

Service Manual

DV3100 /N1B

DVD Player

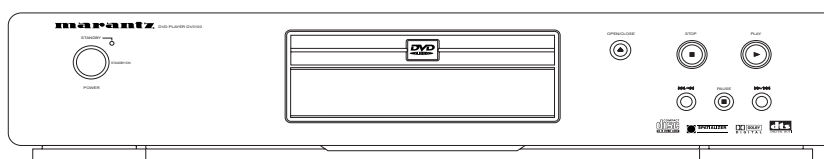


TABLE OF CONTENTS

SECTION	PAGE
1. TECHNICAL SPECIFICATIONS	1
2. PRODUCT SAFETY SERVICING GUIDELINE FOR VIDEO PRODUCTS	2
/SERVICING PRECAUTIONS	3
3. INFORMATIONS	4
4. SERVICING HINT	5
5. REGIONAL CODES	6
6. LOCATION OF CUSTOMER CONTROLS	7
7. DISASSEMBLY	2-2
8. EXPLODED VIEWS/PARTS LIST	2-4
9. ELECTRICAL TROUBLESHOOTING GUIDE	3-2
10. BLOCK DIAGRAMS	3-12
11. CIRCUIT DIAGRAMS	3-18
12. PRINTED CIRCUIT DIAGRAMS/ELECTRICAL PARTS LIST	3-38
13. DECK MECHANISM	4-1

Please use this service manual with referring to the user guide (D.F.U) without fail.

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DV3100

304W855020 ACT
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First Issue:2000.10

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2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
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3GA, HANGANG-RO, YONGSAN-KU, SEOUL
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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.

TECHNICAL SPECIFICATIONS

DVD VIDEO PLAYER

Power supply	AC 120V, 60Hz(U1B) /AC100V, 50/60Hz(F1N) /AC220~240V, 50Hz(N1B) /110~240V, 50Hz(K1G, A1B)
Power consumption	16W
Mass	3.2kg(7.1lbs)
External dimensions	430 x 88 x 215 (W x H x D)
Signal system	NTSC 525/60, PAL 625/50
Laser	Semiconductor laser, wavelength 650nm
Frequency range (audio)	4Hz to 20 kHz
Signal-to-noise ratio (audio)	More than 100 dB (EIAJ)
Dynamic range (audio)	More than 95 dB (EIAJ)
Harmonic distortion(audio)	0.008%
Wow and flutter	Below measurable level (less than +0.001%(W.PEAK)) (EIAJ)
Operating conditions	Temperature : 5°C(41°F) to 35°C(95°F), Operation status : Horizontal

OUTPUTS

Video output	1.0V(p-p), 75Ω, negative sync., RCA jack x 1 / SCART
S-video outputs	(Y)1.0V(p-p), 75Ω, negative sync.,Mini DIN 4-pin x 1 (C)0.286V(p-p), 75Ω
Audio output(digital audio)	0.5V(p-p), 75Ω, RCA jack x 1
Audio output(analog audio)	2.0Vrms (1kHz, 0dB), 330Ω, RCA jack (L, R) x 1 / SCART

*Designs and specifications are subject to change without notice.

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.

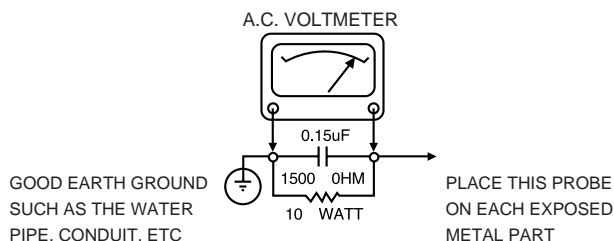
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

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 ARROWHEAD 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.

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 publication, 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.)



3. INFORMATIONS

REGION CODE

VERSION	REGION CODE	COUNTRY
/U1B	1	USA/CANADA
/N1B	2	EUROPE
/F1N	2	JAPAN
/A1B	4	AUSTRALIA

THE DISCS THAT THE DV3100 CAN HANDLE

The following discs can be played back with a DV3100.

disc	mark	playback capability	size	side
DVD		Audio/Video	12 cm 8 cm	single/double
CD		Audio	12 cm 8 cm	single

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

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:

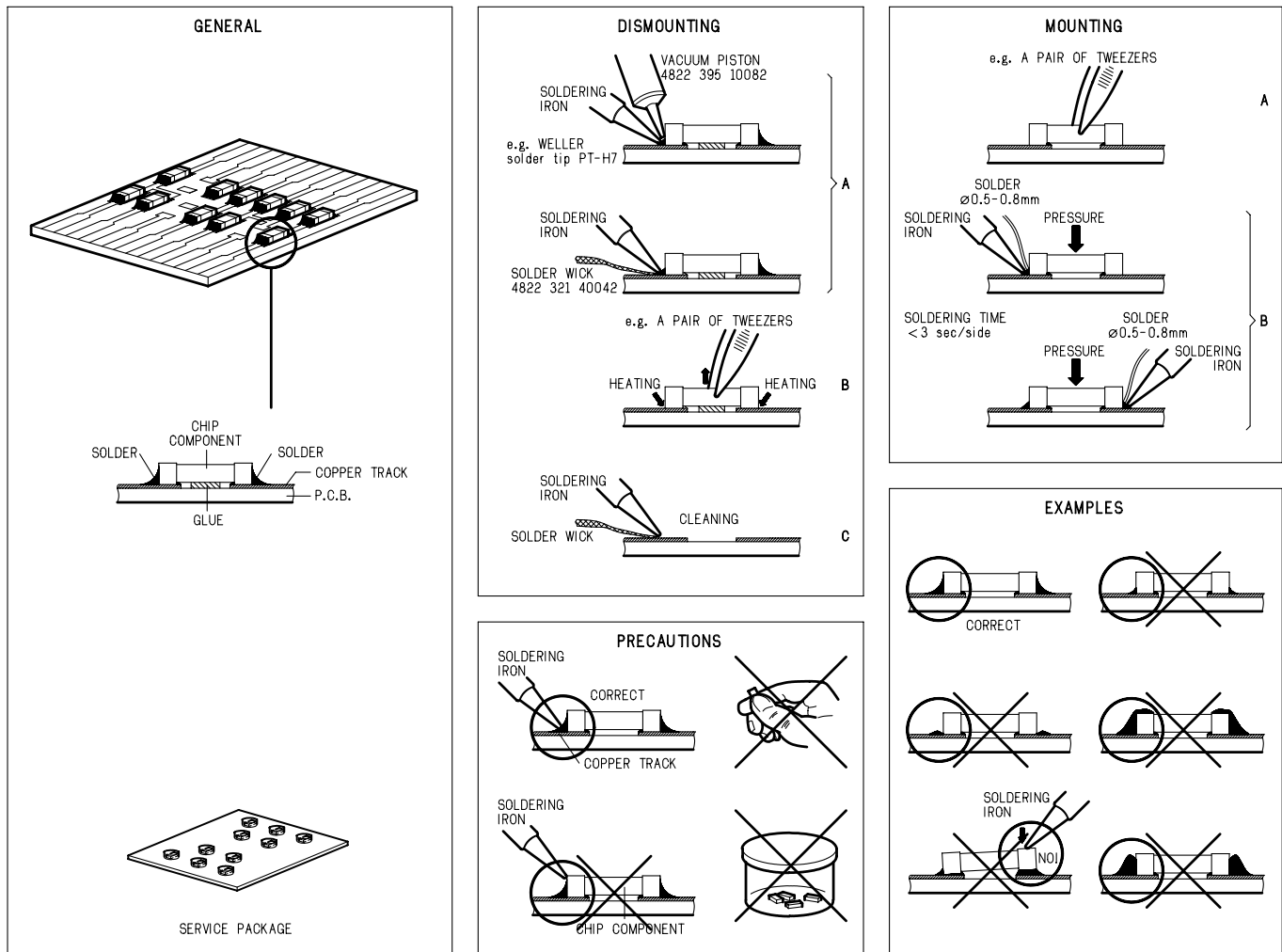
On some DVDs, scenes have been filmed from different angles (up to a maximum of 9). On these discs, you can select the angle that you want to watch. Please refer to the DVD's manual to see which scenes have multi-angles.

Parental guide:

Some discs have restriction levels that allow you to cut scenes or prevent playback of discs that have contents that you do not want children to watch.

4. SERVICING HINT

SERVICE HINTS



SERVICE TOOLS

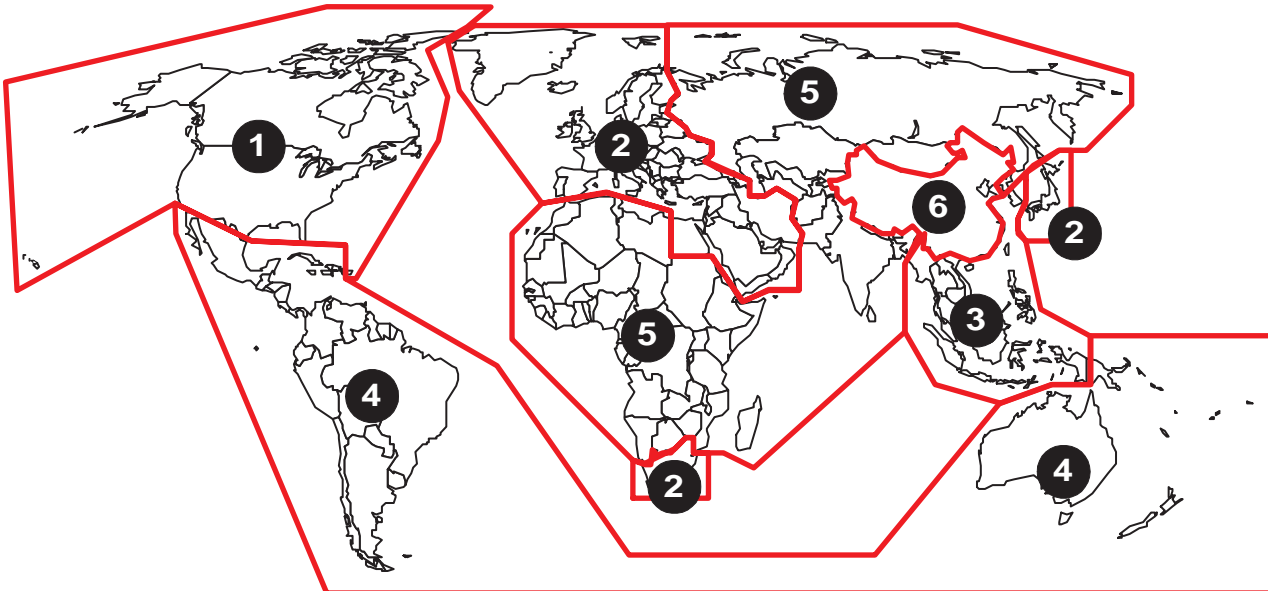
Audio signals disc	4822 397 30184
Disc without errors (SBC444)+	
Disc with DO errors, black spots and fingerprints (SBC444A)	4822 397 30245
Disc (65 min 1kHz) without no pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822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

REGIONAL CODES

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 geographical 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:

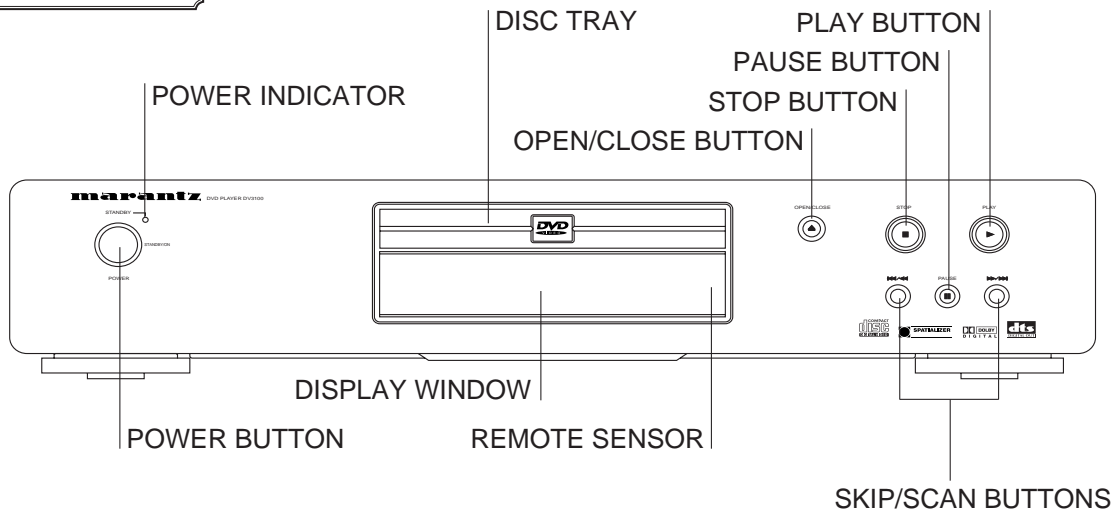
1. United States and Canada
2. Europe and Japan
3. Far East (except Japan & China)
4. South America and Oceania
5. Africa and the Middle East
6. China (except Hong Kong)



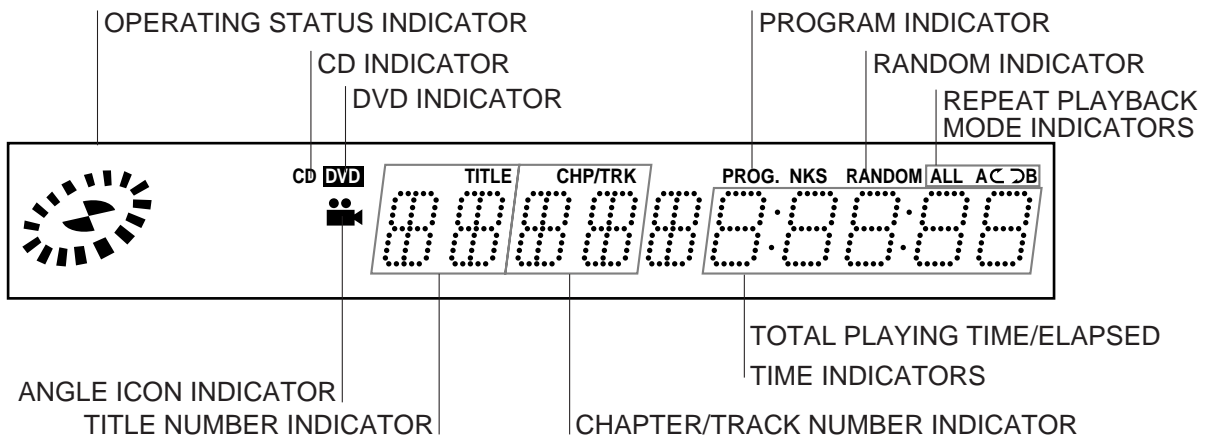
Map of DVD Regions

LOCATION OF CUSTOMER CONTROLS

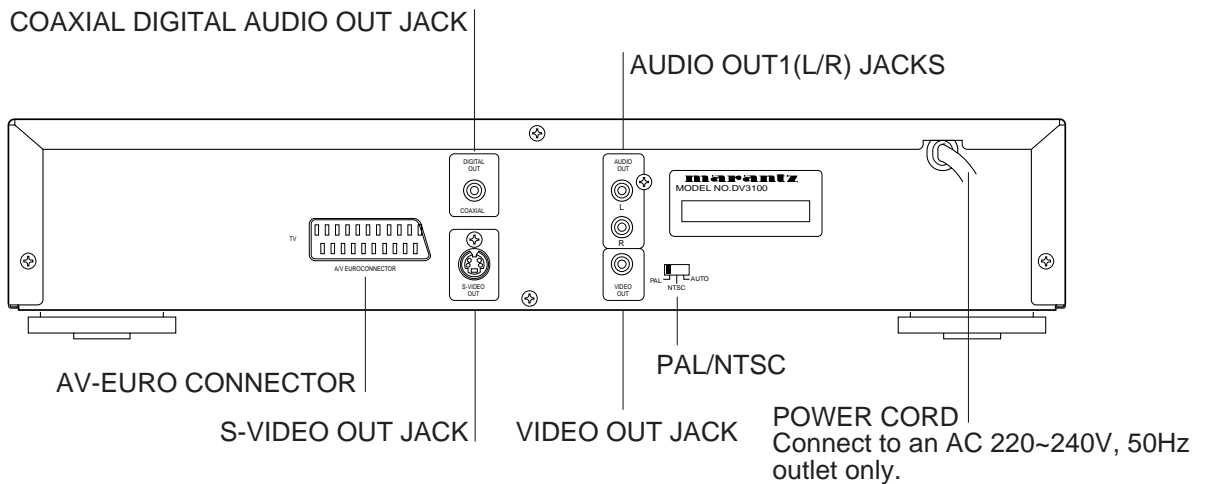
FRONT PANEL



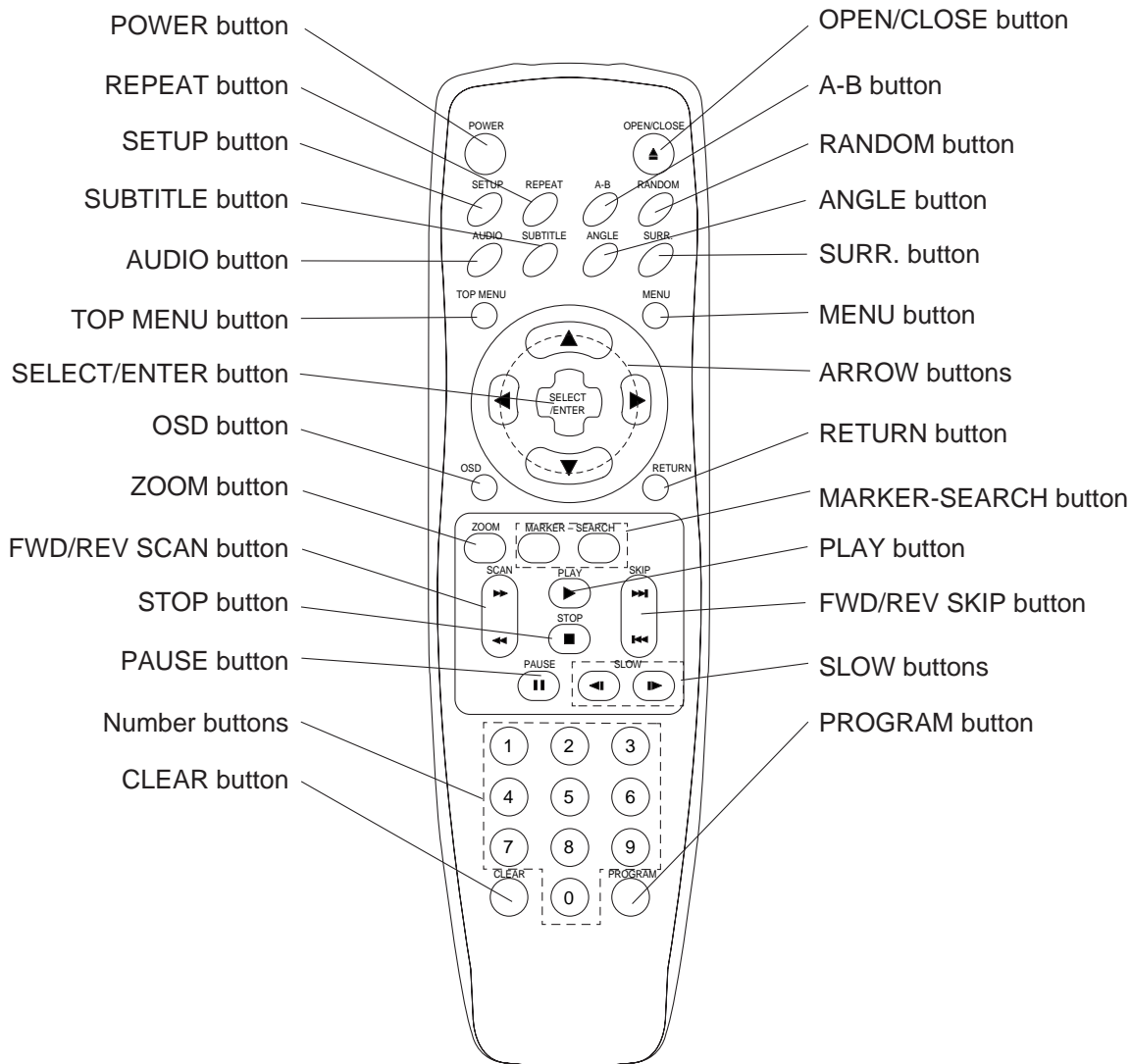
DISPLAY WINDOW



REAR PANEL



REMOTE CONTROL



SECTION 2

CABINET & MAIN CHASSIS

CONTENTS

1. DISASSEMBLY	2-2
CABINET DISASSEMBLY	2-2
CIRCUIT BOARD DISASSEMBLY	2-3
2. EXPLODED VIEWS	2-4
1. Cabinet and Main Frame Section	2-4
2. Packing Accessory Section	2-5

DISASSEMBLY

CAUTION BEFORE STARTING SERVICING

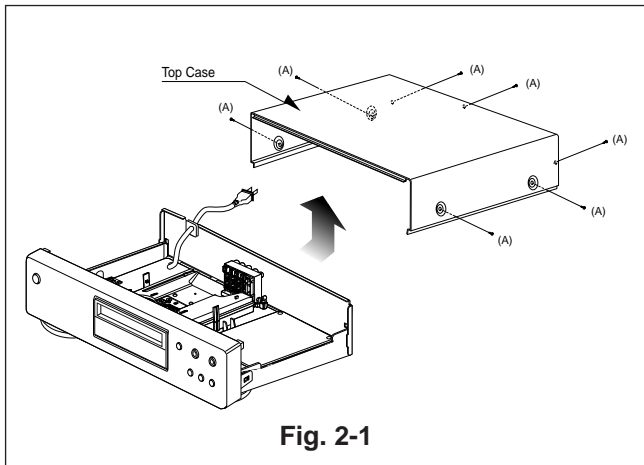
Electronic parts are susceptible to static electricity and may easily be damaged, so do not forget to take a proper grounding treatment as required.

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.

CABINET DISASSEMBLY

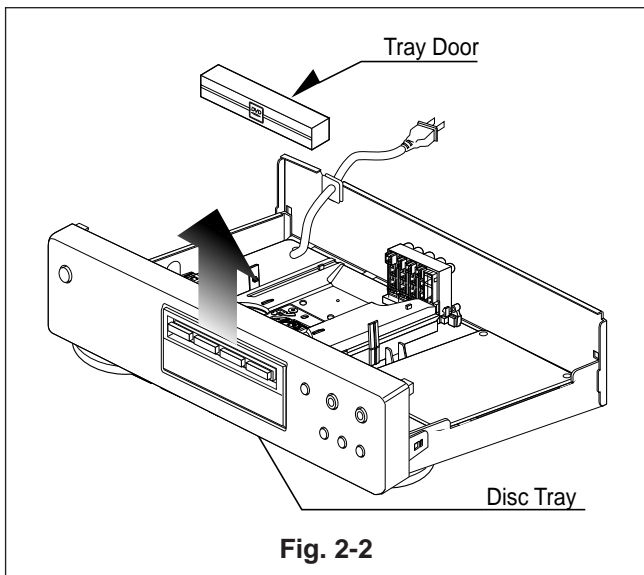
1. Top Case

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



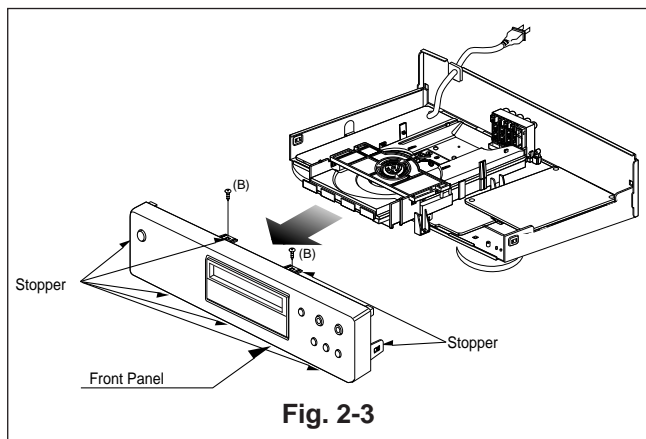
2. Tray Door

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

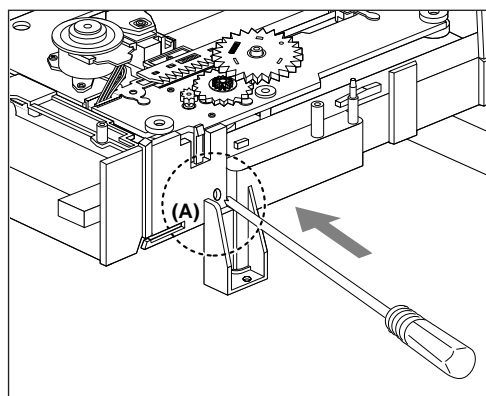


3. Front Panel

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.



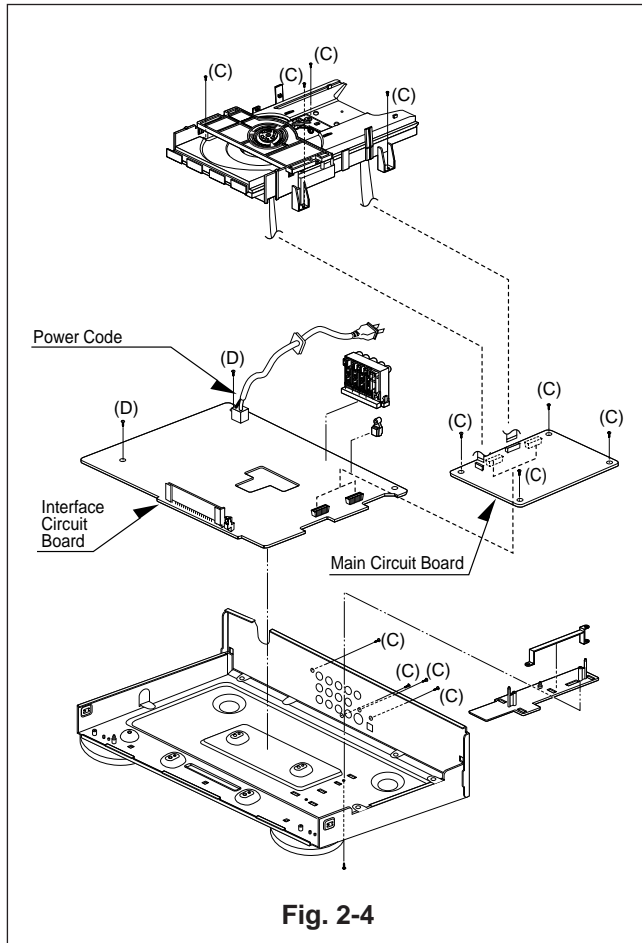
Press open/close button to open the tray. If the tray doesn't work, insert and push a small screwdriver in the emergency eject hole (A) at the right side. Then the tray comes out. After the first centimeter it is possible to pull the tray out by hand. Release the door cover of the tray.

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)

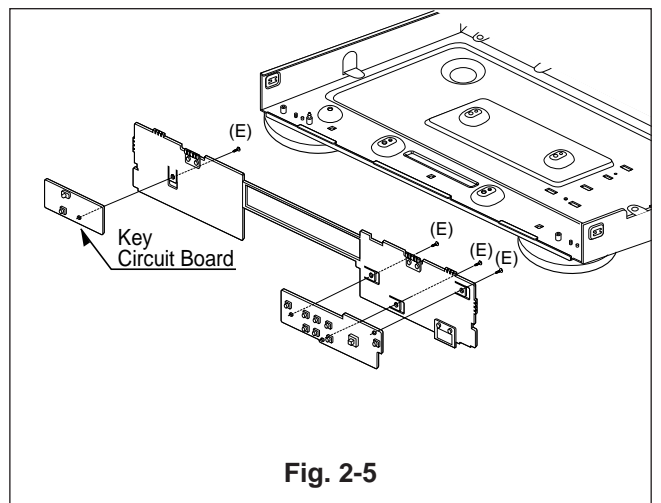
1. Disassembling of Main Circuit Board and Interface Board

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.



2. Digitron and Key Circuit Board

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



EXPLODED VIEWS

1. Cabinet and Main Frame Section

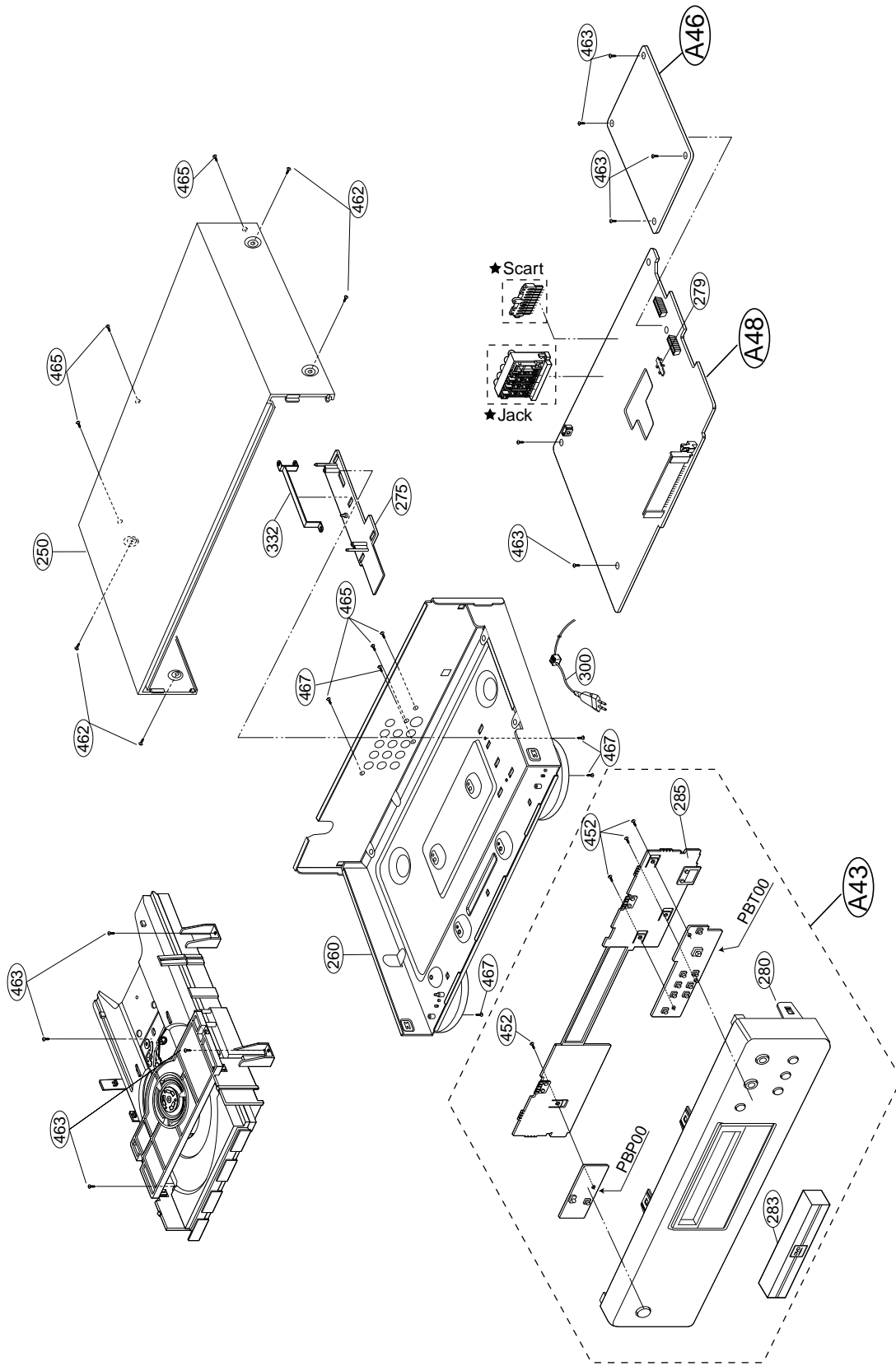
5

4

3

2

1



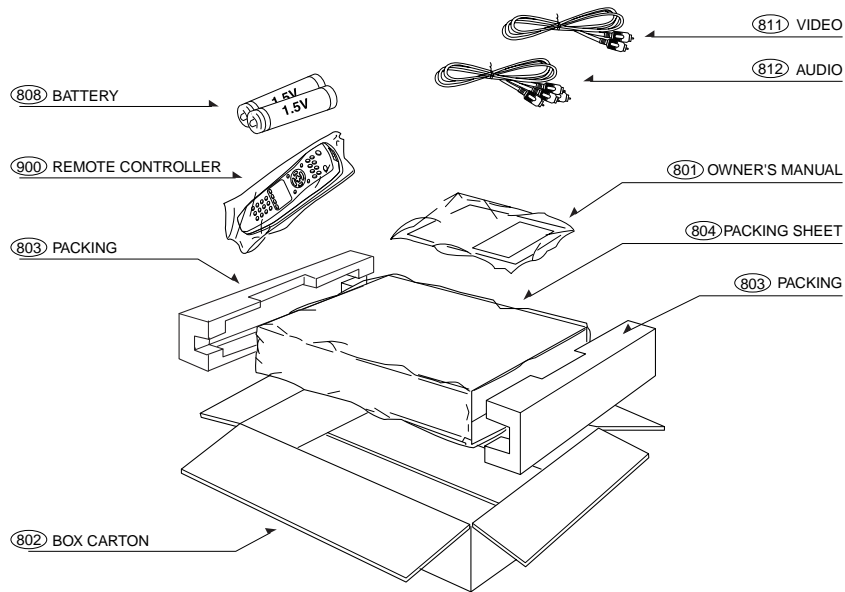
A

B

C

D

2.Packing Accessory Section



POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
250		nsp	TOP COVER (BLACK)	nsp
260	/N1B	nsp	CHASSIS ASSY MAIN (/N1B)	nsp
275		nsp	HOLDER MAIN PCB	nsp
279		nsp	HOLDER CONNECTOR	nsp
280	/N1B	9965 000 06951	PANEL ASSY FRONT (/N1B)	304W248510
283	/N1B	9965 000 06952	DOOR ASSY (BLACK)	304W063500
300	/N1B	9965 000 06953	MAINS CORD (/N1B)	*YC000510R
332		nsp	PLATE MAIN GND	nsp
429		nsp	SCREW B-TITE	nsp
430		nsp	SCREW +D2.0 6MM	nsp
			SWRCH16A/NIY 4.5MM	
430		nsp	SCREW +D2.0 6MM	nsp
			SWRCH16A/NIY 4.5MM	
431		nsp	SCREW +D2.0 6MM	
			SWRCH16A/ZNBK 4MM 1	nsp
432		nsp	SCREW MACHINE	nsp
432		nsp	SCREW MACHINE	nsp
452		nsp	SCREW SPECIAL	nsp
462		nsp	SCREW DECORATION	nsp
463		nsp	SCREW SPECIAL	nsp
465		nsp	SCREW SPECIAL (3X10 BK)	nsp
467		nsp	SCREW SPECIAL (3X8 BK)	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
801	/N1B	9965 000 06954	USER GUIDE (/N1B)	304W851310
802		nsp	BOX	nsp
803		nsp	PACKING	nsp
804		nsp	SHEE	nsp
808		nsp	BATTERY AAA(R03)	nsp
811		nsp	PHONO CORD (YL)	nsp
812		nsp	PHONO CORD (RD/WH)	nsp
900		9965 000 06955	REMOTE CONTROLLER	ZK304W0010

SECTION 3

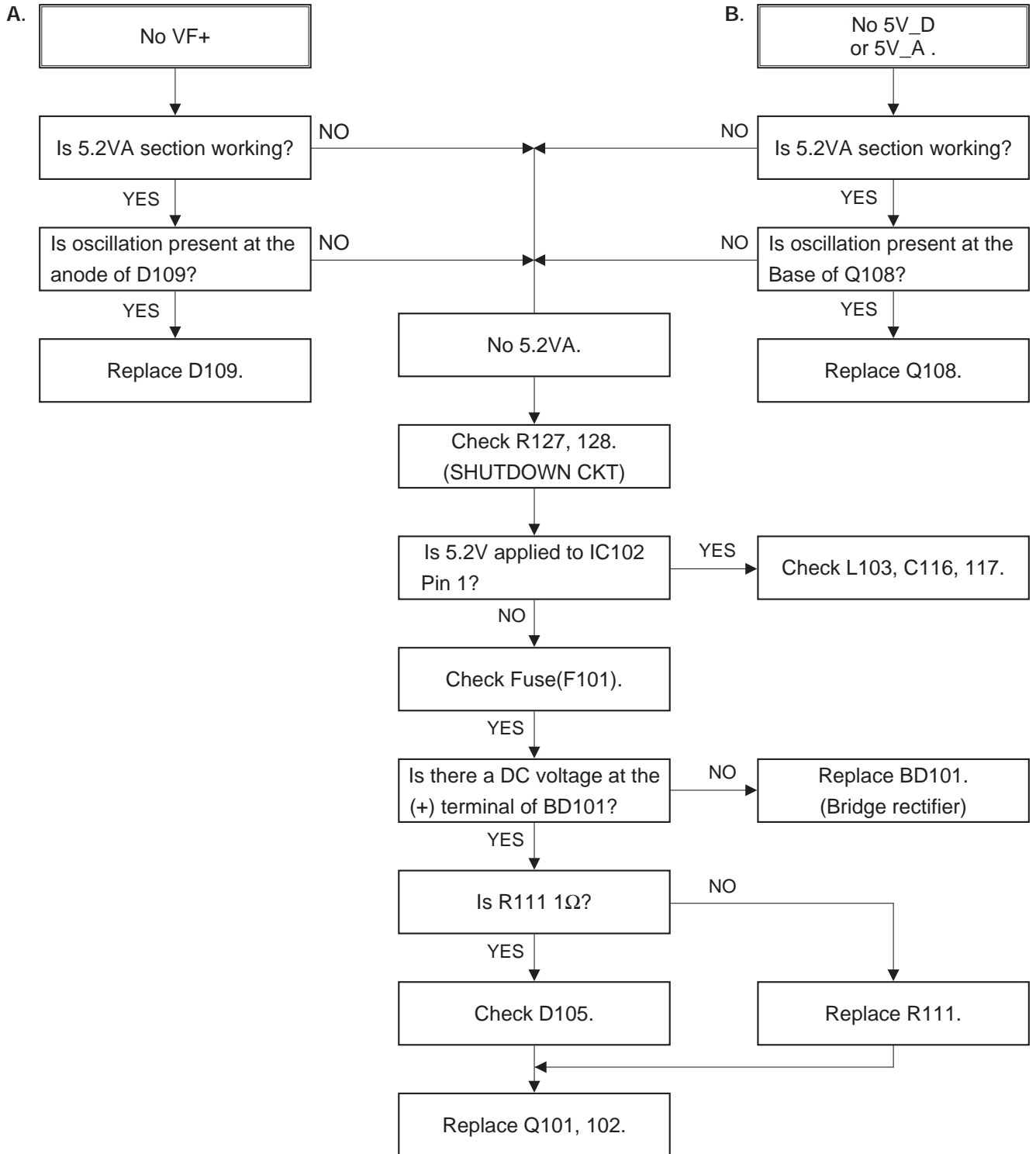
ELECTRICAL

CONTENTS

ELECTRICAL TROUBLESHOOTING GUIDE	3-2
1. Power(SMPS) Circuit.....	3-2
2. μ -com Circuit	3-3
3. MPEG Circuit	3-6
4. Front Circuit(Digitron & Key)	3-7
5. RF/Servo Circuit	3-8
BLOCK DIAGRAMS	3-12
1. Overall Block Diagram	3-12
2. Power (SMPS) Block Diagram.....	3-13
3. RF/CD DSP/DVD DSP/DVD servo Block Diagram.....	3-14
4. Audio Block Diagram	3-15
5. MPEG Block Diagram	3-16
6. μ -COM Block Diagram.....	3-17
CIRCUIT DIAGRAMS	3-18
1. Power (SMPS) Circuit Diagram	3-18
2. DVD DSP Circuit Diagram.....	3-20
3. Drive & RF Circuit Diagram.....	3-22
4. MPEG Circuit Diagram	3-24
• WAVEFORMS.....	3-26
5. Audio DM & 5.1CH Circuit Diagram	3-28
6. μ -COM/Expander	3-30
7. DIGITRON & Key Circuit Diagram	3-32
8. Jack Circuit Diagram.....	3-34
PRINTED CIRCUIT DIAGRAMS	3-36
1. MAIN P.C.BOARD.....	3-36
2. POWER,A/V,FRONT P.C.BOARD.....	3-38
3. KEY P.C.BOARD	3-40
4. POWER LED P.C.BOARD	3-41

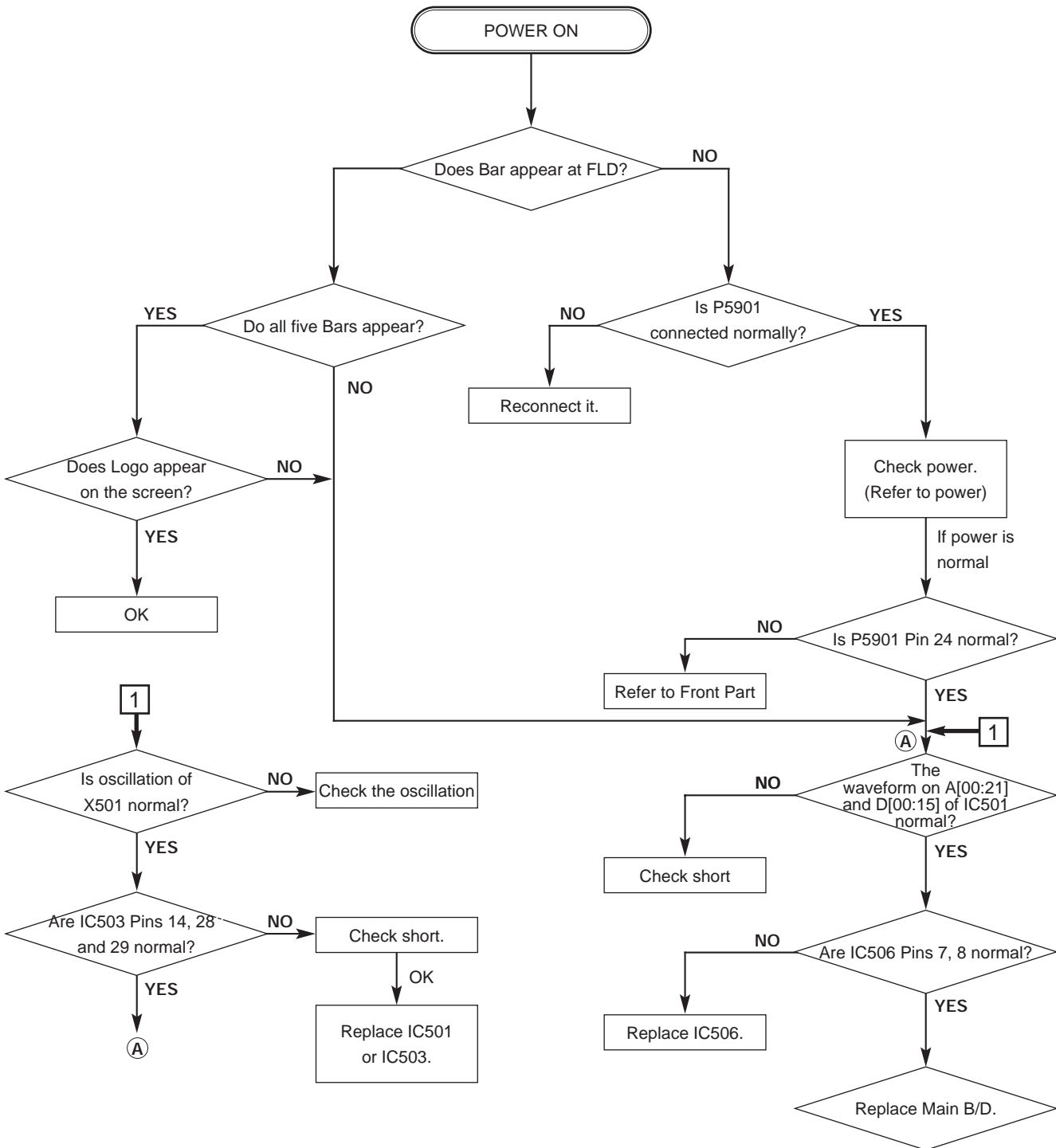
ELECTRICAL TROUBLESHOOTING GUIDE

1. Power(SMPS) Circuit

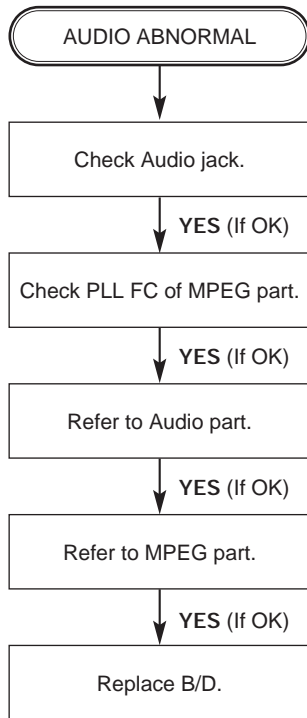


2. μ -COM Circuit

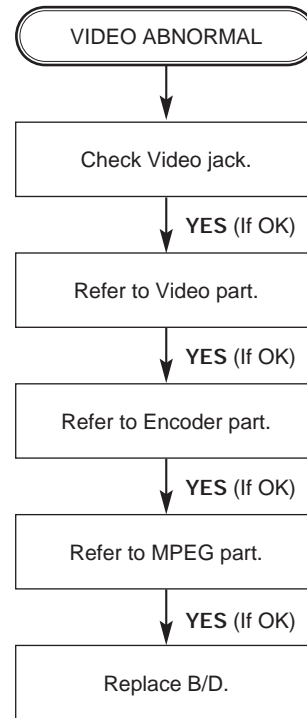
A. No Power



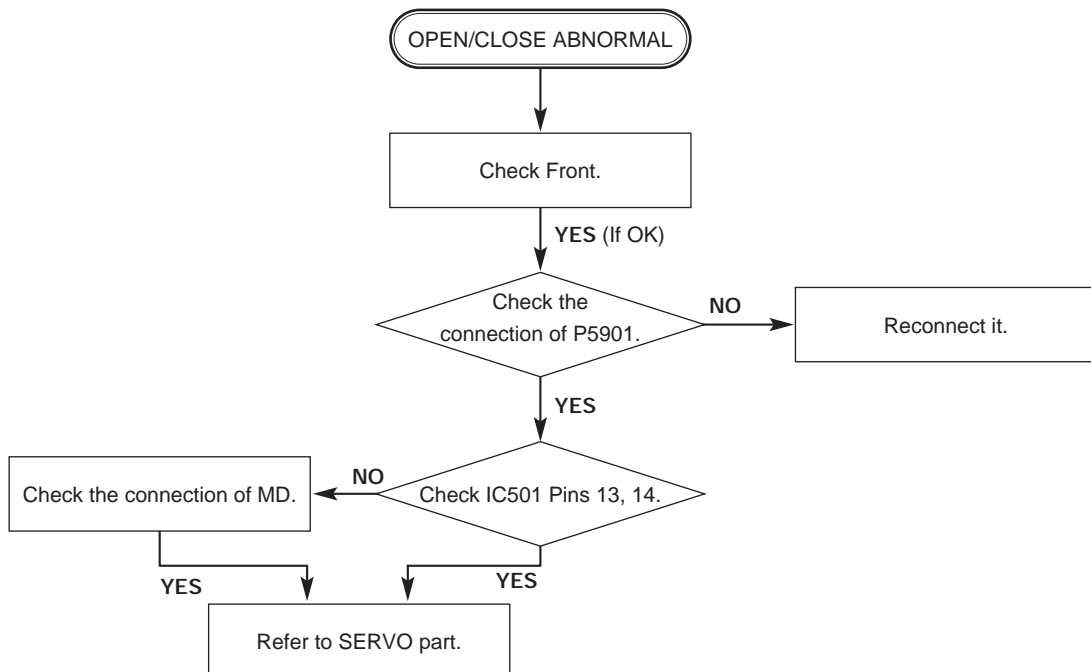
B. Audio abnormal



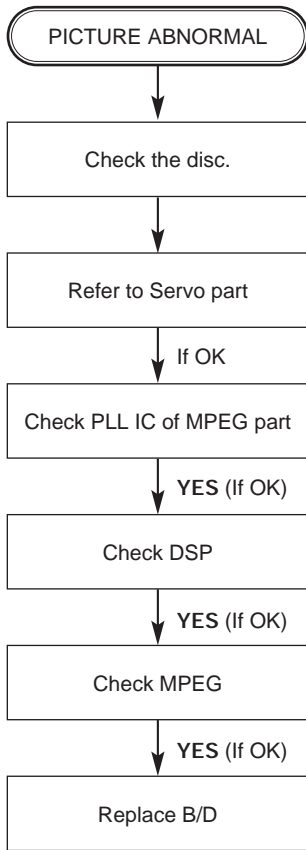
C. Video abnormal



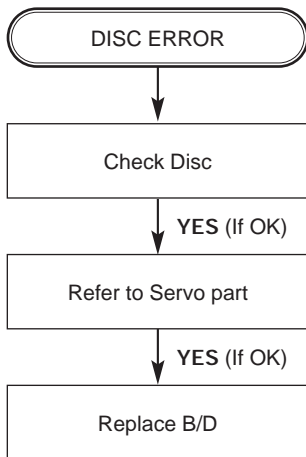
D. Open/Close abnormal



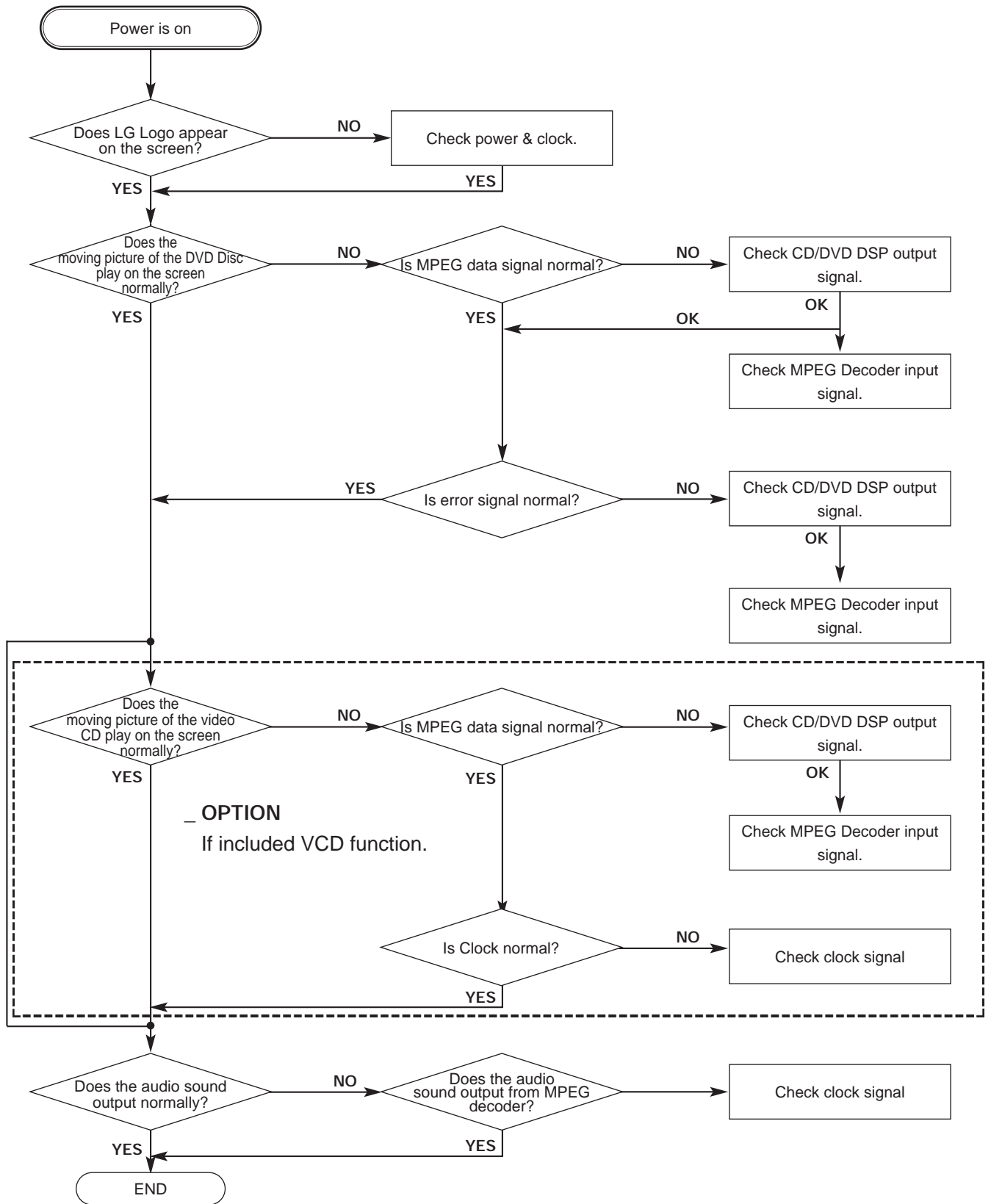
E. Picture abnormal



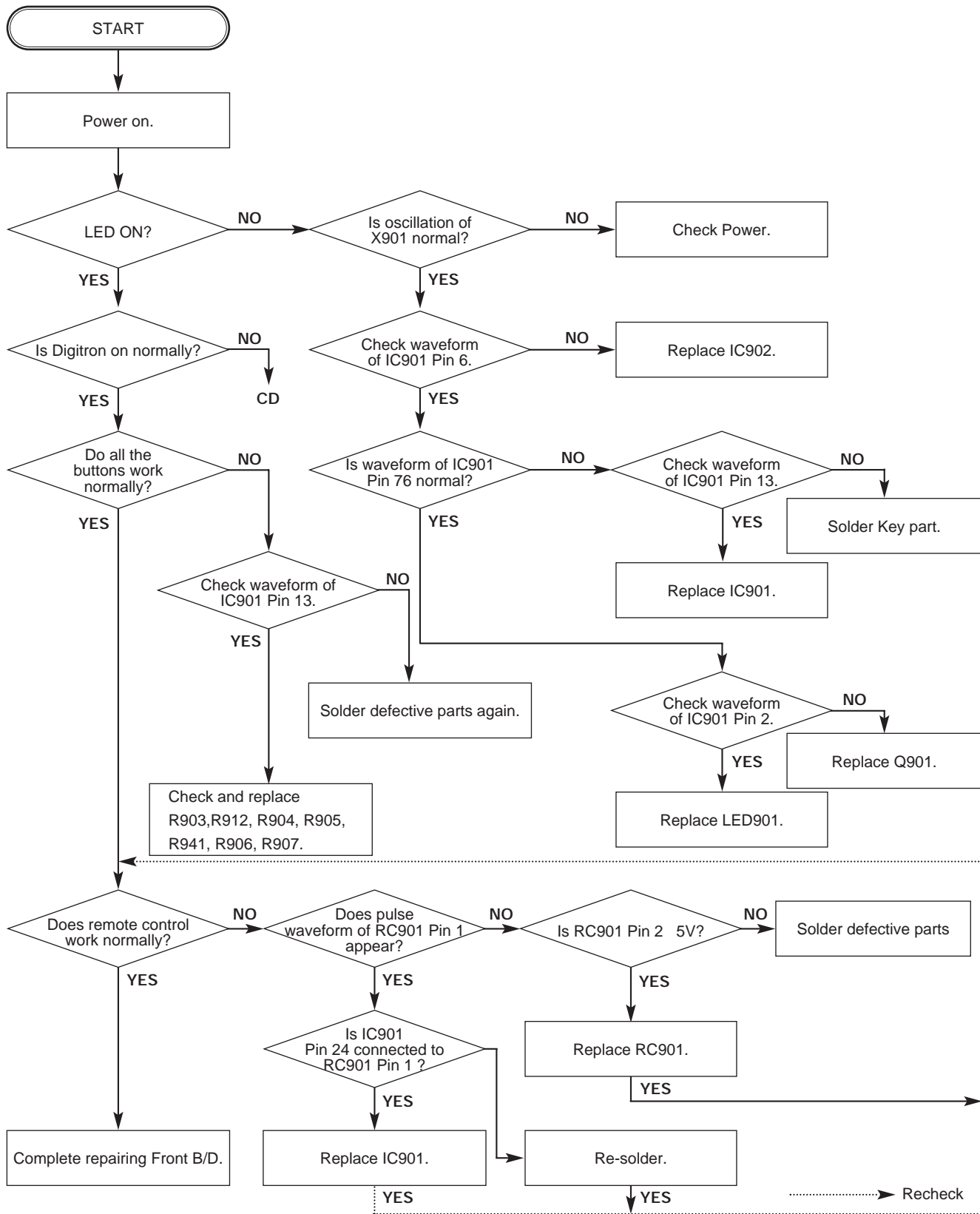
F. Disc Error



3. MPEG Circuit

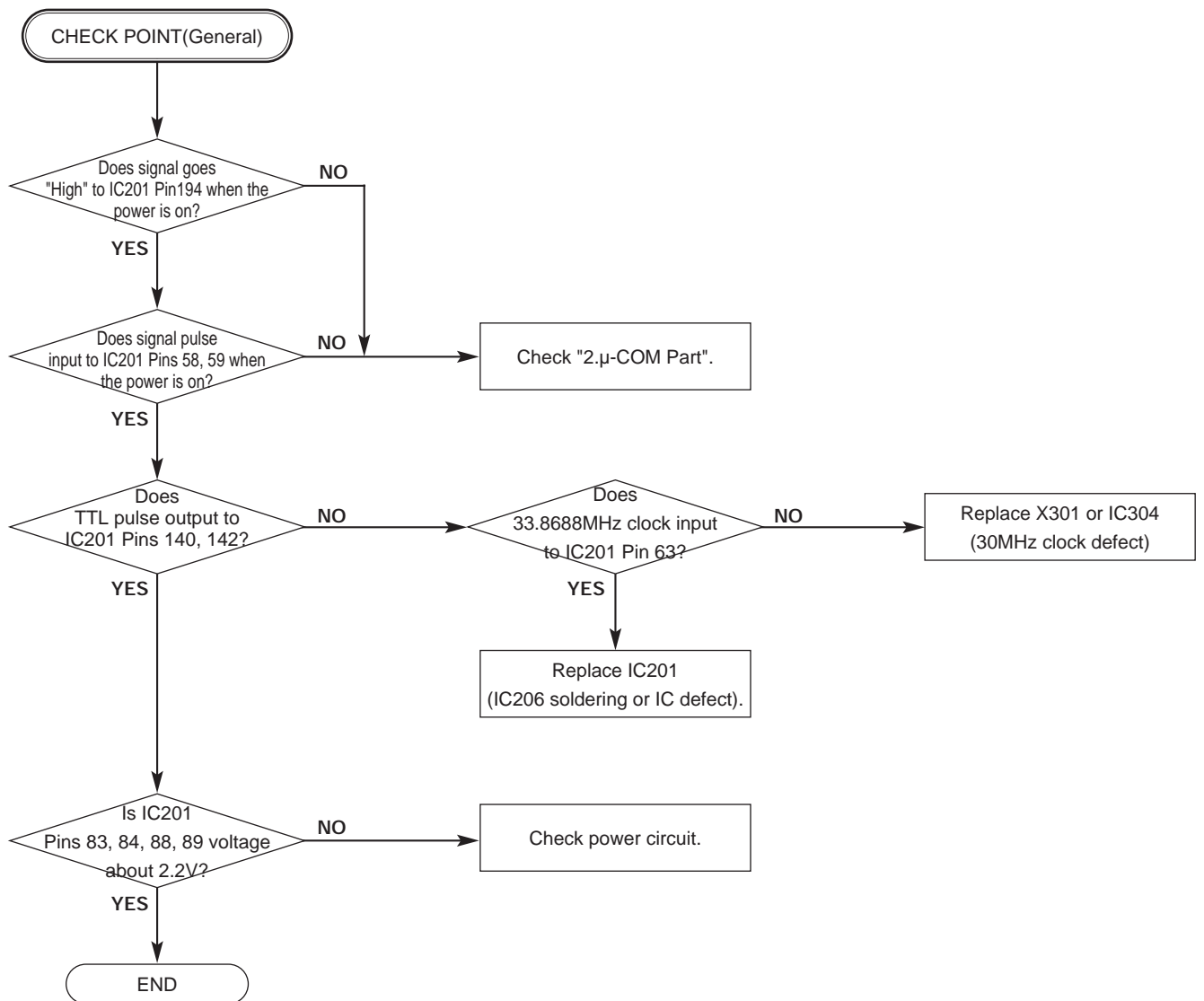


4. Front Circuit (Digitron & key)

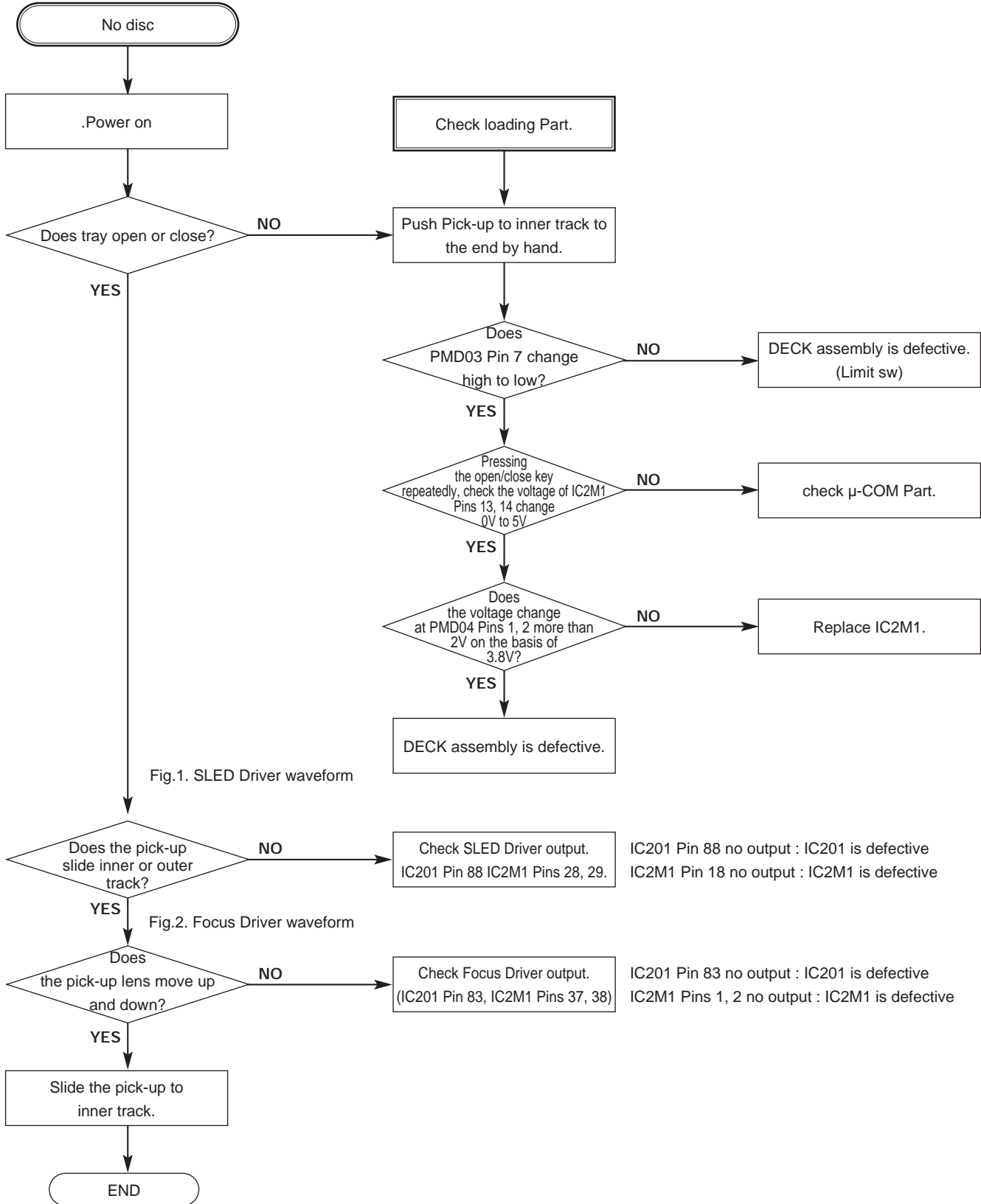


5. RF/Servo Circuit

A.



B.



C.

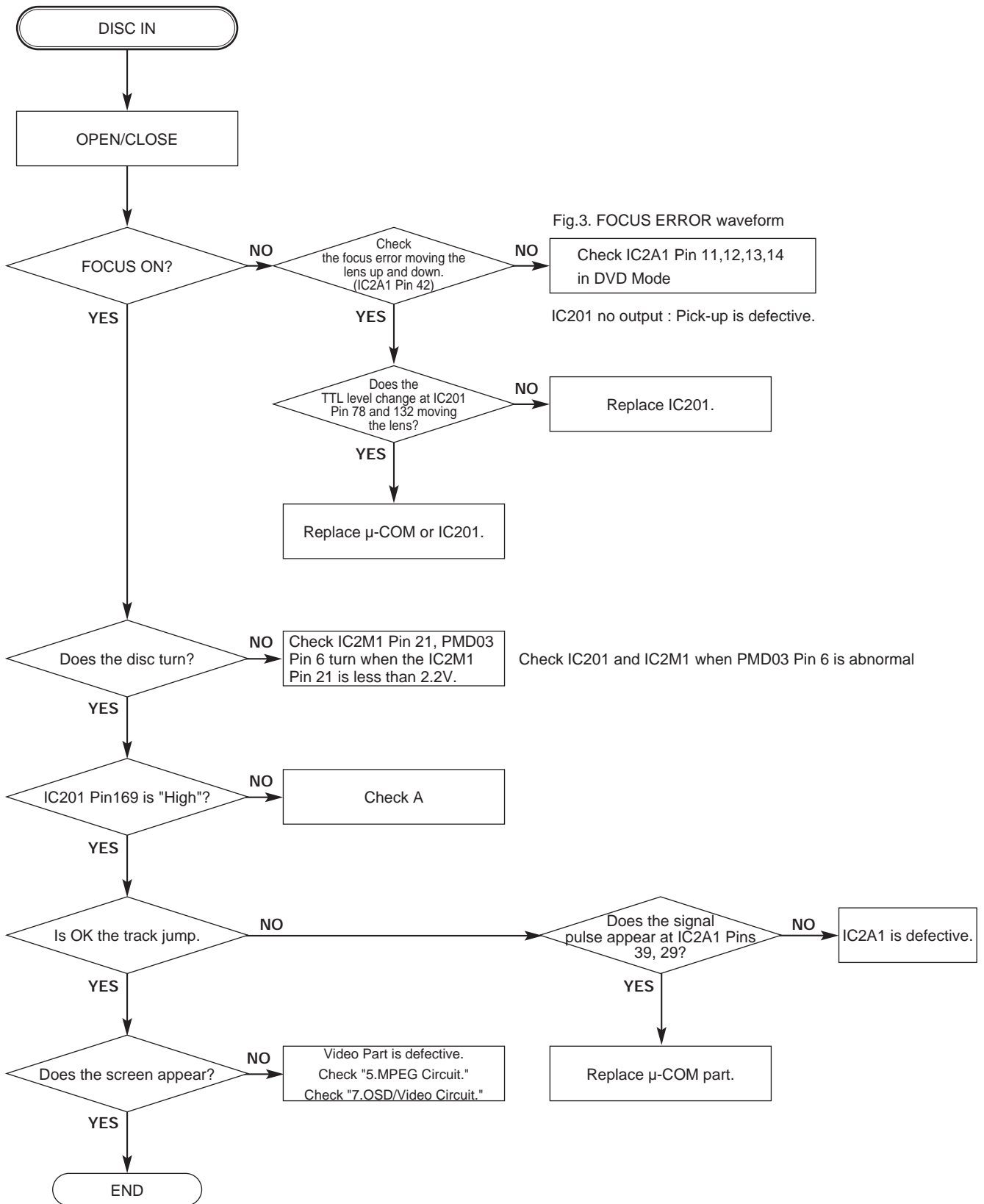
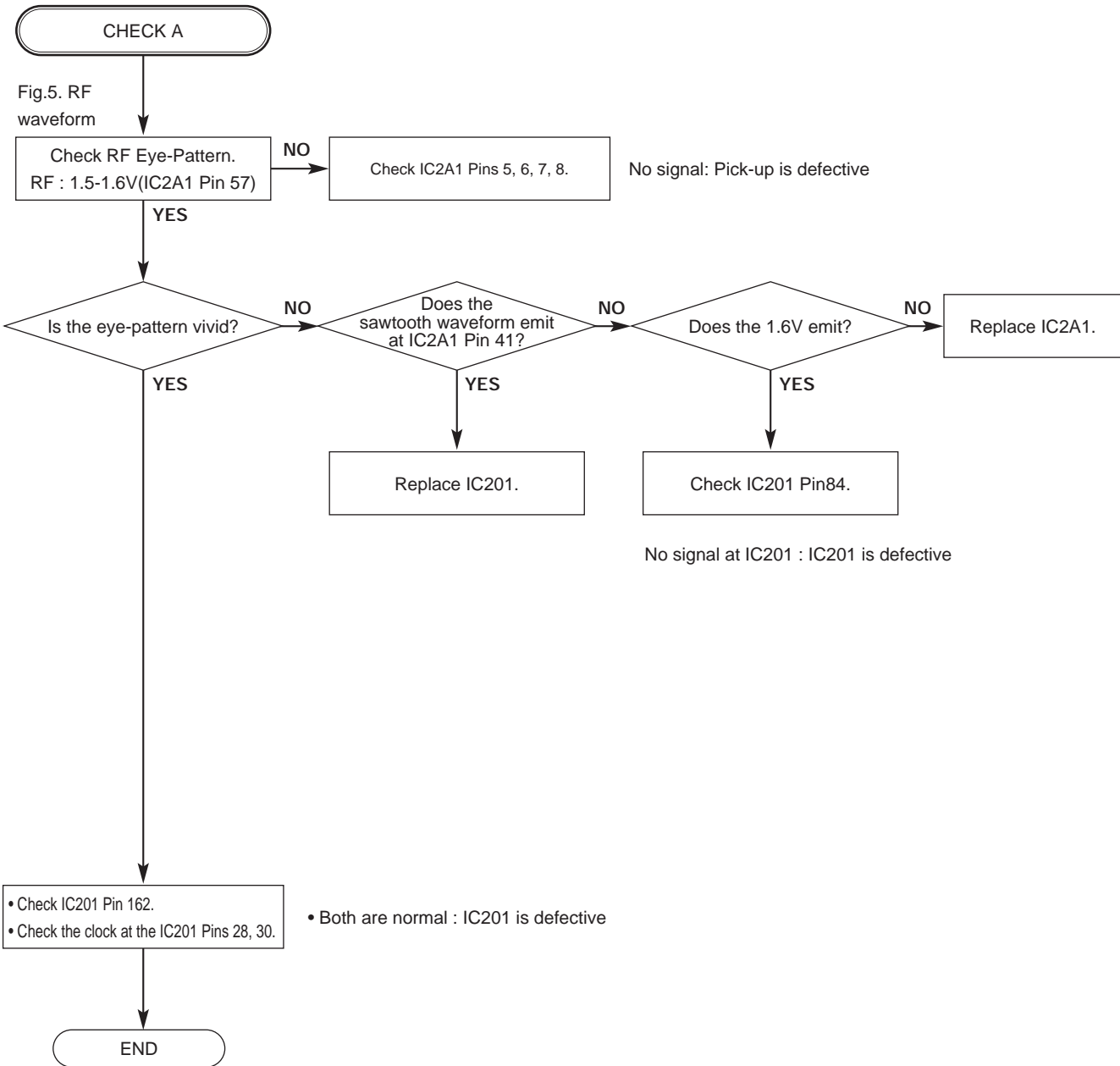


Fig.3. FOCUS ERROR waveform

IC201 no output : Pick-up is defective.

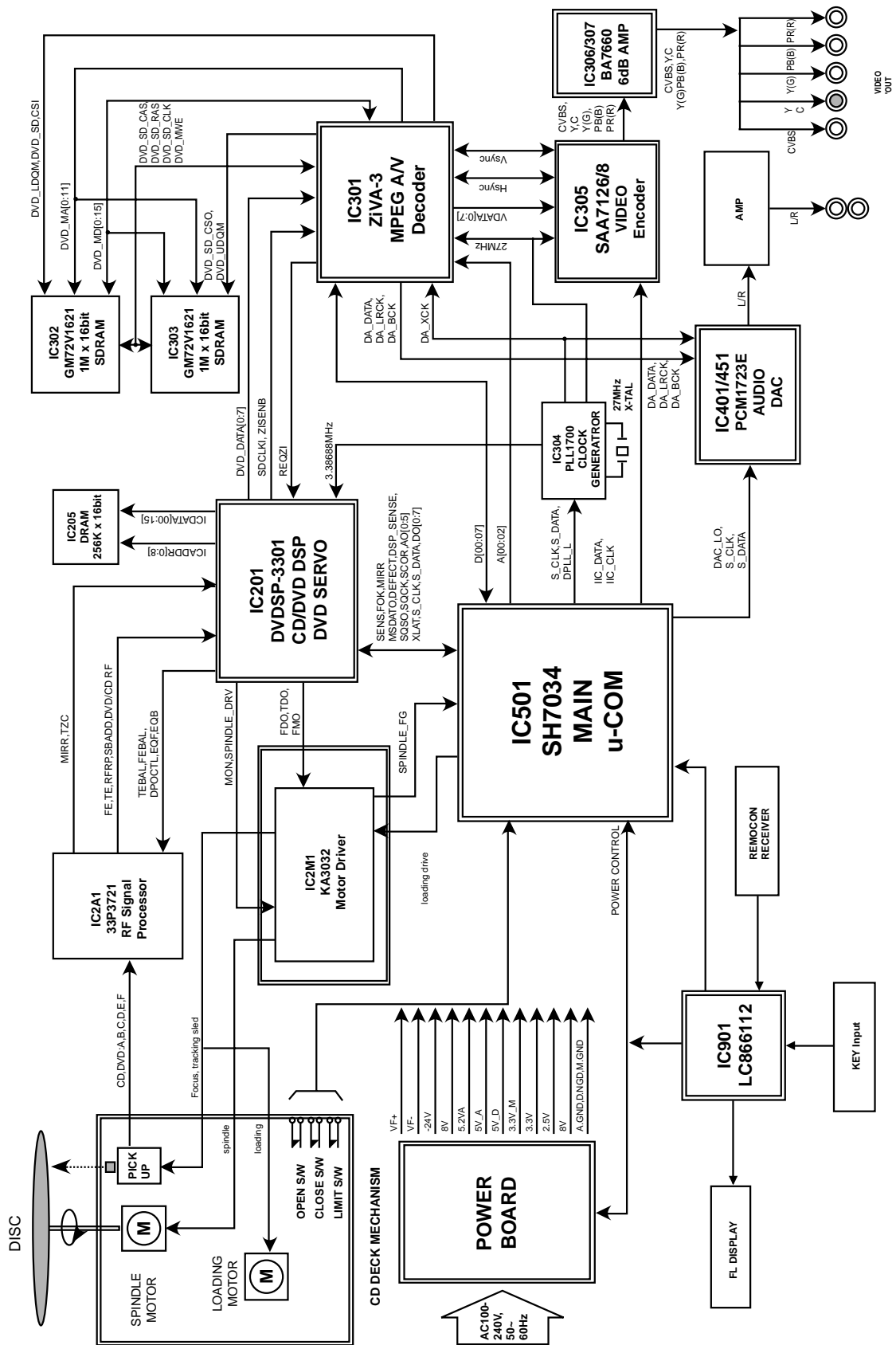
Check IC201 and IC2M1 when PMD03 Pin 6 is abnormal

D.

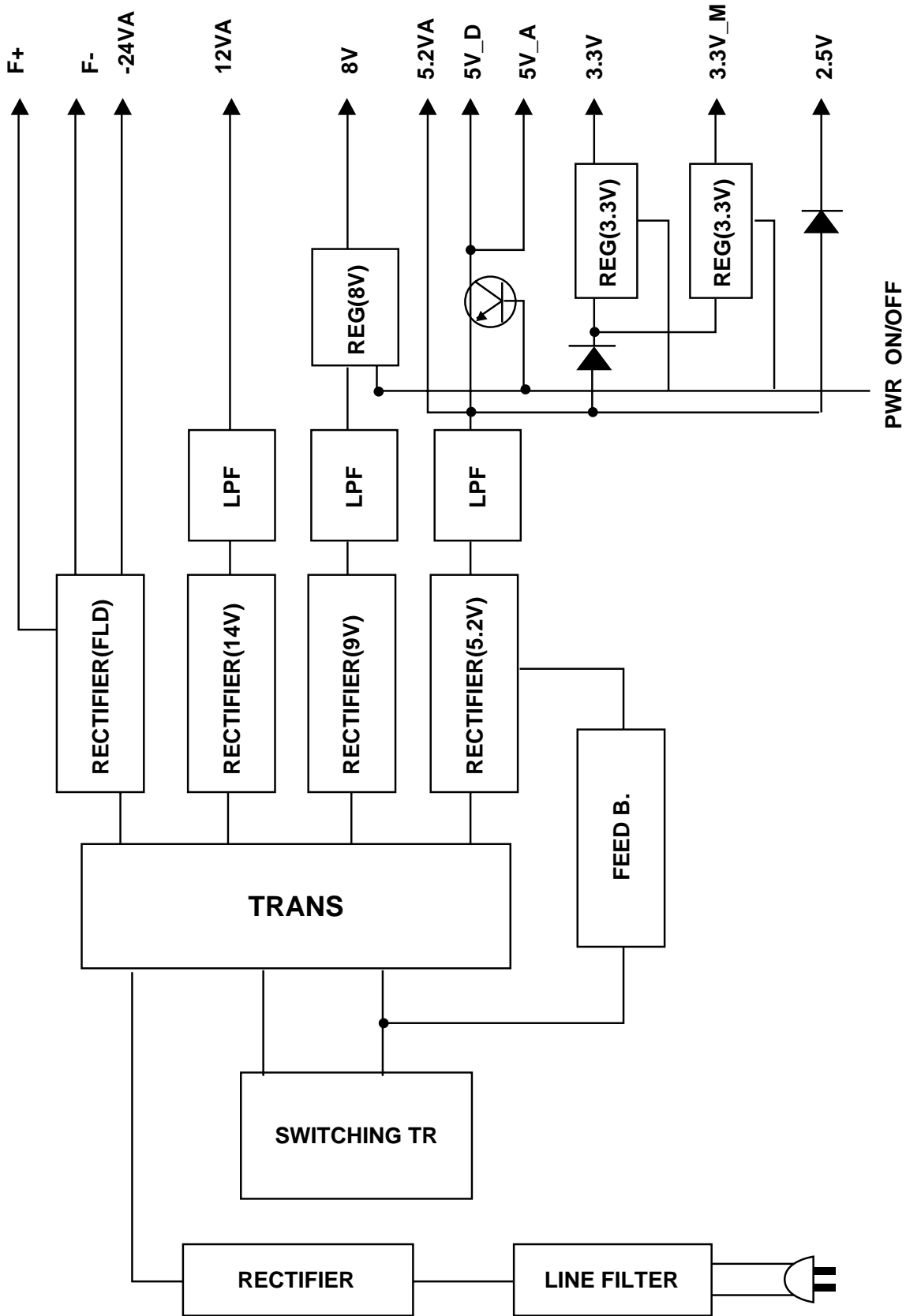


BLOCK DIAGRAMS

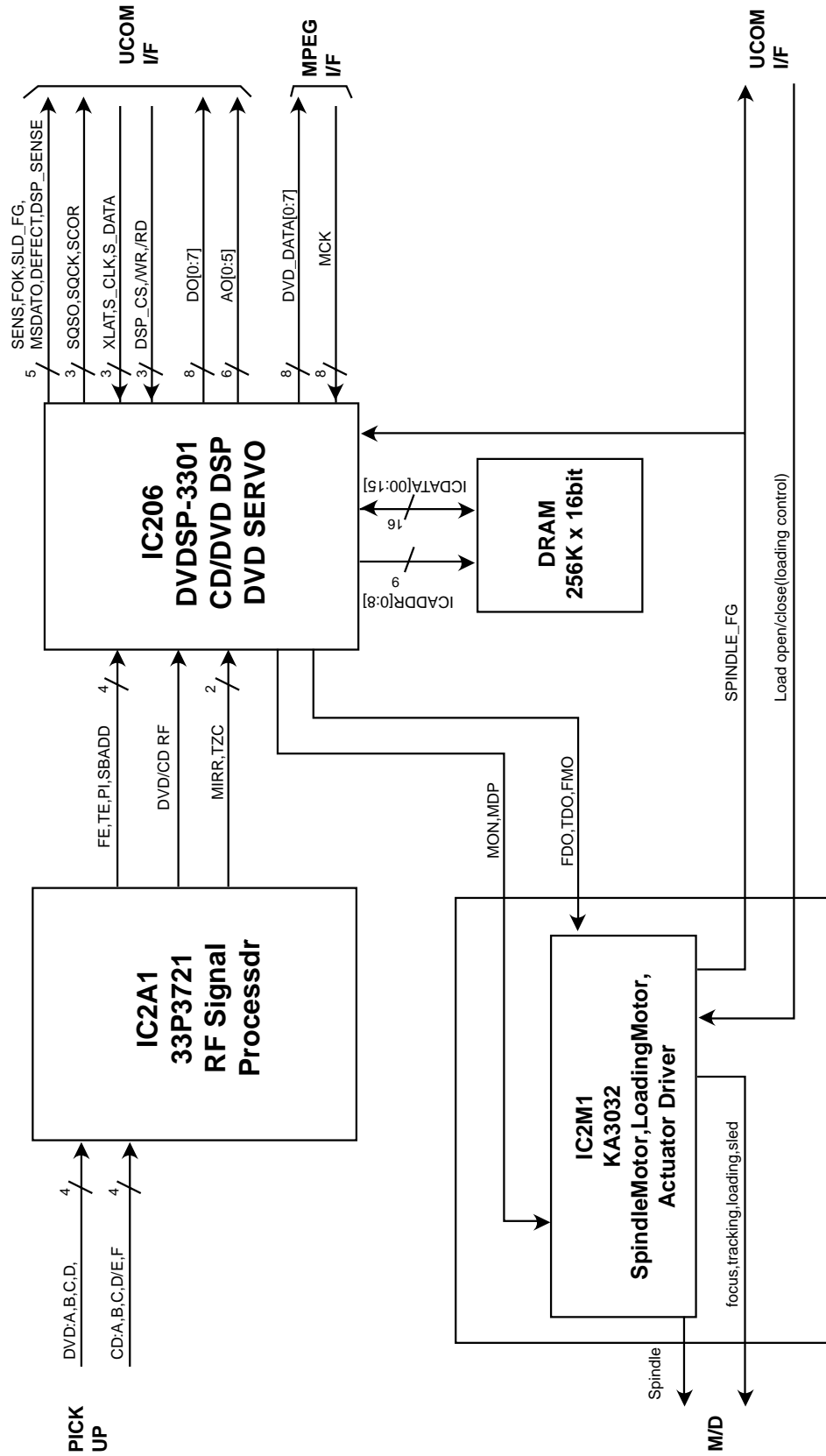
1. Overall Block Diagram



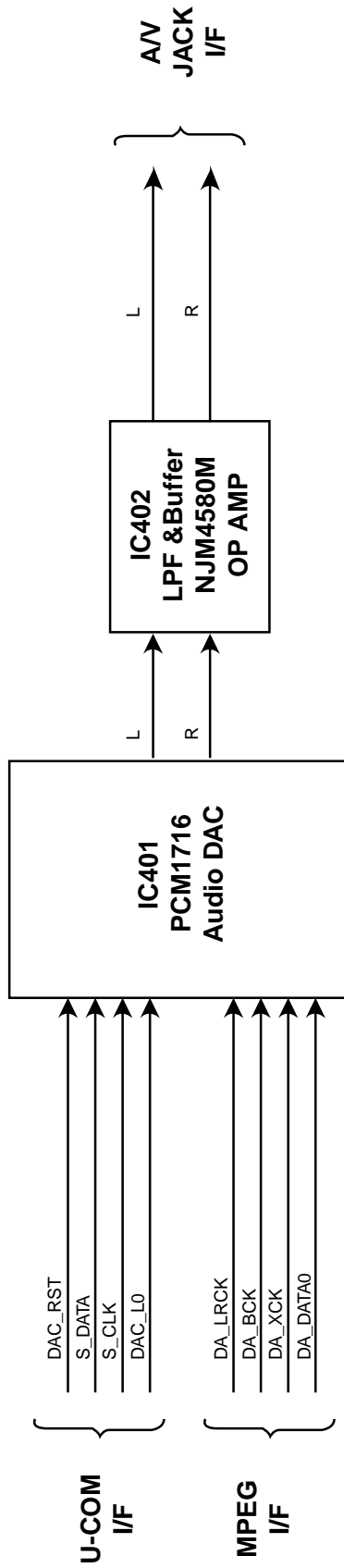
2. Power(SMPS) Block Diagram



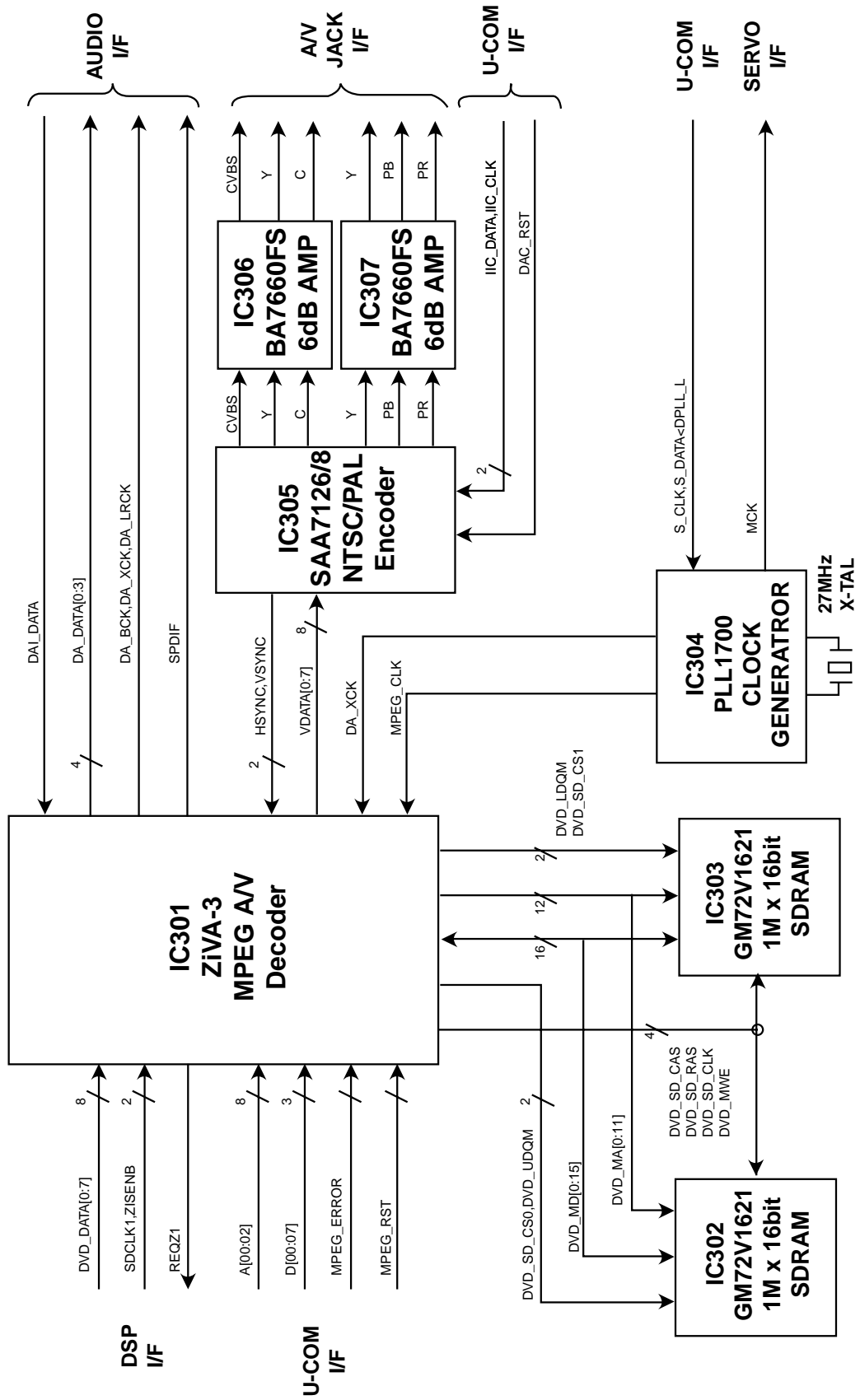
3. RF/CD DSP/DVD DSP/DVD SERVO Block Diagram



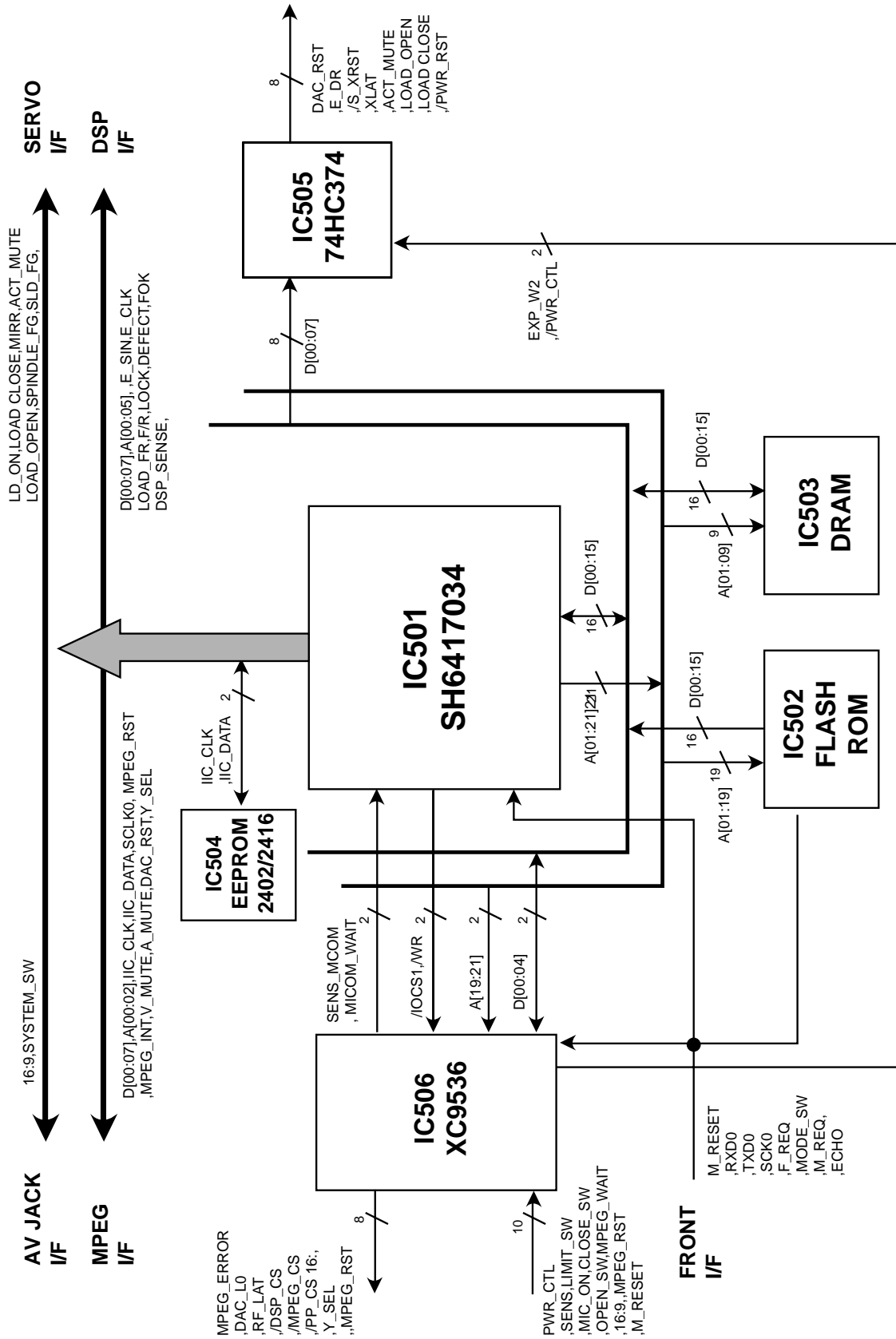
4. Audio Block Diagram



5. MPEG Block Diagram



6. μ -COM Block Diagram



CIRCUIT DIAGRAM

1. POWER(SMPS) CIRCUIT DIAGRAM (DV3100/U1B,/F1N)

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

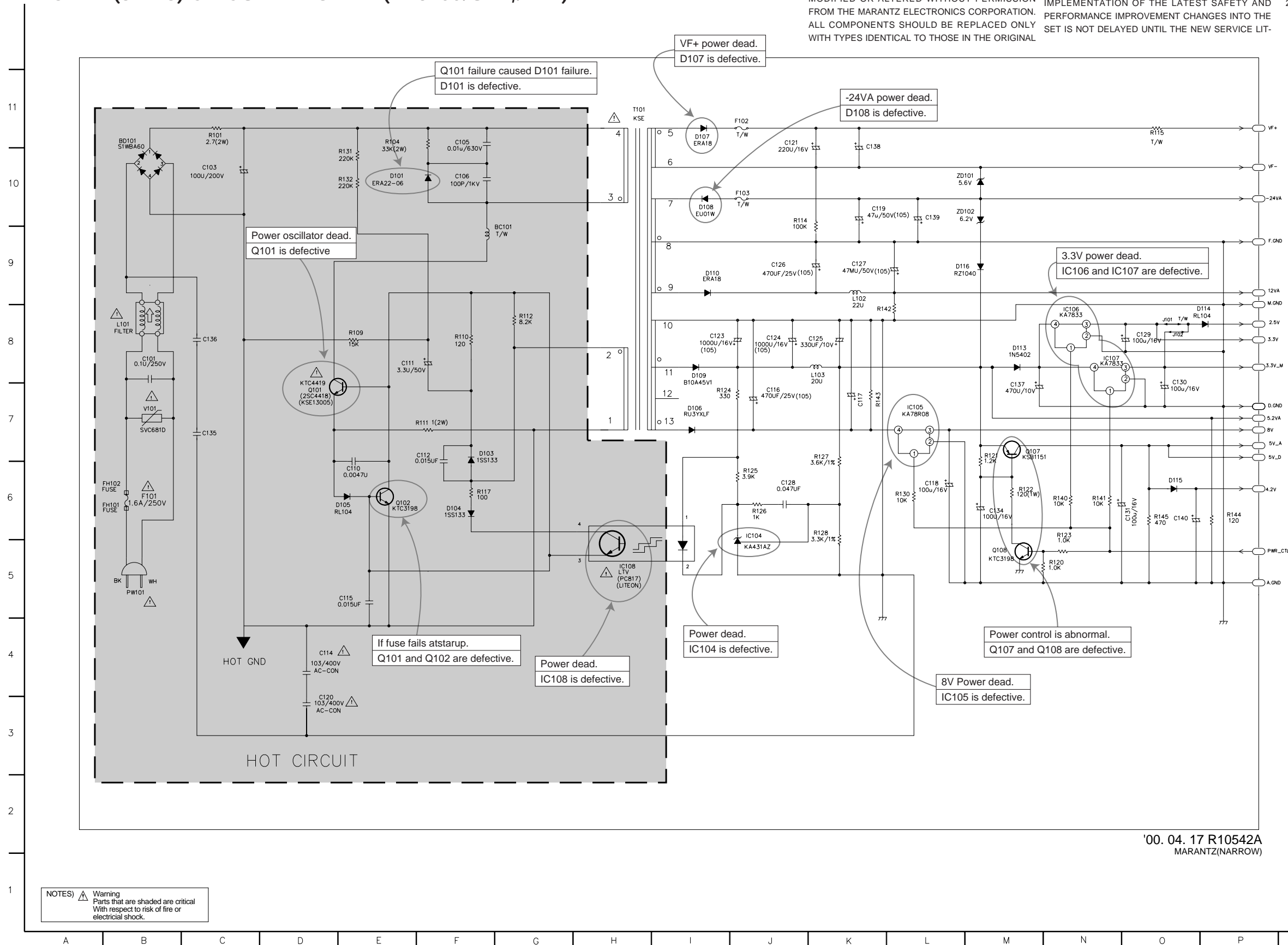
CIRCUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LIT-

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

C101	B8
C103	C10
C105	F11
C106	F10
C110	E6
C111	E8
C112	F7
C114	D4
C115	E5
C116	J7
C117	K7
C118	L6
C119	K10
C120	D3
C121	J11
C123	I8
C124	J8
C125	K8
C126	J9
C127	K9
C128	J6
C129	O8
C130	O7
C131	O6
C134	M6
C135	C7
C136	C8
C137	M7
C138	K10
C139	L10
C140	O6
D101	E10
D103	F7
D104	F6
D105	D6
D106	I7
D107	I11
D108	I10
D109	I8
D110	I9
D113	M8
D114	O8
D115	O6
D116	L9
F102	J11
F103	J10
FH101	B6
FH102	B6
IC104	J6
IC105	L7
IC106	N8
IC107	N8
IC108	H5
J101	O8
J102	O8
L101	B8
L102	K9
L103	K8
Q101	D7
Q102	E6
Q107	M7
Q108	M5
R101	C11
R104	E11
R109	E8
R110	F8
R111	F7
R112	G8
R114	J10
R115	O11
R117	F6
R120	N5
R121	M7
R122	M6
R123	N6
R124	I7
R125	J6
R126	J6
R127	K7
R128	K6
R130	L6
R131	E10
R132	E10
R140	N6
R141	N6
R142	K8
R143	K7
R144	P6
R145	O6
T101	H11
V101	B7
ZD101	L10
ZD102	L10



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NOTES) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electrical shock.

1. POWER(SMPS) CIRCUIT DIAGRAM (DV3100/A1B,/N1B)

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 SER-

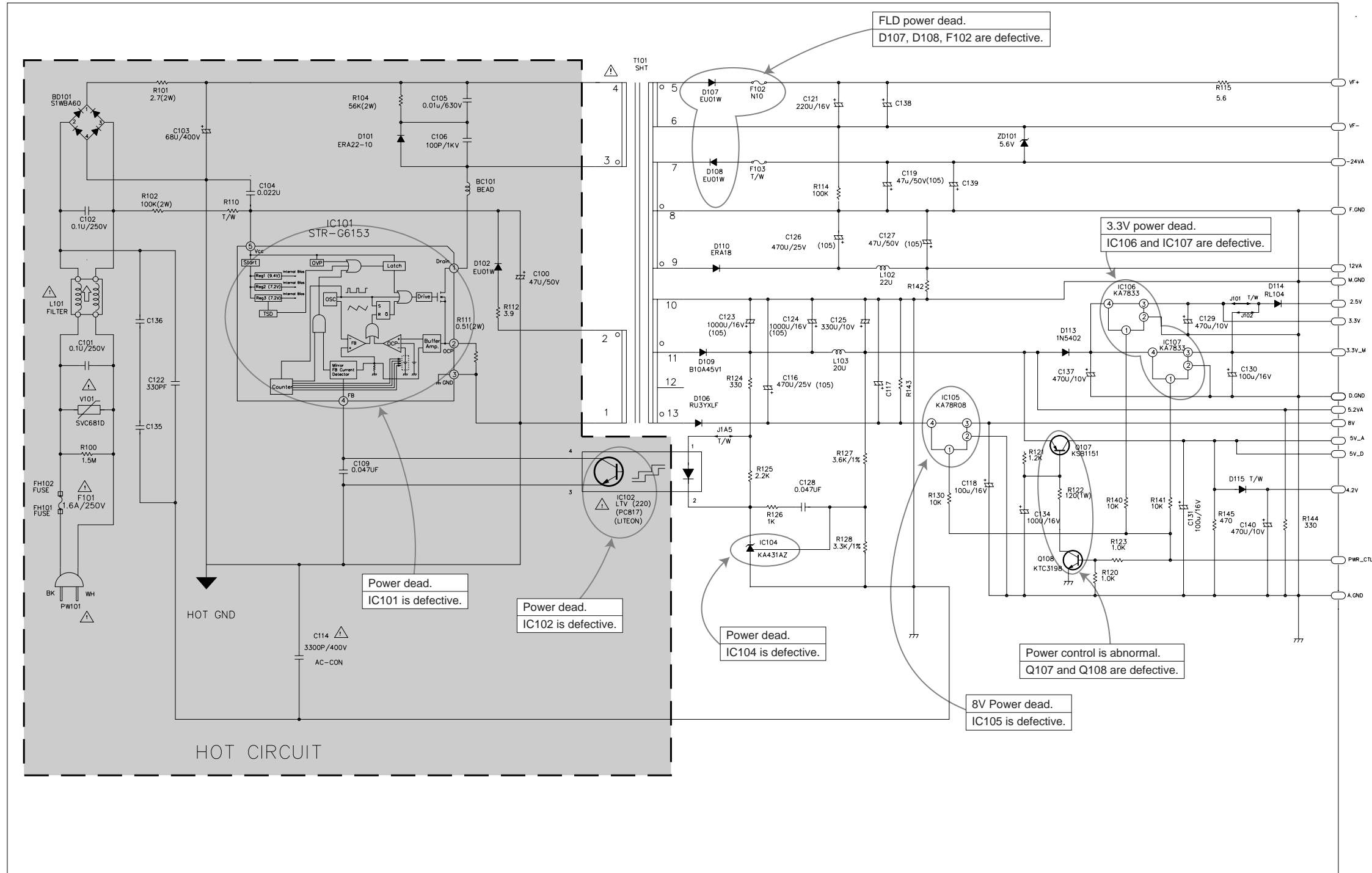
VICE LITERATURE IS PRINTED.

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
BD101	B11
C100	G9
C101	B8
C102	B9
C103	C10
C104	D10
C105	F11
C106	F10
C109	E6
C114	E4
C116	J7
C117	K7
C118	L6
C119	K10
C121	J11
C122	C7
C123	I8
C124	J8
C125	K8
C126	J9
C127	K9
C128	J6
C129	O8
C130	O7
C131	O6
C134	M6
C135	C7
C136	C8
C137	M7
C138	K10
C139	L10
C140	O6
D101	P7
D102	F9
D106	I7
D107	I11
D108	I10
D109	I8
D110	I9
D113	MB
D114	O8
D115	O6
F102	J11
F103	J10
FH101	B6
FH102	B6
IC101	E9
IC102	H6
IC104	J6
IC105	L7
IC106	N8
IC107	N8
J101	O8
J102	O8
J1A5	I7
L101	B8
L102	K9
L103	K8
PW101	B5
Q107	M7
Q108	M5
R100	B7
R101	C11
R102	C9
R104	E11
R110	D9
R111	F8
R112	G8
R114	J10
R115	O11
R120	N5
R121	M7
R122	M6
R123	N6
R124	I7
R125	J6
R126	J6
R127	K7
R128	K6
R130	L6
R140	N6
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R144	P6
R145	O6
T101	H11
V101	B7
ZD101	L10

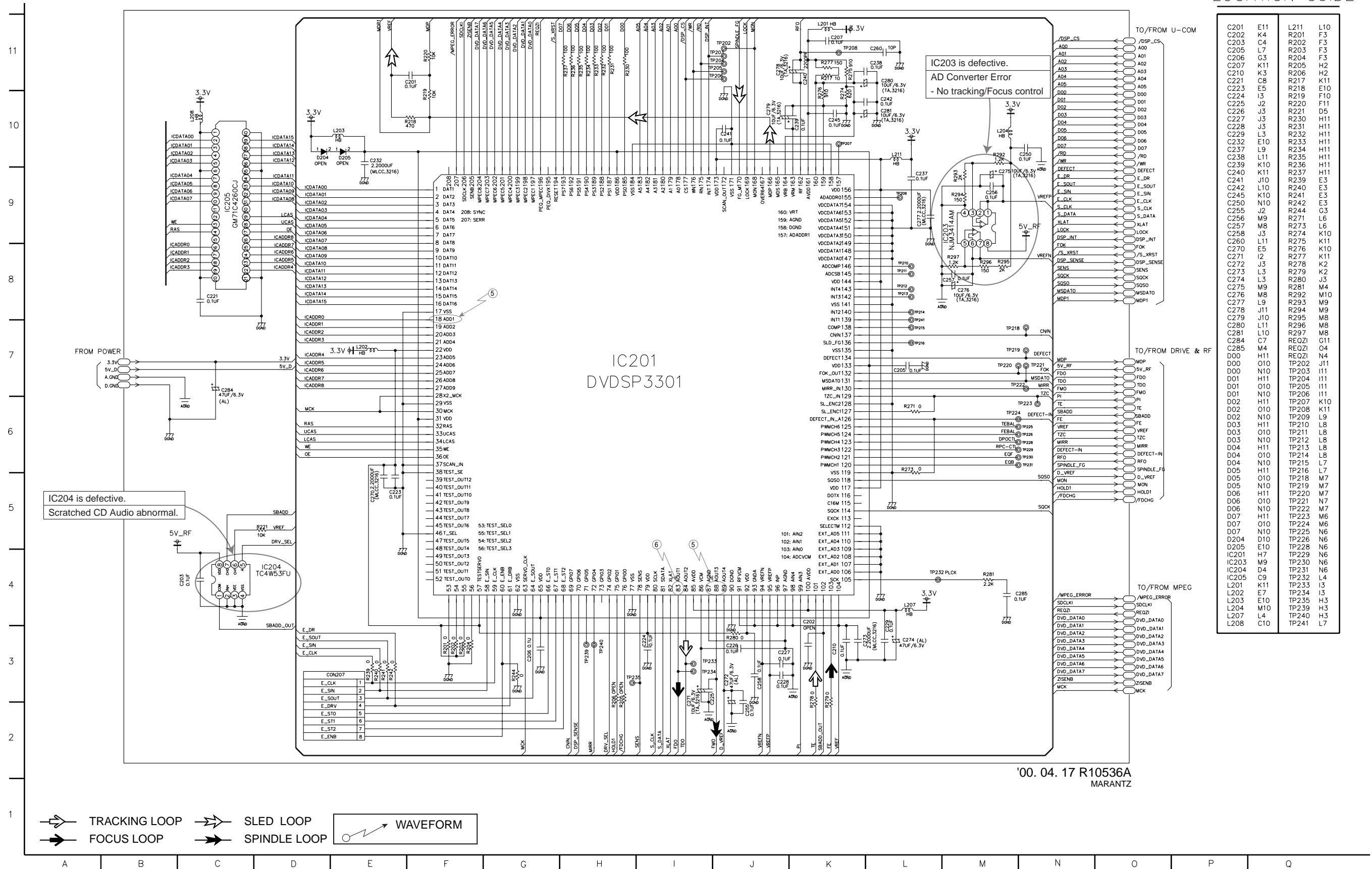


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MARANTZ(WIDE)

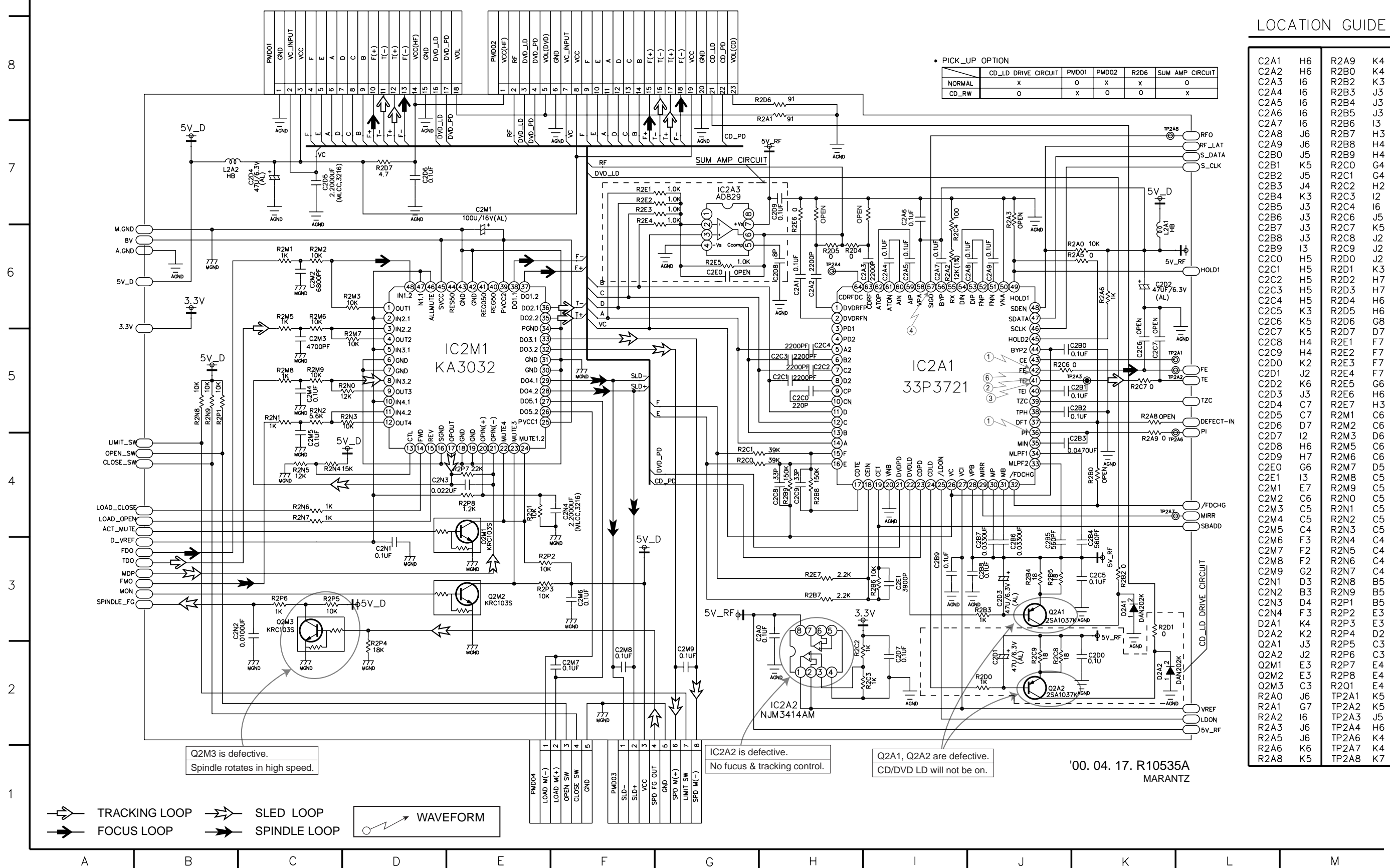
NOTES Warning
Parts that are shaded are critical
With respect to risk of fire or
electrical shock.

2. DVD DSP CIRCUIT DIAGRAM

LOCATION GUIDE



3. DRIVE & RF CIRCUIT DIAGRAM



LOCATION GUIDE

C2A1	H6	R2A9	K4
C2A2	H6	R2B0	K4
C2A3	I6	R2B2	K3
C2A4	I6	R2B3	J3
C2A5	I6	R2B4	J3
C2A6	I6	R2B5	J3
C2A7	I6	R2B6	I3
C2A8	J6	R2B7	H3
C2A9	J6	R2B8	H4
C2B0	J5	R2B9	H4
C2B1	K5	R2C0	G4
C2B2	J5	R2C1	G4
C2B3	J4	R2C2	H2
C2B4	K3	R2C3	I2
C2B5	J3	R2C4	I6
C2B6	J3	R2C6	J5
C2B7	J3	R2C7	K5
C2B8	J3	R2C8	J2
C2B9	I3	R2C9	J2
C2C0	H5	R2D0	J2
C2C1	H5	R2D1	K3
C2C2	H5	R2D2	H7
C2C3	H5	R2D3	H7
C2C4	H5	R2D4	H6
C2C5	K3	R2D5	H6
C2C6	K5	R2D6	G8
C2C7	K5	R2D7	D7
C2C8	H4	R2E1	F7
C2C9	H4	R2E2	F7
C2D0	K2	R2E3	F7
C2D1	J2	R2E4	F7
C2D2	K6	R2E5	G6
C2D3	J3	R2E6	H6
C2D4	C7	R2E7	H3
C2D5	C7	R2M1	C6
C2D6	D7	R2M2	C6
C2D7	I2	R2M3	D6
C2D8	H6	R2M5	C6
C2D9	H7	R2M6	C6
C2E0	G6	R2M7	D5
C2E1	I3	R2M8	C5
C2M1	E7	R2M9	C5
C2M2	C6	R2N0	C5
C2M3	C5	R2N1	C5
C2M4	C5	R2N2	C5
C2M5	C4	R2N3	C5
C2M6	F3	R2N4	C4
C2M7	F2	R2N5	C4
C2M8	F2	R2N6	C4
C2M9	G2	R2N7	C4
C2N1	D3	R2N8	B5
C2N2	B3	R2N9	B5
C2N3	D4	R2P1	B5
C2N4	F3	R2P2	E3
D2A1	K4	R2P3	E3
D2A2	K2	R2P4	D2
Q2A1	J3	R2P5	C3
Q2A2	J2	R2P6	C3
Q2M1	E3	R2P7	E4
Q2M2	E3	R2P8	E4
Q2M3	C3	R2Q1	E4
R2A0	J6	TP2A1	K5
R2A1	G7	TP2A2	K5
R2A2	I6	TP2A3	J5
R2A3	J6	TP2A4	H6
R2A5	J6	TP2A6	K4
R2A6	K6	TP2A7	K4
R2A8	K5	TP2A8	K7

* PICK_UP OPTION

	CD_LD DRIVE CIRCUIT	PMD01	PMD02	R2D6	SUM AMP CIRCUIT
NORMAL	x	o	x	x	o
CD_RW	o	x	o	o	x

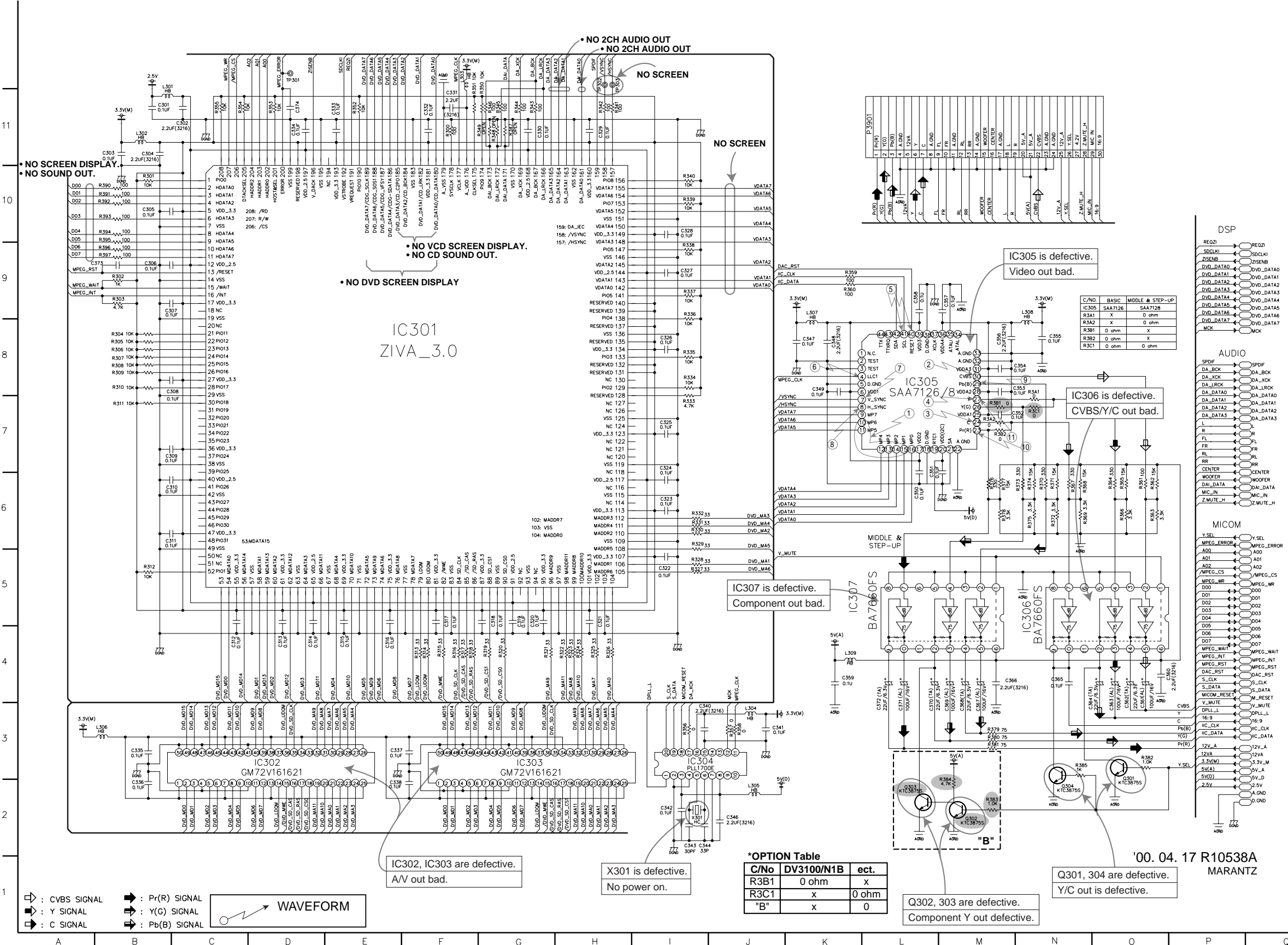
Q2M3 is defective.
Spindle rotates in high speed.

IC2A2 is defective.
No focus & tracking control.

Q2A1, Q2A2 are defective.
CD/DVD LD will not be on.

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4. MPEG CIRCUIT DIAGRAM



LOCATION GUIDE

C301	B11	IC301	E8	R382	O3
C302	C11	IC302	D3	R383	M2
C303	B11	IC303	G3	R384	M2
C304	B10	IC304	I3	R385	N3
C305	B10	IC305	L8	R390	B10
C306	B9	IC306	N4	R391	B10
C307	B9	IC307	K5	R392	B10
C308	B8	L301	B12	R393	B10
C309	B7	L302	B11	R394	B10
C310	B6	L303	B12	R395	B10
C311	B6	L304	J3	R396	B9
C312	C4	L305	J2	R397	N8
C313	D4	L306	B3	R398	B9
C314	E4	L307	K9	R399	M7
C315	D4	L308	N9	R381	M7
C316	E4	L309	K4	R382	M7
C317	F4	Q301	O2	R3C1	N7
C318	G4	Q302	M2	REOZI	E12
C319	G4	Q303	L2	REOZI	O9
C320	G4	Q304	N2	REOZI	P9
C321	H4	R300	F11	TP301	D12
C322	I5	R301	B10	TP302	H11
C323	I6	R302	B9	TP303	H11
C324	I7	R303	B9	ZISENB	D12
C325	I7	R304	B8	ZISENB	O9
C326	I8	R305	B8	ZISENB	P9
C327	I9	R306	B8		
C328	I10	R307	B8		
C329	H11	R308	B9		
C330	G11	R309	B8		
C331	F11	R310	B8		
C332	F11	R311	B7		
C333	E11	R312	B5		
C334	D11	R313	F4		
C335	B3	R314	F4		
C336	B2	R315	F4		
C337	E3	R316	F4		
C338	E2	R317	F4		
C340	I3	R318	F4		
C341	J3	R319	G4		
C342	I2	R320	G4		
C343	I2	R321	G4		
C344	I2	R322	H4		
C346	J2	R323	H4		
C347	K8	R324	H4		
C348	K8	R325	H4		
C349	K8	R326	H4		
C350	L6	R327	I5		
C351	L6	R328	I5		
C352	M7	R329	I6		
C353	M8	R330	I6		
C354	M8	R331	I6		
C355	N8	R332	I6		
C356	M8	R333	I7		
C357	M9	R334	I8		
C358	L9	R335	I8		
C359	K4	R336	I9		
C360	P4	R337	I9		
C361	O3	R338	I9		
C362	O3	R339	I10		
C363	O3	R340	I10		
C364	O3	R341	H11		
C365	N4	R342	H11		
C366	M4	R343	G11		
C367	M3	R344	G11		
C368	M3	R345	G11		
C369	M3	R346	G11		
C370	L3	R347	G11		
C371	L3	R348	G11		
C372	L3	R349	G11		
C373	A9	R350	G11		
C374	D11	R351	F11		
C375	O6	R352	E11		
C376	O6	R353	D11		
C377	O6	R354	C11		
C378	P3	R355	C11		
C379	N10	R356	I3		
C380	O2	R357	J3		
D00	A10	R358	J3		
D00	O5	R359	K9		
D00	P5	R360	K9		
D01	O5	R361	O6		
D01	P5	R362	O6		
D01	A10	R363	O6		
D02	A10	R364	O6		
D02	O5	R365	O6		
D02	P5	R366	O6		
D03	A10	R367	N6		
D03	O5	R368	N6		
D03	P5	R369	N6		
D04	A10	R370	N6		
D04	O5	R371	N6		
D04	P5	R372	N6		
D05	A10	R373	N6		
D05	O4	R374	N6		
D05	P4	R375	N6		
D06	A9	R376	M6		
D06	O4	R377	M6		
D06	P4	R378	M6		
D07	A9	R379	M3		
D07	O4	R380	M3		
D07	P4	R381	M3		

DSP

REOZI	REOZI
SDCLKI	SDCLKI
ZISENB	ZISENB
DVD_DATA0	DVD_DATA0
DVD_DATA1	DVD_DATA1
DVD_DATA2	DVD_DATA2
DVD_DATA3	DVD_DATA3
DVD_DATA4	DVD_DATA4
DVD_DATA5	DVD_DATA5
DVD_DATA6	DVD_DATA6
DVD_DATA7	DVD_DATA7
MCK	MCK

AUDIO

SPDIF	SPDIF
DA_BCK	DA_BCK
DA_KCK	DA_KCK
DA_LRCK	DA_LRCK
DA_DATA0	DA_DATA0
DA_DATA1	DA_DATA1
DA_DATA2	DA_DATA2
DA_DATA3	DA_DATA3
L	L
R	R
FR	FR
RR	RR
CENTER	CENTER
WOOFER	WOOFER
DAI_DATA	DAI_DATA
MIC_IN	MIC_IN
Z.MUTE_H	Z.MUTE_H

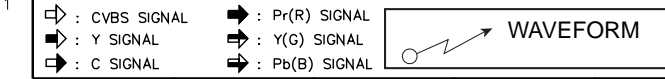
MICOM

Y_SEL	Y_SEL
MPEG_ERROR	MPEG_ERROR
A00	A00
A01	A01
A02	A02
MPEG_CS	MPEG_CS
MPEG_WR	MPEG_WR
D00	D00
D01	D01
D02	D02
D03	D03
D04	D04
D05	D05
D06	D06
D07	D07
MPEG_WAIT	MPEG_WAIT
MPEG_INT	MPEG_INT
MPEG_RST	MPEG_RST
DAC_RST	DAC_RST
S_CLK	S_CLK
S_DATA	S_DATA
MICOM_RESE	MICOM_RESE
V_MUTE	V_MUTE
DPLL_L	DPLL_L
16.9	16.9
IC_CLK	IC_CLK
IC_DATA	IC_DATA
P(R)	P(R)
12V_A	12V_A
12V_B	12V_B
3.3V(M)	3.3V(M)
5V_A	5V_A
5V_D	5V_D
2.5V	2.5V
A_GND	A_GND
0_GND	0_GND

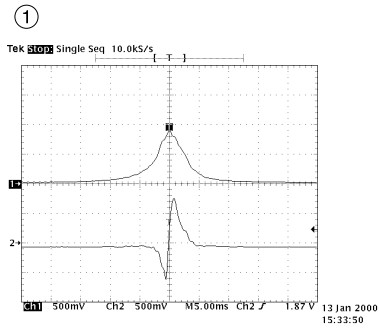
*OPTION Table

C/No	DV3100/N1B	ect.
R3B1	0 ohm	x
R3C1	x	0 ohm
"B"	x	0

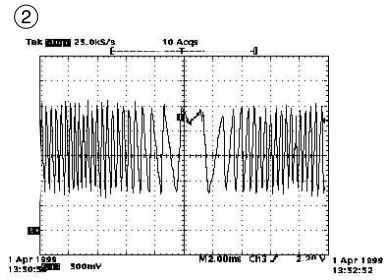
'00. 04. 17 R10538A
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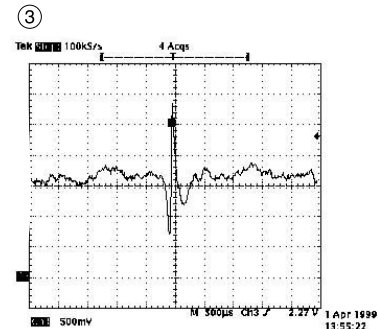
• WAVEFORMS (RF/SERVO)



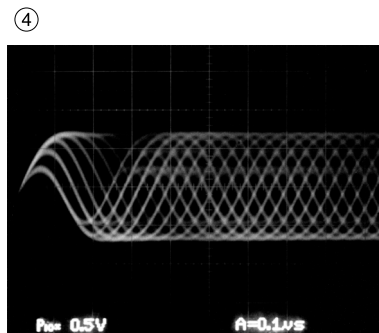
IC2A1 Pin 42, Focus Error
IC2A1 Pin 36, Pi



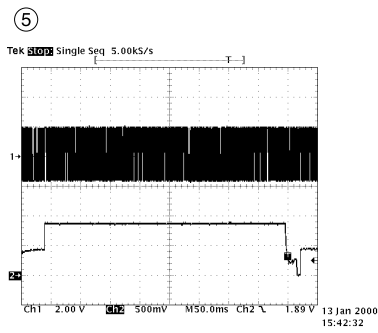
IC2A1 Pin 41
Tracking Error



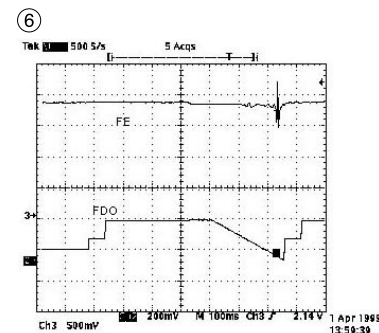
IC2A1 Pin 41
VBR TRACKING Error



IC2A1 Pin 57,
RF

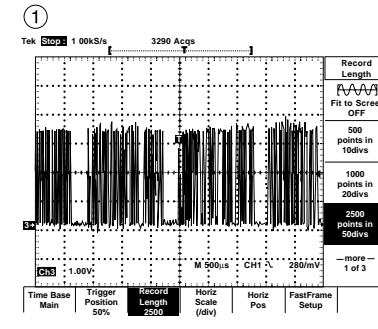


IC201 Pin 88, SLED Drive(FMO)
IC201 Pin 18, SLED FG

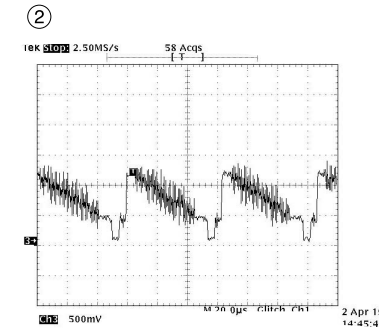


IC2A1 Pin42, Focus Error(in Focus Search)
IC201 Pin 83, Focus Drive(FDO)

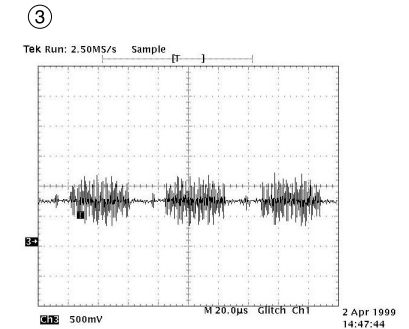
(VIDEO ENCODER)



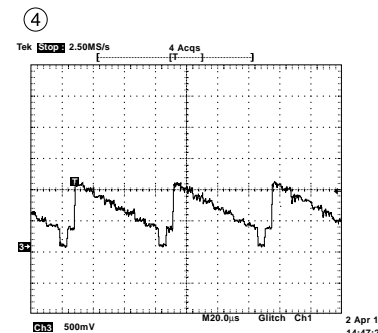
IC305 Pins 9~16, MPEG Data



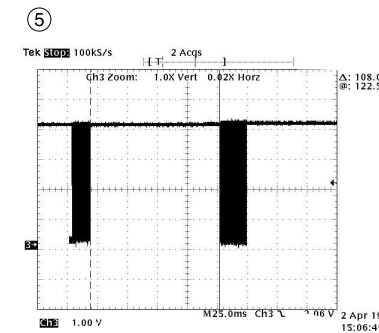
IC305 Pin 30, Composite



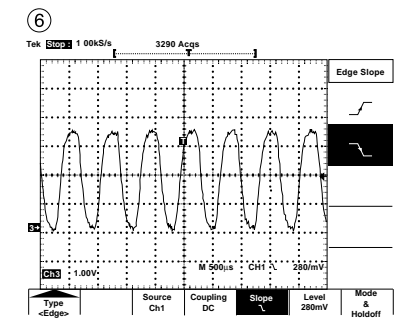
IC305 Pin 24, Chrominance



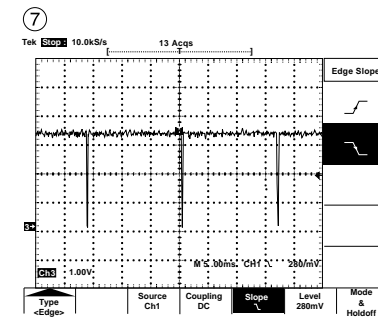
IC305 Pin 27, Luminance



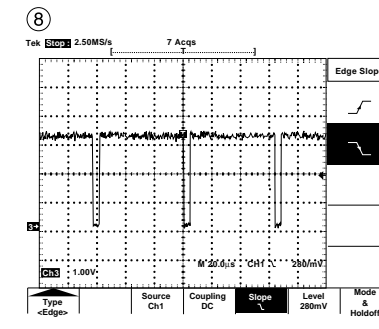
IC305 Pins 40, 41 SDA/SCL



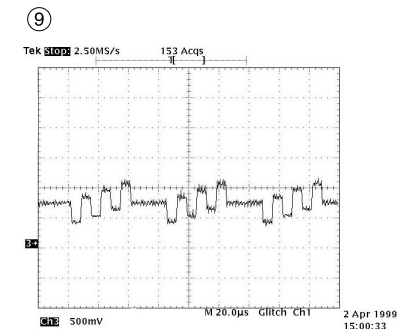
IC305 Pin 4, MPEG Clock(27MHz)



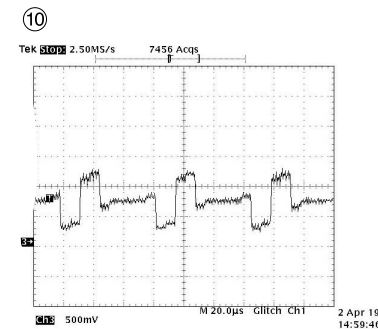
IC305 Pin 7, Vertical SYNC



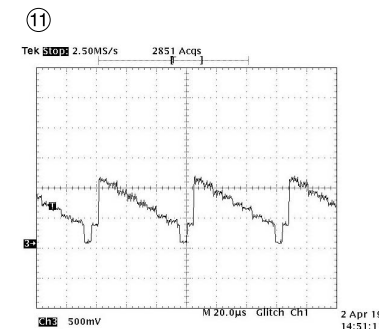
IC305 Pin 8 Horizontal SYNC



IC305 Pin 29 Component Pb

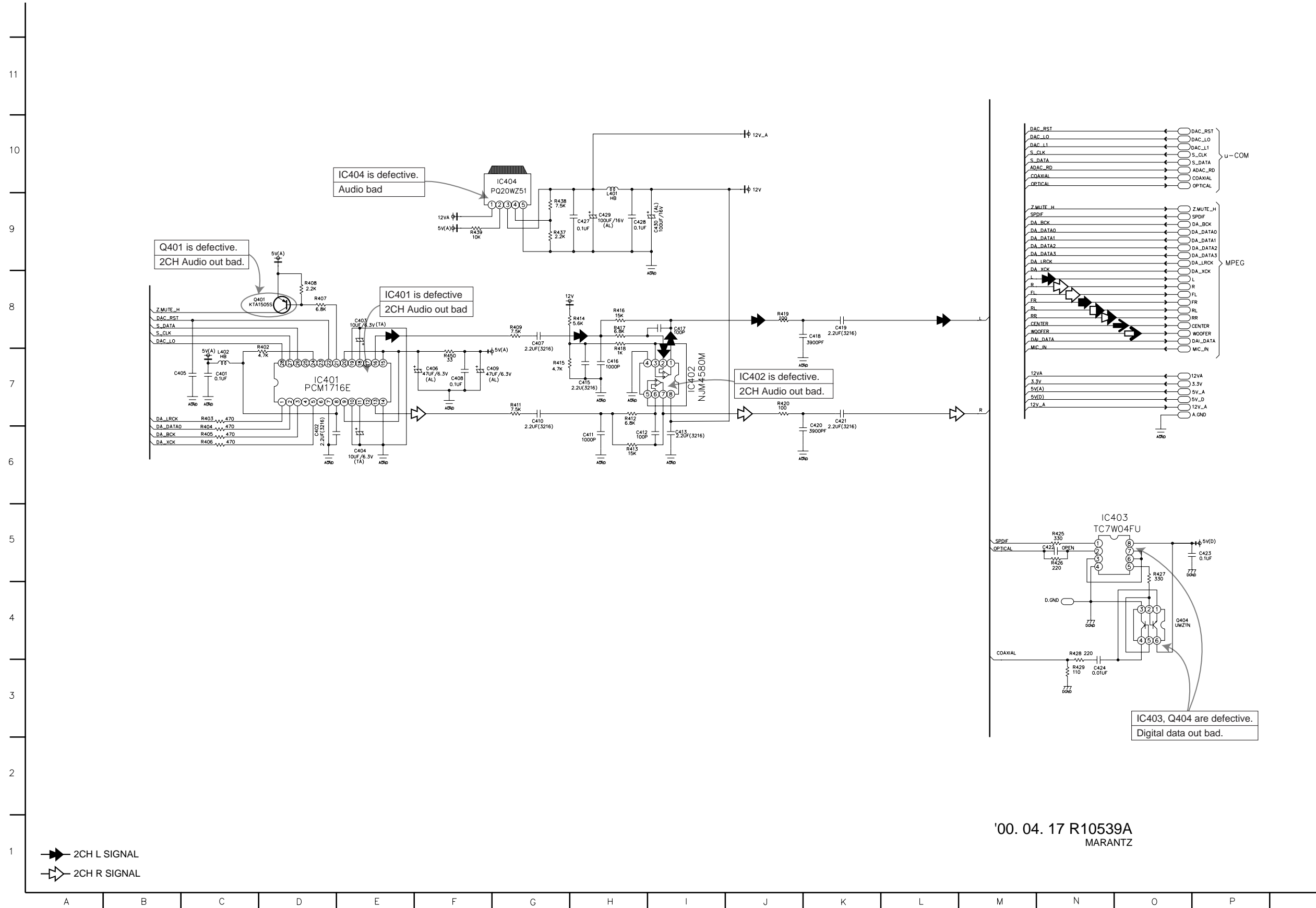


IC305 Pin 23 Component Pr



IC305 Pin 27 Component Y

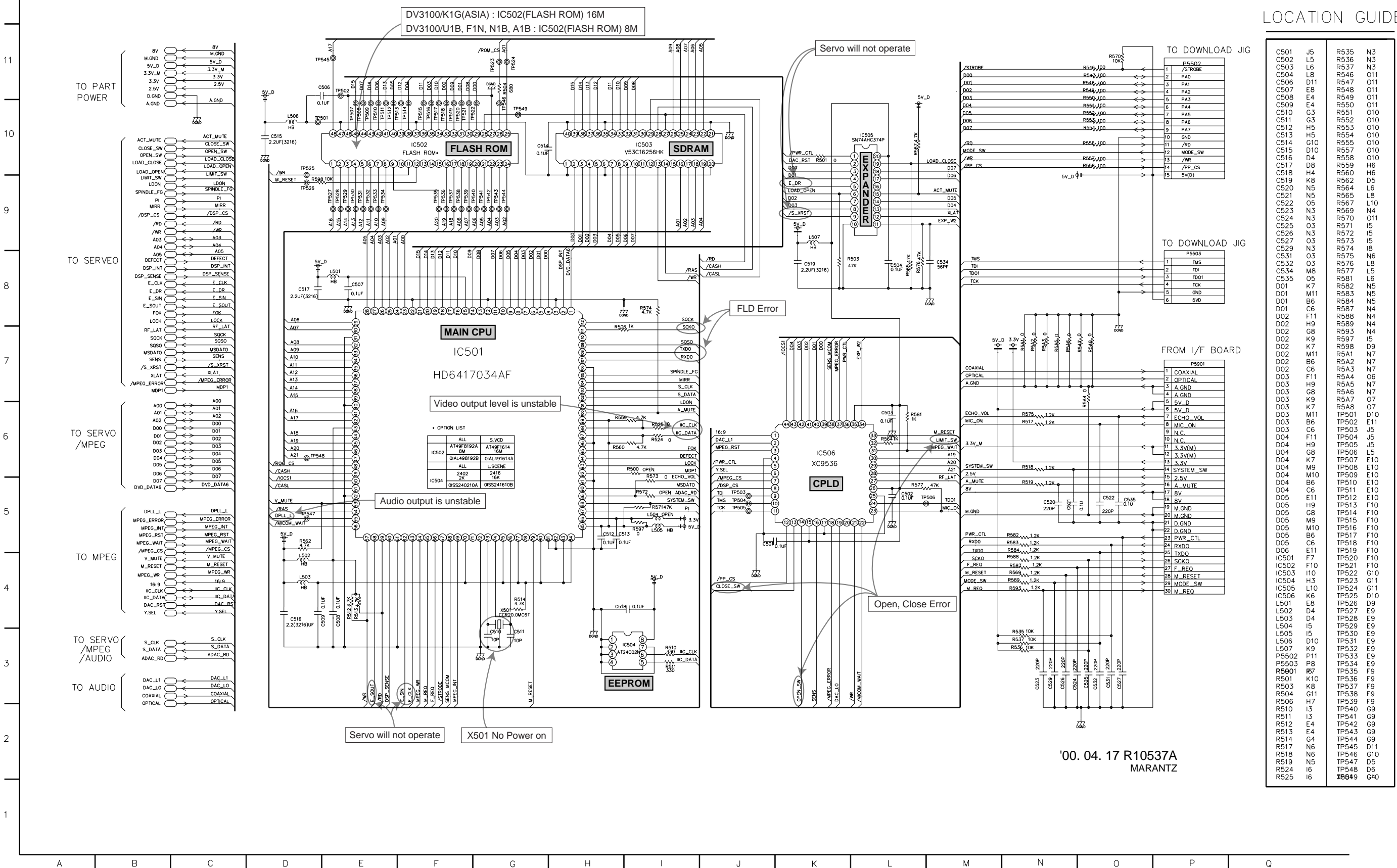
5. AUDIO DM & 5.1CH CIRCUIT DIAGRAM



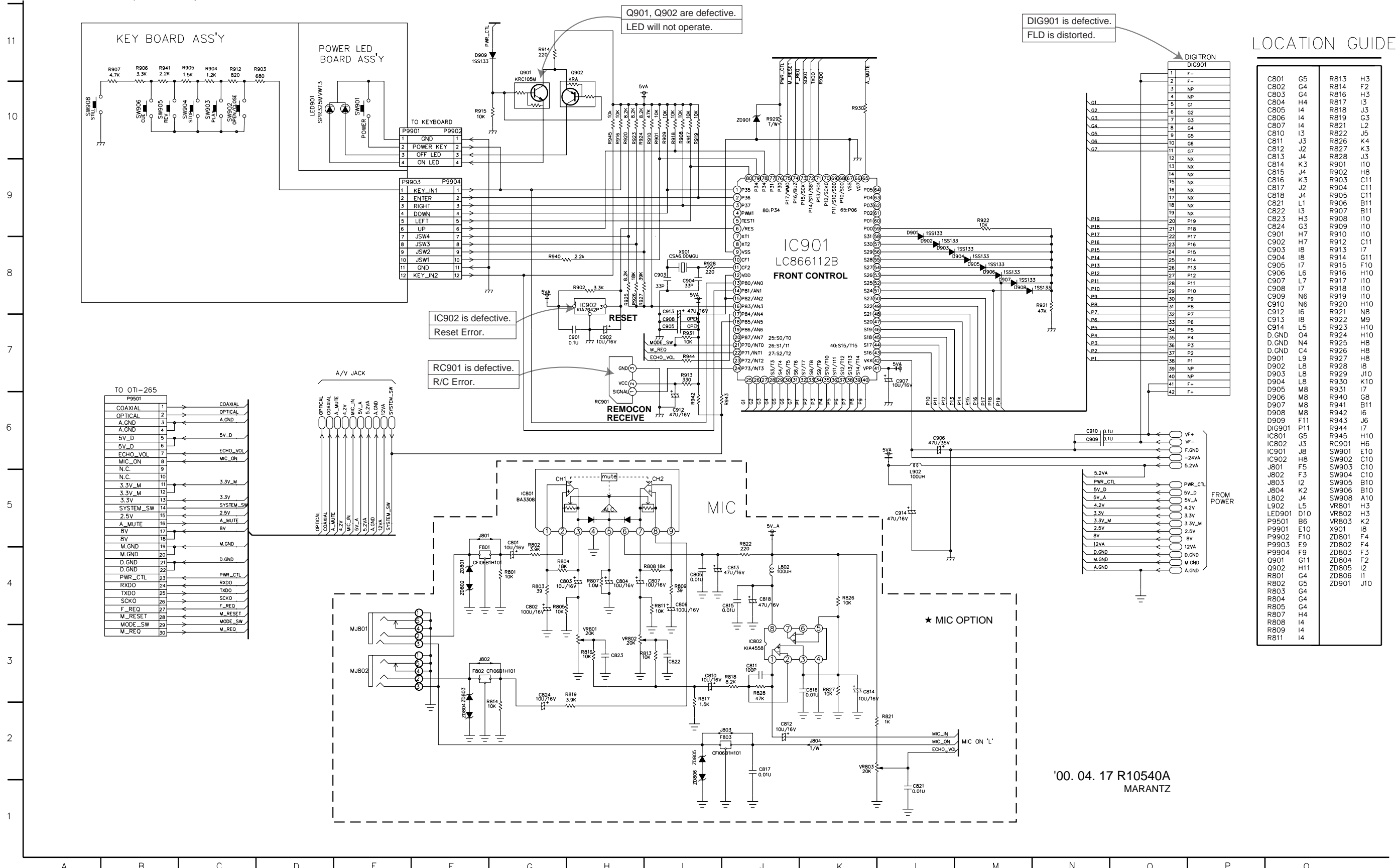
'00. 04. 17 R10539A
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6. μ-COM/EXPANDER CIRCUIT DIAGRAM

LOCATION GUIDE



7. DIGITRON(TIMER) & KEY CIRCUIT DIAGRAM

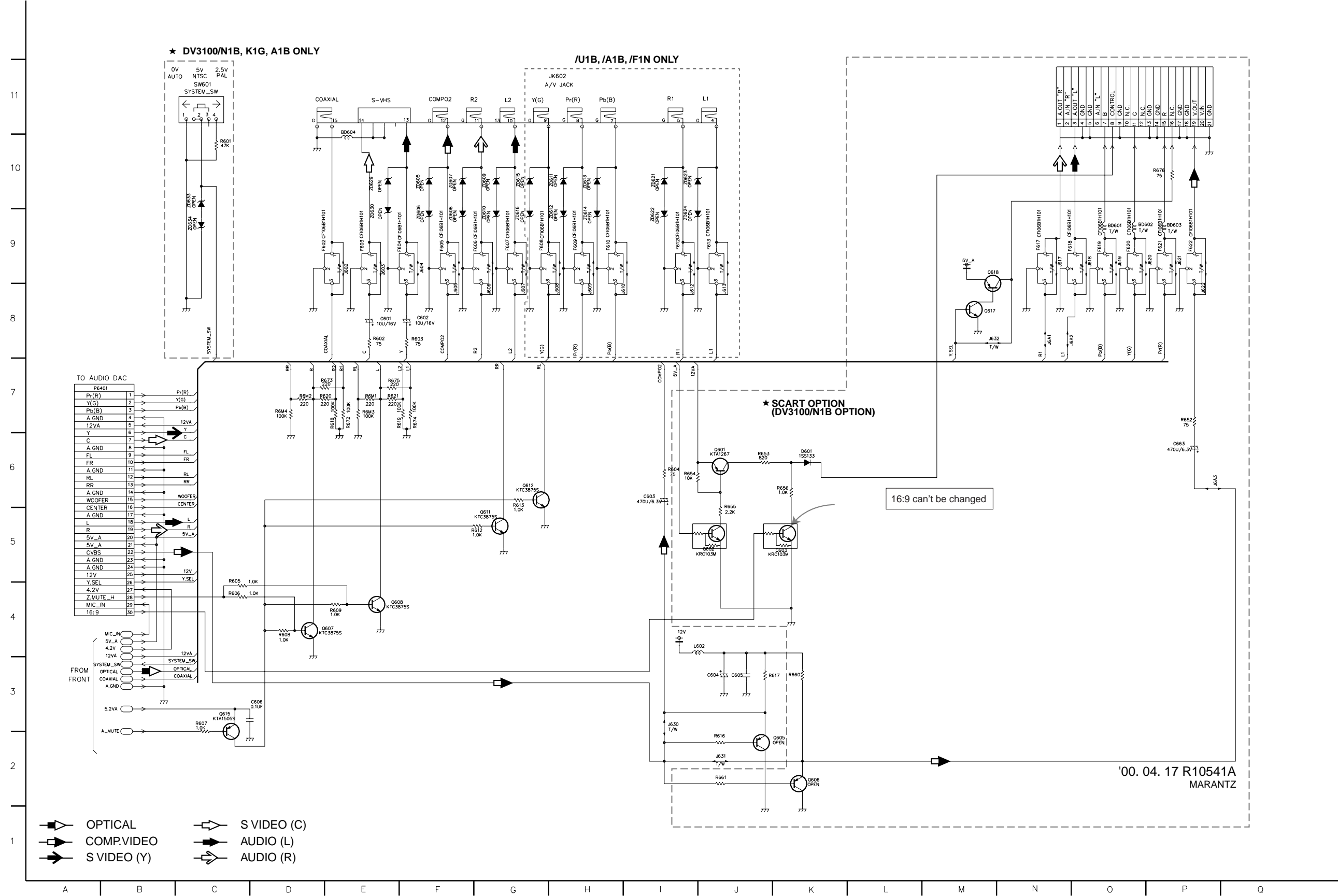


LOCATION GUIDE

C801	G5	R813	H3
C802	G4	R814	F2
C803	G4	R816	H3
C804	H4	R817	I3
C805	I4	R818	J3
C806	I4	R819	G3
C807	I4	R821	L2
C810	I5	R822	J5
C811	J3	R826	K4
C812	J2	R827	K3
C813	J4	R828	J3
C814	K3	R901	I10
C815	J4	R902	H8
C816	K3	R903	C11
C817	J2	R904	C11
C818	J4	R905	C11
C821	L1	R906	B11
C822	I3	R907	B11
C823	H3	R908	I10
C824	G3	R909	I10
C901	H7	R910	I10
C902	H7	R912	C11
C903	I8	R913	I7
C904	I8	R914	G11
C905	I7	R915	F10
C906	L6	R916	H10
C907	L7	R917	I10
C908	I7	R918	I10
C909	N6	R919	I10
C910	N6	R920	H10
C912	I6	R921	N8
C913	I8	R922	M9
C914	L5	R923	H10
D.GND	O4	R924	H10
D.GND	N4	R925	H8
D.GND	C4	R926	H8
D901	L9	R927	H8
D902	L8	R928	I8
D903	L8	R929	J10
D904	L8	R930	K10
D905	M8	R931	I7
D906	M8	R940	B8
D907	M8	R941	G11
D908	M8	R942	I6
D909	F11	R943	J6
DIG901	P11	R944	I7
IC801	G5	R945	H10
IC802	J3	RC901	H6
IC901	J8	SW901	E10
IC902	H8	SW902	C10
J801	F5	SW903	C10
J802	F3	SW904	C10
J803	I2	SW905	B10
J804	K2	SW906	B10
L802	J4	SW908	A10
L902	L5	VR801	H3
L903	L5	VR802	H3
LED901	D10	VR803	K2
P9501	B6	VR803	K2
P9901	E10	X901	I8
P9902	F10	ZD801	F4
P9903	E9	ZD802	F4
P9904	F9	ZD803	F3
Q901	G11	ZD804	F2
Q902	H11	ZD805	I2
R801	G4	ZD806	I1
R802	G5	ZD901	J10
R803	G4		
R804	G4		
R805	G4		
R807	H4		
R808	I4		
R809	I4		
R811	I4		

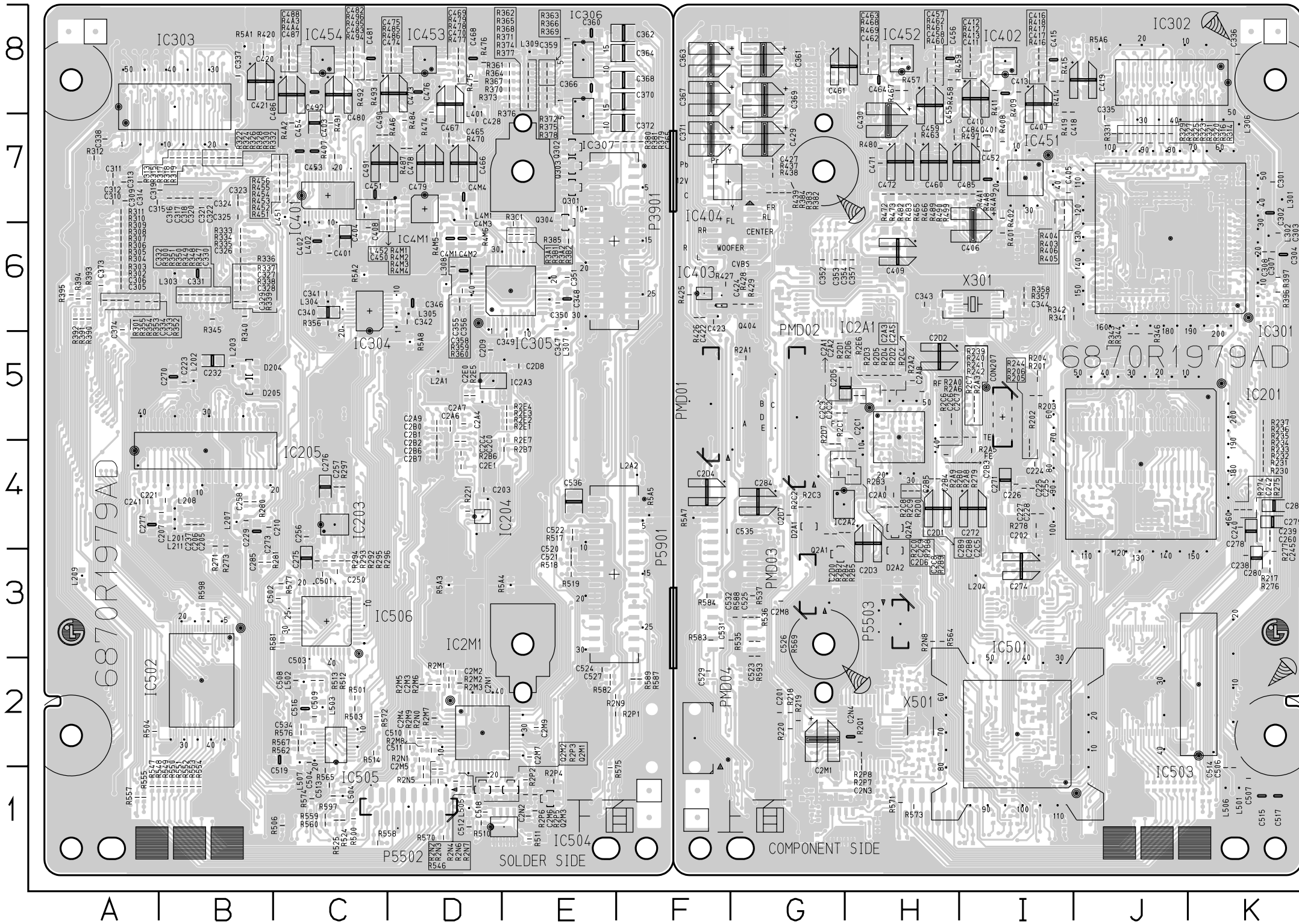
'00. 04. 17 R10540A
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8. JACK CIRCUIT DIAGRAM



PRINTED CIRCUIT DIAGRAMS

1. MAIN P.C.BOARD



LOCATION GUIDE

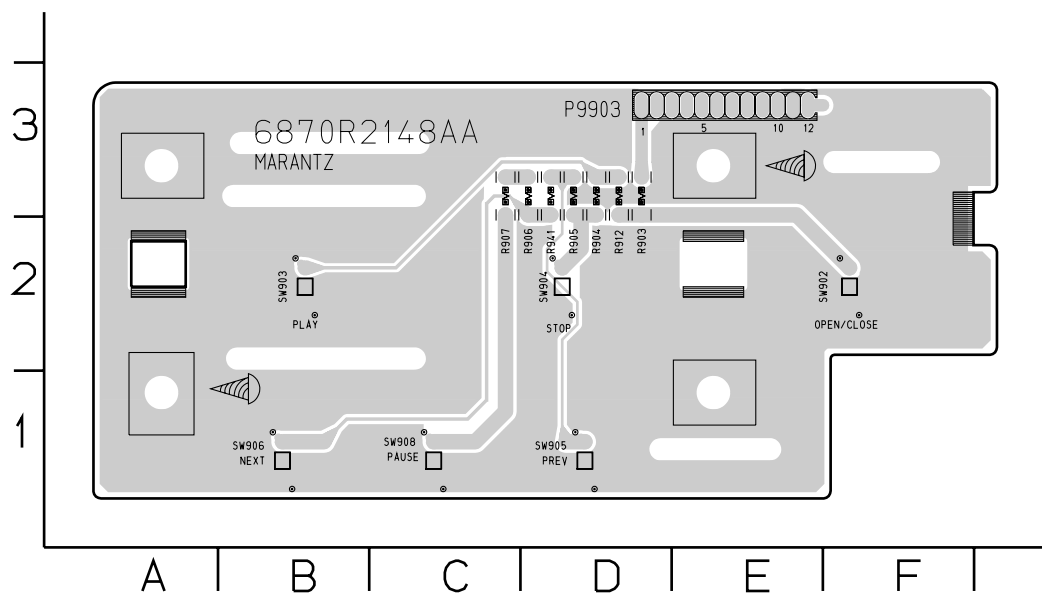
(TOP SIDE)

C203	D4	C315	A7	C450	C7	IC204	D4	R271	B4	R312	A7	R381	F7	R510	D1
C205	B4	C316	B7	C451	C7	IC205	B4	R272	B7	R313	B7	R385	E6	R511	E1
C206	B4	C317	B7	C452	C7	IC2A3	D5	R280	B4	R315	B7	R390	A6	R512	C2
C207	E2	C318	A7	C453	C7	IC2M1	D2	R281	B3	R317	B7	R391	A6	R513	C2
C210	B4	C319	B7	C455	D7	IC303	B8	R282	C3	R318	B7	R392	A6	R514	C2
C221	B4	C320	B7	C466	D7	IC304	C6	R293	C3	R319	B7	R393	A6	R517	E4
C223	B5	C321	B7	C467	D8	IC305	E6	R294	C3	R322	B7	R394	A6	R518	E3
C229	B4	C322	B7	C468	D8	IC306	E8	R295	C3	R324	B7	R395	A6	R519	E3
C232	E5	C323	B7	C469	D8	IC307	E7	R296	C3	R326	B7	R3A1	E6	R524	C1
C237	B4	C324	B7	C470	D8	IC401	C7	R297	C4	R328	B7	R3A2	E6	R525	C1
C241	A4	C325	B7	C473	D8	IC453	D8	R286	D4	R330	B7	R3B1	E6	R546	D1
C250	C3	C326	B6	C474	D8	IC454	C8	R287	E4	R332	B7	R3B2	E6	R547	A1
C256	C4	C327	B6	C475	D8	IC4M1	D7	R2E1	E5	R333	B6	R3C1	E6	R548	A1
C257	C4	C328	B6	C476	D8	IC502	D7	R2E2	E5	R334	B6	R407	C7	R549	B1
C258	B4	C329	B6	C478	D7	IC504	E1	R2E3	E5	R335	B6	R420	B8	R550	B1
C270	B5	C330	B6	C479	D7	IC505	C2	R2E4	E5	R336	B6	R451	C7	R551	B1
C273	B4	C331	B6	C480	C8	IC506	C3	R2E5	D6	R337	B6	R452	C7	R552	B1
C275	C3	C332	B6	C481	C8	L201	B4	R2E7	E4	R338	B6	R453	C7	R553	B1
C276	C4	C333	A6	C482	C8	L202	B5	R2M1	D2	R339	B6	R454	C7	R554	B1
C277	A4	C334	A6	C483	B6	L203	B6	R2M2	D2	R340	B6	R455	C7	R555	A1
C285	D3	C337	B8	C486	C8	L207	B4	R2M3	D2	R345	B6	R456	C7	R557	A1
C2A4	D5	C338	A7	C487	C8	L208	B4	R2M5	D2	R347	B6	R470	D7	R558	C1
C2A6	D5	C340	C6	C488	C8	L209	A3	R2M6	D2	R348	B6	R474	D8	R559	C1
C2A7	D5	C341	C6	C490	C7	L211	B4	R2M7	D2	R349	B6	R475	D8	R560	C1
C2A8	D5	C342	D6	C491	C7	L21	D5	R2M8	D2	R350	B6	R476	D8	R562	C2
C2B2	D4	C343	D6	C492	C8	L2A2	F4	R2M9	D2	R351	B6	R477	D8	R565	C1
C2B1	D5	C347	E6	C4M1	D6	L303	B6	R2N0	D2	R352	A6	R478	D8	R567	C2
C2B2	D4	C348	E5	C4M2	D6	L304	C6	R2N1	D2	R353	A6	R479	D8	R570	D1
C2B6	D4	C349	E5	C4M3	D7	L305	D6	R2N2	D1	R354	A6	R484	D7	R572	C2
C2B7	D4	C350	E6	C4M4	D7	L307	E6	R2N3	D1	R355	A6	R485	D8	R574	C1
C2B8	D5	C351	E6	C4M5	D7	L308	E6	R2N4	D1	R356	A6	R486	D8	R575	C1
C2C4	D4	C355	D6	C502	C3	L309	E8	R2N5	D1	R359	D6	R487	D7	R576	C2
C2D8	E5	C356	D6	C503	C2	L401	D8	R2N6	D1	R360	D6	R491	C7	R577	C3
C2D9	D5	C358	D6	C504	C2	L402	C6	R2N7	D1	R361	E8	R492	C8	R581	C3
C2E0	D5	C359	E8	C508	C2	L451	C7	R2N9	E2	R362	E8	R493	C8	R582	E2
C2E1	D5	C360	E8	C509	C2	L452	C7	R2P1	E2	R363	E8	R494	C8	R587	F2
C2M2	D2	C362	F9	C510	D2	L4M1	D7	R2P2	E1	R364	E8	R495	C8	R589	F2
C2M3	D2	C364	F8	C511	D2	L502	C2	R2P3	D1	R365	E8	R496	C8	R597	C1
C2M4	D2	C365	F7	C512	D1	L503	C2	R2P4	E1	R366	E8	R4A2	C7	R598	B3
C2M5	D1	C366	E8	C513	C1	L504	C1	R2P5	E1	R367	E8	R4A3	C8	R5A1	B6
C2M6	E1	C368	E8	C516	C2	L505	D1	R2P6	E1	R368	E8	R4A4	C8	R5A2	B6
C2M7	E1	C369	E8	C518	D2	L507	D1	R2P7	E1	R369	E8	R4A5	C8	R5A3	D1
C2M8	E2	C372	F7	C519	C2	P3901	E6	R301	A6	R370	E8	R4M1	C7	R5A4	E3
C2N1	D2	C373	A6	C520	E3	P5502	D1	R302	A6	R371	E8	R4M2	C7	R5A5	E4
C2N2	E1	C374	A6	C521	E3	P5901	E3	R303	A6	R372	E8	R4M3	C7	R5A8	D5
C305	A6	C401	C6	C522	E4	Q2M1	E1	R304	A6	R373	E8	R4M4	C6	TP206	A4
C306	A6	C402	C6	C524	E2	Q2M2	D1	R305	A6	R374	E8	R4M5	C6	TP207	A4
C309	A7	C403	C6	C527	E2	Q2M3	E1	R306	A6	R375	E8	R4M6	D6	TP217	D4
C310	A7	C404	C6	C534	C2	Q31	E7	R307	A6	R376	E8	R500	C1	TP301	A5
C311	A7	C408	C6	C536	E4	Q302	E7	R308	A6	R377	E8	R501	C2		
C312	A7	C420	B8	C503	E7	Q309	A6	R309	A6	R378	E8	R503	C2		
C313	A7	C421	B8	D205	B5	Q304	E6	R310	A7	R379	F7	R504	A2		
C314	A7	C428	D7	IC293	C4	R221	D4	R311	A7	R380	F7	R506	C1		

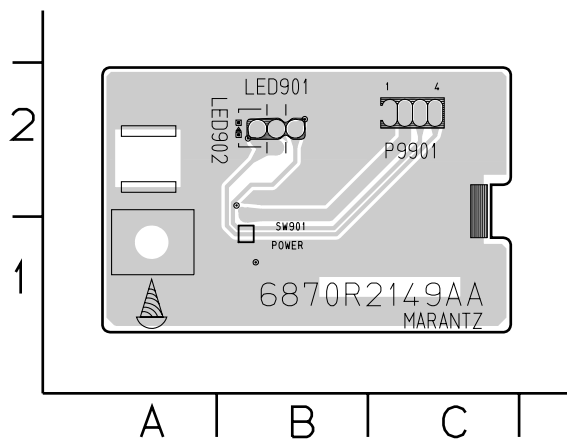
(BOTTOM SIDE)

C201	G2	C2M1	G2	C461	G8	Q404	F6	R2C4	H5	R414	I8	R593	G3	TP506	H3
C202	I4	C2M8	G3	C462	H8	R201	I5	R2C5	H5	R415	I8	R5A6	J8	TP507	J2
C224	I4	C2N3	H1	C463	H8	R202	I5	R2C7	I5	R416	I8	R5A7	F4	TP508	J2
C225	I4	C2N4	H2	C464	H8	R203	I5	R2C8	H4	R417	I8	TP202	K4	TP509	J2
C226	I4	C301	K7	C471	H7	R204	I5	R2C9	H4	R418	I8	TP203	K4	TP510	K2
C227	I4	C302	K7	C472	H7	R205	I4	R2D1	H4	R419	I8	TP204	K4	TP511	J2
C228	I4	C303	K6	C484	H7	R206	I4	R2D1	G5	R419	I8	TP205	K4	TP512	K2
C238	K3	C304	K6	C485	I7	R217	K3	R2D2	H5	R425	F6	TP207	K4	TP513	J2
C239	K3	C307	K6	C506	K1	R218	G2	R2D3	H5	R426	F6	TP208	K4	TP514	K2
C240	K4	C308	K6	C507	K1	R219	G2	R2D4	H5	R427	F6	TP209	K3	TP515	J2
C242	K4	C335	J7	C522	G2	R220	G2	R2D5	H5	R428	F6	TP210	J3	TP516	K2
C243	K3	C336	K8	C515	K1	R230	K4	R2D6	H5	R429	G6	TP211	K3	TP517	J2
C255	I4	C343	H6	C517	K1	R231	K4	R2D7	G4	R437	G7	TP212	J3	TP518	K2
C260	K4	C344	I6	C523	G3	R232	K4	R2E6	H5	R438	G7	TP213	J3	TP519	J2
C271	I4	C352	G6	C525	G3	R233	K4	R2N8	H3	R439	G7	TP214	J3	TP520	J1
C272	I4	C353	G6	C526	G3	R234	K4	R2P7	H2	R457	H8	TP215	J3	TP521	J2
C274	I3	C354	G6	C529	F2	R235	K5	R2P8	H2	R458	H8	TP216	J3	TP522	J1
C278	K4	C357	H6	C531	F3	R236	K5	R2Q1	H2	R459	H8	TP218	J3	TP523	J2
C279	K4	C361	G8	C532	G3	R237	K5	R314	J7	R460	H8	TP219	J3	TP524	K3
C280	K3	C363	F8	C535	F4	R239	I5	R316	J7	R461	H8	TP220	J3	TP525	K2
C281	K4	C367	F8	CON207	I5	R240	I5	R320	J7	R462	H8	TP221	J3	TP526	J3
C284	K4	C369	G8	D2A1	G4	R241	I5	R321	J7	R463	H7	TP222	J3	TP527	J3
C2A0	H4	C405	H7	D2A2	H9	R242	I5	R323	J7	R465	H7	TP223	J3	TP528	J3
C2A1	H5	C405	I7	IC201	J4	R244	I4	R325	J7	R466	H7	TP224	I3	TP529	J3
C2A2	H5	C406	I6	IC2A1	H5	R274	K4	R327	J7	R467	H8	TP225	J3	TP530	J3
C2A3	H5	C407	I8	IC2A2	G4	R275	K4	R329	J7	R468	H8	TP226	J3	TP531	J3
C2A5	H5	C409	H6	IC301	J6	R276	K3	R331	J7	R469	H8	TP228	J3	TP532	J2
C2A8	H5	C410	I8	IC302	J8	R277	K3	R341	J6	R472	H7	TP229	J3	TP533	J2
C2B3	H4	C411	I8	IC402	I8	R278	I4	R342	J6	R473	H7	TP230	J3	TP534	J2
C2B4	H4	C412	I8	IC403	F6	R279	I4	R343	J5	R480	H7	TP231	J3	TP535	J3
C2B5	H4	C413	I8	IC404	F7	R2A0	H5	R344	J5	R482	H7	TP232	J3	TP536	I3
C2B8	H4	C415	I8	IC451	I7	R2A1	G5	R346	J5	R483	H7	TP233	I4	TP537	J3
C2B9	H4	C416	I8	IC452	H9	R2A2	H5	R347	H8	R484	H7	TP234	I4	TP538	J5
C2C1	H5	C417	I8	IC501	I2	R2A3	I5	R358	I6	R490	H7	TP239	J2	TP543	J3
C2C2	H5	C418	I8	IC502	K2	R2A5	I4	R382	G7	R497	H7	TP240	I4	TP540	J2
C2C3	G5	C419	J8	L204	I3	R2A6	H5	R383	G7	R499	H7	TP241	J3	TP541	J3
C2C5	H4	C422	F6	L301	K7	R2A8	I4	R384	G7	R4A1	H7	TP2A1	H5	TP542	K3
C2C6	H5	C423	F6	L302	K6	R2A9	H4	R396							

3. KEY P.C.BOARD



4. Power LED P.C.BOARD



ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R* ** : 1) GD05 x x x 140, Carbon film fixed resistor, $\pm 5\%$ 1/4W
 R* ** : 2) GD05 x x x 160, Carbon film fixed resistor, $\pm 5\%$ 1/6W

Examples ;
 ① Resistance value
 0.1 Ω 001 10 Ω 100 1k Ω ... 102 100k Ω 104
 0.5 Ω 005 18 Ω 180 2.7k Ω ... 272 680k Ω 684
 1 Ω 010 100 Ω 101 10k Ω ... 103 1M Ω 105
 6.8 Ω 068 390 Ω 391 22k Ω ... 223 4.7M Ω 475
Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.



CAPACITORS

C* ** : CERAMIC CAP.
 3) DD1 x x x x 370, Ceramic capacitor
 Disc type
 Temp.coeff. P350~N1000, 50V
 ③ Capacity value
 ② Tolerance

Examples
 ② ATolerance (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 p ± 0.25 pF
 6 pF - 10 pF ± 0.5 pF
 12 F - 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 p 015 47 pF 470 560 pF 561

C* ** : CERAMIC CAP.
 4) DK16 x x x 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 x x x x x 10, Electrolytic capacitor
 One-way lead type Tolerance $\pm 20\%$
 ⑥ Working voltage
 ⑤ Capacity value

Examples
 ⑤ Capacity value
 0.1 μ F 04 4.7 μ F 475 100 μ F 107
 0.33 μ F 334 10 μ F 106 330 μ F 337
 1 μ F 105 22 μ F 226 1100 μ F 118
 2200 μ F 228

⑥ Working voltage
 6.3 V. . .006 25 V. . .025
 10 V. . .010 35 V. . .035
 16 V. . .016 50 V. . .050
 6) DF15 x x x 350 \rightarrow Plastic film capacitor
 DF15 x x x 310 \rightarrow One-way type, Mylar $\pm 5\%$ 50V
 DF16 x x x 310 \rightarrow Plastic film capacitor
 One-way type, Mylar $\pm 10\%$ 50V
 ⑦ Capacity value

Examples
 ⑦ Capacity value
 0.001 μ F (1000pF) 102 0.1 μ F 104
 0.0018 μ F 182 0.56 μ F 564
 0.01 μ F 103 1 μ F 105
 0.015 μ F 151

NOTE : 1) The above CODES (R* **, R* **, C* **, C* **, C* **, 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.(MJI) Type No.(KOA) Description
 NH05 x x x 140 \rightarrow RF25S x x x x Ω J $\pm 5\%$ (1/4W)
 NH05 x x x 120 \rightarrow RF50S x x x x Ω J $\pm 5\%$ (1/2W)
 NH85 x x x 110 \rightarrow RF73B2A x x x x Ω J $\pm 5\%$ (1/10W)
 NH95 x x x 140 \rightarrow RF73B2E x x x x Ω J $\pm 5\%$ (1/4W)
 *Resistance value Resistance value(0.1 Ω - 10k Ω)



2. Matsushita Electronic Components Co., Ltd
 Part No.(MJI) Type No.(MEC) Description
 NF05 x x x 140 \rightarrow ERD-2FCJ x x x ($\pm 5\%$ 1/4W)
 RF05 x x x 140 \rightarrow ERD-2FCG x x x ($\pm 2\%$ 1/4W)
 NF02 x x x 140 \rightarrow ERD-2FCG x x x ($\pm 2\%$ 1/4W)
 RF02 x x x 140 \rightarrow ERD-2FCG x x x ($\pm 2\%$ 1/4W)
 *Resistance value

Examples :
 * Resistance value
 0.1 Ω 001 10 Ω 100 1k Ω .. 102 100k Ω 104
 0.5 Ω 005 18 Ω 180 2.7k Ω .. 272 680k Ω 684
 1 Ω 010 100 Ω 101 10k Ω .. 103 1M Ω 105
 6.8 Ω 068 390 Ω 391 22k Ω .. 23 4.7M Ω 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 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。

5. ELECTRICAL PARTS LIST

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
BC101 BD101	/N1B	9965 000 06959 4822 130 81248	BEAD CORE BFS3550R2FD8 S1WBAA60 (1A 600V)	*FC900210R *HD201400R
C100	/N1B	9965 000 00393	CE 47µF/50V KME (SMPS)	EA47605020
C101	nsp	nsp	PCX2 275V 0.1µF M	nsp
C102	/N1B	nsp	PCX2 275V 0.1µF M	nsp
C103	/N1B	9965 000 07003	68µF SHL SD 400V M FL BK7.5	*EA000980R
C104	nsp	nsp	0.022µF 50V Z F TA26 S	nsp
C105	nsp	nsp	0.01µF D 630V K PE NI	nsp
C106	nsp	nsp	HIGH-VOL 100P/1KV SMPS	nsp
C109	/N1B	nsp	0.047µF S 50V J PE	nsp
C114	/N1B	nsp	3300PF 400V M E R(NK AD SD)	nsp
C116	nsp	9965 000 07004	470µF KME 25V M FM5	EA47702520
C118	nsp	nsp	100M SMS 16V M FM5	nsp
C119	nsp	9965 000 00393	CE 47µF/50V	EA47605020
C121	nsp	nsp	220U SMS 16V M FM5	nsp
C122	nsp	nsp	330PF 400V K B R	nsp
C123	nsp	4822 124 23111	1000µF KME TYPE 16V M FM5	EA10801620
C124	nsp	4822 124 23111	1000µF KME TYPE 16V M FM5	EA10801620
C125	nsp	nsp	330µF SMS 10V M FM5	nsp
C126	nsp	9965 000 07004	470µF KME 25V M FM5	EA47702520
C127	/N1B	nsp	220µF SMS 25V M FM5	nsp
C128	nsp	nsp	0.047µF S 50V J PE	nsp
C129	nsp	nsp	470µF SHL SD 10V M FM5	nsp
C130	nsp	nsp	100M SMS 16V M FM5	nsp
C131	nsp	nsp	100M SMS 16V M FM5	nsp
C134	nsp	nsp	100M SMS 16V M FM5	nsp
C137	nsp	nsp	470µF SHL SD 10V M FM5	nsp
C140	nsp	nsp	470µF SHL SD 10V M FM5	nsp
C201	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C203	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C205	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C207	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C210	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C221	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C223	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C224	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C226	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C227	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C228	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C229	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C232	nsp	4822 124 11383	10µF 6.3V M 3216	EY10600650
C237	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C239	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C240	nsp	nsp	2200PF 50V K X7R(X) 1608	nsp
C241	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C242	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C245	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C250	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C255	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C260	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C270	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C271	nsp	4822 124 11383	10µF 6.3V M 3216	EY10600650
C272	nsp	4822 124 11311	47µF 6.3V M 85STD(CYL)	EY47600620
C273	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C274	nsp	4822 124 11311	47µF 6.3V M 85STD(CYL)	EY47600620
C275	nsp	4822 124 11383	10µF 6.3V M 3216	EY10600650
C276	nsp	4822 124 11383	10µF 6.3V M 3216	EY10600650
C277	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C278	nsp	4822 124 11383	10µF 6.3V M 3216	EY10600650
C281	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C284	nsp	4822 124 11311	47µF 6.3V M 85STD(CYL)	EY47600620
C285	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2A0	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2A1	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2A2	nsp	nsp	2200PF 50V K X7R(X) 1608	nsp
C2A3	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2A8	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2A9	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2B0	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2B1	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2B2	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
C2B3	/N1B	nsp	GRM39Y5V473Z25C500 PT266	nsp
C2B4	nsp	nsp	560PF 50V K NP0 1608	nsp
C2B5	nsp	nsp	560PF 50V K NP0 1608	nsp
C2B6	nsp	nsp	0.033µF 50V K X7R(X) 1508	nsp
C2B7	nsp	nsp	0.033µF 50V K X7R(X) 1508	nsp
C2B8	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2B9	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2C0	nsp	nsp	220P 50V J COG 1.6X0.8	nsp
C2C1	nsp	nsp	2200PF 50V K X7R(X) 1608	nsp
C2C4	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2C5	nsp	nsp	33P 50V J COG 1.6X0.8	nsp
C2C8	nsp	nsp	33P 50V J COG 1.6X0.8	nsp
C2C9	nsp	nsp	33P 50V J COG 1.6X0.8	nsp
C2D2	nsp	nsp	47µF 6.3V M 85STD(CYL)	EY47600620
C2D4	nsp	4822 124 11311	10µF 6.3V M 3216	EY10600650
C2D5	nsp	4822 124 11383	10µF 6.3V M 3216	EY10600650
C2D6	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2D7	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2D9	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2E1	nsp	nsp	3900PF 50V K Z5U(E) 1608	nsp
C2M1	nsp	9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C2M2	nsp	nsp	6800P 50V K X7R 1.6X0.8	nsp
C2M3	nsp	nsp	4700PF 50V K X7R(X) 1608	nsp
C2M4	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2M9	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C2N1	nsp	nsp	GRM39X7R103K50C500 PT266	nsp
C2N2	/N1B	nsp	0.022µF 50V Z Y5V(F) 1508	nsp
C2N3	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C2N4	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C301	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C302	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C303	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C304	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C305	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C330	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C331	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C332	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C338	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C340	/N1B	nsp	10µF 10V M 3216 TP(-)	nsp
C341	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C342	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C343	nsp	nsp	22P 50V J COG 1.6X0.8	nsp
C344	nsp	nsp	22P 50V J COG 1.6X0.8	nsp
C346	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C347	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C348	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C349	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C355	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C356	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C357	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C359	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C360	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C361	nsp	9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C362	nsp	4822 124 11435	22µF 6.3V M 3528	EY22600650
C363	nsp	9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C364	nsp	4822 124 11435	22µF 6.3V M 3528	EY22600650
C365	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C366	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C367	nsp	9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C368	nsp	4822 124 11435	22µF 6.3V M 3528	EY22600650
C369	nsp	9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C370	nsp	4822 124 11435	22µF 6.3V M 3528	EY22600650
C371	nsp	9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C372	nsp	4822 124 11435	22µF 6.3V M 3528	EY22600650
C373	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C401	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C402	nsp	nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C404	nsp	nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C406	nsp	9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C407	nsp	4822 124 11311	47µF 6.3V M 85STD(CYL)	EY47600620

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTION	PART NO. (MJI)
C408		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C409		4822 124 11131	47µF 6.3V M 85STD(CYL)	EY47600620
C410		4822 124 11131	47µF 6.3V M 85STD(CYL)	EY47600620
C411	/N1B	nsp	GRM39X7R102K50-500 PT266	nsp
C412		nsp	100P 50V J COG 1.6X0.8	nsp
C413		nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C415		nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C416	/N1B	nsp	GRM39X7R102K50-500 PT266	nsp
C417		nsp	100P 50V J COG 1.6X0.8	nsp
C418		nsp	3900PF 50V K Z5U(E) 1608	nsp
C419		4822 124 11131	47µF 6.3V M 85STD(CYL)	EY47600620
C420		nsp	3900PF 50V K Z5U(E) 1608	nsp
C421		4822 124 11131	47µF 6.3V M 85STD(CYL)	EY47600620
C423		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C424	/N1B	nsp	GRM39X7R103K50C500 PT266	nsp
C427		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C428		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C429		9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C430		9965 000 07005	100µF 16V M 85STD(CYL)	EY10701660
C501		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C504		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C506		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C509		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C512		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C514		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C515		nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C517		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C518		nsp	2.2000µF 16V Z Y5V(F) 3216	nsp
C519		nsp	220P 50V J COG 1.6X0.8	nsp
C520		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C521		nsp	220P 50V J COG 1.6X0.8	nsp
C522		nsp	220P 50V J COG 1.6X0.8	nsp
C527		nsp	220P 50V J COG 1.6X0.8	nsp
C529		nsp	220P 50V J COG 1.6X0.8	nsp
C531		nsp	220P 50V J COG 1.6X0.8	nsp
C532		nsp	56P 50V J COG 1.6X0.8	nsp
C534		nsp	0.1µF 50V Z Y5V(F) 1508	nsp
C535		nsp	10µF 16V M 3528MM TP(-)	EY10601670
C536		9965 000 03911	0.01M 16V M Y TA26	nsp
C606	/N1B	nsp	0.047M 50V Z F TA26	nsp
C608		nsp	0.1µF 50V Z F TA26 D	nsp
C901		nsp	10µF SMS 16V M FM5	nsp
C902		nsp	33P 50V J SL TA26	nsp
C903		nsp	33P 50V J SL TA26	nsp
C904		nsp	47M SMS 50V M FM5	nsp
C906		nsp	10µF SMS 16V M FM5	nsp
C907		nsp	0.1µF 50V Z F TA26 D	nsp
C909		nsp	0.1µF 50V Z F TA26 D	nsp
C910		nsp	47M SMS 16V M FM5	nsp
C912		nsp	47M SMS 16V M FM5	nsp
C914		nsp	47M SMS 16V M FM5	nsp
D101	/N1B	4822 130 81244	ERA22-10	*HD201480R
D102	/N1B	9965 000 06965	EU01W	*HD201390R
D106		9965 000 06966	RU3YXLF-C1	*HD201470R
D107	/N1B	9965 000 06965	EU01W	*HD201390R
D108	/N1B	9965 000 06965	EU01W	*HD201390R
D109		9965 000 06968	B10A45V1	*HD201440R
D110		9965 000 06971	ERA18-02KFRB	*HD201460R
D113		4822 130 33765	1N5402	*HD201450R
D114		9965 000 06973	RL104	*HD201430R
D2A1		4822 130 33944	DAN202K	HZ20002210
D601	/N1B	4822 130 32778	1SS133	HD20015210
D909		4822 130 32778	1SS133	HD20015210
DIG901		9965 000 06975	7-BT-273GN	*HQ300420R
F101	/N1B	4822 070 31602	1600MA 250 V 5.2X20 CY/GL SEMK	*FS000740R
F102	/N1B	4822 252 51025	ICP-N10 T104	FU40115020
F103		nsp	D=0.6 ROLL	nsp
F603		nsp	CFI06B1H101MF 2.5K/T	nsp
F604		nsp	CFI06B1H101MF 2.5K/T	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTION	PART NO. (MJI)
FH101		nsp	FUSE CLIP	nsp
FH102		nsp	FUSE CLIP	nsp
IC101		9965 000 06978	STR-G6153T 5PIN FM CUT BK PWM	*HC106630R
IC102	/N1B	4822 130 11545	PC123Y PHOTO-COUPLER(SARPH)	*HC200110R
IC104		4822 209 81397	KA431AZ	*HC105750R
IC105		9965 000 06979	KA78R08	*HC300250R
IC106		9965 000 06980	PQ3RD13	*HC105730R
IC107		9965 000 06980	PQ3RD13	*HC105730R
IC201		9965 000 06984	GDC25D801C	*HC105650R
IC203		4822 209 90472	NJM3414AM-TE1_3K	HC10179090
IC204		9322 119 37685	TC4W53FU	*HC105800R
IC205	/N1B	9965 000 06985	GLT440L16-40J4 40P SOJ TP 4M(2	*HC106620R
IC2A1		9965 000 06986	SSI33P3721(VER.2)	*HC105760R
IC2A2		4822 209 90472	NJM3414AM-TE1_3K	HC10179090
IC2A3		5322 209 12918	AD8011AR	*HC105540R
IC2M1		9965 000 06987	KA3032	*HC105610R
IC301		9965 000 06988	ZIVA3-PE0	*HC105590R
IC302		9965 000 06989	GM72V161621ET-7	*HC105630R
IC303		9965 000 06989	GM72V161621ET-7	*HC105630R
IC304		9965 000 06990	PLL1700E	*HC105570R
IC305		9965 000 06991	SAA7128	*HC105690R
IC306		9965 000 04716	BA7660FS	*HC105700R
IC307		9965 000 04716	BA7660FS	*HC105700R
IC401		8203 303 11278	PCM1716E	*HC105580R
IC402		9965 000 04714	NJM4580M	*HC105660R
IC403		4822 209 33521	TC7W04FU	HC10382050
IC404		9965 000 06992	PQ20WZ5U	*HC105720R
IC501		9965 000 06993	HD6417034AFI20	*HC105640R
IC502	/N1B	9965 000 06994	AT49F8192A-90TC (N1B)	*HC106600R
IC503	/N1B	9965 000 06995	M11B416256A-35J ELITE 4M(256K)	*HC106610R
IC504		9965 000 06996	KS24C021CS	*HC105740R
IC505		9965 000 06997	SN74AHC374PWLE	*HC105770R
IC506		9965 000 06292	XC9536-15VQ44C-PROGRAM	HC10102990
IC901		9965 000 06998	LC866112B-5R54	*HC105710R
IC902		9965 000 06999	KIA7042P	*HC105670R
JK602	/N1B	9965 000 07000	RCA DIN-09G YUQIU D.GND R4P+DI	*YT002250R
JK603	/N1B	9965 000 07001	1F-21P 3.81 ANGLE(BLACK)	*YT002260R
L101		9965 000 07002	SHT LFS2020V4-04350	*FN000110R
L102		nsp	CHOCK(22MH) 5MM	nsp
L103		nsp	CHOCK 20UH	nsp
L201		nsp	HB-1M2012-102JT 3K	nsp
L204		nsp	HB-1M2012-102JT 3K	nsp
L207		nsp	HB-1M2012-102JT 3K	nsp
L208		nsp	HB-1M2012-102JT 3K	nsp
L211		nsp	HB-1M2012-102JT 3K	nsp
L2A1		nsp	HB-1M2012-102JT 3K	nsp
L2A2		nsp	HB-1M2012-102JT 3K	nsp
L301		nsp	HB-1M2012-102JT 3K	nsp
L309		nsp	HB-1M2012-102JT 3K	nsp
L401		nsp	HB-1M2012-102JT 3K	nsp
L402		nsp	HB-1M2012-102JT 3K	nsp
L501		nsp	HB-1M2012-102JT 3K	nsp
L502		nsp	HB-1M2012-102JT 3K	nsp
L503		nsp	HB-1M2012-102JT 3K	nsp
L505		nsp	HB-1M2012-102JT 3K	nsp
L506		nsp	HB-1M2012-102JT 3K	nsp
L507		nsp	HB-1M2012-102JT 3K	nsp
L902		nsp	100M K 6X6 L5	nsp
LED901		9965 000 04671	SPR325MVWT31	*HI100860R
P3901		nsp	2254-30S-T ILSSAN 30PIN 2.0MM	nsp
P5502		nsp	04-6232-115-008-800	nsp
P5901		nsp	2254-30S-T ILSSAN 30PIN 2.0MM	nsp
P6401		nsp	2254-30P-T ILSSAN 30PIN 2.0MM	nsp
P9501		nsp	2254-30P-T ILSSAN 30PIN 2.0MM	nsp
P9901		nsp	GIL-S/9073AN 4 150M/M UL1571 A	nsp
P9902		nsp	GIL-S-04P-S2T2-EF LG CABLE 4PI	nsp
P9903		nsp	GIL-S/GIL-T 12 PIN 100M/M UL15	nsp
P9904		nsp	*WAFER G/S GIL-S-12P-S2T2-EF	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
PBJIG		9965 000 07006	DV3100 JIG ASSY	*DV3100JIG
PBP00		nsp	PCB ASSY P.LED	nsp
PBT00		nsp	PCB ASSY KEY	nsp
PMD01		nsp	04-6232-118-008-800 ELCO 18PIN	nsp
PMD03		nsp	04-6232-108-008-800 ELCO 8PIN	nsp
PMD04		nsp	GT200 LG CABLE 5PIN 2MM STRAIG	nsp
PW101		nsp	GP390 LGC 3P 3.96 STRAIGHT SN	nsp
Q107		9965 000 07007	KSB1151-Y BK	*HT200390R
Q108		4822 130 41319	KTC3198-TP-BL	*HT300720R
Q2A1		9965 000 04336	2SA1037K-Q	HX110371A0
Q2M1				
}		4822 130 60729	DTC124EK SOT23 3	*BA001080R
Q2M3				
Q301		4822 130 62937	2SC2412KR(BR)-T96	*HT300800R
Q304		4822 130 62937	2SC2412KR(BR)-T96	*HT300800R
Q401		4822 130 10481	KTA1505S-Y -T1	*HT100500R
Q404		9965 000 07008	UMZ1N TL UM6 3K	BA30002210
Q601		9965 000 07009	KTA1266-GR	*HT100480R
Q602		4822 130 10098	KRC103M-TP (KRC1203) KEC	*HT300790R
Q603		4822 130 10098	KRC103M-TP (KRC1203) KEC	*HT300790R
Q607		4822 130 41319	KTC3198-TP-BL	*HT300720R
Q608		4822 130 41319	KTC3198-TP-BL	*HT300720R
Q615		9965 000 07009	KTA1266-GR	*HT100480R
Q901		9965 000 07010	KRC105M(KRC1205) TP KEC	*BA000880R
Q902		9965 000 07011	KRA 105M KEC	*BA000890R
R100		nsp	1.5M Ω 1/2 W 5% MF10	nsp
R101		nsp	2.7/2W CEMENT SMPS V	nsp
R102		9965 000 07012	100K Ω 2 W 5% TR	GA05104020
R104		9965 000 07013	56K Ω 2 W 5% TR	GA05563020
R110		nsp	D=0.6 ROLL	nsp
R111		9965 000 07014	0.51 Ω 2 W 5% TR	GB05512020
R112		nsp	3.9 1/6W 5 TA26	nsp
R114		nsp	100K 1/6W 5 TA26	nsp
R115		nsp	5.6 1/6W 5 TA26	nsp
R120		nsp	1.0K 1/6W 5 TA26	nsp
R121		nsp	1.2K 1/6W 5 TA26	nsp
R122		4822 053 10121	120 1W 5% TR	GA05121010
R123		nsp	1.0K 1/6W 5 TA26	nsp
R124		nsp	330 1/6W 5 TA26	nsp
R125		nsp	2.2K 1/6W 5 TA26	nsp
R126		nsp	1.0K 1/6W 5 TA26	nsp
R127		nsp	3.6K Ω 1/8 W 1% TA26	nsp
R128		nsp	3.3K 1/6W 1 TA26	nsp
R130		nsp	10K 1/6W 5 TA26	nsp
R140		nsp	10K 1/6W 5 TA26	nsp
R141		nsp	10K 1/6W 5 TA26	nsp
R144		nsp	330 1/6W 5 TA26	nsp
R145		nsp	470 1/6W 5 TA26	nsp
R201				
}		nsp	0 1/16W 5 D.	nsp
R204				
R217		nsp	10 1/16W 5 D.	nsp
R218		nsp	470 1/16W 5 D.	nsp
R219				
}		nsp	10K 1/16W 5 D.	nsp
R221				
R230				
}		nsp	100 1/16W 5 D.	nsp
R237				
R239				
}		nsp	0 1/16W 5 D.	nsp
R242				
R244		nsp	0 1/16W 5 D.	nsp
R271		nsp	0 1/16W 5 D.	nsp
R273		nsp	0 1/16W 5 D.	nsp
R274		nsp	620 Ω 1 / 16 W 1608 5% D	nsp
R275		nsp	910 Ω 1 / 16 W 1608 5% D	nsp
R276		nsp	910 Ω 1 / 16 W 1608 5% D	nsp
R277		nsp	150 1/16W 5 D.	nsp
R278		nsp	0 1/16W 5 D.	nsp
R279		nsp	0 1/16W 5 D.	nsp
R280		nsp	0 1/16W 5 D.	nsp
R281		nsp	2.2K 1/16W 5 D.	nsp
R292		nsp	1.2K 1/16W 5 D.	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
R293		nsp	2K Ω 1 / 16 W 1608 5% D	nsp
R294		nsp	150 1/16W 5 D.	nsp
R295		nsp	2K Ω 1 / 16 W 1608 5% D	nsp
R296		nsp	150 1/16W 5 D.	nsp
R297		nsp	1.2K 1/16W 5 D.	nsp
R2A0		nsp	10K 1/16W 5 D.	nsp
R2A1		nsp	91 Ω 1 / 16 W 1608 5% D	nsp
R2A2		nsp	12K 1/16W 5 D.	nsp
R2A5		nsp	0 1/16W 5 D.	nsp
R2A6		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2A9		nsp	0 1/16W 5 D.	nsp
R2B2		nsp	0 1/16W 5 D.	nsp
R2B3		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2B4		nsp	18 1/16W 5 D.	nsp
R2B5		nsp	18 1/16W 5 D.	nsp
R2B6		nsp	10K 1/16W 5 D.	nsp
R2B7		nsp	2.2K 1/16W 5 D.	nsp
R2B8		nsp	150K 1/16W 5 D.	nsp
R2B9		nsp	150K 1/16W 5 D.	nsp
R2C0		nsp	39K 1/16W 5 D.	nsp
R2C1		nsp	39K 1/16W 5 D.	nsp
R2C2		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2C3		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2C4		nsp	100 1/16W 5 D.	nsp
R2C6		nsp	0 1/16W 5 D.	nsp
R2C7		nsp	0 1/16W 5 D.	nsp
R2D1		nsp	0 1/16W 5 D.	nsp
R2D4		nsp	0 1/16W 5 D.	nsp
R2D5		nsp	0 1/16W 5 D.	nsp
R2D7		nsp	47 1/16W 5 D.	nsp
R2E1				
}		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2E5				
R2E6		nsp	0 1/16W 5 D.	nsp
R2E7		nsp	2.2K 1/16W 5 D.	nsp
R2M1		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2M2		nsp	10K 1/16W 5 D.	nsp
R2M3		nsp	10K 1/16W 5 D.	nsp
R2M5		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2M6		nsp	10K 1/16W 5 D.	nsp
R2M7		nsp	10K 1/16W 5 D.	nsp
R2M8		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2M9		nsp	10K 1/16W 5 D.	nsp
R2N0		nsp	12K 1/16W 5 D.	nsp
R2N1		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2N2		nsp	5.6K 1/16W 5 D.	nsp
R2N3		nsp	10K 1/16W 5 D.	nsp
R2N4		nsp	15K 1/16W 5 D.	nsp
R2N5		nsp	12K 1/16W 5 D.	nsp
R2N6		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2N7		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2N8		nsp	10K 1/16W 5 D.	nsp
R2N9		nsp	10K 1/16W 5 D.	nsp
R2P1				
}		nsp	10K 1/16W 5 D.	nsp
R2P3				
R2P4		nsp	18K 1/16W 5 D.	nsp
R2P5		nsp	10K 1/16W 5 D.	nsp
R2P6		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R2P7		nsp	22K 1/16W 5 D.	nsp
R2P8		nsp	1.2K 1/16W 5 D.	nsp
R2Q1		nsp	10K 1/16W 5 D.	nsp
R300		nsp	100 1/16W 5 D.	nsp
R301		nsp	10K 1/16W 5 D.	nsp
R302		nsp	1K Ω 1 / 16 W 1608 5.00% D	nsp
R303		nsp	4.7K 1/16W 5 D.	nsp
R304				
}		nsp	10K 1/16W 5 D.	nsp
R312				
R313				
}		nsp	33 1/16W 5 D.	nsp
R332				
R333		nsp	4.7K 1/16W 5 D.	nsp
R334		nsp	10K 1/16W 5 D.	nsp
}		nsp	10K 1/16W 5 D.	nsp
R346		nsp	100 1/16W 5 D.	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
R350		nsp	10K 1/16W 5 D.	nsp
∩				
R355				
R356		nsp	0 1/16W 5 D.	nsp
∩				
R358				
R359		nsp	100 1/16W 5 D.	nsp
∩				
R361				
R362		nsp	15K 1/16W 5 D.	nsp
R363		nsp	3.3K 1/16W 5 D.	nsp
R364		nsp	330 1/16W 5 D.	nsp
R365		nsp	15K 1/16W 5 D.	nsp
R366		nsp	3.3K 1/16W 5 D.	nsp
R367		nsp	330 1/16W 5 D.	nsp
R368		nsp	15K 1/16W 5 D.	nsp
R369		nsp	3.3K 1/16W 5 D.	nsp
R370		nsp	820 1/16W 5 D.	nsp
R371		nsp	15K 1/16W 5 D.	nsp
R372		nsp	3.3K 1/16W 5 D.	nsp
R373		nsp	820 1/16W 5 D.	nsp
R374		nsp	15K 1/16W 5 D.	nsp
R375		nsp	3.3K 1/16W 5 D.	nsp
R376		nsp	820 1/16W 5 D.	nsp
R377		nsp	15K 1/16W 5 D.	nsp
R378		nsp	3.3K 1/16W 5 D.	nsp
R379				
∩		nsp	75 1/16W 5 D.	nsp
R381				
R382		nsp	1KΩ 1 / 16 W 1608 5.00% D	nsp
R385		nsp	1KΩ 1 / 16 W 1608 5.00% D	nsp
R390				
∩		nsp	100 1/16W 5 D.	nsp
R397				
R3A1		nsp	0 1/16W 5 D.	nsp
R3A2		nsp	0 1/16W 5 D.	nsp
R3B1		nsp	0 1/16W 5 D.	nsp
R401		nsp	33 1/16W 5 D.	nsp
R402		nsp	4.7K 1/16W 5 D.	nsp
R403				
∩		nsp	470 1/16W 5 D.	nsp
R406				
R407		nsp	6.8K 1/16W 5 D.	nsp
R408		nsp	2.2K 1/16W 5 D.	nsp
R409		nsp	7.5K 1/16W 5 D.	nsp
R411		nsp	7.5K 1/16W 5 D.	nsp
R412		nsp	6.8K 1/16W 5 D.	nsp
R413		nsp	15K 1/16W 5 D.	nsp
R414		nsp	5.6K 1/16W 5 D.	nsp
R415		nsp	4.7K 1/16W 5 D.	nsp
R416		nsp	15K 1/16W 5 D.	nsp
R417		nsp	6.8K 1/16W 5 D.	nsp
R418		nsp	1KΩ 1 / 16 W 1608 5.00% D	nsp
R419		nsp	100 1/16W 5 D.	nsp
R420		nsp	100 1/16W 5 D.	nsp
R425		nsp	330 1/16W 5 D.	nsp
R426		nsp	220 1/16W 5 D.	nsp
R427		nsp	330 1/16W 5 D.	nsp
R428		nsp	220 1/16W 5 D.	nsp
R429		nsp	56 1/16W 5 D.	nsp
R437		nsp	2.2K 1/16W 5 D.	nsp
R438		nsp	7.5K 1/16W 5 D.	nsp
R439		nsp	10K 1/16W 5 D.	nsp
R501		nsp	0 1/16W 5 D.	nsp
R503		nsp	47K 1/16W 5 D.	nsp
R504		nsp	680 1/16W 5 D.	nsp
R506		nsp	1KΩ 1 / 16 W 1608 5.00% D	nsp
R510		nsp	330 1/16W 5 D.	nsp
R511		nsp	330 1/16W 5 D.	nsp
R512				
∩		nsp	4.7K 1/16W 5 D.	nsp
R514				
R517				
∩		nsp	1.2K 1/16W 5 D.	nsp
R519				
R524		nsp	0 1/16W 5 D.	nsp
R525		nsp	0 1/16W 5 D.	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
R535		nsp	100 1/16W 5 D.	nsp
∩				
R555				
R557		nsp	100 1/16W 5 D.	nsp
R558		nsp	100 1/16W 5 D.	nsp
R559		nsp	4.7K 1/16W 5 D.	nsp
R560		nsp	4.7K 1/16W 5 D.	nsp
R562		nsp	4.7K 1/16W 5 D.	nsp
R564		nsp	1KΩ 1 / 16 W 1608 5.00% D	nsp
R565		nsp	47K 1/16W 5 D.	nsp
R567		nsp	4.7K 1/16W 5 D.	nsp
R569		nsp	1.2K 1/16W 5 D.	nsp
R570		nsp	10K 1/16W 5 D.	nsp
R571		nsp	47K 1/16W 5 D.	nsp
R573		nsp	0 1/16W 5 D.	nsp
R574		nsp	4.7K 1/16W 5 D.	nsp
R575		nsp	1.2K 1/16W 5 D.	nsp
R576		nsp	47K 1/16W 5 D.	nsp
R577		nsp	47K 1/16W 5 D.	nsp
R581		nsp	1KΩ 1 / 16 W 1608 5.00% D	nsp
R582				
∩		nsp	1.2K 1/16W 5 D.	nsp
R584				
R587				
∩		nsp	1.2K 1/16W 5 D.	nsp
R589				
R593		nsp	1.2K 1/16W 5 D.	nsp
R597		nsp	0 1/16W 5 D.	nsp
R598		nsp	10K 1/16W 5 D.	nsp
R5A1				
∩		nsp	0 1/10W 5 D.	nsp
R5A7				
R601		nsp	47K 1/6W 5 TA26	nsp
R602		nsp	75 1/6W 5 TA26	nsp
R603		nsp	75 1/6W 5 TA26	nsp
R604		nsp	75 1/6W 5 TA26	nsp
R605				
∩		nsp	1.0K 1/6W 5 TA26	nsp
R609				
R618		nsp	100K 1/6W 5 TA26	nsp
R619		nsp	100K 1/6W 5 TA26	nsp
R620		nsp	220 1/6W 5 TA26	nsp
R621		nsp	220 1/6W 5 TA26	nsp
R652		nsp	75 1/6W 5 TA26	nsp
R653		nsp	10K 1/6W 5 TA26	nsp
R654		nsp	10K 1/6W 5 TA26	nsp
R655		nsp	2.2K 1/6W 5 TA26	nsp
R656		nsp	10K 1/6W 5 TA26	nsp
R672		nsp	100K 1/6W 5 TA26	nsp
R673		nsp	220 1/6W 5 TA26	nsp
R674		nsp	100K 1/6W 5 TA26	nsp
R675		nsp	220 1/6W 5 TA26	nsp
R676		nsp	75 1/6W 5 TA26	nsp
R901		nsp	10K 1/6W 5 TA26	nsp
R902		nsp	3.3K 1/6W 5 TA26	nsp
R903		nsp	680 1/6W 5 TA26	nsp
R904		nsp	1.2K 1/6W 5 TA26	nsp
R905		nsp	1.5K 1/6W 5 TA26	nsp
R906		nsp	3.3K 1/6W 5 TA26	nsp
R907		nsp	4.7K 1/6W 5 TA26	nsp
R908		nsp	10K 1/6W 5 TA26	nsp
R909		nsp	10K 1/6W 5 TA26	nsp
R910		nsp	47K 1/6W 5 TA26	nsp
R912		nsp	820 1/6W 5 TA26	nsp
R913		nsp	330 1/6W 5 TA26	nsp
R914		nsp	220 1/6W 5 TA26	nsp
R915				
∩		nsp	10K 1/6W 5 TA26	nsp
R919				
R921		nsp	47K 1/6W 5 TA26	nsp
R922		nsp	10K 1/6W 5 TA26	nsp
R928		nsp	220 1/6W 5 TA26	nsp
R929		nsp	D=0.6 ROLL	nsp
R931		nsp	10K 1/6W 5 TA26	nsp
R941		nsp	2.2K 1/6W 5 TA26	nsp
R945		nsp	10K 1/6W 5 TA26	nsp
R946		nsp	10K 1/6W 5 TA26	nsp

POS. NO.	VERS. COLOR	PART NO. (ANAM)	DESCRIPTON	PART NO. (MJI)
RC901		9965 000 07015	TSOP2836WE1 TEMIC 19MM 36.7KHZ	*HW100470R
SW601 SW901 ? SW906 SW908	/N1B	9965 000 07016	SKQ-23D15-G3-NA LUP FUNG VDE/S	*SS000660R
		9965 000 07017	THVV502GAA POSTECH NON 12V 5A	*SP001000R
		9965 000 07017	THVV502GAA POSTECH NON 12V 5A	*SP001000R
T101 V101	/N1B	9965 000 07018 nsp	SHT-023T/KSE-023T SVC681D-10A 4.O CUT	*TS001170R nsp
X301		9965 000 07019	HC-49/SM5H 27MHZ 20P	*JX000660R
X501		9965 000 07020	CSTCV20.00MXJ040-TC20 MURATA 2	*FQ000440R
X901		9965 000 07021	CSA6.00MGU MURATA 6MHZ BK	*FQ000430R
ZD101 ZD635 ? ZD640		9965 000 07022	GDZJ5.6B 26MM	*HD301840R
		9965 000 07022	GDZJ5.6B 26MM	*HD301840R

SECTION 4 MECHANISM

CONTENTS

DECK MECHANISM PARTS

LOCATIONS

- Top View.....4-1
- Top View(without Tray)4-1
- Bottom View4-1

DECK MECHANISM

DISASSEMBLY

1. Holder Clamp.....4-2
 - 1-1. Clamp Assembly Disc4-2
 - 1-1-1. Plate Clamp4-2
 - 1-1-2. Magnet Clamp.....4-2
 - 1-1-3. Clamp Upper.....4-2
2. Tray Disc4-2
3. Base Assembly Sled4-3
 - 3-1. Gear Assembly Feed4-3
 - 3-2. Gear Assembly Middle.....4-3
 - 3-3. Gear Assembly Rack4-3
4. Rubber Rear4-3

5. Frame Assembly Up/Down4-4
6. Belt Loading.....4-4
7. Gear Pulley.....4-4
8. Gear Loading4-4
9. Guide Up/Down.....4-4
10. PWB Assembly Loading4-4
11. Base Main.....4-4

DECK MECHANISM ADJUSTMENT

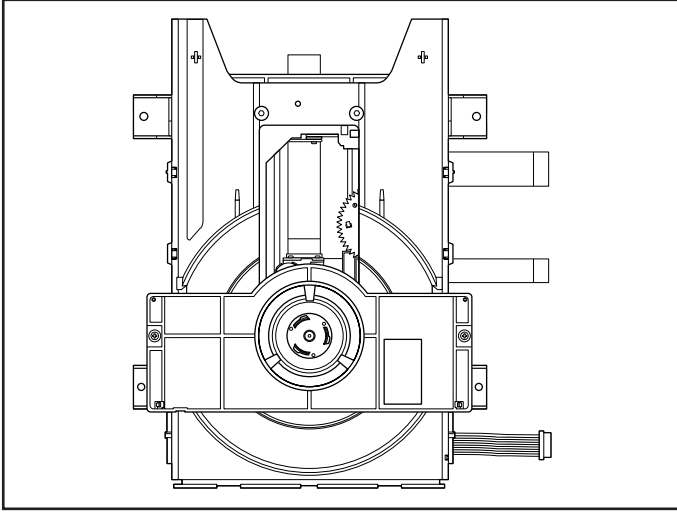
1. Tools and Fixtures for SVC.....4-5
2. Install Process4-5
3. Adjustment Process.....4-6

EXPLODED VIEW

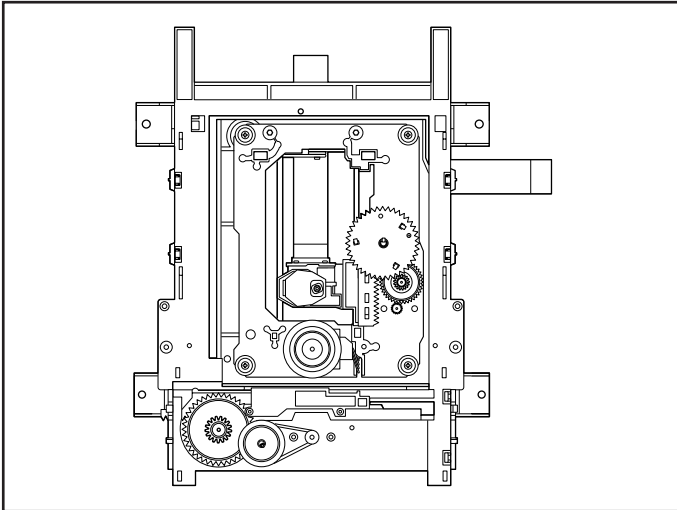
1. Deck Mechanism Exploded View4-7

DECK MECHANISM PARTS LOCATION

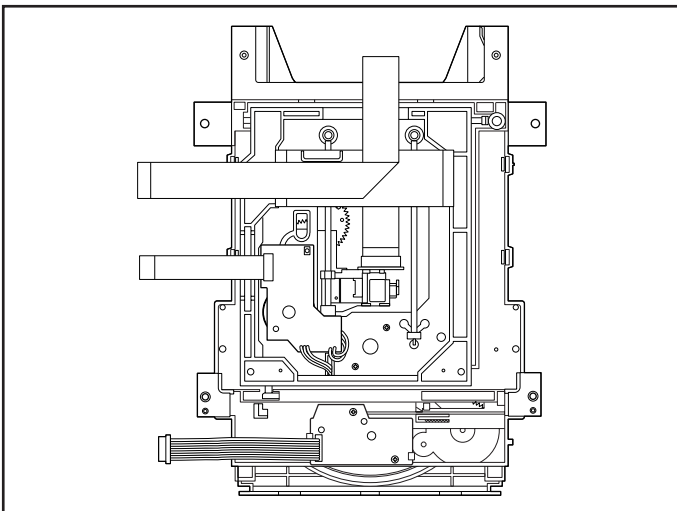
• Top View (With Tray)



• 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
1, 2, 3	4 Magnet Clamp			4-1
1, 2, 3, 4	5 Clamp Upper			4-1
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	12 Frame Assembly Up/Down	1 Screw	Bottom	4-4
1, 2, 13	13 Belt Loading	1 Locking Tab		4-4
1, 2, 13, 14	14 Gear Pulley			4-4
1, 2, 7, 12, 13, 14	15 Gear Loading	1 Locking Tab		4-4
1, 2, 13	16 Guide Up/Down			4-4
1, 2, 7, 12, 13,	17 PWB Assembly Loading	1 Locking Tab 1 Hook 2Screw	Bottom	4-4
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

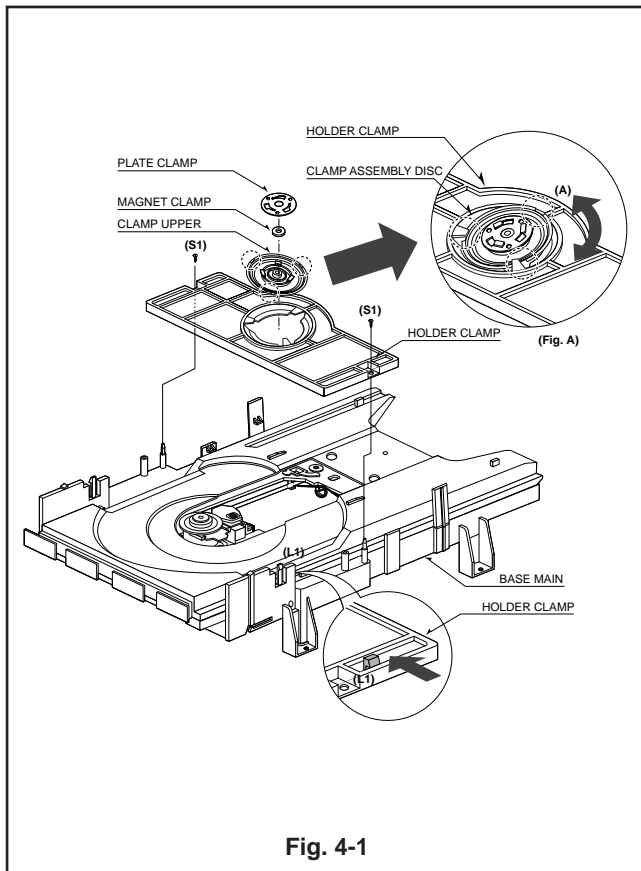


Fig. 4-1

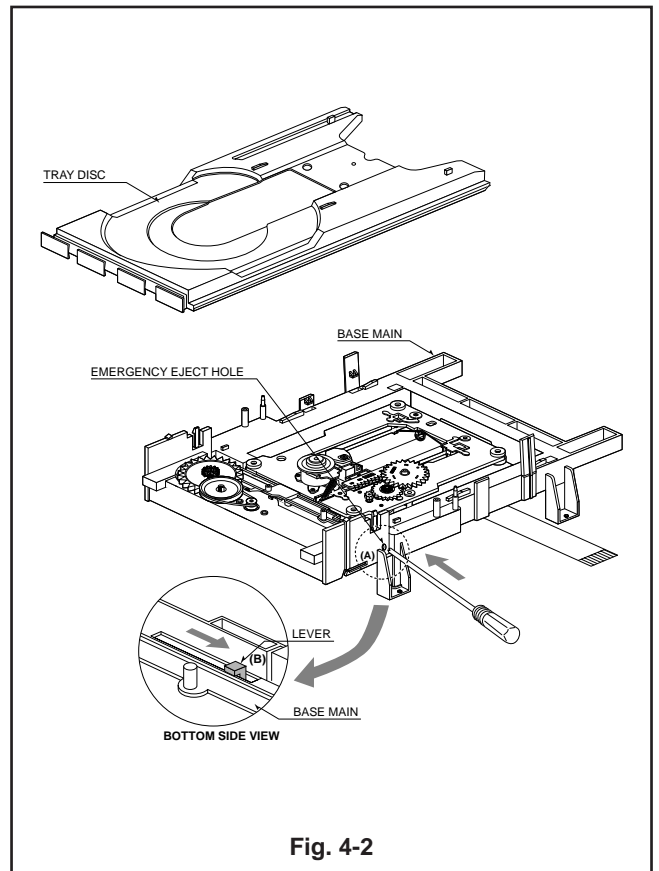


Fig. 4-2

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

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

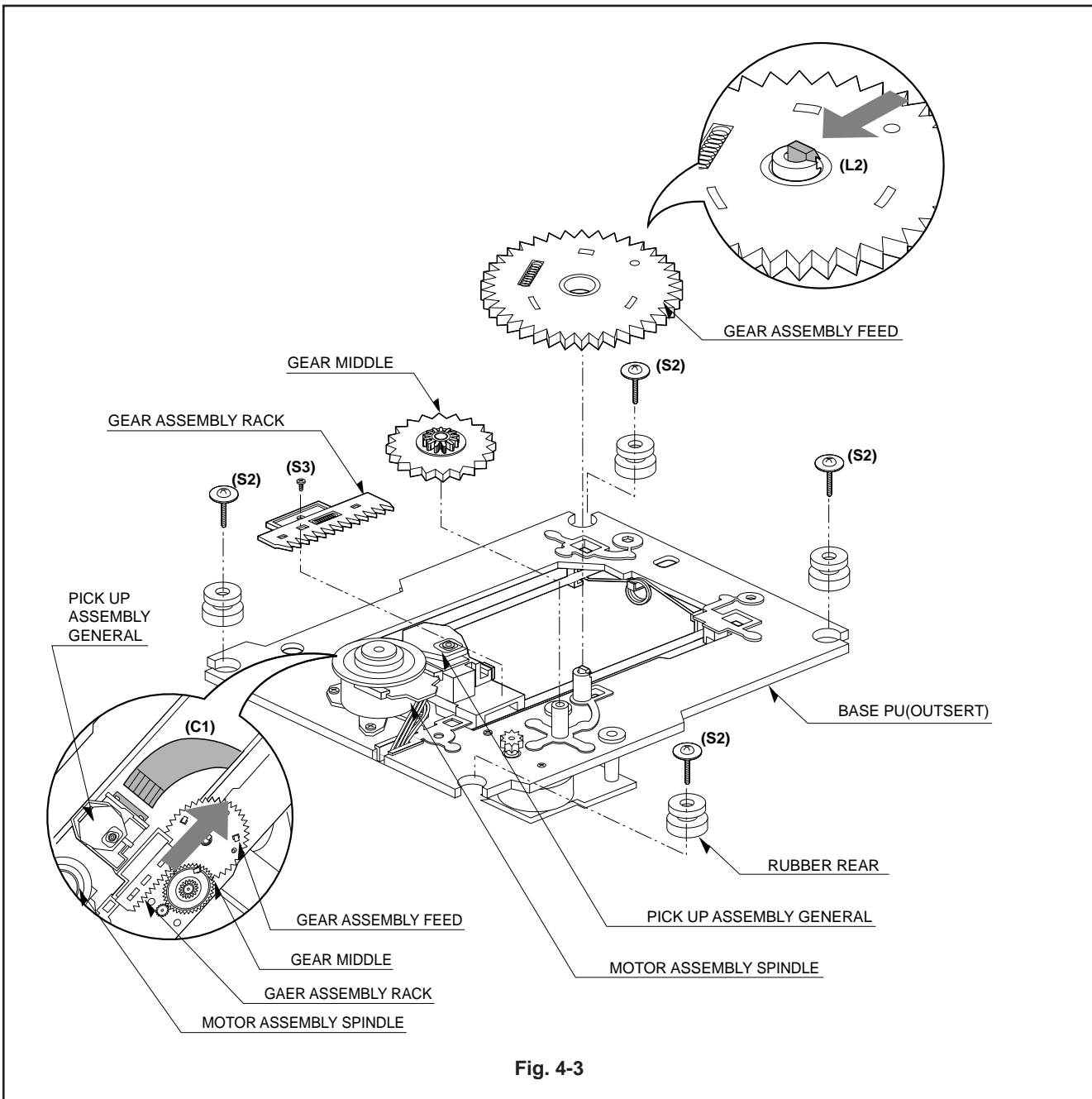


Fig. 4-3

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

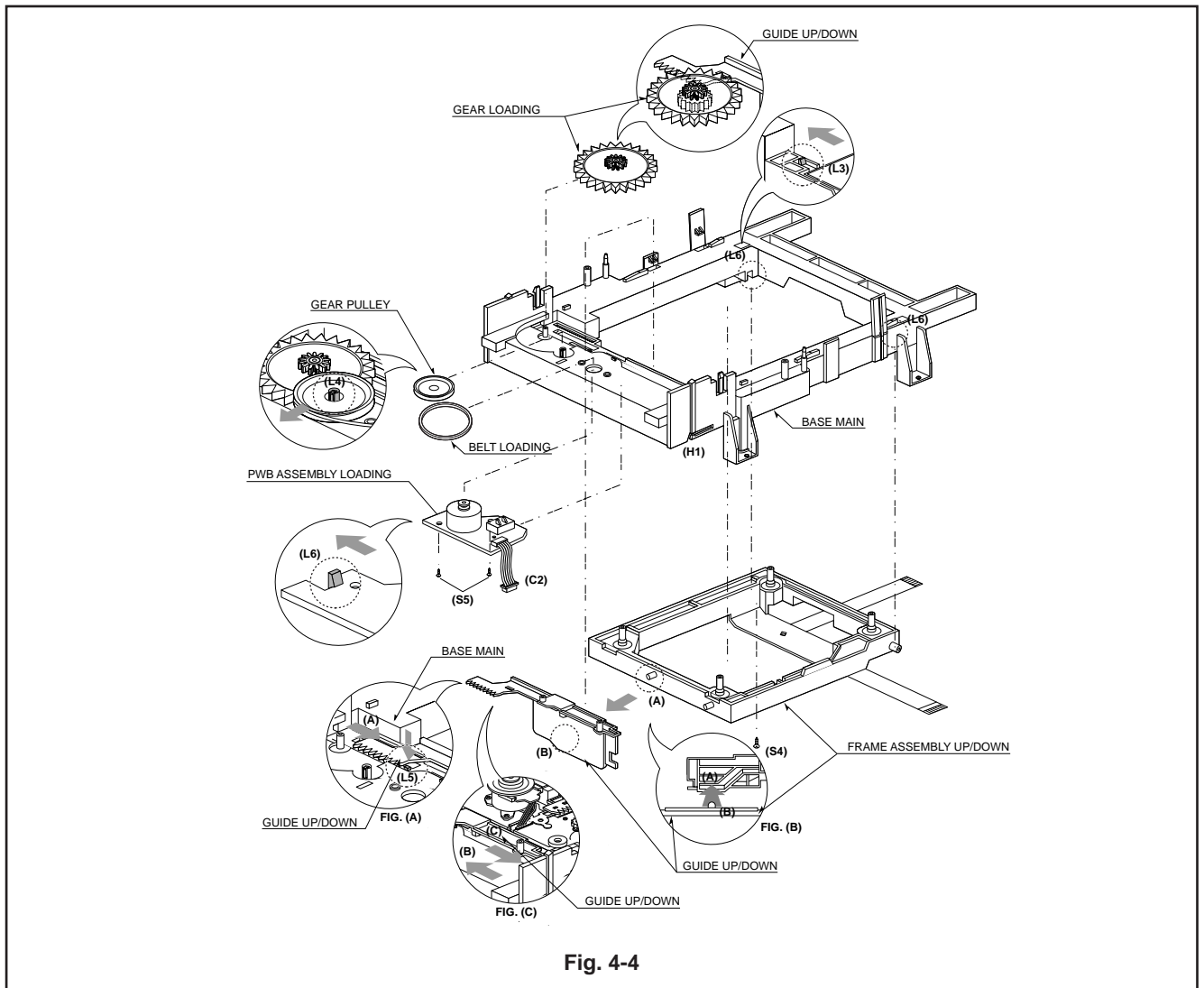


Fig. 4-4

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)

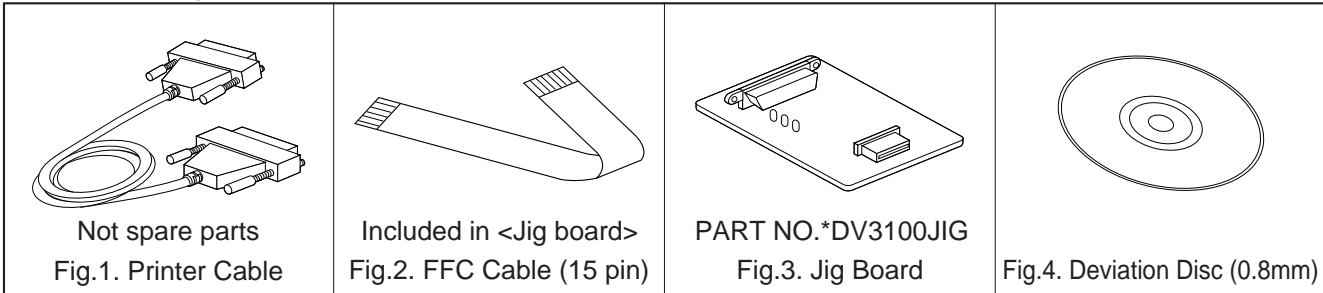
- 1) Release 2 Screws(S5)
- 2) Unhook the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
- 3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

11. Base Main(Fig. 4-4)

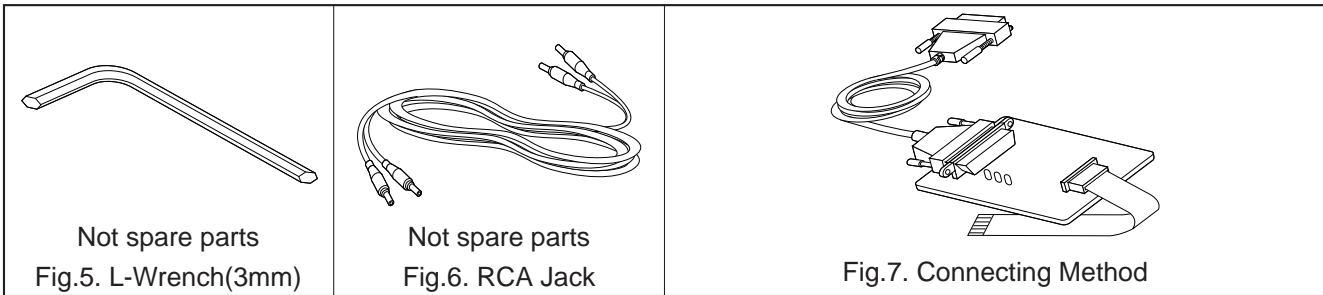
DECK MECHANISM ADJUSTMENT

1. Tools and Fixtures for SVC

- For SVC Program Down-Load

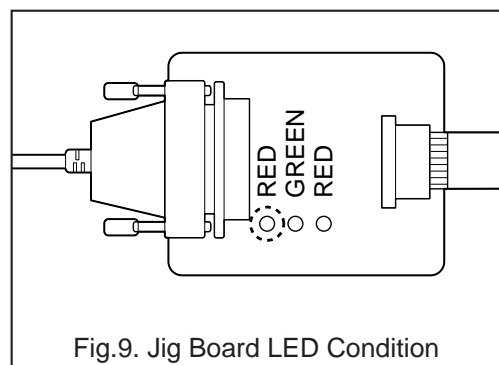
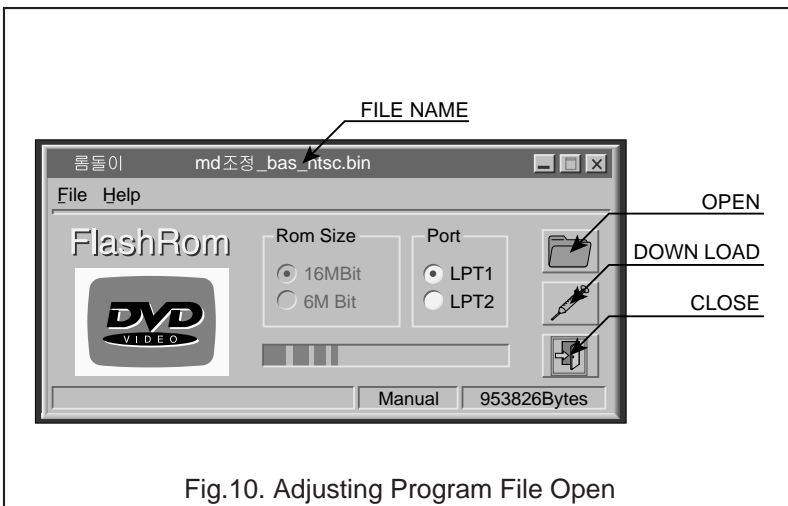
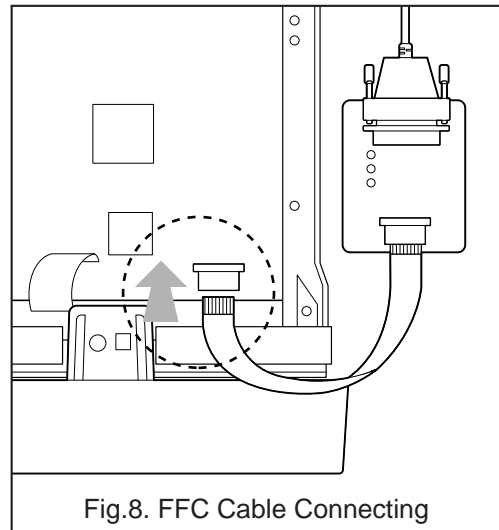


- For T-Skew and R-Skew Adjustment



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(GREEN) is ON.
13. Plug out the DVD Set Power cord.
14. Disconnect the FFC Cable.



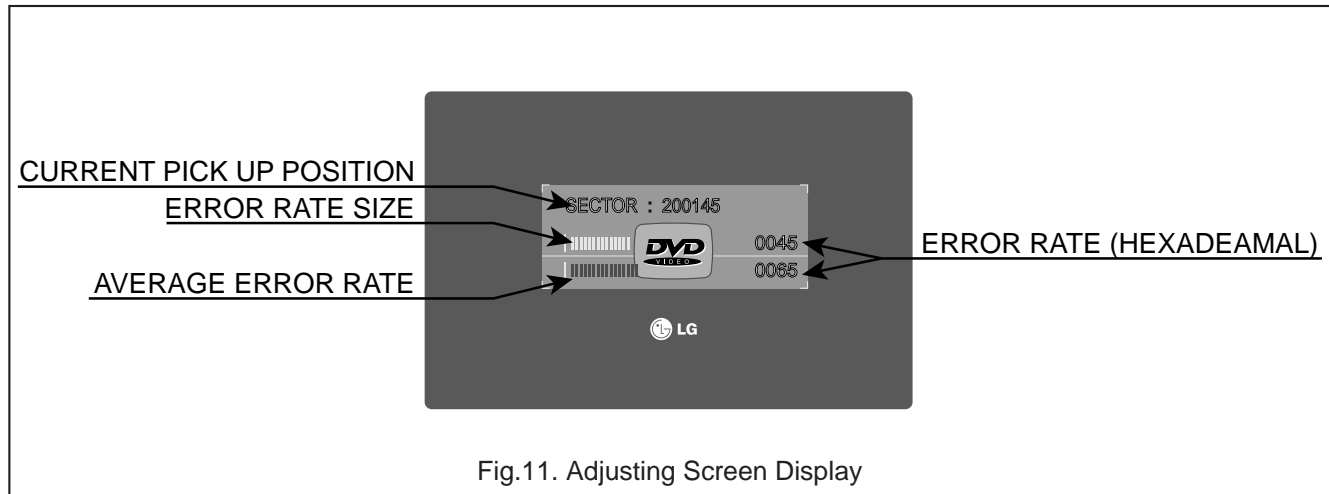


Fig.11. Adjusting Screen Display

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.

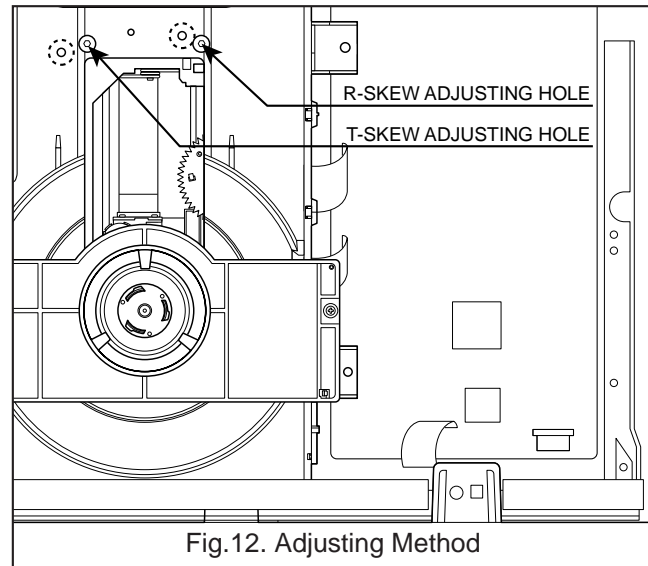


Fig.12. Adjusting Method

Series of horizontal dashed lines for writing a memo.

EXPLODED VIEWS

1. Deck Mechanism Exploded View

POS. NO.	VERS. COLOR	PART NO. (PCS)	DESCRIPTON	PART NO. (MUJ)
A00		nsp	DECK ASSY DVD PLAYER(DP2)	304W304500
A01		9965 000 06956	CLAMP ASSY DISC(DP2)	304W005500
A02		nsp	BASE ASSY MAIN(DP2 PLAYER)	304W064500
A03		9965 000 06957	BASE ASSY SLED(DP2)	304W304510
A43		nsp	BASE ASSY FRONT (ADV3520NC 1UM1)	nsp
A46	/N1B	9965 000 06958	DVD MAIN PCB ASSY (/N1B)	*ZZ001660R
A48		nsp	PCB ASSY IO	nsp
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	nsp
012	/N1B	nsp	DAMPER (E2 5040H-1054A)	304W130020
013		9965 000 06944	BELT LOADING	304W264010
014		9965 000 06945	GEAR PULLEY	304W262010
015		9965 000 06946	PWB(PCB) ASSY LOADING (DP2)	*ZZ001480R
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

