

Service Manual

DV4200 /U1B, /F1N, /N1B, /N1G, /S1G, /A1B

DVD Player

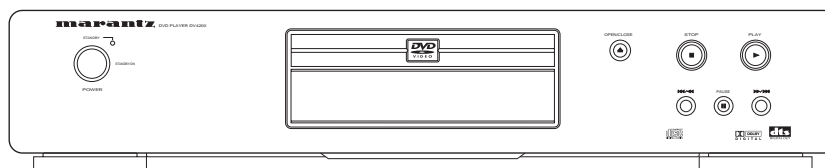


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Please use this service manual with referring to the user guide (D.F.U) without fail.
修理の際は、必ず取り扱い説明書を準備し操作方法を確認の上作業を行ってください。

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DV4200

344W855010 ACT
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Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

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SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical
Department at above mentioned address.

REMARK

This service manual corresponds to service modification code number "MZ01" and later. When exchanging MAIN PCB on the product of the service modification code "MZ00", it is necessary to also exchange the following parts on the I/O PCB simultaneously.

(The service modification code is mentioned in the number label on the rear panel. Ex.MZ01xxxxxxxxxx)

Two kinds of MPEG ICs (IC501) exist in this model. Since the conventional IC (Pantera-2) became a production stop, this was generated. Since power supply voltage is changed, new IC (Pantera-2 LE) has change in a power supply part. In the case of repair, please fix after checking the version of IC.

| | Service modification code | |
|----------|---------------------------|----------------|
| | MZ00 | MZ01 |
| Location | <Pantera-2> | <Pantera-2 LE> |
| D115 | 1N17 | Tin Wire |

1. TECHNICAL SPECIFICATIONS

DVD Player

| | |
|----------------------------------------------|-----------------------------------------------------------------------|
| Power supply (S) | AC 220~230V, 50/60 Hz |
| Power supply (U) | AC 120V, 60 Hz |
| Power supply (N) | AC 230V, 50 Hz |
| Power supply (F) | AC 100V, 50/60 Hz |
| Power supply (A) | AC 110~240V, 50 Hz |
| Power consumption | 16 W |
| Weight | 7.1 lbs. (3.2 kg) |
| External dimensions (W X H X D) | 17.3" X 3.5" X 10.0" (440 x 88 x 254 mm) |
| Signal system (U, F) | NTSC |
| Signal system (N, S) | PAL, NTSC |
| Laser Semiconductor laser, wavelength | 650 nm (DVD), 780 nm (CD) |
| Frequency range (audio) | DVD: fs = 96 kHz 4 Hz - 44 kHz |
| | fs = 48 kHz 4 Hz - 22 kHz |
| | CD: 4 Hz - 20 kHz |
| Signal-to-noise ratio (audio) | More than 105 dB (EIAJ) |
| Dynamic range (audio) | More than 100 dB (EIAJ) |
| Harmonic distortion (audio) | 0.003 % |
| Wow and flutter Below measurable level | (less than + 0.001 % (W.PEAK)) (EIAJ) |
| Operating conditions | Temperature: 41°F to 95°F (5°C to 35°C), Operation status: Horizontal |

Outputs

| | |
|-------------------------------------------------|--------------------------------------------------------|
| Video output | 1.0 V (p-p), 75 Ω, negativ e sync., RCA jack x 1 |
| S-video output (Y) | 1.0 V (p-p), 75 Ω, negativ e sync., Mini DIN 4-pin x 1 |
| (C) | 0.286 V (p-p), 75 Ω |
| Component video output (Y) (U, F, S, A) | 1.0 V (p-p), 75 Ω, negativ e sync., RCA jack x 1 |
| (CB)/(CR) (U, F, S, A) | 0.7 V (p-p), 75 Ω |
| R/G/B output (N) | 0.7 Vp-p 21-pin SCART connector |
| Audio output (digital audio) | 0.5 V (p-p), 75 Ω, RCA jac k x 1 |
| Audio output (optical audio) (F, A, S, N) | Optical connector x 1 |
| Audio output (analog audio) | 2.0 Vrms (1 kHz, 0 dB), 330 Ω, RCA jac k (L, R) x 2 |

Supplied Accessories

| | |
|----------------------------|---|
| Video cable | 1 |
| Audio cable | 1 |
| System Control cable | 1 |
| Remote control | 1 |
| Batteries | 2 |

Designs and specifications are subject to change without notice.

2. PRODUCT SAFETY SERVICING GUIDELINES FOR VIDEO PRODUCTS

CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY, NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY.

SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.

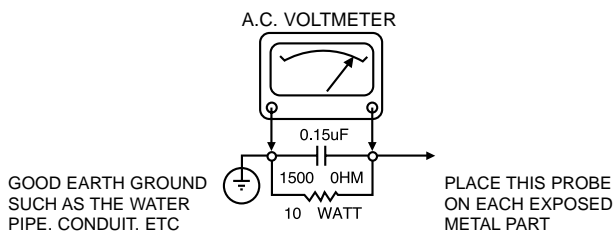
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED. A CHECK SHOULD BE MADE OF THE FOLLOWING.

SUBJECT : FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OR SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS, FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD), AND REPLACE IF NECESSARY. FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTORS, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES. DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE SET ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET, (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS, HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER: CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150.V A.C TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED 75 VOLTS R.M.S. THIS CORRESPONDS TO 0.5 MILLIAMPS A.C ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



SUBJECT: GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH APROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

SUBJECT : X-RADIATION

1. BE SURE PROCEDURES AND INSTRUCTIONS TO ALL SERVICE PERSONNEL COVER THE SUBJECT OF X-RADIATION. THE ONLY POTENTIAL SOURCE OF X-RAYS IN CURRENT T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE IS AT THE FACTORY SPECIFIED LEVEL. THE PROPER VALUE IS GIVEN IN THE APPLICABLE SCHEMATIC. OPERATION AT HIGHER VOLTAGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND, UNDER CERTAIN CIRCUMSTANCES, MAY PRODUCE RADIATION IN EXCESS OF DESIRABLE LEVELS.
2. ONLY FACTORY SPECIFIED C.R.T. ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS AN X-RAY SHIELD IN COLOR SETS, ALWAYS RE-INSTALL THEM.
3. IT IS ESSENTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD, SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
4. WHEN THE HIGH VOLTAGE CIRCUITRY IS OPERATING PROPERLY THERE IS NO POSSIBILITY OF AN X-RADIATION PROBLEM. EVERY TIME A COLOR CHASSIS IS SERVICED, THE BRIGHTNESS SHOULD BE RUN UP AND DOWN WHILE MONITORING THE HIGH VOLTAGE WITH A METER TO BE CERTAIN THAT THE HIGH VOLTAGE DOES NOT EXCEED THE SPECIFIED VALUE AND THAT IT IS REGULATING CORRECTLY. WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE AND THAT THE HIGH VOLTAGE READING BE RECORDED ON EACH CUSTOMER'S INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE, AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY. DO NOT OPERATE THE PRODUCT LONGER THAN IT IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV. B+ AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

SUBJECT: IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRAL IMPLOSION PROTECTION SYSTEM, BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION, AVOID SCRATCHING THE TUBE. IF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBY-HOLE OR CLOSELY FITTING SHELF SPACE, OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT, MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS. A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS) TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM. BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES, INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.'S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS. EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

3. SERVICING PRECAUTIONS

CAUTION : Before servicing the DVD covered by this service data and its supplements and ADDENDUMS, read and follow the *SAFETY PRECAUTIONS*. **NOTE :** if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publications, always follow the safety precautions.

Remember Safety First:

General Servicing Precautions

1. Always unplug the DVD AC power cord from the AC power source before:
 - (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
 - (2) Disconnection or reconnecting any internal electrical plug or other electrical connection.
 - (3) Connecting a test substitute in parallel with an electrolytic capacitor.
Caution : A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this DVD or any of its assemblies.
3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cotton-tipped swab, or comparable soft applicator. Unless specified otherwise in this service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
5. Do not apply AC power to this DVD and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
6. Always connect test instrument ground lead to the appropriate ground before connection the test instrument positive lead. Always remove the test instrument ground lead last.

Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter(500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M-ohm.

Note 1 : Accessible Conductive Parts including Metal panels, Input terminals, Earphone jacks, etc.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor chip components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

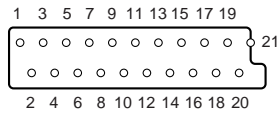
1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a GROUNDED-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified a "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

4. CONNECTION FACILITIES

4.1 Video performance (N only)



4.1.1 SCART

Pin No. TV (OUT)

| | |
|--------|-----------------------------------------------------------------------------------------------------------|
| Pin 1 | Audio R out : 2Vrms |
| Pin 2 | Audio R in : 2Vrms |
| Pin 3 | Audio L out : 2Vrms |
| Pin 4 | GND |
| Pin 5 | GND |
| Pin 6 | Audio L in : 2Vrms |
| Pin 7 | Blue out/C in Blue : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2 |
| Pin 8 | function switching out <2V : TV >5/<8 : asp.ratio 16 : 9 DVD/AUX >9.5/<12 : asp.ratio 4 : 3 DVD/AUX |
| Pin 9 | GND |
| Pin 10 | not connected |
| Pin 11 | Green out:0.7Vpp ±0.1V into 75 Ohm *1 |
| Pin 12 | not connected |
| Pin 13 | GND |
| Pin 14 | GND |
| Pin 15 | Red/C out Red : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2 |
| Pin 16 | fast switching out <0.4V into 75 Ohm=CVBS/S-Video 1</>3 into 75 Ohm=RGB |
| Pin 17 | GND |
| Pin 18 | GND |
| Pin 19 | CVBS/Y out : 1Vpp ±0.1V *1 |
| Pin 20 | CVBS/Y in : 1Vpp ±0.1V *1 |
| Pin 21 | GND |

Pin No. AUX (IN)

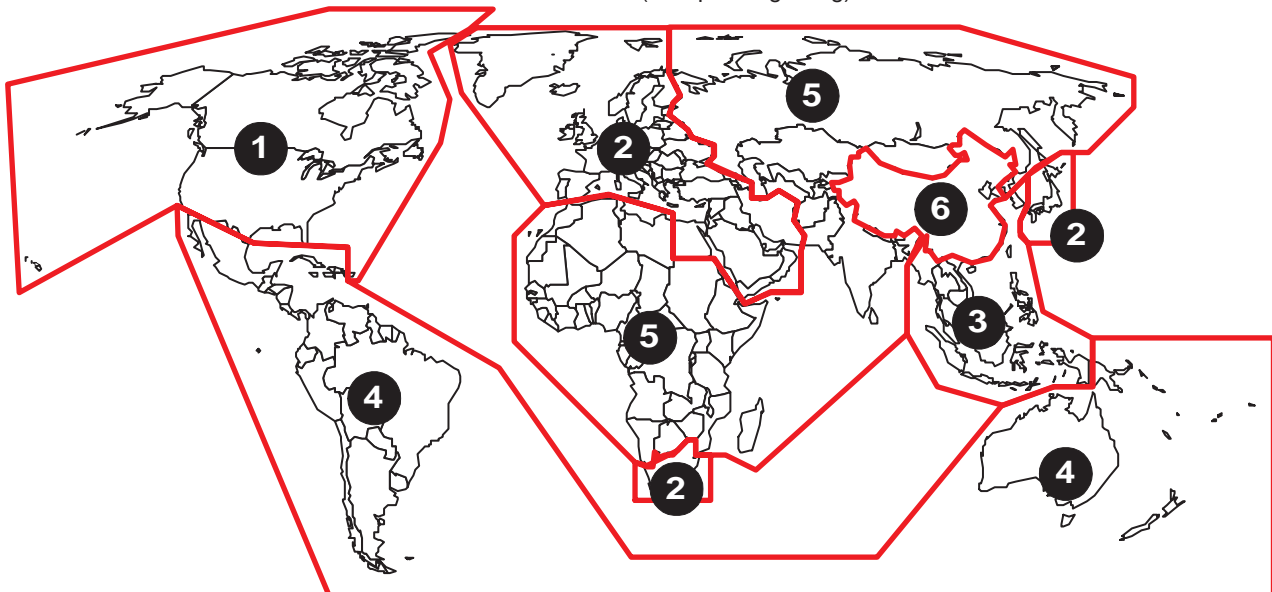
| | |
|--------|----------------------------------------------------------------------------------------------------|
| Pin 1 | (Audio R out : 2Vrms) |
| Pin 2 | Audio R in : 2Vrms |
| Pin 3 | (Audio L out : 2Vrms) |
| Pin 4 | GND |
| Pin 5 | GND |
| Pin 6 | Audio L in : 2Vrms |
| Pin 7 | (Blue in/C out Blue : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2) |
| Pin 8 | (function switching in<2V : DVD >5/<8 : asp.ratio 16 : 9 AUX >9.5/<12 : asp.ratio 4 : 3 AUX) |
| Pin 9 | GND |
| Pin 10 | not connected |
| Pin 11 | (Green in:0.7Vpp ±0.1V into 75 Ohm) |
| Pin 12 | not connected |
| Pin 13 | GND |
| Pin 14 | GND |
| Pin 15 | (Red/C in Red : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2) |
| Pin 16 | (fast switching in <0.4V into 75 Ohm=CVBS/S-Video 1</>3 into 75 Ohm=RGB) |
| Pin 17 | GND |
| Pin 18 | GND |
| Pin 19 | (CVBS/Y out : 1Vpp ±0.1V *1) |
| Pin 20 | CVBS/Y in : 1Vpp ±0.1V *1 |
| Pin 21 | GND |

*1 : 100% White *2 : Burst Level *3 : color bar(chroma level : 75%)

What are "regional codes"?

Motion picture studios want to control the home release of movies in different countries because theater releases aren't simultaneous (a movie may come out on DVD in the US when it's just hitting screens in Europe). Therefore they have required that the DVD standard include codes which can be used to lock out the playback of certain discs in certain geo-graphical regions. Players sold in each region will have that region's code built into the player. The player will refuse to play these "region coded" discs which are not allowed in the region. However, regional codes are entirely optional. Discs without codes will play on any player in any country. Some studios have already announced that only their new releases will have regional codes. There are six regions:

1. United States and Canada
2. Europe and Japan
3. Far East (except Japan & China)
4. South America and Oceania
5. Africa and the Middle East
6. China (except Hong Kong)



Map of DVD Regions

5. INFORMATIONS

REGION CODE

| VERSION | REGION CODE | COUNTRY |
|---------|-------------|--------------------|
| /UXX | 1 | USA/CANADA |
| /FXX | 2 | JAPAN |
| /NXX | 2 | EUROPE |
| /SXX | 3 | SINGAPORE/HONGKONG |
| /AXX | 4 | AUSTRALIA |

DVD INFORMATION

Below is a glossary of the new terms related to DVD.

Title:

A disc may have more than one story/movie on it, so each story/movie is called a "title".

For example, if there are 2 movies on the disc, they are separated into Title 1 and Title 2.

Chapter:

A title may also be separated into chapters.

For example, a movie (title) may be separated into 3 scenes (chapters).

| Title 1 | | | Title 2 | | |
|-----------|-----------|-----------|-----------|-----------|-----------|
| Chapter 1 | Chapter 2 | Chapter 3 | Chapter 1 | Chapter 2 | Chapter 3 |
| | | | | | |

Subtitles:

DVDs are recorded with up to 32 different subtitle languages. If a disc has more than one subtitle language, you can select the subtitle language that you want to read.

Soundtrack language:








DVDs are recorded with up to 8 different soundtrack languages. If a disc has more than one language, you can select the soundtrack language that you want to listen to.

Multi-angles:

On some DVDs, scenes have been filmed from different angles (up to a maximum of 9). On these discs, you can select the angle that you want to watch. Please refer to the DVD's manual

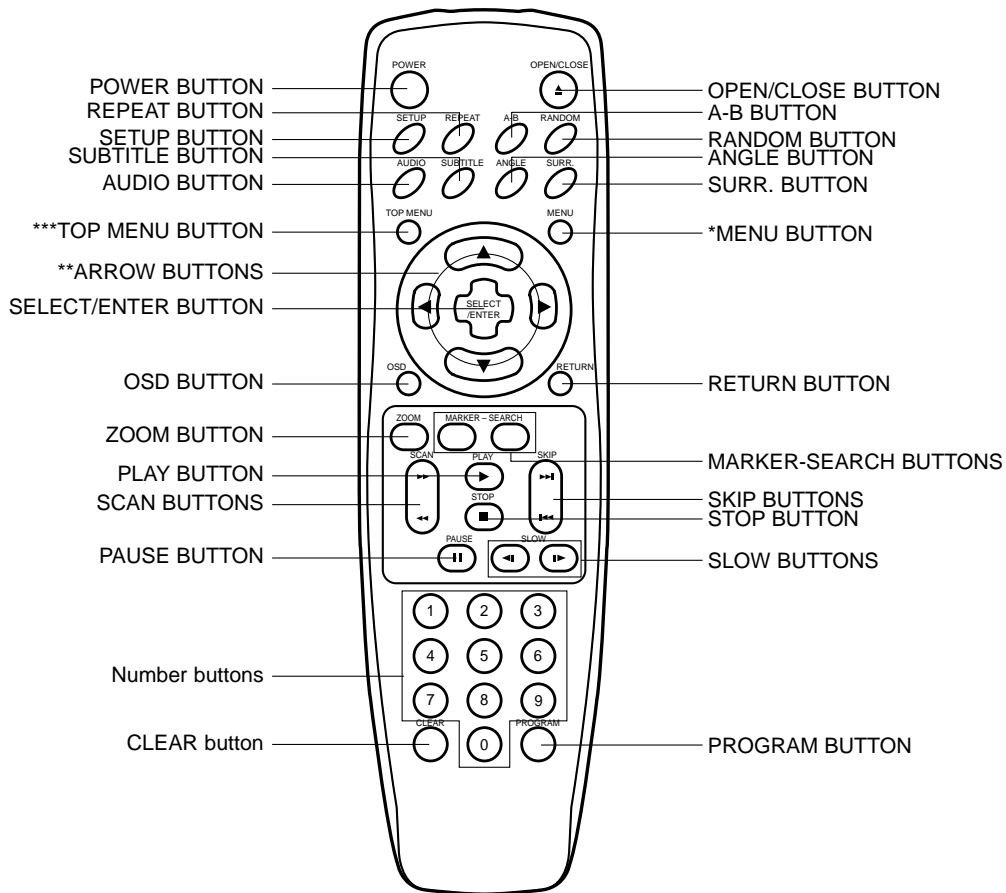
THE DISCS THAT THE DV4200 CAN HANDLE

The following discs can be played back with DV4200.

| Types of playable discs and their marks | Diameter/ Playable sides | Playback time |
|--------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------|
|  | DVD VIDEO | Digital audio Digital video (MPEG 2) |
| | 12 cm (5 in.)/ single-sided | 1 layer 2 layer 133 min. 242 min. |
| | 12 cm (5 in.)/ double-sided | 1 layer 2 layer 266 min. 484 min. |
| | DVD VIDEO | Digital audio Digital video (MPEG 2) |
|  | 8 cm (3 in.)/ single-sided | 1 layer 2 layer 41 min. 75 min. |
| | 8 cm (3 in.)/ double-sided | 1 layer 2 layer 82 min. 150 min. |
| | VIDEO CD | Digital audio Digital video (MPEG 1) |
| | VIDEO CD | Digital audio Digital video (MPEG 1) |
|  | 12 cm (5 in.)/ single-sided | Max. 74 minutes |
| | VIDEO CD single | Digital audio Digital video (MPEG 1) |
|  | 8 cm (3 in.)/ single-sided | Max. 20 minutes |
| | CD | Digital audio |
|  | 12 cm (5 in.)/ single-sided | Max. 74 minutes |
| | CD single | Digital audio |
|  | 8 cm (3 in.)/ single-sided | Max. 20 minutes |
| | CD single | Digital audio |
|  | 8 cm (3 in.)/ single-sided | Max. 20 minutes |
| | CD single | Digital audio |

Note: The regional code of the discs must meet to the regional code of the DV4200.

REMOTE CONTROL



*MENU BUTTON

USE THE MENU BUTTON TO DISPLAY THE MENU SCREEN INCLUDED ON SELECTED DVD VIDEO DISCS. TO OPERATE A MENU SCREEN, FOLLOW THE INSTRUCTIONS IN "USING A DVD MENU" .

**DIRECTIONAL ARROW BUTTONS

(UP, DOWN, LEFT, RIGHT) FOR USE IN HIGHLIGHTING A SELECTION ON A GUI MENU SCREEN, TITLE AND MENU SCREEN.

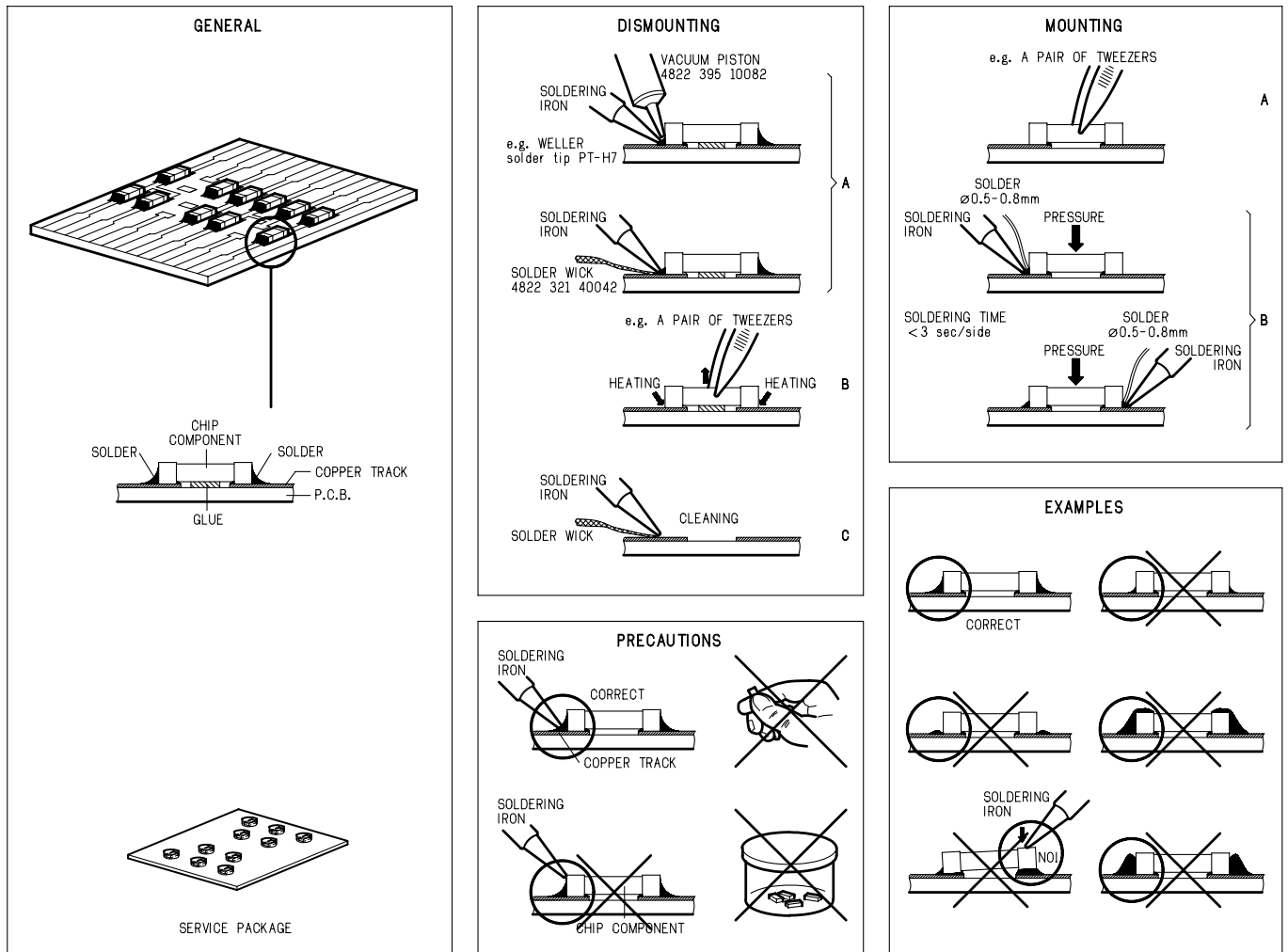
***TOP MENU BUTTON

USE THE TOP MENU BUTTON TO DISPLAY THE TITLE MENU INCLUDED ON SELECTED DVD VIDEO DISCS. TO OPERATE A MENU SCREEN, FOLLOW THE INSTRUCTIONS IN "USING A TITLE MENU" .

- This remote control supports two remote control codes: C1 and C2.
- When the unit is shipped from the factory the remote control is set to C1.
- To set the remote control to C2, hold down both the STOP button and "2" number button on the remote control for at least five seconds. (If the batteries in the remote control are replaced while the remote control is set to C2, the setting will revert C1.)
- To set the remote control back to C1, hold down both the STOP button and "1" number button on the remote control for at least five seconds.
- Also set the remote control codes of the player to the same setting as the remote control. (This setting is set to C1, when the unit is shipped from the factory)

6. SERVICING HINT

SERVICE HINTS



SERVICE TOOLS

| | |
|-------------------------------------------------------------|----------------|
| Audio signals disc | 4822 397 30184 |
| Disc without errors (SBC444)+ | |
| Disc with DO errors, black spots and fingerprints (SBC444A) | 4822 397 30245 |
| Disc (65 min 1kHz) without no pause | 4822 397 30155 |
| Max. diameter disc (58.0 mm) | 4822 397 60141 |
| Torx screwdrivers | |
| Set (straight) | 4822 395 50145 |
| Set (square) | 4822 395 50132 |
| 13th order filter | 4822 395 30204 |
| DVD test disc | 4822 397 10131 |

7. DISASSEMBLY

CAUTION BEFORE STARTING SERVICING

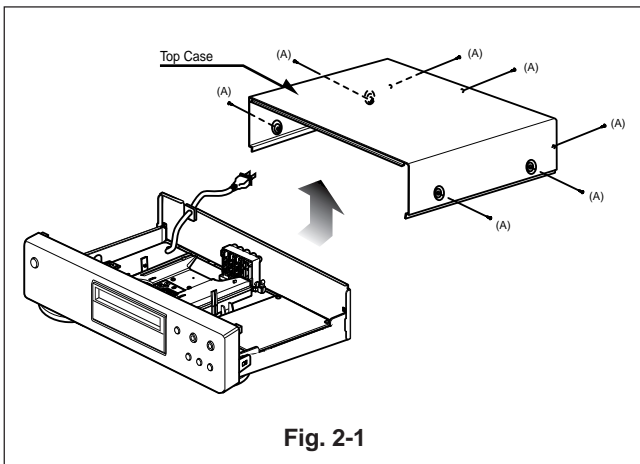
Electronic parts are susceptible to static electricity and may easily be damaged, so do not forget to take a proper grounding treatment as required.

Many screws are used inside the unit. To prevent missing, dropping, etc. of the screws, always use a magnetized screw driver in servicing. Several kinds of screws are used and some of them need special cautions. That is, take care of the tapping screws securing molded parts and fine pitch screws used to secure metal parts. If they are used improperly, the screw holes will be easily damaged and the parts can not be fixed.

7.1 CABINET DISASSEMBLY

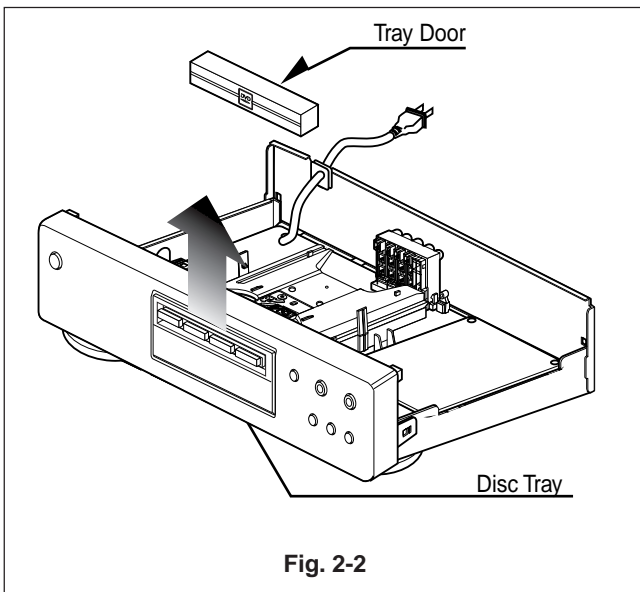
7.1.1 Top Case

1. Release 7 screws (A). (See Fig. 2-1)
2. Lift the top case with holding the back of it, and remove it in the direction of the arrow



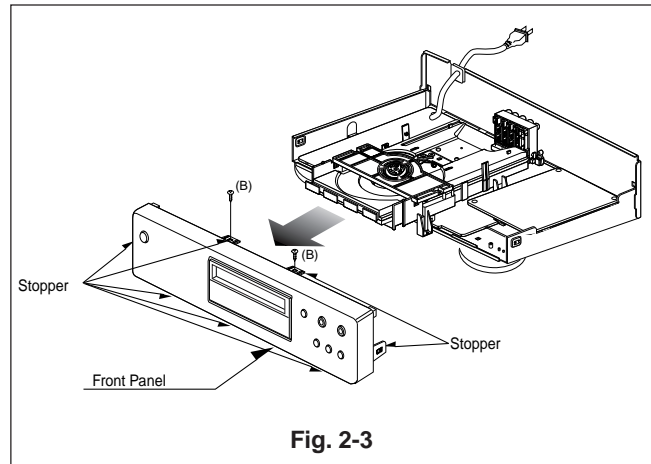
7.1.2 Tray Door

1. Eject the disc tray.
2. Lift up the tray door in the direction of the arrow.

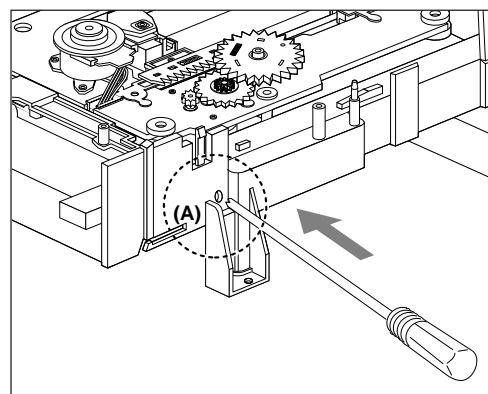


7.1.3 Front Panel

1. Eject the disc tray. (See Fig. 2-2)
2. Remove the tray door. (See Fig. 2-2)
3. Release 2 screws (B).
4. Pull the front panel toward you while pressing 7 stoppers to disengage, and remove the front panel. (See Fig. 2-3)



REMARK: Before disassemble the front panel.



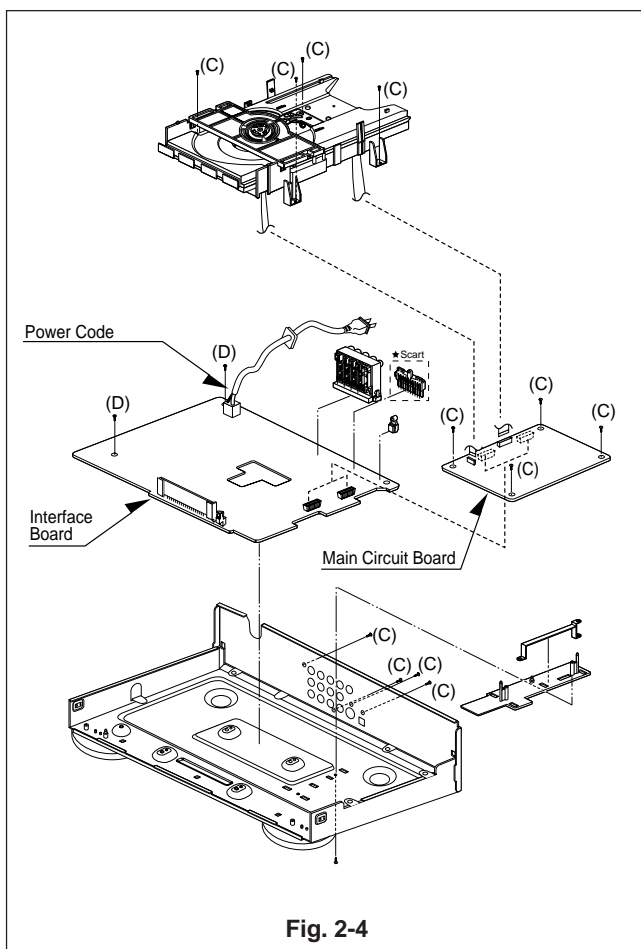
Press open/close button to open the tray. If the tray doesn't work, insert and push a small screwdriver in the emergency eject hole (A) at the right side. Then the tray comes out. After the first centimeter it is possible to pull the tray out by hand. Release the door cover of the tray.

7.2 CIRCUIT BOARD DISASSEMBLY

Note: Before removing the main circuit board, be sure to shortcircuit the laserdiode output land.
After replacing the main circuit board, open the land after inserting the flexible connector.
(Refer to Mechanism Disassembly)

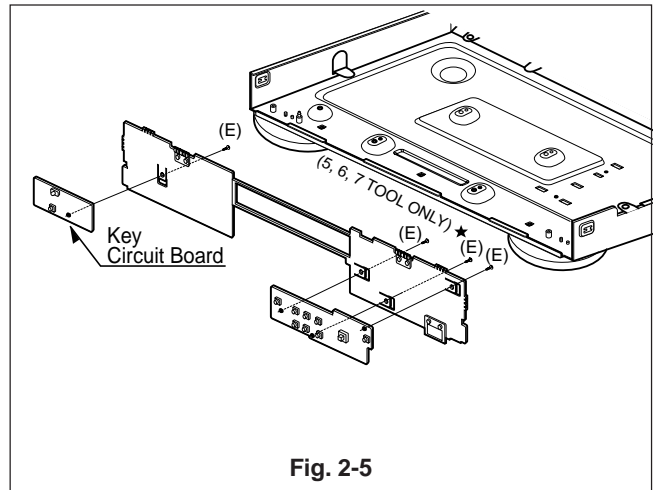
7.2.1 Disassembling of Main Circuit Board and Interface Board

1. Remove the top case.(See Fig. 2-1)
2. Remove 12 screw (C).
3. Remove the deck from Main Circuit Board.
4. Remove Main Circuit Board from Interface Board.
5. Remove 2 screw (D).
6. Remove Interface Board from the chassis.



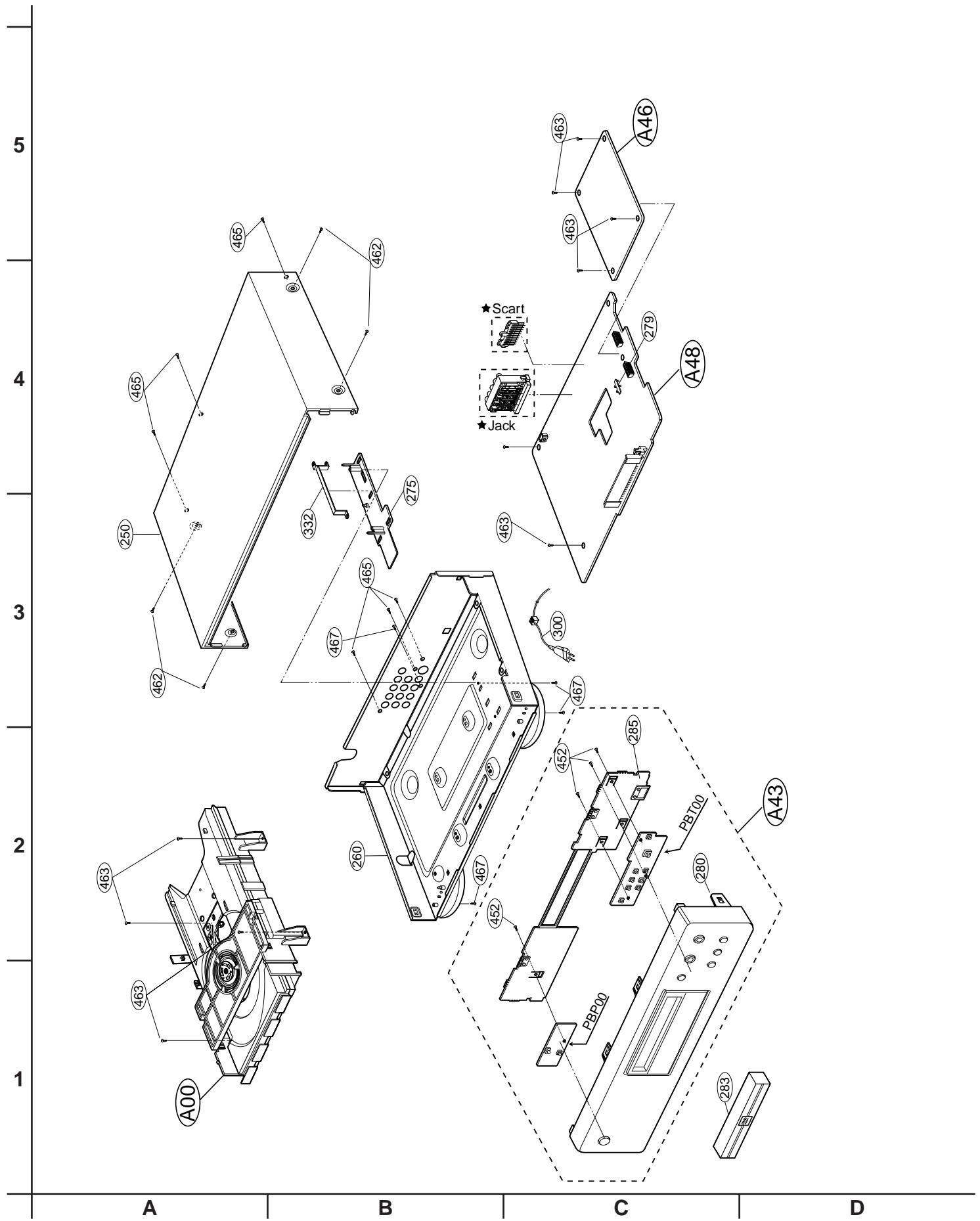
7.2.2 Key Circuit Board

1. Remove the front panel.(See Fig. 2-3)
2. Release 4 screws (E), and remove the Key circuit board.

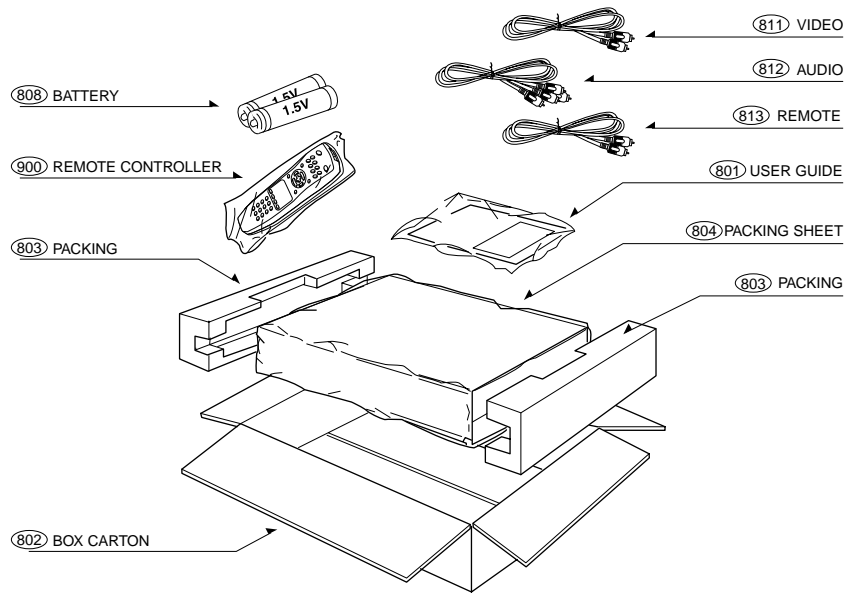


8. EXPLODED VIEWS

8.1 Cabinet and Main Frame Section



8.2 Packing Accessory Section



| POS. NO. | COLOR | PART NO. (FOR PCS) | DESCRIPTON | PART NO. (MJI) |
|----------|------------|--------------------|------------------------------|----------------|
| A00 | | nsp | DECK ASSY DP-4RM(2LD, CKD)-S | 344W304520 |
| A43 | | nsp | BOARD ASSY FRONT | nsp |
| A46 | N | 9965 000 11665 | DVD MAIN PCB ASSY (FOR N) | *ZZ001840R |
| A46 | F | nsp | DVD MAIN PCB ASSY (FOR F) | *ZZ001900R |
| A46 | U | nsp | DVD MAIN PCB ASSY (FOR U) | *ZZ001910R |
| A46 | A | nsp | DVD MAIN PCB ASSY (FOR A) | *ZZ001920R |
| A46 | S | nsp | DVD MAIN PCB ASSY (FOR S) | *ZZ001930R |
| A48 | | nsp | PWB (PCB) ASSY IO | nsp |
| 250 | | nsp | TOP COVER | nsp |
| 260 | | nsp | CHASSIS ASSY | nsp |
| 275 | | nsp | HOLDER MAIN PCB | nsp |
| 280 | U | nsp | PANEL ASSY FRONT | 344W248510 |
| 280 | /N1B | 9965 000 11309 | PANEL ASSY FRONT | 344W248520 |
| 280 | /N1G | 9965 000 11346 | PANEL ASSY FRONT | 344W248560 |
| 280 | A | nsp | PANEL ASSY FRONT | 344W248540 |
| 280 | F | nsp | PANEL ASSY FRONT | 344W248550 |
| 280 | S | nsp | PANEL ASSY FRONT | 344W248530 |
| 283 | BLACK | 9965 000 11310 | DOOR ASSY BLACK | 304W063010 |
| 283 | GOLD | 9965 000 11347 | DOOR ASSY GOLD | 304W063110 |
| 285 | | nsp | PLATE ASSY SHIELD | nsp |
| ▲300 | U | nsp | MAINS CORD | *YC000620R |
| ▲300 | N, S | 9965 000 11311 | MAINS CORD | *YC000630R |
| ▲300 | F | nsp | MAINS CORD | *YC000640R |
| ▲300 | A | nsp | MAINS CORD | *YC000650R |
| 332 | | nsp | PLATE MAIN GND | nsp |
| 401 | | nsp | SCREW MACHINE | nsp |
| 452 | N, A, S, U | nsp | SCREW SPECIAL | nsp |
| 462 | | nsp | SCREW DRAWING +3 D4.0 L10.0 | nsp |
| 463 | | nsp | SCREW DRAWING +2 D3.0 L8.0 | nsp |
| 465 | | nsp | SCREW SPECIAL (3X10 BK) | nsp |
| 467 | | nsp | SCREW SPECIAL (3X8 BK) | nsp |

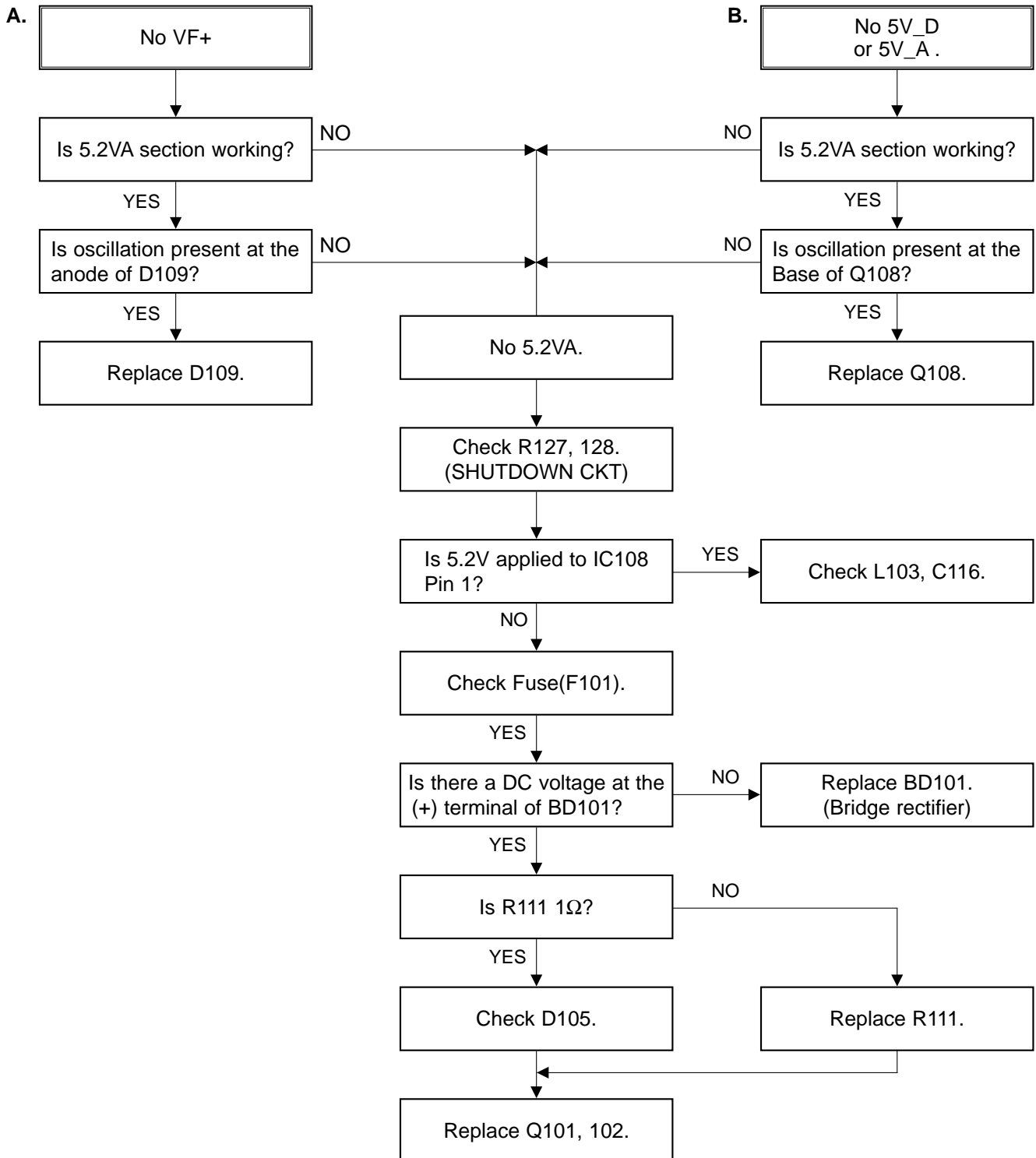
NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

| POS. NO. | COLOR | PART NO. (FOR PCS) | DESCRIPTON | PART NO. (MJI) |
|----------|------------|--------------------|--------------------------|----------------|
| 801 | U | nsp | USER GUIDE | 344W851250 |
| 801 | F | nsp | USER GUIDE | 344W851110 |
| 801 | N | 9965 000 11312 | USER GUIDE | 344W851310 |
| 801 | S | nsp | USER GUIDE | 344W851350 |
| 801 | A | nsp | USER GUIDE | 344W851510 |
| 802 | N, A, S, U | nsp | BOX CARTON | nsp |
| 802 | F | nsp | BOX CARTON | nsp |
| 803 | | nsp | PACKING | nsp |
| 804 | | nsp | PACKING SHEET | nsp |
| 808 | | nsp | BATTERY AAA(R03) | nsp |
| 811 | | nsp | VIDEO CORD (YL) | nsp |
| 812 | | nsp | AUDIO CORD (RD/WH) | nsp |
| 813 | | nsp | REMOTE CORD (OR) | nsp |
| 900 | | 9965 000 11313 | REMOTE CONTROLLER RC4200 | ZK344W0010 |

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

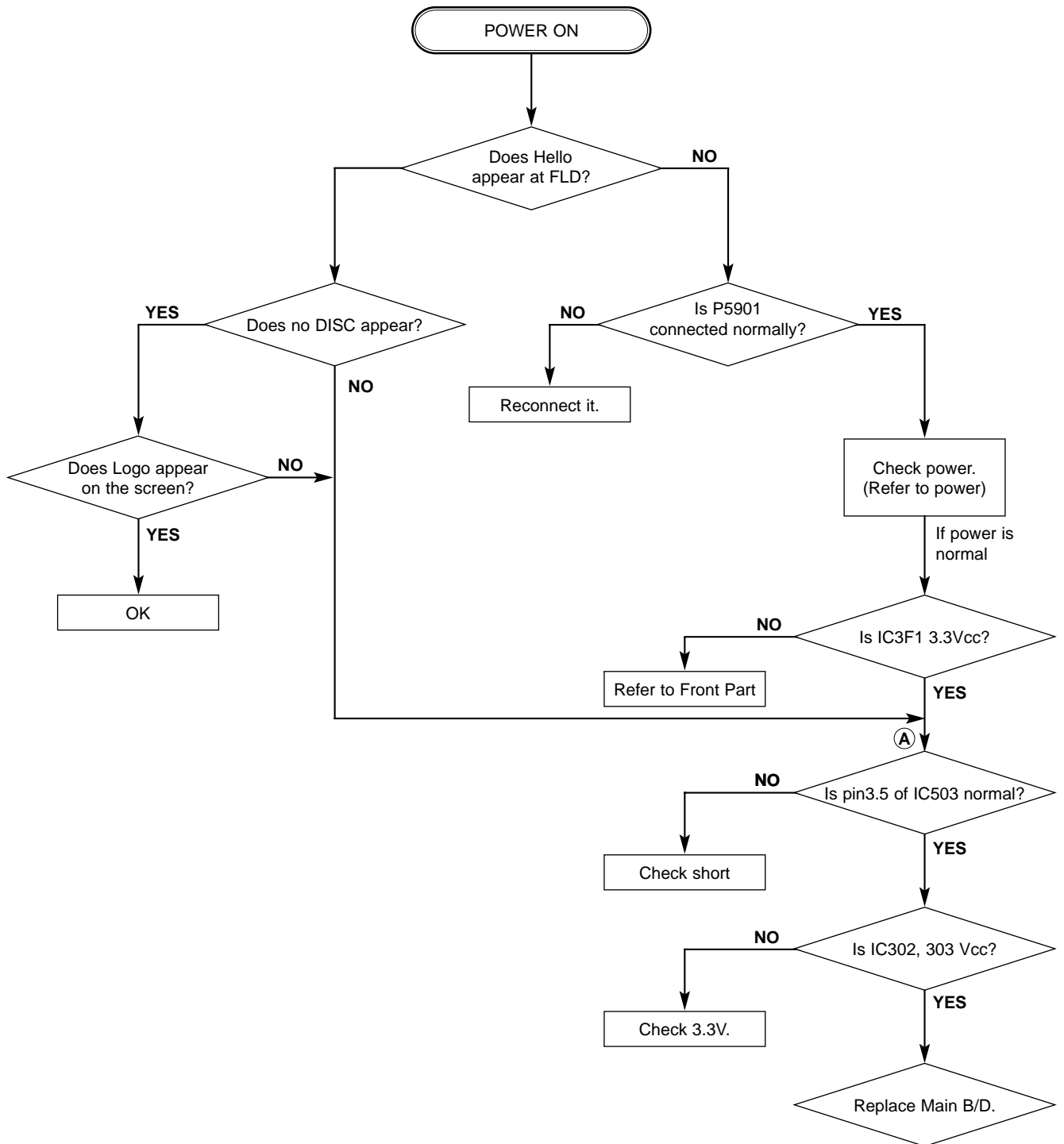
9. ELECTRICAL TROUBLESHOOTING GUIDE

9.1 Power (SMPS) Circuit

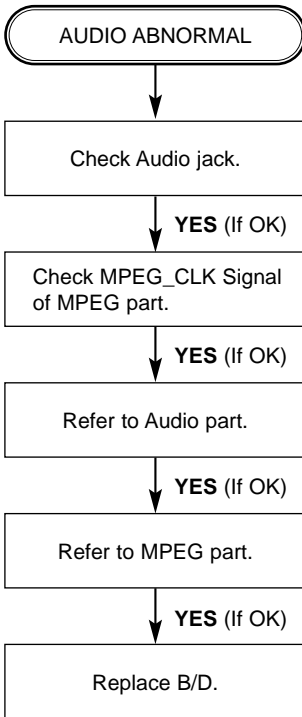


9.2 μ -COM Circuit

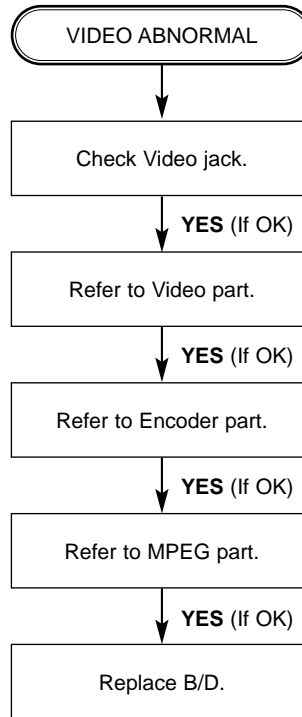
A. No Power



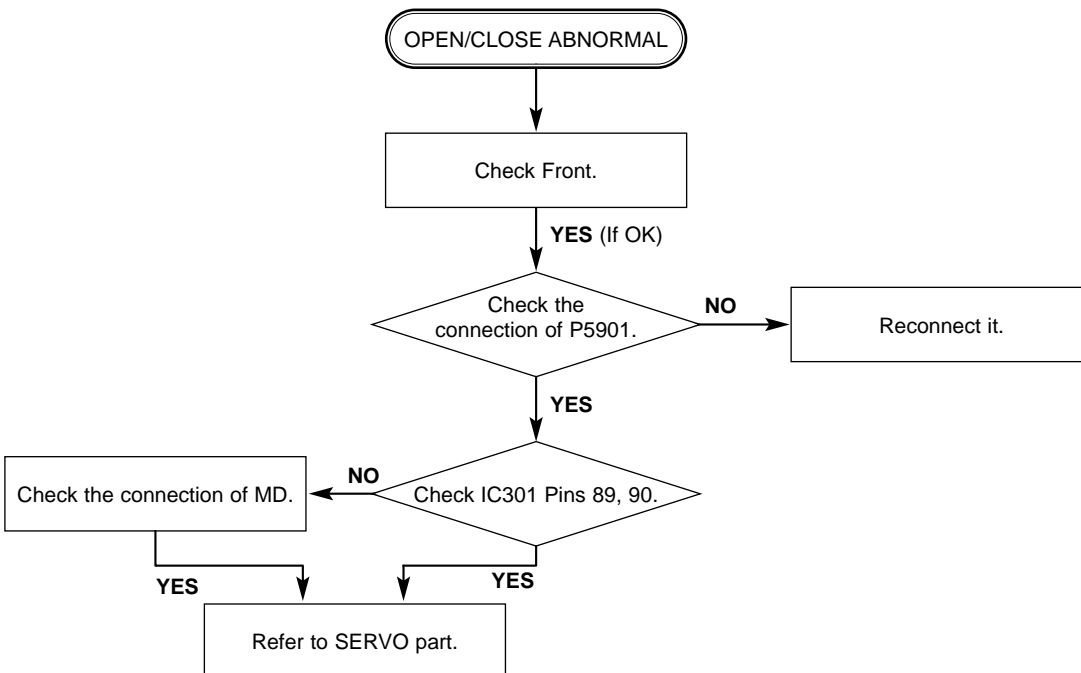
B. Audio abnormal



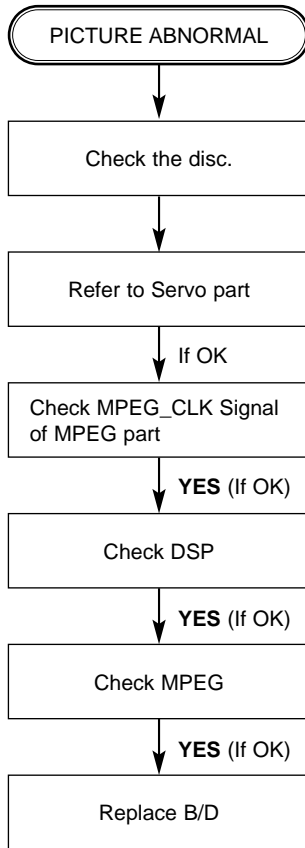
C. Video abnormal



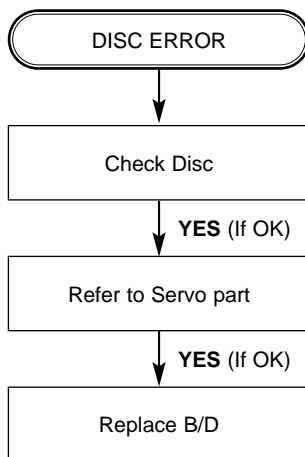
D. Open/Close abnormal



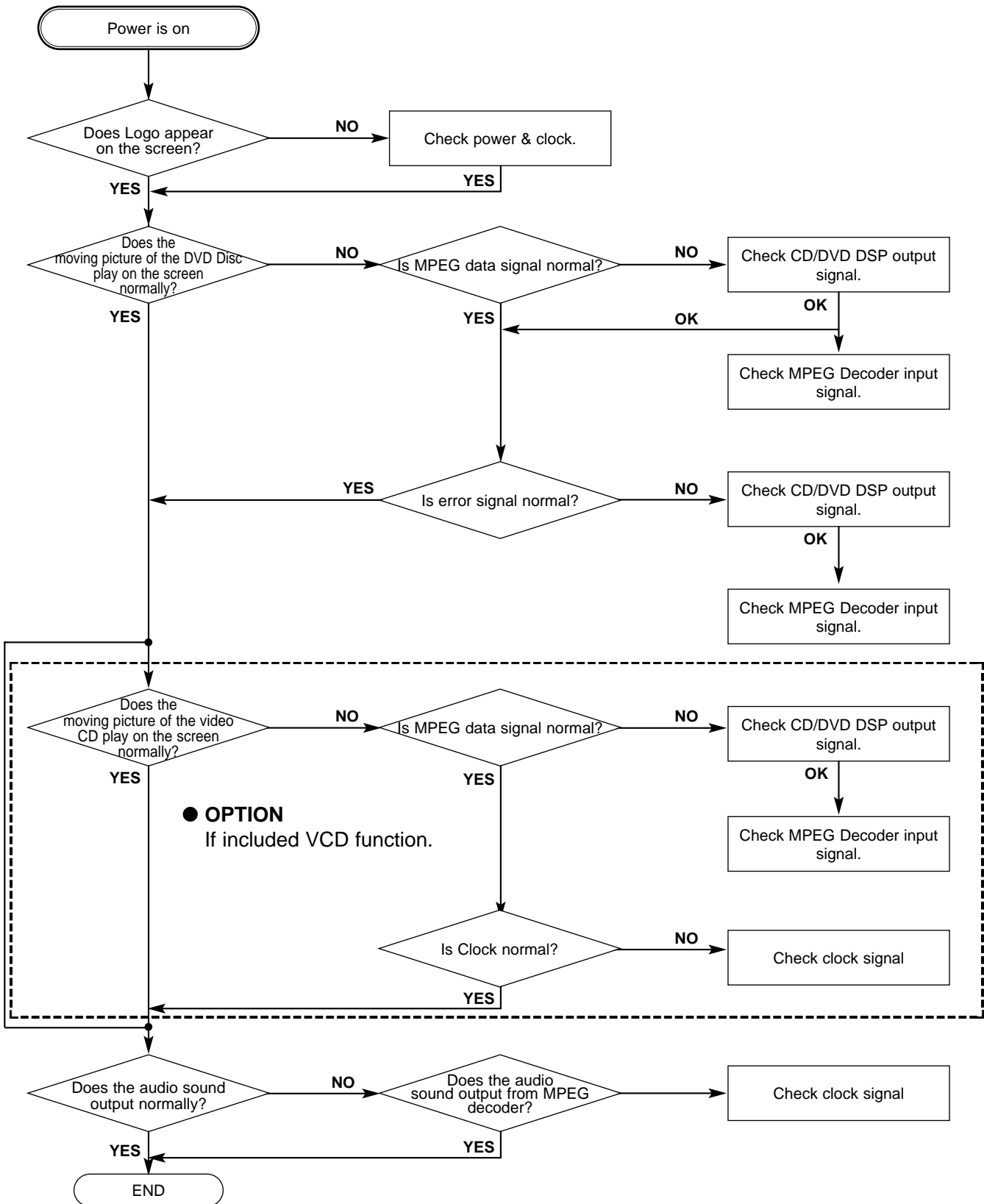
E. Picture abnormal



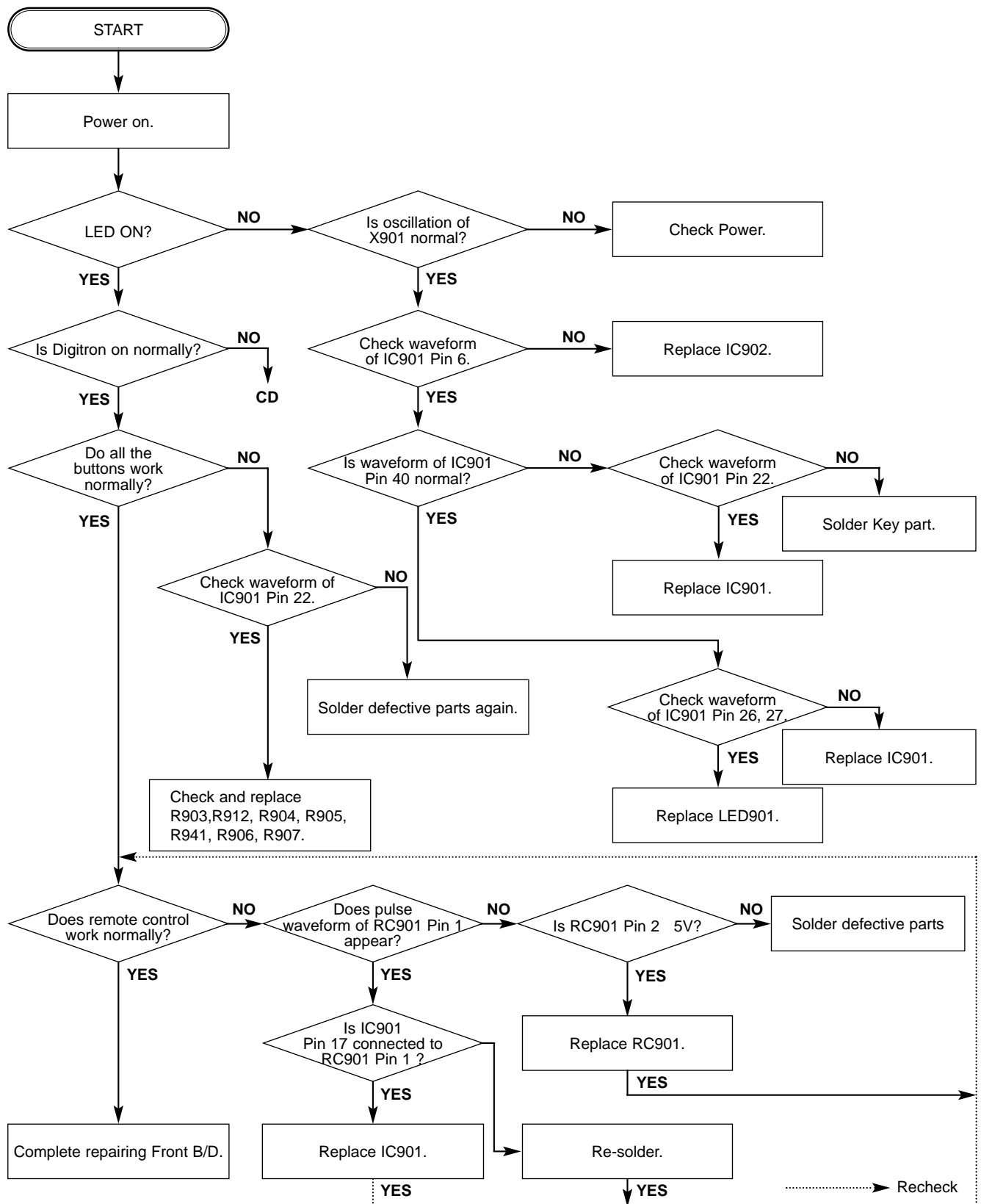
F. Disc Error



9.3 MPEG Circuit

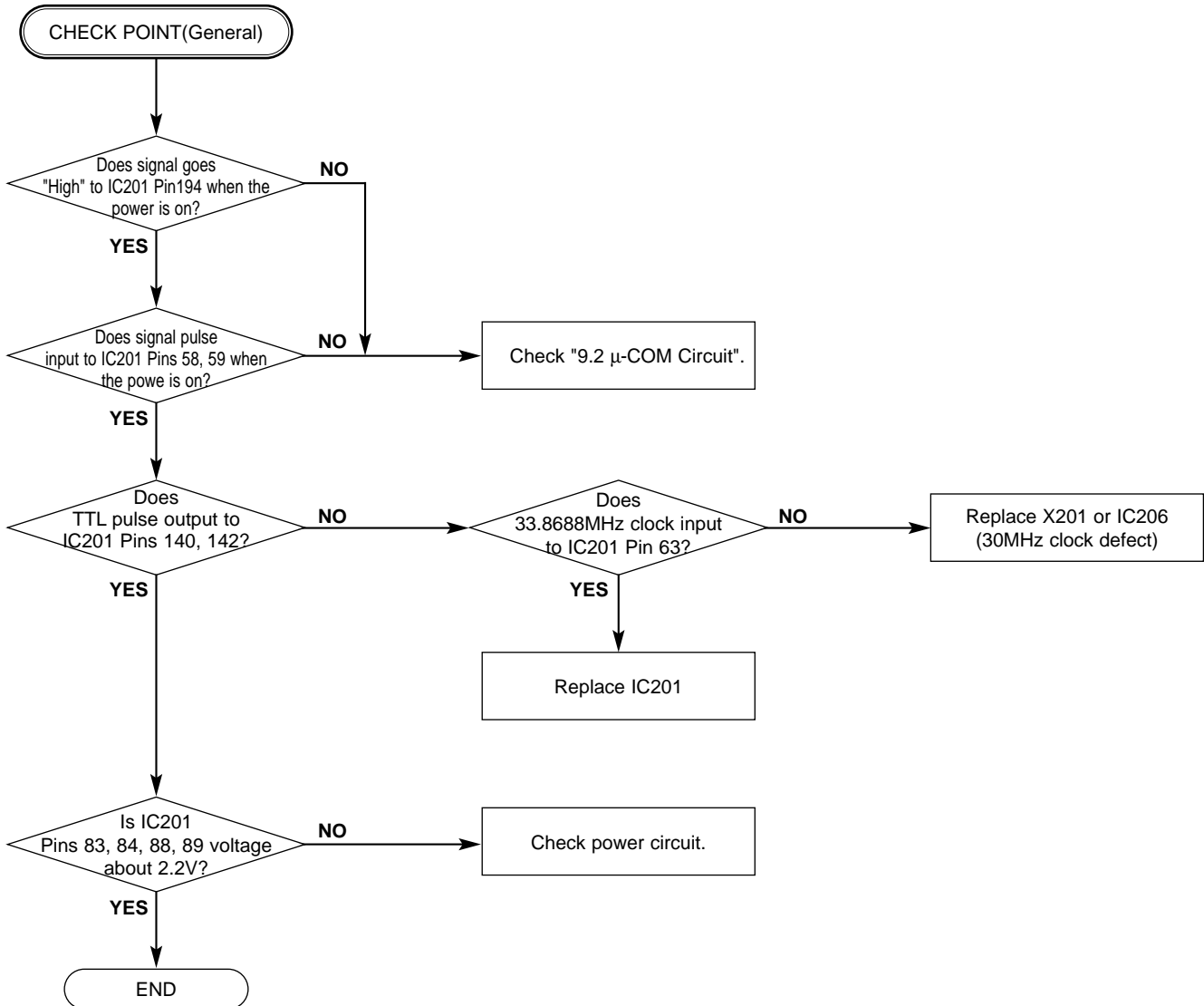


9.4 Front Circuit (Digitron & key)

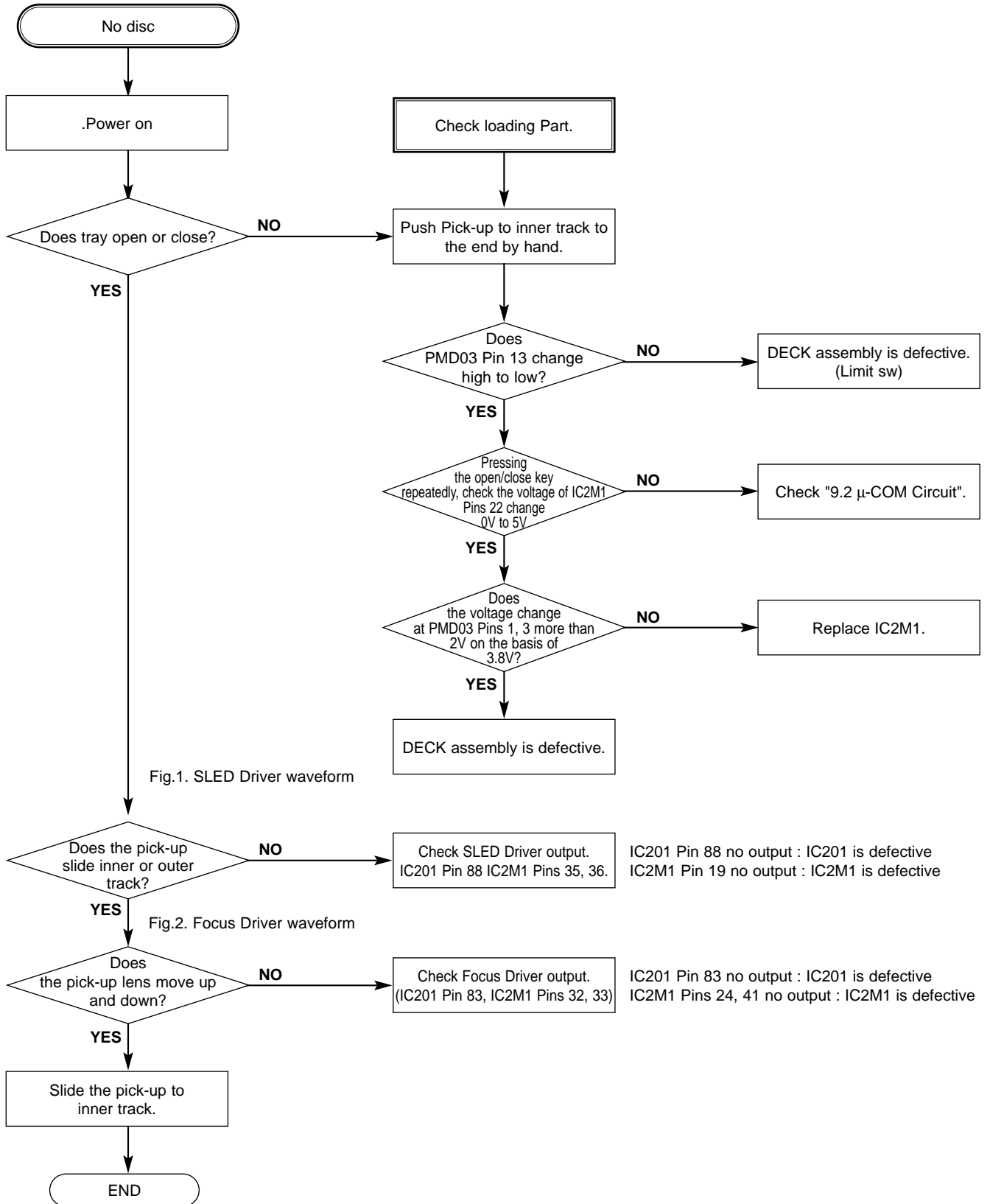


9.5 RF/Servo Circuit

A.



B.



C.

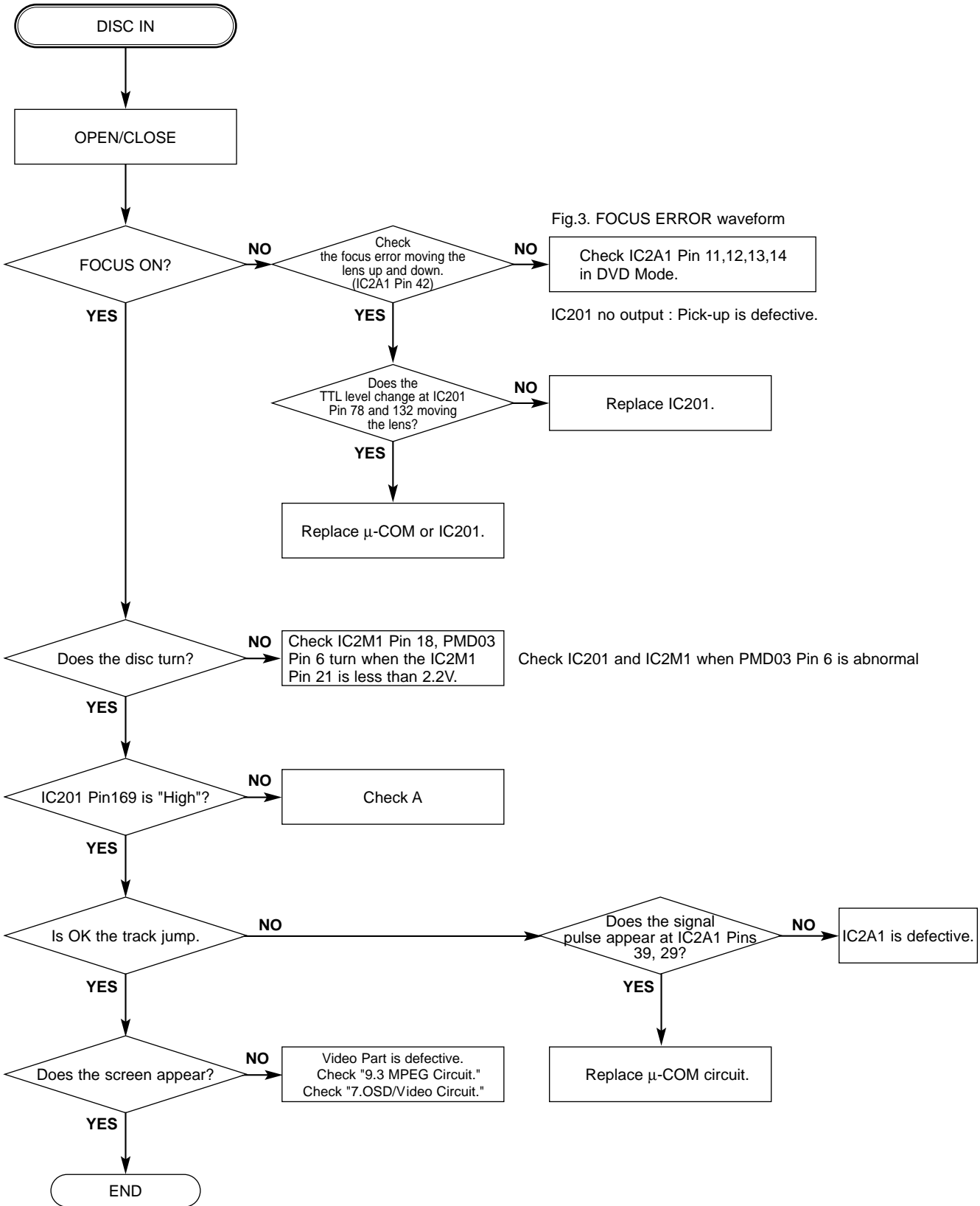
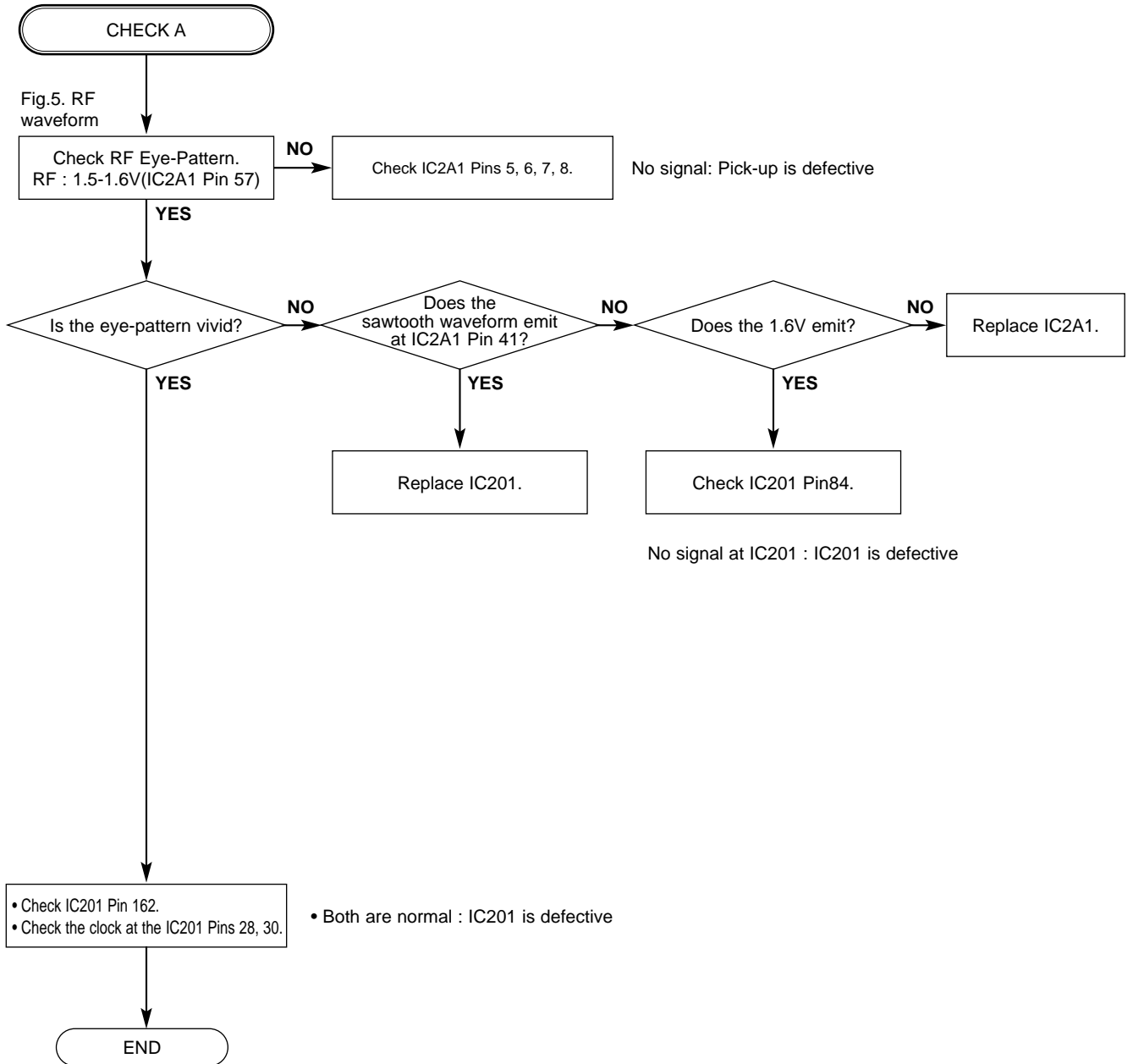


Fig.3. FOCUS ERROR waveform

IC201 no output : Pick-up is defective.

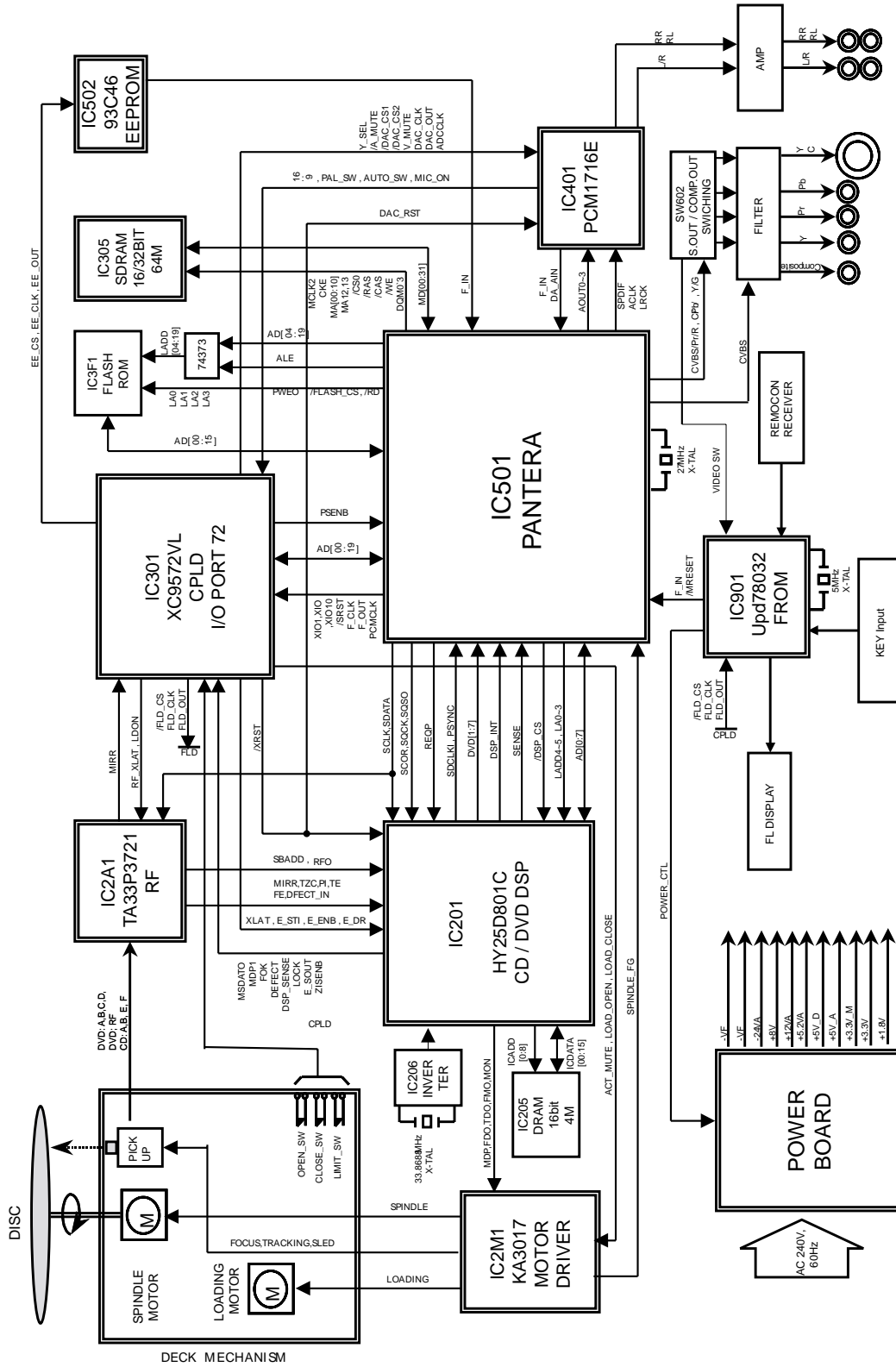
Check IC201 and IC2M1 when PMD03 Pin 6 is abnormal

D.

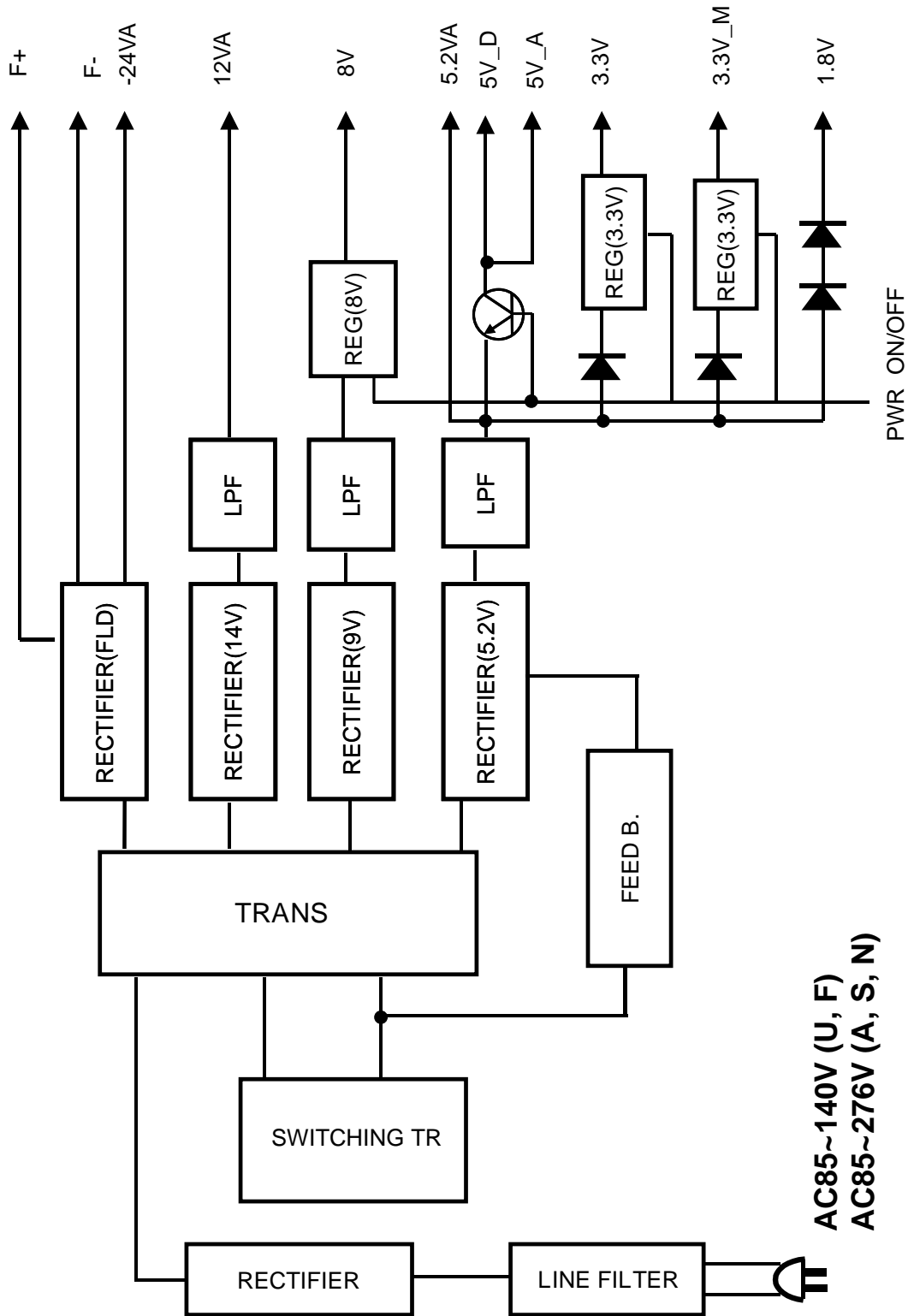


10. BLOCK DIAGRAMS

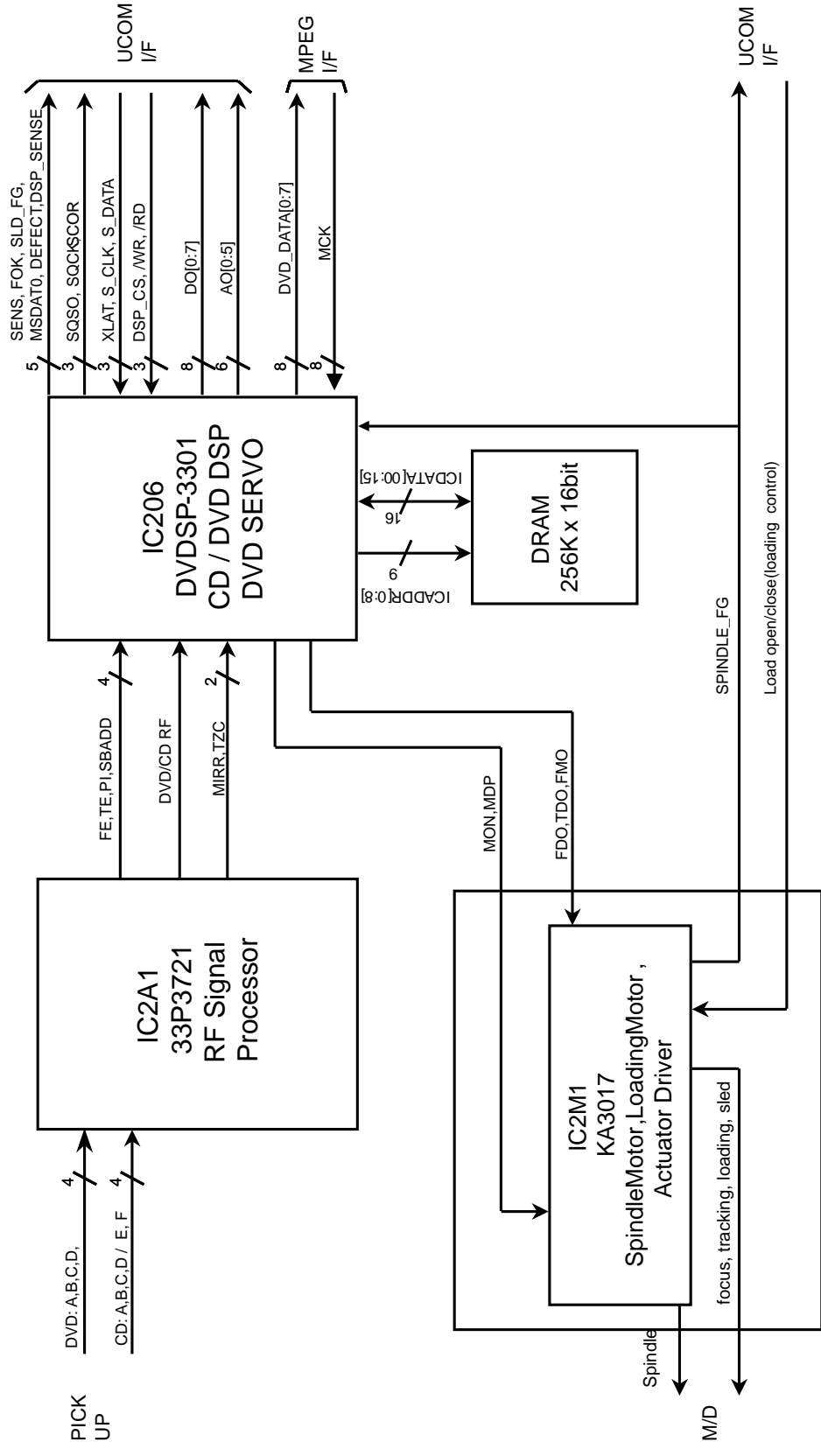
10.1 Overall Block Diagram



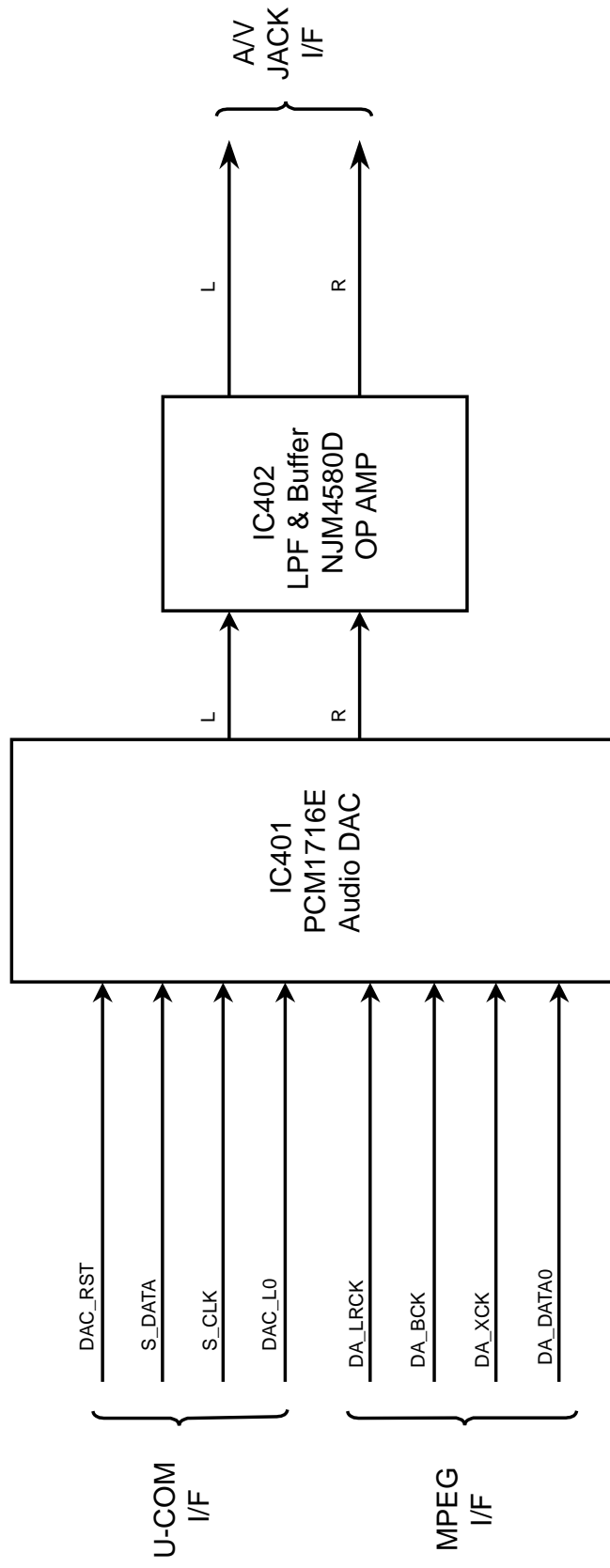
10.2 Power (SMPS) Block Diagram



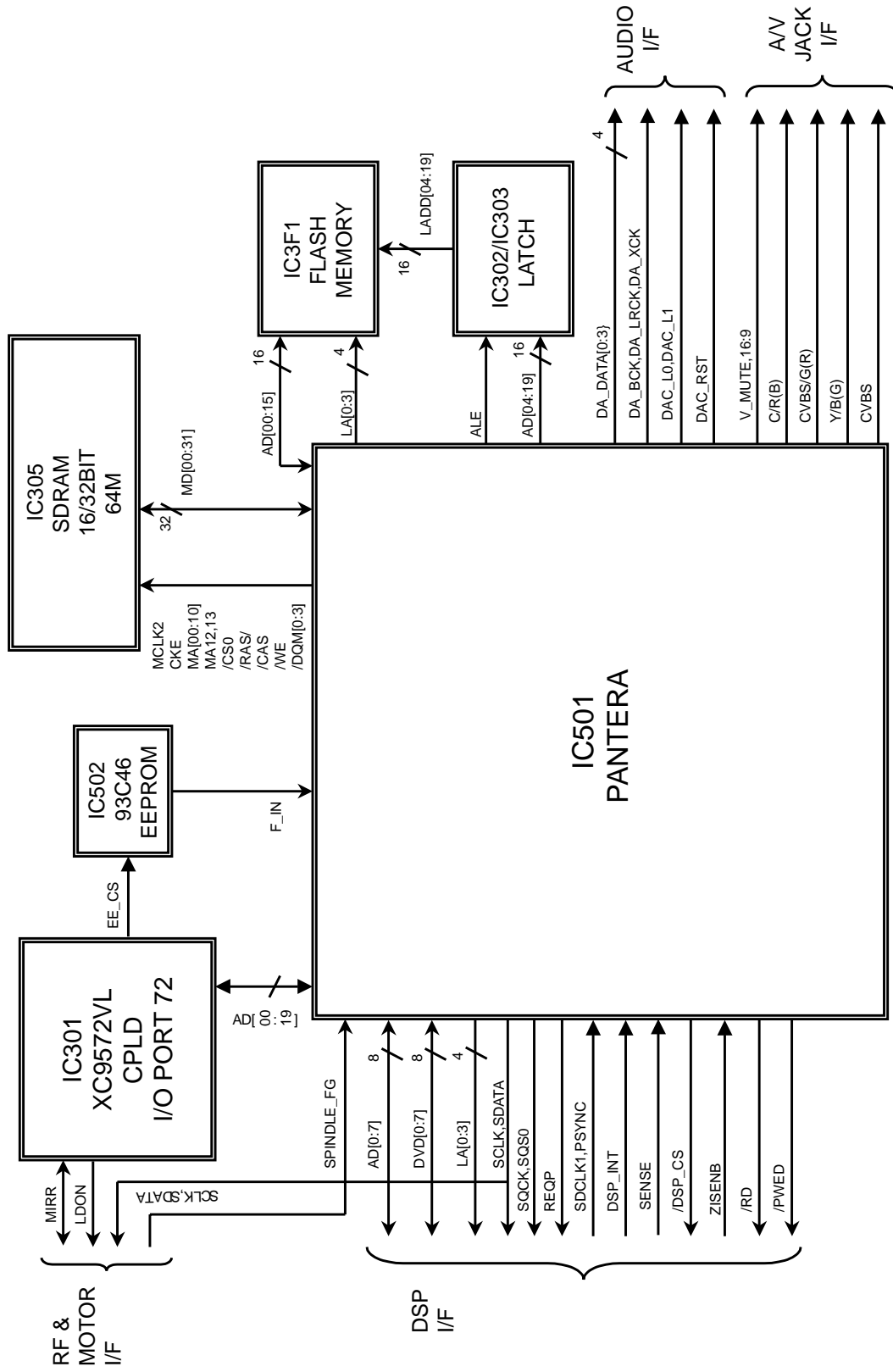
10.3 RF/CD DSP/DVD DSP/DVD SERVO Block Diagram



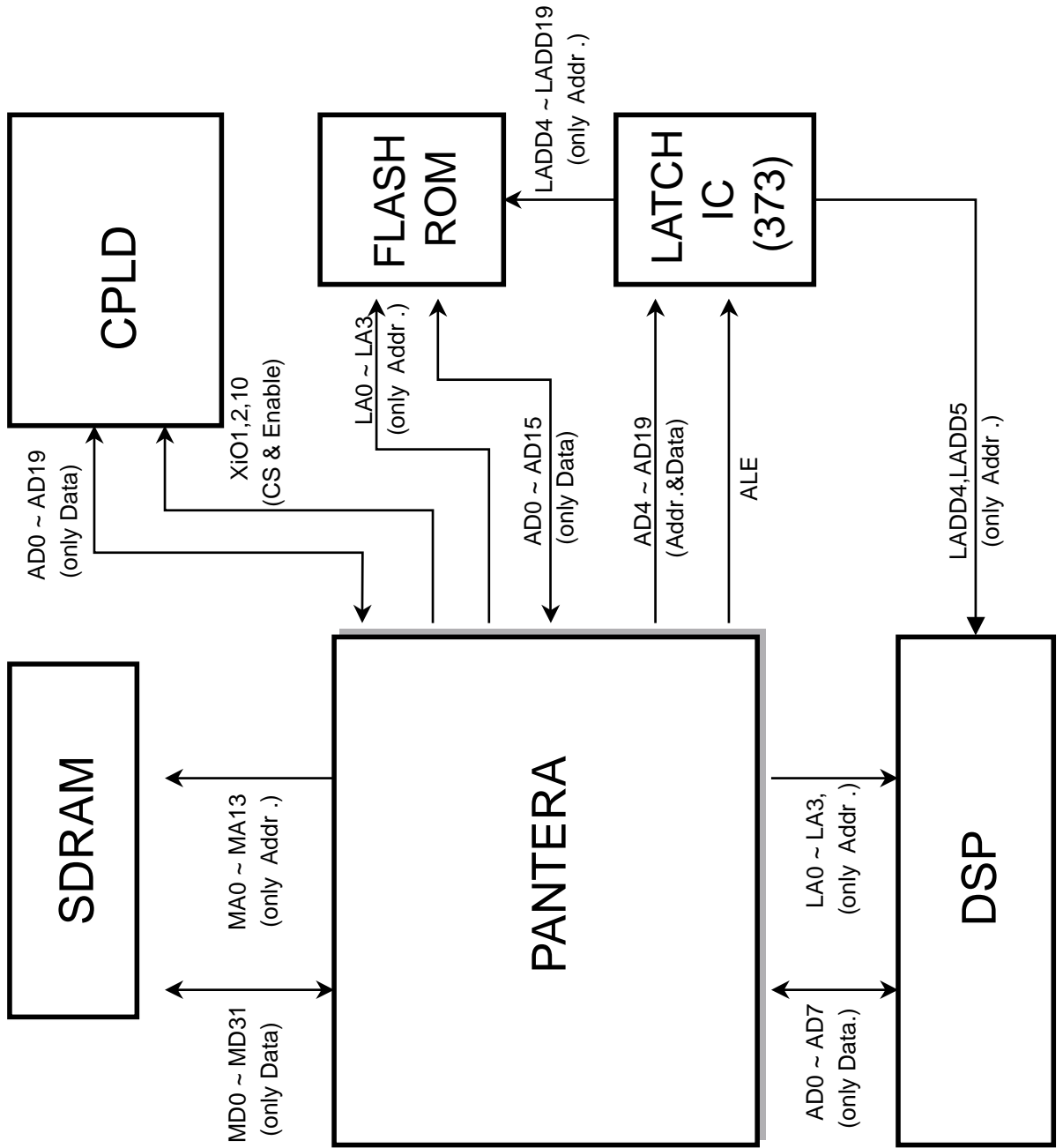
10.4 Audio Block Diagram



10.5 MPEG & MEMORY Block Diagram



10.6 MPEG & MEMORY μ -COM Block Diagram



11. CIRCUIT DIAGRAMS

11.1 POWER (SMPS) CIRCUIT DIAGRAM

IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE MARANTZ ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE

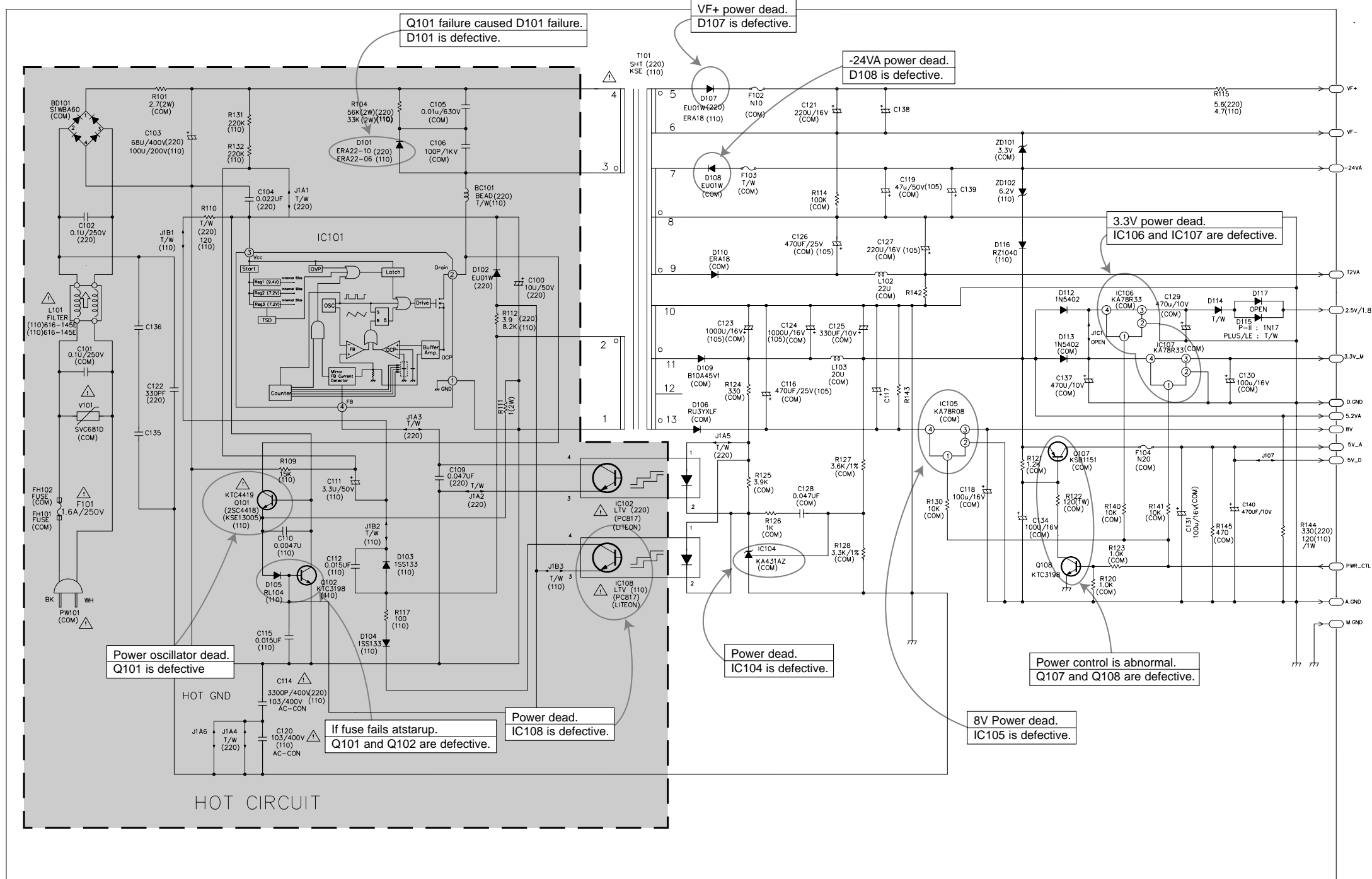
ORIGINAL CIRCUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE

LITERATURE IS PRINTED.

- NOTE :**
1. Shaded (■) parts are critical for safety. Replace only with specified part number.
 2. Voltages are DC-measured with a digital voltmeter during Play mode.

LOCATION GUIDE

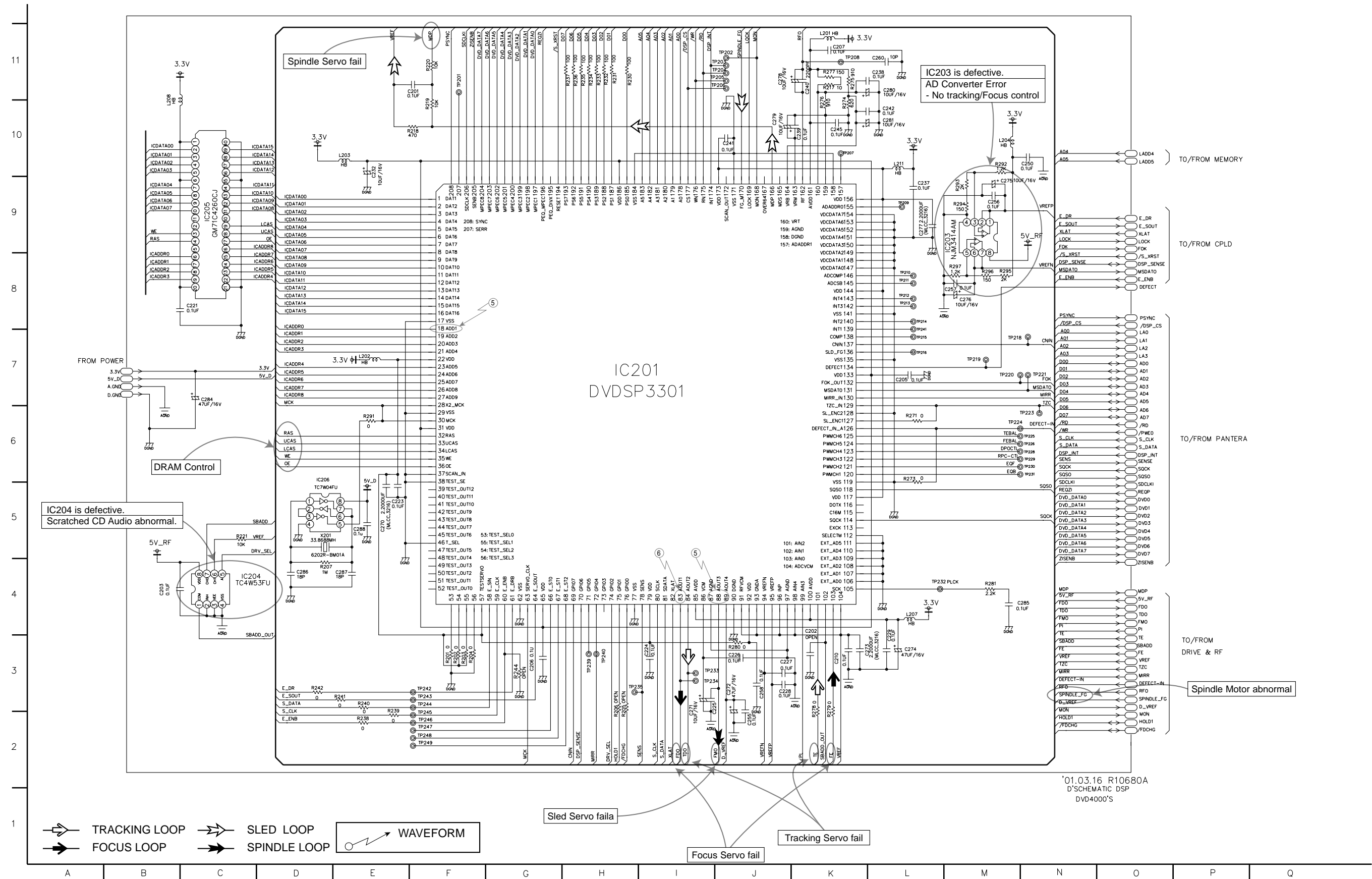
| | | | |
|----------|-----|-------|-----|
| BC101 | G10 | R131 | D10 |
| BD101 | B11 | R132 | D10 |
| C100 | G9 | R140 | N6 |
| C101 | B8 | R141 | N6 |
| C102 | B9 | R142 | K8 |
| C103 | C10 | R143 | K7 |
| C104 | D10 | R144 | P6 |
| C105 | F11 | R145 | O6 |
| C106 | F10 | T101 | H11 |
| C109 | F6 | V101 | B7 |
| C110 | D6 | ZD101 | L10 |
| C111 | E6 | ZD102 | L10 |
| C112 | E5 | | |
| C114 | D4 | | |
| C115 | D5 | | |
| C116 | J7 | | |
| C117 | K7 | | |
| C118 | L6 | | |
| C119 | K10 | | |
| C120 | D3 | | |
| C121 | J11 | | |
| C122 | C7 | | |
| C123 | I8 | | |
| C124 | J8 | | |
| C125 | K8 | | |
| C126 | J9 | | |
| C127 | K9 | | |
| C128 | J6 | | |
| C129 | N8 | | |
| C130 | O7 | | |
| C131 | O6 | | |
| C134 | M6 | | |
| C135 | C7 | | |
| C136 | C8 | | |
| C137 | M7 | | |
| C138 | K10 | | |
| C139 | L10 | | |
| C140 | O6 | | |
| D | GND | | |
| D101 | E10 | | |
| D102 | F9 | | |
| D103 | F5 | | |
| D104 | E5 | | |
| D105 | D5 | | |
| D106 | I7 | | |
| D107 | I11 | | |
| D108 | I10 | | |
| D109 | I8 | | |
| D110 | I9 | | |
| D112 | M8 | | |
| D113 | M8 | | |
| D114 | O8 | | |
| D115 | O8 | | |
| D116 | L9 | | |
| D117 | O8 | | |
| F102 | J11 | | |
| F103 | J10 | | |
| F104 | N7 | | |
| FH101 | B6 | | |
| FH102 | B6 | | |
| IC101 | E9 | | |
| IC102 | H6 | | |
| IC104 | J6 | | |
| IC105 | L7 | | |
| IC106 | N8 | | |
| IC107 | N8 | | |
| IC108 | H5 | | |
| J107 | O7 | | |
| J1A1 | D10 | | |
| J1A2 | F6 | | |
| J1A3 | F7 | | |
| J1A4 | D3 | | |
| J1A5 | I7 | | |
| J1A6 | C3 | | |
| J1B1 | C9 | | |
| J1B2 | E5 | | |
| J1B3 | G5 | | |
| J1C1 | M8 | | |
| L101 | B8 | | |
| L102 | K9 | | |
| L103 | K8 | | |
| M | GND | | |
| PW101 | B5 | | |
| PWR_CTP5 | | | |
| Q101 | D6 | | |
| Q102 | E5 | | |
| Q107 | M7 | | |
| Q108 | M5 | | |
| R101 | C11 | | |
| R104 | E11 | | |
| R109 | D7 | | |
| R110 | C9 | | |
| R111 | G7 | | |
| R112 | G8 | | |
| R114 | J10 | | |
| R115 | O11 | | |
| R117 | F5 | | |
| R120 | N5 | | |
| R121 | M7 | | |
| R122 | M6 | | |
| R123 | N6 | | |
| R124 | I7 | | |
| R125 | J6 | | |
| R126 | J6 | | |
| R127 | K7 | | |
| R128 | K6 | | |
| R130 | L6 | | |



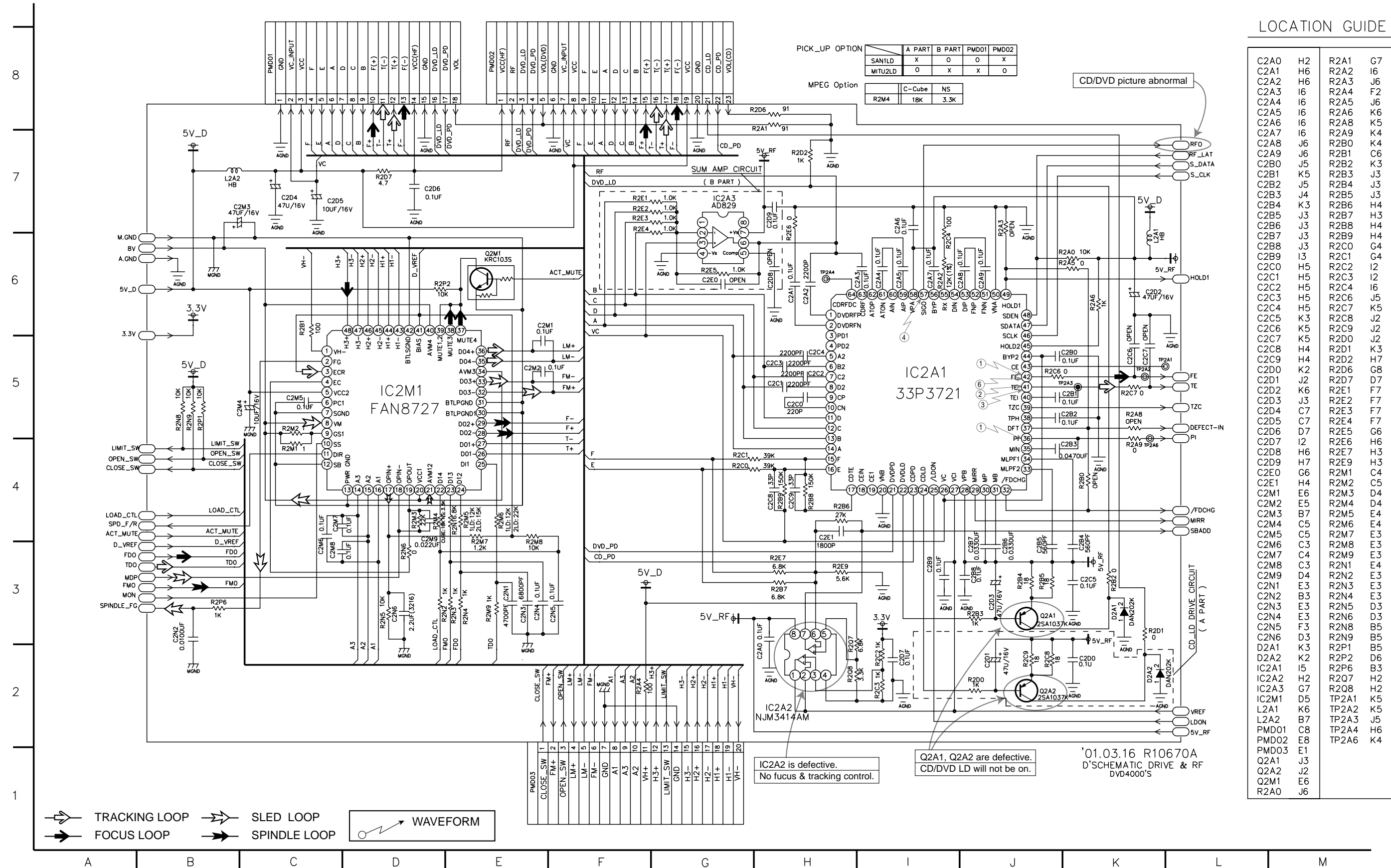
'01.06.21 R10677A
D'SCHEMATIC POWER
DVD4000'S

- NOTES** ⚠ Warning Parts that are shaded are critical With respect to risk of fire or electrical shock.
- NOTES** ⚡ Symbol denotes AC ground. ⚡ Symbol denotes DC chassis ground.

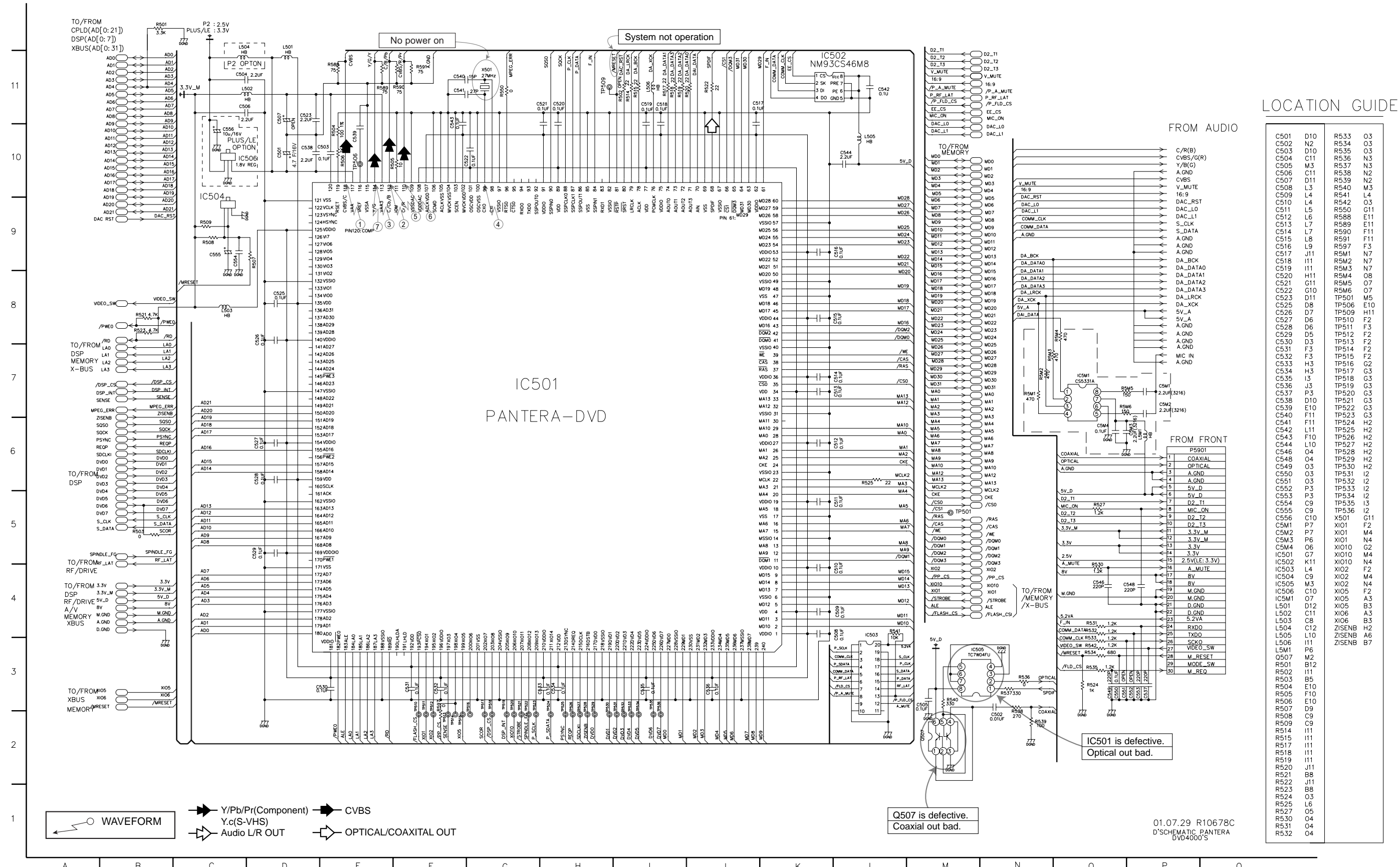
11.2 DVD DSP CIRCUIT DIAGRAM



11.3 DRIVE & RF CIRCUIT DIAGRAM



11.4 MPEG CIRCUIT DIAGRAM

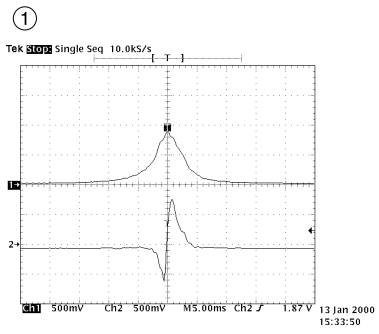


LOCATION GUIDE

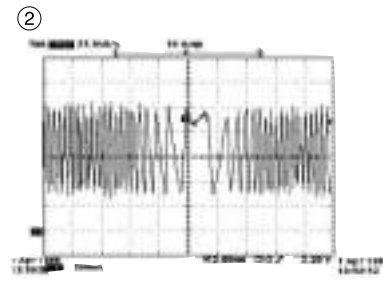
| | | | |
|-------|-----|--------|-----|
| C501 | D10 | R533 | O3 |
| C502 | N2 | R534 | O3 |
| C503 | D10 | R535 | O3 |
| C504 | C11 | R536 | N3 |
| C505 | M3 | R537 | N3 |
| C506 | C11 | R538 | N2 |
| C507 | D11 | R539 | N2 |
| C508 | L3 | R540 | M3 |
| C509 | L4 | R541 | L4 |
| C510 | L4 | R542 | O3 |
| C511 | L5 | R550 | G11 |
| C512 | L6 | R588 | E11 |
| C513 | L7 | R589 | E11 |
| C514 | L7 | R590 | F11 |
| C515 | L8 | R591 | F11 |
| C516 | L9 | R597 | F3 |
| C517 | I11 | R5M1 | N7 |
| C518 | I11 | R5M2 | N7 |
| C519 | I11 | R5M3 | N7 |
| C520 | H11 | R5M4 | O8 |
| C521 | G11 | R5M5 | O7 |
| C522 | G10 | R5M6 | O7 |
| C523 | D11 | TP501 | M5 |
| C525 | D8 | TP506 | E10 |
| C526 | D7 | TP509 | H11 |
| C527 | D6 | TP510 | F2 |
| C528 | D6 | TP511 | F3 |
| C529 | D5 | TP512 | F2 |
| C530 | D3 | TP513 | F2 |
| C531 | F3 | TP514 | F2 |
| C532 | F3 | TP515 | F2 |
| C533 | H3 | TP516 | G2 |
| C534 | H3 | TP517 | G3 |
| C535 | I3 | TP518 | O3 |
| C536 | J3 | TP519 | G3 |
| C537 | P3 | TP520 | G3 |
| C538 | D10 | TP521 | G3 |
| C539 | E10 | TP522 | G3 |
| C540 | F11 | TP523 | H2 |
| C541 | F11 | TP524 | H2 |
| C542 | L11 | TP525 | H2 |
| C543 | F10 | TP526 | H2 |
| C544 | L10 | TP527 | H2 |
| C546 | O4 | TP528 | H2 |
| C548 | O4 | TP529 | H2 |
| C549 | O3 | TP530 | H2 |
| C550 | O3 | TP531 | I2 |
| C551 | O3 | TP532 | I2 |
| C552 | P3 | TP533 | I2 |
| C553 | P3 | TP534 | I2 |
| C554 | C9 | TP535 | I3 |
| C555 | C9 | TP536 | I2 |
| C556 | O10 | X501 | G11 |
| C5M1 | P7 | XI01 | F2 |
| C5M2 | P7 | XI01 | M4 |
| C5M3 | P6 | XI01 | N4 |
| C5M4 | O6 | XI010 | G2 |
| IC501 | G7 | XI010 | M4 |
| IC502 | K11 | XI010 | N4 |
| IC503 | L4 | XI02 | F2 |
| IC504 | C9 | XI02 | M4 |
| IC505 | M3 | XI02 | N4 |
| IC506 | O10 | XI05 | F2 |
| IC5M1 | O7 | XI05 | A3 |
| L501 | D12 | XI05 | B3 |
| L502 | C11 | XI06 | A3 |
| L503 | C8 | XI06 | B3 |
| L504 | C12 | ZISENB | H2 |
| L505 | L10 | ZISENB | A6 |
| L506 | I11 | ZISENB | A6 |
| L5M1 | P6 | ZISENB | A6 |
| Q507 | M2 | ZISENB | A6 |
| R501 | B12 | ZISENB | A6 |
| R502 | I11 | ZISENB | A6 |
| R503 | B5 | ZISENB | A6 |
| R504 | E10 | ZISENB | A6 |
| R505 | F10 | ZISENB | A6 |
| R506 | E10 | ZISENB | A6 |
| R507 | D9 | ZISENB | A6 |
| R508 | C9 | ZISENB | A6 |
| R509 | C9 | ZISENB | A6 |
| R514 | I11 | ZISENB | A6 |
| R515 | I11 | ZISENB | A6 |
| R517 | I11 | ZISENB | A6 |
| R518 | I11 | ZISENB | A6 |
| R519 | I11 | ZISENB | A6 |
| R520 | J11 | ZISENB | A6 |
| R521 | B8 | ZISENB | A6 |
| R522 | J11 | ZISENB | A6 |
| R523 | B8 | ZISENB | A6 |
| R524 | O3 | ZISENB | A6 |
| R525 | L6 | ZISENB | A6 |
| R527 | O5 | ZISENB | A6 |
| R530 | O4 | ZISENB | A6 |
| R531 | O4 | ZISENB | A6 |
| R532 | O4 | ZISENB | A6 |

01.07.29 R10678C
D'SCHEMATIC PANTERA
DVD4000'S

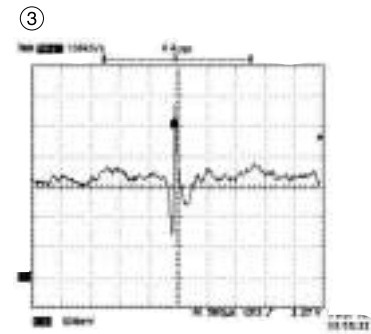
• WAVEFORMS



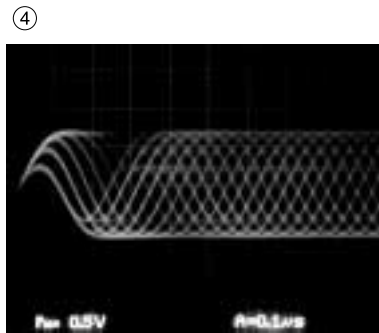
IC2A1 Pin 36, Pi
IC2A1 Pin 42, Focus Error



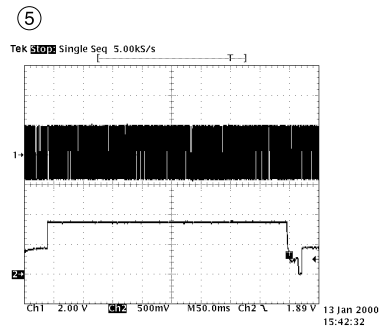
IC2A1 Pin 41
Tracking Error



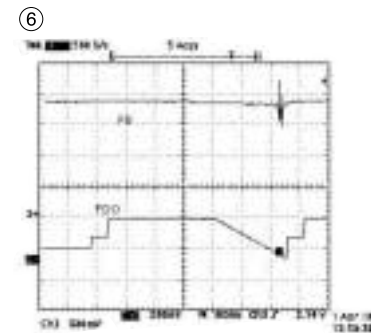
IC2A1 Pin 41
VBR TRACKING Error



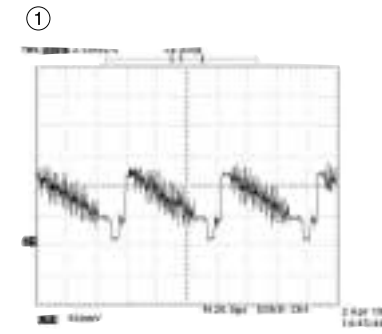
IC2A1 Pin 57,
RF



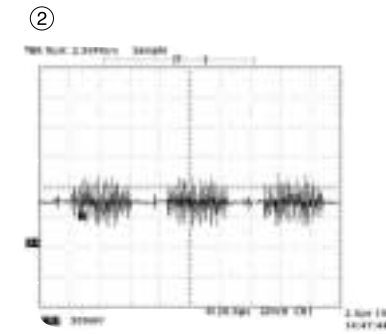
IC201 Pin 18, SLED FG
IC201 Pin 88, SLED Drive(FMO)



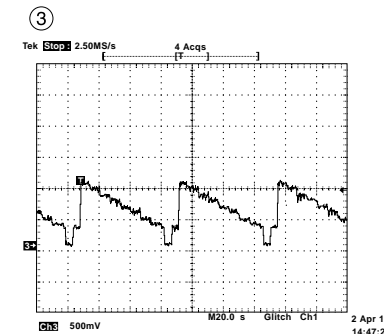
IC2A1 Pin 42, Focus Error (in Focus Search)
IC201 Pin 83, Focus Drive(FDO)



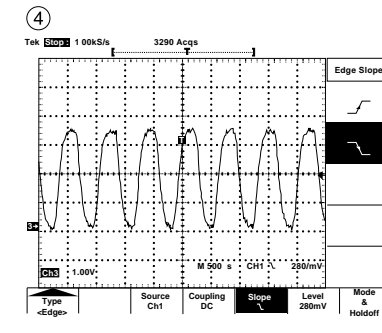
IC501 Pin 118, Composite



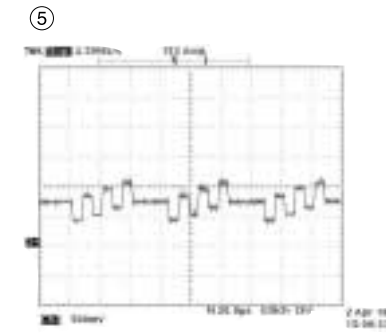
IC501 Pin 112, Chrominance
(Super video out Mode)



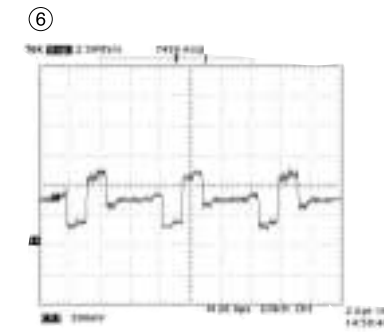
IC501 Pin 114, Luminance
(Super video out Mode)



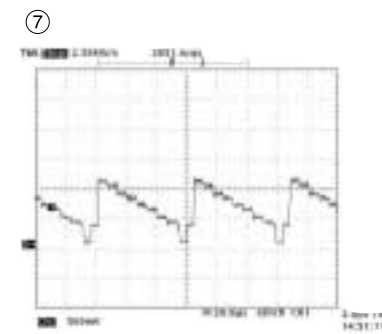
IC501 Pin 99,
MPEG Clock(27MHz)



IC501 Pin 112
Component Pb

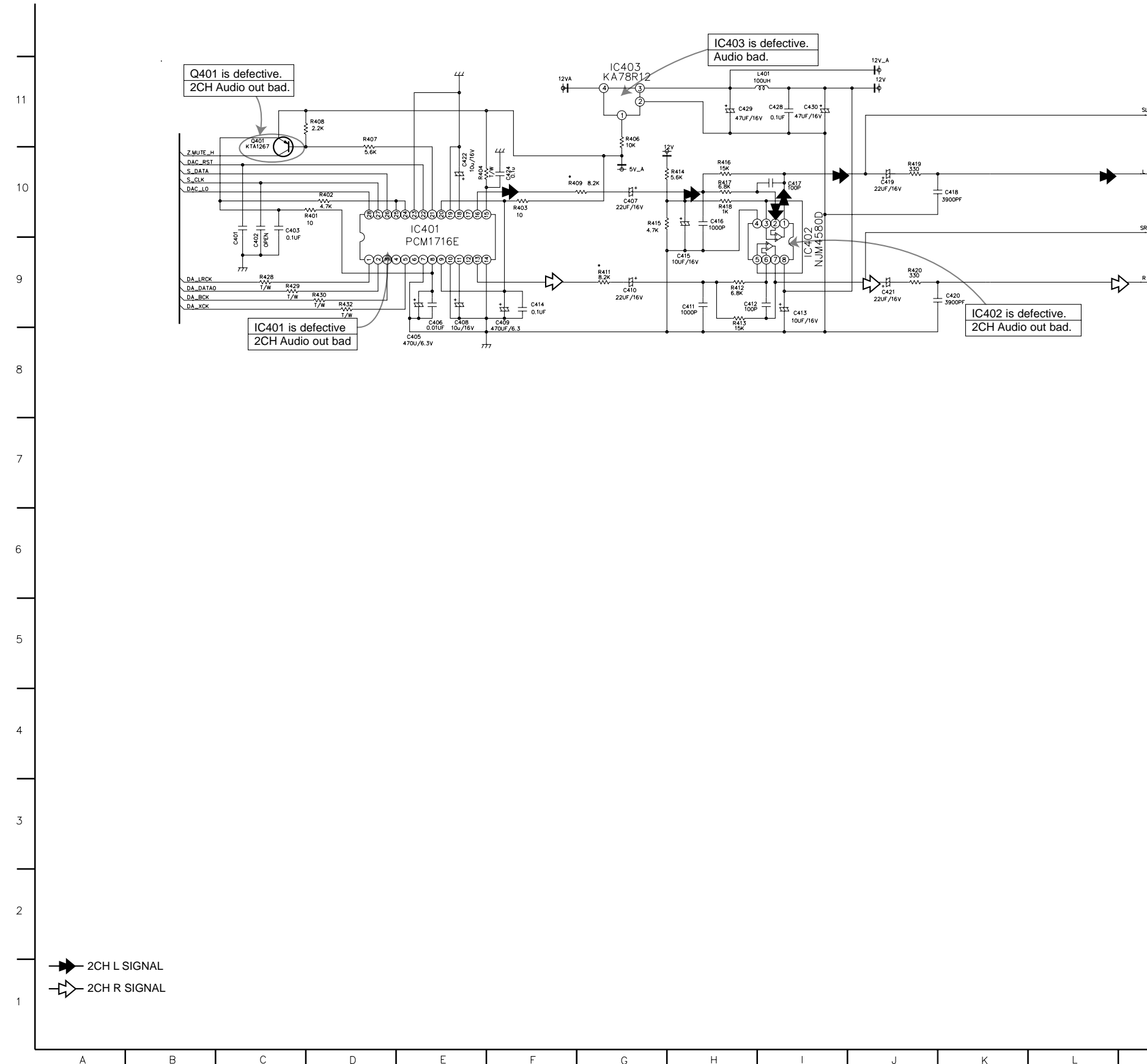


IC501 Pin 110
Component Pr



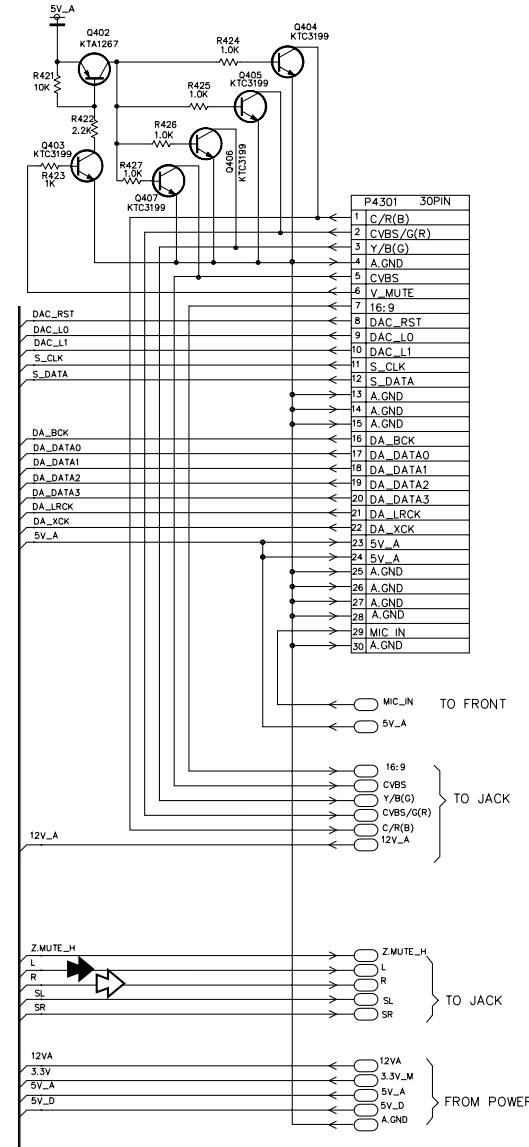
IC501 Pin 114
Component Y

11.5 AUDIO DM CIRCUIT DIAGRAM



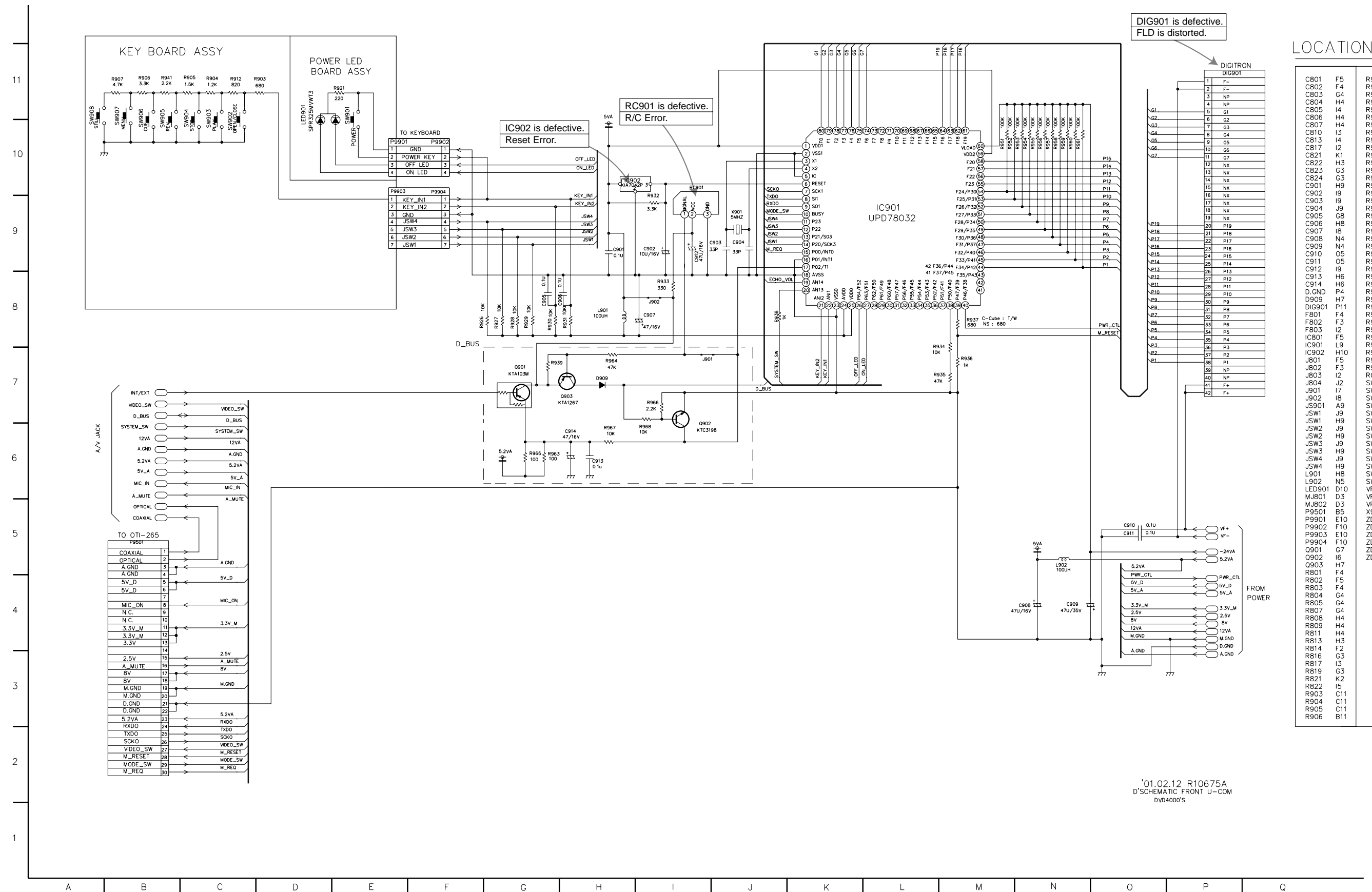
LOCATION GUIDE

| | | | |
|----------|-----|------|-----|
| C401 | C9 | R401 | C10 |
| C402 | C9 | R402 | D10 |
| C403 | C10 | R403 | F10 |
| C404 | C4 | R404 | E10 |
| C405 | E8 | R406 | G11 |
| C406 | E9 | R407 | D11 |
| C407 | G10 | R408 | D11 |
| C408 | E9 | R409 | F10 |
| C409 | F9 | R411 | G9 |
| C410 | G9 | R412 | H9 |
| C411 | H9 | R413 | H9 |
| C412 | H9 | R414 | H10 |
| C413 | I9 | R415 | G10 |
| C414 | F9 | R416 | H10 |
| C415 | H9 | R417 | H10 |
| C416 | H10 | R418 | H10 |
| C417 | I10 | R419 | J10 |
| C418 | K10 | R420 | J9 |
| C419 | J10 | R421 | M10 |
| C420 | K9 | R422 | M10 |
| C421 | J9 | R423 | M10 |
| C422 | E10 | R424 | N11 |
| C424 | F10 | R425 | N10 |
| C428 | I11 | R426 | N10 |
| C429 | H11 | R427 | N10 |
| C430 | I11 | R428 | C9 |
| DA_DATA0 | C5 | R429 | C9 |
| DA_DATA1 | E6 | R430 | D9 |
| DA_DATA2 | C5 | R431 | C6 |
| DA_DATA3 | D4 | R432 | D9 |
| DA_LRCK | G8 | R451 | C3 |
| DA_XCK | H7 | R452 | C3 |
| 5V_A | H7 | R453 | C3 |
| C458 | I8 | R454 | C3 |
| C459 | K8 | R455 | C3 |
| C460 | K8 | R456 | C3 |
| C461 | G7 | R457 | G8 |
| C462 | H7 | R458 | H8 |
| C463 | H7 | R459 | G7 |
| C464 | I6 | R460 | H8 |
| C465 | K7 | R461 | H8 |
| C466 | K7 | R462 | H8 |
| C467 | G6 | R463 | J8 |
| C468 | H5 | R464 | C4 |
| C469 | H5 | R465 | K8 |
| C470 | I6 | R466 | L8 |
| C471 | K6 | R467 | G7 |
| C472 | K6 | R468 | H7 |
| C473 | G5 | R469 | H6 |
| C474 | H4 | R470 | J7 |
| C475 | H4 | R472 | L7 |
| C476 | I4 | R473 | L7 |
| C478 | K5 | R474 | G6 |
| C479 | K5 | R475 | H6 |
| C480 | G3 | R476 | G5 |
| C481 | H3 | R477 | H6 |
| C482 | H3 | R478 | H6 |
| C483 | I4 | R479 | H6 |
| C484 | K4 | R480 | J6 |
| C485 | K4 | R482 | L6 |
| C486 | G2 | R483 | L6 |
| C487 | H2 | R484 | G5 |
| C488 | H2 | R485 | H5 |
| C490 | K2 | R486 | H4 |
| C491 | K2 | R487 | J5 |
| C492 | I2 | R489 | L5 |
| IC401 | E10 | R490 | L5 |
| IC402 | I9 | R491 | G4 |
| IC403 | G11 | R492 | H4 |
| IC451 | D5 | R493 | G3 |
| IC452 | I7 | R494 | H4 |
| IC453 | I5 | R495 | H4 |
| IC454 | I3 | R496 | H4 |
| L401 | I11 | R497 | J4 |
| P4301 | O9 | R499 | L4 |
| Q401 | C11 | R4A1 | L4 |
| Q402 | N11 | R4A2 | G3 |
| Q403 | M10 | R4A3 | H3 |
| Q404 | O11 | R4A4 | H2 |
| Q405 | O10 | R4A6 | J3 |
| Q406 | N10 | R4A8 | L3 |
| Q407 | N10 | R4A9 | L2 |



'01.03.16 R10674A
D'SCHEMA TIC AUDIO
DVD4000'S

11.6 FRONT MICOM CIRCUIT DIAGRAM

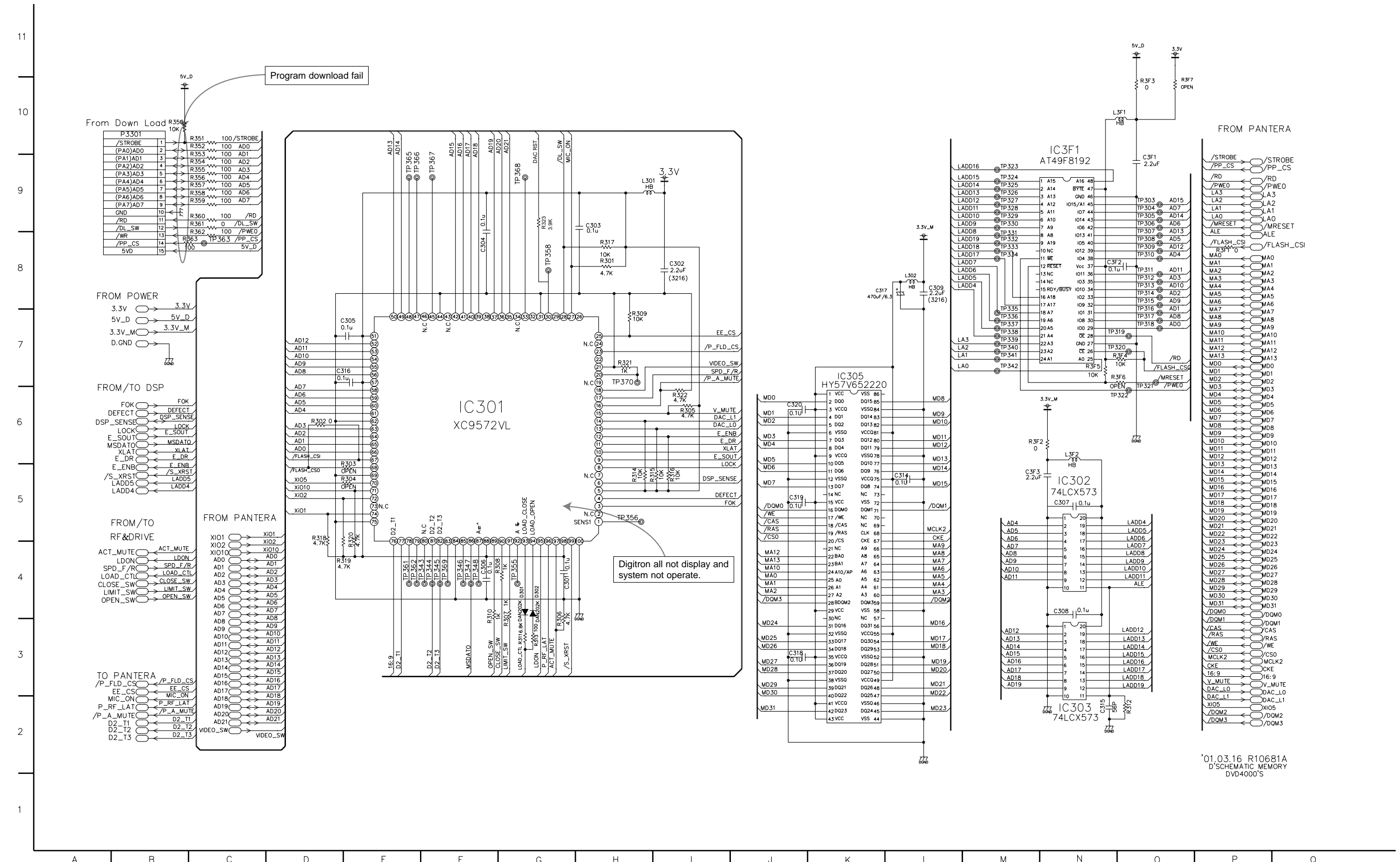


LOCATION GUIDE

| | | | |
|--------|-----|-------|-----|
| C801 | F5 | R907 | B11 |
| C802 | F4 | R912 | C11 |
| C803 | G4 | R921 | E11 |
| C804 | H4 | R922 | G9 |
| C805 | I4 | R923 | C9 |
| C806 | H4 | R924 | D9 |
| C807 | H4 | R925 | D9 |
| C810 | I3 | R926 | F8 |
| C813 | I2 | R927 | G8 |
| C817 | I2 | R928 | G8 |
| C821 | K1 | R929 | G8 |
| C822 | H3 | R930 | G8 |
| C823 | G3 | R931 | H8 |
| C824 | G3 | R932 | I9 |
| C901 | H9 | R933 | I8 |
| C902 | I9 | R934 | L7 |
| C903 | I9 | R935 | L7 |
| C904 | J9 | R936 | M7 |
| C905 | G8 | R937 | M8 |
| C906 | H8 | R938 | J8 |
| C907 | I8 | R939 | C7 |
| C908 | N4 | R941 | B11 |
| C909 | N4 | R951 | M10 |
| C910 | O5 | R952 | M10 |
| C911 | O5 | R953 | N10 |
| C912 | I9 | R954 | N10 |
| C913 | H6 | R955 | N10 |
| C914 | H6 | R956 | N10 |
| D.GND | P4 | R957 | N10 |
| D909 | H7 | R958 | N10 |
| DIG901 | P11 | R959 | N10 |
| F801 | F4 | R960 | N10 |
| F802 | F3 | R961 | N10 |
| F803 | I2 | R963 | G6 |
| IC801 | F5 | R964 | H7 |
| IC901 | L9 | R965 | G6 |
| IC902 | H10 | R966 | I7 |
| J801 | F5 | R967 | H6 |
| J802 | F5 | R968 | I6 |
| J803 | I2 | RC901 | I10 |
| J804 | J2 | SW901 | E10 |
| J901 | I7 | SW902 | C10 |
| J902 | I8 | SW903 | C10 |
| JS901 | A9 | SW904 | C10 |
| JSW1 | J9 | SW905 | B10 |
| JSW1 | H9 | SW906 | B10 |
| JSW2 | J9 | SW907 | B10 |
| JSW2 | H9 | SW908 | A10 |
| JSW3 | J9 | SW909 | B10 |
| JSW3 | H9 | SW910 | C9 |
| JSW4 | H9 | SW911 | C9 |
| JSW4 | J9 | SW912 | D9 |
| L901 | H8 | SW913 | C9 |
| L902 | N5 | SW914 | C9 |
| LED901 | D10 | VR801 | G3 |
| MJB01 | D3 | VR802 | H3 |
| MJB02 | D3 | VR803 | K2 |
| P9501 | B5 | X901 | J9 |
| P9901 | E10 | ZD801 | F4 |
| P9902 | F10 | ZD802 | F4 |
| P9903 | E10 | ZD803 | F3 |
| P9904 | F10 | ZD804 | F2 |
| Q901 | G7 | ZD805 | I2 |
| Q902 | I6 | ZD806 | I1 |

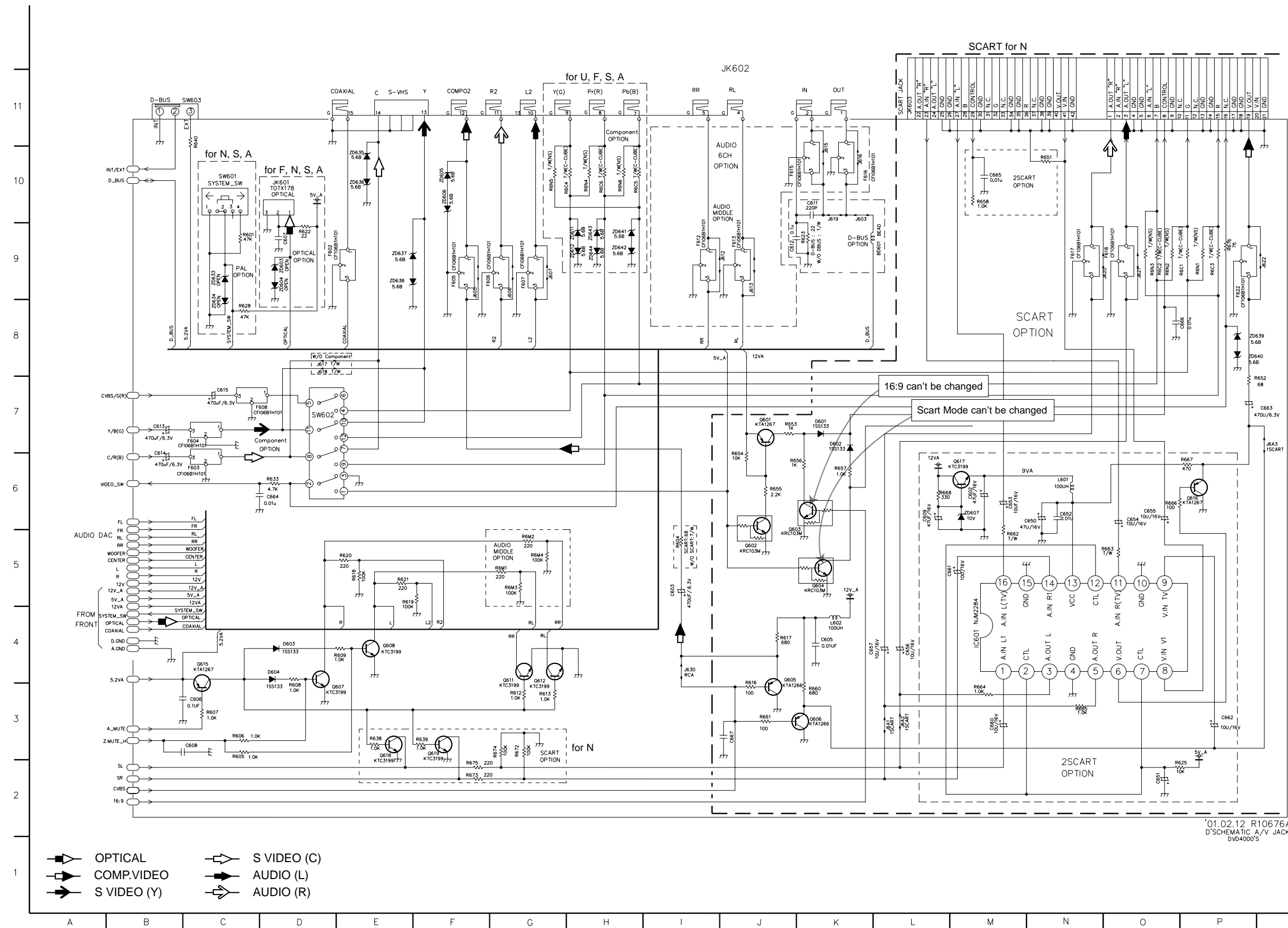
'01.02.12 R10675A
D'SCHEMATIC FRONT U-COM
DVD4000'S

11.7 MEMORY CIRCUIT DIAGRAM



'01.03.16 R10681A
D'SCHEMATIC MEMORY
DVD4000'S

11.8 JACK CIRCUIT DIAGRAM



LOCATION GUIDE

| | | | |
|-------|-----|-------|-----|
| BD601 | L9 | R601 | C9 |
| C602 | M6 | R604 | I5 |
| C603 | I5 | R605 | C3 |
| C605 | K4 | R606 | C3 |
| C606 | K3 | R607 | C3 |
| C607 | D9 | R608 | D3 |
| C608 | C3 | R609 | D4 |
| C609 | L6 | R610 | F3 |
| C611 | K10 | R611 | F3 |
| C612 | J9 | R612 | G3 |
| C613 | B7 | R613 | G3 |
| C614 | B6 | R614 | H3 |
| C615 | C7 | R615 | H3 |
| C650 | M6 | R616 | J3 |
| C651 | O2 | R617 | J4 |
| C652 | N6 | R618 | E5 |
| C653 | M6 | R619 | E5 |
| C654 | O6 | R620 | E5 |
| C655 | O6 | R621 | E5 |
| C656 | L4 | R622 | D9 |
| C657 | K4 | R623 | K9 |
| C659 | O2 | R624 | O2 |
| C661 | M5 | R628 | C8 |
| C662 | P3 | R633 | D6 |
| C663 | O7 | R638 | E3 |
| C664 | D6 | R639 | F3 |
| C665 | M10 | R640 | C10 |
| C666 | P8 | R651 | N10 |
| D607 | K7 | R652 | K7 |
| D602 | K7 | R653 | J7 |
| D603 | D4 | R654 | J6 |
| D604 | D4 | R655 | J6 |
| F602 | D9 | R656 | J6 |
| F603 | C6 | R657 | K6 |
| F604 | C7 | R658 | M10 |
| F605 | F9 | R659 | K3 |
| F606 | G9 | R661 | J3 |
| F607 | G9 | R662 | M5 |
| F608 | C7 | R663 | N5 |
| F611 | I9 | R664 | M3 |
| F612 | J9 | R665 | N3 |
| F613 | J9 | R666 | O6 |
| F614 | J9 | R667 | P6 |
| F615 | K10 | R668 | L6 |
| F616 | K10 | R672 | G3 |
| F617 | N9 | R673 | F2 |
| F618 | O9 | R674 | G3 |
| F622 | P9 | R675 | F2 |
| IC601 | M4 | R676 | P9 |
| J603 | K10 | R6C1 | C9 |
| J605 | F9 | R6C2 | O9 |
| J606 | G9 | R6C3 | P9 |
| J607 | G9 | R6C4 | H10 |
| J611 | I9 | R6C5 | H10 |
| J612 | J9 | R6C6 | H10 |
| J613 | J9 | R6M1 | G5 |
| J614 | J8 | R6M2 | G5 |
| J615 | K10 | R6M3 | G5 |
| J616 | K10 | R6M4 | J3 |
| J617 | D8 | R6N1 | P9 |
| J618 | D8 | R6N2 | O9 |
| J619 | K10 | R6N3 | O9 |
| J620 | O9 | R6N4 | H10 |
| J621 | O9 | R6N5 | G10 |
| J622 | O9 | R6N6 | H10 |
| J630 | I4 | SW601 | C10 |
| J6A1 | L3 | SW602 | D7 |
| J6A2 | L3 | SW603 | C11 |
| J6A3 | O7 | ZD603 | D9 |
| JK601 | D10 | ZD604 | D9 |
| JK602 | J11 | ZD605 | F10 |
| JK603 | L11 | ZD606 | F10 |
| L601 | N6 | ZD607 | M6 |
| L602 | K4 | ZD611 | H9 |
| O601 | J7 | ZD612 | H9 |
| O602 | J5 | ZD633 | C8 |
| O603 | J5 | ZD634 | C8 |
| O604 | K5 | ZD635 | E10 |
| O605 | J4 | ZD636 | E10 |
| O606 | K3 | ZD637 | E9 |
| O607 | D3 | ZD638 | E9 |
| O608 | E4 | ZD639 | P8 |
| O609 | F4 | ZD640 | P8 |
| O610 | F4 | ZD641 | H9 |
| O611 | G4 | ZD642 | H9 |
| O612 | G4 | ZD643 | H9 |
| O613 | H4 | ZD644 | H9 |
| O614 | H4 | | |
| O615 | C4 | | |
| O616 | P6 | | |
| O617 | M6 | | |
| O618 | E3 | | |
| O619 | F3 | | |

'01.02.12 R10676A
D'SCHEMATIC A/V JACK
DVD4000'S

| MODE PIN NO. | EE | PLAY |
|--------------|-------|------|
| 37 | 2.56 | 1.84 |
| 38 | 0.00 | 0.00 |
| 39 | 2.40 | 2.76 |
| 40 | 2.87 | 2.72 |
| 41 | 3.06 | 3.06 |
| 42 | 2.24 | 2.37 |
| 43 | 3.06 | 3.06 |
| 44 | 0.00 | 0.00 |
| 45 | 0.00 | 2.42 |
| 46 | 0.00 | 0.00 |
| 47 | 2.86 | 2.73 |
| 48 | 2.41 | 2.78 |
| 49 | 30.60 | 3.08 |
| 50 | 2.56 | 2.69 |
| 51 | 2.55 | 2.67 |
| 52 | 0.00 | 0.00 |
| 53 | 2.53 | 2.68 |
| 54 | 2.52 | 2.66 |
| 55 | 30.60 | 3.07 |
| 56 | 2.52 | 2.28 |
| 57 | 0.00 | 0.00 |
| 58 | 0.00 | 0.00 |
| 59 | 0.00 | 0.00 |
| 60 | 1.10 | 1.50 |
| 61 | 2.17 | 1.54 |
| 62 | 2.07 | 1.54 |
| 63 | 2.08 | 1.78 |
| 64 | 2.14 | 1.66 |
| 65 | 0.06 | 0.15 |
| 66 | 0.06 | 0.25 |
| 67 | 3.05 | 3.04 |
| 68 | 1.64 | 1.61 |
| 69 | 0.00 | 0.09 |
| 70 | 0.00 | 0.08 |
| 71 | 0.00 | 0.00 |
| 72 | 0.00 | 0.00 |
| 73 | 0.00 | 0.00 |
| 74 | 2.23 | 0.00 |
| 75 | 3.06 | 3.03 |
| 76 | 2.86 | 1.70 |
| 77 | 2.40 | 1.76 |
| 78 | 0.00 | 0.00 |
| 79 | 2.55 | 1.86 |
| 80 | 2.57 | 1.92 |
| 81 | 3.06 | 3.06 |
| 82 | 2.54 | 1.84 |
| 83 | 2.54 | 1.66 |
| 84 | 0.00 | 0.00 |
| 85 | 0.00 | 1.77 |
| 86 | 0.00 | 0.03 |
| IC3F1 | | |
| 1 | 0.00 | 0.00 |
| 2 | 0.02 | 0.00 |
| 3 | 0.00 | 0.00 |
| 4 | 0.02 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|--------------|------|------|
| 5 | 0.00 | 0.00 |
| 6 | 0.00 | 0.00 |
| 7 | 0.00 | 0.00 |
| 8 | 0.00 | 0.00 |
| 9 | 2.40 | 2.75 |
| 10 | 0.18 | 0.20 |
| 11 | 3.07 | 3.05 |
| 12 | 3.05 | 2.99 |
| 13 | 1.19 | 1.36 |
| 14 | 0.00 | 0.02 |
| 15 | 1.20 | 1.55 |
| 16 | 3.10 | 0.73 |
| 17 | 0.00 | 0.00 |
| 18 | 0.00 | 0.00 |
| 19 | 0.00 | 0.00 |
| 20 | 0.00 | 0.00 |
| 21 | 0.00 | 2.23 |
| 22 | 0.00 | 2.13 |
| 23 | 0.00 | 2.22 |
| 24 | 0.00 | 0.15 |
| 25 | 3.04 | 0.74 |
| 26 | 3.04 | 3.05 |
| 27 | 0.00 | 0.00 |
| 28 | 3.04 | 3.05 |
| 29 | 3.03 | 3.00 |
| 30 | 3.03 | 3.00 |
| 31 | 3.03 | 3.00 |
| 32 | 3.03 | 3.00 |
| 33 | 3.03 | 2.99 |
| 34 | 3.04 | 2.99 |
| 35 | 3.04 | 3.00 |
| 36 | 3.04 | 3.00 |
| 37 | 3.04 | 3.00 |
| 38 | 3.03 | 0.40 |
| 39 | 3.03 | 3.00 |
| 40 | 3.03 | 3.00 |
| 41 | 3.03 | 3.00 |
| 42 | 3.02 | 2.99 |
| 43 | 3.02 | 3.00 |
| 44 | 3.03 | 3.00 |
| 45 | 3.02 | 3.00 |
| 46 | 0.00 | 0.00 |
| 47 | 3.03 | 3.03 |
| 48 | 0.00 | 0.00 |
| IC302 | | |
| 1 | 0.00 | 0.00 |
| 2 | 0.40 | 0.39 |
| 3 | 2.93 | 2.99 |
| 4 | 2.92 | 2.97 |
| 5 | 2.90 | 2.98 |
| 6 | 2.99 | 2.98 |
| 7 | 3.00 | 2.97 |
| 8 | 2.99 | 2.95 |
| 9 | 2.96 | 2.95 |
| 10 | 0.02 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|-----------------------|------|------|
| 11 | 0.00 | 0.00 |
| 12 | 0.00 | 0.00 |
| 13 | 0.00 | 0.00 |
| 14 | 0.00 | 0.00 |
| 15 | 0.00 | 0.00 |
| 16 | 0.00 | 0.00 |
| 17 | 0.00 | 0.00 |
| 18 | 0.00 | 0.00 |
| 19 | 0.00 | 2.30 |
| 20 | 3.01 | 3.06 |
| IC303 | | |
| 1 | 0.00 | 0.00 |
| 2 | 3.02 | 2.99 |
| 3 | 3.02 | 2.99 |
| 4 | 2.97 | 2.99 |
| 5 | 2.94 | 3.00 |
| 6 | 2.95 | 3.00 |
| 7 | 2.97 | 2.99 |
| 8 | 2.95 | 2.98 |
| 9 | 2.94 | 3.00 |
| 10 | 0.00 | 0.00 |
| 11 | 0.00 | 0.00 |
| 12 | 2.89 | 2.70 |
| 13 | 3.04 | 0.70 |
| 14 | 0.00 | 0.00 |
| 15 | 0.00 | 0.00 |
| 16 | 0.00 | 0.00 |
| 17 | 0.00 | 0.00 |
| 18 | 0.00 | 0.00 |
| 19 | 0.00 | 0.00 |
| 20 | 3.03 | 3.04 |
| IC505 7W04FU | | |
| 1 | 1.56 | 1.56 |
| 2 | 2.48 | 2.46 |
| 3 | 2.56 | 2.55 |
| 4 | 0.00 | 0.00 |
| 5 | 2.47 | 2.46 |
| 6 | 2.56 | 2.55 |
| 7 | 2.56 | 2.55 |
| 8 | 5.00 | 4.99 |
| AUDIO | | |
| IC401 PCM1716E | | |
| 1 | 1.57 | 1.57 |
| 2 | 0.00 | 1.56 |
| 3 | 1.57 | 1.57 |
| 4 | 2.22 | 1.22 |
| 5 | 1.57 | 1.57 |
| 6 | 3.05 | 3.82 |
| 7 | 3.73 | 4.01 |
| 8 | 4.99 | 4.89 |
| 9 | 5.03 | 5.02 |
| 10 | 0.00 | 2.44 |
| 11 | 3.50 | 2.47 |
| 12 | 3.20 | 2.40 |
| 13 | 1.47 | 2.47 |

| MODE PIN NO. | EE | PLAY |
|----------------------|-------|-------|
| 14 | 0.00 | 2.09 |
| 15 | 4.91 | 4.92 |
| 16 | 2.00 | 2.48 |
| 17 | 2.00 | 4.49 |
| 18 | 1.49 | 4.96 |
| 19 | 0.00 | 0.00 |
| 20 | 5.02 | 5.02 |
| 21 | 0.00 | 5.02 |
| 22 | 5.00 | 5.53 |
| 23 | 0.00 | 0.00 |
| 24 | 4.90 | 4.89 |
| 25 | 1.24 | 5.27 |
| 26 | 0.00 | 0.00 |
| 27 | 4.98 | 3.00 |
| 28 | 4.99 | 4.08 |
| IC403 | | |
| 1 | 5.03 | 5.03 |
| 2 | 0.00 | 0.00 |
| 3 | 11.84 | 11.85 |
| 4 | 12.78 | 12.69 |
| IC402 NJM4580 | | |
| 1 | 5.36 | 5.37 |
| 2 | 5.37 | 5.35 |
| 3 | 5.37 | 5.35 |
| 4 | 0.00 | 0.00 |
| 5 | 5.36 | 5.37 |
| 6 | 5.37 | 5.37 |
| 7 | 5.37 | 5.35 |
| 8 | 11.80 | 11.78 |
| SYSTEM | | |
| IC501 | | |
| 1 | 3.08 | 3.06 |
| 2 | 2.33 | 1.30 |
| 3 | 2.38 | 1.40 |
| 4 | 2.16 | 2.20 |
| 5 | 2.33 | 1.50 |
| 6 | 0.00 | 0.00 |
| 7 | 2.17 | 1.50 |
| 8 | 2.62 | 1.40 |
| 9 | 2.09 | 1.60 |
| 10 | 3.08 | 3.06 |
| 11 | 0.00 | 0.70 |
| 12 | 0.21 | 0.15 |
| 13 | 0.00 | 0.15 |
| 14 | 0.00 | 0.00 |
| 15 | 3.12 | 0.00 |
| 16 | 3.12 | 1.70 |
| 17 | 0.00 | 0.00 |
| 18 | 0.00 | 0.00 |
| 19 | 3.12 | 3.06 |
| 20 | 0.00 | 1.60 |
| 21 | 0.00 | 0.00 |
| 22 | 1.64 | 1.60 |
| 23 | 0.00 | 0.00 |
| 24 | 3.12 | 3.10 |

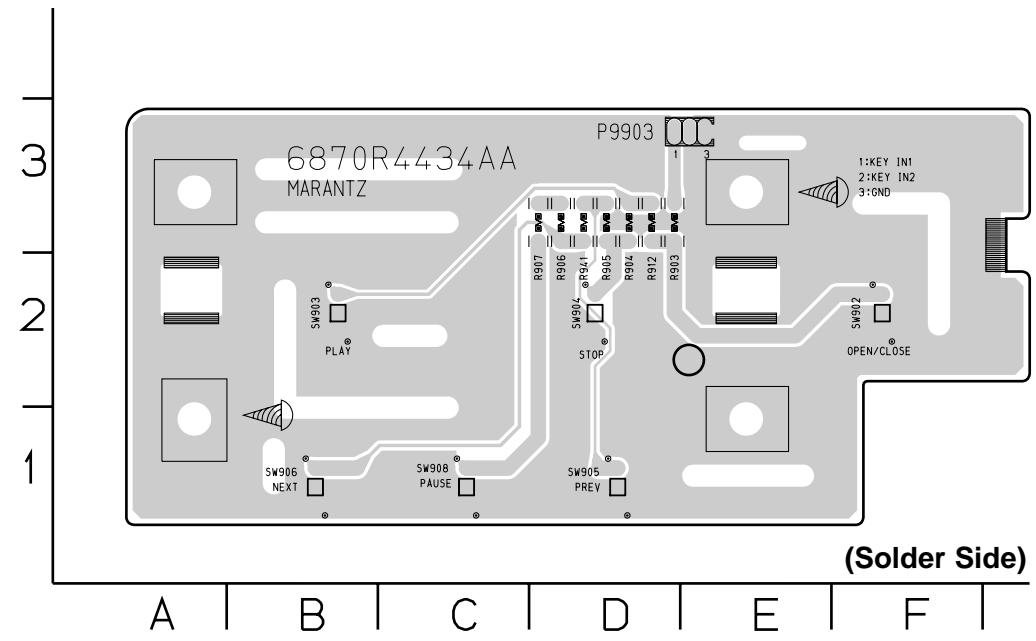
| MODE PIN NO. | EE | PLAY |
|--------------|------|------|
| 25 | 0.00 | 1.70 |
| 26 | 0.00 | 1.40 |
| 27 | 3.12 | 3.06 |
| 28 | 0.00 | 1.50 |
| 29 | 0.00 | 0.15 |
| 30 | 0.00 | 0.00 |
| 31 | 0.00 | 0.00 |
| 32 | 0.00 | 0.70 |
| 33 | 3.12 | 1.50 |
| 34 | 2.31 | 2.20 |
| 35 | 3.12 | 2.00 |
| 36 | 3.12 | 3.06 |
| 37 | 3.12 | 2.90 |
| 38 | 3.12 | 2.20 |
| 39 | 3.12 | 2.90 |
| 40 | 0.00 | 0.00 |
| 41 | 0.00 | 0.00 |
| 42 | 0.00 | 0.00 |
| 43 | 2.80 | 1.60 |
| 44 | 3.12 | 3.06 |
| 45 | 0.37 | 1.60 |
| 46 | 0.86 | 1.50 |
| 47 | 0.00 | 0.00 |
| 48 | 2.34 | 1.40 |
| 49 | 0.00 | 0.00 |
| 50 | 2.32 | 1.20 |
| 51 | 2.20 | 1.70 |
| 52 | 2.60 | 1.20 |
| 53 | 3.05 | 3.06 |
| 54 | 2.04 | 1.60 |
| 55 | 2.33 | 1.4 |
| 56 | 2.30 | 1.50 |
| 57 | 0.00 | 0.00 |
| 58 | 2.37 | 1.60 |
| 59 | 2.60 | 1.40 |
| 60 | 3.13 | 1.50 |
| 61 | 3.13 | 1.40 |
| 62 | 3.13 | 3.06 |
| 63 | 3.13 | 1.00 |
| 64 | 3.13 | 1.50 |
| 65 | 0.00 | 0.00 |
| 66 | 0.18 | 0.50 |
| 67 | 0.00 | 0.00 |
| 68 | 1.56 | 1.58 |
| 69 | 0.00 | 0.00 |
| 70 | 0.00 | 3.10 |
| 71 | 0.00 | 1.20 |
| 72 | 0.00 | 1.20 |
| 73 | 0.00 | 1.20 |
| 74 | 0.00 | 1.20 |
| 75 | 3.10 | 3.06 |
| 76 | 1.58 | 1.65 |
| 77 | 2.76 | 2.20 |
| 78 | 1.54 | 1.50 |
| 79 | 1.57 | 1.50 |

| MODE PIN NO. | EE | PLAY |
|--------------|------|------|
| 80 | 3.14 | 3.10 |
| 81 | 2.95 | 3.10 |
| 82 | 0.00 | 0.00 |
| 83 | 3.13 | 3.10 |
| 84 | 0.00 | 3.70 |
| 85 | 0.00 | 0.00 |
| 86 | 0.00 | 0.10 |
| 87 | 3.13 | 3.10 |
| 88 | 3.14 | 3.10 |
| 89 | 2.77 | 2.20 |
| 90 | 0.00 | 3.10 |
| 91 | 3.14 | 3.06 |
| 92 | 0.00 | 0.00 |
| 93 | 3.06 | 3.05 |
| 94 | 3.06 | 3.04 |
| 95 | 0.00 | 0.00 |
| 96 | 3.06 | 0.00 |
| 97 | 0.00 | 0.00 |
| 98 | 0.95 | 0.95 |
| 99 | 0.85 | 0.85 |
| 100 | 0.00 | 0.00 |
| 101 | 2.09 | 2.20 |
| 102 | 3.08 | 3.06 |
| 103 | 0.00 | 0.00 |
| 104 | 0.00 | 0.00 |
| 105 | 0.00 | 0.00 |
| 106 | 0.00 | 0.00 |
| 107 | 0.00 | 2.10 |
| 108 | 2.14 | 2.10 |
| 109 | 0.00 | 0.00 |
| 110 | 0.98 | 0.80 |
| 111 | 0.76 | 0.90 |
| 112 | 1.19 | 1.30 |
| 113 | 3.03 | 3.05 |
| 114 | 0.88 | 0.78 |
| 115 | 0.00 | 0.00 |
| 116 | 1.13 | 1.26 |
| 117 | 2.29 | 2.33 |
| 118 | 0.86 | 0.08 |
| 119 | 1.13 | 1.20 |
| 120 | 1.90 | 2.00 |
| 121 | 0.00 | 0.00 |
| 122 | 3.06 | 3.10 |
| 123 | 3.07 | 3.10 |
| 124 | 3.07 | 3.10 |
| 125 | 3.07 | 3.06 |
| 126 | 3.07 | 3.06 |
| 127 | 3.07 | 3.06 |
| 128 | 3.07 | 3.06 |
| 129 | 3.07 | 3.05 |
| 130 | 3.07 | 3.05 |
| 131 | 3.07 | 3.06 |
| 132 | 0.00 | 0.00 |
| 133 | 3.06 | 3.06 |
| 134 | 3.06 | 3.06 |

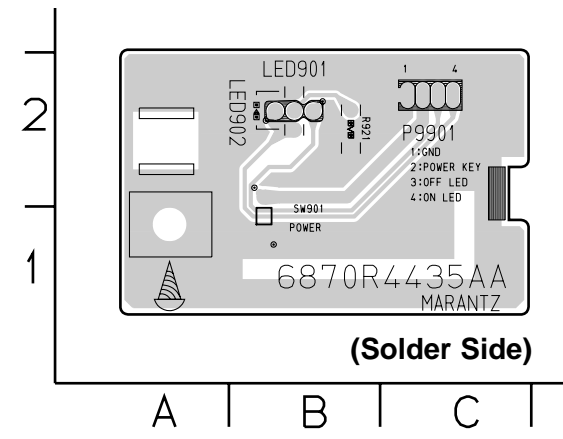
| MODE PIN NO. | EE | PLAY |
|--------------|------|------|
| 135 | 2.22 | 2.20 |
| 136 | 3.07 | 3.05 |
| 137 | 3.07 | 3.10 |
| 138 | 3.06 | 3.10 |
| 139 | 3.06 | 3.10 |
| 140 | 3.07 | 3.06 |
| 141 | 3.06 | 3.10 |
| 142 | 3.06 | 3.10 |
| 143 | 3.06 | 3.10 |
| 144 | 3.06 | 3.10 |
| 145 | 3.06 | 3.10 |
| 146 | 3.06 | 3.10 |
| 147 | 0.00 | 0.00 |
| 148 | 3.06 | 3.10 |
| 149 | 3.04 | 3.10 |
| 150 | 3.04 | 3.10 |
| 151 | 3.03 | 3.10 |
| 152 | 3.04 | 3.10 |
| 153 | 3.03 | 3.10 |
| 154 | 3.06 | 3.06 |
| 155 | 3.05 | 3.10 |
| 156 | 3.07 | 3.10 |
| 157 | 3.05 | 3.10 |
| 158 | 3.05 | 3.10 |
| 159 | 2.16 | 2.20 |
| 160 | 1.54 | 1.50 |
| 161 | 3.07 | 3.10 |
| 162 | 0.00 | 0.00 |
| 163 | 3.06 | 0.00 |
| 164 | 3.05 | 3.10 |
| 165 | 3.05 | 3.10 |
| 166 | 3.05 | 3.10 |
| 167 | 3.05 | 3.10 |
| 168 | 3.05 | 3.10 |
| 169 | 3.08 | 3.06 |
| 170 | 3.08 | 3.10 |
| 171 | 0.00 | 0.00 |
| 172 | 3.05 | 3.10 |
| 173 | 3.05 | 3.10 |
| 174 | 3.05 | 3.10 |
| 175 | 0.40 | 1.50 |
| 176 | 3.05 | 3.10 |
| 177 | 0.00 | 0.00 |
| 178 | 3.05 | 3.10 |
| 179 | 3.05 | 3.10 |
| 180 | 3.05 | 3.10 |
| 181 | 3.06 | 3.06 |
| 182 | 3.06 | 3.18 |
| 183 | 0.00 | 0.09 |
| 184 | 3.07 | 3.00 |
| 185 | 0.00 | 2.40 |
| 186 | 0.00 | 2.30 |
| 187 | 0.00 | 0.00 |
| 188 | 0.00 | 0.00 |
| 189 | 3.08 | 3.10 |

| MODE PIN NO. | EE | PLAY |
|--------------|------|------|
| 190 | 0.00 | 0.00 |
| 191 | 0.00 | 0.02 |
| 192 | 2.15 | 2.20 |
| 193 | 3.07 | 3.10 |
| 194 | 3.07 | 3.10 |
| 195 | 0.03 | 0.0 |

12.3 KEY P.C.BOARD



12.4 LED P.C.BOARD



13. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R***: 1) GD05 × × × 140, Carbon film fixed resistor, ±5% 1/4W
 R***: 2) GD05 × × × 160, Carbon film fixed resistor, ±5% 1/6W

① — Resistance value

Examples ;

① Resistance value

0.1 Ω 001 10 Ω 100 1 kΩ 102 100 kΩ 104
 0.5 Ω 005 18 Ω 180 2.7 kΩ 272 680 kΩ 684
 1 Ω 010 100 Ω 101 10 kΩ 103 1 MΩ 105
 6.8 Ω 068 390 Ω 391 22 kΩ 223 4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C***: CERAMIC CAP.

3) DD1 × × × × 370, Ceramic capacitor
 Disc type
 Temp.coef. P350 ~N1000, 50V
 ② Capacity value
 ③ Tolerance

Examples ;

② Tolerance (Capacity deviation)

±0.25 pF 0
 ±0.5 pF 1
 ±5% 5

* Tolerance of COMMON PARTS handled here are as follows :

0.5 pF ~ 5 pF ±0.25 pF
 6 pF ~ 10 pF ±0.5 pF
 12 pF ~ 560 pF ±5%

③ Capacity value

0.5 pF 005 3 pF 030 100 pF 101
 1 pF 010 10 pF 100 220 pF 221
 1.5 pF 015 47 pF 470 560 pF 561



C***: CERAMIC CAP.

4) DK16 × × × × 300, High dielectric constant ceramic capacitor
 Disc type
 Temp.chara. 2B4, 50V
 ④ Capacity value

Examples ;

④ Capacity value

100 pF 101 1000 pF 102 10000 pF 103
 470 pF 471 2200 pF 222

C***: 5) ELECTROLY CAP. () , 6) FILM CAP. ()

5) EA × × × × × × 10, Electrolytic capacitor
 One-way lead type, Tolerance ±20%

⑤ Working voltage
 ⑥ Capacity value

Examples ;

⑤ Capacity value

0.1 μF 104 4.7 μF 475 100 μF 107
 0.33 μF 334 10 μF 106 330 μF 337
 1 μF 105 22 μF 226 1100 μF 118
 2200 μF 228

⑥ Working voltage

6.3V 006 25V 025
 10V 010 35V 035
 16V 016 50V 050

6) DF15 × × × × 350 Plastic film capacitor
 DF15 × × × × 310 One-way type, Mylar ±5% 50V
 DF16 × × × × 310 Plastic film capacitor
 One-way type, Mylar ±10% 50V
 ⑦ Capacity value

Examples ;

⑦ Capacity value

0.001 μF (1000 pF) 102 0.1 μF 104
 0.0018 μF 182 0.56 μF 564
 0.01 μF 103 1 μF 105
 0.015 μF 153

NOTE : 1) The above CODES (R***, R***, C***, C*** and C***) are omitted on the schematic diagram in some case.

2) On the occasion, be confirmed the common parts on the parts list.

3) Refer to "Common Parts List" for the other common parts (RI05, DD4, DK4).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJL) Type No. (KOA) Description
 NH05 × × × 140 → RF25S × × × × ΩJ (±5% 1/4W)
 NH05 × × × 120 → RF50S × × × × ΩJ (±5% 1/2W)
 NH85 × × × 110 → RF73B2A × × × × ΩJ (±5% 1/10W)
 NH95 × × × 140 → RF73B2E × × × × ΩJ (±5% 1/4W)

* Resistance value Resistance value
 (0.1 Ω - 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJL) Type No. (MEC) Description
 NF05 × × × 140 → ERD-2FCJ × × × (±5% 1/4W)
 RF05 × × × 140 → ERD-2FCG × × × (±2% 1/4W)
 NF02 × × × 140 → ERD-2FCG × × × (±2% 1/4W)
 RF02 × × × 140 → ERD-2FCG × × × (±2% 1/4W)

* Resistance value * Resistance value

Examples ;

* Resistance value
 0.1 Ω 001 10 Ω 100 1 kΩ 102 100 kΩ 104
 0.5 Ω 005 18 Ω 180 2.7 kΩ 272 680 kΩ 684
 1 Ω 010 100 Ω 101 10 kΩ 103 1 MΩ 105
 6.8 Ω 068 390 Ω 391 22 kΩ 223 4.7 MΩ 475



ABBREVIATION AND MARKS

| | |
|------------------------|-----------------------|
| ANT. : ANTENNA | BATT. : BATTERY |
| CAP. : CAPACITOR | CER. : CERAMIC |
| CONN. : CONNECTING | DIG. : DIGITAL |
| HP. : HEADPHONE | MIC. : MICROPHONE |
| μ-PRO : MICROPROCESSOR | REC. : RECORDING |
| RES. : RESISTOR | SPK. : SPEAKER |
| SW. : SWITCH | TRANSF. : TRANSFORMER |
| TRIM. : TRIMMING | TRS. : TRANSISTOR |
| VAR. : VARIABLE | X'TAL : CRYSTAL |


NOTE ON FUSE :

Regarding to all parts of parts code FS20xxx2xx, replace only with Wickmann-Werke GmbH, Type 372 non glass type fuse.

NOTE ON SAFETY :

Symbol  Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol  . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

 がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

| POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) | POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) |
|---------|----------------|--------------------------|--------------------------|----------------|---------|--------------------------|------------------------|-------------|----------------|
| C100 | N, A, S | nsp | ELECT 10μF 50V M | nsp | C284 | nsp | ELECT 47μF 16V M | nsp | |
| C101 | nsp | DRAWING MPX104K 275VAC | nsp | C285 | nsp | CHIP CER.0.1μF 50V Z | nsp | | |
| C102 | N, A, S | nsp | DRAWING MPX104K 275VAC | nsp | C286 | nsp | CHIP CER. 18pF 50V J | nsp | |
| C103 | F, U | nsp | ELECT 100μF 200V M | *EA000970R | C287 | nsp | CHIP CER. 18pF 50V J | nsp | |
| C103 | N, A, S | 9965 000 07003 | ELECT 68μF 400V M | *EA000980R | C288 | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| C104 | N, A, S | nsp | TUBULAR0.022μF 50V Z | nsp | C2A0 | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| C105 | nsp | MYLAR 0.01μF 630V K | nsp | C2A1 | nsp | CHIP CER.0.1μF 50V Z | nsp | | |
| C106 | nsp | HIGH-VOL 100P/1KV SMPS | nsp | C2A2 | nsp | CHIP CER.2200pF 50V K | nsp | | |
| C109 | N, A, S | nsp | MYLAR 0.047μF S 50V J PE | nsp | C2A3 | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| C110 | F, U | nsp | MYLAR0.0047μF S 50V J TS | nsp | } | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| C111 | F, U | nsp | ELECT 3.3μF 50V M | nsp | C2A9 | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| C112 | F, U | nsp | MYLAR 0.015μF 50V J | nsp | C2B0 | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| C114 | N, A, S | nsp | CER. 3300pF 400V | nsp | C2B1 | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| ▲ C114 | F, U | nsp | AC-CON 103/400V SMPS | nsp | C2B2 | nsp | CHIP CER.0.1μF 50V Z | nsp | |
| C115 | F, U | nsp | MYLAR 0.015μF 50V J | nsp | C2B3 | nsp | CHIP CER.0.0470μF25V Z | nsp | |
| C116 | nsp | 9965 000 11314 | ELECT 470μF 25V M | *EA001120R | C2B4 | nsp | CHIP CER.560pF 50V K | nsp | |
| C118 | nsp | ELECT 100μF 16V M | nsp | C2B5 | nsp | CHIP CER.560pF 500V K | nsp | | |
| C119 | nsp | 9965 000 00393 | ELECT 47μF 50V SMPS | EA47605020 | C2B6 | nsp | CHIP CER.0.033μF 50V | nsp | |
| ▲ C120 | F, U | nsp | AC-CON 103/400V SMPS | nsp | C2B7 | nsp | CHIP CER.0.033μF 50V | nsp | |
| C121 | nsp | ELECT 220μF 16V M | nsp | C2B8 | nsp | CHIP CER.0.1μF 50V Z | nsp | | |
| C123 | 9965 000 11315 | ELECT 1000μF 16V M | *EA001130R | C2B9 | nsp | CHIP CER.0.1μF 50V Z | nsp | | |
| C124 | 9965 000 11315 | ELECT 1000μF 16V M | *EA001130R | C2C0 | nsp | CHIP CER.220pF 50V J | nsp | | |
| C125 | nsp | ELECT 330μF 10V M | nsp | } | nsp | CHIP CER.2200pF 50V K | nsp | | |
| C126 | 9965 000 11314 | ELECT 470μF 25V M | *EA001120R | C2C4 | nsp | CHIP CER.0.1μF 50V Z | nsp | | |
| C127 | nsp | ELECT 220μF 25V M | nsp | C2C5 | nsp | CHIP CER.0.1μF 50V Z | nsp | | |
| C128 | nsp | MYLAR 0.047μF 50V J | nsp | C2C8 | nsp | CHIP CER. 33pF 50V J | nsp | | |
| C130 | nsp | ELECT 100μF 16V M | nsp | C2C9 | nsp | CHIP CER. 33pF 50V J | nsp | | |
| C131 | nsp | ELECT 100μF 16V M | nsp | C2D0 | nsp | CHIP CER.0.1μF 50V Z | nsp | | |
| C134 | nsp | ELECT 100μF 16V M | nsp | C2D1 | nsp | } | nsp | | |
| C137 | nsp | ELECT 470μF 10V M | nsp | } | nsp | ELECT 47μF 16V M | nsp | | |
| C140 | nsp | ELECT 470μF 11V M | nsp | C2D4 | nsp | } | nsp | | |
| C201 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2D5 | nsp | ELECT 10μF 16V M | nsp | | |
| C203 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2D6 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C205 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2D7 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C206 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2E1 | nsp | CHIP CER. 1800pF 50V K | nsp | | |
| C207 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2M1 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C210 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2M2 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C221 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2M3 | nsp | ELECT 47μF 16V M | nsp | | |
| C223 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2M4 | nsp | ELECT 10μF 16V M | nsp | | |
| C224 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2M5 | nsp | } | nsp | | |
| C226 | nsp | CHIP CER.0.1μF 50V Z | nsp | } | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C229 | nsp | } | nsp | C2M8 | nsp | } | nsp | | |
| C232 | nsp | ELECT 10μF 16V M | nsp | C2M9 | nsp | CHIP CER. 0.022μF 50V Z | nsp | | |
| C237 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2N1 | nsp | CHIP CER. 4700pF 50V K | nsp | | |
| C238 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2N2 | nsp | CER. 0.01μF 50V K | nsp | | |
| C239 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2N3 | nsp | CHIP CER. 6800pF 50V K | nsp | | |
| C240 | nsp | CHIP CER.2200pF 50V K | nsp | C2N4 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C241 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2N5 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C242 | nsp | CHIP CER.0.1μF 50V Z | nsp | C2N6 | nsp | CER. 2.2μF 16V +80% -20% | nsp | | |
| C245 | nsp | CHIP CER.0.1μF 50V Z | nsp | C301 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C250 | nsp | CHIP CER.0.1μF 50V Z | nsp | C302 | nsp | CER. 2.2μF 16V +80% -20% | nsp | | |
| C255 | nsp | } | nsp | C303 | nsp | } | nsp | | |
| } | nsp | CHIP CER.0.1μF 50V Z | nsp | } | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C258 | nsp | } | nsp | C308 | nsp | } | nsp | | |
| C260 | nsp | CHIP CER. 10pF 50V D | nsp | C309 | nsp | CER. 2.2μF 16V +80% -20% | nsp | | |
| C270 | nsp | CER. 2.2μF 16V +80% -20% | nsp | C314 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C271 | nsp | ELECT 10μF 16V M | nsp | C315 | nsp | CHIP CER. 56pF 50V J | nsp | | |
| C272 | nsp | ELECT 47μF 16V M | nsp | C316 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C273 | nsp | CER. 2.2μF 16V +80% -20% | nsp | C317 | nsp | ELECT 10μF 16V M | nsp | | |
| C274 | nsp | ELECT 10μF 16V M | nsp | C318 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C275 | nsp | ELECT 47μF 16V M | nsp | C319 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C276 | nsp | ELECT 10μF 16V M | nsp | C320 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| C277 | nsp | CER. 2.2μF 16V +80% -20% | nsp | C3F1 | nsp | CER. 2.2μF 16V +80% -20% | nsp | | |
| C278 | nsp | } | nsp | C3F2 | nsp | CHIP CER. 0.1μF 50V Z | nsp | | |
| } | nsp | ELECT 10μF 16V M | nsp | C3F3 | nsp | CER. 2.2μF 16V +80% -20% | nsp | | |
| C281 | nsp | ELECT 10μF 16V M | nsp | | | | | | |

| POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) | POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) |
|---------|-------------|----------------|--------------------------------|----------------|---------|-------------|----------------|-------------------------------------|----------------|
| C403 | | nsp | TUBULAR 0.1μF 50V +80% -20% | nsp | C616 | N | nsp | TUBULAR 3900pF 16V M | nsp |
| C405 | | nsp | ELECT 470μF 6.3V M | nsp | C617 | N | nsp | TUBULAR 3900pF 16V M | nsp |
| C406 | | nsp | TUBULAR 0.01μF 16V M | nsp | C650 | N | nsp | ELECT 47μF 16V M | nsp |
| C407 | | nsp | ELECT 22μF 16V M | nsp | C652 | N | nsp | TUBULAR 0.01μF 16V M | nsp |
| C408 | | nsp | ELECT 10μF 16V M | nsp | C653 | | | | |
| C409 | | nsp | ELECT 470μF 6.3V M | nsp | ∫ | N | nsp | ELECT 10μF 16V M | nsp |
| C410 | | nsp | ELECT 22μF 16V M | nsp | C660 | N | nsp | ELECT 10μF 16V M | nsp |
| C411 | | nsp | TUBULAR 1000pF 50V K | nsp | C661 | N | nsp | ELECT 10μF 16V M | nsp |
| C412 | | nsp | TUBULAR 100pF 50V J | nsp | C662 | N | nsp | ELECT 10μF 16V M | nsp |
| C413 | | nsp | ELECT 10μF 16V M | nsp | C663 | N | nsp | ELECT 470μF 6.3V M | nsp |
| C414 | | nsp | TUBULAR 0.1μF 50V +80% -20% | nsp | C901 | | | TUBULAR 0.1μF 50V +80% -20% | nsp |
| C415 | | nsp | ELECT 10μF 16V M | nsp | C902 | | | ELECT 10μF 16V M | nsp |
| C416 | | nsp | TUBULAR 1000pF 50V K | nsp | C905 | | | TUBULAR 0.1μF 50V +80% -20% | nsp |
| C417 | | nsp | TUBULAR 100pF 50V J | nsp | C906 | | | TUBULAR 0.1μF 50V +80% -20% | nsp |
| C418 | | nsp | TUBULAR 3900pF 16V M | nsp | C907 | | | ELECT 47μF 16V M | nsp |
| C419 | | nsp | ELECT 22μF 16V M | nsp | C908 | | | ELECT 47μF 16V M | nsp |
| C420 | | nsp | TUBULAR 3900pF 16V M | nsp | C909 | | | ELECT 47μF 35V M | nsp |
| C421 | | nsp | ELECT 22μF 16V M | nsp | C910 | | | TUBULAR 0.1μF 50V +80% -20% | nsp |
| C422 | | nsp | ELECT 10μF 16V M | nsp | C911 | | | TUBULAR 0.1μF 50V +80% -20% | nsp |
| C424 | | nsp | TUBULAR 0.1μF 50V +80% -20% | nsp | C912 | | | ELECT 47μF 16V M | nsp |
| C425 | | nsp | TUBULAR 0.01μF 16V M | nsp | C913 | | | TUBULAR 0.1μF 50V +80% -20% | nsp |
| C428 | | nsp | TUBULAR 0.1μF 50V +80% -20% | nsp | C914 | | | ELECT 47μF 16V M | nsp |
| C429 | | nsp | ELECT 47μF 16V M | nsp | | | | | |
| C430 | | nsp | ELECT 47μF 16V M | nsp | | | | | |
| C502 | | nsp | CER. 0.01μF 50V K | nsp | | | | | |
| C503 | | nsp | CHIP CER. 0.1μF 50V Z | nsp | | | | | |
| C504 | | nsp | CER. 2.2μF 16V +80% -20% | nsp | BD101 | | 4822 130 81248 | S1WBA60(1A 600V) | *HD201400R |
| C505 | | nsp | CHIP CER. 0.1μF 50V Z | nsp | D101 | F, U | nsp | SUF4005 R | *HD201610R |
| C506 | | nsp | CER. 2.2μF 16V +80% -20% | nsp | D101 | N, A, S | 9965 000 11316 | 10SP07U(SUF4007SP) | *HD201620R |
| C508 | | nsp | CHIP CER.0.1μF 50V Z | nsp | D102 | N, A, S | 9965 000 06965 | EU01W(R-FORM) | *HD201390R |
| ∫ | | nsp | CHIP CER.0.1μF 50V Z | nsp | D103 | F, U | 4822 130 32778 | 1SS133 DETECT SW | HD20015210 |
| C522 | | nsp | CHIP CER.0.1μF 50V Z | nsp | D104 | F, U | 4822 130 32778 | 1SS133 DETECT SW | HD20015210 |
| C523 | | nsp | CER. 2.2μF 16V +80% -20% | nsp | D105 | F, U | nsp | RL104 R | *HD201430R |
| C525 | | nsp | CHIP CER. 0.1μF 50V Z | nsp | D106 | | 9965 000 11317 | HER202 BK NON 100V 2A | *HD201630R |
| ∫ | | nsp | CHIP CER. 0.1μF 50V Z | nsp | D107 | N, A, S | 9965 000 06965 | EU01W(R-FORM) | *HD201390R |
| C536 | | nsp | CHIP CER. 220pF 50V J | nsp | D107 | F, U | 9965 000 06971 | ERA18-02KFRB DO204AL 2 | *HD201460R |
| C537 | | nsp | CHIP CER. 220pF 50V J | nsp | D108 | | 9965 000 06965 | EU01W(R-FORM) | *HD201390R |
| C538 | | nsp | CER. 2.2μF 16V +80% -20% | nsp | D109 | | 9965 000 06968 | B10A45V1 BK KEC TO220 45V 10A | *HD201440R |
| C540 | | nsp | CHIP CER. 15pF 50V J | nsp | | | | | |
| C541 | | nsp | CHIP CER. 27pF 50V J | nsp | D110 | | 9965 000 06971 | ERA18-02KFRB DO204AL 2 | *HD201460R |
| C542 | | nsp | CHIP CER. 0.1μF 50V Z | nsp | D112 | | 4822 130 33765 | 1N5402 BK | *HD201450R |
| C543 | | nsp | CHIP CER. 0.1μF 50V Z | nsp | D113 | | 4822 130 33765 | 1N5402 BK | *HD201450R |
| C544 | | nsp | CER. 2.2μF 16V +80% -20% | nsp | D115 | (P-2) | 9965 000 11318 | 1N17 NON 20V 1A 20 | *HD201600R |
| C546 | | nsp | CHIP CER. 220pF 50V J | nsp | D115 | (P2 LE) | nsp | WIRE D=0.6 ROLL | nsp |
| C548 | | nsp | CHIP CER.220pF 50V J | nsp | D116 | F, U | nsp | RZ1040 BK DO41 40V 30A | *HD201420R |
| C549 | | nsp | CHIP CER. 220pF 50V J | nsp | | | | | |
| C550 | | nsp | CHIP CER. 0.1μF 50V Z | nsp | D2A1 | | 4822 130 33944 | DAN202K SOT23 80 | HZ20002210 |
| C553 | | nsp | CHIP CER. 220pF 50V J | nsp | D2A2 | | 4822 130 33944 | DAN202K SOT23 80 | HZ20002210 |
| C556 | | nsp | ELECT 10μF 16V M | nsp | D301 | | 4822 130 33944 | DAN202K SOT23 80 | HZ20002210 |
| C601 | N | nsp | ELECT 22μF 16V M | nsp | D302 | | 4822 130 33944 | DAN202K SOT23 80 | HZ20002210 |
| C602 | N | nsp | ELECT 47μF 16V M | nsp | D601 | N | 4822 130 32778 | 1SS133 DETECT, SW | HD20015210 |
| C603 | | nsp | ELECT 470μF 6.3V M | nsp | D602 | N | 4822 130 32778 | 1SS133 DETECT, SW | HD20015210 |
| C604 | N | nsp | ELECT 22μF 16V M | nsp | D603 | | 4822 130 32778 | 1SS133 DETECT, SW | HD20015210 |
| C605 | N | nsp | TUBULAR 0.01μF 16V M | nsp | D604 | | 4822 130 32778 | 1SS133 DETECT, SW | HD20015210 |
| C606 | | nsp | TUBULAR 0.1μF 50V +80% -20% | nsp | D605 | N | 4822 130 32778 | 1SS133 DETECT, SW | HD20015210 |
| C609 | N | nsp | ELECT 47μF 16V M | nsp | D909 | | 4822 130 32778 | 1SS133 DETECT, SW | HD20015210 |
| C611 | | nsp | TUBULAR 220pF 50V K | nsp | DIG901 | | 9965 000 11319 | DIGION VFD20-0703FNA ZEC SEG VFD | *HQ300530R |
| C612 | | nsp | TUBULAR 0.1μF 50V +80% -20% | nsp | LED01 | | 9965 000 11335 | LED LTL-1CHEES-UA RED =0 | *HI100990R |
| C613 | | nsp | ELECT 470μF 6.3V M | nsp | LED02 | | 9965 000 11336 | LED LTL-1CHKES-UA GREEN | *HI101000R |
| C614 | | nsp | ELECT 470μF 6.3V M | nsp | LED03 | | 9965 000 11335 | LED LTL-1CHEES-UA RED =0 | *HI100990R |
| C615 | | nsp | ELECT 470μF 6.3V M | nsp | LED901 | | 9965 000 04671 | LE SPR325MVWT31 GREEN/RED | *HI100860R |

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

| POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) |
|----------------------------|-------------|----------------|--------------------------------------|----------------|
| ZD101 | F, U | 9965 000 11344 | ZENER GDZJ3.3B DO34 0.5W | *HD302010R |
| ZD101 | N, A, S | 5322 130 31504 | ZENER UZ-3.3BSB 26MM | *HD302020R |
| ZD102 | F, U | nsp | ZENER GDZJ6.2B 26MM DO34 | *HD302030R |
| ZD605 | | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD606 | | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD607 | N | 9965 000 11343 | ZENER GDZJ10B 26MM DO34 | *HD302040R |
| ZD611 | F, A, S, U | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD612 | F, A, S, U | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD635 | N | 9965 000 11344 | ZENER GDZJ3.3B DO34 0.5W 3 | *HD302010R |
| ZD635 | F, A, S, U | 5322 130 31504 | ZENER UZ-3.3BSB 26MM | *HD302020R |
| ZD636 | N | 9965 000 11344 | ZENER GDZJ3.3B DO34 0.5W 3 | *HD302010R |
| ZD636 | F, A, S, U | 5322 130 31504 | ZENER UZ-3.3BSB 26MM | *HD302020R |
| ZD637 | N | 9965 000 11344 | ZENER GDZJ3.3B DO34 0.5W 3 | *HD302010R |
| ZD637 | F, A, S, U | 5322 130 31504 | ZENER UZ-3.3BSB 26MM | *HD302020R |
| ZD638 | N | 9965 000 11344 | ZENER GDZJ3.3B DO34 0.5W 3 | *HD302010R |
| ZD638 | F, A, S, U | 5322 130 31504 | ZENER UZ-3.3BSB 26MM | *HD302020R |
| ZD639 | N | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD640 | N | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD641 | F, A, S, U | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD642 | | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD643 | | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD644 | | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD901 | | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| ZD902 | | 9965 000 07022 | ZENER GDZJ5.6B 26MM DO34 | *HD301840R |
| INTEGRATED CIRCUITS | | | | |
| F102 | | 4822 252 51025 | IC ICP-N10 T104 IC DETACT | FU40115020 |
| F104 | | 4822 252 51083 | IC ICP-N20 T104 IC DETACT | FU80115020 |
| IC101 | N, A, S | 9965 000 11320 | IC KA5M0365R-YDTU | *HC107420R |
| ▲ IC102 | N, A, S | 9965 000 11321 | SENSOR PHOTO KP1010 COSMO =PC817 | *HC200150R |
| IC104 | | 4822 209 81397 | IC KA431AZ (LM431AZ) | *HC105750R |
| IC105 | | 9965 000 06979 | IC KA78R08 4P TO-220F BK LOW DROP | *HC300250R |
| IC106 | | 9965 000 11322 | IC KA78R33TU TO220-4L BK 3.3V L/D | *HC300260R |
| IC107 | | 9965 000 11322 | IC KA78R33TU TO220-4L BK 3.3V L/D | *HC300260R |
| ▲ IC108 | F, U | 9965 000 11321 | SENSOR PHOTO KP1010 COSMO =PC817 | *HC200150R |
| IC201 | | 9965 000 11323 | IC GDC25D801D 208 QFP BK DSP+SERV | *HC107430R |
| IC203 | | 4822 209 90472 | IC NJM3414AM-TE1 | HC10179090 |
| IC204 | | 9965 000 11324 | IC KIC7W53FU KEC 8PIN SM8 | *HC107440R |
| IC205 | | 9965 000 06985 | IC GLT440L16-40J4 40P SOJ 4M | *HC106620R |
| IC206 | | 4822 209 33521 | IC TC7W04FU | HC10382050 |
| IC2A1 | | 9965 000 06986 | IC SSI33P3721(VER.2) 64 TQFP BK R | *HC105760R |
| IC2A2 | | 4822 209 90472 | IC NJM3414AM-TE1 | HC10179090 |
| IC2M1 | | 9965 000 11325 | IC FAN8727 48PIN QFP | *HC107510R |
| IC301 | | 9965 000 11326 | IC XC9572XL-10TQ100C 100 QFP AY | *HC107460R |
| IC302 | | 9965 000 11327 | IC 74LCX573MTCX 20P TSS | *HC700420R |
| IC303 | | 9965 000 11327 | IC 74LCX573MTCX 20P TSS | *HC700420R |
| IC305 | | 9965 000 11328 | IC HY57V653220CTC-7 86P TSOP BK S | *HC107470R |
| IC3F1 | | nsp | IC AT49BV1614-11TC 48PIN TS | *HC107490R |
| IC401 | | 8203 303 11278 | IC PCM1716E 28P SSOP DAC 2K/R | *HC105580R |
| IC402 | | 4822 209 73953 | IC NJM4580D JRC 8 DIP ST SWITCHIN | HC10070090 |

| POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) |
|--------------------|-------------|----------------|--------------------------------------|----------------|
| IC403 | | 4822 209 16953 | IC KA78R12 TO-220 LD 1A REGL | *HC107520R |
| IC501 | | nsp | IC NDV8501VWB 240 VQFP AY MICOM | nsp |
| IC502 | | nsp | IC CAT93C56S-TE13 PROGRAM | *HC107480R |
| IC502P | N | nsp | ADVD3520NC.1UM1 PROGRAM | nsp |
| IC502P | A, S | nsp | ADVD3500EC.3GM1 PROGRAM | nsp |
| IC502P | U | nsp | DV4200(DVM4511N) PROGRAM DVM4511N | nsp |
| IC502P | F | nsp | IC MM74HCT244SJ 20P SOIC 3-STA | *HC700430R |
| IC503 | | 9965 000 11329 | IC TC7W04FU | HC10382050 |
| IC505 | | 4822 209 33521 | IC BA18BC0FP-E2 RW 3P TO252-3 R | *HC107570R |
| IC506 | | 9965 000 11664 | IC NJM2284 JRC 16PIN DIP ST SCART | *HC107530R |
| IC601 | N | 9965 000 11330 | IC UPD780232GC-043-8BT 80 QFP | *HC107500R |
| IC901 | | 9965 000 11331 | IC KIA7042P 3P 4.2V RESET | *HC105670R |
| IC902 | | 9965 000 06999 | | |
| TRANSISTORS | | | | |
| ▲ Q101 | F, U | nsp | KSE13005F BK TO220F | *HT300910R |
| ▲ Q102 | F, U | nsp | KTC3198-BL (KTC1815) | *HT300720R |
| Q107 | | 9965 000 07007 | KSB1151-Y BK TO-126 | *HT200390R |
| Q108 | | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q2A1 | | 9965 000 04336 | CHIP 2SA1037K-Q | HX110371A0 |
| Q2A2 | | 9965 000 04336 | CHIP 2SA1037K-Q | HX110371A0 |
| Q2M1 | | 4822 130 60729 | DTC124EK SOT23 | *BA001080R |
| Q401 | | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| Q402 | | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| Q403 | | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q407 | | | | |
| Q507 | | 9965 000 07008 | UMZ1N TL UM6 3K | BA30002210 |
| Q601 | N | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| Q602 | N | 4822 130 10098 | KRC103M- (KRC1203) | *HT300790R |
| Q603 | N | 4822 130 10098 | KRC103M- (KRC1203) | *HT300790R |
| Q604 | N | 4822 130 10098 | KRC103M- (KRC1203) | *HT300790R |
| Q605 | N | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| Q606 | N | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| Q607 | | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q608 | | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q615 | | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| Q616 | N | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| Q617 | N | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q618 | N | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q619 | N | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q901 | | 4822 130 10145 | KRA103M- (KRA2203) | *HT100630R |
| Q902 | | 4822 130 10923 | KTC3199-BL MINI | *HT300730R |
| Q903 | | 4822 130 10462 | KTA1267-GR MINI | *HT100490R |
| RESISTORS | | | | |
| R101 | | nsp | CEMENT 2.7 Ω 2W | nsp |
| R104 | F, U | nsp | METAL 33k Ω 2 W J | GA05332020 |
| R104 | N, A, S | 9965 000 07013 | METAL 56k Ω 2 W J | GA05563020 |
| R109 | F, U | nsp | FILM 15k Ω 1/6 W J | nsp |
| R110 | F, U | 4822 053 10121 | METAL 120 Ω 1 W J | GA05121010 |
| R111 | F, U | nsp | METAL 1 Ω 2 W J | GA05010020 |
| R112 | N, A, S | nsp | FILM 3.9 Ω 1/6 W J | nsp |
| R112 | F, U | nsp | FILM 8.2k Ω 1/6 W J | nsp |
| R114 | | nsp | FILM 100k Ω 1/6 W J | nsp |
| R115 | F, U | nsp | FILM 4.7 Ω 1/6 W J | nsp |
| R115 | N, A, S | nsp | FILM 5.6 Ω 1/6 W J | nsp |
| R117 | F, U | nsp | FILM 100 Ω 1/6 W J | nsp |
| R120 | | nsp | FILM 1k Ω 1/6 W J | nsp |

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

| POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) | POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) |
|---------|-------------|----------------|------------------------------|----------------|---------|-------------|----------------|------------------------------|----------------|
| R121 | | nsp | FILM 1.2k Ω 1/6 W J | nsp | R2C4 | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp |
| R122 | | 4822 053 10121 | METAL 120 Ω 1 W J | GA05121010 | R2C6 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R123 | | nsp | FILM 1k Ω 1/6 W J | nsp | R2C7 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R124 | | nsp | FILM 330 Ω 1/6 W J | nsp | R2C8 | | nsp | METAL CHIP 18 Ω 1 / 16 W J | nsp |
| R125 | | nsp | FILM 3.9k Ω 1/6 W J | nsp | R2C9 | | nsp | METAL CHIP 18 Ω 1 / 16 W J | nsp |
| R126 | | nsp | FILM 1k Ω 1/6 W J | nsp | R2D0 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R127 | | nsp | METAL 3.6k Ω 1/8 W F | nsp | R2D1 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R128 | | nsp | METAL 3.3k Ω 1/6 W F | nsp | R2D2 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R130 | | nsp | FILM 10k Ω 1/6 W J | nsp | R2D6 | | nsp | METAL CHIP 91 Ω 1 / 16 W J | nsp |
| R131 | | nsp | FILM 220k Ω 1/6 W J | nsp | R2D7 | | nsp | METAL CHIP 4.7 Ω 1 / 16 W J | nsp |
| R132 | | nsp | FILM 220k Ω 1/6 W J | nsp | R2E6 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R140 | | nsp | FILM 10k Ω 1/6 W J | nsp | R2E7 | | nsp | METAL CHIP 6.8k Ω 1 / 16 W J | nsp |
| R141 | | nsp | FILM 10k Ω 1/6 W J | nsp | R2E9 | | nsp | METAL CHIP 5.6k Ω 1 / 16 W J | nsp |
| R144 | N, A, S | nsp | FILM 330 Ω 1/6 W J | nsp | | | | | |
| R144 | F, U | 4822 053 10121 | METAL 120 Ω 1 W J | GA05121010 | R2M1 | | nsp | METAL CHIP 1 Ω 1 / 10 W J | nsp |
| R145 | | nsp | FILM 470 Ω 1/6 W J | nsp | R2M2 | | nsp | METAL CHIP 1 Ω 1 / 10 W J | nsp |
| R201 | | | | | R2M3 | | nsp | METAL CHIP 22k Ω 1 / 16 W J | nsp |
| } | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R2M4 | | nsp | METAL CHIP 3.3k Ω 1 / 16 W J | nsp |
| R204 | | | | | R2M5 | | nsp | METAL CHIP 15k Ω 1 / 16 W J | nsp |
| R207 | | nsp | METAL CHIP 1M Ω 1 / 16 W J | nsp | R2M6 | | nsp | METAL CHIP 22k Ω 1 / 16 W J | nsp |
| R217 | | nsp | METAL CHIP 10 Ω 1 / 16 W J | nsp | R2M7 | | nsp | METAL CHIP 1.2k Ω 1 / 16 W J | nsp |
| R218 | | nsp | METAL CHIP 470 Ω 1 / 16 W J | nsp | R2M8 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R219 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp | R2M9 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R220 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp | R2N1 | | nsp | METAL CHIP 6.8k Ω 1 / 16 W J | nsp |
| R221 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp | R2N2 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R230 | | | | | R2N3 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| } | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp | R2N4 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R237 | | | | | R2N5 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R238 | | | | | R2N6 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| } | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R2N8 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R242 | | | | | R2N9 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R271 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R2P1 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R273 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R2P2 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R274 | | nsp | METAL CHIP 620 Ω 1 / 16 W J | nsp | R2P6 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R275 | | nsp | METAL CHIP 910 Ω 1 / 16 W J | nsp | R2Q7 | | nsp | METAL CHIP 6.8k Ω 1 / 16 W J | nsp |
| R276 | | nsp | METAL CHIP 910 Ω 1 / 16 W J | nsp | R2Q8 | | nsp | METAL CHIP 3.3k Ω 1 / 16 W J | nsp |
| R277 | | nsp | METAL CHIP 150 Ω 1 / 16 W J | nsp | | | | | |
| R278 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R301 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp |
| R279 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R303 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R280 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R305 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp |
| R281 | | nsp | METAL CHIP 2.2k Ω 1 / 16 W J | nsp | R306 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp |
| R291 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R307 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R292 | | nsp | METAL CHIP 1.2k Ω 1 / 16 W J | nsp | R308 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R293 | | nsp | METAL CHIP 2k Ω 1 / 16 W J | nsp | R309 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R294 | | nsp | METAL CHIP 150 Ω 1 / 16 W J | nsp | R310 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R295 | | nsp | METAL CHIP 2k Ω 1 / 16 W J | nsp | R311 | | nsp | METAL CHIP 6.8k Ω 1 / 16 W J | nsp |
| R296 | | nsp | METAL CHIP 150 Ω 1 / 16 W J | nsp | R313 | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp |
| R297 | | nsp | METAL CHIP 1.2k Ω 1 / 16 W J | nsp | R314 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| | | | | | R315 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R2A0 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp | R316 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R2A1 | | nsp | METAL CHIP 91 Ω 1 / 16 W J | nsp | R317 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R2A2 | | nsp | METAL CHIP 12k Ω 1 / 16 W F | nsp | R318 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp |
| R2A4 | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp | R319 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp |
| R2A5 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R320 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp |
| R2A6 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp | R321 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp |
| R2A9 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R322 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp |
| R2B1 | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp | R323 | | nsp | METAL CHIP 3.9k Ω 1 / 16 W J | nsp |
| R2B2 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R350 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R2B3 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp | R351 | | | | |
| R2B4 | | nsp | METAL CHIP 18 Ω 1 / 16 W J | nsp | } | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp |
| R2B5 | | nsp | METAL CHIP 18 Ω 1 / 16 W J | nsp | R360 | | | | |
| R2B6 | | nsp | METAL CHIP 27k Ω 1 / 16 W J | nsp | R361 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R2B7 | | nsp | METAL CHIP 6.8k Ω 1 / 16 W J | nsp | R362 | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp |
| R2B8 | | nsp | METAL CHIP 150k Ω 1 / 16 W J | nsp | R363 | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp |
| R2B9 | | nsp | METAL CHIP 150k Ω 1 / 16 W J | nsp | R3F1 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R2C0 | | nsp | METAL CHIP 39k Ω 1 / 16 W J | nsp | R3F2 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |
| R2C1 | | nsp | METAL CHIP 39k Ω 1 / 16 W J | nsp | R3F4 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R2C2 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp | R3F5 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp |
| R2C3 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp | R3F7 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp |

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

| POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) | POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) |
|---------|-------------|----------------|------------------------------|----------------|---------|-------------|----------------|-----------------------------------------|----------------|
| R401 | | nsp | FILM 10 Ω 1/6 W J | nsp | R623 | | nsp | FILM 22 Ω 1/6 W J | nsp |
| R402 | | nsp | FILM 4.7k Ω 1/6 W J | nsp | R624 | | nsp | FILM 1k Ω 1/6 W J | nsp |
| R403 | | nsp | FILM 10 Ω 1/6 W J | nsp | R625 | N | nsp | FILM 10k Ω 1/6 W J | nsp |
| R406 | | nsp | FILM 10k Ω 1/6 W J | nsp | R628 | | nsp | FILM 47k Ω 1/6 W J | nsp |
| R407 | | nsp | FILM 5.6k Ω 1/6 W J | nsp | R633 | | nsp | FILM 4.7k Ω 1/6 W J | nsp |
| R408 | | nsp | FILM 2.2k Ω 1/6 W J | nsp | R638 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| R409 | | nsp | FILM 7.5k Ω 1/6 W J | nsp | R639 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| R411 | | nsp | FILM 7.5k Ω 1/6 W J | nsp | R640 | | nsp | FILM 4.7k Ω 1/6 W J | nsp |
| R412 | | nsp | FILM 6.8k Ω 1/6 W J | nsp | R652 | N | nsp | FILM 68 Ω 1/6 W J | nsp |
| R413 | | nsp | FILM 15k Ω 1/6 W J | nsp | R653 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| R414 | | nsp | FILM 5.6k Ω 1/6 W J | nsp | R654 | N | nsp | FILM 10k Ω 1/6 W J | nsp |
| R415 | | nsp | FILM 4.7k Ω 1/6 W J | nsp | R655 | N | nsp | FILM 2.2k Ω 1/6 W J | nsp |
| R416 | | nsp | FILM 15k Ω 1/6 W J | nsp | R656 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| R417 | | nsp | FILM 6.8k Ω 1/6 W J | nsp | R657 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| R418 | | nsp | FILM 1k Ω 1/6 W J | nsp | R658 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| R419 | | nsp | FILM 330 Ω 1/6 W J | nsp | R660 | N | nsp | FILM 680 Ω 1/6 W J | nsp |
| R420 | | nsp | FILM 330 Ω 1/6 W J | nsp | | | | | |
| R421 | | nsp | FILM 10k Ω 1/6 W J | nsp | R661 | N | nsp | FILM 100 Ω 1/6 W J | nsp |
| R422 | | nsp | FILM 2.2k Ω 1/6 W J | nsp | R664 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| R423 | | | | | R665 | N | nsp | FILM 1k Ω 1/6 W J | nsp |
| } | | nsp | FILM 1k Ω 1/6 W J | nsp | R666 | N | nsp | FILM 100 Ω 1/6 W J | nsp |
| R427 | | | | | R667 | N | nsp | FILM 470 Ω 1/6 W J | nsp |
| R432 | | nsp | FILM 100 Ω 1/6 W J | nsp | R668 | N | nsp | FILM 330 Ω 1/6 W J | nsp |
| R501 | | nsp | METAL CHIP 3.3k Ω 1 / 16 W J | nsp | R672 | N | nsp | FILM 100k Ω 1/6 W J | nsp |
| R503 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R673 | N | nsp | FILM 100 Ω 1/6 W J | nsp |
| R504 | | nsp | METAL CHIP 100 Ω 1 / 16 W F | nsp | R674 | N | nsp | FILM 100k Ω 1/6 W J | nsp |
| R505 | | nsp | METAL CHIP 10 Ω 1 / 16 W J | nsp | R675 | N | nsp | FILM 100 Ω 1/6 W J | nsp |
| R506 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp | R676 | N | nsp | FILM 75 Ω 1/6 W J | nsp |
| R514 | | nsp | METAL CHIP 22 Ω 1 / 16 W J | nsp | R6M1 | F, A, S, U | nsp | FILM 220 Ω 1/6 W J | nsp |
| R515 | | nsp | METAL CHIP 22 Ω 1 / 16 W J | nsp | R6M2 | F, A, S, U | nsp | FILM 220 Ω 1/6 W J | nsp |
| R517 | | | | | R6M3 | F, A, S, U | nsp | FILM 100k Ω 1/6 W J | nsp |
| } | | nsp | METAL CHIP 22 Ω 1 / 16 W J | nsp | R6M4 | F, A, S, U | nsp | FILM 100k Ω 1/6 W J | nsp |
| R520 | | | | | | | | | |
| R521 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp | R903 | | nsp | FILM 680 Ω 1/6 W J | nsp |
| R522 | | nsp | METAL CHIP 22 Ω 1 / 16 W J | nsp | R904 | | nsp | FILM 1.2k Ω 1/6 W J | nsp |
| R523 | | nsp | METAL CHIP 4.7k Ω 1 / 16 W J | nsp | R905 | | nsp | FILM 1.5k Ω 1/6 W J | nsp |
| R524 | | nsp | METAL CHIP 1k Ω 1 / 16 W J | nsp | R906 | | nsp | FILM 3.3k Ω 1/6 W J | nsp |
| R525 | | nsp | METAL CHIP 22 Ω 1 / 16 W J | nsp | R907 | | nsp | FILM 4.7k Ω 1/6 W J | nsp |
| R527 | | nsp | METAL CHIP 1.2k Ω 1 / 16 W J | nsp | R912 | | nsp | FILM 820 Ω 1/6 W J | nsp |
| R530 | | | | | R921 | | nsp | FILM 100 Ω 1/6 W J | nsp |
| } | | nsp | METAL CHIP 1.2k Ω 1 / 16 W J | nsp | R930 | | nsp | FILM 10k Ω 1/6 W J | nsp |
| R533 | | | | | R931 | | nsp | FILM 10k Ω 1/6 W J | nsp |
| R534 | | nsp | METAL CHIP 680 Ω 1 / 16 W J | nsp | R932 | | nsp | FILM 3.3k Ω 1/6 W J | nsp |
| R535 | | nsp | METAL CHIP 1.2k Ω 1 / 16 W J | nsp | R933 | | nsp | FILM 330 Ω 1/6 W J | nsp |
| R536 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R934 | | nsp | FILM 10k Ω 1/6 W J | nsp |
| R537 | | nsp | METAL CHIP 330 Ω 1 / 16 W J | nsp | R935 | | nsp | FILM 47k Ω 1/6 W J | nsp |
| R538 | | nsp | METAL CHIP 270 Ω 1 / 16 W J | nsp | R938 | | nsp | FILM 1k Ω 1/6 W J | nsp |
| R539 | | nsp | METAL CHIP 100 Ω 1 / 16 W J | nsp | R941 | | nsp | FILM 2.2k Ω 1/6 W J | nsp |
| R540 | | nsp | METAL CHIP 330 Ω 1 / 16 W J | nsp | R943 | | nsp | FILM 100 Ω 1/6 W J | nsp |
| R541 | | nsp | METAL CHIP 10k Ω 1 / 16 W J | nsp | R944 | | nsp | FILM 100 Ω 1/6 W J | nsp |
| R542 | | nsp | METAL CHIP 1.2k Ω 1 / 16 W J | nsp | R951 | | | | |
| R588 | | | | | } | | nsp | FILM 100k Ω 1/6 W J | nsp |
| } | | nsp | METAL CHIP 75 Ω 1 / 16 W J | nsp | R961 | | | | |
| R591 | | | | | R963 | | nsp | FILM 100 Ω 1/6 W J | nsp |
| R597 | | nsp | METAL CHIP 0 Ω 1 / 16 W J | nsp | R964 | | nsp | FILM 47k Ω 1/6 W J | nsp |
| R601 | N, A, S | nsp | FILM 47k Ω 1/6 W J | nsp | R965 | | nsp | FILM 100 Ω 1/6 W J | nsp |
| R602 | N | nsp | FILM 100 Ω 1/6 W J | nsp | R966 | | nsp | FILM 2.2k Ω 1/6 W J | nsp |
| R603 | N | nsp | FILM 100 Ω 1/6 W J | nsp | R967 | | nsp | FILM 10k Ω 1/6 W J | nsp |
| R604 | N | nsp | FILM 68 Ω 1/6 W J | nsp | R968 | | nsp | FILM 10k Ω 1/6 W J | nsp |
| R605 | | | | | | | | | |
| } | | nsp | FILM 1k Ω 1/6 W J | nsp | | | | | |
| R609 | | | | | BC101 | | 9965 000 06959 | MISCELLANEOUS COIL, BEAD CORE | *FC900210R |
| R616 | N | nsp | FILM 100 Ω 1/6 W J | nsp | ▲ F101 | F, U | nsp | BFS3550R2FD8, R T/P | *FS000730R |
| R617 | N | nsp | FILM 680 Ω 1/6 W J | nsp | ▲ F101 | N, A, S | 4822 070 31602 | FUSE SLOW BLOW 1600MA 250V 5.2X20 | *FS000740R |
| R618 | | nsp | FILM 100k Ω 1/6 W J | nsp | | | | | |
| R619 | | nsp | FILM 100k Ω 1/6 W J | nsp | | | | | |
| R620 | | nsp | FILM 220 Ω 1/6 W J | nsp | | | | | |
| R621 | | nsp | FILM 220 Ω 1/6 W J | nsp | | | | | |
| R622 | | nsp | FILM 22 Ω 1/6 W J | nsp | | | | | |

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

| POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) | POS. NO | VERS. COLOR | PART NO. (PCS) | DESCRIPTION | PART NO. (MJI) |
|---------|-------------|----------------|----------------------------|----------------|---------|-------------|----------------|---------------------------|----------------|
| F602 | | | FILTER CFI06B1H101MF | nsp | PMD02 | | nsp | CONN. | nsp |
| F608 | | nsp | 2.5K/T | nsp | PMD03 | | nsp | 00-6232-023-006-800 23P | nsp |
| F612 | F, A, S, U | nsp | FILTER CFI06B1H101MF | nsp | ▲ PW101 | | nsp | CONN. GP390 LGC 3P | nsp |
| F613 | F, A, S, U | nsp | 2.5K/T | nsp | RC901 | | 9965 000 07015 | IR RECEIVER | *HW100550R |
| F615 | | nsp | FILTER CFI06B1H101MF | nsp | | | | TSOP2836WE1 36.7KHz | |
| F616 | | nsp | 2.5K/T | nsp | SW601 | N, A, S | 9965 000 11337 | SWITCH SLIDE | *SS000620R |
| F617 | N | nsp | FILTER CFI06B1H101MF | nsp | SW602 | | 9965 000 11338 | SKQ-23D15-G5-NA | *SS000730R |
| F618 | N | nsp | 2.5K/T | nsp | SW603 | | 9965 000 11339 | SWITCH TACT CSS-4206 | *SS000740R |
| F622 | N | nsp | FILTER CFI06B1H101MF | nsp | SW901 | | | SKQ-22H06-G5-NA | |
| FH101 | | nsp | 2.5K/T | nsp | SW906 | | 9965 000 07017 | SWITCH TACT THVV502GAA | *SP001000R |
| FH102 | | nsp | FILTER CFI06B1H101MF | nsp | SW908 | | 9965 000 07017 | SWITCH TACT THVV502GAA | *SP001000R |
| JK601 | F, N, A, S | 9322 155 28667 | HOLDER FUSE CLIP | nsp | ▲ T101 | F, U | nsp | MAINS TRANSF. | *TS001600R |
| JK602 | F, A, S, U | nsp | HOLDER FUSE CLIP | nsp | ▲ T101 | N, A, S | 9965 000 07018 | KSE-021K/LSE-021K | *TS001170R |
| JK602 | N | 9965 000 11332 | JACK FIBER OPTIC | *YJ002520R | ▲ V101 | | nsp | MAINS TRANSF. | |
| JK603 | N | 9965 000 11333 | GP1FA550TZ | *YT002680R | | | | SHT-023T/KSE-023T | |
| ▲ L101 | F, U | nsp | JACK RCA DIN | *YT002690R | X201 | | 9965 000 11340 | VARISTOR SVC681D-10A | nsp |
| ▲ L101 | N, A, S | 9965 000 11334 | JACK SCART 2F-21P 3.81 | *YT002700R | X501 | | 9965 000 11341 | 4.O CUT | |
| L102 | | nsp | BAEUN | | X901 | | 9965 000 11342 | CRYSTAL HC-49/S | *JX000870R |
| L103 | | nsp | FILTER LS-AI99F-009 | *FN000130R | | | | AXIAL 33.8688MHz | |
| L201 | | nsp | FILTER V-04350 LS BULK | *FN000140R | | | | CRYSTAL HC-49/S | *JX000880R |
| L204 | | nsp | COIL CHOKE 22mH | | | | | AXIAL 27MHz 20P | |
| L207 | | nsp | COIL CHOKE 20µH | | | | | RESONATOR | *FQ000540R |
| L208 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | PBJIG | | nsp | CSTLS5M00G53-A0 | |
| L211 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | PWB ASSY TOTAL DVD-3000'S | *DV3100JIG |
| L2A1 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | JIG ASSY | |
| L2A2 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | | |
| L301 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | | |
| L302 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | | |
| L3F1 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | | |
| L3F2 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | | |
| L401 | | nsp | INDUCTOR 100M K 6X6 L5 | nsp | | | | | |
| L501 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | | |
| L506 | | nsp | FILTER HB-1M2012-102JT 3K | nsp | | | | | |
| L601 | N | nsp | INDUCTOR 100M K 6X6 L5 | nsp | | | | | |
| L602 | N | nsp | INDUCTOR 100M K 6X6 L5 | nsp | | | | | |
| L603 | | nsp | INDUCTOR 1.0M K 2.3X3.4 L5 | nsp | | | | | |
| L604 | | nsp | INDUCTOR 1.0M K 2.3X3.4 L5 | nsp | | | | | |
| L901 | | nsp | INDUCTOR 100M K 6X6 L5 | nsp | | | | | |
| L902 | | nsp | INDUCTOR 100M K 6X6 L5 | nsp | | | | | |
| P3301 | | nsp | CONN. 04-6232-115-008-800 | nsp | | | | | |
| P4301 | | nsp | CONN. 2254-30P-T | nsp | | | | | |
| P5402 | | nsp | CONN. 2254-30S-T | nsp | | | | | |
| P5901 | | nsp | CONN. 2254-30S-T | nsp | | | | | |
| P9501 | | nsp | CONN. 2254-30P-T | nsp | | | | | |
| P9901 | | nsp | CONN. GIL-S/9073AN 4 | nsp | | | | | |
| P9902 | | nsp | CONN. GIL-S-04P-S2T2-EF 4P | nsp | | | | | |
| P9903 | | nsp | CONN. GIL-S/9073AN 3P | nsp | | | | | |
| P9904 | | nsp | CONN. GIL-S-03P-S2T2-EF | nsp | | | | | |
| PBP00 | | nsp | PWB ASSY DVM4000S LED | nsp | | | | | |
| PBT00 | | nsp | PWB ASSY DVM4000S KEY | nsp | | | | | |

NOTE : *nsp* PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

14. MECHANISM SECTION

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HOW TO UPGRADE BY UPGRADE DISC

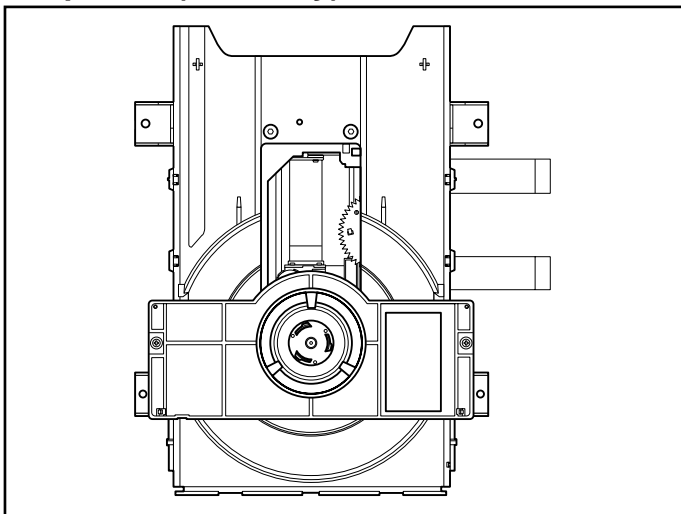
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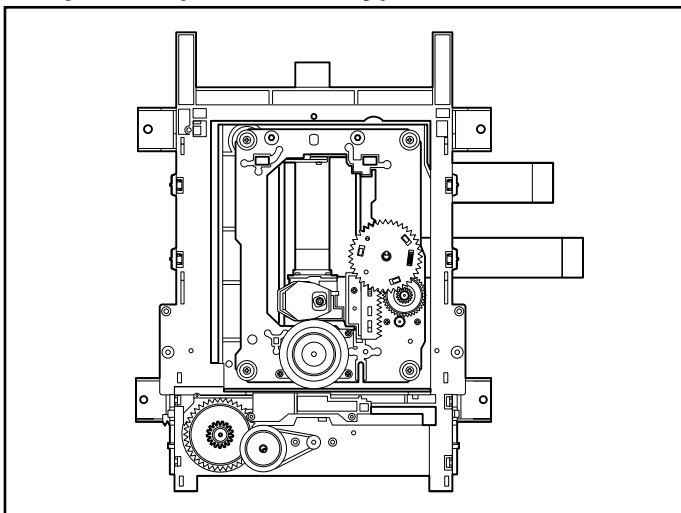
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DECK MECHANISM PARTS LOCATION

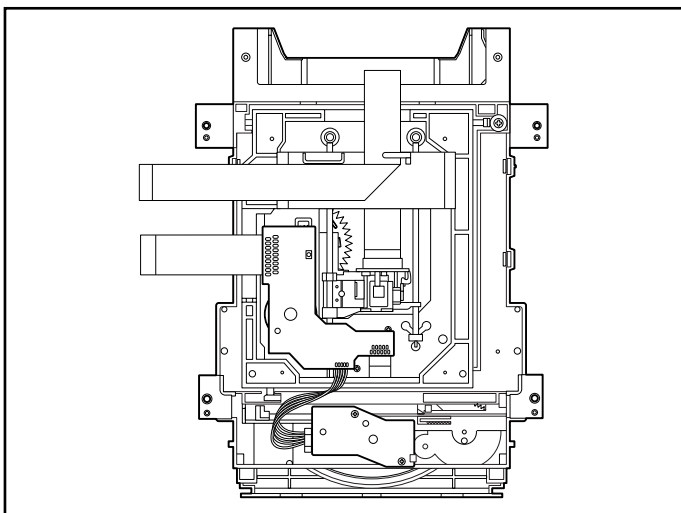
• Top View (With Tray)



• Top View (Without Tray)



• Bottom View



| Procedure Starting No. | Parts | Fixing Type | Disassembly | Figure |
|---------------------------------|---------------------------|--------------------------------------------|-------------|--------|
| 1 | Holder Clamp | 2 Screws, 2 Locking Tabs | | 4-1 |
| 1 | 2 Clamp Assembly Disc | | | 4-1 |
| 1, 2 | 3 Plate Clamp | | | 4-1 |
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| 1 | 6 Tray Disc | | | 4-2 |
| 1, 6 | 7 Base Assembly Sled | | | 4-3 |
| 1, 2, 6 | 8 Gear Assembly Feed | 4 Screws, 1 Connector 1 Locking Tabs | | 4-3 |
| 1, 2, 6, 8 | 9 Gear Middle | | | 4-3 |
| 1, 2, 6, 8, 9 | 10 Gear Assembly Rack | 1 Screw | | 4-3 |
| 1, 2, 7 | 11 Rubber Rear | | | 4-3 |
| 1, 2, 7 | 12 Frame Assembly Up/Down | 1 Screw | Bottom | 4-4 |
| 1, 2 | 13 Belt Loading | 1 Locking Tab | | 4-4 |
| 1, 2, 13 | 14 Gear Pulley | | | 4-4 |
| 1, 2, 13, 14 | 15 Gear Loading | 1 Locking Tab | | 4-4 |
| 1, 2, 7, 12, 13, 14 | 16 Guide Up/Down | | | 4-4 |
| 1, 2, 13 | 17 PWB Assembly Loading | 1 Locking Tab 1 Hook 2 Screw | Bottom | 4-4 |
| 1, 2, 7, 12, 13, 14, 15, 16, 17 | 18 Base Main | 2 Locking Tabs | | 4-4 |

Note

When reassembling, perform the procedure in reverse order.

The "Bottom" on Disassembly column of above Table indicates the part should be disassembled at the Bottom side.

DECK MECHANISM DISASSEMBLY

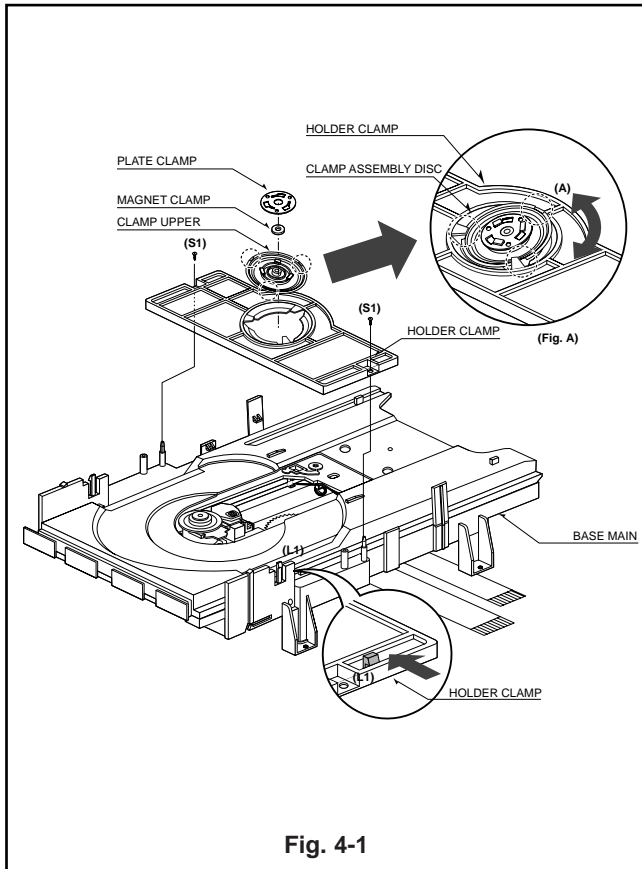


Fig. 4-1

1. Holder Clamp (Fig. 4-1)

- 1) Release 2 Screws(S1).
- 2) Unhook 2 Locking Tabs(L1).
- 3) Lift up the Holder Clamp and then separate it from the Base Main.

1-1. Clamp Assembly Disc

- 1) Place the Clamp Assembly Disc as Fig. (A)
- 2) Lift up the Clamp Assembly Disc in direction of arrow(A).
- 3) Separate the Clamp Assembly Disc from the Holder Clamp.

1-1-1. Plate Clamp

- 1) Turn the Plate Clamp to counterclockwise direction and then lift up the Plate Clamp.

1-1-2. Magnet Clamp

1-1-3. Clamp Upper

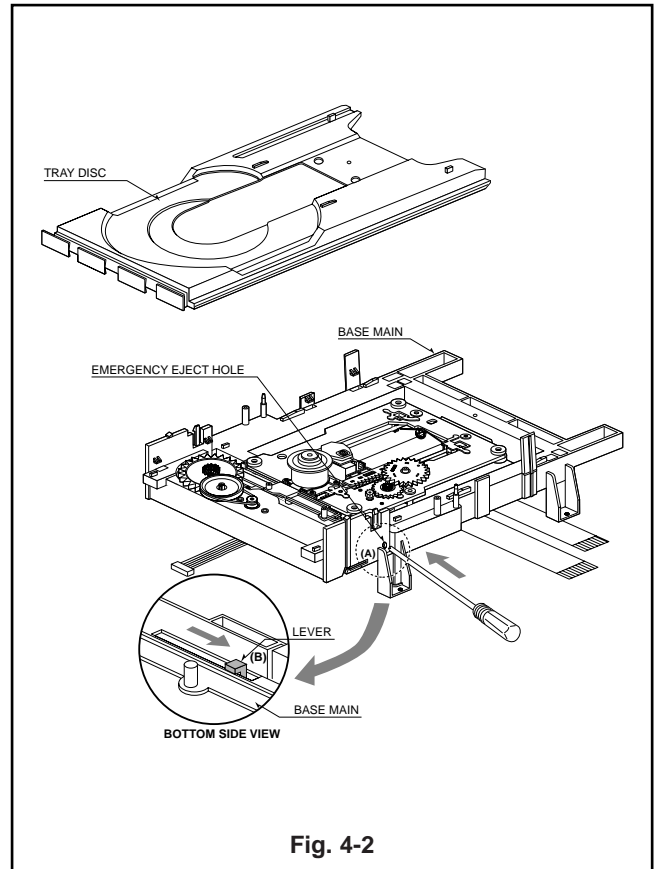


Fig. 4-2

2. Tray Disc (Fig. 4-2)

- 1) Insert and push a Driver in the emergency eject hole(A) at the right side, or put the Driver on the Lever(B) of the Gear Emergency and pull the Lever(B) in direction of arrow so that the Tray Disc is ejected about 15~20mm.
- 2) Pull the Tray Disc until it is separated from the Base Main completely.

DECK MECHANISM DISASSEMBLY

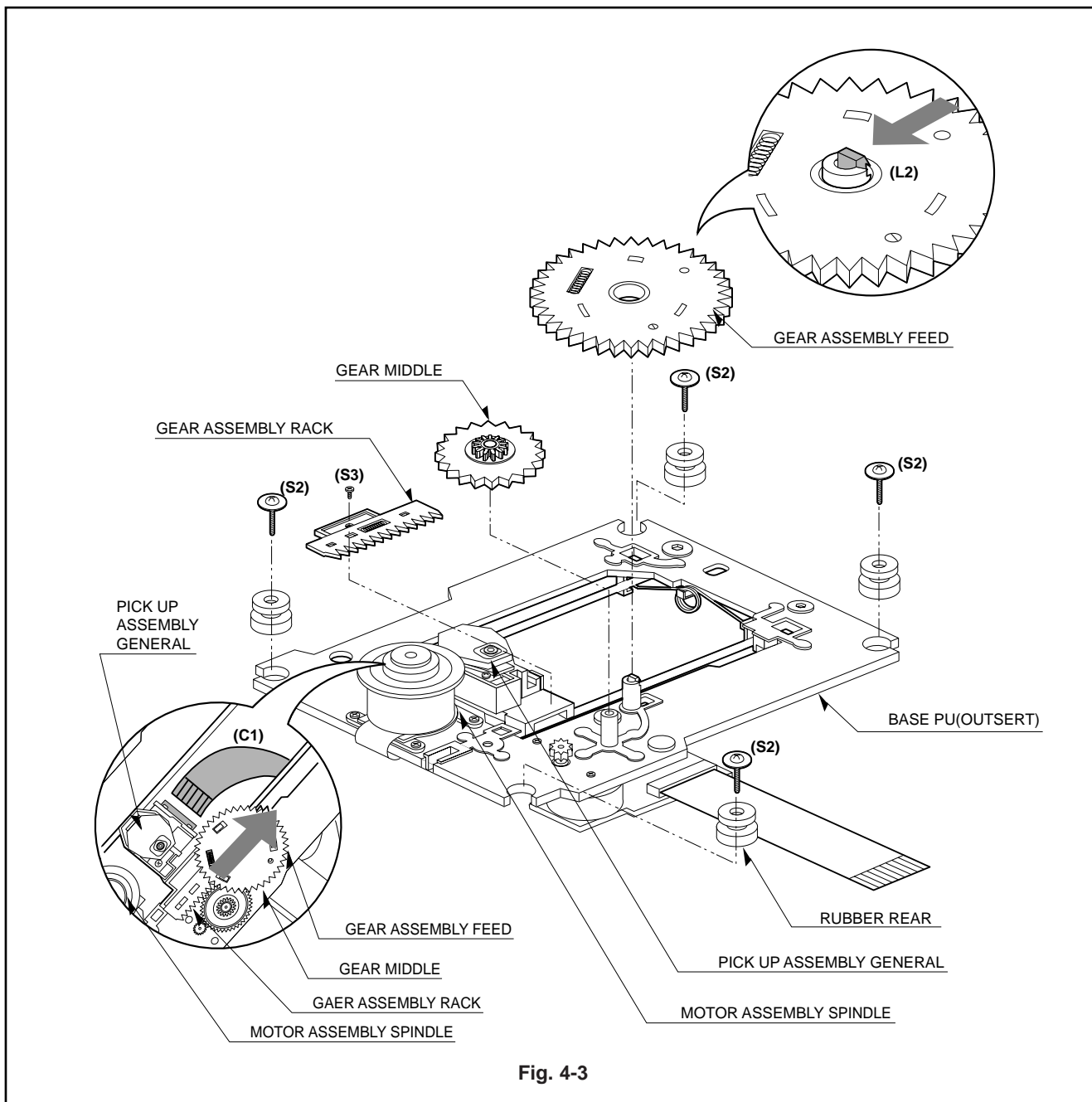


Fig. 4-3

3. Base Assembly Sled (Fig. 4-3)

- 1) Release 4 Screw(S2).
- 2) Disconnect the FFC Connector(C1)

3-1. Gear Assembly Feed

- 1) Unhook the Locking Tab(L2) in direction of arrow.

3-2. Gear Middle

3-3. Gear Assembly Rack

- 1) Release the Scerw(S3)

4. Rubber Rear (Fig. 4-3)

DECK MECHANISM DISASSEMBLY

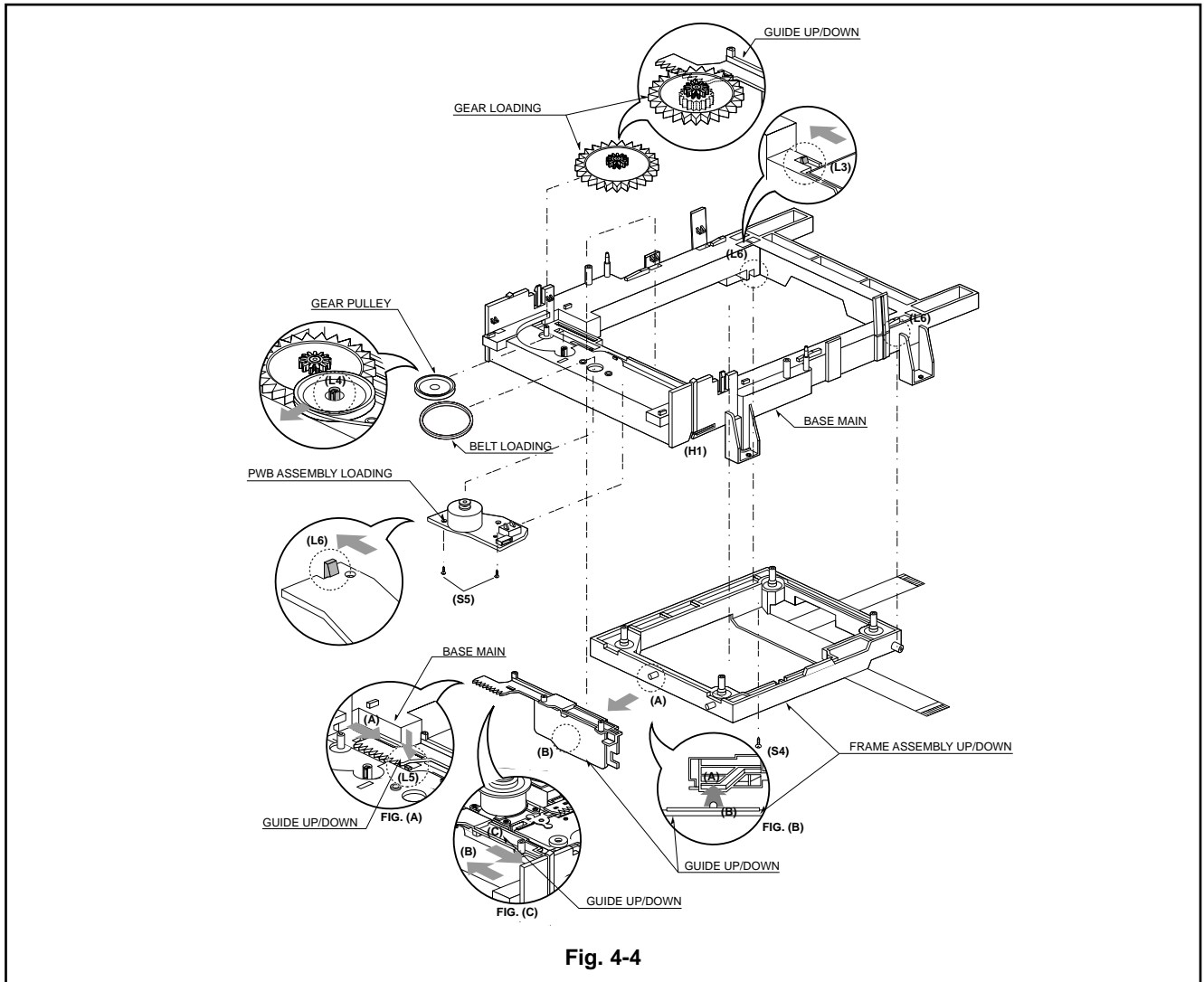


Fig. 4-4

5. Frame Assembly Up/Down

Note

Put the Base Main face down(Bottom Side)

- 1) Release the Screw(S4)
- 2) Unlock the Locking Tab(L3) in direction of arrow and then lift up the Frame Assembly Up/Down to separate it from the Base Main.

Note

- When reassembling move the Guide Up/Down in direction of arrow(C) until it is positioned as Fig.(C).
- When reassembling insert (A) portion of the Frame Assembly Up/Down in the (B) portion of the Guide Up/Down as Fig.(B)

6. Belt Loading(Fig. 4-4)

Note

Put the Base Assembly Main on original position(Top Side)

7. Gear pulley (Fig. 4-4)

- 1) Unlock the Locking Tab(L4) in direction of arrow(B) and then separate the Gear Pulley from the Base Main.

8. Gear Loading (Fig. 4-4)

9. Guide Up/Down (Fig. 4-4)

- 1) Move the Guide Up/Down in direction of arrow(A) as Fig.(A)
- 2) Push the Locking Tab(L5) down and then lift up the Guide Up/Down to separate it from the Base Main.

Note

When reassembling place the Guide Up/Down as Fig.(C) and move it in direction arrow(B) until it is locked by the Locking Tab(L5). And confirm the Guide Up/Down as Fig.(A)

10. PWB Assembly Loading

Note

Put the Base Main face down(Bottom Side)

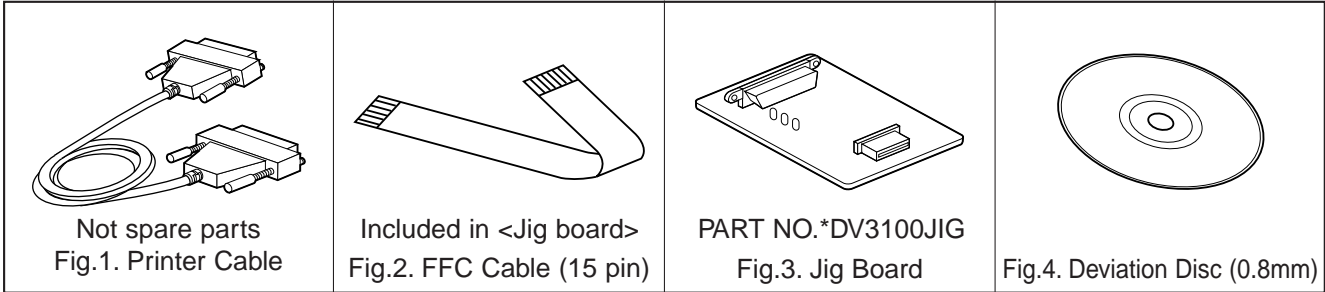
- 1) Release 2 Screws(S5)
- 2) Unhook the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
- 3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

11. Base Main(Fig. 4-4)

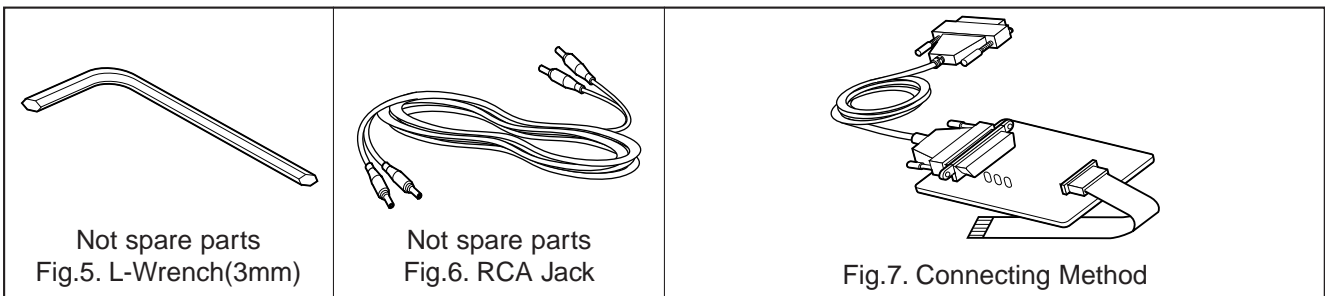
DECK MECHANISM ADJUSTMENT

1. Tools and Fixtures for SVC

- For SVC Program Down-Load

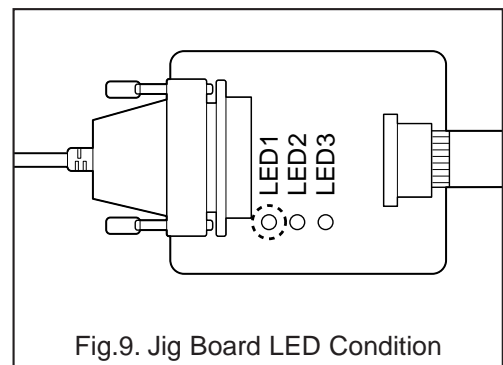
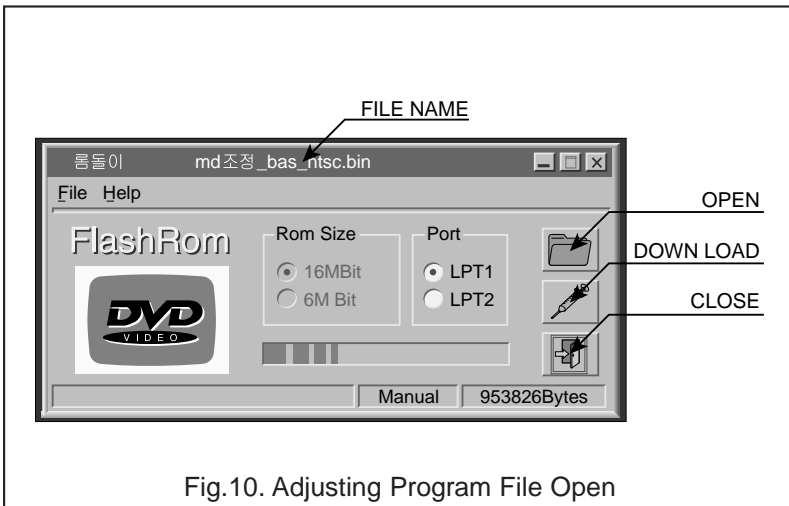
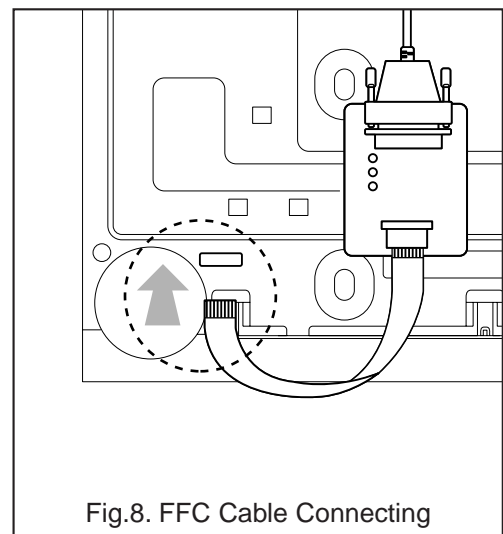


- For T-Skew and R-Skew Adjustment



2. Install Process

1. Connect Fig. 1, 2, 3 as Fig. 7.
2. Plug out the Power cord of DVD set.
3. Connect FFC Cable(Fig.2) to the Connector on DVD Set(Fig.8)
4. Connect Printer Cable(Fig.1) to the P.C.Printer Port (LPT1).
5. Plug in the DVD Power cord.
6. Press the Menu key on Remocon.
7. Confirm No.1 LED(RED Color) of Jig board is ON. (Fig.9)
8. Perform The S/W for Down-load at P.C.
9. Open the Program File for Adjusting(Fig.10)
10. Click the Down-load Icon and perform Program Down-load.
11. Displayed remaining time.
12. Confirm LED No.1(RED) and No.2(RED) is ON.
13. Plug out the DVD Set Power cord.
14. Disconnect the FFC Cable.



DECK MECHANISM ADJUSTMENT

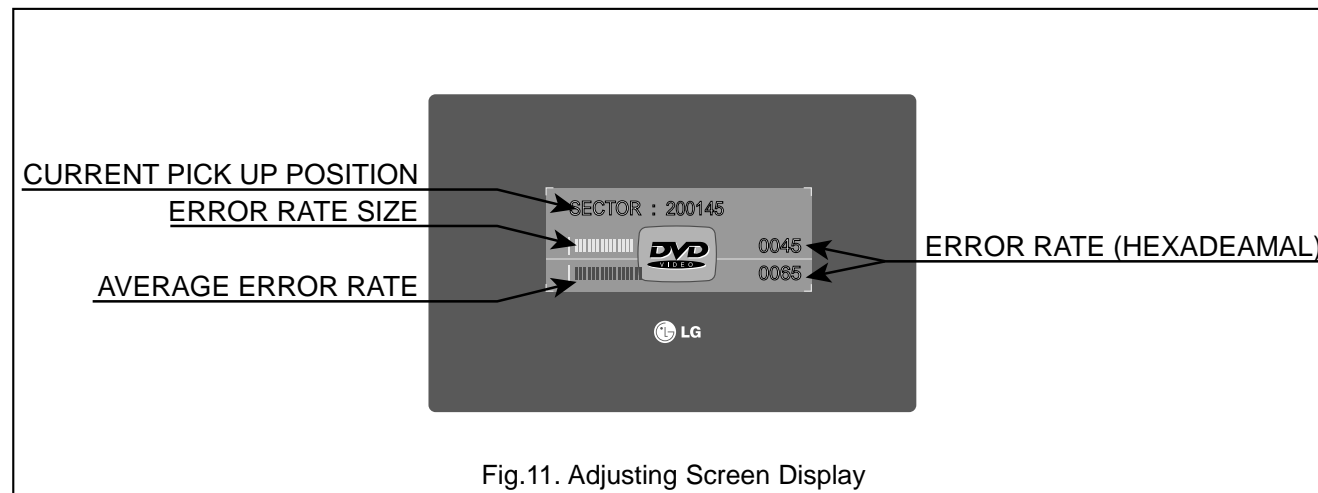


Fig.11. Adjusting Screen Display

3. Adjustment Procedure

1. Insert Disc(Only Open/Close Key Pressing)
2. Wait Until the Sector Display is about 200,000 (Fig.11)
3. Adjust R-Skew adjusting Point until the Error rate has Minimum rate with L-wrench (3mm).
4. Adjust T-Skew Adjusting Point until the Error rate has Minimum rate.
5. Repeat No. 3, 4 adjusting procedure until the Error rate have Minimum rate.
6. Error rate; SVC-3561 (ABEX) Disc=below 30 and TDV-533 (ABEX) Disc=below 100. If not, Please confirm Play ability on screen.

You can watch the screen when pressing the Stop key after the Adjusting is finished, Then perform Play and Scan/Skip operation at Chapter1 and Chapter16 and confirm screen condition, normal or abnormal.

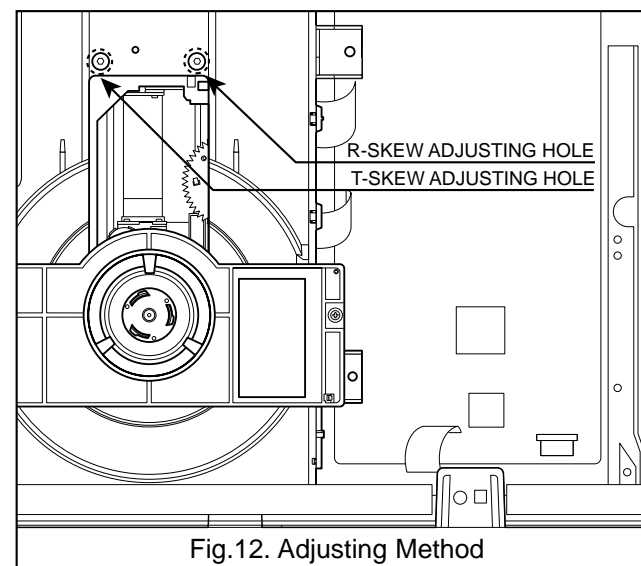


Fig.12. Adjusting Method

How to upgrade by upgrade DISC. (*DV4200UPD)

Connect the DVD Player to [TV] and Operate by using [Remote Controller]

1. Reading upgrade disc

- 1.1) Connect AC plug to mains power outlet.
- 1.2) Push **OPEN/CLOSE** button , then open the disc tray. (Turned Power ON automatically)
- 1.3) Place the upgrade Disc on the disc tray and close the tray.
- 1.4) FTD indicates **[Press Up]** when Disc is acknowledged.
- 1.5) Push **ARROW (up)** button of Remote Controller .
- 1.6) FTD indicates **[READ 0]**
If FTD indicated **[READ 1]** or other number, please refer to 3. Error message.
- 1.7) FTD indicates **[UPGRADE 0]** and begin to writing.
(Software writing into Flash ROM)
- 1.8) After few minutes, FTD indicate **[FINISHED]** and write completed.
(Software finished write into Flash ROM)
- 1.9) When upgrade is finished, open the tray automatically.
- 1.10) Remove the disc.
- 1.11) Push **POWER** button and turn off the power.

2. Reset and MICOM version check

When upgrade is finished, the unit is should be resetting in order to finalize Upgrade.

The reset procedures are followings.

- 2.1) Push **POWER** button.
- 2.2) Push **SETUP** button.
- 2.3) Select "TV aspect"
- 2.4) Push **ARROW(right)** button"
- 2.5) Push **ARROW (up)** button or **ARROW (down)** button and choose "16:9 wide".
Attention : Do not push select/enter button (Keep green triangle(>)mark)
If check mark is appeared, push arrow-right button and change to green triangle mark
- 2.6) Push "Numeric button" in the following turn.
1 → **3** → **9** → **7** → **1** → **3** → **9**
- 2.7) Push **SELECT/ENTER** button.
The connected TV indicates "SYSTEM INFORMATION"
Please check "MICOM version".
If other number indicate, need to retry this procedure again.
- 2.8) Push **POWER** button and turn off the power.
Upgrade and Reset are success.

Example indicated

```

SYSTEM INFORMATION
MODEL      : DV4200/F1N
REGION-NO  :2
CHIP-ID    :PANTERA II
SERVO-VER  :b003
MICOM-VER  :V2.02 MP
PROM OPTION :XX XX XX XX XX XX

Factory Reset Done
    
```

3. Error messege

During reading the upgrade disc, error messages are as follows

[Error Num] = 1 ~ 3

You can retry to upgrade by disc.

Because, flash ROM is not erased data yet.

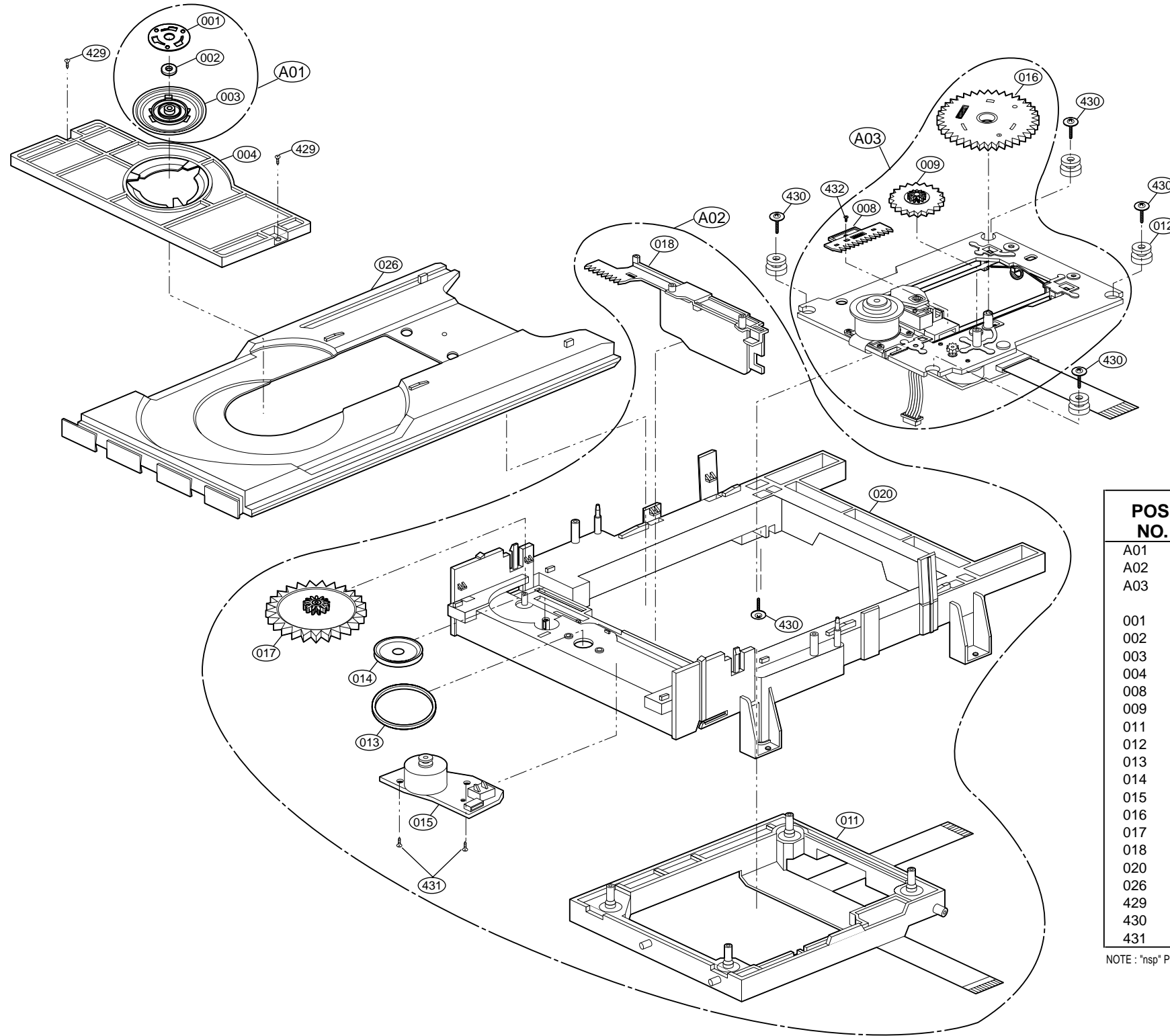
[Error Num] = 4 ~

It is very worst case. The flash ROM is broken during erasing or programming.

You need to rewrite from hardware (PC) for using another jig.

EXPLODED VIEW

1. Deck Mechanism Exploded View and Parts list



| POS. NO. | VERS. COLOR | PART NO. (FOR PCS) | DESCRIPTION | PART NO. (MJI) |
|----------|-------------|--------------------|--------------------------------|----------------|
| A01 | | 9965 000 11304 | CLAMP ASSY DISC (DP4) | 344W005510 |
| A02 | | 9965 000 11305 | BASE ASSY MAIN(DP-4RM,BLDC)-SH | 344W401510 |
| A03 | | 9965 000 11306 | BASE ASSY SLED(DP-4RM,BLDC)-SH | 344W304510 |
| 001 | | nsp | PLATE CLAMP | nsp |
| 002 | | nsp | MAGNET CLAMP | nsp |
| 003 | | nsp | CLAMP UPPER | nsp |
| 004 | | 9965 000 06937 | HOLDER CLAMP | 304W271010 |
| 008 | | 9965 000 06938 | GEAR ASSY RACK | 304W058010 |
| 009 | | 9965 000 06939 | GEAR MIDDLE | 304W058020 |
| 011 | | nsp | FRAME ASSY UP/DOWN(DP2,RW)-SH | nsp |
| 012 | | 9965 000 11307 | DAMPER RUBBER | 344W259010 |
| 013 | | 9965 000 06944 | BELT LOADING | 304W264010 |
| 014 | | 9965 000 06945 | GEAR PULLEY | 304W262010 |
| 015 | | 9965 000 11308 | PWB(PCB) ASSY DP-4 LOADING -SH | *ZZ001830R |
| 016 | | 9965 000 06947 | GEAR ASSY FEED | 304W058030 |
| 017 | | 9965 000 06948 | GEAR LOADING | 304W058040 |
| 018 | | 9965 000 06949 | GUIDE UP/DOWN | 304W127010 |
| 020 | | nsp | BASE MAIN | nsp |
| 026 | | 9965 000 06950 | TRAY DISC | 304W163010 |
| 429 | | nsp | SCREW, B-TITE | nsp |
| 430 | | nsp | SCREW, + D2.0 6MM /NIY 4.5MM | nsp |
| 431 | | nsp | SCREW, + D2.0 6MM /ZNBK 4MM 1 | nsp |

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.