjusted	Not adjusted	*2
Not adjusted	Not adjusted	*3

NOTE:

As for a disc used for adjustment,

- Disc should be mounted. ("Mounting" means to display "READING" after the disc is inserted and then display the disc information.) Disc need not be played.
- If you do not have test disc either VT-501 (DVD) or CTS-1000 (CD-DA), use a commercial disc (for DVD, dual-layer software) after seeing and checking that the disc is neither curved nor foreseen that it may shake at the time of playback. If you use a disc with bad features, starting time may be slow or disc may not be read.



4.6 Display of current value of laser

- (1) Set the main body at test mode.
- (2) Press "CHOICE" key of the remote controller three times. Then, FL display is displayed "CHECK".
- (3) The laser current value can be switched between the value of CD and that of DVD by pressing the following key of the remote controller.

FL Display (Example)

1419 0000

Remote controller "4" key --- Laser of CD

Remote controller "5" key --- Laser of DVD

The number shown in the FL display shows mA of current value of laser.

The first two numbers ("14" in "1419") shows current value of laser at the time of adjustment after the latest all-initialization, 14mA in this example.

The last two numbers ("19" in "1419") shows the present current value of laser, 19mA in this example.

The first two numbers ("14" in "1419") usually shows current value of laser at the time of shipment, so you can see how the product has been deteriorated by comparing the first two numbers ("14" in "1419") and the last two numbers ("19" in "1419").

CD and DVD:

The laser current value of 80 mA or less is normal. The laser current value of over 81 mA is not normal. Laser diode of the pickup has been deteriorated.

To return to test mode, press "STOP" key of the main body.

4.7 Flap adjustment of the pick-up guide shaft

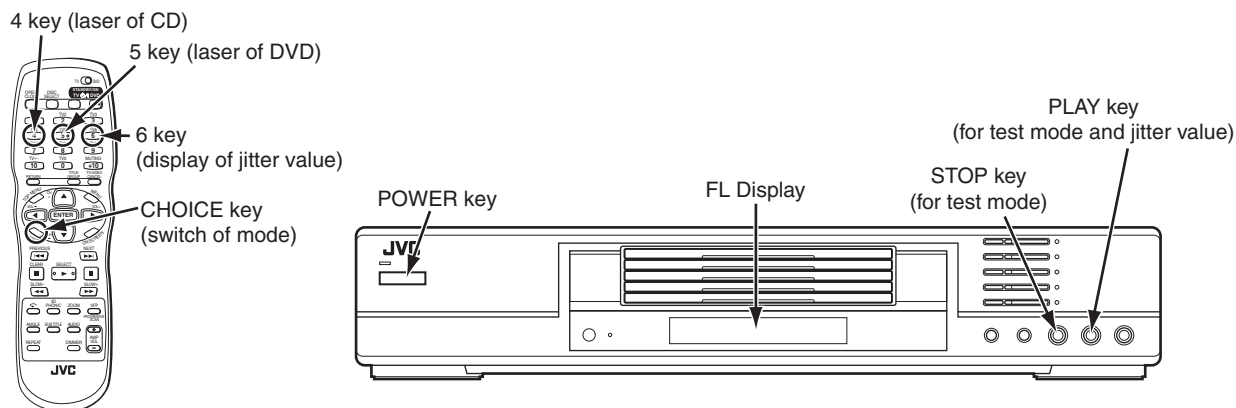
Please perform flap adjustment of the pick-up guide shaft in the following case:

- Just after you exchange the pick-up.
- Just after you exchange the spindle motor.
- Just after you exchange the traverse mechanism base.

NOTE:

Please perform flap adjustment of the pick-up guide shaft when you exchange the parts above and also when you remove the parts above.

- When the reading accuracy of the signal is bad (There is a block noise in the screen, Screen stops in the outer circumference of a disc, etc.)



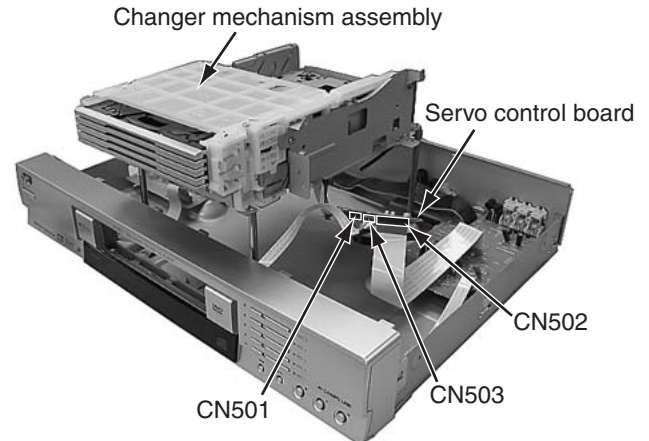
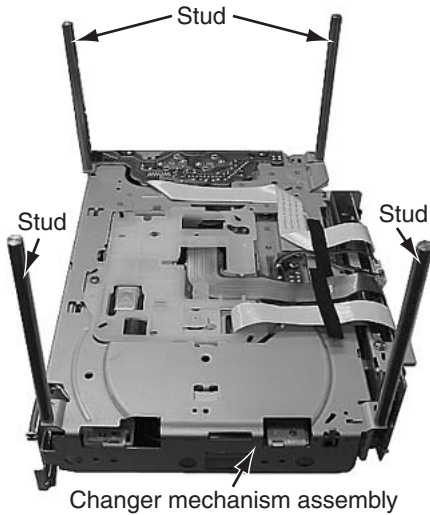
4.7.1 Tool for adjustment

*Stud: One set (four studs), Part number: JIGXVS40



4.7.2 Preparation for adjustment

- (1) See the disassembly procedure, and remove the changer mechanism assembly from the main body.
- (2) Remove the servo control board attached to the changer mechanism assembly.
(If you disconnect the wires connected to the servo control board, connect them again.)
- (3) Attach the four studs to the changer mechanism assembly.
- (4) Put the changer mechanism assembly in the center of the main body, and connect the card wire from the connector CN501, CN502, CN503 on the servo control board.

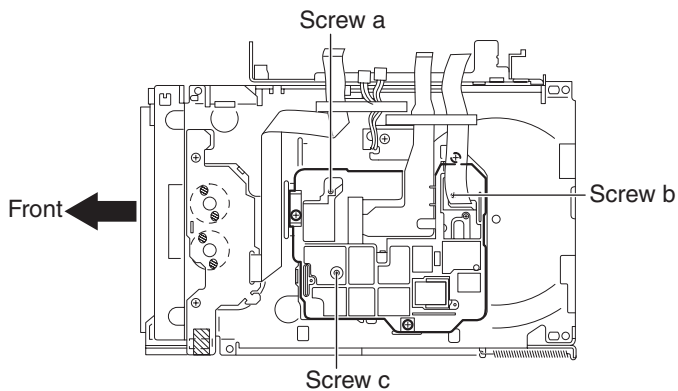


4.7.3 Adjustment

- (1) Set the unit to test mode.
- (2) Press the "CHOICE" key of the remote controller three times, and the FL display is displayed "CHECK".
- (3) A PLAY key is pushed after insert a test disc (VT-501), and press the numeric key "1" of the remote controller for automatic adjustment.
- (4) After a few seconds, press the numeric key "6" of the remote controller. Then, the FL display displays a jitter value.
- (5) Turn the adjustment screws on the underside of the traverse mechanism with phillips screw driver until the **maximum** jitter value is displayed on the FL display. (In this model, a bigger jitter value means a better result.)

NOTE:

Reference values to judge whether the jitter is allowable or not are displayed, instead of actual jitter values.



POINT:

Turn the adjustment screws **a** and **b** to the same angle in the right direction. And turn the adjustment screws **a** and **b** to the same angle in the left direction. Then, turn the screws **a** and **b** in either the right or the left direction to increase the number of jitter. Don't turn the adjustment screw **c**.

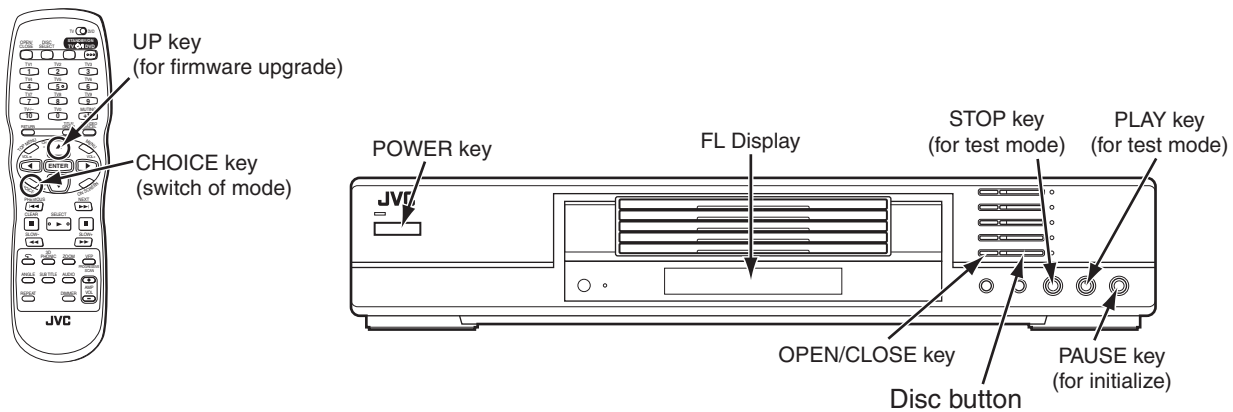
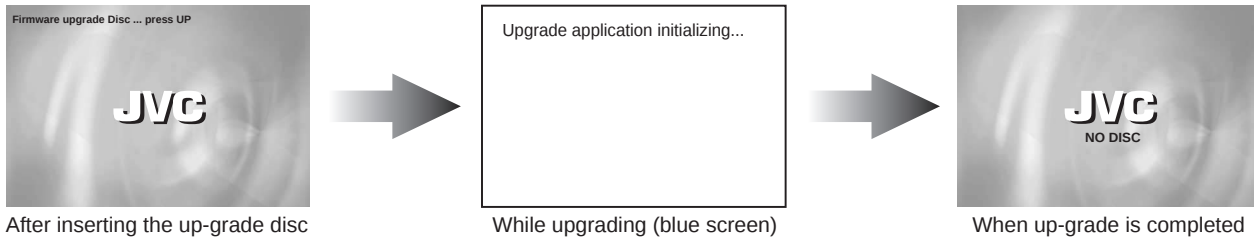
FL Display (Example)



4.8 Upgrading of firmware

The latest firmware for upgrading is updated in "Optical disc CSG" page in JS-net. At the time of service, compare the version of the product and the latest version, and upgrade the old version into the latest version.

- (1) Press "POWER" key of the main body to turn the main body on
- (2) A disc button is pushed after inserting an upgrade disc in a tray 1.
- (3) When FL display of the main body changes from "READING" to "UPGRADE", press "cursor UP" key (▲) of the remote controller.
- (4) The entire screen becomes blue, and upgrading starts.
- (5) The tray opens automatically. Remove the upgrade disc.
- (6) The screen returns to the normal screen. Then, press "POWER" key of the main body. When the stand-by indicator is lighted, upgrading is completed.
- (7) Set the main body at test mode, and perform initialization. Then, confirm the version of the firmware.



4.9 Confirm method of operation

Please confirm the operation of the undermentioned item after doing the repair and the upgrade of the firmware.

Initialize	Refer to the initialization method.
All-initialize	Refer to the All-initialization method.
Parameter adjustment status	Set the main body at test mode, and check that the FL display shows "*0".
Opening picture check (Power ON)	It should be display "JVC"
Muting working	The noise must not be had to the performance beginning when you push "PLAY" button or at ON/STANDBY.
FL Display	The mark and the logo, etc. displayed by each operation must be displayed correctly. FL Display should light correctly without any unevenness.
All Function button	All function buttons should worked correctly with moderate click feeling.
Open and close movement of tray	When press OPEN/CLOSE button the tray should move smoothly without any noise.
Remote controller unit working	Check the correctly operation in use of remote controller unit.
Reading of TOC	Be not long in the malfunction.
Search	Both forward-searches and backward-searches should be able to be done. Do not stop be searching or after the search.
Skip	Both forward-skip and backward-skip should be able to be done. Do not stop be after the skip.
Playback	Do not find abnormality etc. of tone quality and the picture quality.
Most outside TITLE playback check	Play VT-501 TITLE 59 CHAPTER 1, check normal playback.

SECTION 5 TROUBLE SHOOTING

5.1 Servo volume

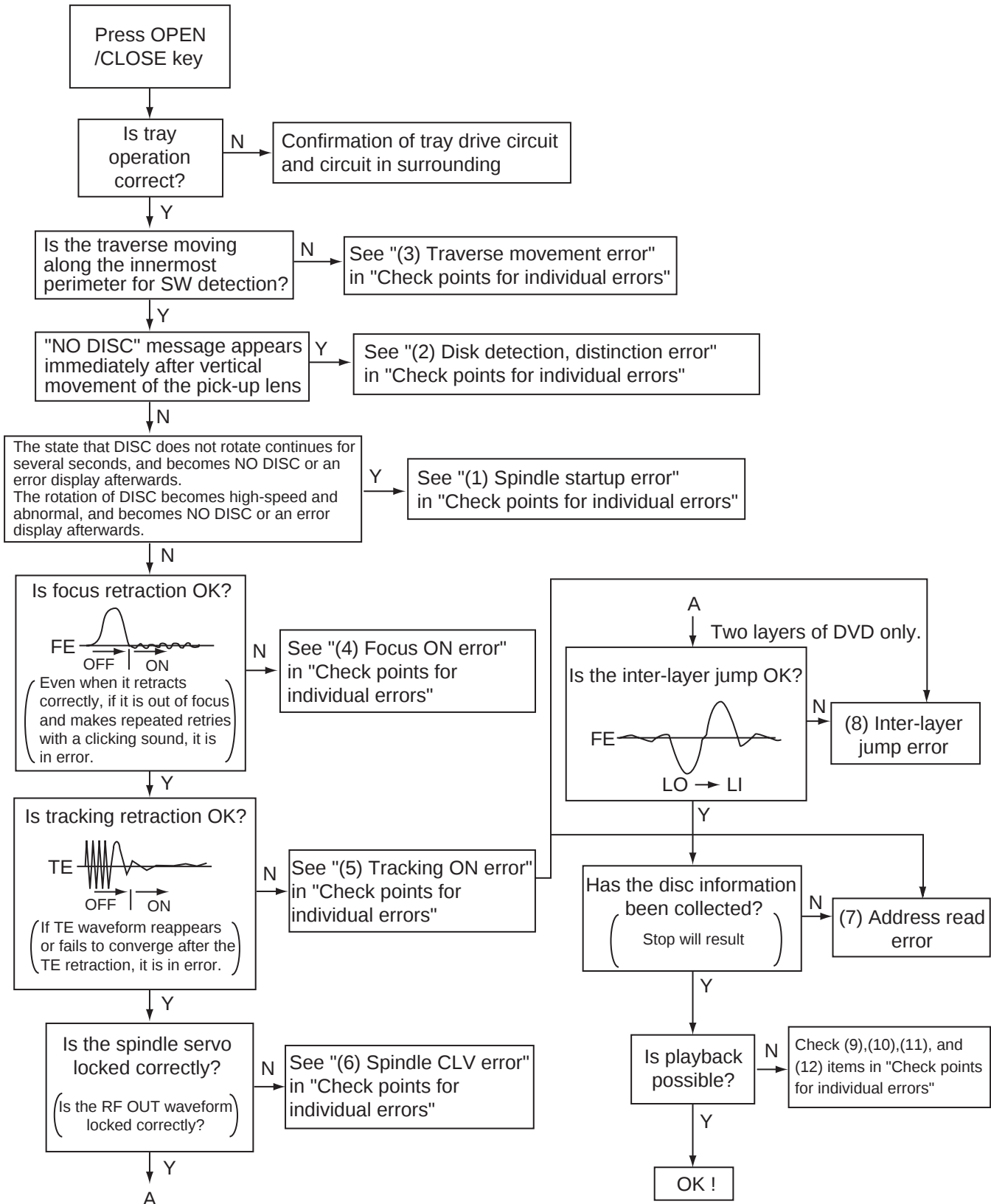


Fig.1

5.2 Check points for each error

5.2.1 Spindle start error

- (1) Defective spindle motor
 - Are there several ohms resistance between each pin of CN201 "5-6", "6-7", "5-7"?
(The power supply is turned off and measured.)
 - Is the sign wave of about 100mVp-p in the voltage had from each terminal?
[CN201"9"(H1+), "10"(H1-), "11"(H2+), "12"(H2-), "13"(H3+), "14"(H3-)]
- (2) Defective spindle motor driver (IC251)
 - Has motor drive voltage of a sine wave or a rectangular wave gone out to each terminal(SM1~3) of CN201"5,6,7" and IC251"2,4,7"?
 - Is FG pulse output from the terminal of IC251"24"(FG) according to the rotation of the motor?
 - Is it "L(about 0.9V)" while terminal of IC251"15"(VH) is rotating the motor?
- (3) Has the control signal come from servo IC or the microcomputer?
 - Is it "L" while the terminal of IC251"18"(SBRK) is operating?
Is it "H" while the terminal of IC251"23"(/SPMUTE) is operating?
 - Is the control signal input to the terminal of IC251"22"(EC)?
(changes from VHALF voltage while the motor is working.)
 - Is the VHALF voltage input to the terminal of IC251"21"(ECR)?
- (4) Is the FG signal input to the servo IC?
 - Is FG pulse input to the terminal of IC301"69"(FG) according to the rotation of the motor?

5.2.2 Disc Detection, Distinction error (no disc, no RFENV)

- Laser is defective.
- Front End Processor is defective (IC101).
- APC circuit is defective. --- Q101,Q102.
- Pattern is defective. --- Lines for CN101 - All patterns which relate to pick-up and patterns between IC101
- IC101 --- For signal from IC101 to IC301, is signal output from IC101 "20" (ASOUT) and IC101 "41"(RFENV) and IC101 "22" (FEOUT)?

5.2.3 Traverse movement NG

- (1) Defective traverse driver
 - Has the voltage come between terminal of CN101 "21" and "23" ?
- (2) Defective BTL driver (IC201)
 - Has the motor drive voltage gone out to IC201"17" or "18"?
- (3) Has the control signal come from servo IC or the microcomputer?
 - Is it "H" while the terminal of IC201"9"(STBY1) ?
 - TRSDRV Is the signal input? (IC301 "67")
- (4) TRVSW is the signal input from microcomputer? (IC301 "56")

5.2.4 Focus ON NG

- Is FE output ? --- Pattern, IC101
- Is FODRV signal sent ? (R209) --- Pattern, IC301 "115"
- Is driving voltage sent ? IC201 "13", "14" --- If NG, pattern, driver, mechanical unit .
- Mechanical unit is defective.

5.2.5 Tracking ON NG

- When the tracking loop cannot be drawn in, TE shape of waves does not settle.
- Mechanical unit is defective.
Because the self adjustment cannot be normally adjusted, the thing which cannot be normally drawn in is thought.
- Periphery of driver (IC201)
Constant or IC it self is defective.
- Servo IC (IC301)
When improperly adjusted due to defective IC.

5.2.6 Spindle CLV NG

- IC101 -- "30"(ARF-), "31"(ARF+).
- Does not the input or the output of driver's spindle signal do the grip?
- Has the tracking been turned on?
- Spindle motor and driver is defective.
- Additionally, "IC101 and IC301" and "Mechanism is defective(jitter)", etc. are thought.

5.2.7 Address read NG

- Besides, the undermentioned cause is thought though specific of the cause is difficult because various factors are thought.
Mechanism is defective. (jitter)
IC301
The disc is dirty or the wound has adhered.

5.2.8 Between layers jump NG (double-layer disc only)

Mechanism defective
Defect of driver's IC(IC201)
Defect of servo control IC(IC301)

5.2.9 Neither picture nor sound is output

(1) It is not possible search

- Has the tracking been turned on?
- To "Tracking ON NG" in "Check points for each error" when the tracking is not normal.
- Is the feed operation normal?
To "traverse movement NG" in "Check points for each error" when it is not normal. Are not there caught of the feeding mechanism etc?

5.2.10 Picture is distorted or abnormal sound occurs at intervals of several seconds.

Is the feed operation normal?
Are not there caught of the feeding mechanism etc?

5.2.11 Others

- The image is sometimes blocked, and the image stops.
- The image is blocked when going to outer though it is normal in surroundings in the disk and the stopping symptom increases.
There is a possibility with bad jitter value for such a symptom.

5.2.12 CD During normal playback operation

(1) Is TOC reading normal?

- Displays total time for CD-DA.
- Shifts to double-speed mode for V-CD

(2) Is playback afterwards possible?

(3) When can not do a normal playback

- --:-- is displayed during FL search.
According to [It is not possible to search] for DVD, check the feed and tracking systems.
- No sound is output although the time is displayed.(CA-DA)
DAC, etc, other than servo.
- The passage of time is not stable, or picture is abnormal.(V-CD)
- The wound of the disc and dirt are confirmed.

< MEMO >



VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY OPTICAL DISC CATEGORY 1644, Shimotsuruma, Yamato, Kanagawa 242-8514, Japan

(No.XA008)



Printed in Japan
WPC

PARTS LIST

[XV-M5GSL]

- * All printed circuit boards and its assemblies are not available as service parts.
- * (x_) in a description column shows the number of the used part.

Area Suffix

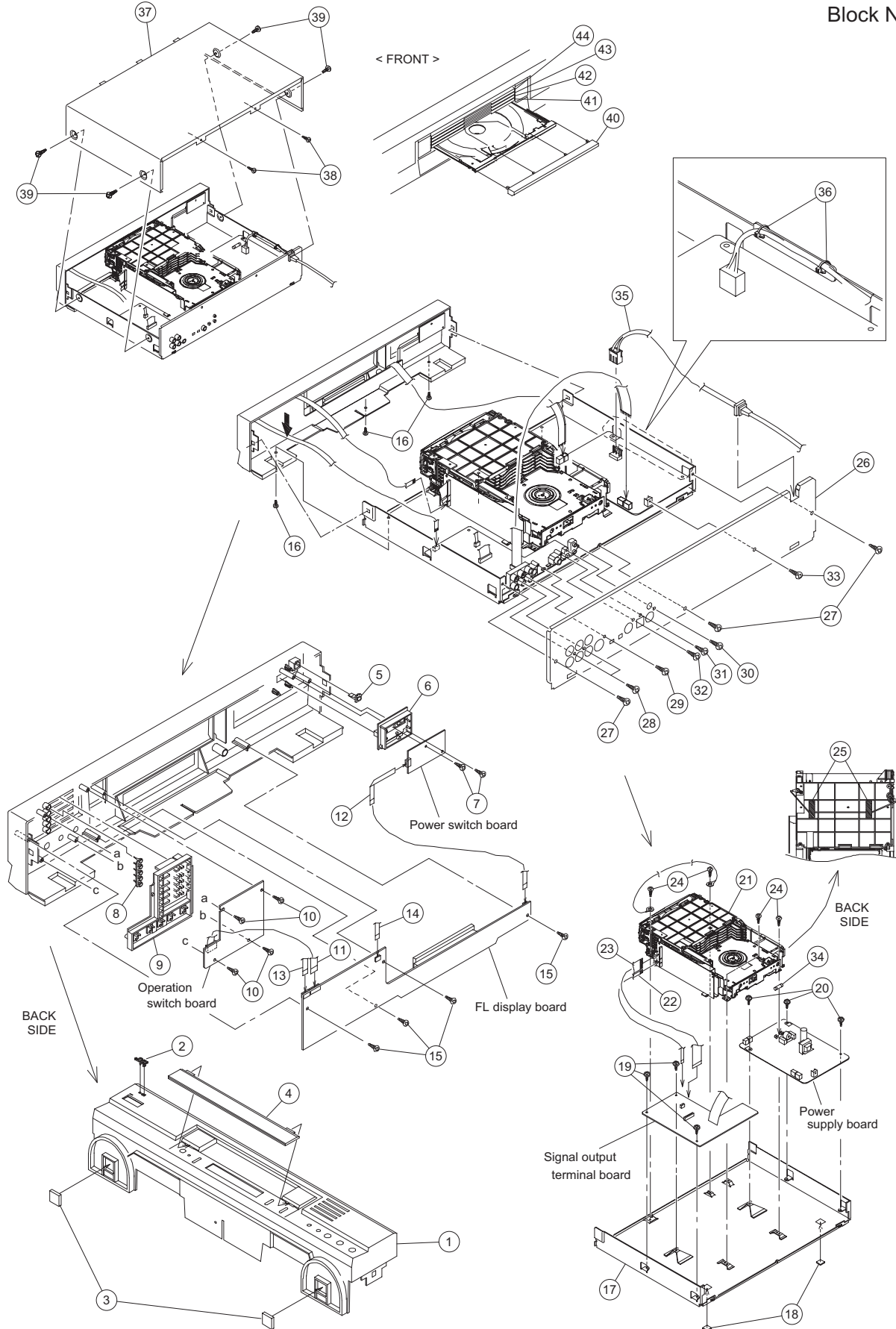
J	-----	U.S.A.
C	-----	Canada

- Contents -

Exploded view of general assembly and parts list	3-2
DVD Traverse mechanism assembly and parts list	3-4
DVD Changer mechanism assembly and parts list	3-6
Electrical parts list	3-8
Packing materials and accessories parts list	3-13

Exploded view of general assembly and parts list

Block No.M1MM



General assembly

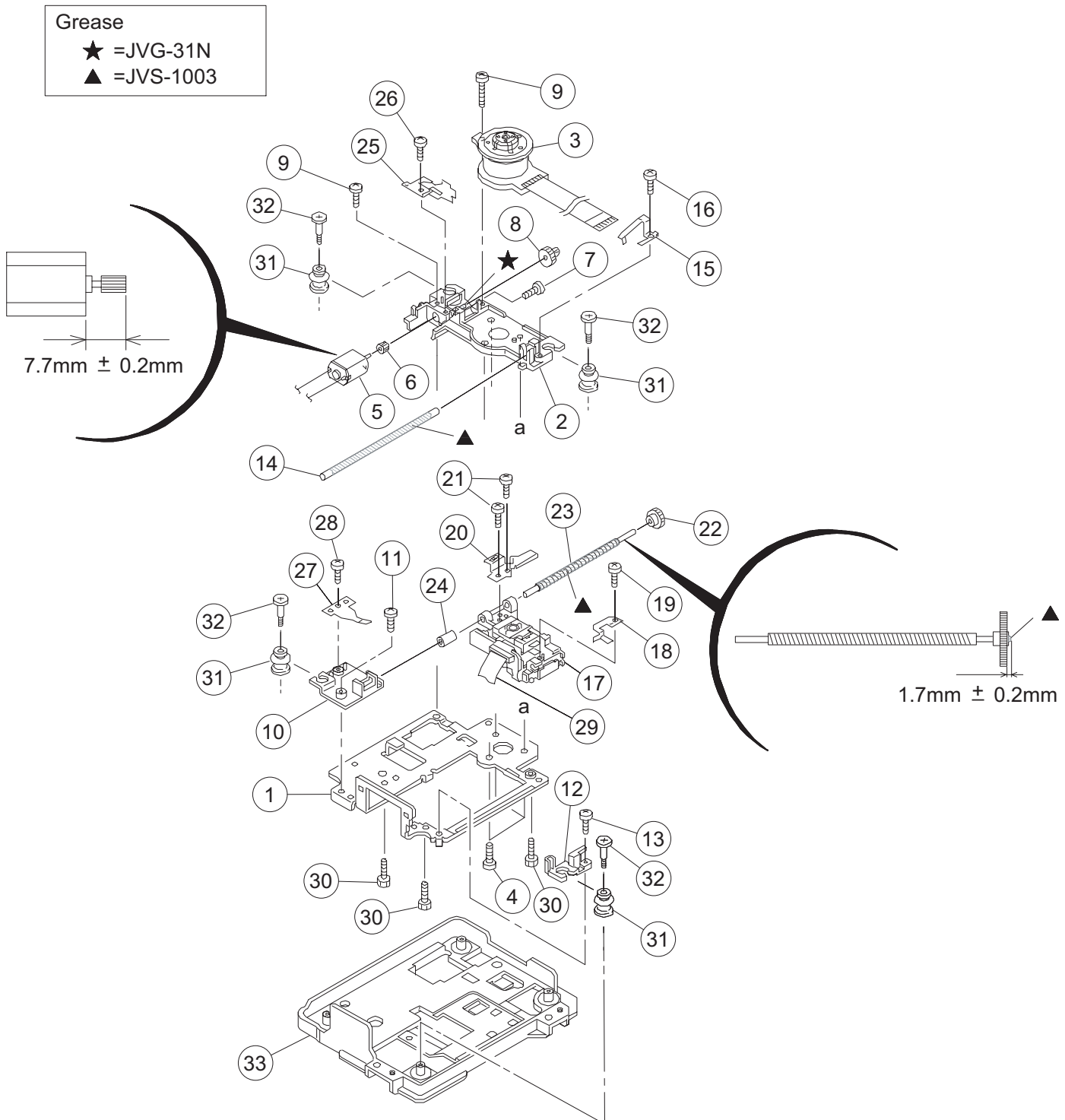
Block No. [M][1][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	LE10285-001A	FRONT PANEL		
2	LV43338-002A	JVC MARK		
3	E75896-001	FELT SPACER	(x2)	
4	LE20714-001A	WINDOW SCREEN		
5	LE31074-001A	INDICATOR		
6	LE20712-001A	PUSH BUTTON	POWER	
7	QYSBSF2608Z	TAPPING SCREW	POWER SW.CB.(x2)	
8	LE31075-001A	INDICATOR		
9	LE20713-001A	PUSH BUTTON	PLAY/DISC	
10	QYSBSF2608Z	TAPPING SCREW	SWITCH CB.(x4)	
11	QUQ412-1106DJ	FFC WIRE	CN805-CN871	
12	QUQ412-0509DJ	FFC WIRE	CN804	
13	QUQ412-0720CJ	FFC WIRE	CN803	
14	QUQ110-0715AJ	FFC WIRE	CN802	
15	QYSBSF2608Z	TAPPING SCREW	FL CB.(x4)	
16	QYSDSG3008N	TAPPING SCREW	FRONT+CHASSIS(x3)	
17	LE10286-001A	CHASSIS BASE		
18	E75896-001	FELT SPACER	(x2)	
19	QYSBSGG3008E	TAPPING SCREW	SYSTEM CB.(x3)	
20	QYSBSGG3008E	TAPPING SCREW	PRIMARY CB.(x3)	
21	-----	5DVD CHANGER ME		
22	QUQA10-0715AJ	FFC WIRE	CN503	
23	QUQ110-2322BJ	FFC WIRE	CN502	
24	QYSBSG3008Z	TAPPING SCREW	MECHA+CHASSIS(x4)	
25	LE30001-031A	SPACER	(x2)	
26	LE20715-001A	REAR PANEL		
27	QYSBSGY3008M	SPECIAL SCREW	REAR+CHASSIS(x3)	
28	QYSBSGY3008M	SPECIAL SCREW	COMPONENT(x2)	
29	QYSBSGY3008M	SPECIAL SCREW	S-VIDEO OUT	
30	QYSBSGY3008M	SPECIAL SCREW	COMPU LINK	
31	QYSBSGY3008M	SPECIAL SCREW	OPT OUT	
32	QYSBSGY3008M	SPECIAL SCREW	COAXIAL	
33	QYSBSGY3008M	SPECIAL SCREW	EARTH PLATE	
△ 34	QMF51U1-1R6-J8	FUSE	1.6A AC125V	
△ 35	QMPD450-200-JN	POWER CORD(US/CA)	2m BLACK	
36	E308918-001	TIE BAND	(x2)	
37	LE20582-004A/S/	METAL COVER		
38	QYSBSGG3008E	TAPPING SCREW	3mm x 8mm(x2)	
39	E406308-004	SPECIAL SCREW	(x4)	
40	LE20716-001A	FITTING	DISC 1	
41	LE20717-001A	FITTING	DISC 2	
42	LE20718-001A	FITTING	DISC 3	
43	LE20719-001A	FITTING	DISC 4	
44	LE20720-001A	FITTING	DISC 5	

DVD Traverse mechanism assembly and parts list

Block No.M2MM

FXL-D5-1M



DVD Traverse mechanism

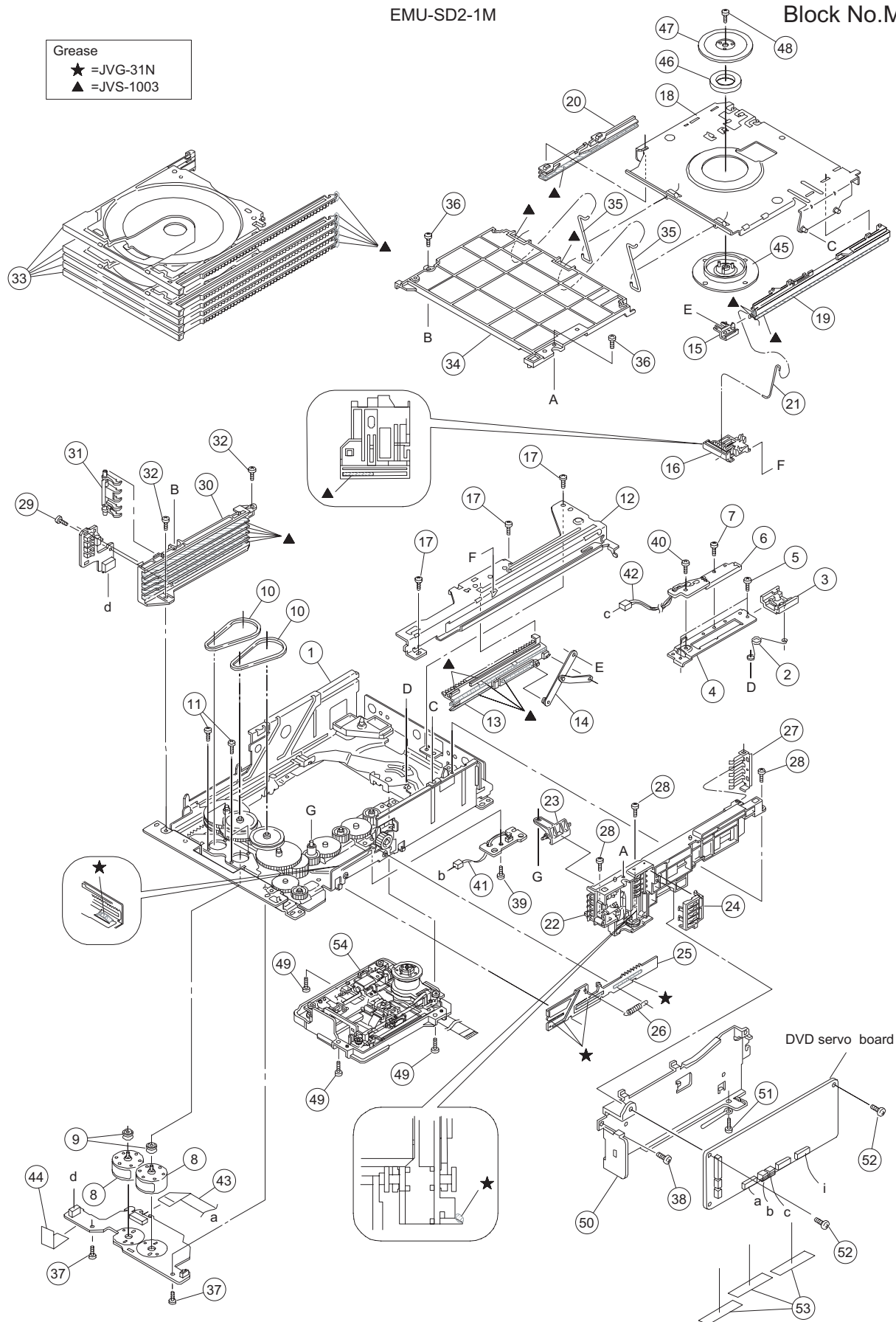
Block No. [M][2][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	LV10751-001A	TM CHASSIS		
2	LV10752-002A	SF MOTOR BASE		
3	QAR0270-001	SPINDLE MOTOR		
4	LV43461-001A	SPECIAL SCREW	FOR SP.MOTOR(x3)	
5	QAR0251-002	MOTOR		
6	VKS5557-001	F.M. GEAR		
7	QYSPSPT2030M	SCREW	FOR FEED MOTOR	
8	LV33985-001A	MIDDLE GEAR		
9	QYSDST2008Z	TAP SCREW	FOR SF M BASE(x2)	
10	LV33989-001A	S.SHAFT HOLDER		
11	QYSDST2008Z	TAP SCREW	FOR S.S.HOLDER	
12	LV33990-001A	G.SHAFT HOLDER		
13	QYSDST2008Z	TAP SCREW	FOR G.S.HOLDER	
14	LV43291-002A	GUIDE SHAFT		
15	LV33991-001A	ADJUST SPRING		
16	QYSPST2008Z	TAP SCREW	FOR GS ADJ SP	
17	QAL0478-001	PICK UP		
18	LV33983-001A	PS SPRING		
19	QYSPSFT1730Z	TAP SCREW	FOR PS SPRING	
20	LV33984-002A	RACK ARM		
21	QYSPSFT1730Z	TAP SCREW	FOR RACK ARM(x2)	
22	LV33986-001A	S.SHAFT GEAR		
23	LV43293-001A	SCREW SHAFT		
24	LV43290-001A	S.SHAFT COLLOR		
25	LV33987-001A	GEAR HOLDER		
26	QYSPSFT2040Z	TAP SCREW	FOR G.HOLDER	
27	LV33988-001A	SS ADJ SPRING		
28	QYSDST2008Z	TAP SCREW	FOR SS ADJ SP.	
29	LVB30013-001A	FPC		
30	LV43292-002A	ADJUST SCREW	(x3)	
31	LV41659-002A	INSULATOR	(x4)	
32	LV43245-001A	SPECIAL SCREW	(x4)	
33	LV10753-001A	DVD TM BASE		

DVD Changer mechanism assembly and parts list

EMU-SD2-1M

Block No.M3MM



DVD Changer mechanism

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

△ Symbol No.	Part No.	Part Name	Description	Local
1	LV10743-004A	CHASSIS ASSY		
2	LV43278-001A	SENSOR SPRING		
3	LV33961-001A	SENSOR SLIDER		
4	LV33962-001A	SENSOR BRACKET		
5	QYSDST2605Z	SCREW	SENSOR BKT(x2)	
6	QVY0027-B14	S V RESISTOR		
7	QYSDST2004Z	SCREW	LINER SENSOR	
8	QAR0164-001	MOTOR	(x2)	
9	LV42340-001A	MOTOR PULLEY	(x2)	
10	LV41431-001A	BELT	(x2)	
11	QYSPSPU1725N	SCREW	MOTOR(x4)	
12	LV10744-002A	RACK HOLDER		
13	LV21406-002A	LOADING RACK		
14	LV43279-001A	LIFT ARM ASSY		
15	LV33963-001A	HOOK		
16	LV33964-001A	HOOK STOPPER		
17	QYSDST2605Z	SCREW	RACK HOLDER(x3)	
18	LV33965-004A	LIFTER ASSY		
19	LV21408-002A	RAIL(R)		
20	LV21409-002A	RAIL(L)		
21	LV43285-001A	ROD (L)		
22	LV21520-002A	SIDE(R) ASSY		
23	LV33974-001A	SELECT LEVER		
24	LV33975-001A	GEAR COVER		
25	LV33976-001A	ELEVATOR CAM		
26	LV43287-001A	ELEVATOR SPRING		
27	LV33977-002A	CLICK SPRING		
28	QYSDST2605Z	SCREW	SIDE(R)(x3)	
29	QYSDSF2608Z	SCREW	2.6mm x 8mm	
30	LV10749-002A	SIDE(L)		
31	LV33980-001A	OPEN DET.LEVER		
32	QYSDST2605Z	SCREW	SIDE(L)(x2)	
33	LV10746-002A	TRAY ASSY	(x5)	
34	LV10750-002A	TOP COVER		
35	LV43289-002A	ROD	(x2)	
36	QYSDSF2608Z	SCREW	TOP COVER(x2)	
37	QYSDST2605Z	SCREW	MOTOR PWB(x2)	
38	QYSDSF2608Z	SCREW	TRAY SW PWB	
39	QYSDST2605Z	SCREW	SWITCH PWB	
40	QYSDST2004Z	SCREW	SENSOR PWB	
41	WJM0330-001A	E-SI C WIRE C-F	SW TO DVD	
42	WJM0331-001A	E-SI C WIRE C-F	SENSOR TO DVD	
43	QUQ110-1521BF	FFC WIRE	MOTOR TO DVD	
44	VYSA1R4-056	SPACER		
45	LV32417-001A	CLAMPER		
46	LV42930-003A	P.C.MAGNET		
47	LV33992-001A	DVD YOKE		
48	LV41741-001A	SPECIAL SCREW		
49	QYSDST2605Z	SCREW	2.6mm x 5mm(x3)	
50	LV21414-001A	DVD MOD BKT.		
51	QYSDST2605Z	SCREW	BKT TO CHASSIS	
52	QYSDST2605Z	SCREW	FOR SERVO C.B(x2)	
53	VYSA1R4-057	SPACER	(x3)	
54	-----	TRAVERSE MECHANISM		

Electrical parts list

Main board

Block No. [0][1]

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
IC704	74VHCT08ASJ-X	IC	2-input AND gate		C754	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	
IC751	HA17558AF-X	IC			C755	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	
IC801	MN101C35DLW	IC(MASK)			C756	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	
IC802	IC-PST3527N-X	IC			C757	QETN1EM-226Z	E CAPACITOR	22uF 25V M	
IC811	GP1UE281XK	IR DETECT UNIT			C758	QETN1EM-226Z	E CAPACITOR	22uF 25V M	
△ IC901	MIP2C40MP	IC			C759	QFLC1HJ-222Z	M CAPACITOR	2200pF 50V J	
IC951	MM1565AF-X	IC	Regulator		C760	QFLC1HJ-222Z	M CAPACITOR	2200pF 50V J	
IC952	TL431/A-T	IC			C763	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
					C764	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
					C765	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
					C791	QETN1EM-475Z	E CAPACITOR	4.7uF 25V M	
Q751	2SC3576-JVC-T	TRANSISTOR			C792	NCS31HJ-331X	C CAPACITOR	330pF 50V J	
Q752	2SC3576-JVC-T	TRANSISTOR			C793	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	
Q755	KRC109S-X	TRANSISTOR			C794	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q756	KRA102S-X	DIGI TRANSISTOR			C795	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
Q757	2SC2412K/RS-X	TRANSISTOR			C797	NCS31HJ-151X	C CAPACITOR	150pF 50V J	
Q806	KRA102S-X	DIGI TRANSISTOR			C798	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q807	KRA102S-X	DIGI TRANSISTOR			C803	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M	
Q808	KRC107S-X	DIGI TRANSISTOR			C804	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q809	KRC107S-X	DIGI TRANSISTOR			C806	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q841	KRC102S-X	DIGI TRANSISTOR			C807	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
Q842	KRC102S-X	DIGI TRANSISTOR			C808	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
Q843	KRC102S-X	DIGI TRANSISTOR			C812	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
Q844	KRC102S-X	DIGI TRANSISTOR			C881	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
Q845	KRC102S-X	DIGI TRANSISTOR			C884	NCS31HJ-331X	C CAPACITOR	330pF 50V J	
Q881	KRC107S-X	DIGI TRANSISTOR			△ C902	QFZ9073-473	MM CAPACITOR	0.047uF AC250V M	
Q951	2SC3576-JVC-T	TRANSISTOR			△ C904	QCZ9079-102	C CAPACITOR	1000pF AC250V M	
Q952	KRA104S-X	DIGI TRANSISTOR			C907	QETM2DM-566	E CAPACITOR	56uF 200V M	
Q953	2SD2264/R-T	TRANSISTOR			△ C908	QCZ0136-332Z	C CAPACITOR	3300pF 1kV K	
					C913	QCZ0302-470Z	C CAPACITOR	47pF 1kV K	
D801	1SS133-T2	DIODE			C914	QEZ0598-226Z	E CAPACITOR	22uF	
D823	SPR-325MVWL/-T	LED	GREEN-RED		C915	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
D841	SLR-342MC-T	LED			C916	QCZ9079-102	C CAPACITOR	1000pF AC250V M	
D842	SLR-342MC-T	LED			△ C918	QFZ9073-473	MM CAPACITOR	0.047uF AC250V M	
D843	SLR-342MC-T	LED			C950	QEZ0592-107Z	E CAPACITOR	100uF	
D844	SLR-342MC-T	LED			C951	QETN1EM-226Z	E CAPACITOR	22uF 25V M	
D845	SLR-342MC-T	LED			C952	QEZ0592-108Z	E CAPACITOR	1000uF	
D851	SLR-342VC-T	LED			C953	QEZ0598-226Z	E CAPACITOR	22uF	
D881	1SS355-X	SI DIODE			C954	NCF31HZ-103X	C CAPACITOR	0.01uF 50V Z	
△ D901	DI106	BRIDGE DIODE			C955	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	
△ D902	1F4-T2	FR DIODE			C958	QEZ0529-477Z	E CAPACITOR	470uF 10V M	
△ D903	1F4-T2	FR DIODE			C959	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
△ D904	1SS244-T2	SI DIODE			C960	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
△ D951	1F4-T2	FR DIODE			C963	QEZ0594-107Z	E CAPACITOR	100uF	
△ D952	1F4-T2	FR DIODE			C964	QEZ0594-107Z	E CAPACITOR	100uF	
△ D953	UF304G-F82	FR DIOAE			C965	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
△ D954	1F4-T2	FR DIODE			C966	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
△ D955	PS154R-F83	DIODE			C967	QEZ0594-337Z	E CAPACITOR	330uF	
D956	1F4-T2	FR DIODE			C969	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
D957	1F4-T2	FR DIODE			C971	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
D960	MTZJ2.0B-T2	Z DIODE			C972	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
					C973	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	
PC901	PC123Y22	PHOTO COUPLER			C982	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
					C988	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C602	NCS31HJ-151X	C CAPACITOR	150pF 50V J		R601	NRSA63F-750X	MG RESISTOR	75Ω 1/16W F	
C603	NCS31HJ-331X	C CAPACITOR	330pF 50V J		R611	NRSA63F-750X	MG RESISTOR	75Ω 1/16W F	
C604	NCS31HJ-680X	C CAPACITOR	68pF 50V J		R621	NRSA63F-820X	MG RESISTOR	82Ω 1/16W F	
C612	NCS31HJ-680X	C CAPACITOR	68pF 50V J		R631	NRSA63F-820X	MG RESISTOR	82Ω 1/16W F	
C613	NCS31HJ-221X	C CAPACITOR	220pF 50V J		R751	QRE141J-202Y	C RESISTOR	2kΩ 1/4W J	
C614	NCS31HJ-220X	C CAPACITOR	22pF 50V J		R752	QRE141J-202Y	C RESISTOR	2kΩ 1/4W J	
C622	NCS31HJ-680X	C CAPACITOR	68pF 50V J		R753	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C623	NCS31HJ-221X	C CAPACITOR	220pF 50V J		R754	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C624	NCS31HJ-220X	C CAPACITOR	22pF 50V J		R755	QRE141J-202Y	C RESISTOR	2kΩ 1/4W J	
C632	NCS31HJ-680X	C CAPACITOR	68pF 50V J		R756	QRE141J-202Y	C RESISTOR	2kΩ 1/4W J	
C633	NCS31HJ-221X	C CAPACITOR	220pF 50V J		R757	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C634	NCS31HJ-220X	C CAPACITOR	22pF 50V J		R758	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C640	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R759	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C651	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M		R760	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C652	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M		R761	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
C653	QETN0JM-227Z	E CAPACITOR	220uF 6.3V M		R762	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
C741	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M		R763	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
C751	QFLC1HJ-332Z	M CAPACITOR	3300pF 50V J		R764	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
C752	QFLC1HJ-332Z	M CAPACITOR	3300pF 50V J		R765	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C753	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J						

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R766	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		L611	NQL77GM-1R0X	COIL	1uH M	
R767	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J		L612	NQL77GM-1R0X	COIL	1uH M	
R768	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J		L613	NQL77GM-1R0X	COIL	1uH M	
R769	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		L651	QQL244K-100Z	COIL	10uH K	
R770	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		L652	QQL244K-100Z	COIL	10uH K	
R771	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		L653	QQL244K-100Z	COIL	10uH K	
R772	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		L791	QQL231K-R68Y	COIL	0.68uH K	
R773	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		L881	QQL231K-2R2Y	INDUCTOR	2.2uH K	
R774	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		△ L901	QQR0816-001	LINE FILTER		
R782	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J		L951	QQR1291-001Z	CHOKO COIL		
R783	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		L952	QQR1291-001Z	CHOKO COIL		
R784	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		L953	QQL531J-220Y	COIL	22uH J	
R785	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		L954	QQL531J-220Y	COIL	22uH J	
R786	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		L955	QQR1291-001Z	CHOKO COIL		
R787	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		△ T901	QQS0197-001	SW TRANSF		
R788	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J						
R789	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		CN601	QGF1016C1-23	CONNECTOR	FFC/FPC (1-23)	
R790	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		CN701	QGF1016C1-07	CONNECTOR	FFC/FPC (1-7)	
R791	NRSA63J-301X	MG RESISTOR	300Ω 1/16W J		CN702	QGF1205C1-07	CONNECTOR	FFC/FPC (1-7)	
R792	NRSA63J-301X	MG RESISTOR	300Ω 1/16W J		CN802	QGF1016F3-07	CONNECTOR	FFC/FPC (1-7)	
R794	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J		CN803	QGF1205F1-07	CONNECTOR	FFC/FPC (1-7)	
R795	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		CN804	QGF1205F1-05	CONNECTOR	FFC/FPC (1-5)	
R798	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		CN805	QGF1205F1-11	CONNECTOR	FFC/FPC (1-11)	
R799	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		CN854	QGF1205F1-05	CONNECTOR	FFC/FPC (1-5)	
R802	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		CN871	QGF1205F1-11	CONNECTOR	FFC/FPC (1-11)	
R806	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J		△ CP951	ICP-N10-T	IC PROTECTOR	400mA	
R807	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J		DI801	QLF0118-002	FL TUBE		
R811	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		EP603	QNZ0136-001Z	EARTH PLATE		
R812	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		EP910	E409182-001SM	GRAND TERMINAL		
R813	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		EP951	QNZ0136-001Z	EARTH PLATE		
R814	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		EP952	QNZ0136-001Z	EARTH PLATE		
R815	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		FC901	QNG0003-001Z	FUSE CLIP		
R816	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		FC902	QNG0003-001Z	FUSE CLIP		
R817	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		FW651	QUM15A-28DGZ4	PARA RIBON WIRE		
R818	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		FW801	QUM027-16DGZ3	PARA RIBON WIRE		
R819	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		J601	QNN0574-002	AV JACK		
R822	NRSA63J-431X	MG RESISTOR	430Ω 1/16W J		J602	QND0111-001	S TERMINAL		
R823	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J		J703	QNN0573-001	JACK		
R824	NRSA63J-112X	MG RESISTOR	1.1kΩ 1/16W J		J704	GP1FA352TZ	OPT TRANSMITTER		
R825	NRSA63J-112X	MG RESISTOR	1.1kΩ 1/16W J		J880	QNS0219-001	3.5 JACK		
R826	NRSA63J-431X	MG RESISTOR	430Ω 1/16W J		JT901	QGD2501C1-03Z	CONNECTOR	(1-3)	
R827	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J		JT902	QGD2501C1-04Z	CONNECTOR	(1-4)	
R828	NRSA63J-112X	MG RESISTOR	1.1kΩ 1/16W J		JT903	QGD2501C1-05Z	CONNECTOR	(1-5)	
R829	NRSA63J-112X	MG RESISTOR	1.1kΩ 1/16W J		JT904	QGD2501C1-05Z	CONNECTOR	(1-5)	
R830	NRSA63J-431X	MG RESISTOR	430Ω 1/16W J		K791	NQR0227-004X	FERRITE BEADS		
R831	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J		K793	NQR0227-004X	FERRITE BEADS		
R832	NRSA63J-431X	MG RESISTOR	430Ω 1/16W J		P901	QGA7901C1-02	CONNECTOR	W-B (1-2)	
R835	QRE141J-102Y	MG RESISTOR	100Ω 1/4W J		S802	QSW0651-001Z	TACT SWITCH		
R841	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J		S803	QSW0651-001Z	TACT SWITCH		
R842	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J		S804	QSW0651-001Z	TACT SWITCH		
R843	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J		S805	QSW0651-001Z	TACT SWITCH		
R844	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J		S806	QSW0651-001Z	TACT SWITCH		
R845	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J		S807	QSW0651-001Z	TACT SWITCH		
R851	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		S808	QSW0651-001Z	TACT SWITCH		
R881	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		S809	QSW0651-001Z	TACT SWITCH		
R883	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		S810	QSW0651-001Z	TACT SWITCH		
R891	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		S811	QSW0651-001Z	TACT SWITCH		
△ R901	QRL01DJ-683X	OMF RESISTOR	68kΩ 1W J		S812	QSW0651-001Z	TACT SWITCH		
△ R903	QRE141J-221Y	C RESISTOR	220Ω 1/4W J		S813	QSW0651-001Z	TACT SWITCH		
R906	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J		S814	QSW0651-001Z	TACT SWITCH		
R912	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J		S815	QSW0651-001Z	TACT SWITCH		
R913	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		S816	QSW0651-001Z	TACT SWITCH		
R915	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		S851	QSW0651-001Z	TACT SWITCH		
R952	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		S891	QSW1033-001	SLIDE SWITCH		
R953	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		X801	QAX0667-001Z	C RESONATOR	8.000MHZ	
△ R954	QRZ9005-100X	FUSI RESISTOR	10Ω		OT1	LE31081-001A	FL HOLDER		
R955	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		OT2	E306805-014	FELT SPACER		
R956	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J						
R960	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J						
R961	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J						
R962	NRSA63F-392X	MG RESISTOR	3.9kΩ 1/16W F						
R964	NRSA63F-103X	MG RESISTOR	10kΩ 1/16W F						
R965	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J						
R966	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J						
R967	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J						
R968	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
L601	NQL77GM-1R0X	COIL	1uH M						

Servo control board

Block No. [0][2]

△ Symbol No.	Part No.	Part Name	Description	Local
IC101	AN8703FH-V	IC	Frontend processor for DVD	
IC201	BA5983FM-X	IC	4-channel driver	
IC251	BA6664FM-X	IC	Motor driver	
IC301	MN103S26EDC-H	IC		
IC301	or MN103S26EGB-H	IC	Super optical disc controller	
IC402	AK4381VT-X	IC	2ch DAC	
IC403	MN101C28DMJ	IC		
IC404	BR93L46F-W-X	IC		
IC405	SST39VF160H0973	IC		
IC406	74LCX373MTC-X	IC(DIGITAL)	Octal D-type latch	
IC406	or 74LVC373APW-X	IC(DIGITAL)	Octal D-type transparent latch	
IC407	74LCX373MTC-X	IC(DIGITAL)	Octal D-type latch	
IC407	or 74LVC373APW-X	IC(DIGITAL)	Octal D-type transparent latch	
IC501	NDV8601VWA-BE	IC	DVD on a chip processor	
IC505	K4S643232F-TC60	IC		
IC505	or HY57643220CT7	IC		
IC505	or HY57643220CT55	IC		
IC505	or K4S643232F-TC70	IC		
IC505	or W986432DH-7	IC	Bits SDRAM	
IC511	LM1117MP1.8-X	IC	Regulator	
Q101	KTA1001/Y/-X	TRANSISTOR		
Q101	or 2SB1424/R/-W	TRANSISTOR		
Q102	KTA1001/Y/-X	TRANSISTOR		
Q102	or 2SB1424/R/-W	TRANSISTOR		
Q103	DTA144EE-X	DIGI TRANSISTOR		
D101	RB521S-30-X	SB DIODE		
D301	RB521S-30-X	SB DIODE		
C105	NEA70JM-476X	E CAPACITOR	47uF 6.3V M	
C106	NEA70JM-476X	E CAPACITOR	47uF 6.3V M	
C109	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C110	NCS31HJ-221X	C CAPACITOR	220pF 50V J	
C111	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C112	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C116	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C117	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C118	NCB31CK-273X	C CAPACITOR	0.027uF 16V K	
C119	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C120	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C121	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C122	NCS31HJ-120X	C CAPACITOR	12pF 50V J	
C123	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C124	NCS31HJ-470X	C CAPACITOR	47pF 50V J	
C125	NCB31HK-271X	C CAPACITOR	270pF 50V K	
C126	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C127	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C128	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C129	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C135	NEA70JM-476X	E CAPACITOR	47uF 6.3V M	
C137	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C138	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C141	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C142	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C144	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C204	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C205	NCS31HJ-121X	C CAPACITOR	120pF 50V J	
C207	NCB31HK-391X	C CAPACITOR	390pF 50V K	
C208	NCB31HK-391X	C CAPACITOR	390pF 50V K	
C211	NCB31HK-223X	C CAPACITOR	0.022uF 50V K	
C212	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C217	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C251	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C253	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C255	NCB31CK-153X	C CAPACITOR	0.015uF 16V K	
C256	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C257	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C258	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C259	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C260	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C261	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C262	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C263	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	

△ Symbol No.	Part No.	Part Name	Description	Local
C264	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C301	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C302	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C303	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C304	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C306	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C308	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C310	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C311	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C312	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C313	NCB31HK-561X	C CAPACITOR	560pF 50V K	
C314	NCB31HK-331X	C CAPACITOR	330pF 50V K	
C315	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C316	NCB31HK-271X	C CAPACITOR	270pF 50V K	
C317	NCS31HJ-121X	C CAPACITOR	120pF 50V J	
C318	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C319	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C320	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C321	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C322	NCB31HK-562X	C CAPACITOR	5600pF 50V K	
C323	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C324	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C325	NCS31HJ-470X	C CAPACITOR	47pF 50V J	
C326	NCB31CK-183X	C CAPACITOR	0.018uF 16V K	
C327	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C328	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C329	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C330	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C331	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C332	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C333	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C334	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C337	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C338	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C339	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C340	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C341	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C342	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C343	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C344	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C345	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C346	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C347	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C348	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C349	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C350	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C351	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C360	NEA70GM-476X	E CAPACITOR	47uF 4V M	
C407	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C408	NEA70JM-227X	E CAPACITOR	220uF 6.3V M	
C409	NEA70JM-227X	E CAPACITOR	220uF 6.3V M	
C410	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C411	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C412	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C413	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C414	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C415	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C416	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C417	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C418	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C419	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C421	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C422	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C423	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C424	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C432	NCB31CK-223X	C CAPACITOR	0.022uF 16V K	
C440	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C501	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C506	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C507	NDC31HJ-180X	C CAPACITOR	18pF 50V J	
C510	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C512	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C513	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C514	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C515	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C516	NCB31HK-471X	C CAPACITOR	470pF 50V K	
C517	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C518	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C519	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R213	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C520	NCB31HK-471X	C CAPACITOR	470pF 50V K		R214	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C521	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R215	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C522	NCB31HK-471X	C CAPACITOR	470pF 50V K		R219	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
C523	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R220	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J	
C524	NEA70GM-476X	E CAPACITOR	47uF 4V M		R221	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
C525	NCB31HK-471X	C CAPACITOR	470pF 50V K		R230	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
C527	NEA70GM-476X	E CAPACITOR	47uF 4V M		R251	NRS125J-R47X	MG RESISTOR	0.47Ω 1/2W J	
C528	NCB31HK-471X	C CAPACITOR	470pF 50V K		R252	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J	
C529	NCB31HK-471X	C CAPACITOR	470pF 50V K		R254	NRSA63J-203X	MG RESISTOR	20kΩ 1/16W J	
C530	NCB31HK-471X	C CAPACITOR	470pF 50V K		R255	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C531	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R256	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
C532	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R259	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C533	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R280	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
C534	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R301	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C535	NCB31HK-471X	C CAPACITOR	470pF 50V K		R302	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C536	NCB31HK-471X	C CAPACITOR	470pF 50V K		R303	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C537	NCB31HK-471X	C CAPACITOR	470pF 50V K		R304	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C538	NCB31HK-471X	C CAPACITOR	470pF 50V K		R305	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C539	NCB31HK-471X	C CAPACITOR	470pF 50V K		R306	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C540	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R307	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C541	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R308	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C542	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R309	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C543	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R313	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C544	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R317	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C545	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R320	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
C546	NCB31HK-471X	C CAPACITOR	470pF 50V K		R321	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C547	NCB31HK-471X	C CAPACITOR	470pF 50V K		R323	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C548	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R324	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C549	NEA70GM-476X	E CAPACITOR	47uF 4V M		R325	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
C550	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R326	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C551	NCB31HK-471X	C CAPACITOR	470pF 50V K		R327	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
C557	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R328	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
C558	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R329	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C559	NCB31HK-471X	C CAPACITOR	470pF 50V K		R330	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C560	NCB31HK-471X	C CAPACITOR	470pF 50V K		R331	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C561	NCB31HK-471X	C CAPACITOR	470pF 50V K		R332	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
C562	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R333	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
C563	NCB31HK-471X	C CAPACITOR	470pF 50V K		R334	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
C565	NEA70GM-476X	E CAPACITOR	47uF 4V M		R336	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
C571	NEA70GM-476X	E CAPACITOR	47uF 4V M		R337	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
C572	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R338	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
C573	NEA70GM-476X	E CAPACITOR	47uF 4V M		R339	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
C578	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z		R340	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
C581	NEA70GM-227X	E CAPACITOR	220uF 4V M		R341	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R101	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		R342	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R102	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R343	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R103	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R344	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R104	NRS125J-270X	MG RESISTOR	27Ω 1/2W J		R345	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R105	NRS125J-270X	MG RESISTOR	27Ω 1/2W J		R403	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R106	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R404	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R107	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R407	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R409	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R109	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J		R413	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R110	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		R414	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R111	NRVA63D-243X	CMF RESISTOR	24kΩ 1/16W D		R415	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R112	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J		R416	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R113	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R501	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R115	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R513	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R116	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R514	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R117	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R550	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R119	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J		R565	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R120	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J		R566	NRVA63D-122X	CMF RESISTOR	1.2kΩ 1/16W D	
R125	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J		R567	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R126	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J		R568	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R127	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R569	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R128	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J		R570	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R129	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J		R572	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R130	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J		R573	NRSA63J-162X	MG RESISTOR	1.6kΩ 1/16W J	
R201	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J		R574	NRSA63J-162X	MG RESISTOR	1.6kΩ 1/16W J	
R202	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J		R575	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R204	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R576	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R205	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R578	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R206	NRSA63J-303X	MG RESISTOR	30kΩ 1/16W J		R583	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R207	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R584	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R208	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R589	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R209	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		L501	NQL044K-100X	COIL	10uH K	

△ Symbol No.	Part No.	Part Name	Description	Local
CN101	QGF0501F2-24X	CONNECTOR	FFC/FPC (1-24)	
CN103	QGF1037F1-15W	CONNECTOR	FFC/FPC (1-15)	
CN104	QGA2001F2-02X	CONNECTOR	W-B (1-2)	
CN105	QGA2001F2-03X	CONNECTOR	W-B (1-3)	
CN201	QGF1037F1-15W	CONNECTOR	FFC/FPC (1-15)	
CN501	QGF1016C2-07W	CONNECTOR	FFC/FPC (1-7)	
CN502	QGF1016C2-23W	CONNECTOR	FFC/FPC (1-23)	
CN503	QGF1016C2-07W	CONNECTOR	FFC/FPC (1-7)	
K101	NQR0007-002X	FERRITE BEADS		
K501	NQR0007-002X	FERRITE BEADS		
K508	NQR0007-002X	FERRITE BEADS		
K509	NQR0007-002X	FERRITE BEADS		
K555	NQR0129-002X	FERRITE BEADS		
K556	NQR0129-002X	FERRITE BEADS		
K557	NQR0129-002X	FERRITE BEADS		
K558	NQR0129-002X	FERRITE BEADS		
K559	NQR0129-002X	FERRITE BEADS		
K560	NQR0007-002X	FERRITE BEADS		
X301	NAX0566-001X	C RESONATOR	16.934MHz	
X401	NAX0248-001X	C OSCILLATOR		
X571	NAX0550-001X	CRYSTAL	27.000MHz	

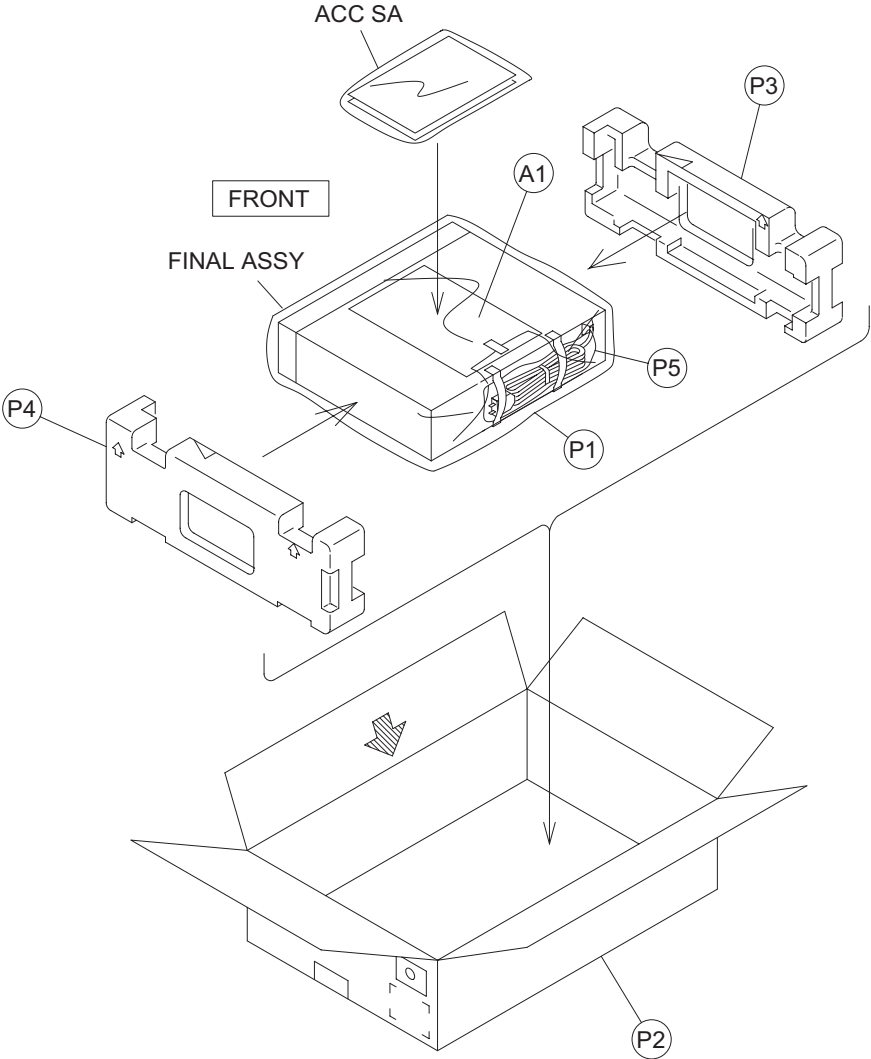
Changer mechanism board

Block No. [0][3]

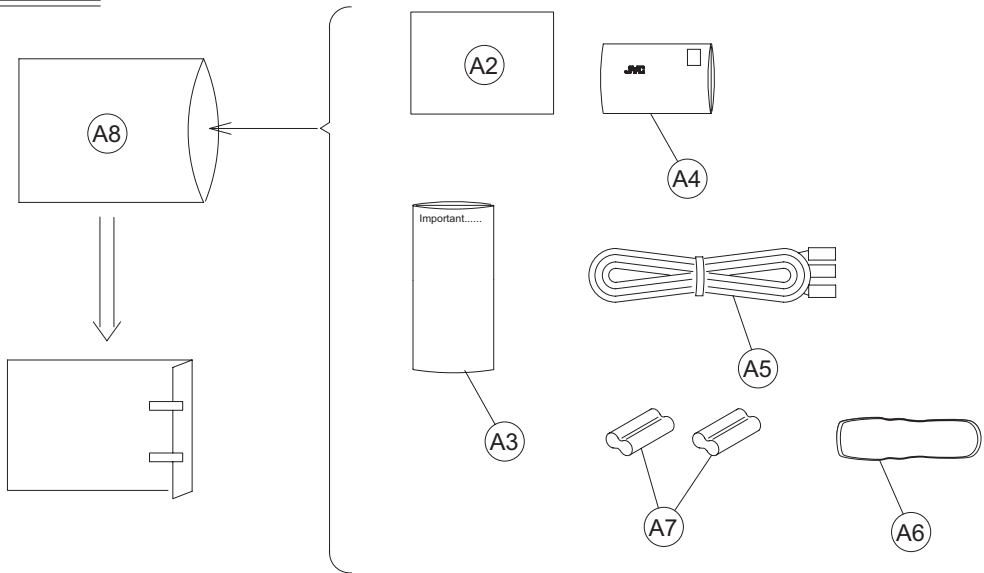
△ Symbol No.	Part No.	Part Name	Description	Local
IC1	LB1641	IC	DC Motor driver	
IC2	LB1641	IC	DC Motor driver	
D1	MTZJ6.2A-T2	Z DIODE		
C1	QK1C1AM-107Z	E CAPACITOR	100uF 10V M	
C2	QCFB1HZ-104Y	C CAPACITOR	0.1uF 50V Z	
C3	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J	
C5	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J	
C6	QCFB1HZ-104Y	C CAPACITOR	0.1uF 50V Z	
C7	QCFB1HZ-104Y	C CAPACITOR	0.1uF 50V Z	
CN1	QGF1036F1-15	CONNECTOR	FFC/FPC (1-15)	
CN2	QGB1214J1-08S	CONNECTOR	B-B (1-8)	
CN3	QGB1214K1-08S	CONNECTOR	B-B (1-8)	
SW1	QSW0844-001	PUSH SWITCH		
SW2	QSW0844-001	PUSH SWITCH		
SW3	QSW0844-001	PUSH SWITCH		
SW4	QSW0844-001	PUSH SWITCH		
SW5	QSW0844-001	PUSH SWITCH		
SW6	QSW0854-002	PUSH SW		
SW7	QSW0886-002	DETECT SWITCH		
SW8	QSW0886-002	DETECT SWITCH		

Packing materials and accessories parts list

Block No.M4MM



ACC SA



Packing and accessories

Block No. [M][4][M][M]				
Symbol No.	Part No.	Part Name	Description	Local
A 1	LE40932-002A	INSERT SHEET		
A 2	LET0236-002A	INST BOOK	English,French	Only ver.C
A 2	LET0236-001A	INST BOOK	English	Only ver.J
A 3	YU20333	SAFETY INST.		Only ver.J
A 4	BT-51028-2	J=REGIST CARD		Only ver.J
A 5	QAM0328-001	AV CORD 3P		
A 6	RM-SXV050J	REMOCON UNIT		
A 7	-----	BATTERY	(x2)	
A 8	QPC02504015P	POLY BAG	FOR ACC INST	
P 1	QPC06005515P	POLY BAG	FOR SET	
P 2	LE31077-001A	PACKING CASE		
P 3	LE20721-002A	PACKING PAD(L)	LEFT	
P 4	LE20722-002A	PACKING PAD(R)	RIGHT	
P 5	QPC01003015	ENVELOPE	10cm x 30cm	

JVC

SCHEMATIC DIAGRAMS

DVD VIDEO PLAYER

XV-M5GSL

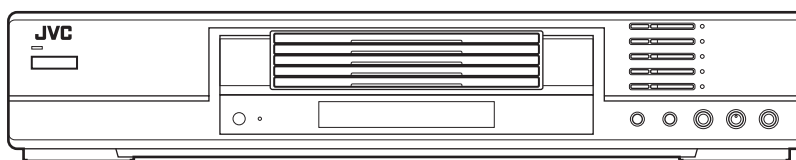
CD-ROM No.SML200307

Area Suffix

J ----- U.S.A.
C ----- Canada



AV COMPU LINK



Contents

Safety precaution	2-2
Block diagrams	2-3
Standard schematic diagrams	2-7
Printed circuit boards	2-15

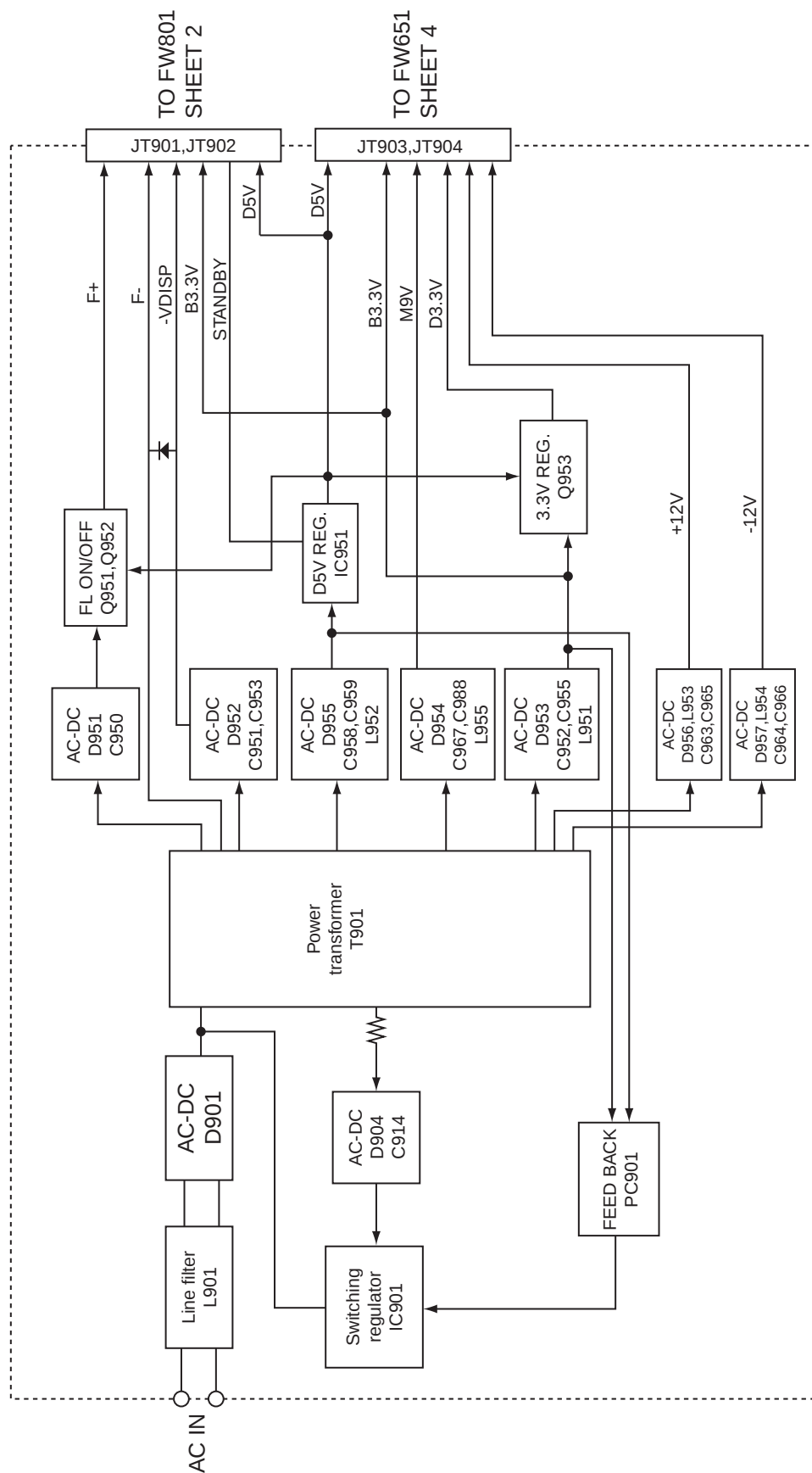
Safety precaution

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (⬤) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

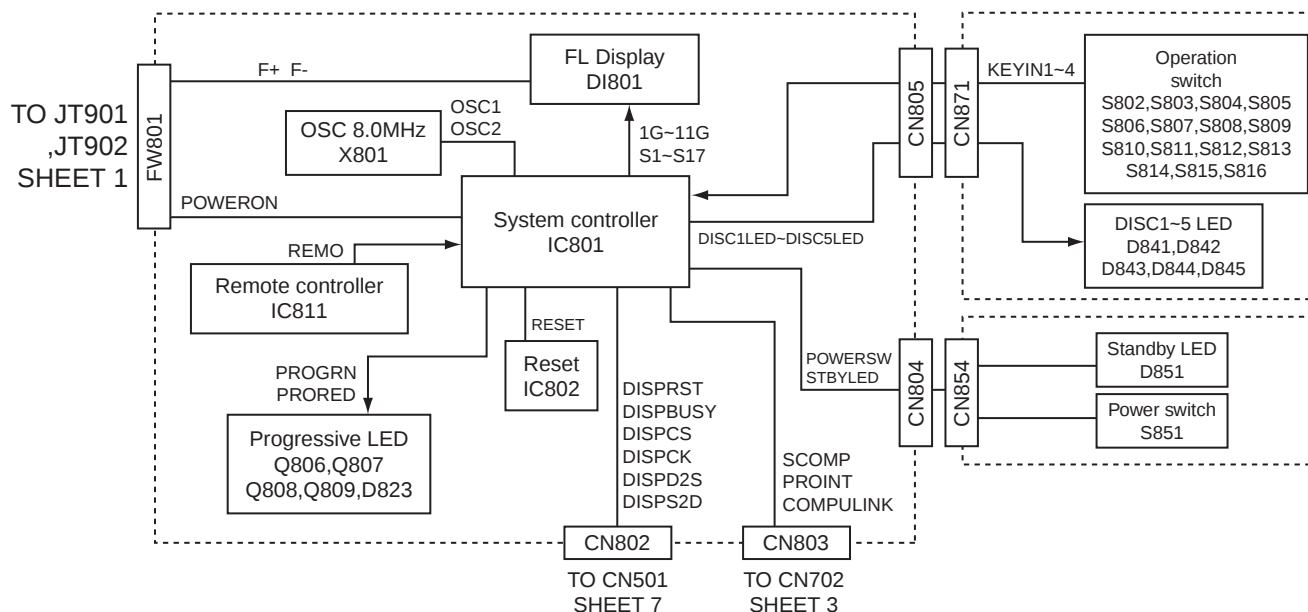
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

Block diagrams

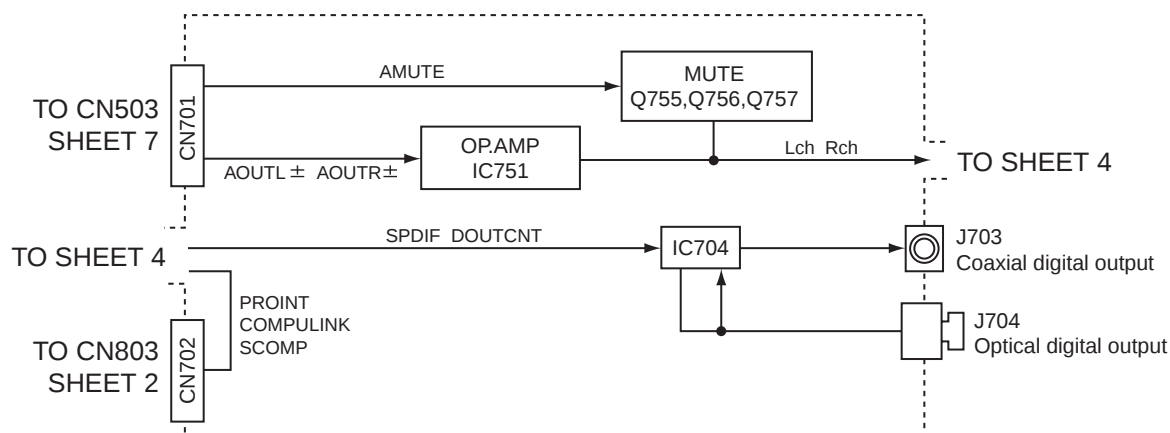
■ Power supply section (SHEET 1)



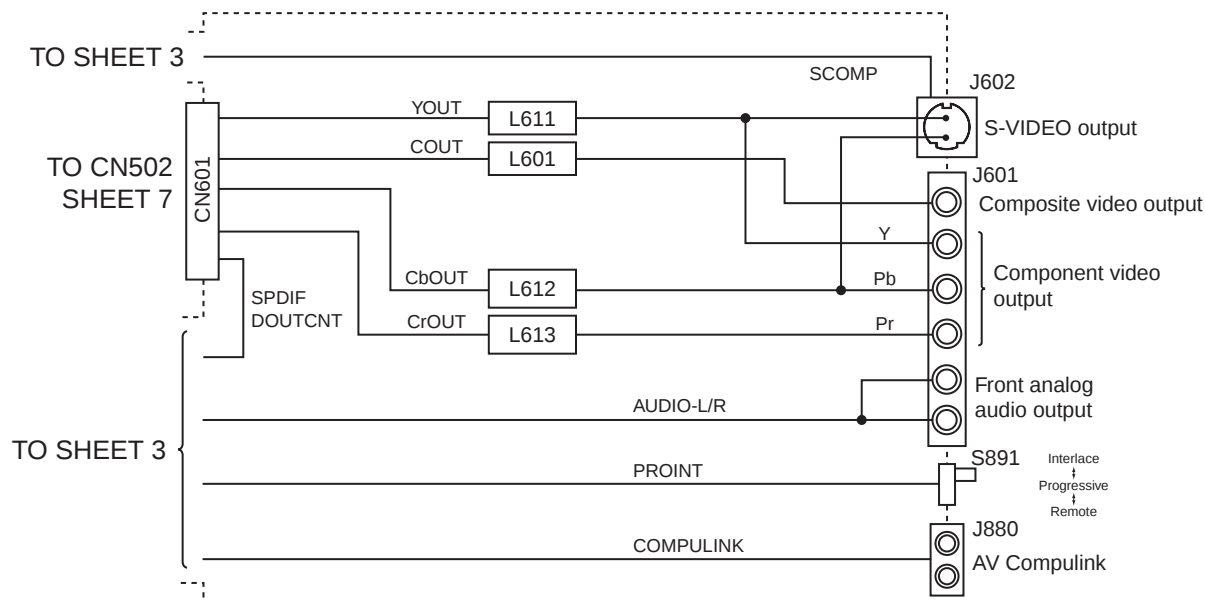
■ FL Display and system control section (SHEET 2)



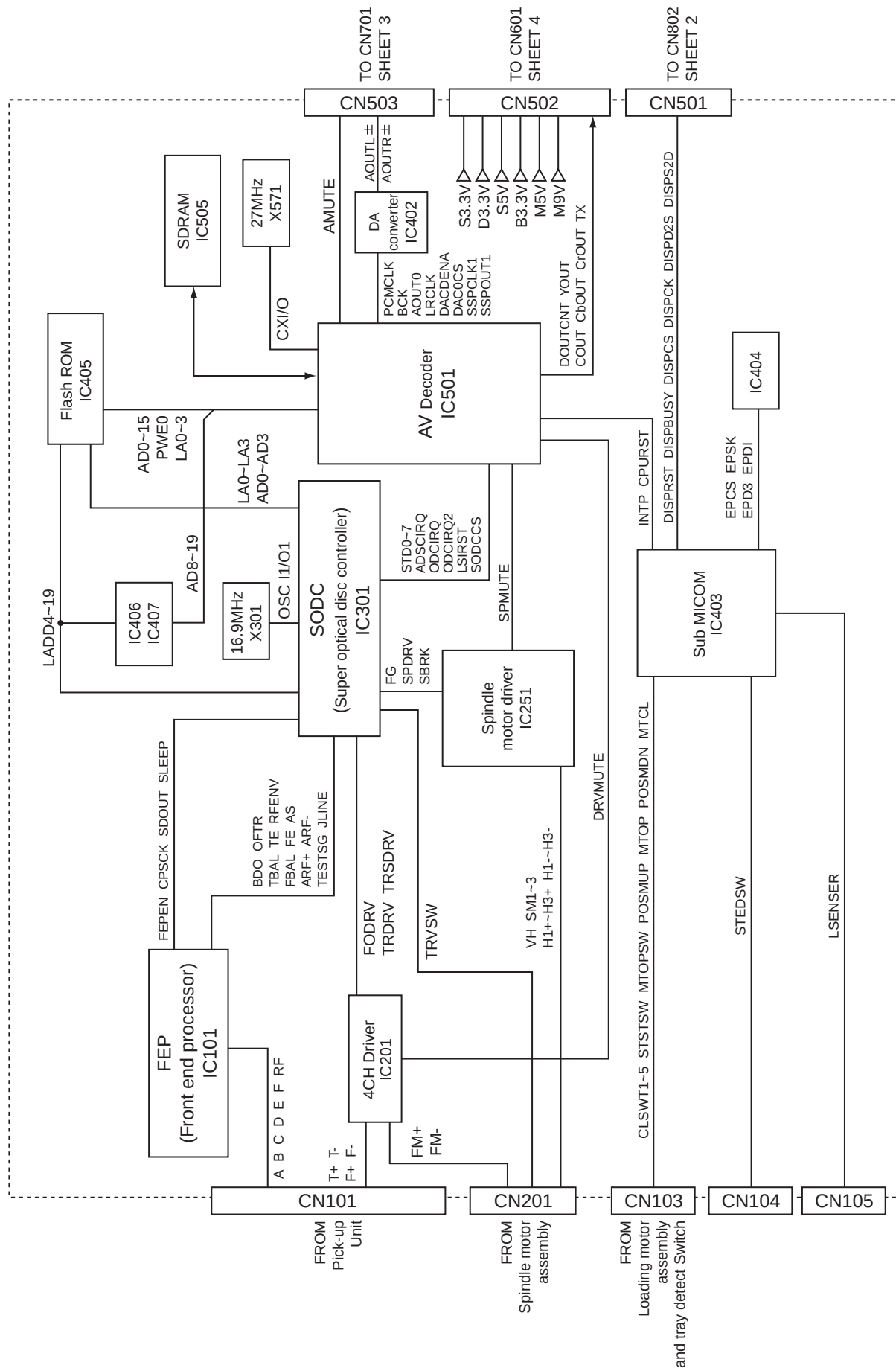
■ Audio amplifier section (SHEET 3)



■ Audio/Video signal output terminal section (SHEET 4)



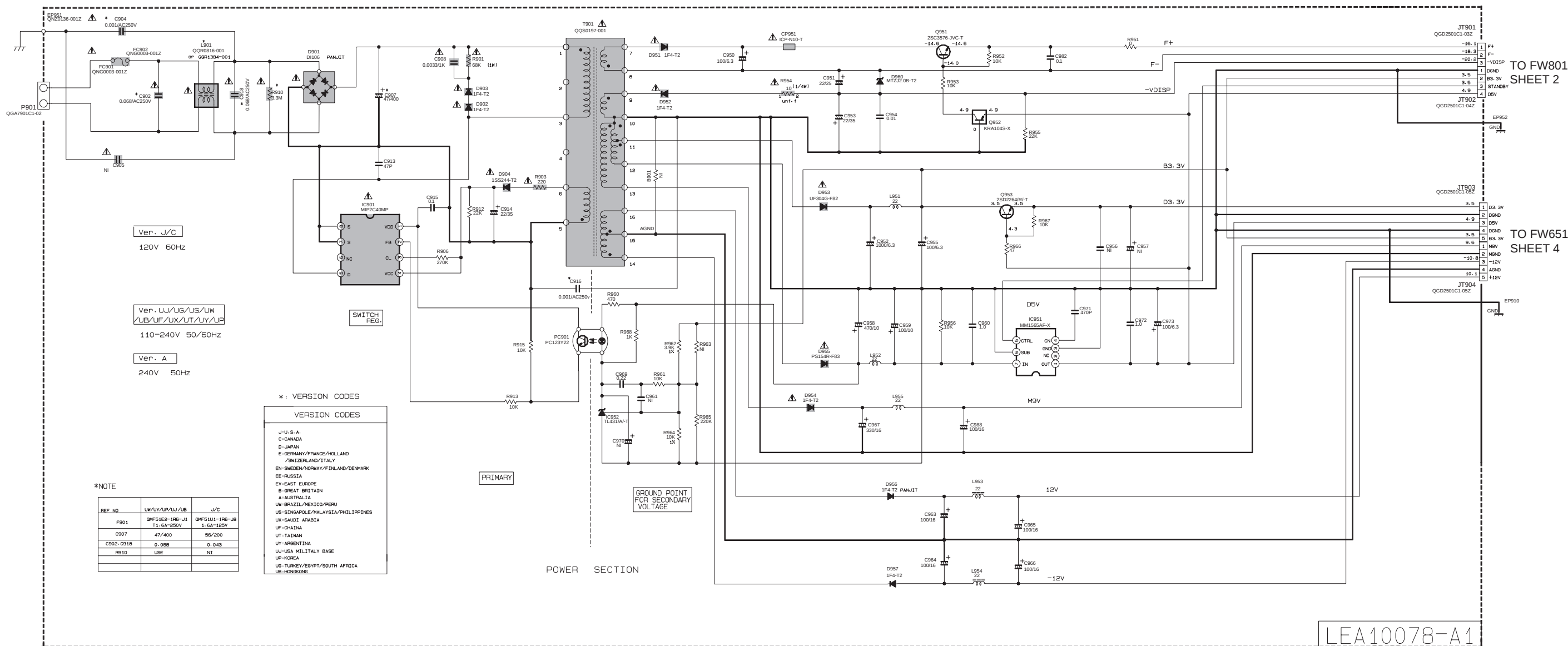
■ DVD Servo control & AV decoder section (SHEET 5,6,7)



<< MEMO >>

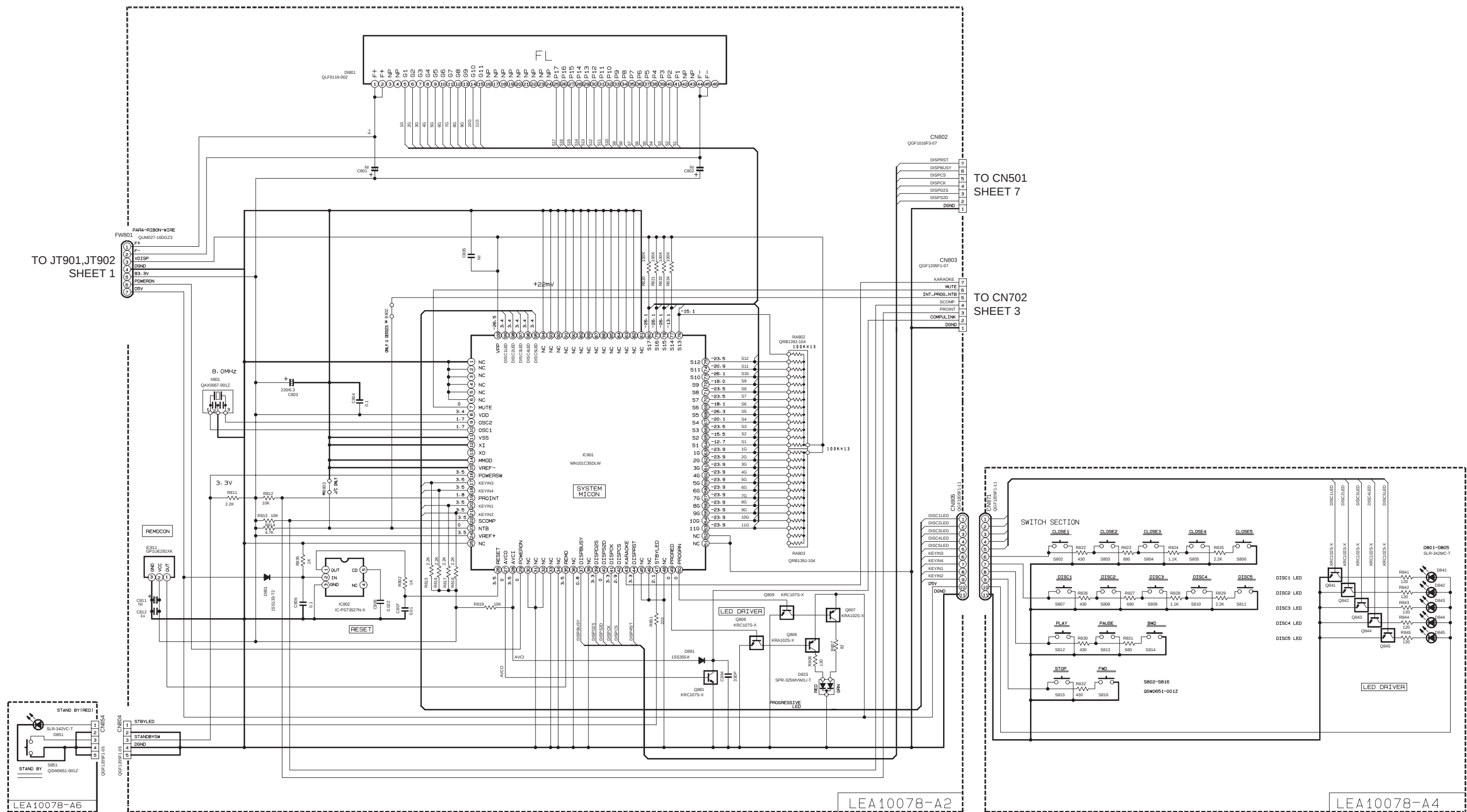
Standard schematic diagrams

■ Power supply section

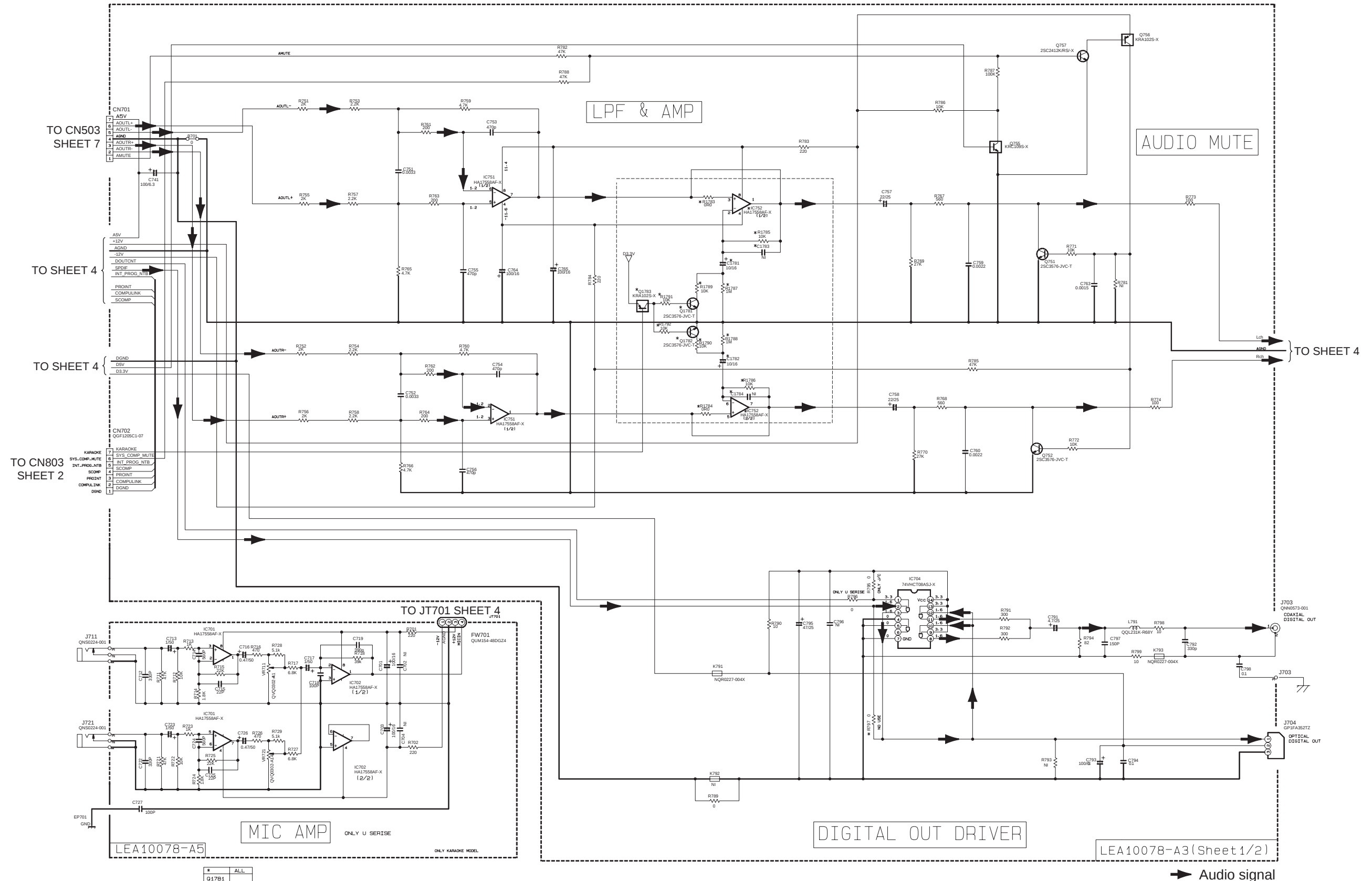


⚠ Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

■ FL Display and system control section



■ Audio amplifier section



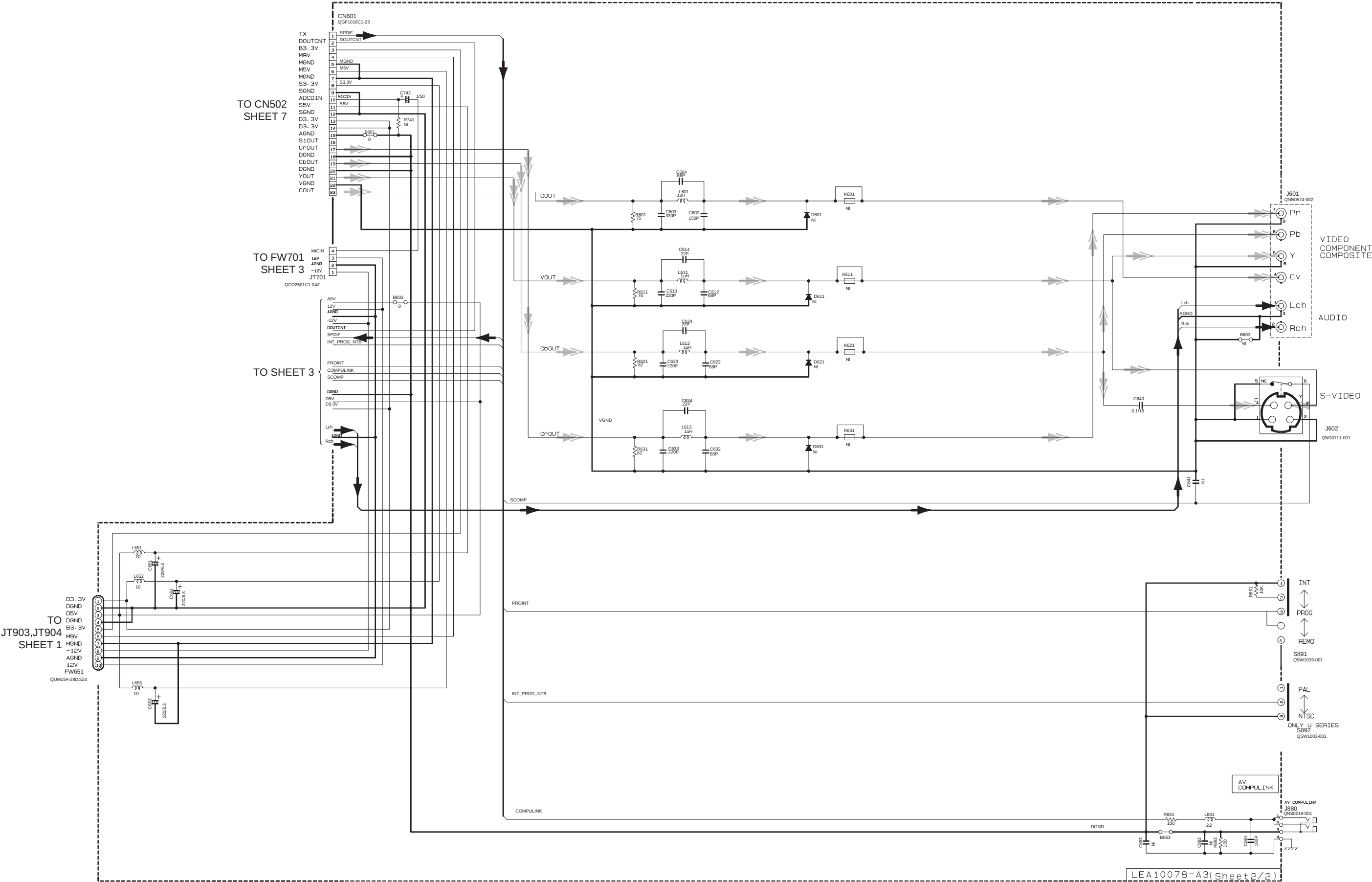
➔ Audio signal

MODEL
XV-M5GSL, MK5GSL

SHEET 3

(No.XA008SCH) 2-9

■ Audio/Video signal output terminal section

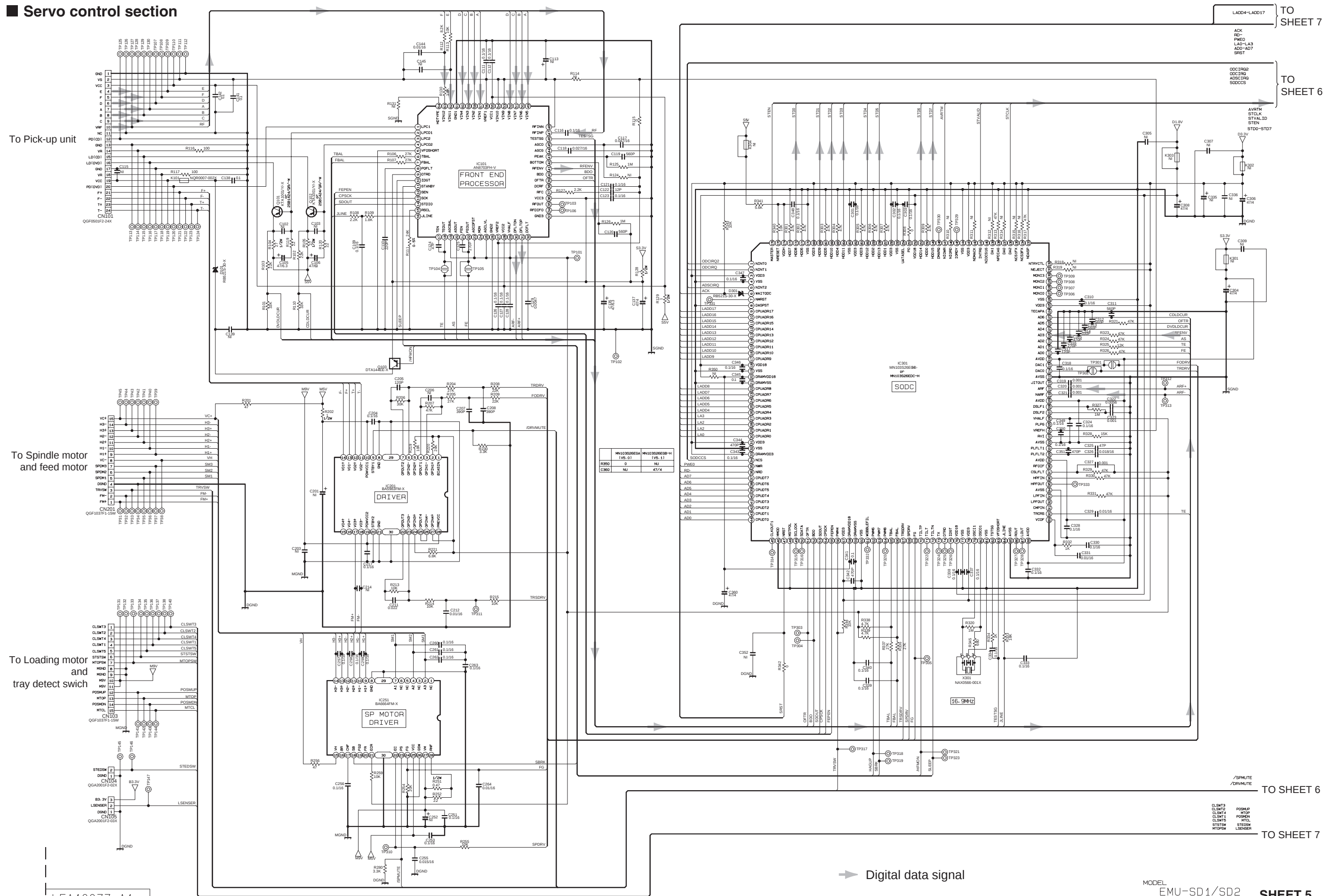


➡ Video signal
➡ Audio signal

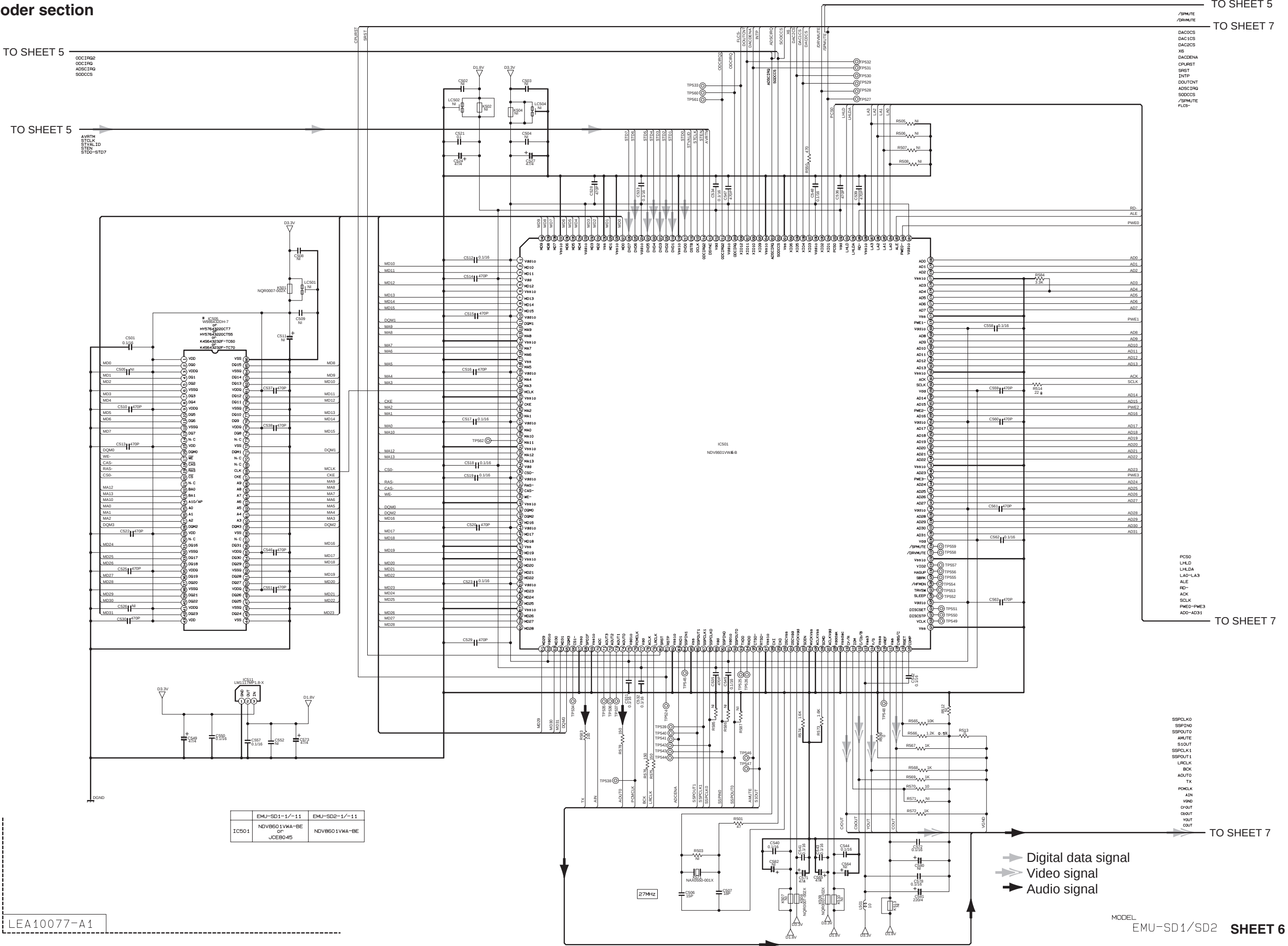
MODEL
XV-M5GSL, MK5GSL

SHEET 4

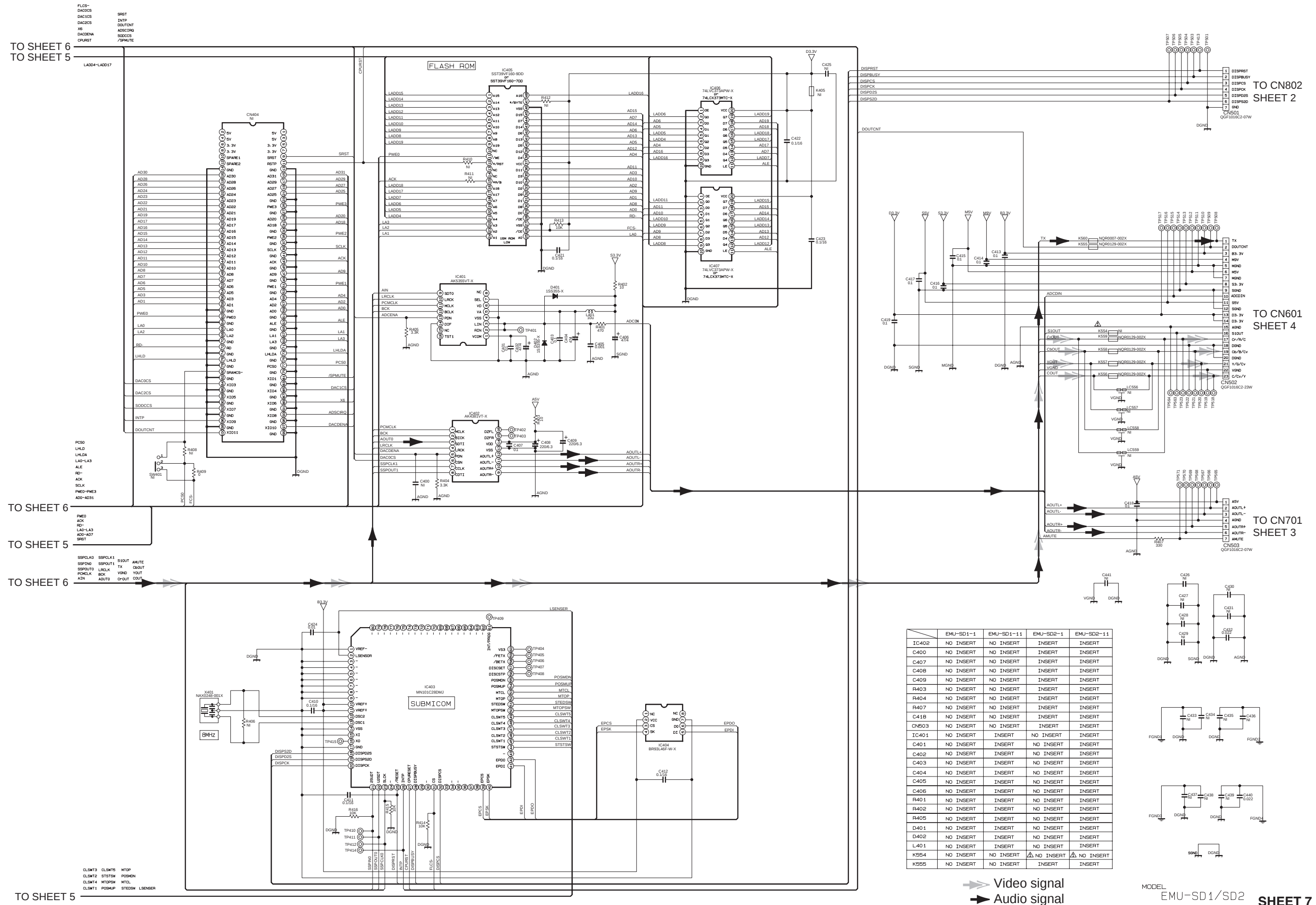
■ Servo control section



■ AV Decoder section



■ FLASH-ROM section



Voltage value table

IC101			
NO	DC(V)	NO	DC(V)
1	0V	51	2.1V
2	4.4V	52	2.1V
3	3.7V	53	2.1V
4	4.4V	54	2.1V
5	0V	55	4.9V
6	1.7V	56	2.1V
7	1.7V	57	2.1V
8	1.9V	58	2.1V
9	3.3V	59	2.1V
10	0V	60	2.1V
11	3.3V	61	0V
12	3.3V	62	2.1V
13	3.3V	63	2.1V
14	3.3V	64	1.6V
15	0V		
16	1.7V		
17	1.5V		
18	1.7V		
19	1.7V		
20	0V		
21	1.7V		
22	0V		
23	1.7V		
24	0.9V		
25	1.7V		
26	0V		
27	0V		
28	4.9V		
29	1.7V		
30	0V		
31	0V		
32	0V		
33	0V		
34	0V		
35	0.9V		
36	3.3V		
37	1.3V		
38	0.9V		
39	3.3V		
40	3.3V		
41	1.7V		
42	1.7V		
43	1.7V		
44	1.0V		
45	1.7V		
46	2.1V		
47	2.1V		
48	2.1V		
49	2.1V		
50	2.1V		

IC201	
NO	DC(V)
1	1.7V
2	1.7V
3	1.7V
4	1.7V
5	1.7V
6	1.7V
7	1.7V
8	0V
9	3.2V
10	5.0V
11	2.5V
12	2.5V
13	2.5V
14	2.5V
15	4.3V
16	4.3V
17	4.3V
18	4.3V
19	9.2V
20	0V
21	0V
22	1.7V
23	1.7V
24	1.7V
25	0V
26	0V
27	1.7V
28	9.2V
29	1.7V
30	9.2V

IC251	
NO	DC(V)
1	0.8V
2	0.8V
3	0.8V
4	0.8V
5	0V
6	0V
7	0.8V
8	0V
9	5.0V
10	5.0V
11	5.0V
12	5.0V
13	5.0V
14	5.0V
15	0V
16	0V
17	0V
18	0V
19	5.0V
20	5.0V
21	1.67V
22	1.67V
23	0V
24	3.3V
25	5.0V
26	0V
27	9.2V
28	9.2V
29	0V
30	0V

IC301							
NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)
1	0V	51	3.3V	101	0.7V	151	0V
2	2.9V	52	3.3V	102	0V	152	1.7V
3	3.3V	53	0.9V	103	1.4V	153	0V
4	0V	54	1.0V	104	2.1V	154	1.7V
5	3.3V	55	3.1V	105	2.1V	155	0V
6	3.3V	56	3.1V	106	1.7V	156	3.3V
7	2.7V	57	3.3V	107	0.7V	157	0V
8	0V	58	1.9V	108	0.7V	158	0V
9	0V	59	0V	109	3.3V	159	0V
10	0V	60	0V	110	1.7V	160	0V
11	3.3V	61	0.8V	111	1.7V	161	0V
12	3.3V	62	0.8V	112	0V	162	3.3V
13	3.3V	63	0.7V	113	0V	163	0V
14	0V	64	1.6V	114	1.7V	164	0V
15	1.4V	65	1.7V	115	1.7V	165	0V
16	0.3V	66	1.7V	116	3.3V	166	0V
17	1.4V	67	1.7V	117	1.7V	167	0V
18	1.7V	68	1.7V	118	1.7V	168	0V
19	0V	69	3.3V	119	1.7V	169	3.3V
20	1.9V	70	3.1V	120	1.7V	170	0V
21	0V	71	1.0V	121	2.1V	171	0V
22	2.2V	72	3.1V	122	1.7V	172	3.3V
23	2.2V	73	1.0V	123	2.1V	173	0V
24	1.7V	74	3.1V	124	1.0V	174	4.9V
25	1.5V	75	1.0V	125	3.3V	175	4.9V
26	1.5V	76	1.7V	126	0V	176	3.3V
27	1.5V	77	0V	127	0V		
28	1.5V	78	3.3V	128	0V		
29	1.5V	79	1.7V	129	0V		
30	0.5V	80	0V	130	0V		
31	3.3V	81	0V	131	2.5V		
32	0V	82	0.8V	132	0V		
33	3.3V	83	2.1V	133	0V		
34	3.3V	84	1.7V	134	0V		
35	3.3V	85	0V	135	0V		
36	3.3V	86	1.4V	136	1.7V		
37	0V	87	1.4V	137	3.3V		
38	0V	88	3.3V	138	0V		
39	0V	89	0V	139	3.3V		
40	0V	90	1.6V	140	0V		
41	0V	91	1.6V	141	0V		
42	0V	92	1.2V	142	0V		
43	1.0V	93	1.6V	143	3.3V		
44	0V	94	0V	144	0V		
45	1.5V	95	0.7V	145			
46	0V	96	1.6V	146	1.7V		
47	3.3V	97	1.7V	147	3.3V		
48	0V	98	1.6V	148			
49	3.1V	99	3.3V	149	0V		
50	3.1V	100	0.7V	150	0V		

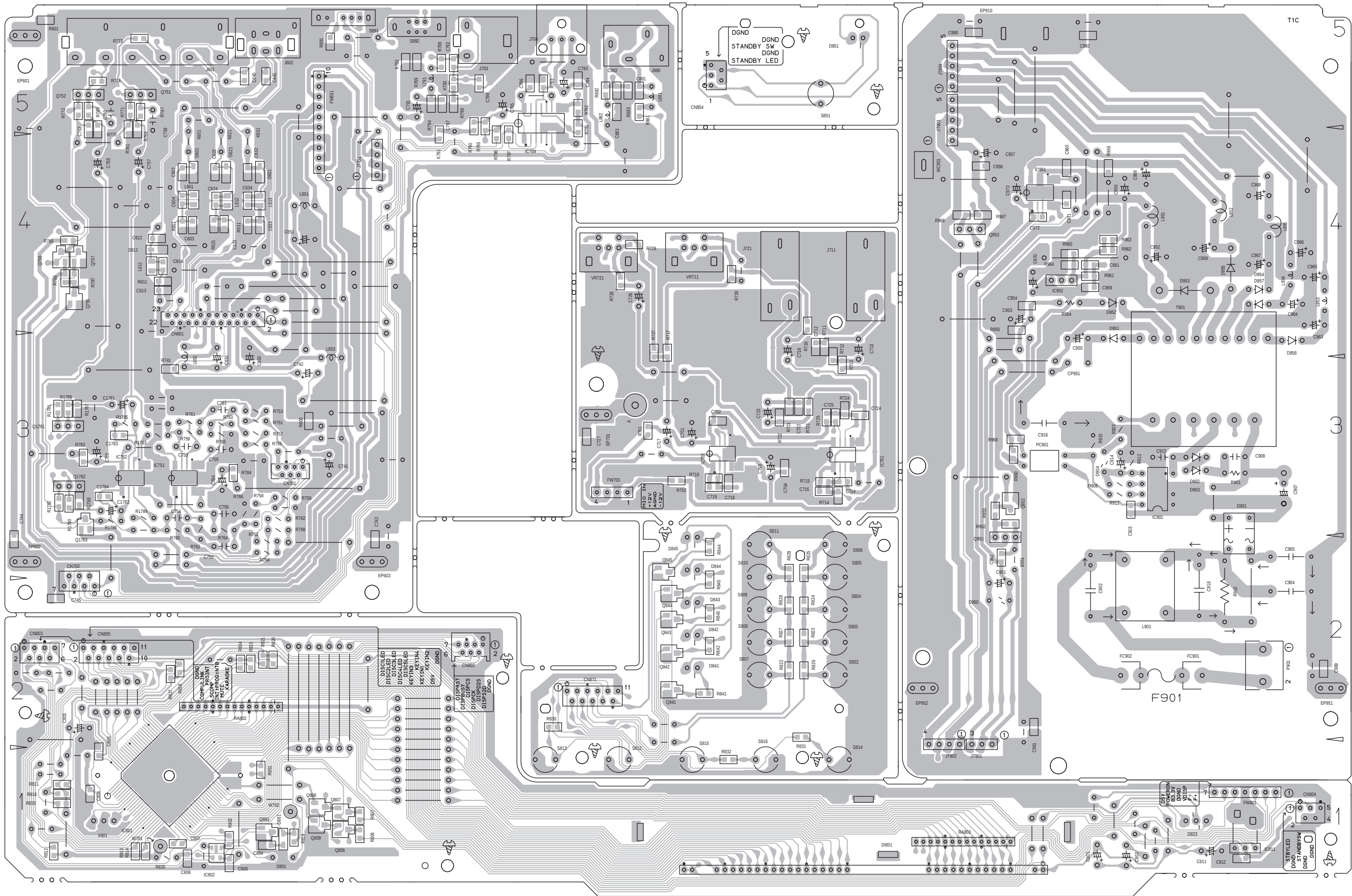
IC501							
NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)
1	3.2V	53	3.2V	105	0V	157	0V
2	0.5V	54	0.4V	106	0V	158	0V
3	0.4V	55	0.4V	107	3.2V	159	1.7V
4	1.8V	56	0.4V	108	1.7V	160	1.7V
5	0.4V	57	0V	109	0V	161	3.2V
6	0V	58	0.4V	110	0V	162	0V
7	0.4V	59	0.4V	111	1.0V	163	0V
8	0.4V	60	0.4V	112	1.0V	164	0V
9	0V	61	0.5V	113	3.1V	165	0V
10	3.2V	62	3.2V	114	0.4V	166	0V
11	0V	63	0.5V	115	0.4V	167	0V
12	0V	64	3.2V	116	1.3V	168	0V
13	0V	65	1.0V	117	3.1V	169	3.2V
14	0V	66	1.1V	118	0.8V	170	3.2V
15	2.0V	67	0V	119	1.3V	171	0V
16	1.3V	68	1.6V	120	1.8V	172	0V
17	0V	69	0V	121	0V	173	0V
18	0.4V	70	1.9V	122	0V	174	0V
19	3.2V	71	0V	123	0V	175	0V
20	1.4V	72	0V	124	0V	176	0V
21	1.7V	73	0V	125	3.2V	177	0V
22	1.7V	74	0V	126	0V	178	0V
23	0V	75	3.2V	127	0V	179	0V
24	3.2V	76	1.5V	128	0V	180	0V
25	0.5V	77	1.7V	129	0V	181	3.2V
26	2.5V	78	1.7V	130	0V	182	3.2V
27	3.2V	79	1.7V	131	0V	183	0V
28	1.2V	80	0V	132	0V	184	0V
29	0V	81	0V	133	0V	185	3.2V
30	0V	82	0V	134	0V	186	0V
31	0V	83	0V	135	1.8V	187	0V
32	2.0V	84	1.2V	136	0V	188	0V
33	1.3V	85	0V	137	0V	189	3.2V
34	1.7V	86	3.2V	138	0V	190	0V
35	2.2V	87	0V	139	0V	191	0V
36	3.1V	88	1.7V	140	3.2V	192	1.7V
37	3.2V	89	0V	141	0V	193	3.2V
38	0V	90	0V	142	0V	194	0.6V
39	3.2V	91	1.2V	143	0V	195	2.9V
40	0V	92	0V	144	0V	196	3.2V
41	0V	93	0V	145	3.2V	197	3.2V
42	0V	94	0.6V	146	0V	198	3.2V
43	0.7V	95	0.7V	147	0V	199	3.2V
44	3.2V	96	0V	148	0V	200	3.2V
45	0.7V	97	0V	149	0V	201	0V
46	0.5V	98	1.7V	150	0V	202	3.2V
47	0V	99	0.9V	151	0V	203	3.2V
48	0.5V	100	0V	152	0V	204	0V
49	0V	101	1.7V	153	0V	205	3.4V
50	0.4V	102	3.2V	154	3.2V	206	3.2V
51	0.4V	103	0V	155	0V	207	3.2V
52	0.4V	104	0V	156	3.2V	208	3.3V

IC505			
NO	DC(V)	NO	DC(V)
1	3.2V	51	0.5V
2	0.8V	52	0V
3	3.2V	53	0.5V
4	0.8V	54	0.7V
5	0.8V	55	3.2V
6	0V	56	0.7V
7	0.6V	57	0.6V
8	0.6V	58	0V
9	3.2V	59	0V
10	0.8V	60	1.7V
11	1.0V	61	1.4V
12	0V	62	0.4V
13	0.4V	63	1.3V
14	0V	64	1.3V
15	3.2V	65	2.0V
16	0V	66	0V
17	3.2V	67	3.2V
18	0V	68	1.7V
19	3.2V	69	0V
20	2.2V	70	0V
21	0V	71	0V
22	2.0V	72	0V
23	1.3V	73	0V
24	0V	74	0V
25	1.2V	75	3.2V
26	2.5V	76	0.4V
27	0.5V	77	0.4V
28	1.0V	78	0V
29	3.2V	79	0V
30	0V	80	0.4V
31	0.4V	81	3.2V
32	0V	82	0.5V
33	0.4V	83	0.8V
34	0.4V	84	0V
35	3.2V	85	0.8V
36	0.4V	86	0V
37	0.4V		
38	0V		
39	0.5V		
40	0.5V		
41	3.2V		
42	3.2V		
43	3.2V		
44	0V		
45	0.4V		
46	0V		
47	0.4V		
48	0.4V		
49	3.2V		
50	0.4V		

IC405	
NO	DC(V)
1	0V
2	0V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V
9	0V
10	0V
11	3.2V
12	0V
13	0V
14	0V
15	0V
16	0V
17	0V
18	0V
19	0V
20	0V
21	0V
22	0V

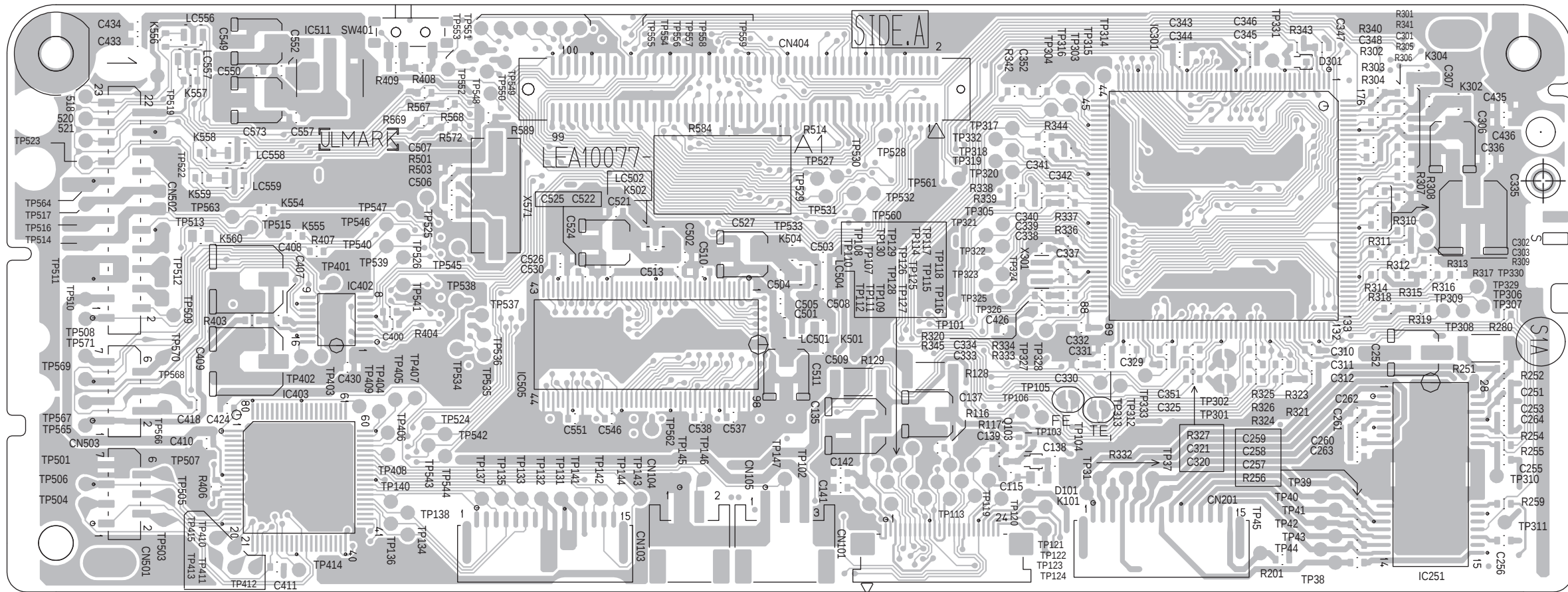
Printed circuit boards

■ Main board

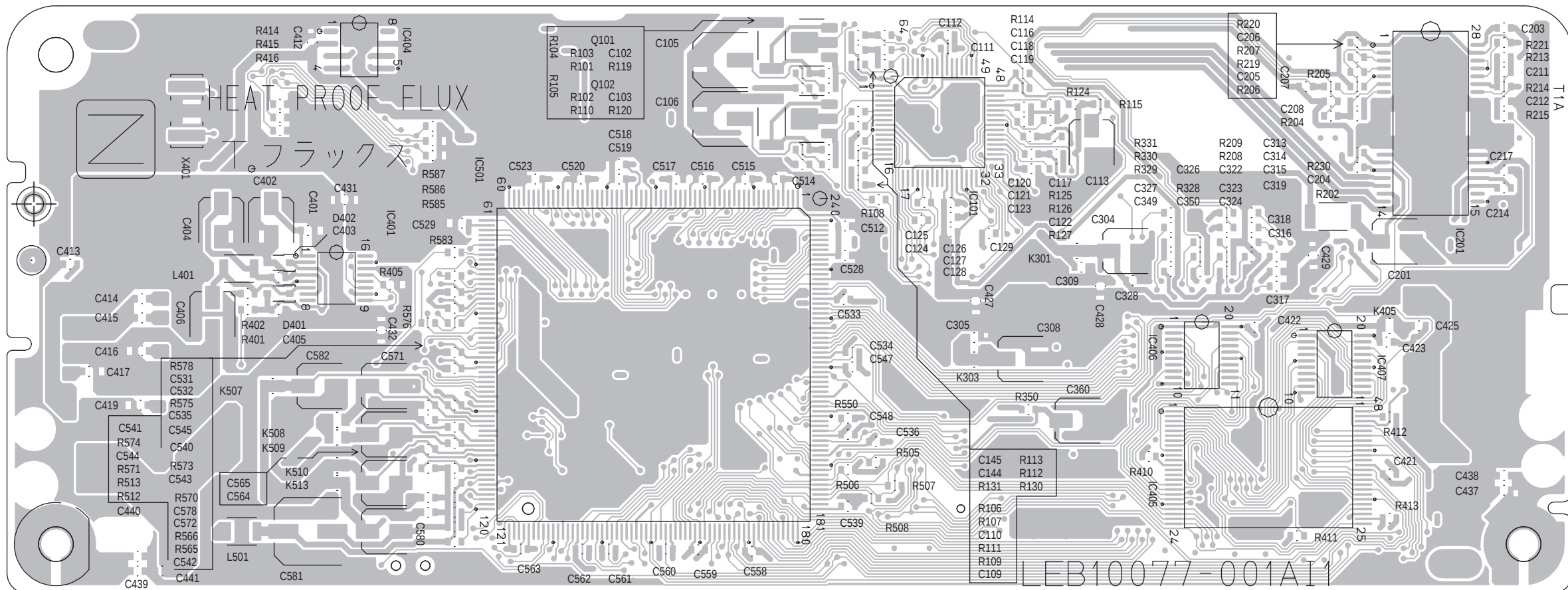


■ Servo control board

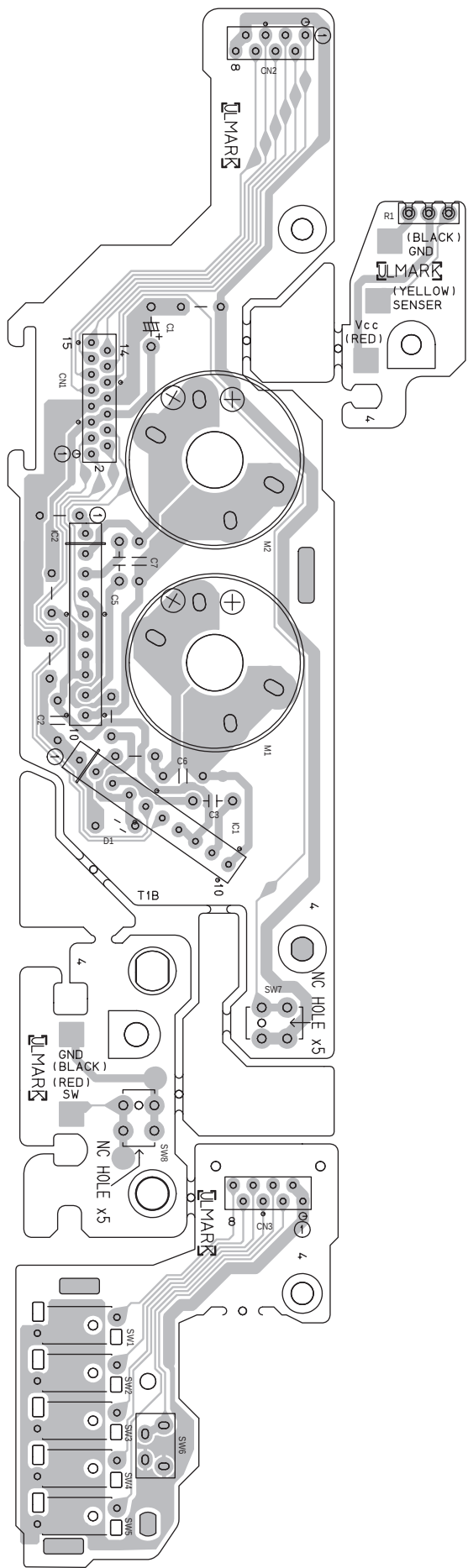
Forward side



Reverse side



■ Changer mechanism board





VICTOR COMPANY OF JAPAN, LIMITED

AV & MULTIMEDIA COMPANY OPTICAL DISC CATEGORY 1644, Shimotsuruma, Yamato, Kanagawa 242-8514, Japan

No.XA008SCH



Printed in japan
200307