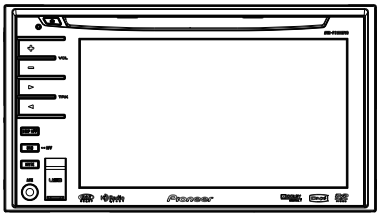
Pioneer

Service Manual



AVH-P3100DVD/XN/UC

ORDER NO.
CRT4258

DVD AV RECEIVER

AVH-P3100DVD/XN/UC
AVH-P3150DVD/XN/RC
AVH-P3150DVD/XN/RD
AVH-P3150DVD/XN/RI

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech.Module	Remarks
CX-3250	CRT4300	LS1	DVD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly

For details, refer to "Important Check Points for Good Servicing".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

K-ZZZ. JAN. 2009 Printed in Japan

SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safety repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safety, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains certain electrical parts contain chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

Where in a manufacturer's service documentation, for example in circuit diagrams or lists of components, a symbol is used to indicate that a specific component shall be replaced only by the component specified in that documentation for safety reasons, the following symbol shall be used:

⚠

● **Safety Precautions for those who Service this Unit.**
When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

Caution:

1. **During repair or tests, minimum distance of 13 cm from the focus lens must be kept.**
2. **During repair or tests, do not view laser beam for 10 seconds or longer.**

CAUTION:
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION
CLASS 1M INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

WARNING!

The AEL (accessible emission level)of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.
A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length:
DVD:660 nm to 670 nm
CD:780 nm to 800 nm

Focus lens on Maximum output:
CD:6.26 mW(Emitting period :9 sec.)
DVD:1.27 mW (Emitting period : unlimited)

Additional Laser Caution

Transistors Q1103 and Q1104 in PCB drive the laser diodes for DVD and CD respectively. When Q1103 or Q1104 is shorted between their terminals, the laser diodes for DVD or CD will radiate beam. If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replaced only with the same or equivalent type recommended by the manufacture.
Discord used batteries according to the manufacture's instructions.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

CONTENTS

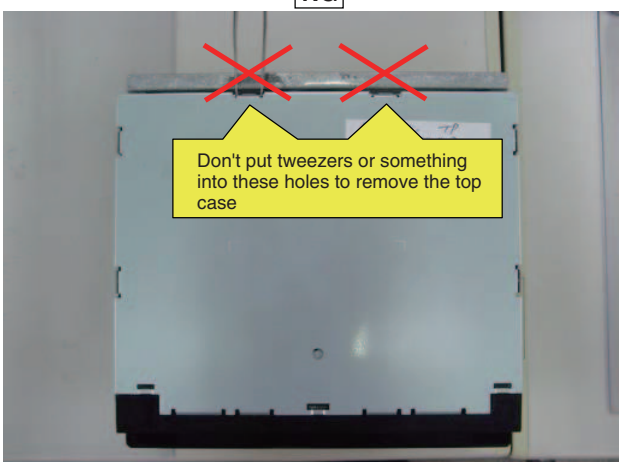
1. SERVICE PRECAUTIONS

1.1 SERVICE PRECAUTIONS

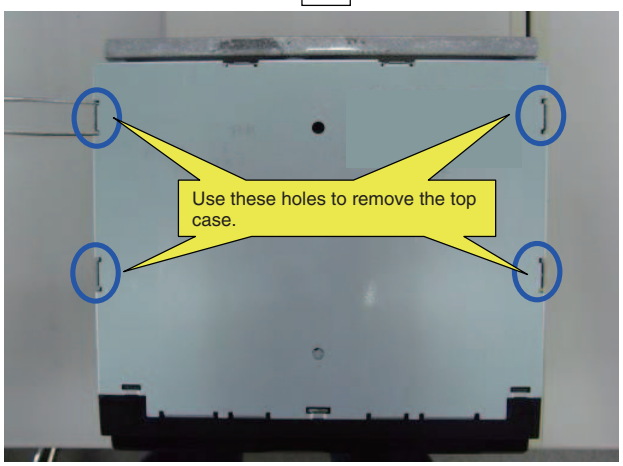
1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.
3. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
4. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY" .
5. After replacing the pickup unit, be sure to skew adjustment.
6. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.
7. After the replacement of LS1 mecha, connect ACC and BUP, and then press RESET button.
   ->Some functions such as BOOK mark may not work normally.
8. Connector CN5001 in the monitor unit : When you remove the flexible from the CKS5951, hold up the end of the flexible holddown part to remove it.
   ->There is a possibility of breakage of connector pin.
9. Connector CN5001 in the monitor unit : CKS5951 is a connector of both contact points.
   If you insert the flexible inversely, there is a possibility of IC damaged because of unintended connection.
   So please take care not to insert it inversely. If perchance you insert it inversely, you need to replace the unit.
10. The FFC styling between mother unit and DVD mecha (LS1) requires careful attention. Fold FFC to the mecha side and style it.
11. Eject lock
    Summary:DISC EJECT behavior of built-in DVD mecha is prohibited
    It is for DISC antitheft from the storefront display.
    With or without DISC, the behavior of pressing EJECT key during the EJECT lock is as follows.
    During grille closed
    Press EJECT key -> Grille is opened.
    *The key is valid at the point of being pressed (BEEP). To Leave the key makes grille opened.
    During grille opened
    Press EJECT key -> Grille is closed.
    *The key is valid at the point of being pressed (BEEP). To Leave the key makes grille opened
    Remarks: [Notes] EJECT lock is not unlocked by turning ACC ON or product reset.
    To unlock it, you need to operate keys as above.
    For existing model (AVH-P9DVA), it is unlocked by turning ACC ON or reset.
12. Background display data is stored in IC5201. So, if you replace the IC, user photo data will be lost.
13. If the gasket (CNN2782) on the FM/AM tuner unit was damaged or lost, then the reception sensitivity would be poor. So, replace it with the new one.
14. When the DVD mechanism is connected with the mother unit for the first time, initial data is written.
    So, do not turn the power off for 10 seconds.

NOTE: When you remove the top case

NG



OK



1.2 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.
  Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.

- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40 ˚C.
  Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373 ˚C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:

- Parts numbers of lead-free solder:
  GYP1006 1.0 in dia.
  GYP1007 0.6 in dia.
  GYP1008 0.3 in dia.

2. SPECIFICATIONS
2.1 SPECIFICATIONS

AVH-P3100DVD/XN/UC

General

Power source ..... 14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 10.0 A
Backup current ..... 2 mA or less

Dimensions (W × H × D):
- DIN
  - Chassis ..... 178 mm × 100 mm × 165 mm (7 in. × 3-7/8 in. × 6-1/2 in.)
  - Nose ..... 171 mm × 97 mm × 8 mm (6-3/4 in.× 3-7/8 in.× 3/8 in.)

Weight ..... 1.7 kg(3.7 lbs)

Display

Screen size/aspect ratio ..... 5.8 inch wide/16:9 (effective display area: 128.1 × 71 mm)
Pixels ..... 336 960 (1 440 × 234)
Display method ..... TFT active matrix, transmissive type
Color system ..... NTSC
Durable temperature range (power off) ..... -20 °C to +80 °C

Audio

Maximum power output ..... 50 W × 4
50 W × 2/4 Ω + 70 W × 1/2 Ω (for subwoofer)
Continuous power output ..... 22 W × 4 (1 kHz, 5% THD, 4 Ω load, both channels driven)
Load impedance ..... 4 Ω to 8 Ω × 4
4 Ω to 8 Ω × 2 + 2 Ω × 1
Preout max output level ..... 4.0 V
Equalizer (3-Band Parametric Equalizer):
- Low
  - Frequency ..... 40/80/100/160 Hz
  - Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
  - Gain ..... ±12 dB
- Mid
  - Frequency ..... 200/500/1k/2k Hz
  - Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
  - Gain ..... ±12 dB
- High
  - Frequency ..... 3.15k/8k/10k/12.5k Hz
  - Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
  - Gain ..... ±12 dB

HPF:
- Frequency ..... 50/63/80/100/125 Hz
- Slope ..... –12 dB/oct

Subwoofer (mono):
- Frequency ..... 50/63/80/100/125 Hz
- Slope ..... –18 dB/oct
- Gain ..... +6 dB to –24 dB
- Phase ..... Normal/Reverse

Bass boost:
- Gain ..... +12 dB to 0 dB

DVD Player

System ..... DVD video, Video CD, CD, WMA, MP3, AAC, DivX, JPEG system
Usable discs ..... DVD video, Video CD, CD, CD-R/RW, DVD-R/RW/RDL
Region number 1
Frequency response ..... 5 Hz to 44 000 Hz(with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio ..... 96 dB (1 kHz) (IHF-A network) (RCA level)
Output level:
- Video ..... 1.0 Vp-p/75 Ω (±0.2 V)

Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11 (2ch audio) (Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 8.0 and earlier)
DivX decoding format ..... Home Theater Ver. 3, 4, 5.2, 6 (.avi, .divx)

USB

USB standard specification ..... USB 1.1, USB 2.0 full speed
Maximum current supply ..... 500 mA
USB Class ..... MSC (Mass Storage Class)
File system FAT16, FAT32
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11 (2ch audio) (Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 8.0 and earlier)

FM tuner

Frequency range ..... 87.9 MHz to 107.9 MHz
Usable sensitivity ..... 9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)

Signal-to-noise ratio..... 72 dB (IHF-A network)

AM tuner

Frequency range..... 530 kHz to 1 710 kHz (10 kHz)
Usable sensitivity..... 25 µV (S/N: 20 dB)
Signal-to-noise ratio..... 62 dB (IHF-A network)

CEA2006 Specifications

Power output ..... 14 W RMS × 4 Channels (4 Ω and ≦1 % THD+N)
S/N ratio ..... 91 dBA (reference: 1 W into 4 Ω)

Note

Specifications and the design are subject to modifications without notice due to improvements.

General

Power source ..... 14.4 V DC (12.0 V to 14.4 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 10.0 A
Backup current ..... 2 mA or less

Dimensions (W × H × D):
- DIN
  - Chassis ..... 178 mm × 100 mm × 165 mm
  - Nose ..... 171 mm × 97 mm × 8 mm

Weight ..... 1.7 kg

Display

Screen size/aspect ratio ..... 5.8 inch wide/16:9 (effective display area: 128.1 × 71 mm)
Pixels ..... 336 960 (1 440 × 234)
Display method ..... TFT active matrix, transmissive type
Color system ..... NTSC/PAL/PAL-M/SECAM compatible
Durable temperature range (power off) ..... -20 °C to +80 °C

Audio

Maximum power output ..... 50 W × 4
50 W × 2/4 Ω + 70 W × 1/2 Ω (for subwoofer)
Continuous power output ..... 22 W × 4 (1 kHz, 5% THD, 4 Ω load, both channels driven)
Load impedance ..... 4 Ω to 8 Ω × 4
4 Ω to 8 Ω × 2 + 2 Ω × 1
Preout max output level ..... 4.0 V
Equalizer (3-Band Parametric Equalizer):
- Low
  - Frequency ..... 40/80/100/160 Hz
  - Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
  - Gain ..... ±12 dB
- Mid
  - Frequency ..... 200/500/1k/2k Hz
  - Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
  - Gain ..... ±12 dB
- High
  - Frequency ..... 3.15k/8k/10k/12.5k Hz
  - Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
  - Gain ..... ±12 dB

HPF:
- Frequency ..... 50/63/80/100/125 Hz
- Slope ..... –12 dB/oct

Subwoofer (mono):
- Frequency ..... 50/63/80/100/125 Hz
- Slope ..... –18 dB/oct
- Gain ..... +6 dB to –24 dB
- Phase ..... Normal/Reverse

Bass boost:
- Gain ..... +12 dB to 0 dB

DVD Player

System ..... DVD video, DVD-VR, Video CD, CD, WMA, MP3, AAC, DivX, JPEG system
Usable discs ..... DVD video, Video CD, CD, CD-R/RW, DVD-R/RW/RDL
Region number:
- for Middle East Asian and South African models 2
- for Southeast Asian models 3
- for South American and Oceanian models 4

Frequency response ..... 5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio ..... 96 dB (1 kHz) (IEC-A network) (RCA level)
Output level:
- Video ..... 1.0 Vp-p/75Ω (±0.2 V)

Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7,7.1, 8, 9, 10, 11 (2ch audio)
(Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a)
(Ver. 8.0 and earlier)
DivX decoding format ..... Home Theater Ver. 3, 4, 5.2, 6 (.avi, .divx)

USB

USB standard specification ..... USB1.1, USB 2.0 full speed
Maximum current supply ..... 500 mA
USB Class ..... MSC (Mass Storage Class)
File system FAT16, FAT32
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7,7.1, 8, 9, 10, 11 (2ch audio)
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AAC decoding format..... MPEG-4 AAC (iTunes encoded only) (.m4a)
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FM tuner

Frequency range.....87.5 MHz to 108.0 MHz
Usable sensitivity..... 9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio..... 72 dB (IEC-A network)

AM tuner

Frequency range..... 531 kHz to 1 602 kHz (9 kHz)
530 kHz to 1 640 kHz (10 kHz)
Usable sensitivity..... 25 µV (S/N: 20 dB)
Signal-to-noise ratio..... 62 dB (IEC-A network)

Infrared remote control

Wavelength..... 945 nm
Output ..... typ; 10 mw/sr per Infrared LED

Note

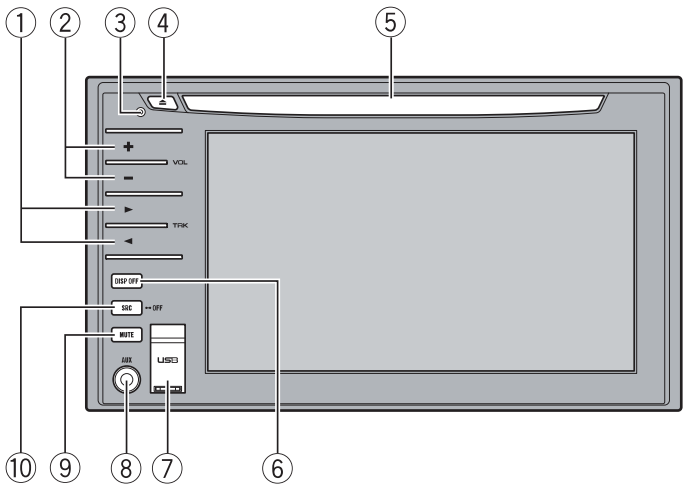
Specifications and the design are subject to modifications without notice due to improvements. ■

2.2 DISC/CONTENT FORMAT

is a trademark of DVD Format/Logo Licensing Corporation.

AVH-P3100DVD/XN/UC

2.3 PANEL FACILITIES



Head unit

① **◄/► (TRK) buttons**
Press to do manual seek tuning, fast forward, reverse and track search controls.

② **+/– (VOL) buttons**
Press to increase or decrease the volume.

③ **RESET button**
Press to return to the factory settings (initial settings).

④ **▲ (eject) button**
Press to eject a disc from this unit.

⑤ **Disc loading slot**
Insert a disc to play.

⑥ **DISP OFF button**
Press to turn the information display on or off.

⑦ **USB port**
Use to connect a USB storage device.
- When connecting, open up the USB connector lid.
- Use a USB cable to connect the USB storage device to the USB port. Since the USB storage device is projected forward from the unit, it is dangerous to connect directly.

  Pioneer CD-U50E USB cable is also available. For details, consult your dealer.

⑧ **AUX1 input jack (3.5 mm stereo/video jack)**
Use to connect an auxiliary device.

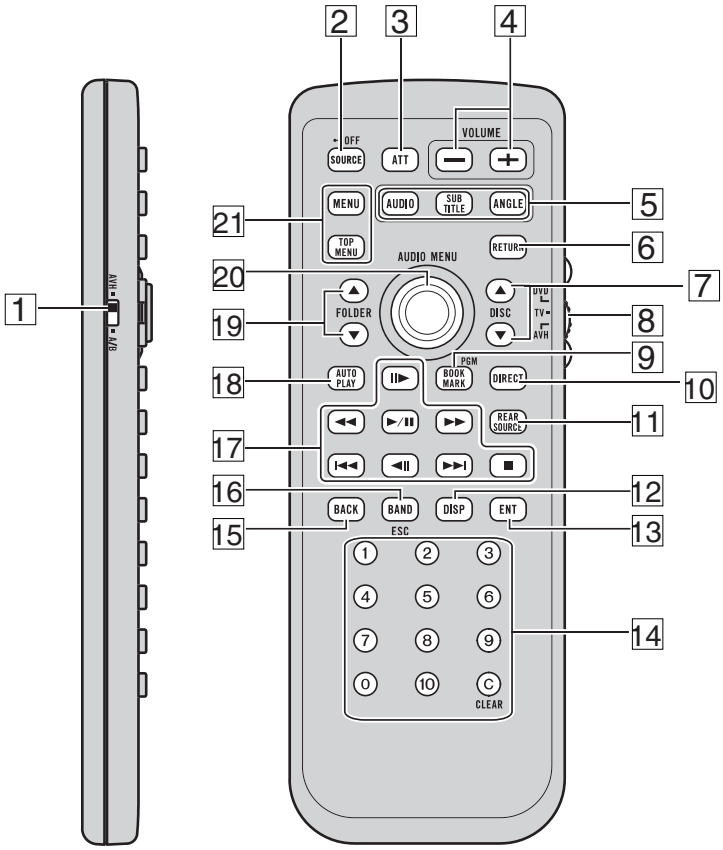
⑨ **MUTE button**
Press to turn off the sound. To turn on the sound, press again.

⑩ **SRC/OFF button**
Press to cycle through all the available sources. Press and hold to turn the source off. ■

AVH-P3100DVD/XN/UC

Optional remote control

The remote control CD-R55 is sold separately. For details concerning operations, see the remote control manual. ■



Remote control

	Button names	AVH mode	DVD mode
1	Remote control selection switch	Switch to change the setting of the remote control. For details, refer to Setting remote control code type.	
2	**SRC/OFF** button	Press to cycle through all the available sources. Press and hold to turn the source off.	
3	**ATT** button	Press to quickly lower the volume level by about 90%. Press once more to return to the original volume level.	
4	**VOLUME** buttons	Press to increase or decrease the volume.	
5	**AUDIO** button	Press to change the audio language during DVD playback while using the built-in DVD player.	
	SUBTITLE button	Press to change the subtitle language during DVD playback while using the built-in DVD player.	
	ANGLE button	Press to change the viewing angle during DVD playback while using the built-in DVD player.	
6	**RETURN** button	Press to display the PBC (playback control) menu during PBC playback.	

7	▲/▼ buttons (**DISC**)	Not used.	**Remote control code: AVH or B** Not used. **Remote control code: A** Press to select the next/previous disc.
8	Remote control operation mode switch	Switch the operation mode between **AVH**, **DVD** and **TV** modes. Normally, set to **AVH**. For details, refer to Using the remote control operation mode switch on the next page.	
9	**Bookmark** button/ **PGM** button	Press to operate the preprogrammed functions for each source.	Press to turn the bookmark function on or off when your DVD player features bookmark function. For details, refer to DVD player's operation manual.
10	**DIRECT** button	Not used.	
11	**REAR SOURCE** button	Not used.	**Remote control code: AVH** Not used. **Remote control code: A or B** Press to turn the DVD player on or off.
12	**DISPLAY** button	Press to select different displays.	**Remote control code: AVH** Not used. **Remote control code: A or B** Press to select different displays.
13	**ENTERTAINMENT** button	Not used.	
14	**0** to **10** buttons, **CLEAR** button	Press **0** to **10** to input numbers. Buttons **1** to **6** can operate the preset tuning for the tuner or disc changing for DVD player or multi-CD player. Press **CLEAR** to clear the input numbers.	Press to select a menu item on a video CD featuring PBC (playback control).
15	**Back** button	Press to return to the previous display.	Not used.
16	**BAND/ESC** button	Press to select the tuner band when tuner is selected as a source. Also used to cancel the control mode of functions. Press to switch mode between compressed audio and audio data (CD-DA) when playing discs with compressed audio and audio data (CD-DA) such as CD-EXTRA and MIXED-MODE CDs.	Press to switch mode between compressed audio and audio data (CD-DA) when playing discs with compressed audio and audio data (CD-DA) such as CD-EXTRA and MIXED-MODE CDs.
17	**PLAY/PAUSE** (►/II) button	Press to switch sequentially between playback and pause while using the built-in DVD player.	
	REVERSE (◄◄) button	Press to perform fast reverse while using the built-in DVD player.	
	FORWARD (►►) button	Press to perform fast forward while using the built-in DVD player.	
	PREVIOUS (I◄◄) button	Press to return to the previous track (chapter) while using the built-in DVD player.	
	NEXT (►►I) button	Press to go to the next track (chapter) while using the built-in DVD player.	
	STEP (II►/◄II) buttons	Press to move ahead one frame at a time during DVD/VideoCD playback. Press and hold for one second to activate slow playback while using the built-in DVD player.	
	STOP (■) button	Press to stop playback while using the built-in DVD player.	

18	**AUTO PLAY** button	Press to turn the DVD auto-playback function on or off while using the built-in DVD player.	
19	▲/▼ buttons (**FOLDER**)	Press to select the next/previous folder.	
20	Thumb pad	Move to do fast forward, reverse and track search controls. Click to recall **Menu**.	Move to select a menu on the DVD menu.
21	**MENU** button	Press to display the DVD menu during DVD playback.	
	TOP MENU button	Press to return to the top menu during DVD playback.	

Using the remote control operation mode switch

There are three remote control operation modes on the remote control.

AVH mode operation

When operating this unit by remote control, the mode is normally switched to **AVH**.

DVD mode operation

If you switch the mode to **DVD**, the thumb pad and **0** to **10** operations are changed for the DVD player.

● **When you want to operate the following functions, switch the mode to DVD:**

- When operating the DVD menu by using the thumb pad.
- When operating the PBC menu by using **0** to **10**.

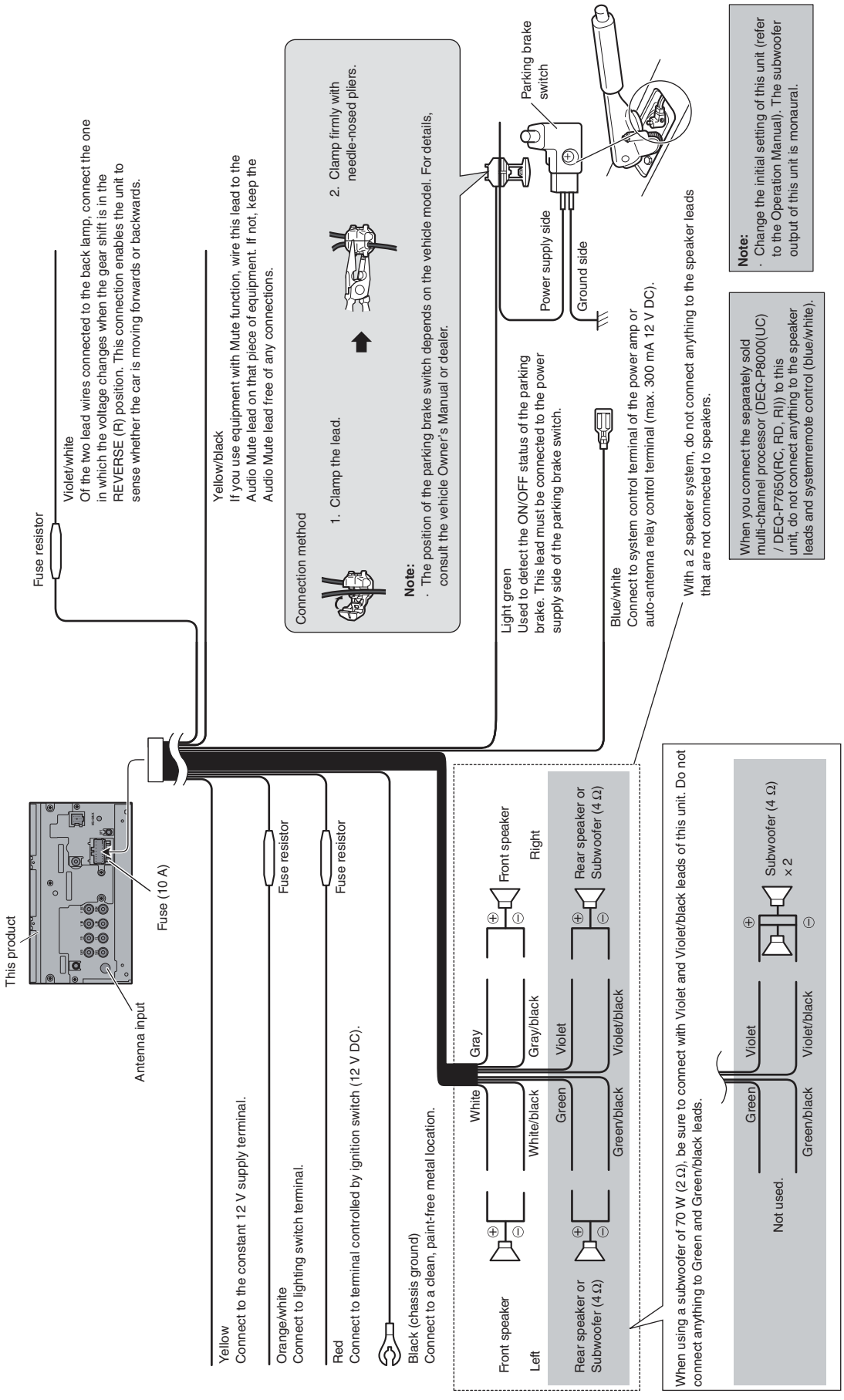
TV mode operation

TV operations available with a Pioneer TV tuner (e.g. GEX-P5750TV(P)) can be controled with **AVH** mode. **TV** mode is not used with this unit.

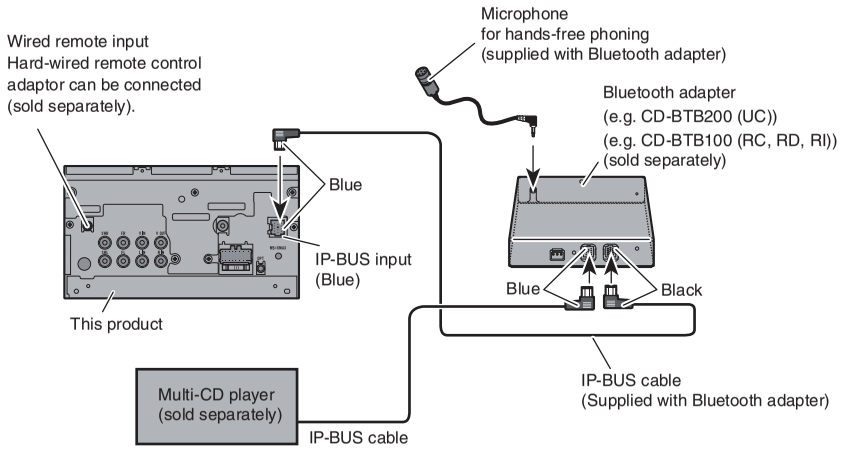
- For details concerning operation, refer to the TV tuner's operation manuals.■

2.4 CONNECTION DIAGRAM

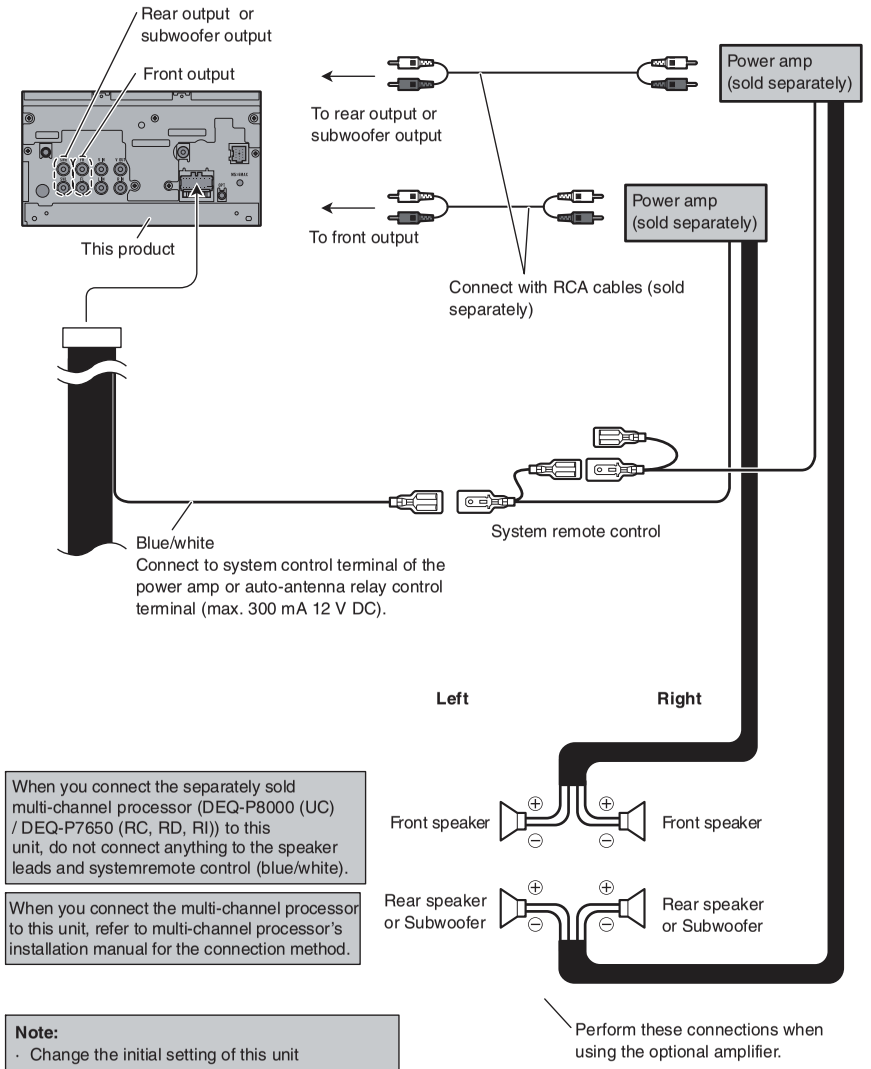
Connecting the power cord



Connecting the system



When connecting to separately sold power amp



When you connect the separately sold multi-channel processor (DEQ-P8000 (UC) / DEQ-P7650 (RC, RD, RI)) to this unit, do not connect anything to the speaker leads and systemremote control (blue/white).

When you connect the multi-channel processor to this unit, refer to multi-channel processor's installation manual for the connection method.

Note:
- Change the initial setting of this unit (refer to the Operation Manual). The subwoofer output of this unit is monaural.

When connecting with a rear view camera

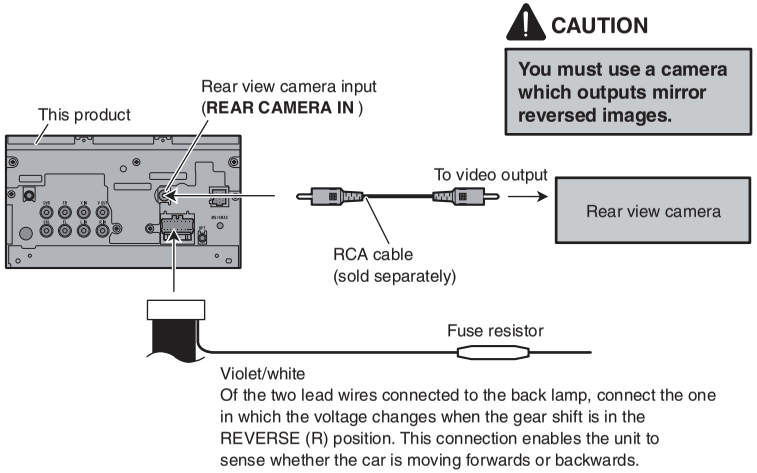
When this product is used with a rear view camera, it is possible to automatically switch from the video to rear view image when the gear shift is moved to REVERSE (R).

⚠ WARNING

USE INPUT ONLY FOR REVERSE OR MIRROR IMAGE REAR VIEW CAMERA. OTHER USE MAY RESULT IN INJURY OR DAMAGE.

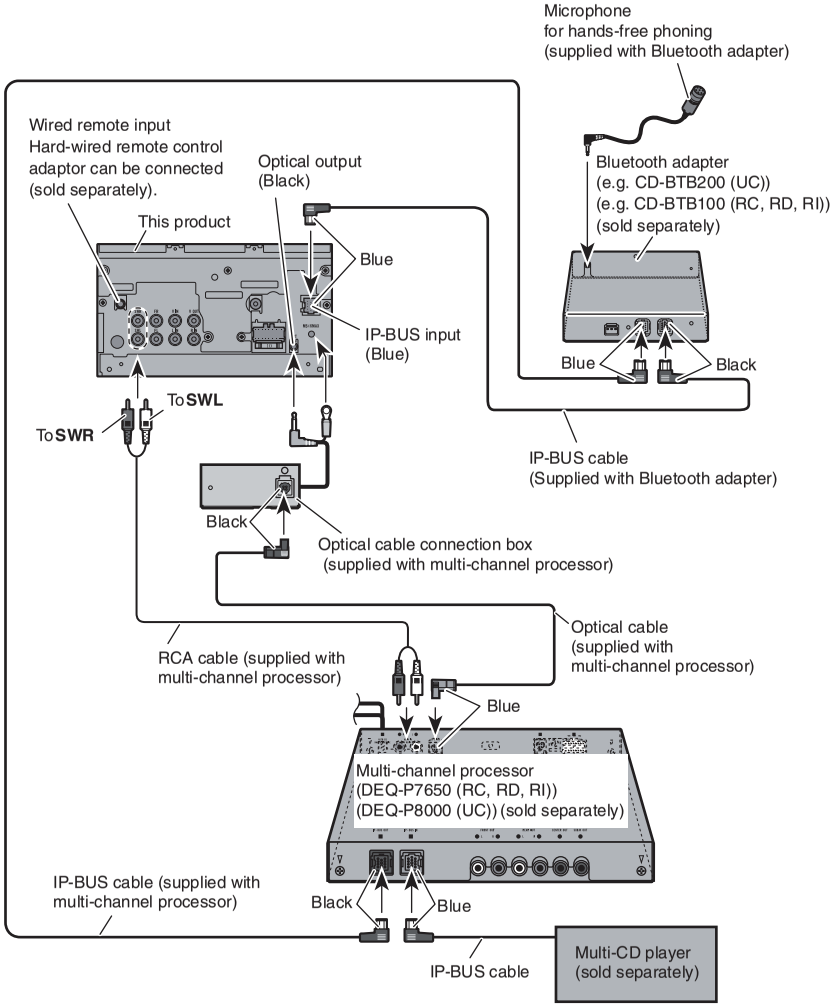
⚠ CAUTION

- The screen image may appear reversed.
- The rear view camera function is to be used as an aid for backing into a tight parking spot. Do not use this function for entertainment purposes.
- Objects in the rear view may appear closer or more distant than they actually are.



- It is necessary to set **Camera Polarity** properly in **System Menu** when connecting the rear view camera.

When connecting with a multi-channel processor



Connecting and installing the optical cable connection box

⚠ WARNING

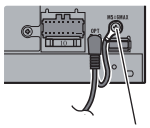
- **Avoid installing the optical cable connection box in locations where the operation of safety devices such as airbags is prevented by this unit. Otherwise, there is a danger of a fatal accident.**
- **Avoid installing the optical cable connection box in locations where the operation of the brake may be prevented. Otherwise, it may result in a traffic accident.**
- **Fix the optical cable connection box securely with the hook and loop fastener or lock tie. If the unit is loose, it disturbs driving stability, which may result in a traffic accident.**

⚠ CAUTION

- Install this unit using only the parts supplied with this unit. If other parts are used, this unit may be damaged or could dismount itself, which leads to an accident or other problems.
- Do not install this unit near the doors where rainwater is likely to be spilled on the unit. Incursion of water into the unit may cause smoke or fire.

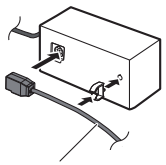
Connecting the optical cable

1. **Connect the optical cable and ground lead to the main unit.**
   Connect the optical cable so that it does not protrude from the main unit, as shown in the illustration. Fasten the ground lead to the protrusion on the back of the main unit.



Screw

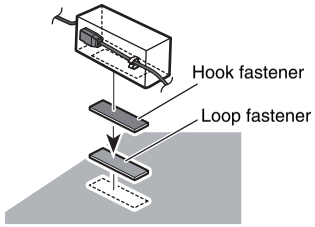
2. **Connect the optical cable to the optical cable connection box.**



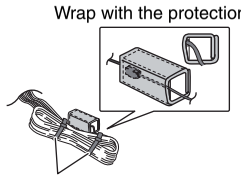
Optical cable

Installing the optical cable connection box

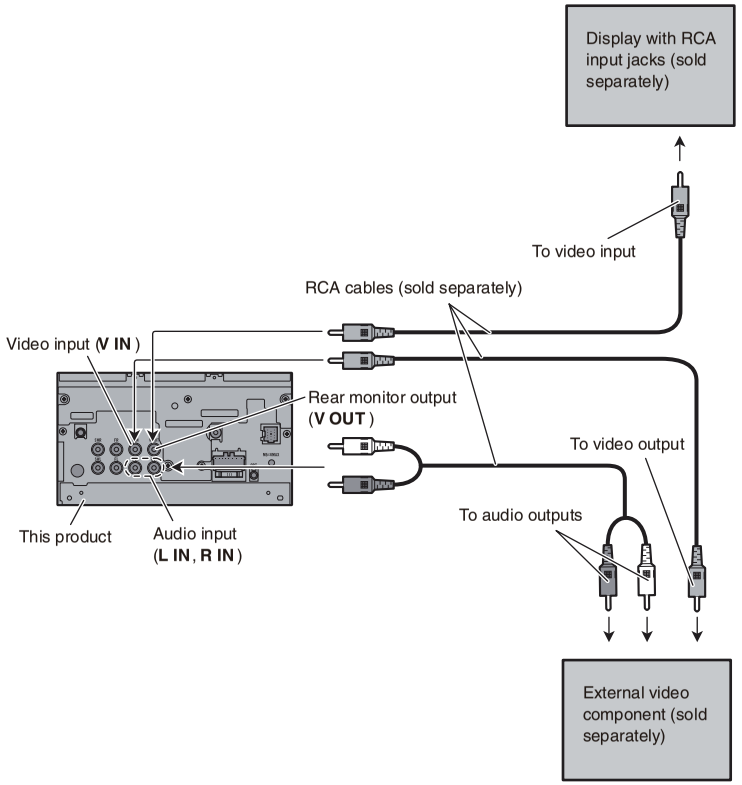
- **When installing the optical cable connection box with the hook and loop fastener.**
  Install the optical cable connection box using the hook and loop fastener in the ample space of the console box.



- **When installing the optical cable connection box with the lock tie.**
  Wrap the optical cable and connection box with the protection tape and fasten with the power code using the lock tie.



When connecting the external video component and the display



- It is necessary to change **AV Input** in **System Menu** when connecting the external video component.

When using a display connected to rear video output

This product's rear video output is for connection of a display to enable passengers in the rear seats to watch video.

⚠ WARNING

Never install the display in a location where it is visible to the driver while driving.

3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

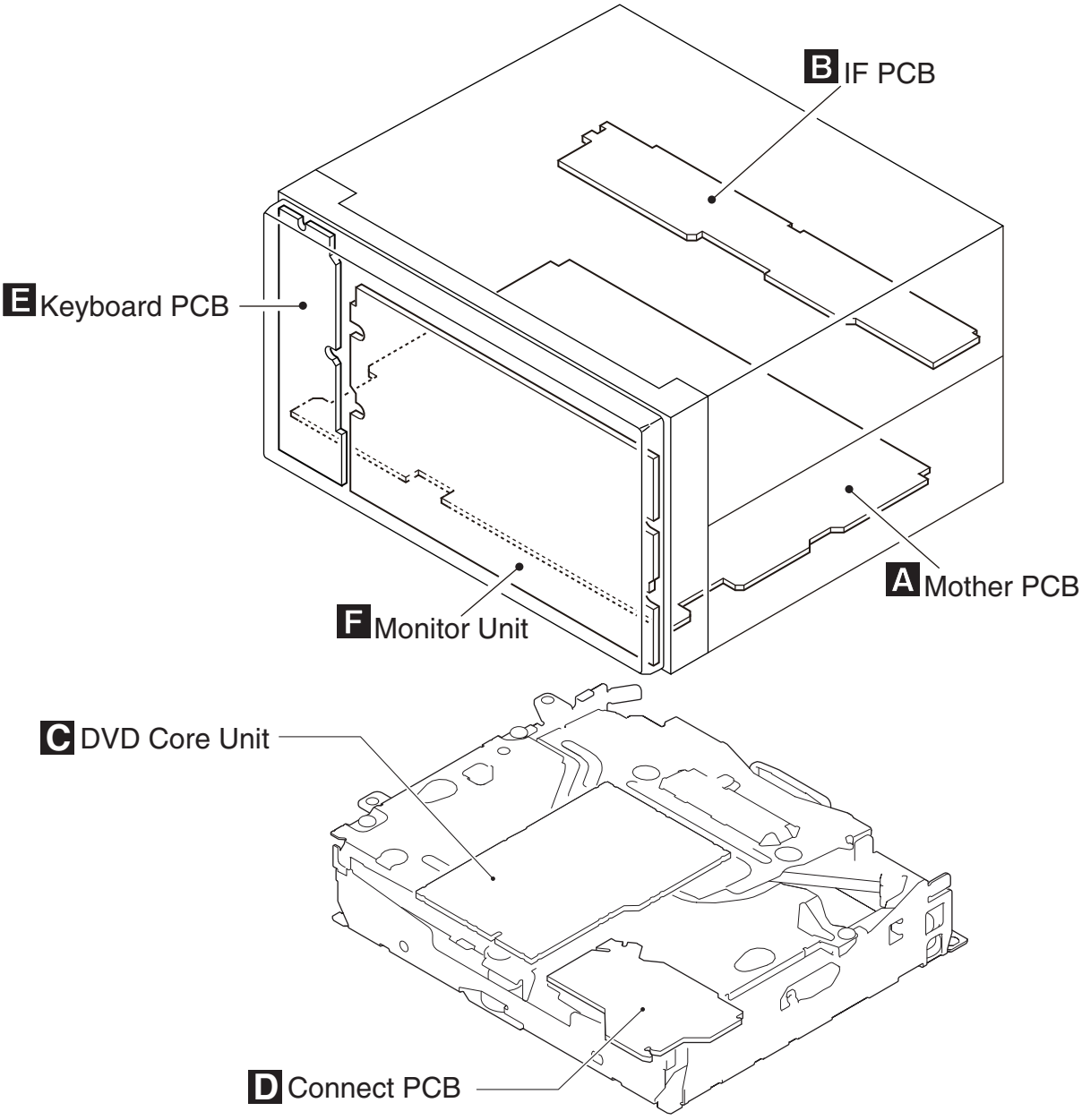
To keep the product quality after servicing, please confirm following check points.

No.		Procedures	Item to be confirmed
1		Confirm whether the customer complain has been solved. If the customer complain occurs with the specific media, use it for the operation check.	The customer complain must not be reappeared. Display, video, audio and operations must be normal.
2	DVD	Measure playback error rates at the innermost and outermost tracks by using the test mode with the following disc. DVD test disc (TDV-582)	Deterioration of mecha-drive can be checked. The error rate must be less than the threshold value. (Refer to the chapter of DIAGNOSIS for the threshold value.)
3	DVD	Play back a DVD. (Menu operation; Title/chapter search)	Display, video, audio and operations must be normal.
4	CD	Play back a CD. (Track search)	Display, audio and operations must be normal.
5	FM/AM tuner	Check FM/AM tuner action. (Seek, Preset) Switch band to check both FM and AM.	Display, audio and operations must be normal. * If the reception sensitivity is poorer than normal, the gasket on the FM/AM tuner unit may be damaged or lost.
6		Check whether no disc is inside the product.	The media used for the operating check must be ejected.
7		Appearance check	No scratches or dirt on its appearance after receiving it for service.

For check items concerning image and voice, please refer to the followings:

Check items concerning image	**Check items concerning voice**
Block-noise	Distortion
Crosscut noise	Noise
Dot noise	Low volume
Distorted image (Image skip)	High volume
Low brightness	Changes in level
Too bright	Pause of sound
Color fading	
Partial discoloration	

3.2 PCB LOCATIONS

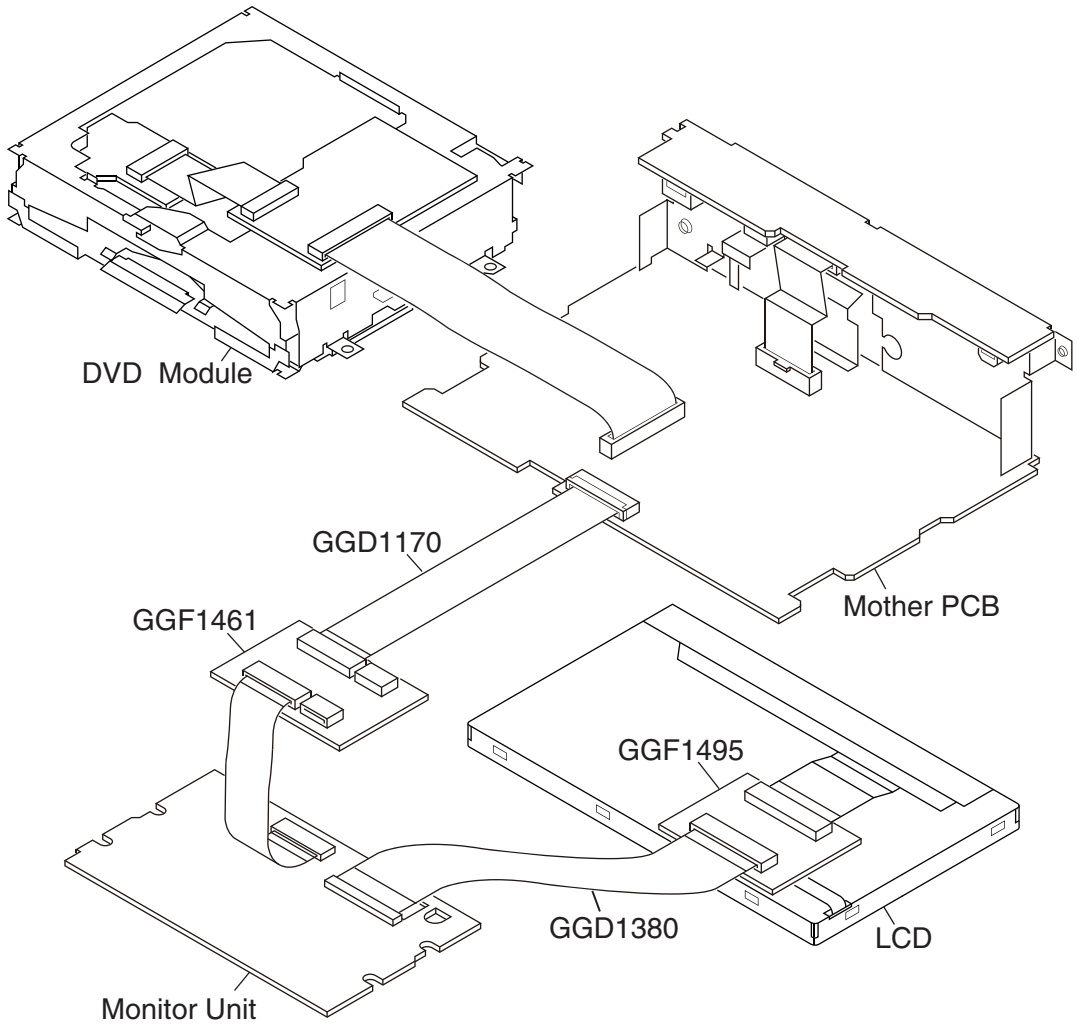


Mother Unit
Consists of
Mother PCB
IF PCB
Keyboard PCB

Unit Number	:	CWN3777(UC)
Unit Number	:	CWN3778(RC)
Unit Number	:	CWN3779(RD)
Unit Number	:	CWN3780(RI)
Unit Name	:	Mother Unit

Unit Number	:	CWN3783
Unit Name	:	Monitor Unit
Unit Number	:	YWX5007
Unit Name	:	DVD Core Unit
Unit Number	:	
Unit Name	:	Connect PCB

3.3 JIGS LIST



● **Jigs List**

Name	Jig No.	Remarks
60-Pin Relay PCB	GGF1495	LCD <--> 60-Pin FFC (GGD1380)
60-Pin FFC	GGD1380	60-Pin Relay PCB (GGF1495) <--> Monitor Unit (CN6001)
40-Pin + 20-Pin Relay PCB	GGF1461	Monitor Unit (CN5001) <--> FFC (CDE8744)
40-Pin FFC	GGD1170	40-Pin + 20-Pin Relay PCB (GGF1461) <--> Mother PCB (CN501)
Disc	TDV-582	Skew adjustment, Check points after servicing, Inspection method of Pickup Unit
Disc	TCD-782	Inspection method of Pickup Unit

● **Grease List**

Name	Jig No.	Remarks
Grease	GEM1024	DVD Mechanism Module
Grease	GEM1038	DVD Mechanism Module
Grease	GEM1045	DVD Mechanism Module
Locking agents	1401M	Skew adjustment (1401M:produced by THREE BOND)
Bond	GEM1033	Skew adjustment
Bond	1530	Skew adjustment (1530:produced by THREE BOND)

3.4 CLEANING

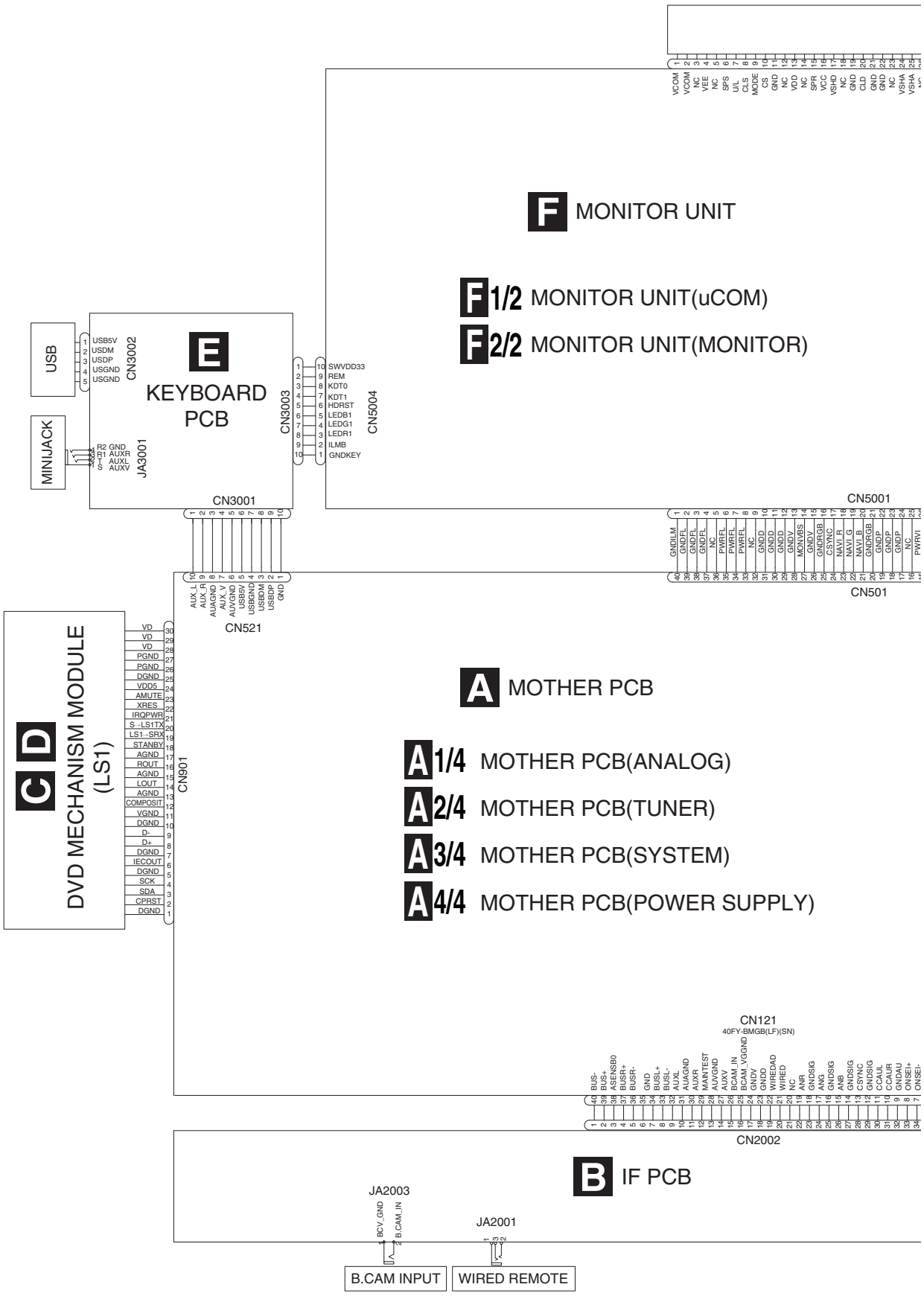
Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

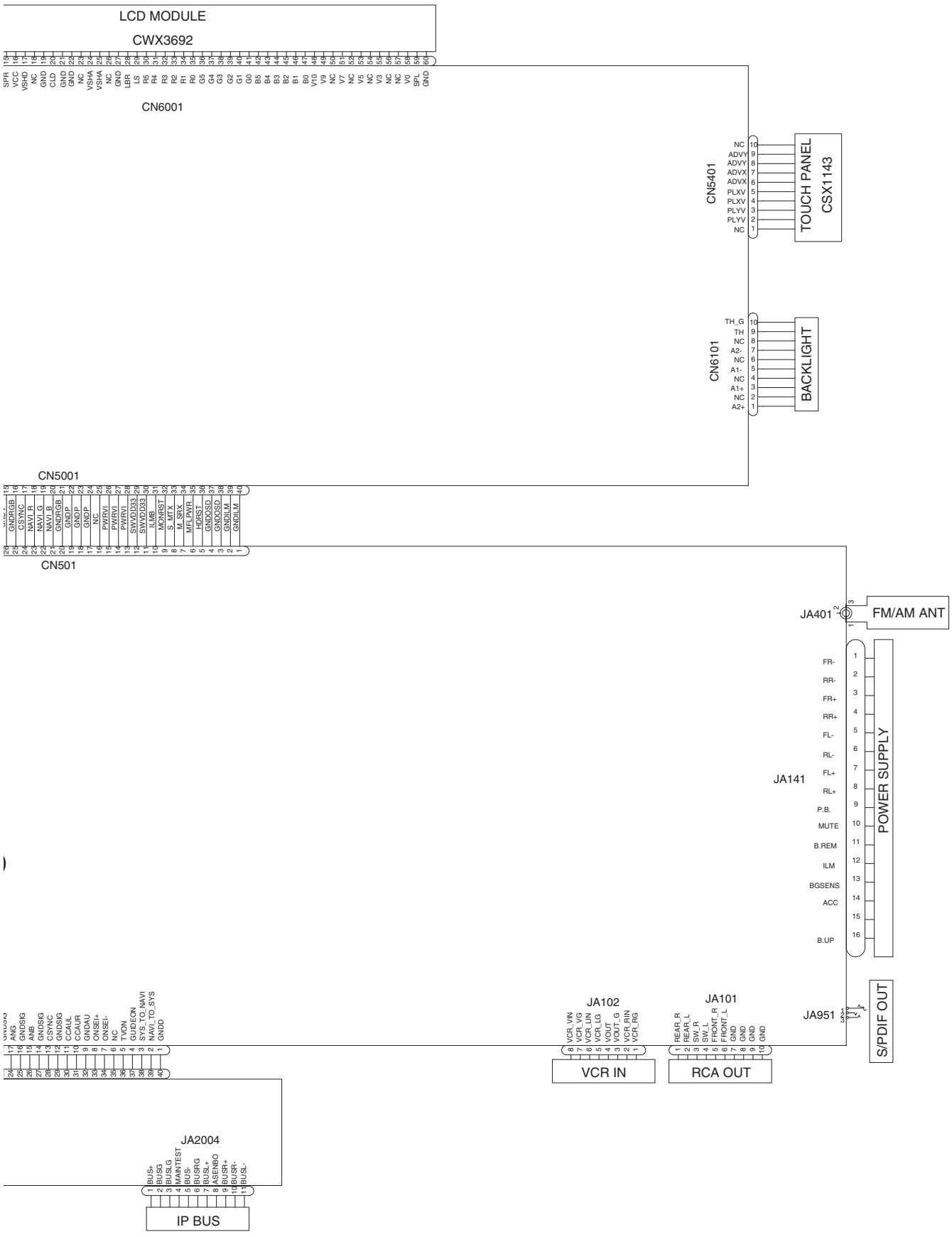
Portions to be cleaned	Cleaning tools
DVD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

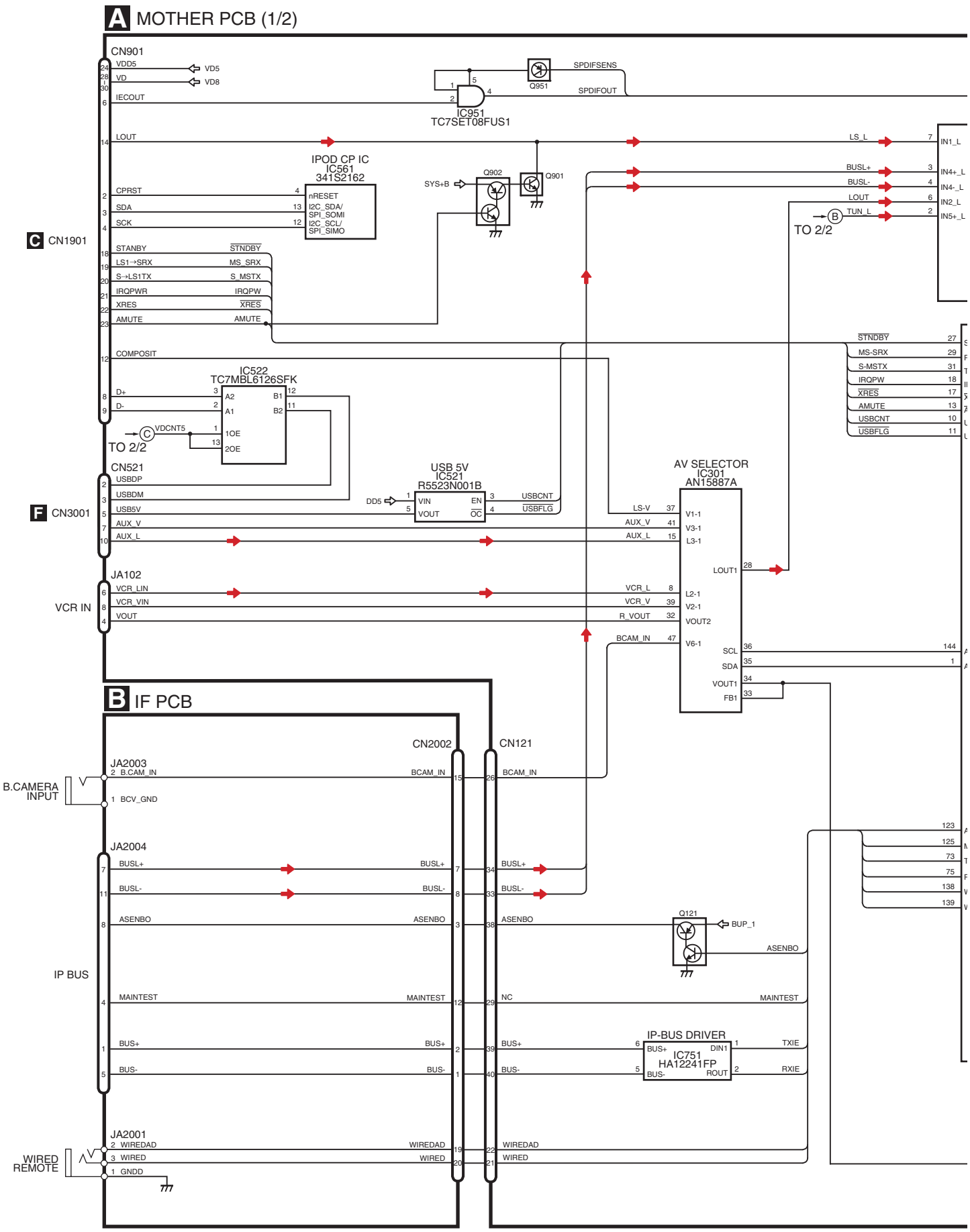
4. BLOCK DIAGRAM

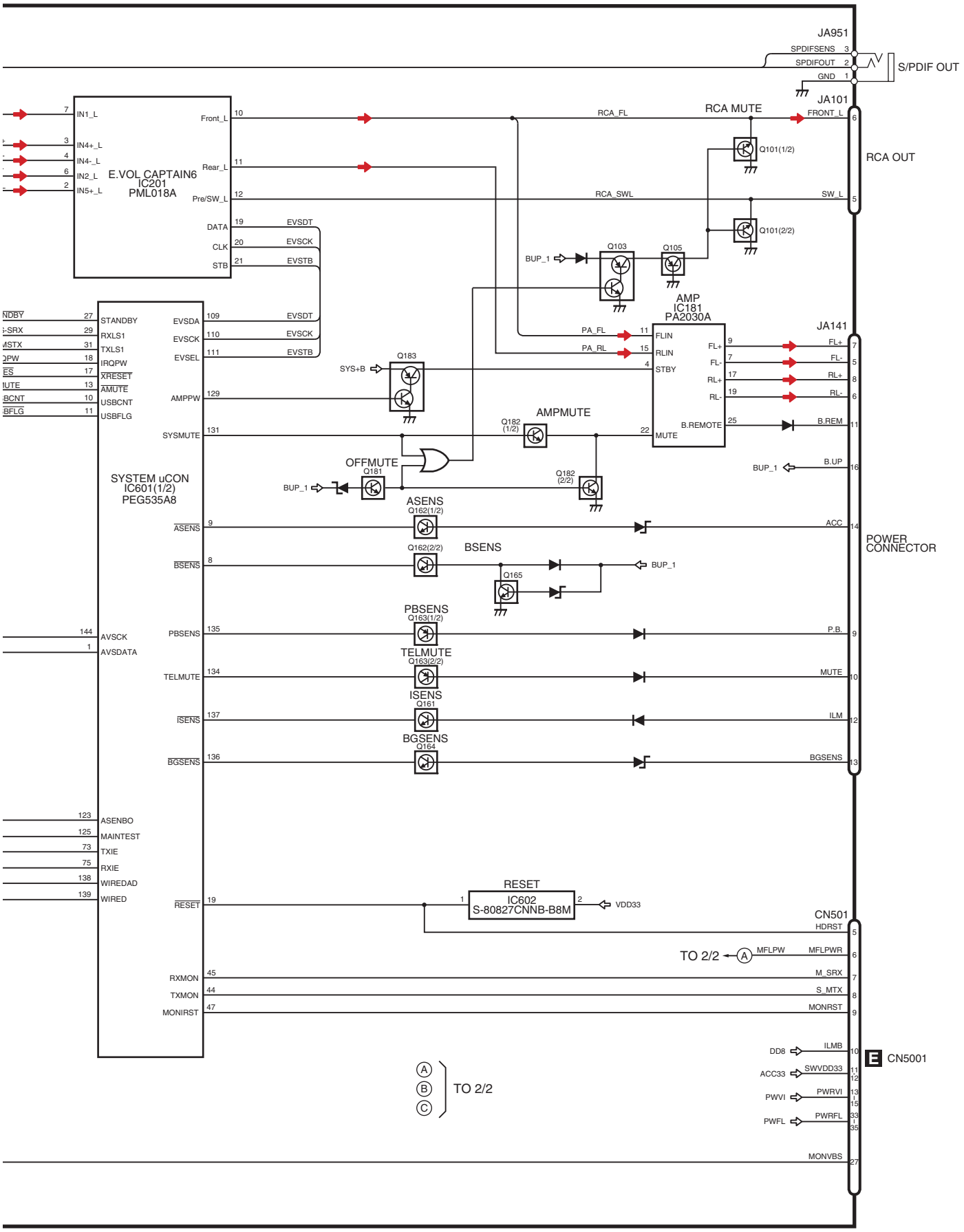
4.1 OVERALL CONNECTION DIAGRAM



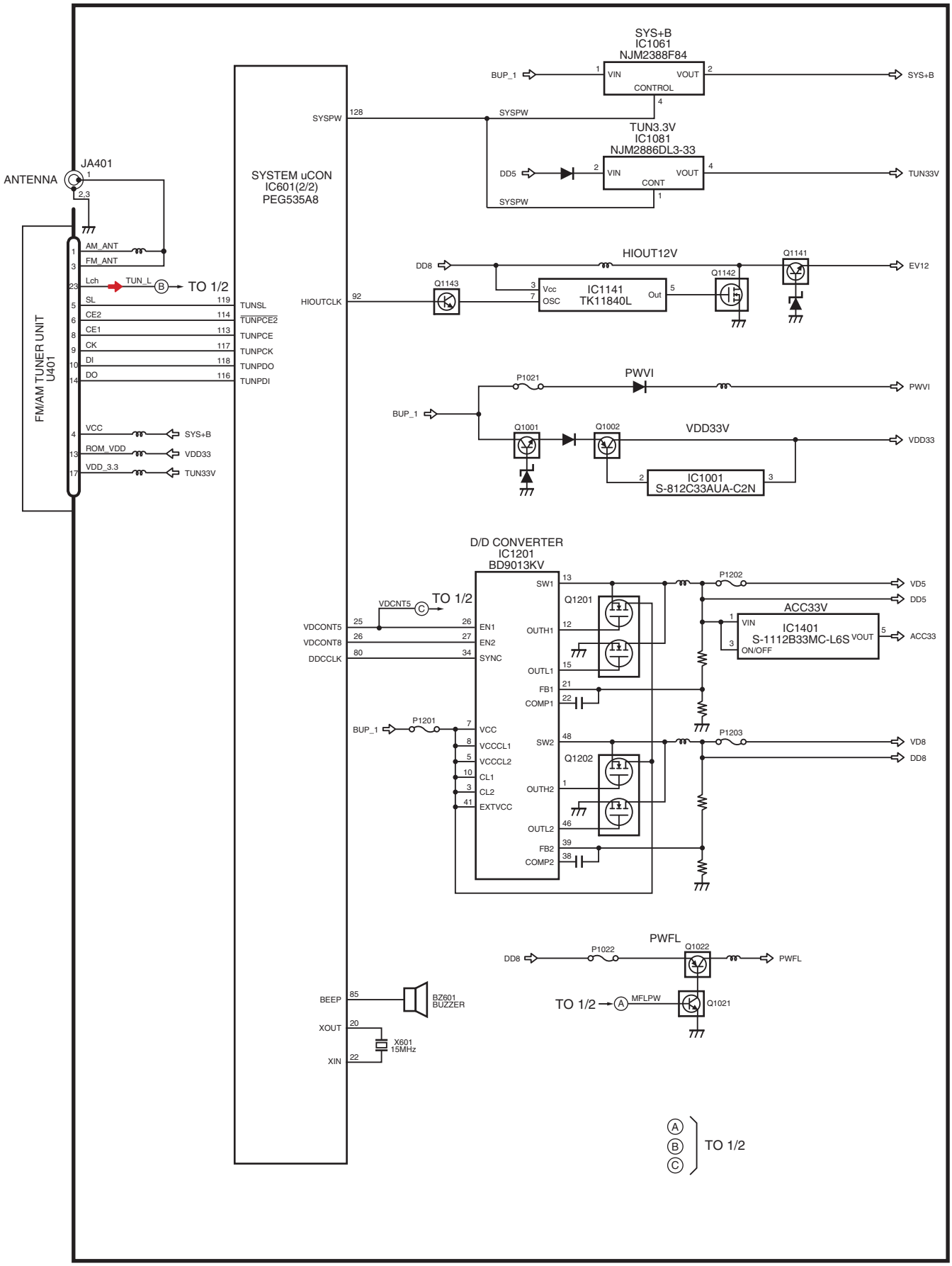

LCD MODULE
CWX3692
CN6001
SPR
VCC
VSHD
NC
GND
CLD
GND
GND
NC
VSHA
VSHA
NC
GND
LBR
LS
R5
R4
R3
R2
R1
R0
G5
G4
G3
G2
G1
G0
B5
B4
B3
B2
B1
B0
V10
V9
NC
V7
NC
V5
NC
V3
NC
NC
V0
SPL
GND
CN5401
NC
ADVY
ADVY
ADVX
ADVX
PLXV
PLXV
PLYV
PLYV
NC
TOUCH PANEL
CSX1143
CN6101
TH_G
TH
NC
A2-
NC
A1-
NC
A1+
NC
A2+
BACKLIGHT
CN5001
GNDRGB
CSYNC
NAVI_R
NAVI_G
NAVI_B
GNDRGB
GNDP
GNDP
GNDP
NC
PWRVI
PWRVI
PWRVI
SWVDD33
SWVDD33
ILLMB
MAINRST
S_MTX
M_SRX
MFL_PWR
HDRST
GNDOSD
GNDOSD
GNDILM
GNDILM
CN501
JA401
FM/AM ANT
JA141
FR-
RR-
FR+
RR+
FL-
RL-
FL+
RL+
P.B.
MUTE
B.REM
ILM
BGSENS
ACC
B.UP
POWER SUPPLY
JA951
S/PDIF OUT
ANG
GNDSIG
ANB
GNDSIG
CSYNC
GNDSIG
CCAUL
CCAUR
GNDAU
ONSEI+
ONSEI-
NC
TVON
GUIDEON
SYS_TO_NAVI
NAVI_TO_SYS
GNDD
JA102
VCR_VIN
VCR_VG
VCR_LIN
VCR_LG
VOUT
VOUT_G
VCR_RIN
VCR_RG
VCR IN
JA101
REAR_R
REAR_L
SW_R
SW_L
FRONT_R
FRONT_L
GND
GND
GND
GND
RCA OUT
JA2004
BUS+
BUSG
BUSLG
MAINTEST
BUS-
BUSRG
BUSL+
ASENBO
BUSR+
BUSR-
BUSL-
IP BUS

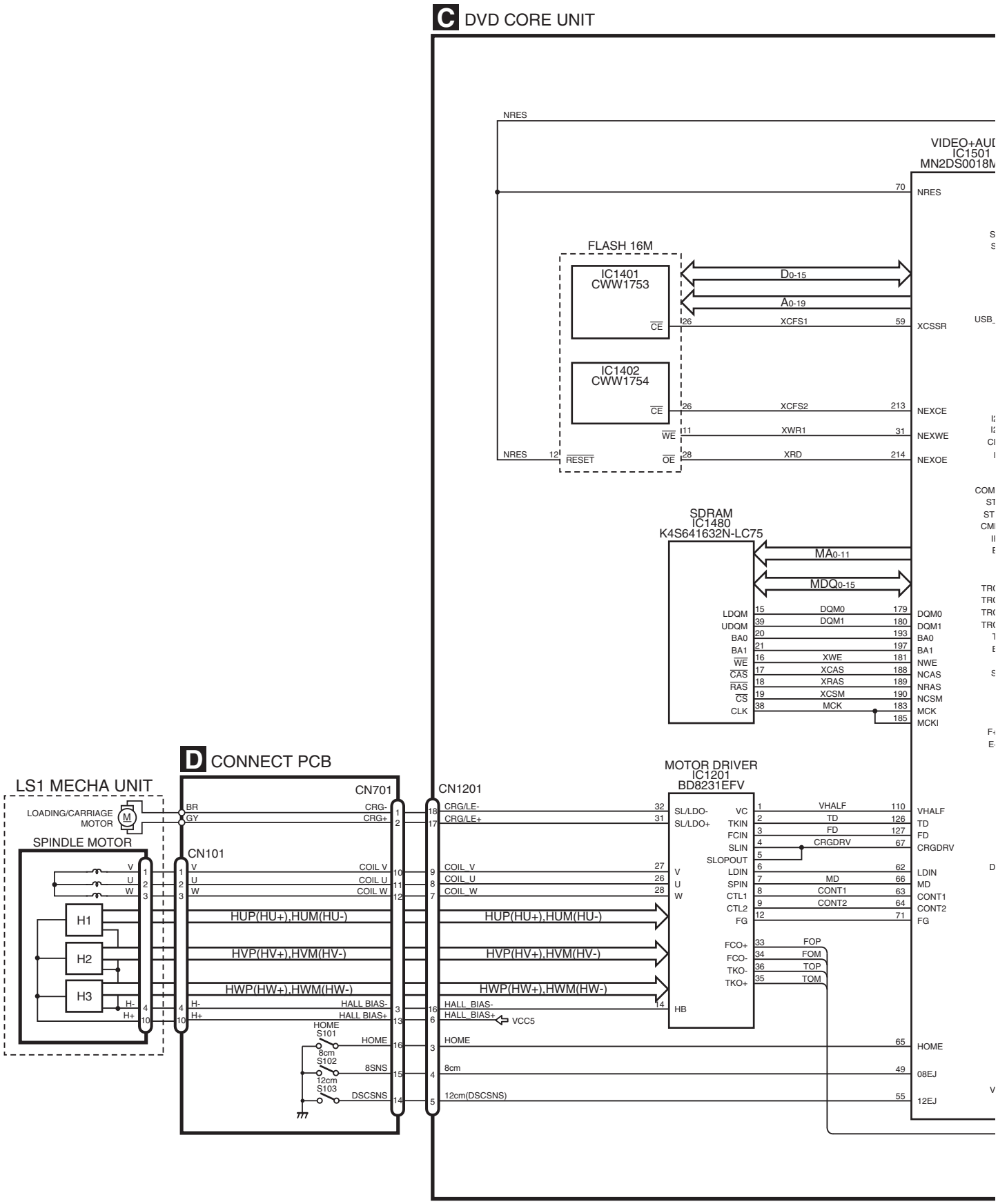
4.2 BLOCK DIAGRAM

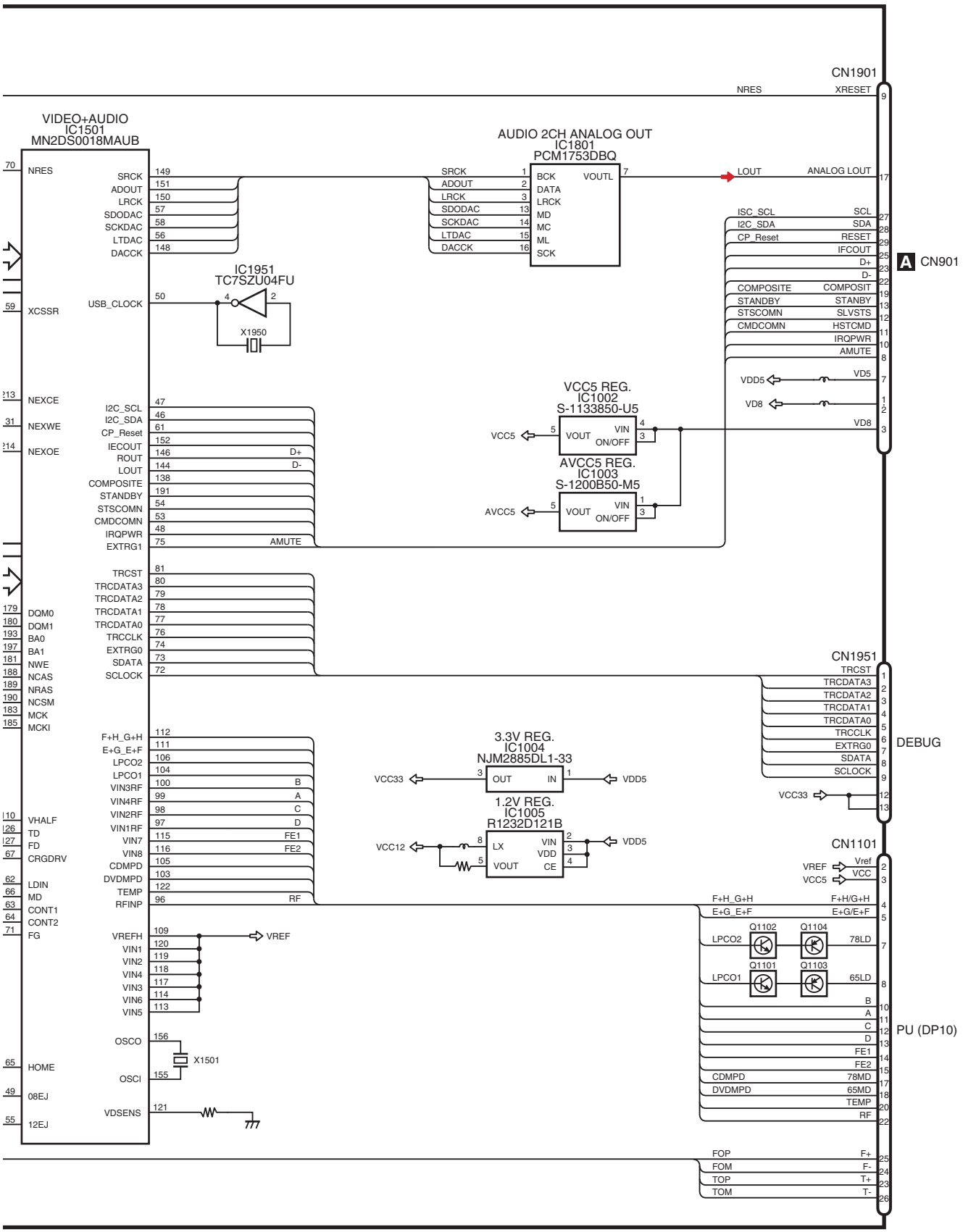



JA951
SPDIFSENS 3
SPDIFOUT 2
GND 1
S/PDIF OUT
JA101
FRONT_L 6
RCA OUT
SW_L 5
JA141
POWER CONNECTOR
CN501
E CN5001
E.VOL CAPTAIN6
IC201
PML018A
IN1_L
IN4+_L
IN4-_L
IN2_L
IN5+_L
Front_L
Rear_L
Pre/SW_L
DATA
CLK
STB
EVSDT
EVSCK
EVSTB
RCA_FL
RCA_SWL
RCA MUTE
Q101(1/2)
Q101(2/2)
BUP_1
Q103
Q105
AMP
IC181
PA2030A
PA_FL
PA_RL
FLIN
RLIN
STBY
MUTE
B.REMOTE
FL+
FL-
RL+
RL-
B.REM
B.UP
SYS+B
Q183
AMPMUTE
Q182
(1/2)
(2/2)
OFFMUTE
Q181
SYSTEM uCON
IC601(1/2)
PEG535A8
STANDBY
RXLS1
TXLS1
IRQPW
XRESET
AMUTE
USBCNT
USBFLG
AMPPW
SYSMUTE
EVSDA
EVSCK
EVSEL
ASENS
Q162(1/2)
BSENS
Q162(2/2)
Q165
PBSENS
Q163(1/2)
TELMUTE
Q163(2/2)
ISENS
Q161
BGSENS
Q164
ACC
P.B.
MUTE
ILM
BGSENS
AVSCK
AVSDATA
ASENBO
MAINTEST
TXIE
RXIE
WIREDAD
WIRED
RESET
IC602
S-80827CNNB-B8M
VDD33
HDRST
TO 2/2
MFLPW
MFLPWR
M_SRX
S_MTX
MONRST
RXMON
TXMON
MONIRST
DD8
ILMB
ACC33
SWVDD33
PWVI
PWRVI
PWFL
PWRFL
MONVBS
TO 2/2

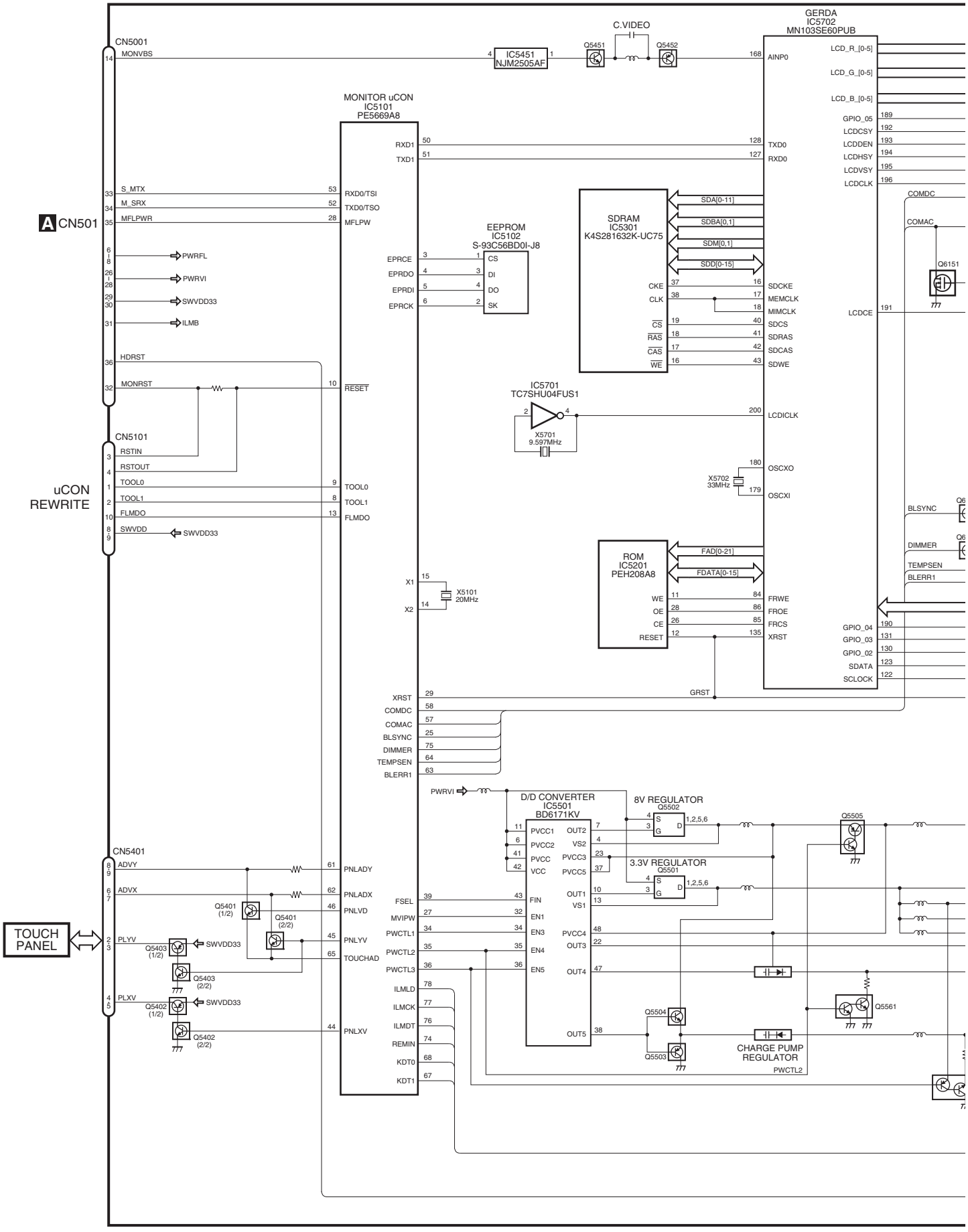
A MOTHER PCB(2/2)

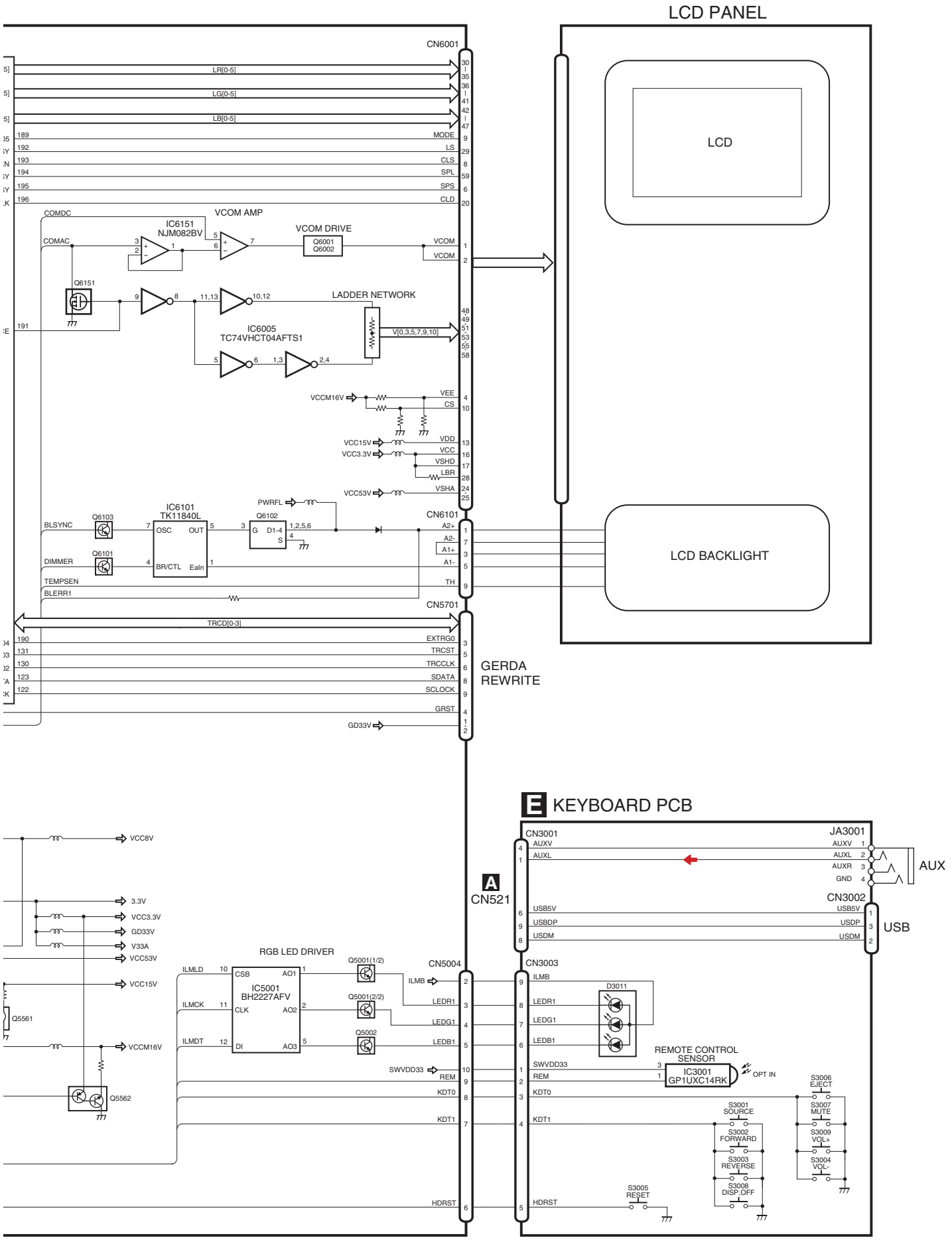



C DVD CORE UNIT
NRES
VIDEO+AUD
IC1501
MN2DS0018M
70
NRES
FLASH 16M
IC1401
CWW1753
D0-15
A0-19
CE
26
XCFS1
59
XCSSR
IC1402
CWW1754
CE
26
XCFS2
213
NEXCE
WE
11
XWR1
31
NEXWE
NRES
12
RESET
OE
28
XRD
214
NEXOE
SDRAM
IC1480
K4S641632N-LC75
MA0-11
MDQ0-15
LDQM
UDQM
BA0
BA1
WE
CAS
RAS
CS
CLK
15
39
20
21
16
17
18
19
38
DQM0
DQM1
XWE
XCAS
XRAS
XCSM
MCK
179
180
193
197
181
188
189
190
183
185
DQM0
DQM1
BA0
BA1
NWE
NCAS
NRAS
NCSM
MCK
MCKI
D CONNECT PCB
LS1 MECHA UNIT
LOADING/CARRIAGE MOTOR
SPINDLE MOTOR
V
U
W
H1
H2
H3
H-
H+
CN101
CN701
CN1201
BR
GY
CRG-
CRG+
COIL V
COIL U
COIL W
HALL BIAS-
HALL BIAS+
HUP(HU+),HUM(HU-)
HVP(HV+),HVM(HV-)
HWP(HW+),HWM(HW-)
CRG/LE-
CRG/LE+
HALL_BIAS-
HALL_BIAS+
VCC5
HOME
S101
8cm
S102
12cm
S103
8SNS
DSCSNS
12cm(DSCSNS)
MOTOR DRIVER
IC1201
BD8231EFV
SL/LDO-
SL/LDO+
VC
TKIN
FCIN
SLIN
SLOPOUT
LDIN
SPIN
CTL1
CTL2
FG
FCO+
FCO-
TKO-
TKO+
HB
VHALF
TD
FD
CRGDRV
MD
CONT1
CONT2
FOP
FOM
TOP
TOM
08EJ
12EJ


CN1901
NRES
XRESET
VIDEO+AUDIO
IC1501
MN2DS0018MAUB
AUDIO 2CH ANALOG OUT
IC1801
PCM1753DBQ
LOUT
ANALOG LOUT
A CN901
IC1951
TC7SZU04FU
X1950
USB_CLOCK
XCSSR
VCC5 REG.
IC1002
S-1133850-U5
AVCC5 REG.
IC1003
S-1200B50-M5
VCC5
AVCC5
VOUT
VIN
ON/OFF
VD5
VD8
CN1951
DEBUG
3.3V REG.
IC1004
NJM2885DL1-33
VCC33
VDD5
OUT
IN
1.2V REG.
IC1005
R1232D121B
VCC12
LX
VOUT
CE
CN1101
VREF
Vref
VCC
Q1102
Q1104
Q1101
Q1103
78LD
65LD
PU (DP10)
X1501
OSCO
OSCI
VDSENS
HOME
08EJ
12EJ
FOP
FOM
TOP
TOM
F+
F-
T+
T-

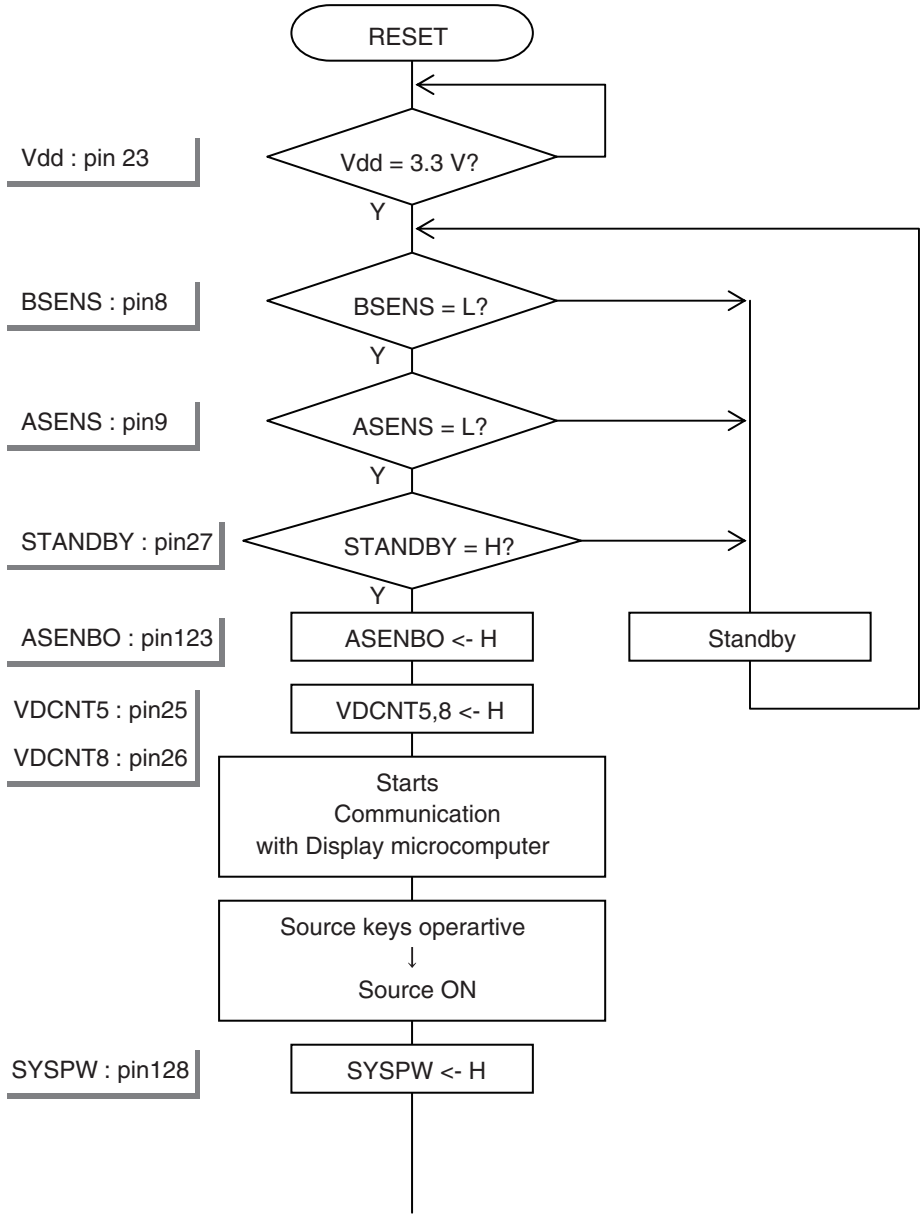
F MONITOR UNIT




LCD PANEL
LCD
LCD BACKLIGHT
CN6001
LR[0-5]
LG[0-5]
LB[0-5]
MODE
LS
CLS
SPL
SPS
CLD
COMDC
COMAC
IC6151
NJM082BV
VCOM AMP
VCOM DRIVE
Q6001
Q6002
VCOM
Q6151
LADDER NETWORK
IC6005
TC74VHCT04AFTS1
V[0,3,5,7,9,10]
VCCM16V
VEE
CS
VCC15V
VDD
VCC3.3V
VCC
VSHD
LBR
VCC53V
VSHA
PWRFL
IC6101
TK11840L
Q6103
Q6102
Q6101
BLSYNC
DIMMER
TEMPSEN
BLERR1
CN6101
A2+
A2-
A1+
A1-
TH
CN5701
TRCD[0-3]
EXTRG0
TRCST
TRCCLK
SDATA
SCLOCK
GRST
GD33V
GERDA
REWRITE
E KEYBOARD PCB
A
CN521
CN3001
AUXV
AUXL
JA3001
AUX
CN3002
USB5V
USBDP
USDM
USB
CN3003
ILMB
LEDR1
LEDG1
LEDB1
D3011
REMOTE CONTROL
SENSOR
IC3001
GP1UXC14RK
OPT IN
SWVDD33
REM
KDT0
KDT1
HDRST
S3001
SOURCE
S3002
FORWARD
S3003
REVERSE
S3004
VOL-
S3005
RESET
S3006
EJECT
S3007
MUTE
S3008
DISP OFF
S3009
VOL+
CN5004
RGB LED DRIVER
IC5001
BH2227AFV
ILMLD
ILMCK
ILMDT
Q5001(1/2)
Q5001(2/2)
Q5002
VCC8V
3.3V
VCC3.3V
GD33V
V33A
VCC53V
VCC15V
VCCM16V
Q5561
Q5562

5. DIAGNOSIS

5.1 OPERATIONAL FLOWCHART



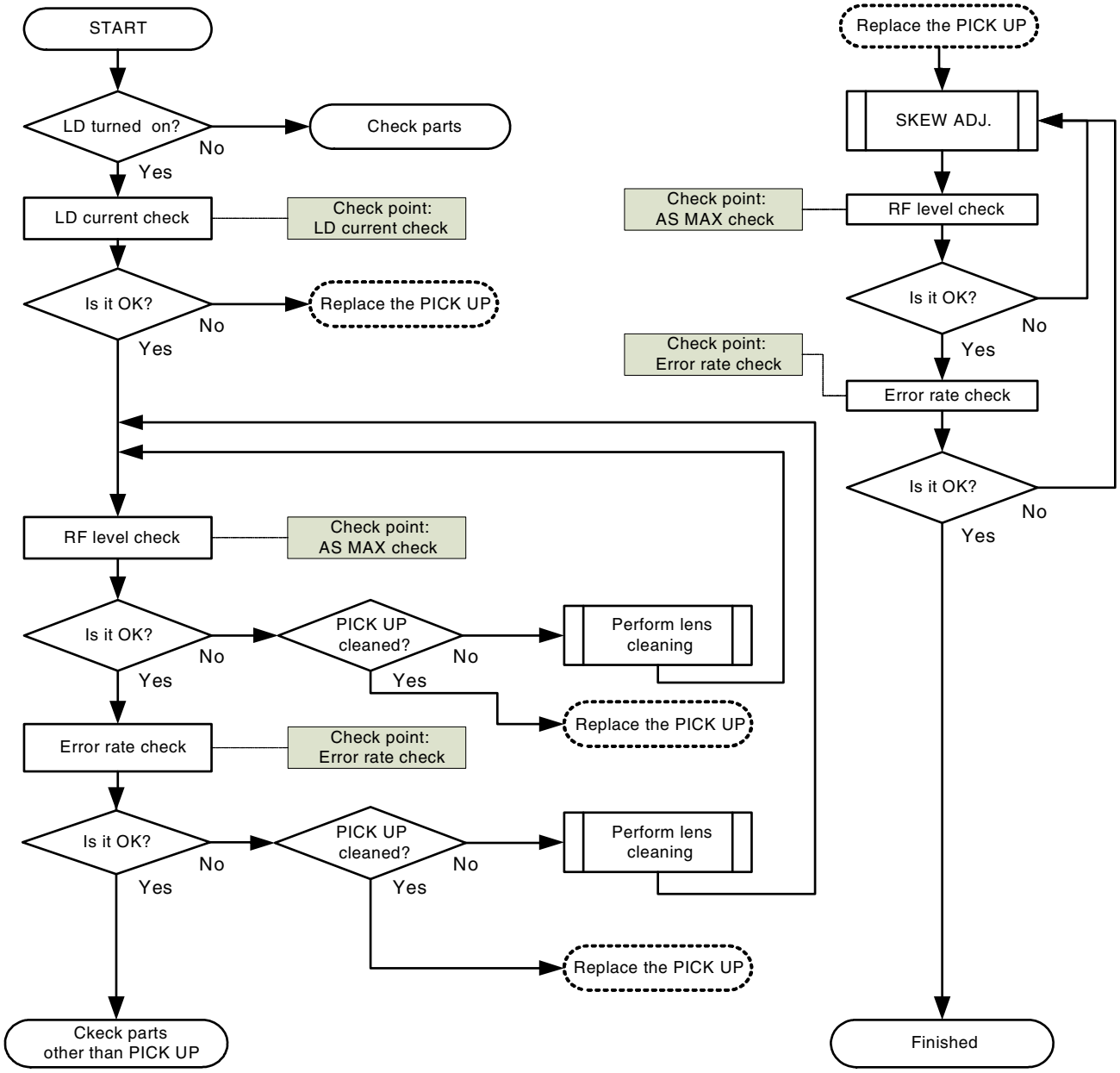
5.2 INSPECTION METHOD OF PICKUP UNIT

Disc to be used

CD-DA: TCD-782

DVD-Video: TDV-582

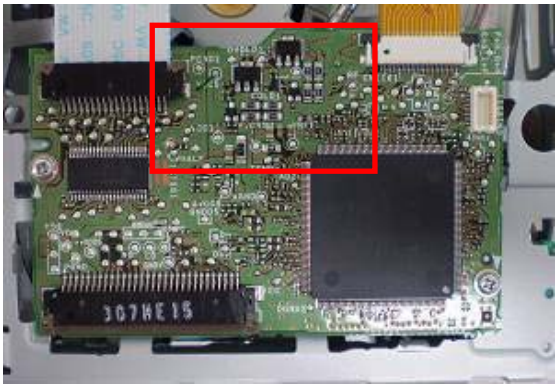
Execution method



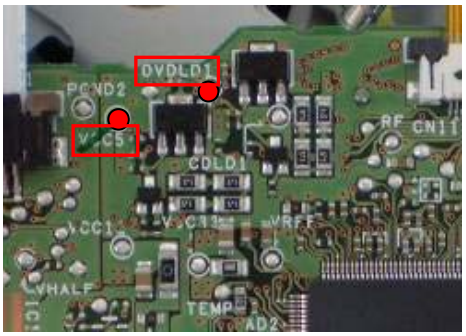
LD current check

Check
Status: [Foucs closed] of TEST MODE

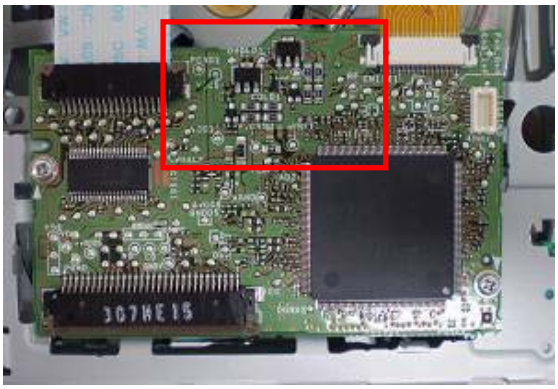
NO.	Disc	Check Point	Threshold	Remarks: LD current
1	GGV1025	DVDLD1-VCC5_3	60 - 390 (mV)	10 - 65 (mA)



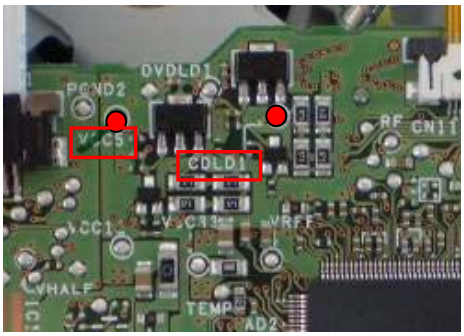
Expansion



NO.	Disc	Check Point	Threshold	Remarks: LD current
2	TCD-782	CDLD1-VCC5_3	60 - 360 (mV)	10 - 60 (mA)



Expansion



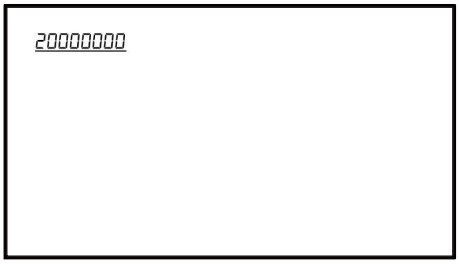
Notes: Please pay attention to the laser diode damage by static electricity.

ASMAX check

ASMAX value shows the value of RF level.
Status: [Foucs closed] of TEST MODE

No.	Disc	Check Point	Threshold	Remarks:
1	GGV1025	8 digits value of ASMAX on display	more than 0000 0B00	Only four last digits are displayed according to the product.
2	TCD-782	8 digits value of ASMAX on display	more than 0000 0C00	Only four last digits is displayed according to the product.

Test mode display will not appear on the display of this product. Connect the rear monitor output to a monitor.



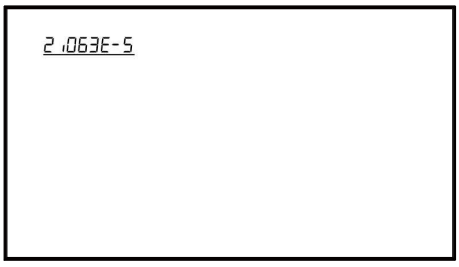
In this case, the value is displayed for a split second.
When you tried to perform [FOCS CLOSE],
the display will charge automatically in the following order.
[1FFF0000]->[FEMAX]->[FE MIN]->[AS MAX]->
[ENV MAX]->[FE normal]->[Spindle gain]->
[TEMAX]->[TEMIN] ->[20000000]
Watch carefully the value of ASMAX.

Error rate check

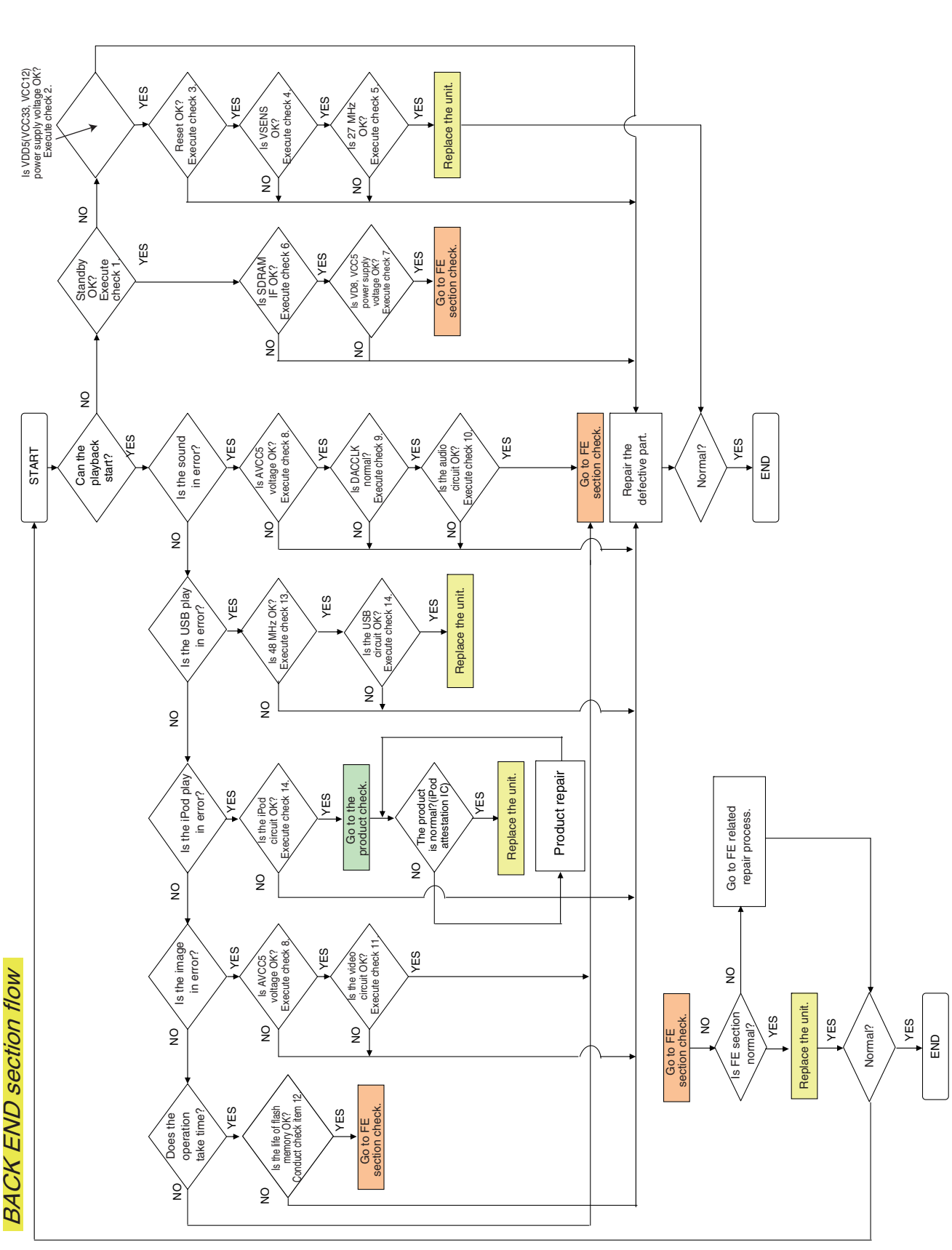
Status: [Tracking Closed] of TEST MODE

No.	Disc	Check Point	Threshold	Remarks:
1	GGV1025	ID: 40000	less than 1.000E-03	
2	GGV1025	ID: 200000	less than 1.000E-03	
3	TCD-782	ID: HOME Position	less than 2.500E-03	

Test mode display will not appear on the display of this product. Connect the rear monitor output to a monitor.



5.3 DIAGNOSIS FLOWCHART



Check 1: Standby OK?

<Check> Check the voltage at the “STANBY” test point while the power is on.
Use the “DGND1” test point at the reference.

NO.	Check point	Module No.	Specification value	Unit
1	STANBY-DGND1	ALL	VCC33 V- 0.6 V or more	V

Side A

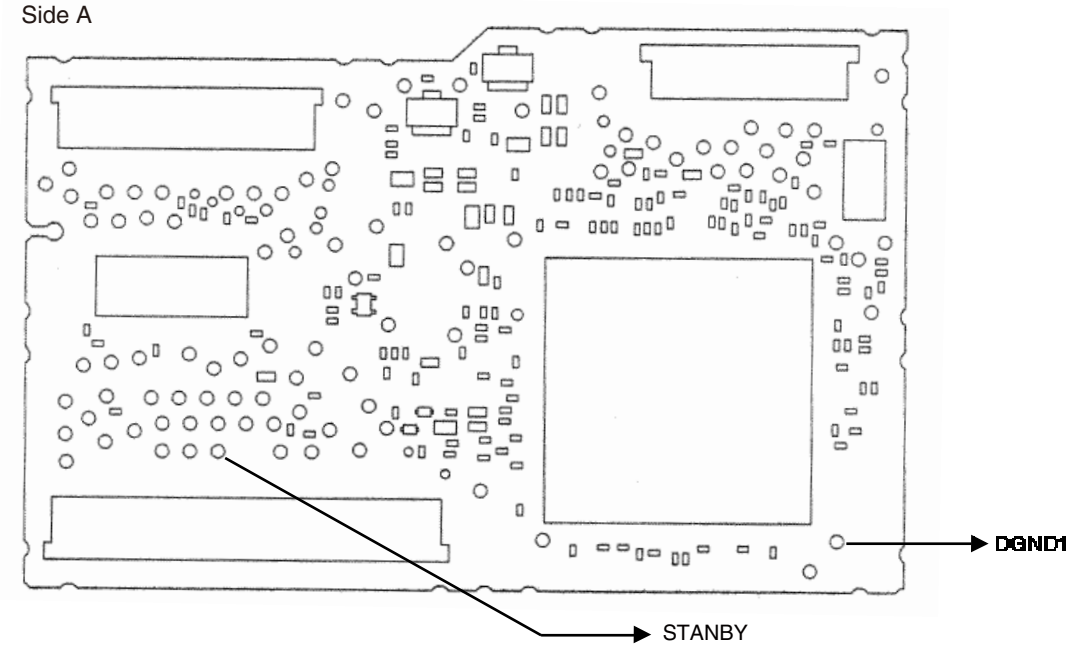


Fig 1.1: STANBY check point

Check 2: Is VDD5 (VCC33, VCC12) power supply voltage OK?

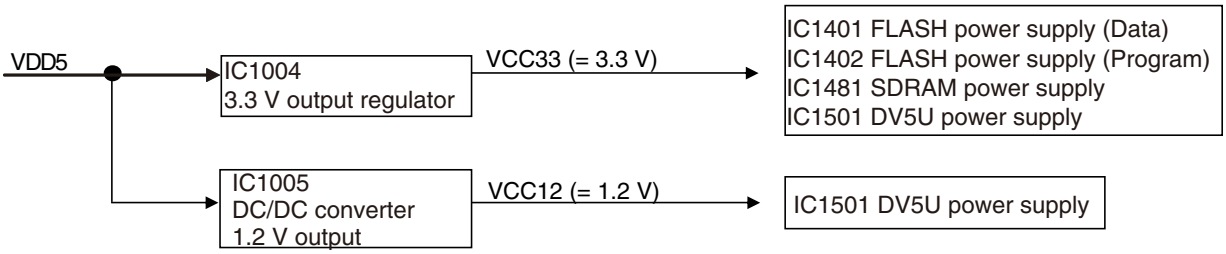


Fig 2.1: Power supply configuration

<Check> Check the voltage at the “VDD5_1, VCC33_1 and VCC12_1” test point while the power is on.
Use the “DGND1” test point at the reference.

NO.	Check point	Module No.	Specification value	Unit
1	VDD5_1 - DGND1	ALL	5.0 ± 0.4	V
2	VCC33_1 - DGND1	ALL	3.3 ± 0.15	V
3	VCC12_1 - DGND1	ALL	1.2 ± 0.12	V

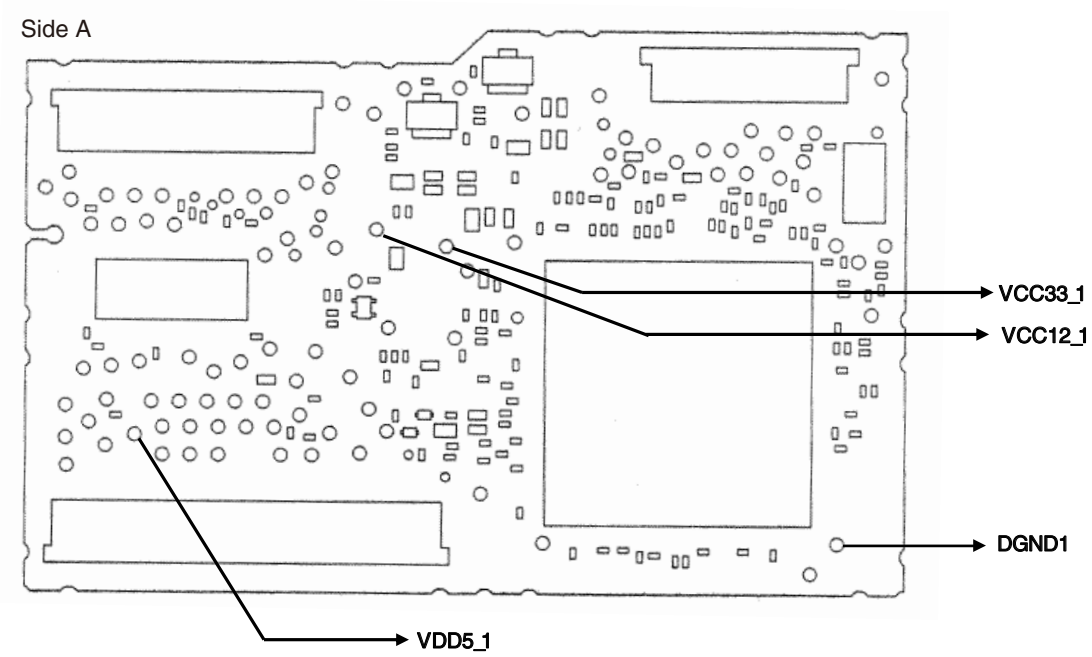


Fig 2.2: VDD5, VCC33, VCC12 voltage check points

Check 3: Reset OK?

<Check> Check the voltage at the “XRES” test point while the power is on.
Use the “DGND1” test point at the reference.

NO.	Check point	Module No.	Specification value	Unit
1	XRES-DGND1	ALL	VCC33 × 0.7 or more	V

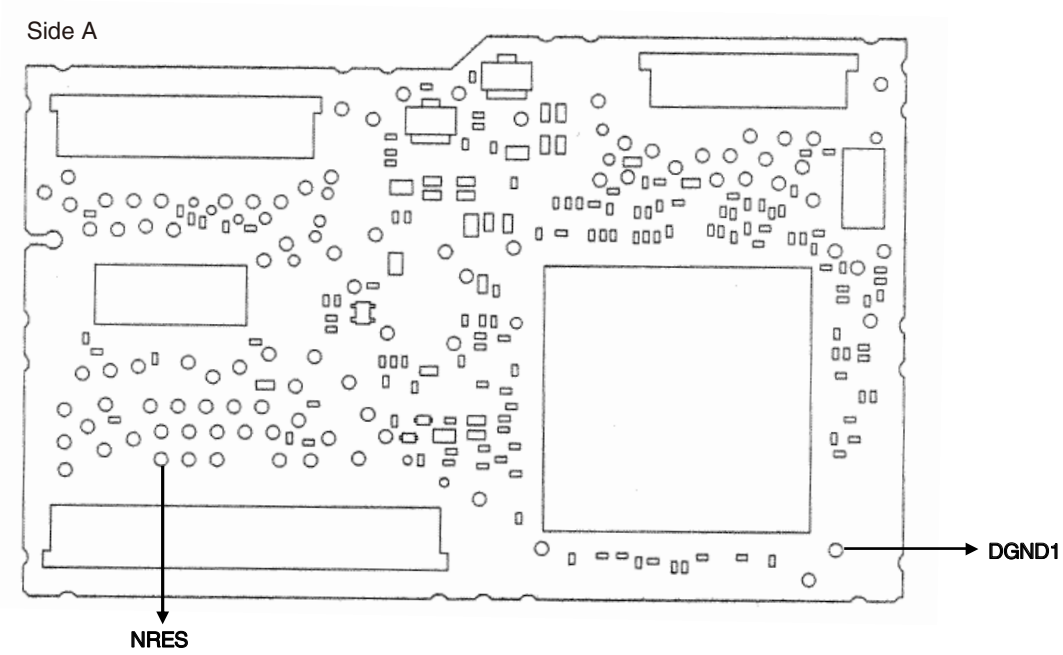


Fig 3.1: RESET check point

Check 4: Is VSENS OK?

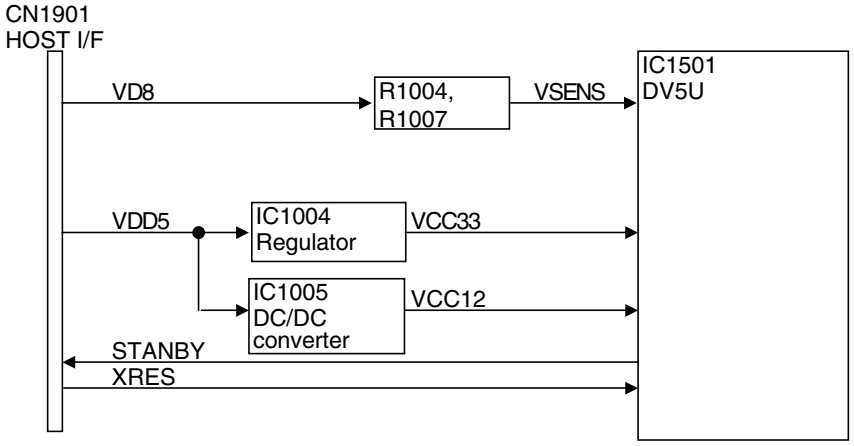


Fig 4.1: Power supply configuration and VSENS

<Check> Check the voltage at the “VSENS” test point while the power is on.
Use the “DGND1” test point at the reference.

NO.	Check point	Module No.	Specification value	Unit
1	VSENS - DGND1	ALL	0.95 - 1.07	V

VD8 = 8.0 ± 0.4 V

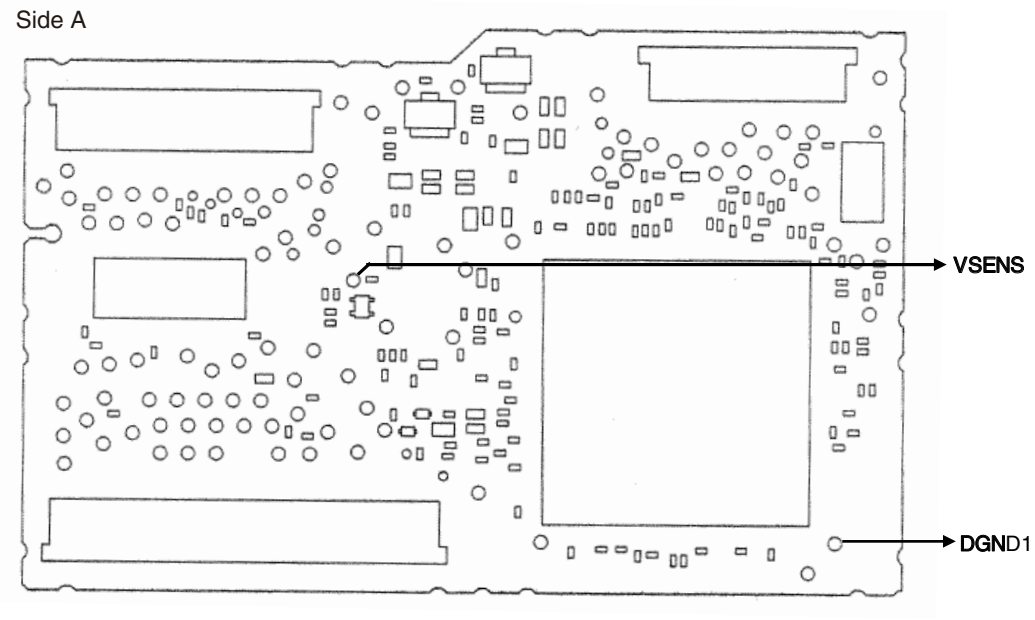


Fig 4.2: VSENS check point

Check 5: 27 MHz Normal?

<Outline> Each clock is created inside the IC1501 using the 27 MHz master crystal oscillator (X1501).

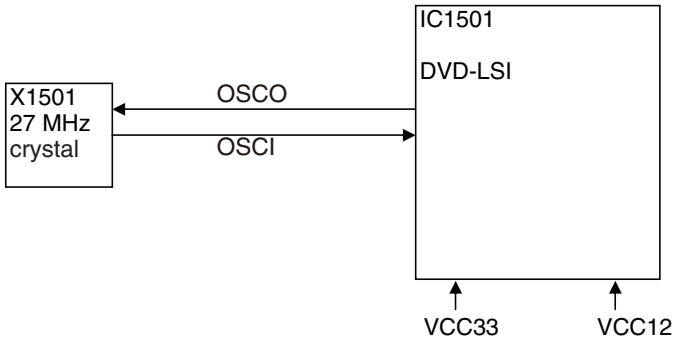


Fig 5.1: Clock configuration

<Check method> Turn the power on, and check with DGND being the reference.
In case of NG, check the applicable line, periphery of IC1501,
soldering of the peripheral components and defective components.

NO.	Check point	Module No.	Specification value	Unit
2	IC1501 169pin	ALL	27 MHz ± 50 ppm	ppm

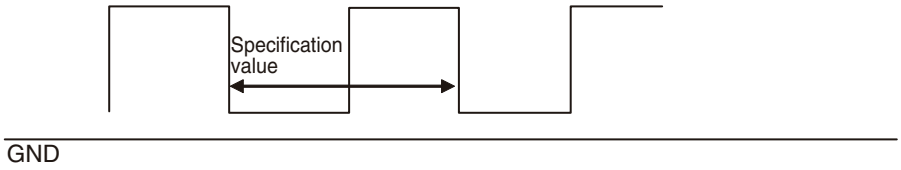


Fig 5.2: Clock specification value

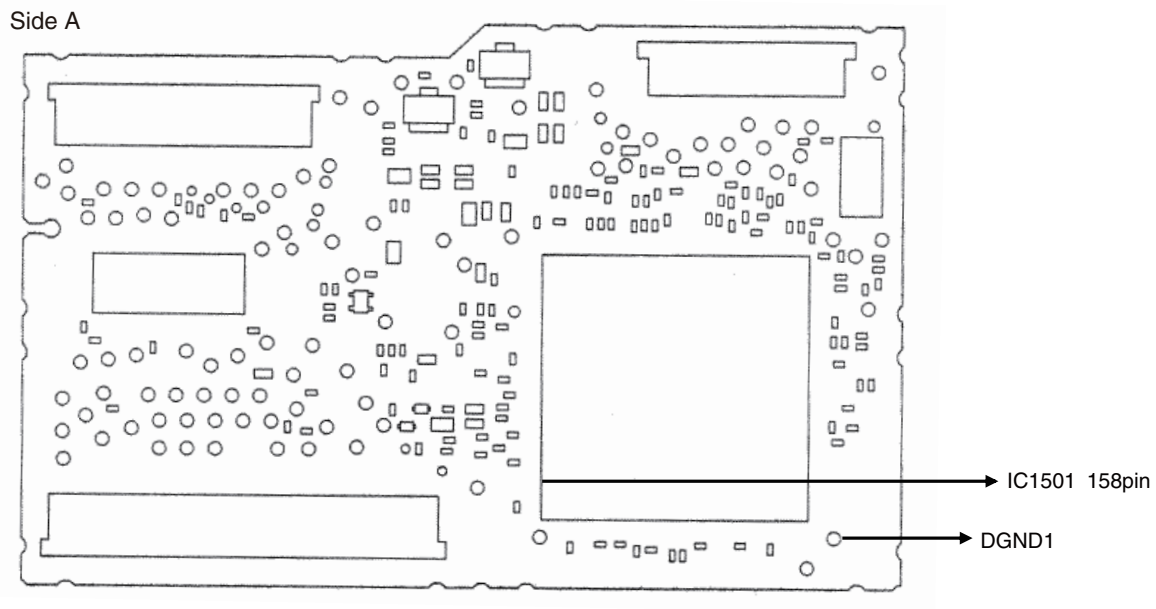


Fig 5.3: 27 MHz check point

Check 6: Is SDRAM I/F OK?

<Outline> In order to secure the MPEG stream data as the buffer,
the capacity of communication I/F SDRAM between the LSI and the memory is 64Mbit.
Be careful as XCSM, XWE, XCAS and XRAS of IC1480 are called differently in IC1501,
namely NCSM, NWE, NCAS, NRAS.

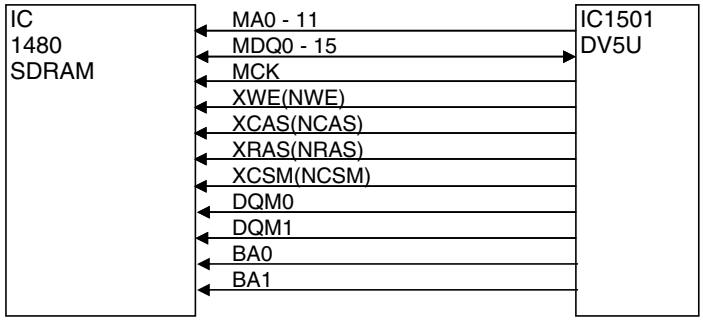
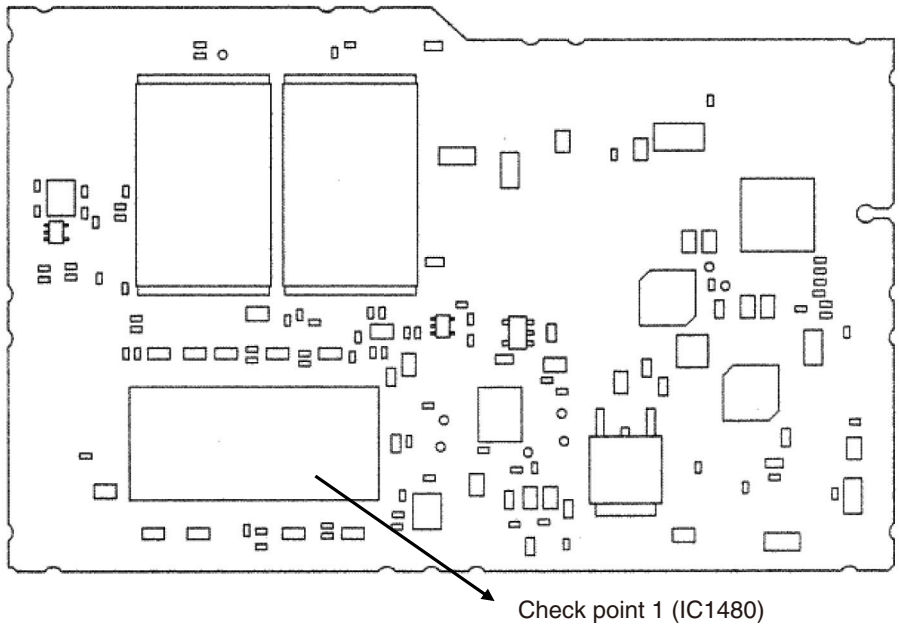


Fig 6.1: SDRAM I/F

<Check> Check the conductivity at “check point 1” and “check point 2” without power.
In case of NG, check the soldering and defective components throughout the “output → input” of the applicable section.

NO.	Signal name	Check point 1		Check point 2		Specification value
1	MA0	IC1480	23pin	IC1501	201pin	56 ohm ± 5 %
2	MA1	IC1480	24pin	IC1501	203pin	56 ohm ± 5 %
3	MA2	IC1480	25pin	IC1501	207pin	56 ohm ± 5 %
4	MA3	IC1480	29pin	IC1501	209pin	56 ohm ± 5 %
5	MA4	IC1480	30pin	IC1501	208pin	56 ohm ± 5 %
6	MA5	IC1480	31pin	IC1501	206pin	56 ohm ± 5 %
7	MA6	IC1480	32pin	IC1501	202pin	56 ohm ± 5 %
8	MA7	IC1480	33pin	IC1501	200pin	56 ohm ± 5 %
9	MA8	IC1480	34pin	IC1501	198pin	56 ohm ± 5 %
10	MA9	IC1480	33pin	IC1501	194pin	56 ohm ± 5 %
11	MA10	IC1480	22pin	IC1501	199pin	56 ohm ± 5 %
12	MA11	IC1480	35pin	IC1501	192pin	56 ohm ± 5 %
13	MDQ0	IC1480	2pin	IC1501	160pin	56 ohm ± 5 %
14	MDQ1	IC1480	4pin	IC1501	162pin	56 ohm ± 5 %
15	MDQ2	IC1480	5pin	IC1501	164pin	56 ohm ± 5 %
16	MDQ3	IC1480	7pin	IC1501	168pin	56 ohm ± 5 %
17	MDQ4	IC1480	8pin	IC1501	170pin	56 ohm ± 5 %
18	MDQ5	IC1480	10pin	IC1501	172pin	56 ohm ± 5 %
19	MDQ6	IC1480	11pin	IC1501	176pin	56 ohm ± 5 %
20	MDQ7	IC1480	13pin	IC1501	178pin	56 ohm ± 5 %
21	MDQ8	IC1480	42pin	IC1501	177pin	56 ohm ± 5 %
22	MDQ9	IC1480	44pin	IC1501	175pin	56 ohm ± 5 %
23	MDQ10	IC1480	45pin	IC1501	171pin	56 ohm ± 5 %
24	MDQ11	IC1480	47pin	IC1501	169pin	56 ohm ± 5 %
25	MDQ12	IC1480	48pin	IC1501	167pin	56 ohm ± 5 %
26	MDQ13	IC1480	50pin	IC1501	163pin	56 ohm ± 5 %
27	MDQ14	IC1480	51pin	IC1501	161pin	56 ohm ± 5 %
28	MDQ15	IC1480	53pin	IC1501	159pin	56 ohm ± 5 %
29	MCK	IC1480	38pin	IC1501	183pin	0.17 ohm or lower
30	XWE	IC1480	16pin	IC1501	181pin	56 ohm ± 5 %
31	XCAS	IC1480	17pin	IC1501	188pin	56 ohm ± 5 %
32	XRAS	IC1480	18pin	IC1501	189pin	56 ohm ± 5 %
33	XCSM	IC1480	19pin	IC1501	190pin	56 ohm ± 5 %
34	DQM0	IC1480	15pin	IC1501	179pin	56 ohm ± 5 %
35	DQM1	IC1480	39pin	IC1501	180pin	56 ohm ± 5 %
36	BA0	IC1480	20pin	IC1501	193pin	56 ohm ± 5 %
37	BA1	IC1480	21pin	IC1501	197pin	56 ohm ± 5 %

Side B



Side A

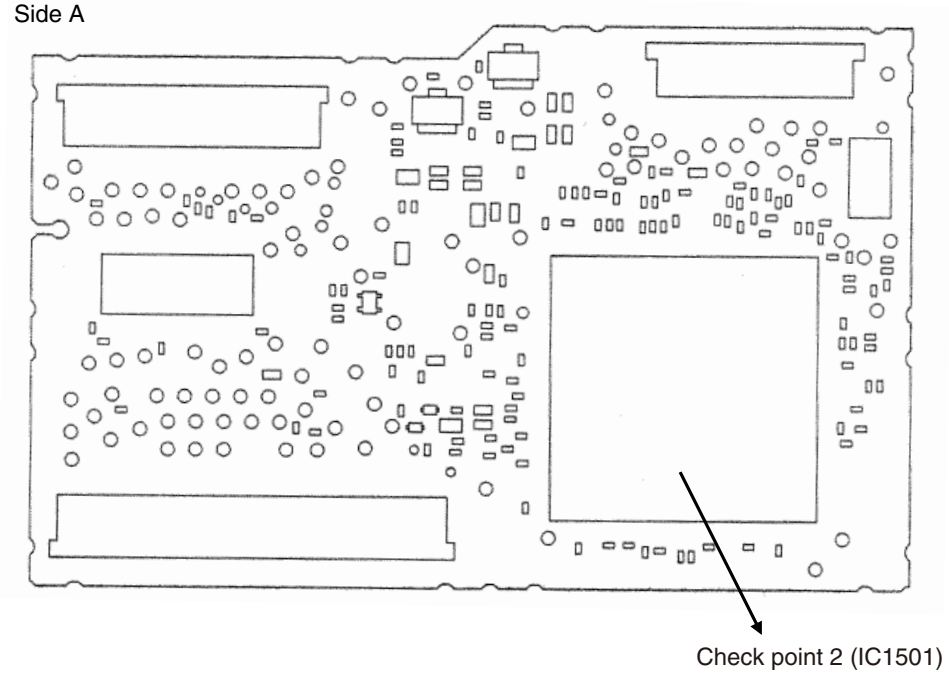


Fig 6.2: SDRAM I/F check point

Check 7: Is VD8, VCC5 power supply voltage OK?

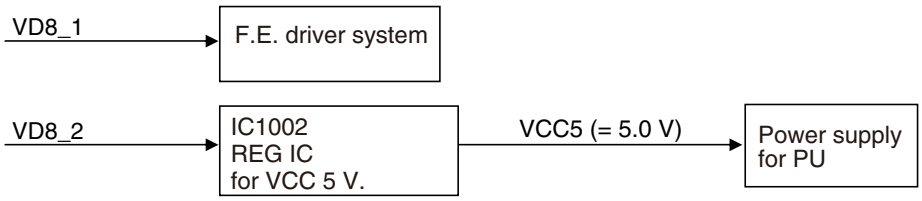


Fig 7.1: Power supply configuration

<Check> Check the voltage at the “VD8_1, VD and VCC5_1” test point while the power is on.
Use the “PGND3 and AGND1” test point at the reference.

NO.	Check point	Module No.	Specification value	Unit
1	VD8_1 - PGND3	ALL	8.0 ± 0.4	V
2	VD - PGND3	ALL	8.0 ± 0.4	V
3	VCC5_1- AGND1	ALL	5.0 ± 0.1	V

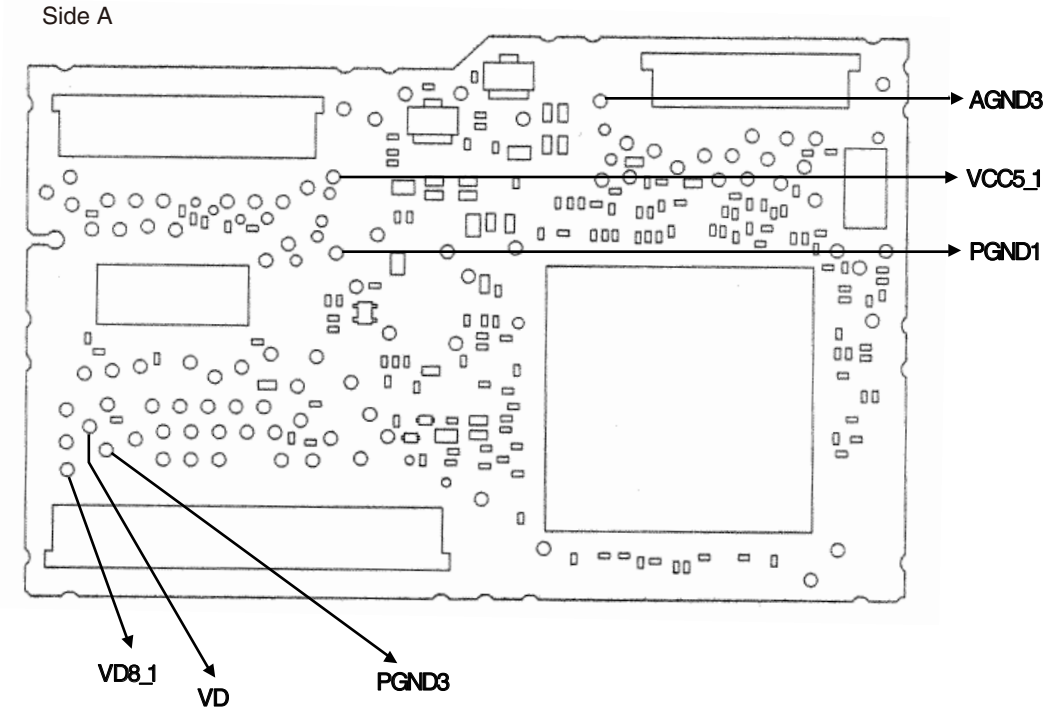


Fig 7.2: VD8, VCC5 voltage check points

Check 8: Is AVCC5 voltage OK?

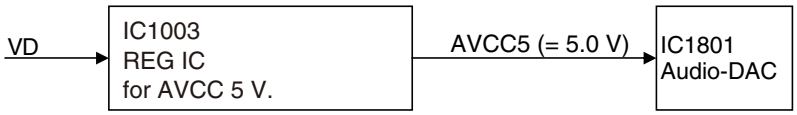


Fig 8.1: Power supply configuration

<Check> Playback DVD-REF-A1 TITLE 1 and check the voltage at the stylus.
Check with PGND and GNDAU being the reference.

NO.	Check point	Module No.	Specification value	Unit
1	VD - PGND_3	ALL	8.0 ± 0.4	V
2	AVCC5 - GNDAU1	ALL	5.0 ± 0.1	V

Side A

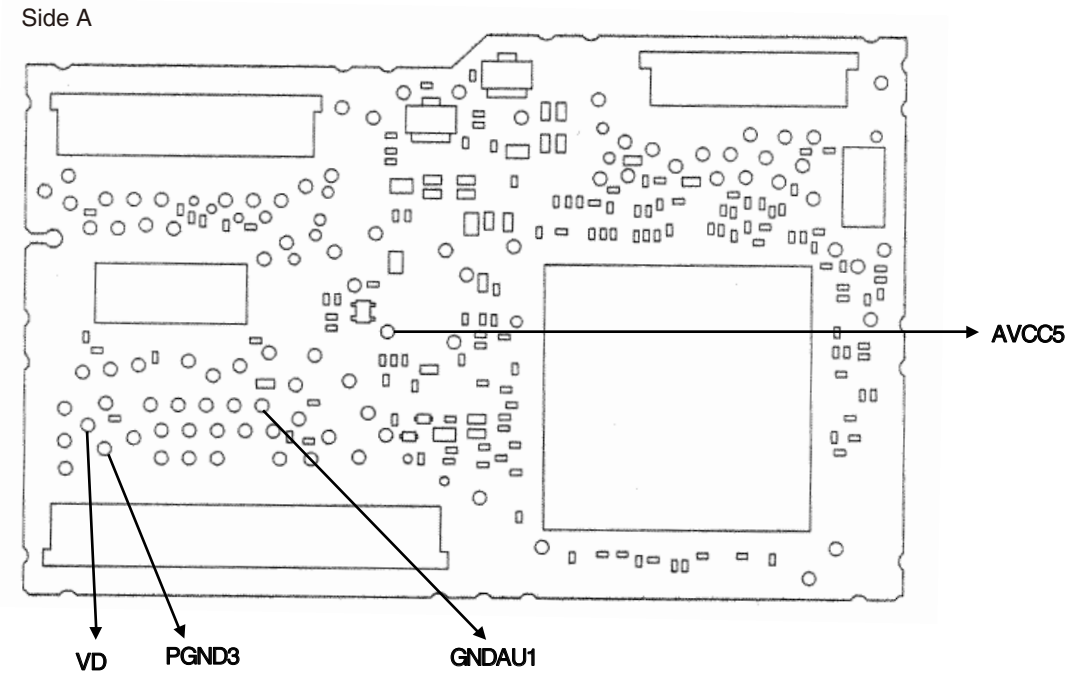


Fig 8.2: VD8, AVCC5 voltage check points

Check 9: Is DACCLK normal?

<Outline> DACCLK for Audio-DAC is created by IC1501 using the 27 MHz master crystal oscillator (X1501).

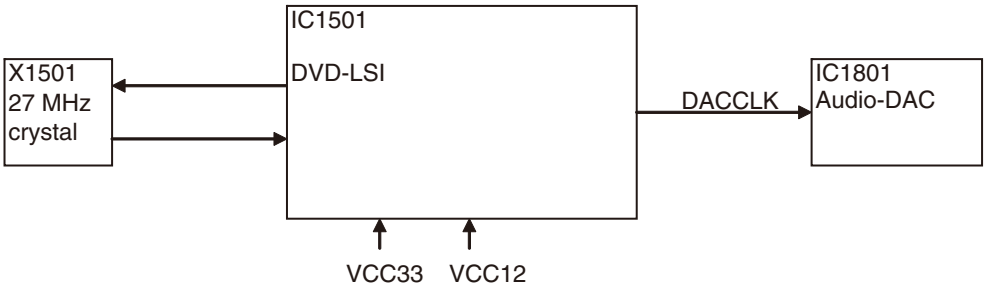


Fig 9.1: Clock configuration

<Check method>
DVD: DVD-REF-A1 TITLE 1
CD: Playback a normal CDDA.
Common to all DVD-V compatible modules.
Check with DGND being the reference.
In case of NG, check the applicable line, the periphery of IC1501, soldering of the peripheral components and defective components.

NO.	Check point 1 (stylus)	Media	Specification value 1	Specification value 2	Specification value 3
1	DACCK	DVD	2.0 V~VCC33 V	DGND~0.8 V	36.864 0 MHz ± 300 ppm
2	DACCK	CD	2.0 V~VCC33 V	DGND~0.8 V	33.868 8 MHz ± 300 ppm

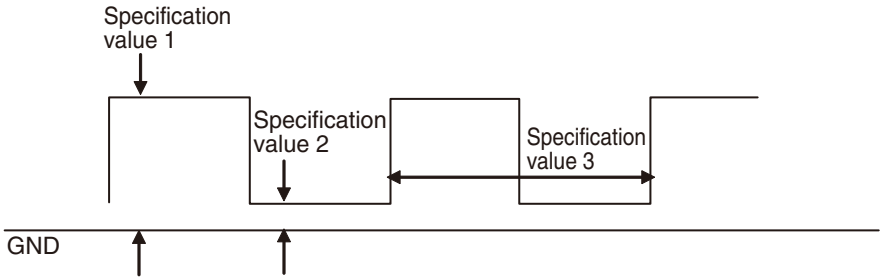
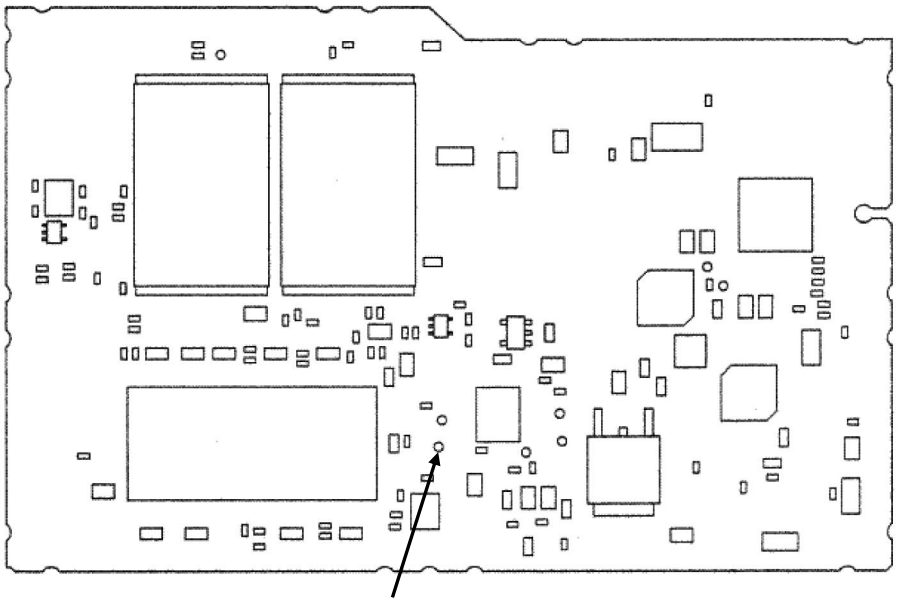


Fig 9.2: Clock specification value

Side B



Side A

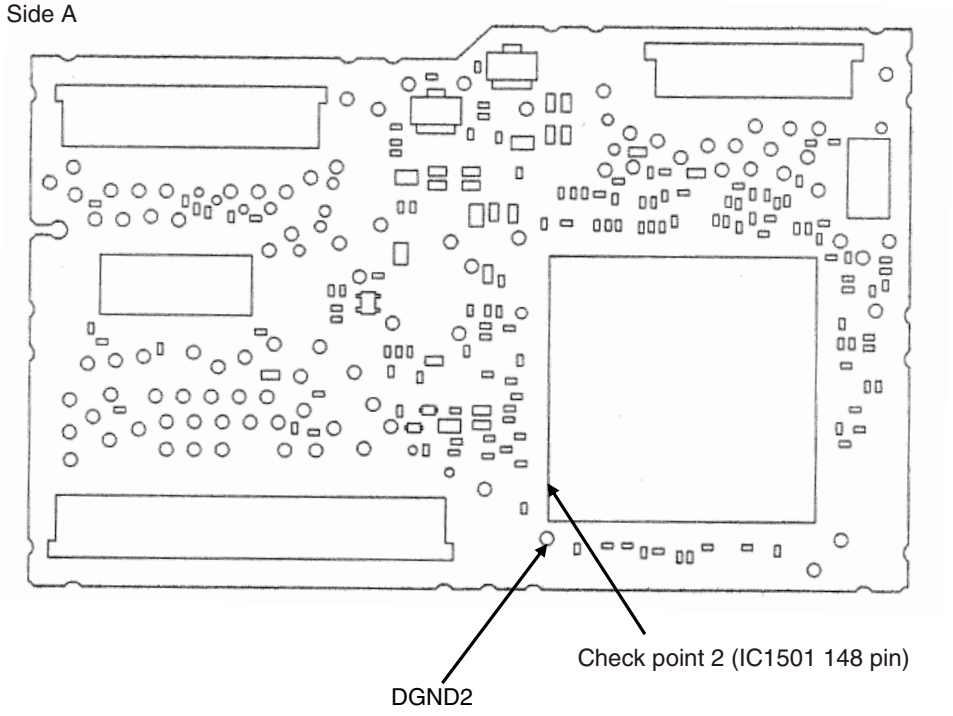


Fig 9.3: 27 MHz, DACCLK check point

Check 10: Is the audio circuit OK?

<Outline> The serial 3 lines digital output + DACCLK, output from DVD-LSI (IC1501), are converted to analog audio signal at Audio-DAC (IC1801) and are output from the HOST I/F (CN1901).
Simultaneously, the analog MUTE signal is also output from DVD-LSI (IC1501) via the HOST I/F.
The digital audio signal (IECOUT), output from DVD-LSI (IC1501).

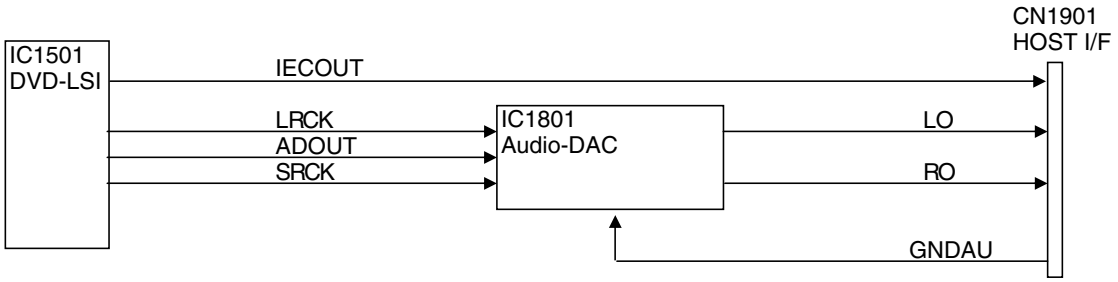


Fig 10.1: Audio circuit

<Check method> Playback DVD-REF-A1 TITLE 2 CHAPTER 1 (48 k/16 bit 1 kHz 0 dB),
and check with DGND being the reference.
In case of NG, check the applicable line, periphery of major components as described in the above drawing, soldering of the peripheral components and defective components.

NO.	Check point 1 (stylus)	Specification value 1	Specification value 2	Reference waveform
1	ADOUT3	VCC33 V-0.6 V or higher	0.4 V or lower	Waveform 1
2	SRCK	VCC33 V-0.6 V or higher	0.4 V or lower	Waveform 2
3	LRCK	VCC33 V-0.6 V or higher	0.4 V or lower	Waveform 3

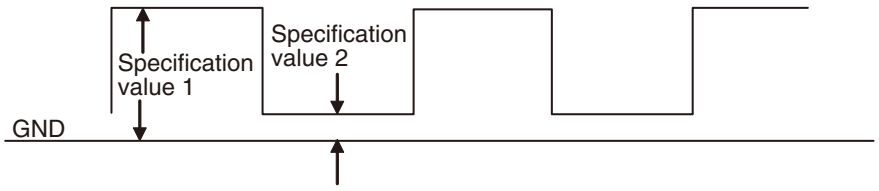
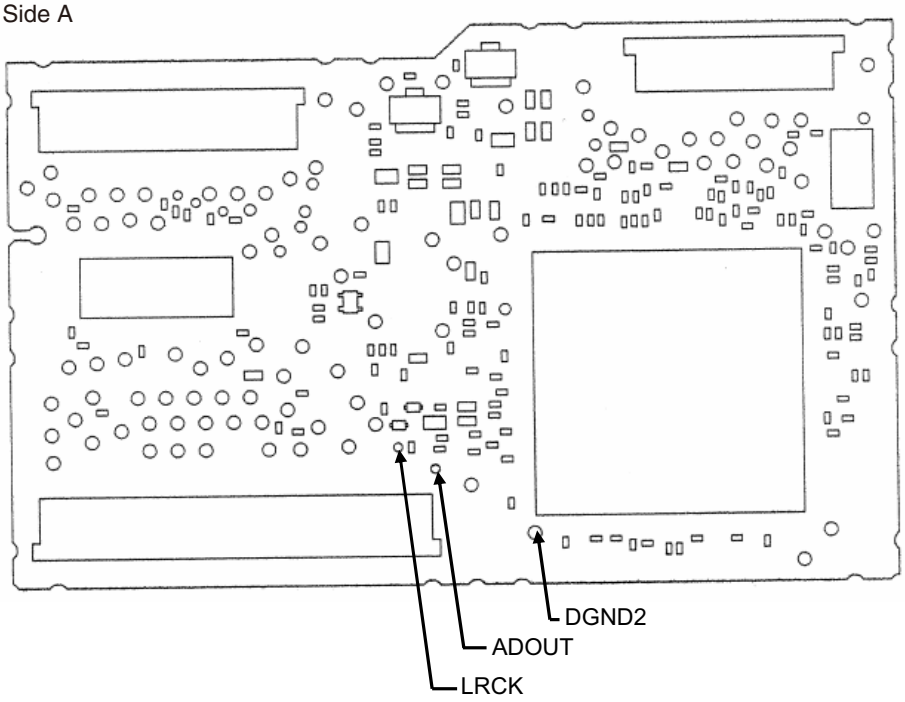


Fig 10.2: Serial 3 lines specification value

Side A



Side B

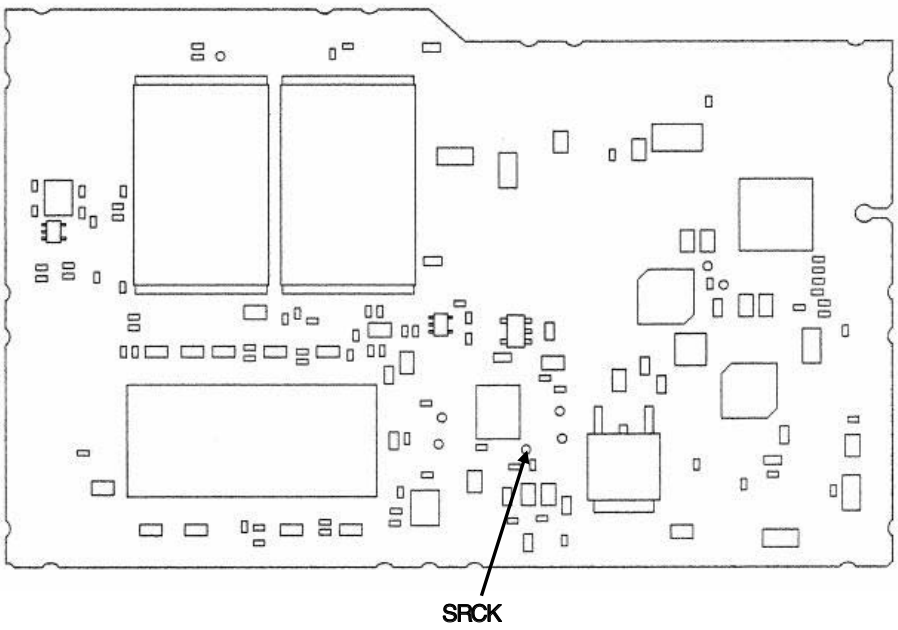
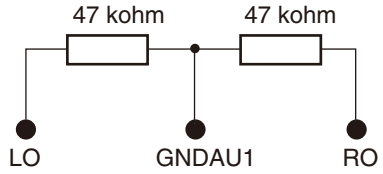


Fig 10.3: Serial 3 lines check points

The following checks shall be conducted using the following measurement circuits with GNDAU1 being the reference.



NO.	Check point 1 (stylus)	Specification value (rms)	Reference waveform
4	LO	1 400 ± 150 mV	Waveform 4
5	RO	1 400 ± 150 mV	Waveform 4

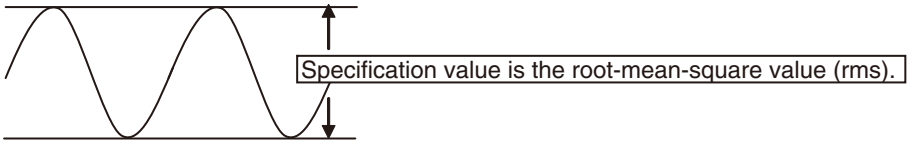


Fig 10.4: Analog audio out (LO, RO) specification value.

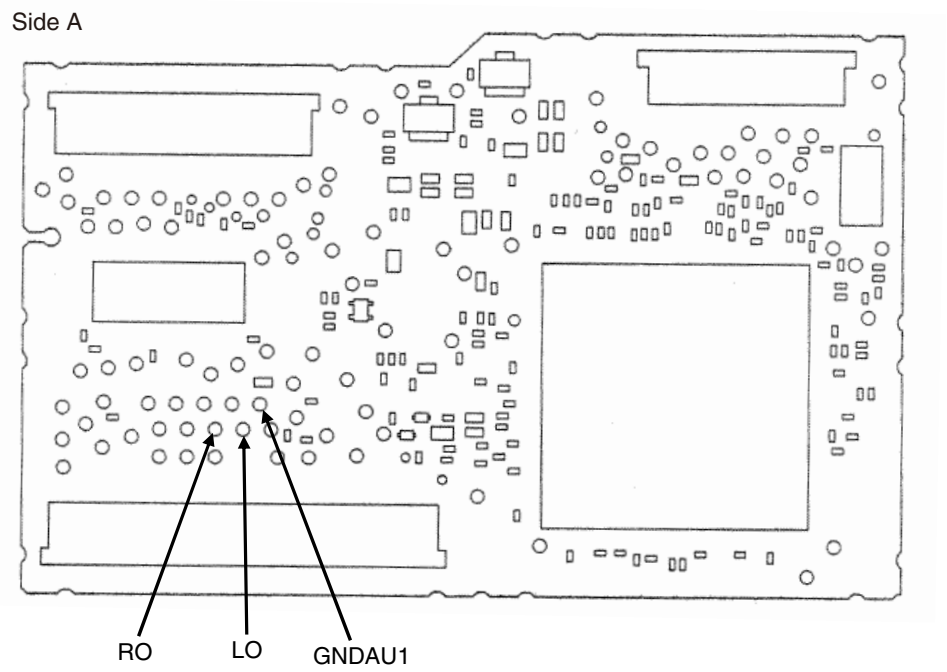


Fig 10.5: Analog audio out check point

Check with DGND being the reference.

NO.	Check point 1 (stylus)	Specification value 1	Specification value 2	Reference waveform
6	IEC	VCC33 V-0.6 V or higher	0.4 V or lower	Waveform 5

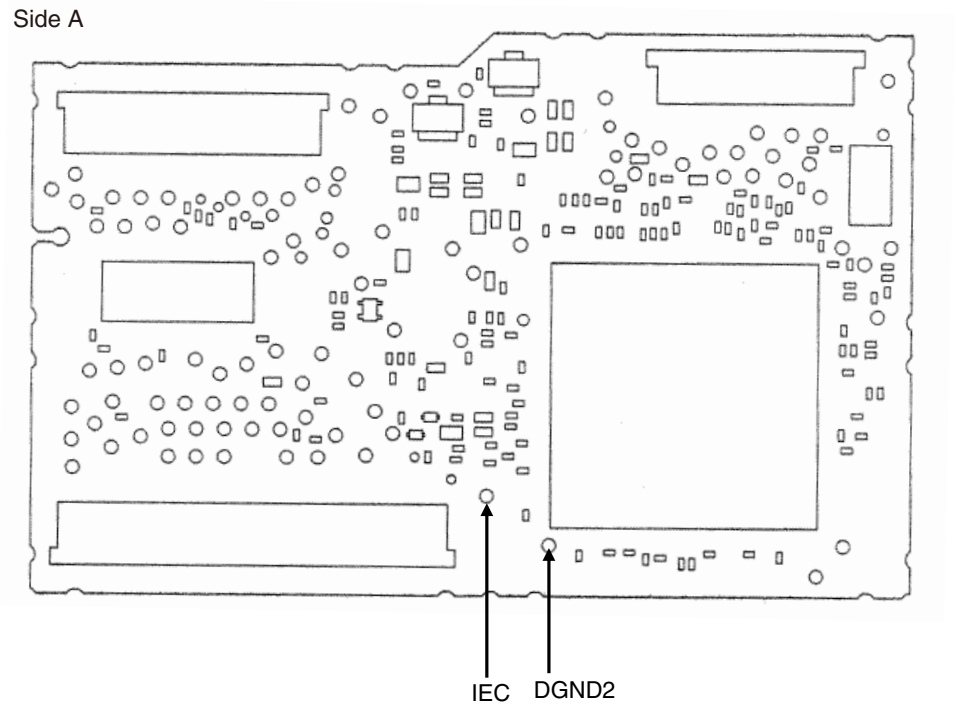


Fig 10.6: Digital audio signal (IECOUT) check point

Check 11: Is the video circuit OK?

<Outline> Composite signal and component signal are output from DVD-LSI (IC1501), and are output from the HOST I/F (CN1901) via a buffer circuit.

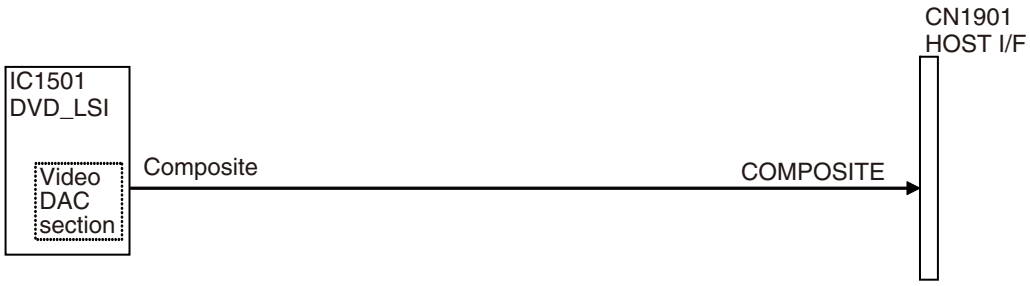


Fig 11.1: Video circuit

<Checking method> Playback DVD-REF-A1 TITLE2 CHAPTER5 (WHITE 100%), and monitor COMPOSITE signal with an oscilloscope with GNDV1 (stylus) being the reference. Set the trigger mode to “TV trigger” and the trigger line to “150 line”.

Check point 1 (stylus)

NO.		Specification value	Reference waveform
1	COMPOSITE	1 000 mVpp ± 5 %	Waveform 6

In case of NG, check the applicable line, the periphery of the major components in the drawing above, soldering of the peripheral components and defective components.

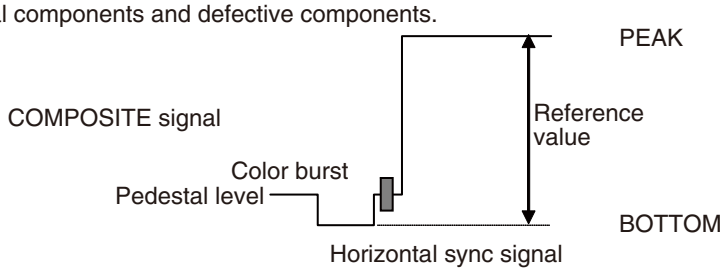


Fig 11.2: Waveform for the case of composite white 100% output

Side A

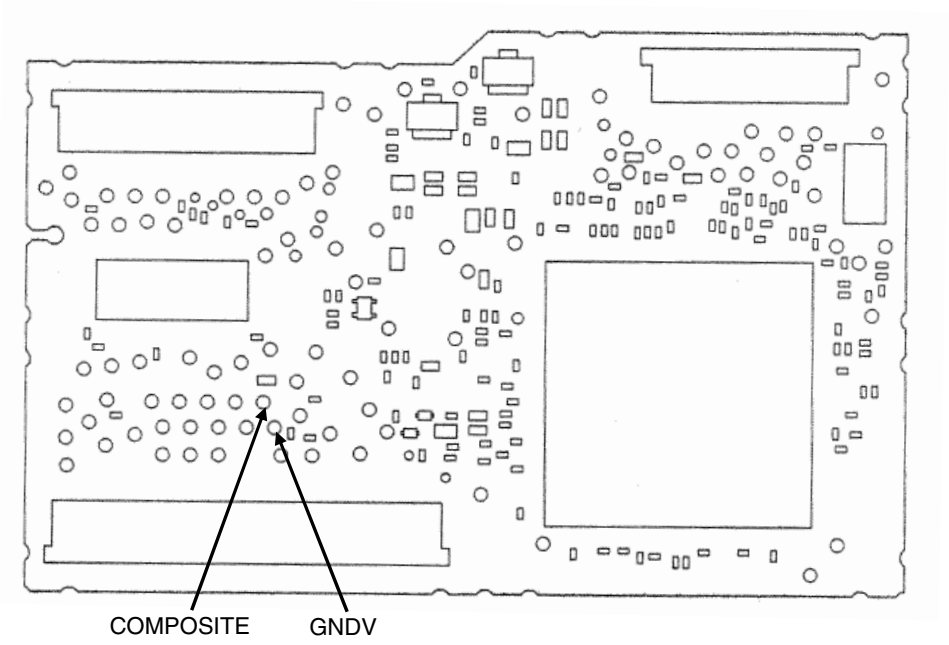


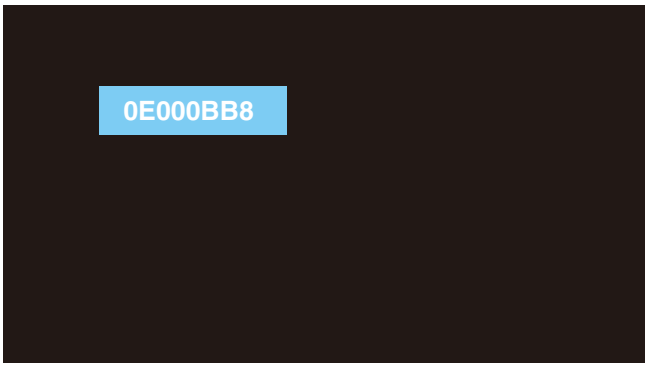
Fig 11.3: VIDEO signal check point

Check 12:How to judge whether the flash memory has reached its life or not.

If the reaction to user operation is slow or operation is slow in general, there is a possibility that the flash memory has reached its life.
Make judgment regarding the flash memory life by looking at the display of the LD energizing time.

1.Let the LD energizing time displayed.
(Refer to the FE test mode for the method of displaying the LD energizing time.)
2.If the second digit from the left of the energizing time display is showing E,
such as " ∗E∗∗ ∗∗∗∗ ", it means that the flash memory has reached its life.

Example:



Check 13: 48 MHz Normal?

<Outline> Each clock is created inside the IC1501 using the 48 MHz master crystal oscillator (X1501).

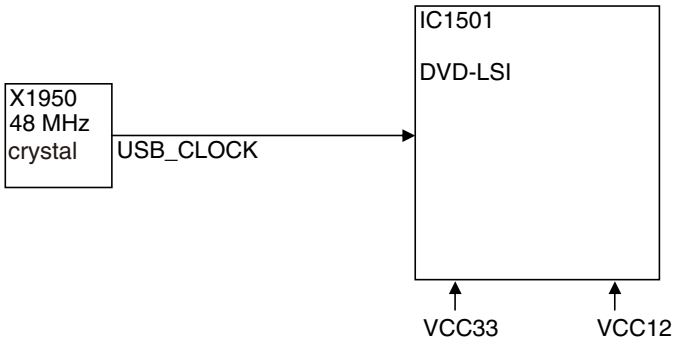


Fig 13.1: Clock configuration

<Check method> Turn the power on, and check with DGND1 being the reference.
In case of NG, check the applicable line, periphery of IC1501,
soldering of the peripheral components and defective components.

NO.	Check point	Module No.	Specification value	Unit
2	IC1501 50pin-DGND1	ALL	48 MHz ± 50 ppm	ppm

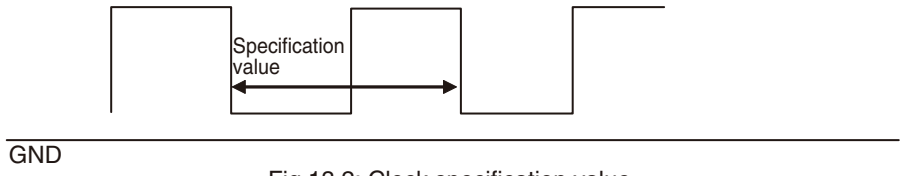


Fig 13.2: Clock specification value

Side A

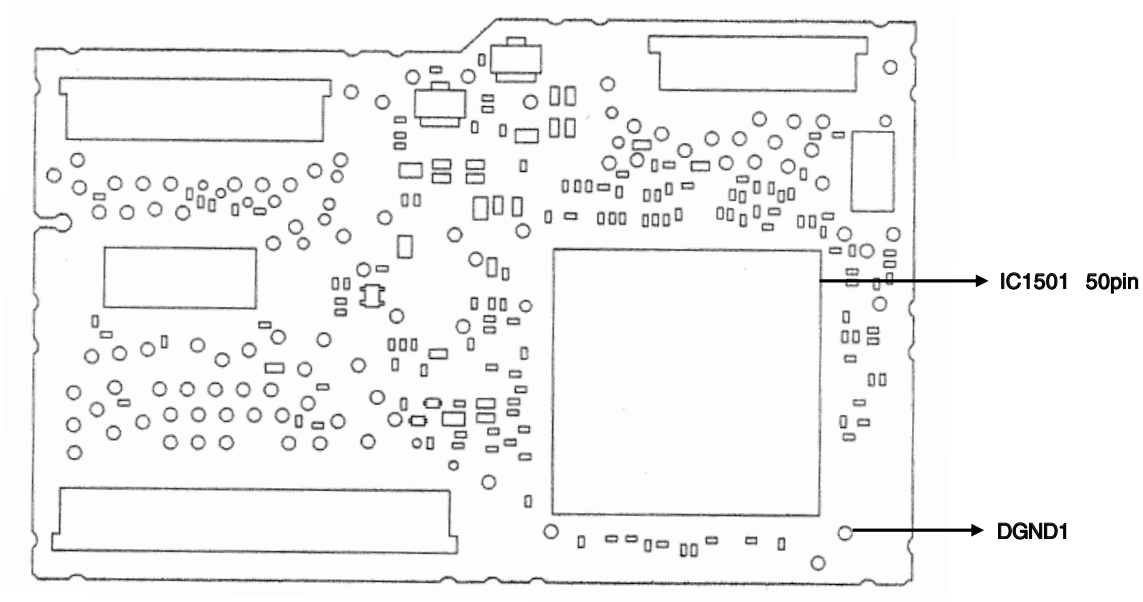


Fig 13.3: 48 MHz check point

Check 14: Is USB Circuit OK?

<Outline>

The data is transmitted through D+, D- and SDA of HOST I/F while playing USB/IPOD.
USB memory uses only D+ and D-, but IPOD uses SDA (DATA) and SCL (CLOCK)
in addition to D+ and D-.

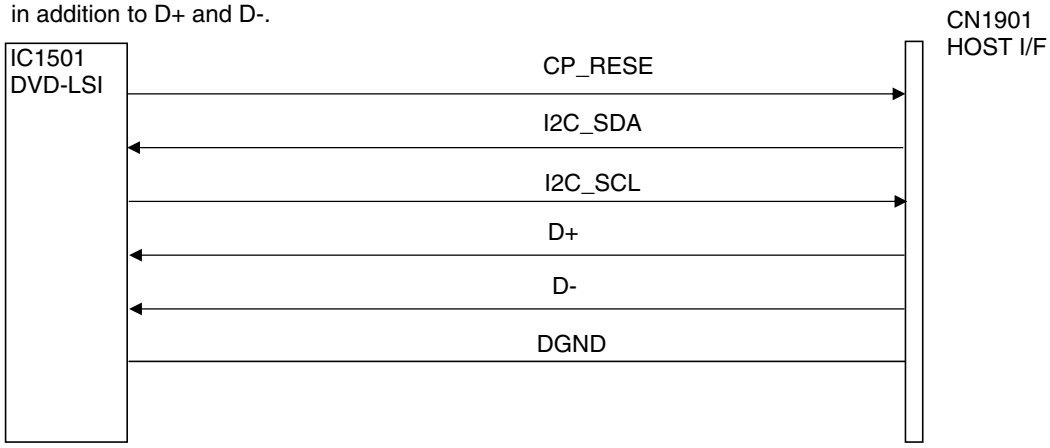


Fig. 14-1: USB Circuit

<Check Method>

1.USB Memory: Play a song from USB memory and check D+ and D- with the DGND standards.
2.iPod: Connect iPod and check CP_RESET, SDA and SCL with the DGND standards until the pioneer log appears.
Play a song from iPod and check D+/D- with the DGND standards.
When it does not conform to the standards, check appropriate line, main parts shown in the above figure,
soldering of peripheral parts and malfunctions in parts.

No.	Checking spot (stylus)	Standard value 1	Standard value 2	
1	CP_RESET	VCC33*0.7or more		
2	SDATA	VCC33*0.7or more	VCC33*0.2 or less	*Until the pioneer log appears after connecting the iPod
3	SCLOCK	VCC33*0.7or more	VCC33*0.2 or less	*Until the pioneer log appears after connecting the iPod
4	D+	VCC33*0.7or more	VCC33*0.3 or less	
5	D-	VCC33*0.7or more	VCC33*0.3 or less	

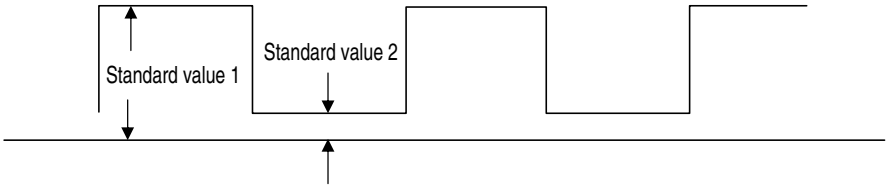
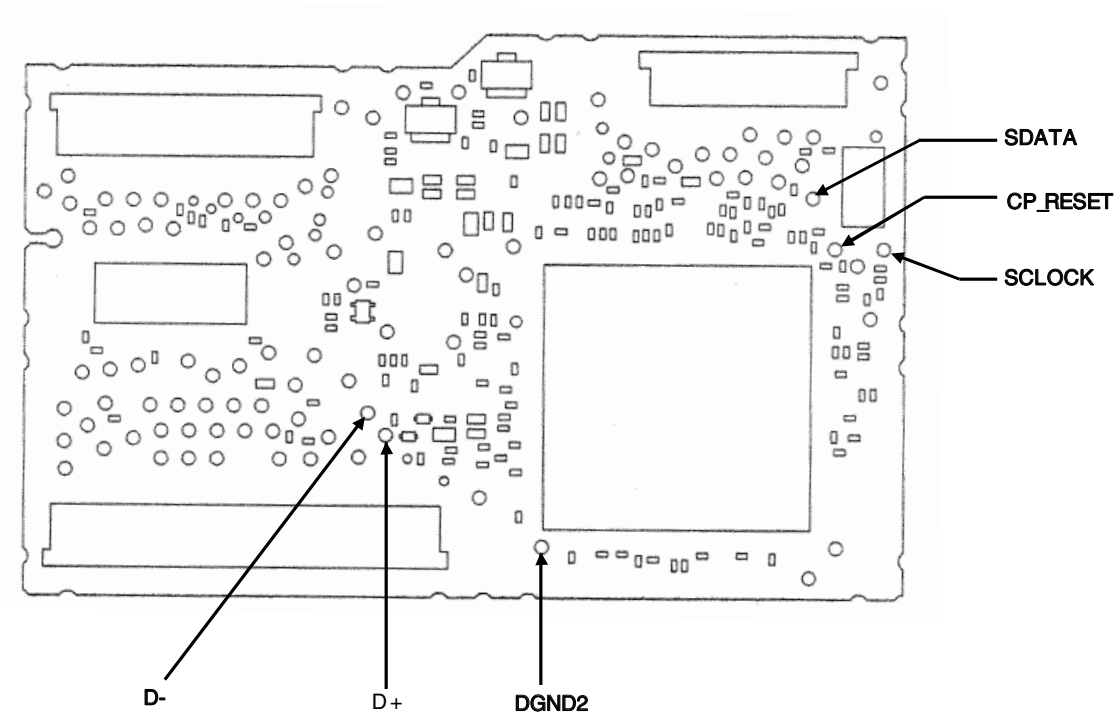


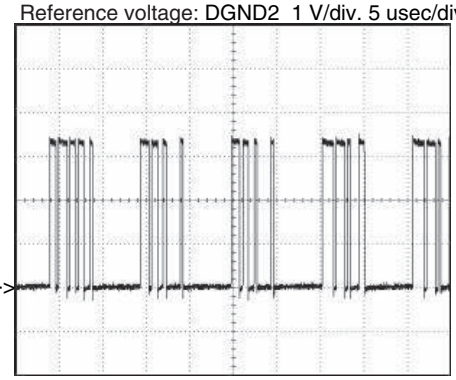
Fig. 14.2: USB Circuit Communication Wave

Side A



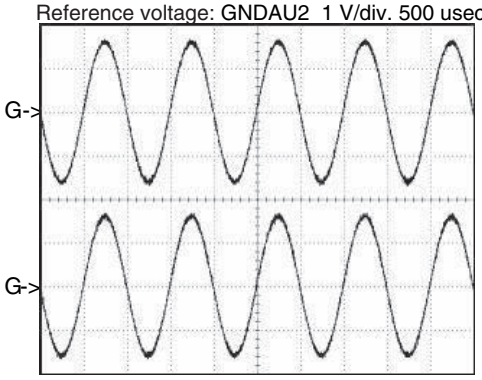
AUDIO

CH1:ADOUT3
Reference voltage: DGND2 1 V/div. 5 usec/div



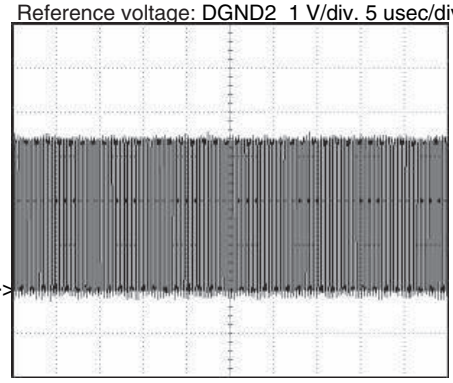
Waveform 1

CH1:LO
CH2:RO
Reference voltage: GNDAU2 1 V/div. 500 usec/div



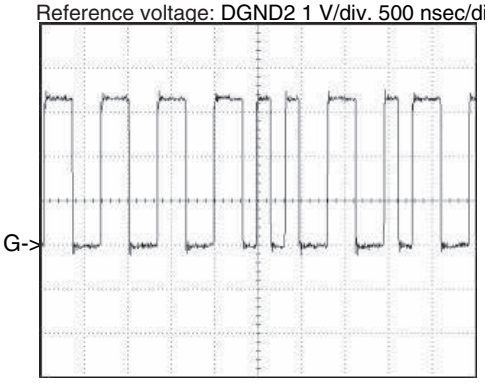
Waveform 4

CH1:SRCK
Reference voltage: DGND2 1 V/div. 5 usec/div



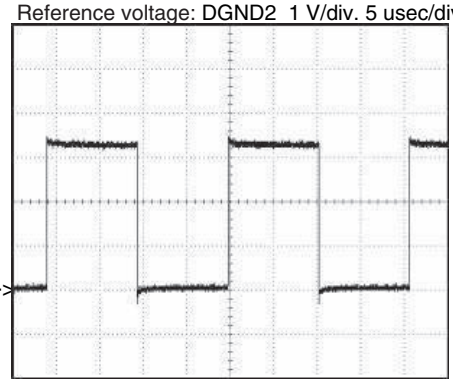
Waveform 2

CH1:IECOUT
Reference voltage: DGND2 1 V/div. 500 nsec/div



Waveform 5

CH1:LRCK
Reference voltage: DGND2 1 V/div. 5 usec/div



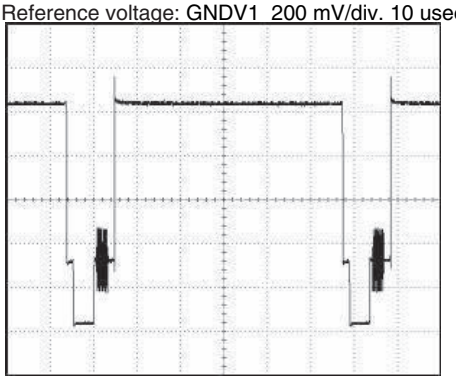
Waveform 3

VIDEO

[WHITE 100IRE]

CH1:COMPO

Reference voltage: GNDV1 200 mV/div. 10 usec/div

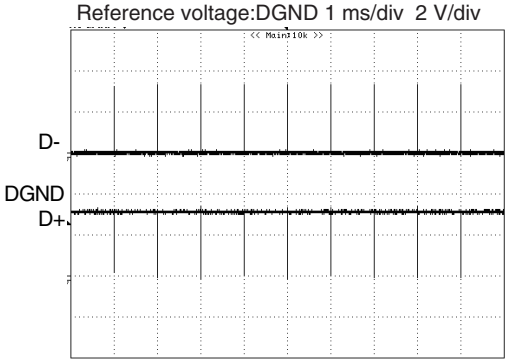


Waveform 6

USB memory

USB memory

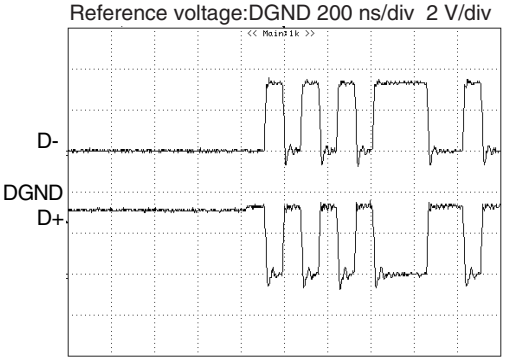
Reference voltage:DGND 1 ms/div 2 V/div



Waveform 7

USB memory

Reference voltage:DGND 200 ns/div 2 V/div

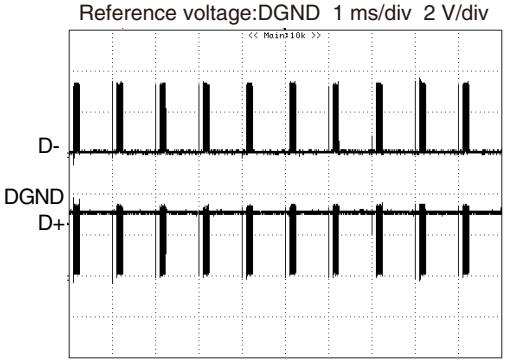


Waveform 8

iPod

iPod

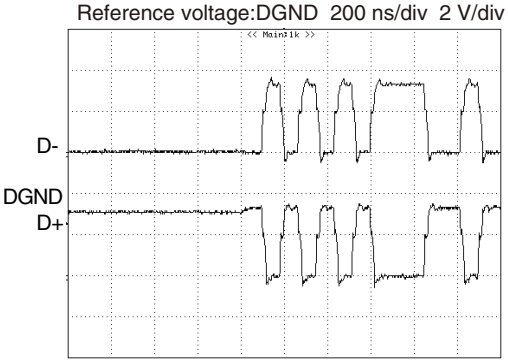
Reference voltage:DGND 1 ms/div 2 V/div



Waveform 9

iPod

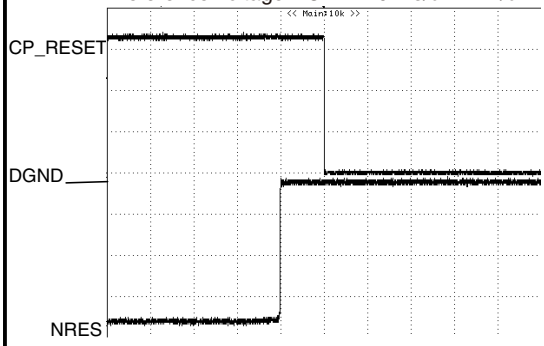
Reference voltage:DGND 200 ns/div 2 V/div



Waveform 10

iPod

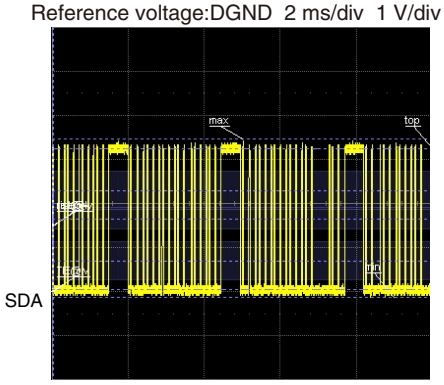
Reference voltage:DGND 20 ms/div 1 V/div



Waveform 11

iPod

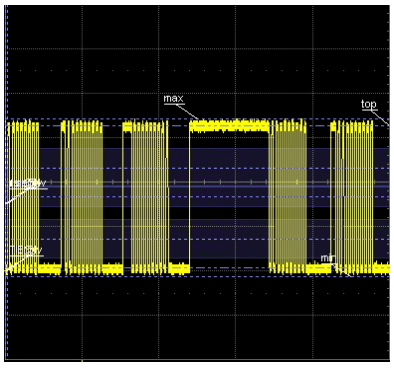
Reference voltage:DGND 2 ms/div 1 V/div



Waveform 12

iPod

Reference voltage:DGND 500 us/div 1 V/div



Waveform 13

5.4 ERROR CODE LIST

Error status	OSD *1	UART *2	Meaning	Generation source			Method of reset			
				Disc	USB (MSC)	USB (iPod)	ACC Off/On	Source Off/On	Eject	Play Key
Media Error	NON-PLAYABLE DISC	00h	A disc containing the unplayable Format only	X	-	-	X	X	X	-
	INCOMPATIBLE DEVICE	00h	USB device that doesn't correspond	-	X	X	X	X	-	-
	UNPLAYABLE FILE	00h	USB device of format alone that cannot be reproduced	-	X	-	X	X	-	-
Open	(No display)	10h	Door open error	X	-	-	*	*	*	*
Read Error	ERROR-02-99	20h	Transfer start error	X	-	-	X	X	X	X
Focus Error(Focus Error in mechanism set up)	ERROR-02-90	21h	Focus error	X	-	-	X	X	X	X
Surface Error	ERROR-02-9E	22h	Focus error during set up (A focus has never been achieved with that disc.)	X	-	-	X	X	X	X
Address not found(Invalid Track)	ERROR-02-80	23h	Address not found.	X	-	-	X	X	X	X
Spindle Lock	ERROR-02-91	24h	Spindle lock NG (the disc cannot rotate)	X	-	-	X	X	X	X
Carriage HOME	ERROR-02-92	25h	Carriage home NG (The pick up tries to return to carriage home, but it cannot go back and stopped.)	X	-	-	X	X	X	X
ID/SUBCODE Read Error	ERROR-02-94	26h	ID/SUBCODE Read Error (ID/SUBCODE cannot be read due to scratch or stain.)	X	-	-	X	X	X	X
AV CHIP decode Error	ERROR-02-9A	2Ah	AV CHIP decode NG (AV chip cannot be decoded.)	X	X	-	X	X	X	X
AV CHIP Recovery NG	ERROR-02-9B	2Bh	AV CHIP recovery NG	X	X	X	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-9C	2Ch	Playback state error (An error due to software bug.)	X	X	-	X	X	X	X
Disc Data Error	ERROR-02-9D	2Dh	Disc Data NG	X	-	-	X	X	X	X
Temp Error (In Case of High Temperature)	THERMAL PROTECTION IN MOTION	30h	High temperature (Playback is stopped because the pick up temperature is 89 C or higher.)	X	-	-	X	-	-	-
No Disc (including Disc loading and ejecting)	(No display)	40h	Disc has not been inserted. (Including Load in process or Eject in process.)	X	-	-	*	*	*	*
Loading_Mecha Error	(No display)	50h	Loading mechanism error (The disc cannot be clamped.)	X	X	X	X	-	X	-
Communication fault attesting iPod	ERROR-02-60	60h	Communication fault attesting iPod	X	-	X	-	-	X	-
iPod authentication data is abnormal	ERROR-02-61	61h	**iPod authentication data is abnormal**	X	-	X	-	-	X	-
iPod attestation retrying failure	ERROR-02-62	62h	iPod attestation retrying failure	X	-	X	-	-	X	-
iPod attestation time out	ERROR-02-63	63h	iPod attestation time out	X	-	X	-	-	X	-
Error when iPod is connected/ It is generated STALL by the USB communication	ERROR-02-64	64h	Error when iPod is connected/ It is generated STALL by the USB communication	-	-	X	-	-	X	-
Error setting iPod	ERROR-02-65	65h	Error setting iPod	-	-	X	-	-	X	-
Demand timeout when initial is communicated	ERROR-02-66	66h	**Demand timeout when initial is communicated**	-	-	X	-	-	X	-
Protocol version non-correspondence	ERROR-02-67	67h	**Protocol version non-correspondence**	-	-	X	-	-	X	-
Timeout when protocol version is judged	ERROR-02-68	68h	**Timeout when protocol version is judged**	-	-	X	-	-	X	-
No songs error	(No display)	69h	No songs error	-	-	X	-	-	X	-
iPod control forwarding/ Intarapta forwarding error	ERROR-02-6A	6Ah	iPod control forwarding/ Intarapta forwarding error	-	-	X	-	-	X	-
Demand timeout iPod's reproducing	ERROR-02-6B	6Bh	Demand timeout iPod's reproducing	-	-	X	-	-	X	-
Remote switch error	ERROR-02-6C	6Ch	**Remote switch error**	-	-	X	-	-	X	-
Remote switch demand timeout	ERROR-02-6D	6Dh	Remote switch demand timeout	-	-	X	-	-	X	-
DRM Error	PROTECTED DISC	70h	DRM error (All music cannot be played back due to DRM.)	X	-	-	-	-	X	-
	NO ACCESSIBLE DATA AVAILABL	70h	DRM error (All music cannot be played back due to DRM.)	-	X	-	-	-	-	-
Region code Error NG	DIFFERENT REGION DISC	90h	Region code NG (Unable to be played back due to incorrect mechanism region.)	X	-	-	-	-	X	-
CPRM*7 Key Error *8	NON-PLAYABLE DISC	93h	Key Error for playback	X	-	-	-	-	X	-
REQUEST error	ERROR-02-A0	A0h	REQUEST error	X	-	-	X	X	X	X
Failure in issuing read command (chip dependent)	ERROR-02-A1	A1h	Failure in issuing the read command	X	-	-	X	X	X	X
Adjustment of L0 is NG.	ERROR-02-A2	A2h	L0 adjustment is NG.	X	-	-	X	X	X	X
Adjustment of L1 is NG.	ERROR-02-A3	A3h	L1 adjustment is NG	X	-	-	X	X	X	X
LD system NG	ERROR-02-A4	A4h	LD system NG	X	-	-	X	X	X	X
Gain adjustment system NG.	ERROR-02-A5	A5h	Gain adjustment system NG.	X	-	-	X	X	X	X
Gain determining system NG.	ERROR-02-A6	A6h	Gain determining system NG.	X	-	-	X	X	X	X
Servo initial setting related items NG.	ERROR-02-A7	A7h	Servo initial setting related items NG.	X	-	-	X	X	X	X
Disc is not clamped yet.	ERROR-02-A8	A8h	Disc is not clamped yet.	X	-	-	X	X	X	X
Tracking system NG.	ERROR-02-A9	A9h	Tracking system NG	X	-	-	X	X	X	X
Media setting system NG.	ERROR-02-AA	AAh	Media setting system NG	X	-	-	X	X	X	X
Focus Error	ERROR-02-AB	ABh	JUMP over layers NG	X	-	-	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-B0	B0h	Navigation command error	X	-	-	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-B1	B1h	Retry over	X	-	-	X	X	X	X
Audio Property Timeout Error *9	ERROR-02-C0	C0h	Audio property timeout error	X	-	-	X	X	X	-
Error when MCS is connected/ It is generated STALL by the USB communication	ERROR-02-D0	D0h	Error when MCS is connected/ It is generated STALL by the USB communication	-	X	-	-	-	X	-
CBW and CSW forwarding error	ERROR-02-D1	D1h	CBW and CSW forwarding error	-	X	-	-	-	X	-
Audio class band securing failure	ERROR-02-D8	D8h	Audio class band securing failure	-	-	X	-	-	X	-
Audio class FS setting failure	ERROR-02-D9	D9h	Audio class FS setting failure	-	-	X	-	-	X	-
Undefined Error	ERROR-FF-FF	FFh	Undefined error	X	-	-	X	X	X	X

X: Cancel the error by operation. -: Error is not cancelled by operation. *: No setting
*1 A content displayed on OSD. As for the items having multiple display patterns, the upper row is for the Japanese version Full GUI, and the lower row is for the Touch Panel model and Full GUI (English version).
*2 A parameter of UART command, such as “receipt error notice”, that the DVD mechanism transmits.
*3 CPPM(Content Protection for Prerecorded Media) : A copyright protection technique used in DVD-A. The protection is realized by using the keys recorded on the media and the device key held by the player.
*4 DVD-A compatible model only.
When an error has occurred, only the audio output will be muted but playback operation will continue. Furthermore, acceptance of the user operation will be the same as usual.
*5 AWM (Audio WaterMark): Electronic watermark. Information on the copyright owner or CCI (copy control information) are recorded so that illegally copied discs can be identified.
*6 Notice as an error status will not be given
*7 CPRM(Content Protection for Recordable Media) : A copyright protection technique for digital contents used for re-writable DVD or memory card. (DVD-VR model only)

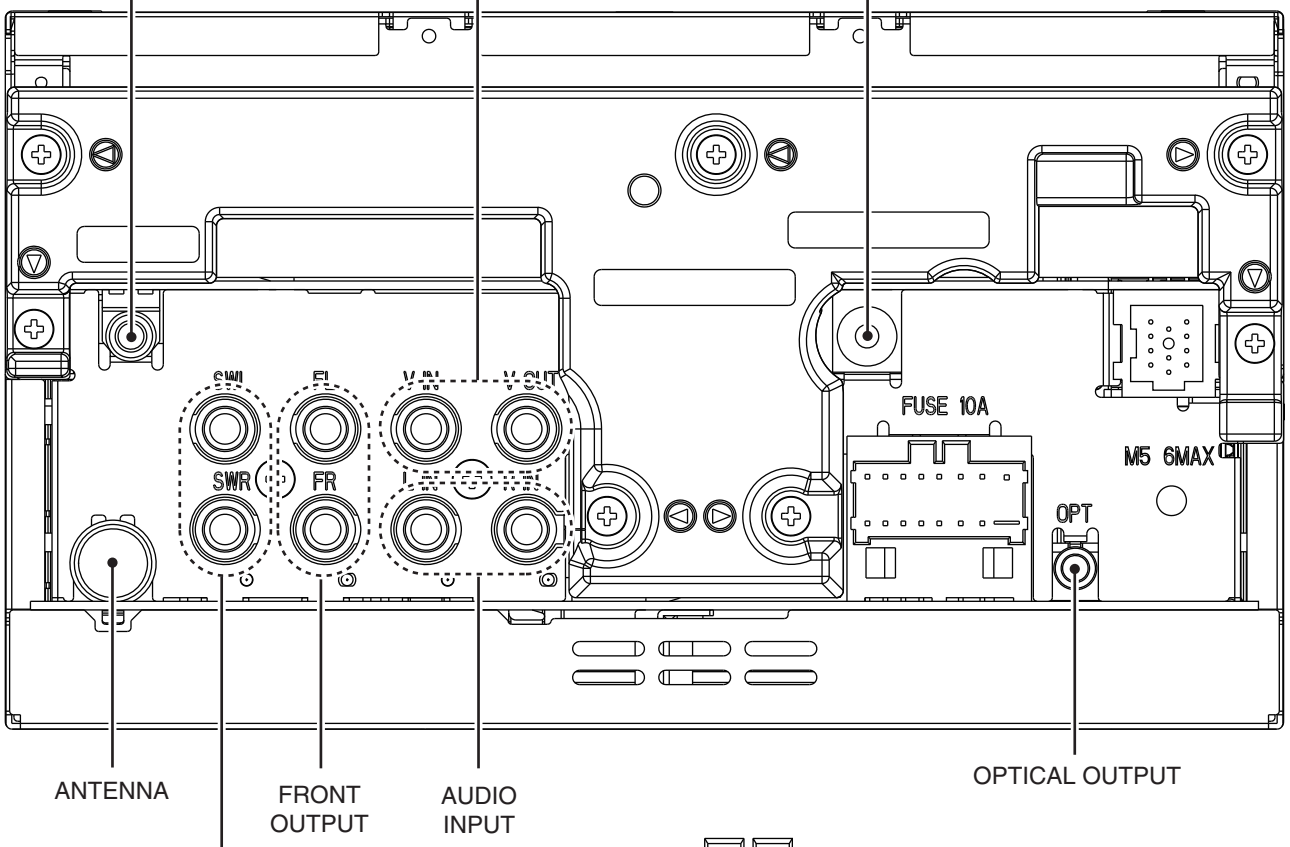
USB audio player/USB memory

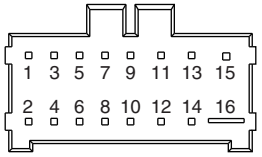
Message	Cause	Action
Unplayable File	This type of file cannot be played by this unit.	Select the playable file.
	No songs	Transfer the audio files to the USB portable audio player/USB memory and connect.
	USB memory with security enabled is connected	Follow the USB memory instructions to disable the security.
Skipped	The connected USB portable audio player/USB memory contains WMA files that are protected by Windows Media™ DRM 9/10	Play an audio file not protected by Windows Media DRM 9/10.
Protect	All the files on the connected USB portable audio player/USB memory are protected by Windows Media DRM 9/10	Transfer audio files not protected by Windows Media DRM 9/10 to the USB portable audio player/USB memory and connect.
N/A USB	The USB device connected to is not supported by this unit.	Connect a USB portable audio player or USB memory that is USB Mass Storage Class compliant.
	USB device is not formatted with FAT16 or FAT32	USB device should be formatted with FAT16 or FAT32.
Check USB	The USB connector or USB cable is short-circuited.	Confirm that the USB connector or USB cable is not caught in something or damaged.
	The connected USB portable audio player/USB memory consumes more than 500 mA (maximum allowable current).	Disconnect the USB portable audio player/USB memory and do not use it. Turn the ignition switch to OFF, then to ACC or ON and then connect the compliant USB portable audio player/USB memory.
Error-02-9X/-DX	Communication failure	Perform one of the following operations. –Turn the ignition switch OFF and back ON. –Disconnect the USB portable audio player/USB memory. –Change to a different source. Then, return to the USB portable audio player/USB memory.

iPod

Message	Cause	Action
Error-02-6X/-9X/-DX	Communication failure	Disconnect the cable from iPod. Once iPod main menu is displayed, connect the cable again. Reset the iPod.
	iPod failure	Disconnect the cable from iPod. Once iPod main menu is displayed, connect the cable again. Reset the iPod.
Error-02-67	Old version of iPod	Update the iPod version.
No Songs	No songs	Transfer the songs to iPod.
Stop	No songs in the current list	Select a list that contains the songs.

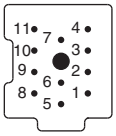
5.5 CONNECTOR FUNCTION DESCRIPTION





1. FR-
2. RR-
3. FR+
4. RR+
5. FL-
6. RL-
7. FL+
8. RL+
9. PARKING BRAKE
10. MUTE
11. B.REM
12. ILM
13. BGSENS
14. ACC
15. GND
16. B.UP

IP-BUS INPUT



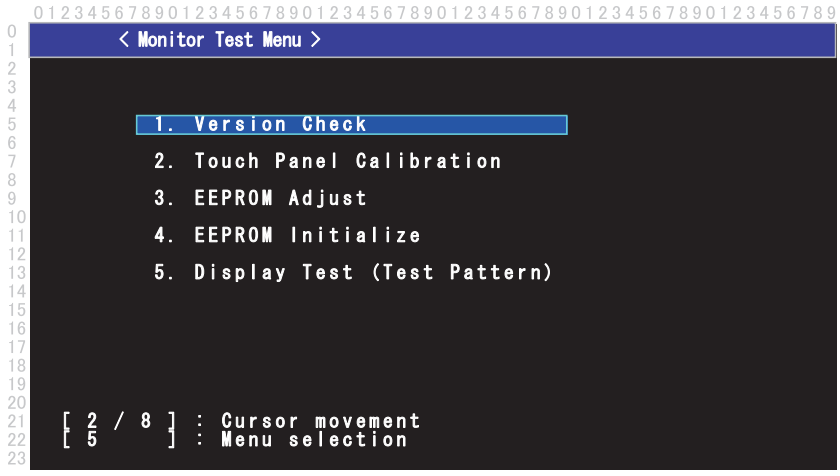
1. BUS+
2. BUSG
3. BUSLG
4. MAINTEST
5. BUS-
6. BUSRG
7. BUSL+
8. ASENBO
9. BUSR+
10. BUSR-
11. BUSL-

6. SERVICE MODE
6.1 MONITOR TEST MODE

[Method for Mode IN]

When the reset start is done while pushing MUTE and TRACK DOWN, it shifts to the monitor test mode.

[Display specifications]



[Operation specification]

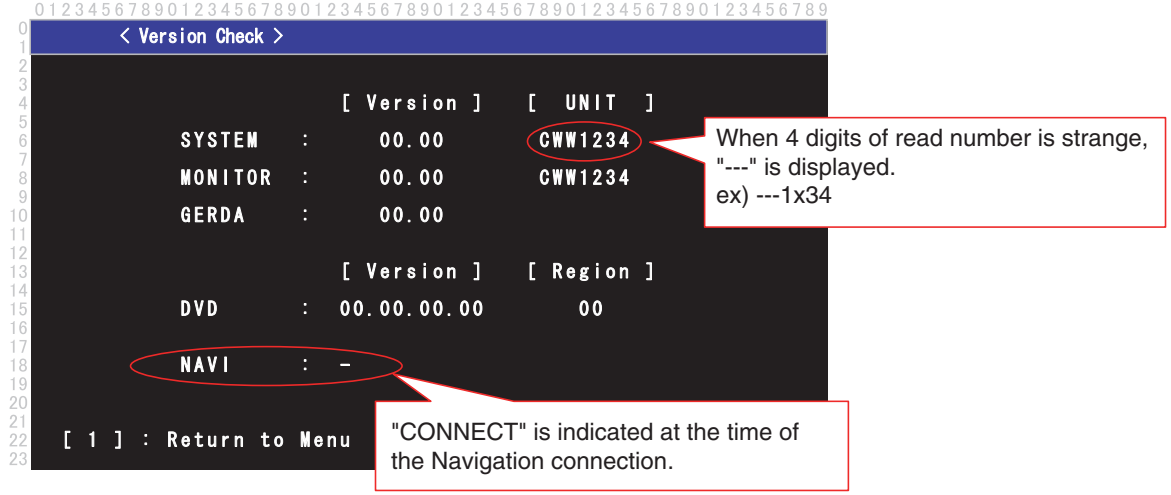
Operational description	Remote controller key
Selection cursor up movement	2
Selection cursor down movement	8
Menu enter	5

1. Version Check

[Method for Mode IN]

Choose "Version Check" among the monitor test mode menu screen.

[Display specifications]



[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1

2. Touch Panel Calibration

[How to activate the touch panel test mode]

Choose "Touch Panel Calibration" among the monitor test mode menu screen.

[Menu types in the mode]

The calibration test mode consists of the following menus.

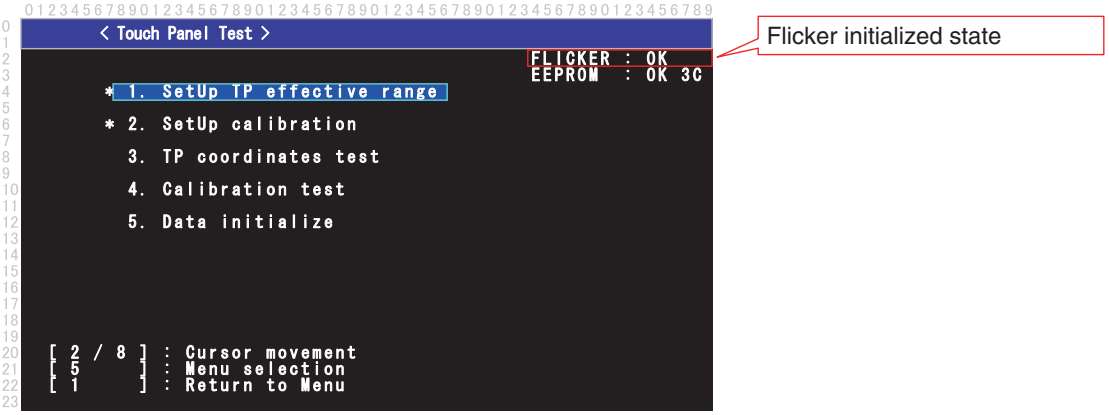
Top menu
- Outermost circumference inspection
- 16 points adjustment
- Coordinate inspection
- Calibration verification
- Data initialization

[Operation specification]

Operational description	Remote controller key
Selection cursor up movement	2
Selection cursor down movement	8
Return to test mode mene	1
Menu enter	5

[Description of the top menu]

[Display specification]



Conditions for lighting of the adjustment complete mark " * ".

Outermost circumference inspection :
In case the outermost circumference inspection has been completed normally.

16 points adjustment :
In case the calibration has been completed normally.

Conditions for the adjustment complete mark " * " to go out.

Outermost circumference inspection :
In case the outermost circumference inspection has never been performed.
In case the EEPROM initialization has been performed.
In case the adjustment value has been initialized.

16 points adjustment :
In case the 16 points adjustment has never been performed.
In case the EEPROM initialization has been performed.
In case the adjustment value has been initialized.

[Outermost circumference inspection]

[Outline]

Outermost circumference value of X and Y is obtained by tracing the outermost circumference of the touch panel screen.
When exiting the menu screen by pressing 5 key, the captured value is stored in the EEPROM.
Furthermore, when storing the value, checking is made as to whether the value is within the range or not.

When the value is within the range.
Write the following value and adjustment information to the EEPROM, then “OK” is displayed.
1. The outermost value of X and Y(min/max) : 4 byte
2. The reference value for A/D correction of X,Y : 2 byte
3. Adjustment information(Adjustment OK) : 1 byte

When the value is within the range.
Write the following adjustment information to the EEPROM, then “NG” is displayed.
1. Adjustment information(Adjustment NG) : 1 byte

The initial value and the setting value allowable range are as follows.

<Before initial value>
①Outermost value
Xmin : 35h
Ymin : 3Fh
Xmax : F3h
Ymax : EAh
②A/D correction value
X : 33h
Y : 38h

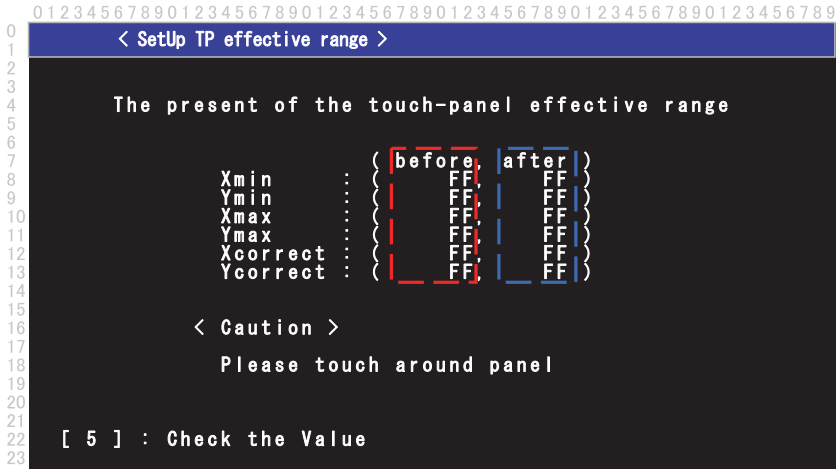
<After initial value>
① Outermost value
Xmin : 78h
Ymin : 78h
Xmax : B4h
Ymax : B4h
② A/D correction value
X : 00h
Y : 00h

③Setting value allowable range

X direction	Minimum value	: 00h to 80h
	Maximum value	: 9Eh to FFh
	Maximum value - Minimum value	: more then 73h
Y direction	Minimum value	: 00h to 83h
	Maximum value	: 9Ah to FFh
	Maximum value - Minimum value	: more then 6Bh

[Display specifications]

Outermost circumference inspection in process



X/Y information of [MIN] and [MAX] of the outermost circumference are displayed.
[BEFOR] indicates the value stored in the EEPROM.
[AFTER] indicates MIN/MAX of the A/D value currently captured.

[Operation specification]

Operational description	Remote controller key
Return to top mene	5

[16 points adjustment]

[Outline]

When correctly touched, the cursor will disappear, and the next cursor will appear. Calibration is conducted by repeating this process 16 times.
When the 17th point has been finally touched, setting information for the 16 points and the normal ending information, total of 17 byte data, are written into the EEPROM, and the screen returns to the TOP menu.

[Display specifications]

16 points adjustment in process

Order of display of the locations to be pressed.

This point is intended to end the calibration inspection, and therefore, the corrected value of this point is not obtained.

[Operation specification]

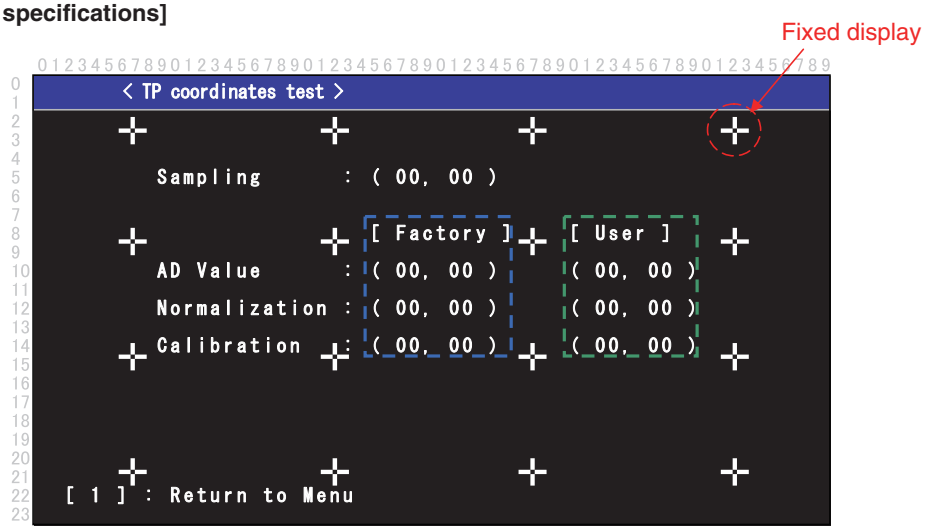
Operational description	Remote controller key
Return to top mene	5

[Coordinate inspection]

[Outline]

The coordinate before correction and after correction at the time of pressing the touch panel are displayed for coordinate verification.
Furthermore, the red "+" cursor can be moved by the key operaiont mentioned bellow, and the coordinate of the cursor center is displayed.

[Display specifications]



Each displayed coordinate is as follows.
The values under [Factory] are the corrected values in the Factory region and the values under [User] are the corrected values in the User region.

- Sampling : A/D value (X direction, Y direction) of the pressed point is displayed.
- AD Value : The coordinate (X direction, Y direction) of the A/D value of the pressed point corrected by the reference value for A/D correction is displayed.
- Normalization : The coordinate (X direction, Y direction) after normalizing the A/D corrected coordinate within the effective range is displayed. (0~255)
- Calibration : The coordinate (X direction, Y direction) which is the result of adding the correction by calibration to the normalized coordinate is displayed.

Movable "+" cursor is displayed in red.
16 calibration points are displayed in white.

[Operation specification]

Operational description	Remote controller key
Return to top mene	1

[Calibration verification]

[Outline]

Touch the cursor “+” displayed on the screen. The correct touch will delete the cursor and another cursor will be displayed. The incorrect touch will make the characters of cursor turn red.
Repeat this for 4 points, and “OK” is displayed upon the last press of 4th point.

[Display specifications]

confirming

The pushing order

[Operation specification]

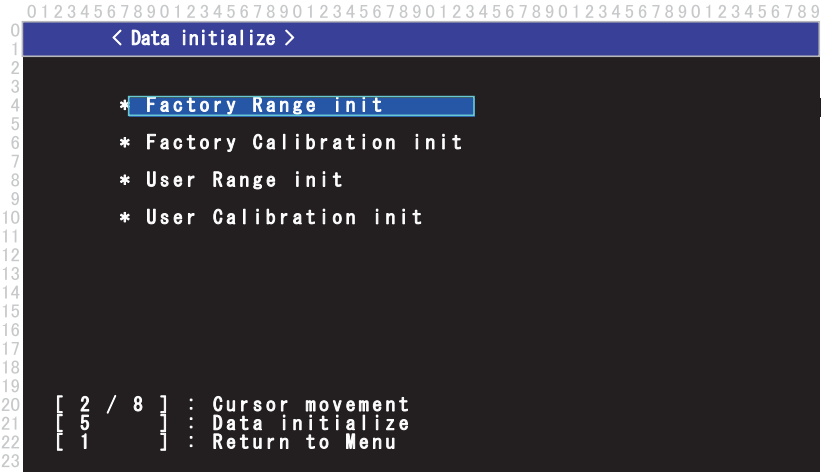
Operational description	Remote controller key
Return to top mene	1

[Data initialization]

[Outline]

Result of outermost circumference inspection and of calibration inspection (corrected value) are returned to their initial values.
As for the initialized items, the initial values are written into the EEPROM and the adjustment information is cleared.

[Display specifications]



Conditions for the adjustment completion mark (*) to be lighted up.
(The mark will be lighted up if one of the multiple conditions is met.)

Outermost circumference inspection
When the outermost circumference inspection of the calibration for line has been completed normally.

16 point adjustment
When the 16 point adjustment of the calibration for line has been completed normally.

User outermost circumference inspection
When the user outermost circumference inspection of the calibration for line has been completed normally.

User 16 point adjustment
When the user 16 point adjustment of the calibration for line has been completed normally.

Conditions for the adjustment completion mark (*) to go out.

Outermost circumference inspection
When the above mentioned lighting conditions are not applicable.
When the adjusted value has been initialized (Data initialize).
When the EEPROM has been initialized.

16 point adjustment
When the above mentioned lighting conditions are not applicable.
When the adjusted value has been initialized (Data initialize).
When the EEPROM has been initialized.

User outermost circumference inspection
When the above mentioned lighting conditions are not applicable.
In case the outermost circumference inspection of the calibration for line or the 16-point adjustment is normally terminated after normal termination of the outermost circumference inspection for user calibration.
When the adjusted value has been initialized (Data initialize).
When the EEPROM has been initialized.

User 16 point adjustment
When the above mentioned lighting conditions are not applicable.
In case the outermost circumference inspection of the calibration for line or the 16-point adjustment is normally terminated after normal termination of the outermost circumference inspection for user calibration.
When the adjusted value has been initialized (Data initialize).
When the EEPROM has been initialized.

[Operation specification]

Refer to [Menu types in the mode].

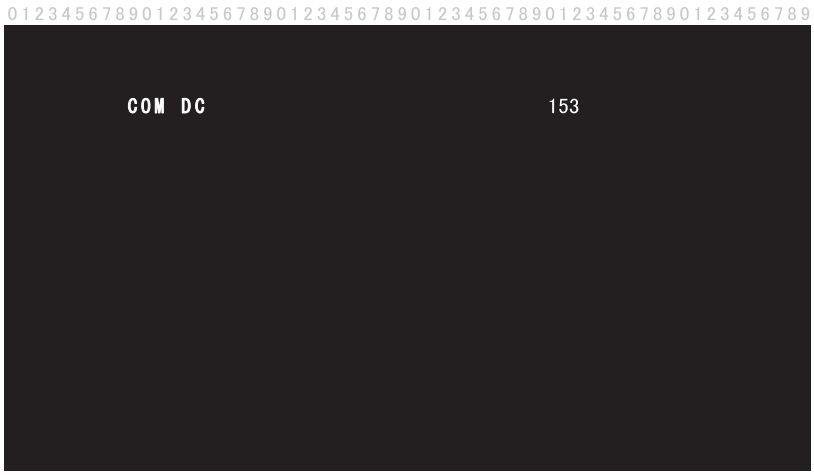
3. EEPROM Adjust

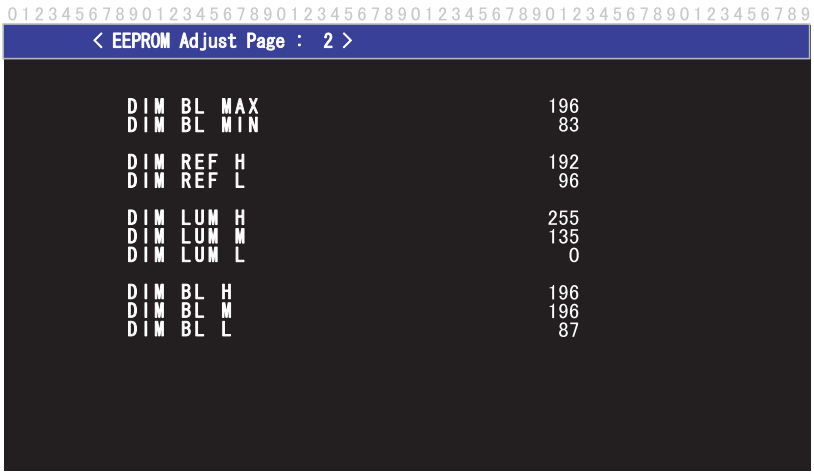
[Method for Mode IN]

Choose "EEPROM Adjust" among the monitor test mode menu screen.

[Display specifications]

Flicker Adjust



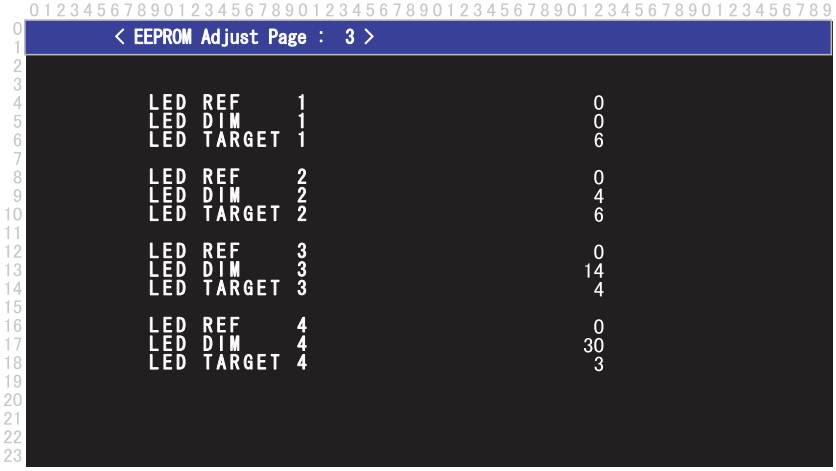


Backlight output max value : 196
Backlight output min value : 83

Dimmer threshold value (high) : 192
Dimmer threshold value (low) : 96

Dimmer external light point (high) : 255
Dimmer external light point (medium) : 135
Dimmer external light point (low) : 0

Dimmer backlight point (high) : 196
Dimmer backlight point (medium) : 196
Dimmer backlight point (low) : 87

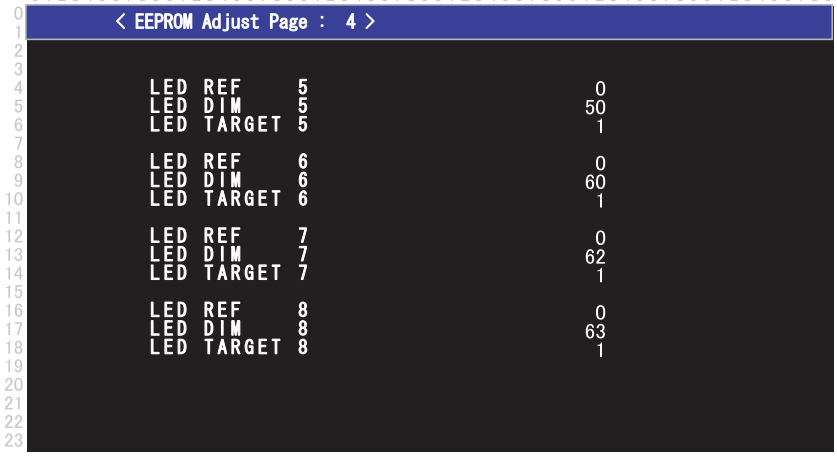


LCD protection value at High temperature (1) Temperature value : 0
LCD protection value at High temperature (1) Dimmer output : 0
LCD protection value at High temperature (1) Target arrival time : 6

LCD protection value at High temperature (2) Temperature value : 0
LCD protection value at High temperature (2) Dimmer output : 4
LCD protection value at High temperature (2) Target arrival time : 6

LCD protection value at High temperature (3) Temperature value : 0
LCD protection value at High temperature (3) Dimmer output : 14
LCD protection value at High temperature (3) Target arrival time : 4

LCD protection value at High temperature (4) Temperature value : 0
LCD protection value at High temperature (4) Dimmer output : 30
LCD protection value at High temperature (4) Target arrival time : 3

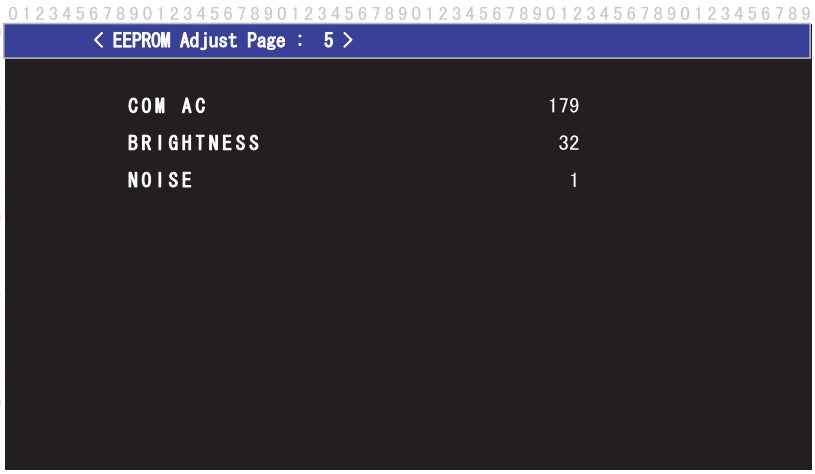


LCD protection value at High temperature (5) Temperature value : 0
LCD protection value at High temperature (5) Dimmer output : 50
LCD protection value at High temperature (5) Target arrival time : 1

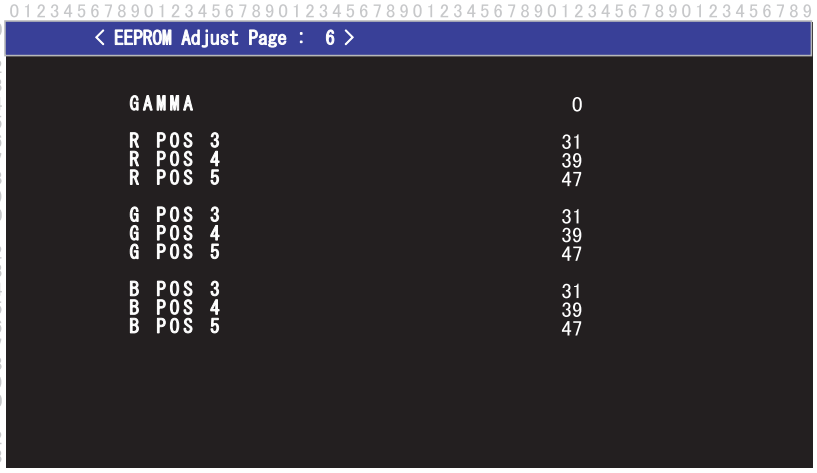
LCD protection value at High temperature (6) Temperature value : 0
LCD protection value at High temperature (6) Dimmer output : 60
LCD protection value at High temperature (6) Target arrival time : 1

LCD protection value at High temperature (7) Temperature value : 0
LCD protection value at High temperature (7) Dimmer output : 62
LCD protection value at High temperature (7) Target arrival time : 1

LCD protection value at High temperature (8) Temperature value : 0
LCD protection value at High temperature (8) Dimmer output : 63
LCD protection value at High temperature (8) Target arrival time : 1



Common inverted output amplitude adjusted value : 179
Brightness adjustment : 32
Noise shaping setting : 1



RGB gamma correction : 0

RGB gamma correction setting	R polygonal line position setting arrangement [3] : 31
RGB gamma correction setting	R polygonal line position setting arrangement [4] : 39
RGB gamma correction setting	R polygonal line position setting arrangement [5] : 47
RGB gamma correction setting	G polygonal line position setting arrangement [3] : 31
RGB gamma correction setting	G polygonal line position setting arrangement [4] : 39
RGB gamma correction setting	G polygonal line position setting arrangement [5] : 47
RGB gamma correction setting	B polygonal line position setting arrangement [3] : 31
RGB gamma correction setting	B polygonal line position setting arrangement [4] : 39
RGB gamma correction setting	B polygonal line position setting arrangement [5] : 47

```
< EEPROM Adjust Page :  7 >

R GAIN 3                    32
R GAIN 4                    32
R GAIN 5                    32
R GAIN 6                    32

G GAIN 3                    32
G GAIN 4                    32
G GAIN 5                    32
G GAIN 6                    32

B GAIN 3                    32
B GAIN 4                    32
B GAIN 5                    32
B GAIN 6                    32
```

RGB gamma correction setting R gain arrangement [3] : 32
RGB gamma correction setting R gain arrangement [4] : 32
RGB gamma correction setting R gain arrangement [5] : 32
RGB gamma correction setting R gain arrangement [6] : 32

RGB gamma correction setting G gain arrangement [3] : 32
RGB gamma correction setting G gain arrangement [4] : 32
RGB gamma correction setting G gain arrangement [5] : 32
RGB gamma correction setting G gain arrangement [6] : 32

RGB gamma correction setting B gain arrangement [3] : 32
RGB gamma correction setting B gain arrangement [4] : 32
RGB gamma correction setting B gain arrangement [5] : 32
RGB gamma correction setting B gain arrangement [6] : 32

```
< EEPROM Adjust Page :  8 >

R DRIVE +3                  22
G DRIVE +3                  24

R DRIVE +2                  25
G DRIVE +2                  26

R DRIVE +1                  28
G DRIVE +1                  28

B DRIVE -1                  28
G DRIVE -1                  31

B DRIVE -2                  25
G DRIVE -2                  29

B DRIVE -3                  20
G DRIVE -3                  28
```

R drive adjustment +3 : 22
G drive adjustment +3 : 24

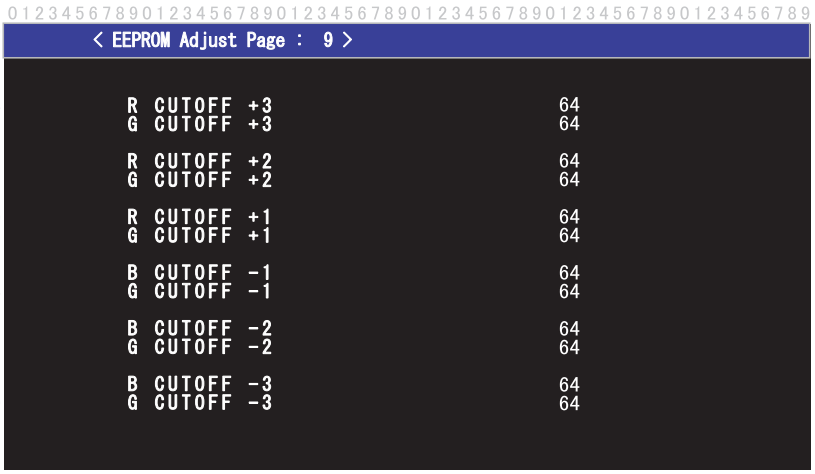
R drive adjustment +2 : 25
G drive adjustment +2 : 26

R drive adjustment +1 : 28
G drive adjustment +1 : 28

B drive adjustment +1 : 28
G drive adjustment +1 : 31

B drive adjustment +2 : 25
G drive adjustment +2 : 29

B drive adjustment +3 : 20
G drive adjustment +3 : 28



R cutoff adjustment +3 : 64
G cutoff adjustment +3 : 64

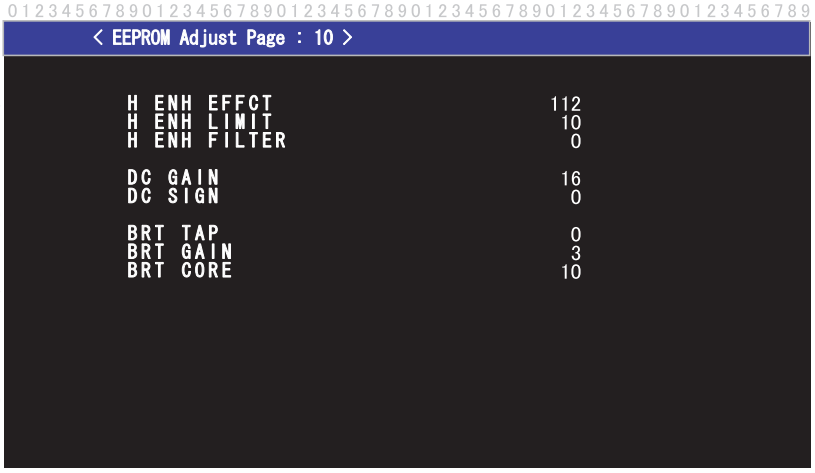
R cutoff adjustment +2 : 64
G cutoff adjustment +2 : 64

R cutoff adjustment +1 : 64
G cutoff adjustment +1 : 64

B cutoff adjustment -1 : 64
G cutoff adjustment -1 : 64

B cutoff adjustment -2 : 64
G cutoff adjustment -2 : 64

B cutoff adjustment -3 : 64
G cutoff adjustment -3 : 64



Horizontal enhancer adjustment	Correction effect adjustment : 112
Horizontal enhancer adjustment	Limiter for both shots of the positive/negative side : 10
Horizontal enhancer adjustment	Horizontal enhancer adjustment : 0

YUV DC transmission quantity correction setting	Correction gain : 16
YUV DC transmission quantity correction setting	DC transmission quantity correction polarity : 0

Brightness outline correction adjustment	Correction tap select : 0
Brightness outline correction adjustment	Correction gain : 3
Brightness outline correction adjustment	Coring quantity : 10

```
< EEPROM Adjust Page : 11 >

TV     Dcs1_ilgain1                3
TV     Dmv1_ilgain1                3
TV     Dcs1_ilgain23              56
TV     Dmv1_ilgain23              56

other  Dcs1_ilgain1                3
other  Dmv1_ilgain1                3
other  Dcs1_ilgain23               56
other  Dmv1_ilgain23               56
```

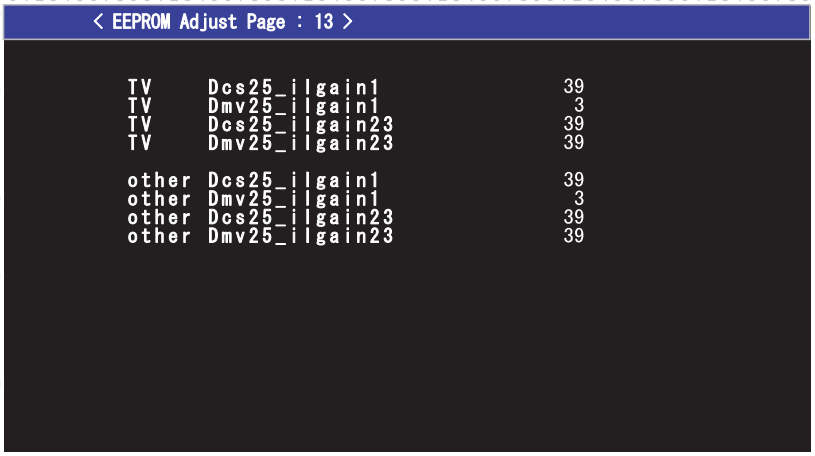
Synchronous separation Top curl adjustment (Strong electric field, TV) Dcs1_ilgain1 : 3
Synchronous separation Top curl adjustment (Strong electric field, TV) Dmv1_ilgain1 : 3
Synchronous separation Top curl adjustment (Strong electric field, TV) Dcs1_ilgain23 : 56
Synchronous separation Top curl adjustment (Strong electric field, TV) Dmv1_ilgain23 : 56

Synchronous separation Top curl adjustment (Strong electric field, Besides TV) Dcs1_ilgain1 : 3
Synchronous separation Top curl adjustment (Strong electric field, Besides TV) Dmv1_ilgain1 : 3
Synchronous separation Top curl adjustment (Strong electric field, Besides TV) Dcs1_ilgain23 : 56
Synchronous separation Top curl adjustment (Strong electric field, Besides TV) Dmv1_ilgain23 : 56

```
< EEPROM Adjust Page : 12 >

TV     Dcs2_ilgain1               39
TV     Dmv2_ilgain1                3
TV     Dcs2_ilgain23              21
TV     Dmv2_ilgain23              21

other  Dcs2_ilgain1               39
other  Dmv2_ilgain1                3
other  Dcs2_ilgain23               39
other  Dmv2_ilgain23               39
```

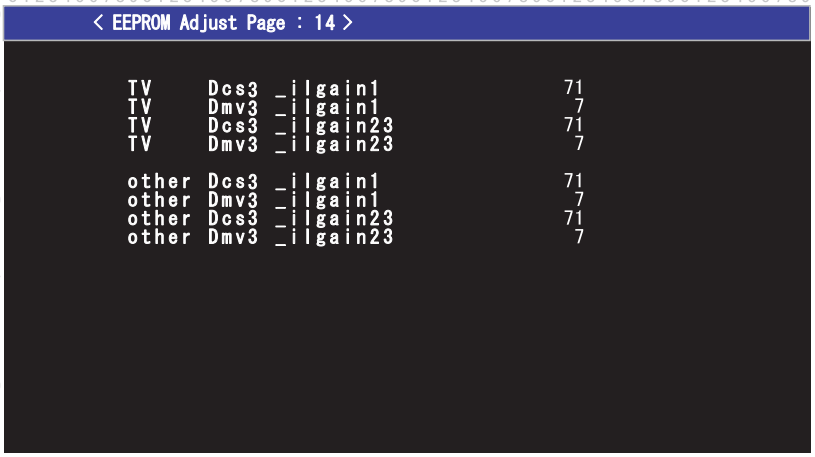
Synchronous separation Top curl adjustment (Weak electric field, TV) Dcs2_ilgain1 : 39
Synchronous separation Top curl adjustment (Weak electric field, TV) Dmv2_ilgain1 : 3
Synchronous separation Top curl adjustment (Weak electric field, TV) Dcs2_ilgain23 : 21
Synchronous separation Top curl adjustment (Weak electric field, TV) Dmv2_ilgain23 : 21

Synchronous separation Top curl adjustment (Weak electric field, Besides TV) Dcs2_ilgain1 : 39
Synchronous separation Top curl adjustment (Weak electric field, Besides TV) Dmv2_ilgain1 : 3
Synchronous separation Top curl adjustment (Weak electric field, Besides TV) Dcs2_ilgain23 : 39
Synchronous separation Top curl adjustment (Weak electric field, Besides TV) Dmv2_ilgain23 : 39



Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dcs25_ilgain1 : 39
Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dmv25_ilgain1 : 3
Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dcs25_ilgain23 : 39
Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dmv25_ilgain23 : 39

Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dcs25_ilgain1 : 39
Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dmv25_ilgain1 : 3
Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dcs25_ilgain23 : 39
Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dmv25_ilgain23 : 39



Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dcs3_ilgain1 : 71
Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dmv3_ilgain1 : 7
Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dcs3_ilgain23 : 71
Synchronous separation Top curl adjustment (Super-weak electric field, TV) Dmv3_ilgain23 : 7

Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dcs3_ilgain1 : 71
Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dmv3_ilgain1 : 7
Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dcs3_ilgain23 : 71
Synchronous separation Top curl adjustment (Super-weak electric field, Besides TV) Dmv3_ilgain23 : 7

```
< EEPROM Adjust Page : 15 >

TV     Dycomp5_ilgain1            2
TV     Dycomp5_ilgain23          39

other  Dycomp5_ilgain1            2
other  Dycomp5_ilgain23          39

TV     Dwec_th_cs225            150
TV     Dwec_th_cs12              16
```

Synchronous separation Top curl adjustment (Non signal, TV) Dycomp5_ilgain1 : 2
Synchronous separation Top curl adjustment (Non signal, TV) Dycomp5_ilgain23 : 39

Synchronous separation Top curl adjustment (Non signal, Besides TV) Dycomp5_ilgain1 : 2
Synchronous separation Top curl adjustment (Non signal, Besides TV) Dycomp5_ilg : 39

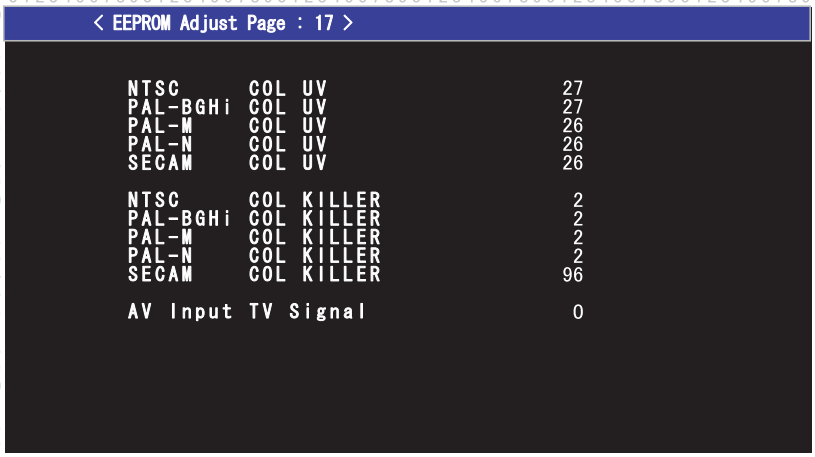
Electric field strength judgment value for TV Dwec_th_cs225 : 150
Electric field strength judgment value for Dwec_th_cs12 : 16

```
< EEPROM Adjust Page : 16 >

TV NTSC      ACCGAIN              8500
TV PAL-BGHi  ACCGAIN              8500
TV PAL-M     ACCGAIN              8500
TV PAL-N     ACCGAIN              8500
TV SECAM     ACCGAIN              8500

TV IVMODE                           10

NTSC      COM GAIN                214
PAL-BGHi  COM GAIN                217
PAL-M     COM GAIN                203
PAL-N     COM GAIN                203
SECAM     COM GAIN                203
```

ACCGAIN setting (ulNT358_SYNC1_08) : 8500
ACCGAIN setting (ulPALBG_SYNC1_08) : 8500
ACCGAIN setting (ulPALM_SYNC1_08) : 8500
ACCGAIN setting (ulPALN_SYNC1_08) : 8500
ACCGAIN setting (ulSECAM_SYNC1_08) : 8500

IVMODE setting : 10

Com part Brightness gain (ulNT358_CMB1_20) : 214
Com part Brightness gain (ulPALBG_CMB1_20) : 217
Com part Brightness gain (ulPALBG_CMB1_21) : 203
Com part Brightness gain (ulPALBG_CMB1_22) : 203
Com part Brightness gain (ulPALBG_CMB1_23) : 203



Color demodulate part UV delay adjustment (ulNT358_AVICOL3_03) : 27
Color demodulate part UV delay adjustment (ulPALBG_AVICOL3_03) : 27
Color demodulate part UV delay adjustment (ulPALM_AVICOL3_03) : 26
Color demodulate part UV delay adjustment (ulPALN_AVICOL3_03) : 26
Color demodulate part UV delay adjustment (ulSECAM_AVICOL3_03) : 26

Color demodulate part Phase killer value (ulNT358_AVICOL1_09) : 2
Color demodulate part Phase killer value (ulPALBG_AVICOL1_09) : 2
Color demodulate part Phase killer value (ulPALM_AVICOL1_09) : 2
Color demodulate part Phase killer value (ulPALN_AVICOL1_09) : 2
Color demodulate part Phase killer value (ulSECAM_AVICOL1_09) : 96

AV input picture indication movement : 0

[Operation specification]

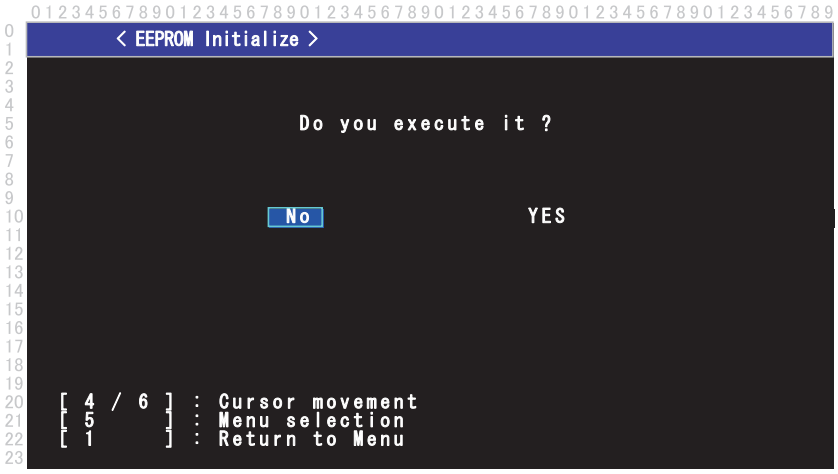
Operational description	Remote controller key
Selection cursor up movement	2
Selection cursor down movement	8
Item content value up	6
Item content value down	4
Next menu page	9
Former menu page	7
Return to test mode mene	1

4. EEPROM Initialize

[Method for Mode IN]

Choose "EEPROM Initialize" among the monitor test mode menu screen.

[Display specifications]



Default of a cursor is the location of "No".
Choose "YES" and decide, initialize a setting value.

*) Don't turn off power while initializing.

When normally ends, "success" is displayed.
When will not end in four seconds, judged to be abnormal, "failure" is displayed.

[Operation specification]

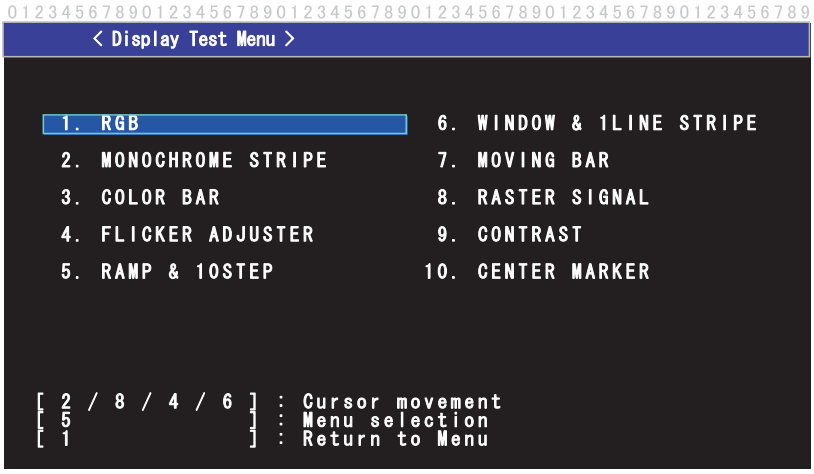
Operational description	Remote controller key
Selection cursor left movement	4
Selection cursor right movement	6
Return to test mode mene	1
Menu enter	5

5. Display Test (Test Pattern)

[Method for Mode IN]

Choose "Display Test (Test Pattern)" among the monitor test mode menu screen.

[Display specifications]



[Operation specification]

Operational description	Remote controller key
Selection cursor up movement	2
Selection cursor down movement	8
Selection cursor left movement	4
Selection cursor right movement	6
Return to test mode mene	1
Menu enter	5

[RGB]

RGB is plotted in the following pattern:
R100% -> R50% -> G100% -> G50% -> B100% -> B50% -> BLACK -> GRAY -> WHITE -> C.Video 60Hz -> C.Video 50Hz
(The display of the screen will be changed in 1 second.)

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1
Stop/Restart	5

[MONOCHROME STRIPE]

Display of monochrome stripe signal (1dot Width)

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1

[COLOR BAR]

Display of color bar signal

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1

[FLICKER ADJUSTER]

Display of monochrome stripe signal of the flicker adjustment

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1

[RAMP & 10STEP]

Display of step signal and signal for alpha blend check

[Operation specification]

Operational description	Remote controller key
alpha blend rate up	2
alpha blend rate down	8
Return to test mode mene	1
Next signal	5

[WINDOW & 1LINE STRIPE]

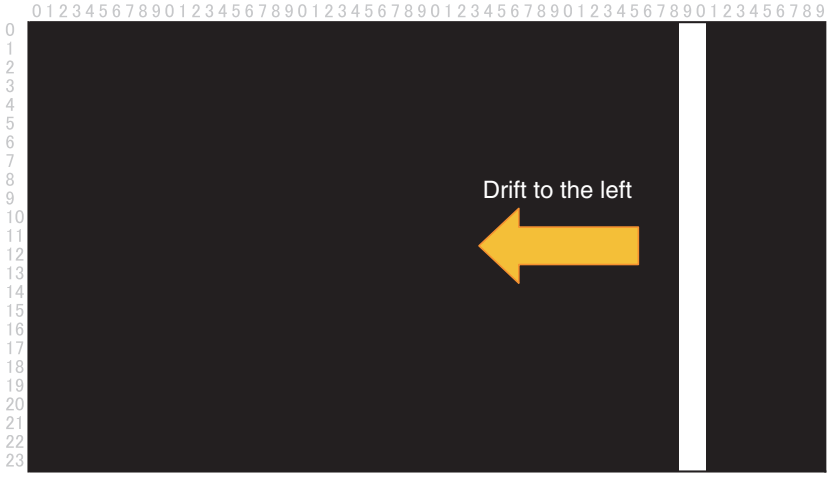
Display of signal for video signal reply check

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1
Next signal	5

[MOVING BAR]

A white vertical line indicates the signal which moves from the right to the left.



Cycle1 : 1 seconds
Cycle2 : 2 seconds
Cycle3 : 3 seconds

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1
Cycle1 -> 2 -> 3 -> stop -> 1	5

[RASTER SIGNAL]

Display of signal for step confirmation

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1
Next signal	5

[CONTRAST]

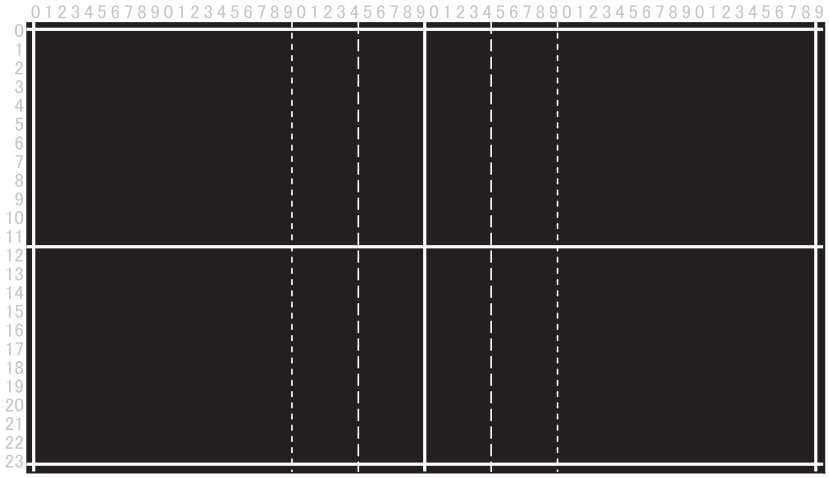
Display of Black/White signal

[Operation specification]

Operational description	Remote controller key
Return to test mode mene	1
Next signal	5

[CENTER MARKER]

Display of signal for screen central location setting.



[Operation specification]

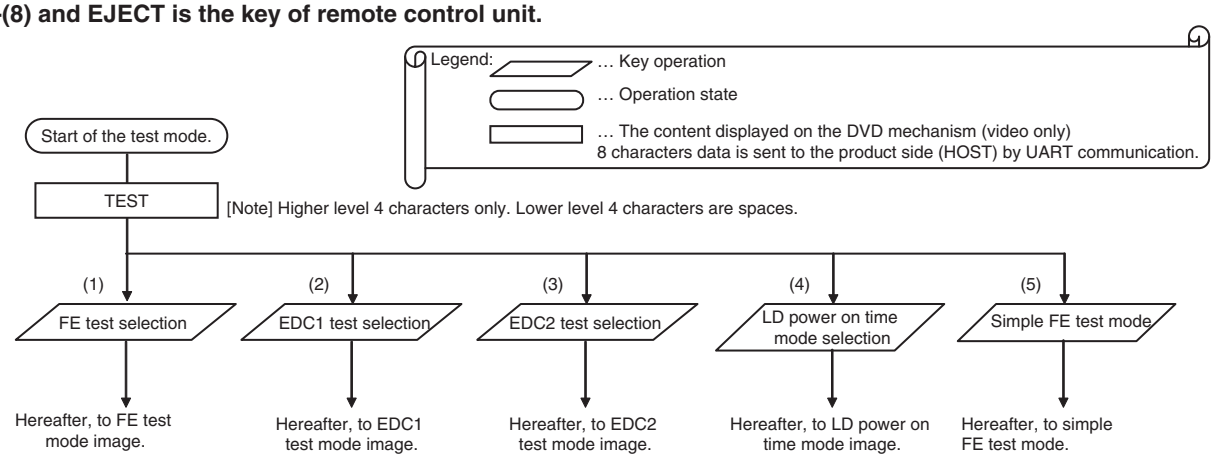
Operational description	Remote controller key
Return to test mode mene	1

6.2 DVD TEST MODE

Test mode display will not appear on the display of this product. Connect the rear monitor output to a monitor.

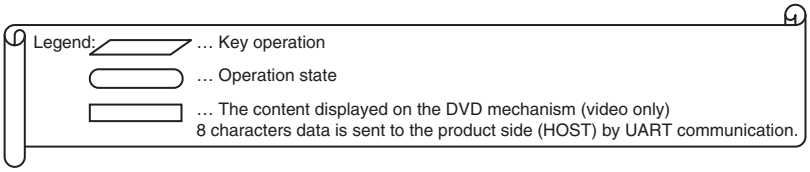
Image of the test mode.

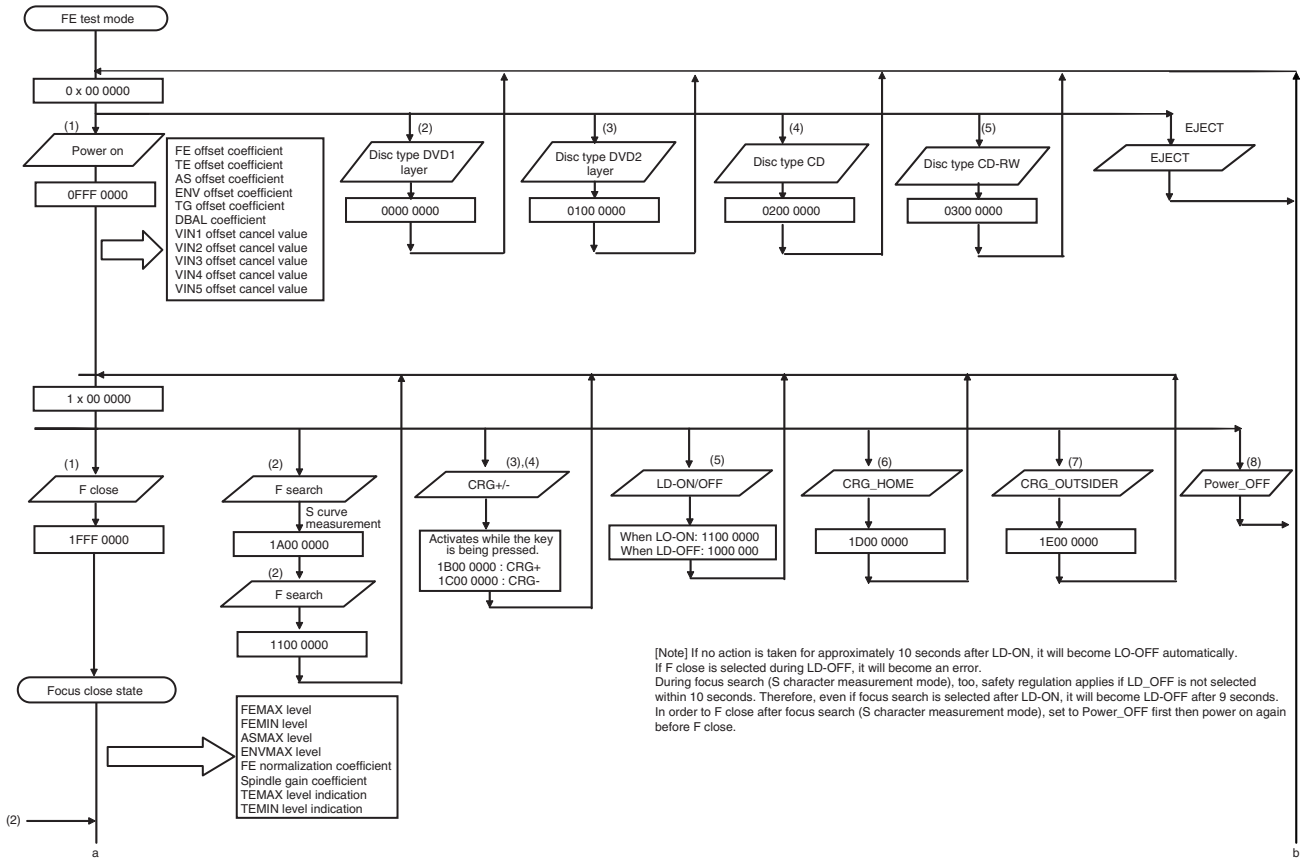
[VOL-] + [TRACK UP] + Reset start
Switch position of the remote control unit.
[AVH mode]
(1)-(8) and EJECT is the key of remote control unit.

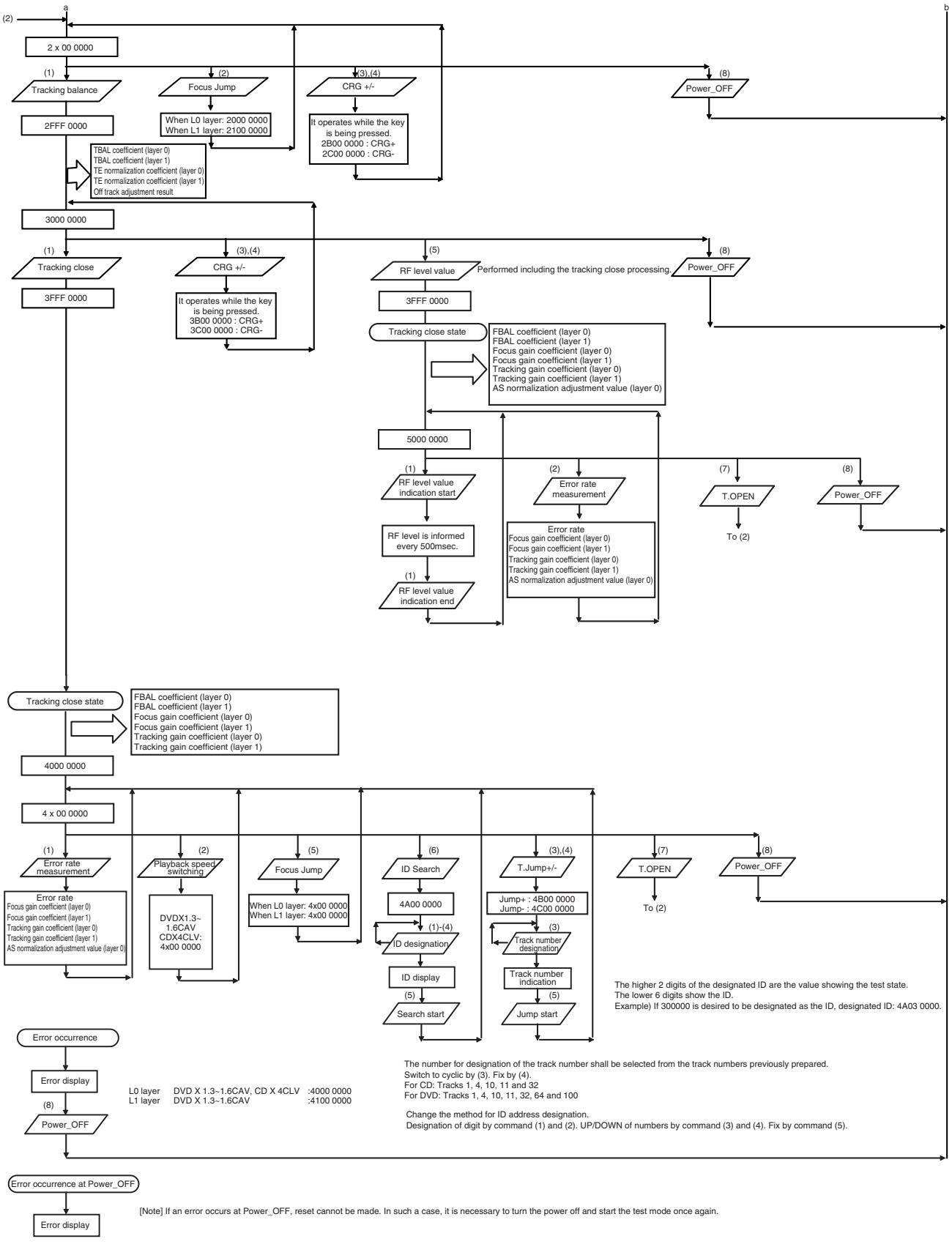


[Note] In order to move on to another test after selecting a test (FE/EDC1/EDC2), it is necessary to restart the DVD mechanism in the test mode.

Image of the front end test mode.






(2)
a
b
2 x 00 0000
(1)
Tracking balance
2FFF 0000
TBAL coefficient (layer 0)
TBAL coefficient (layer 1)
TE normalization coefficient (layer 0)
TE normalization coefficient (layer 1)
Off track adjustment result
(2)
Focus Jump
When L0 layer: 2000 0000
When L1 layer: 2100 0000
(3),(4)
CRG +/-
It operates while the key is being pressed.
2B00 0000 : CRG+
2C00 0000 : CRG-
(8)
Power_OFF
3000 0000
(1)
Tracking close
3FFF 0000
(3),(4)
CRG +/-
It operates while the key is being pressed.
3B00 0000 : CRG+
3C00 0000 : CRG-
(5)
RF level value
Performed including the tracking close processing.
(8)
Power_OFF
3FFF 0000
Tracking close state
FBAL coefficient (layer 0)
FBAL coefficient (layer 1)
Focus gain coefficient (layer 0)
Focus gain coefficient (layer 1)
Tracking gain coefficient (layer 0)
Tracking gain coefficient (layer 1)
AS normalization adjustment value (layer 0)
5000 0000
(1)
RF level value indication start
RF level is informed every 500msec.
(1)
RF level value indication end
(2)
Error rate measurement
Error rate
Focus gain coefficient (layer 0)
Focus gain coefficient (layer 1)
Tracking gain coefficient (layer 0)
Tracking gain coefficient (layer 1)
AS normalization adjustment value (layer 0)
(7)
T.OPEN
To (2)
(8)
Power_OFF
Tracking close state
FBAL coefficient (layer 0)
FBAL coefficient (layer 1)
Focus gain coefficient (layer 0)
Focus gain coefficient (layer 1)
Tracking gain coefficient (layer 0)
Tracking gain coefficient (layer 1)
4000 0000
4 x 00 0000
(1)
Error rate measurement
Error rate
Focus gain coefficient (layer 0)
Focus gain coefficient (layer 1)
Tracking gain coefficient (layer 0)
Tracking gain coefficient (layer 1)
AS normalization adjustment value (layer 0)
(2)
Playback speed switching
DVDX1.3~1.6CAV
CDX4CLV:
4x00 0000
(5)
Focus Jump
When L0 layer: 4x00 0000
When L1 layer: 4x00 0000
(6)
ID Search
4A00 0000
(1)-(4)
ID designation
ID display
(5)
Search start
(3),(4)
T.Jump+/-
Jump+ : 4B00 0000
Jump- : 4C00 0000
(3)
Track number designation
Track number indication
(5)
Jump start
(7)
T.OPEN
To (2)
(8)
Power_OFF
The higher 2 digits of the designated ID are the value showing the test state.
The lower 6 digits show the ID.
Example) If 300000 is desired to be designated as the ID, designated ID: 4A03 0000.
Error occurrence
Error display
(8)
Power_OFF
L0 layer DVD X 1.3~1.6CAV, CD X 4CLV :4000 0000
L1 layer DVD X 1.3~1.6CAV :4100 0000
The number for designation of the track number shall be selected from the track numbers previously prepared.
Switch to cyclic by (3). Fix by (4).
For CD: Tracks 1, 4, 10, 11 and 32
For DVD: Tracks 1, 4, 10, 11, 32, 64 and 100
Change the method for ID address designation.
Designation of digit by command (1) and (2). UP/DOWN of numbers by command (3) and (4). Fix by command (5).
Error occurrence at Power_OFF
Error display
[Note] If an error occurs at Power_OFF, reset cannot be made. In such a case, it is necessary to turn the power off and start the test mode once again.

EDC. Image of the test mode

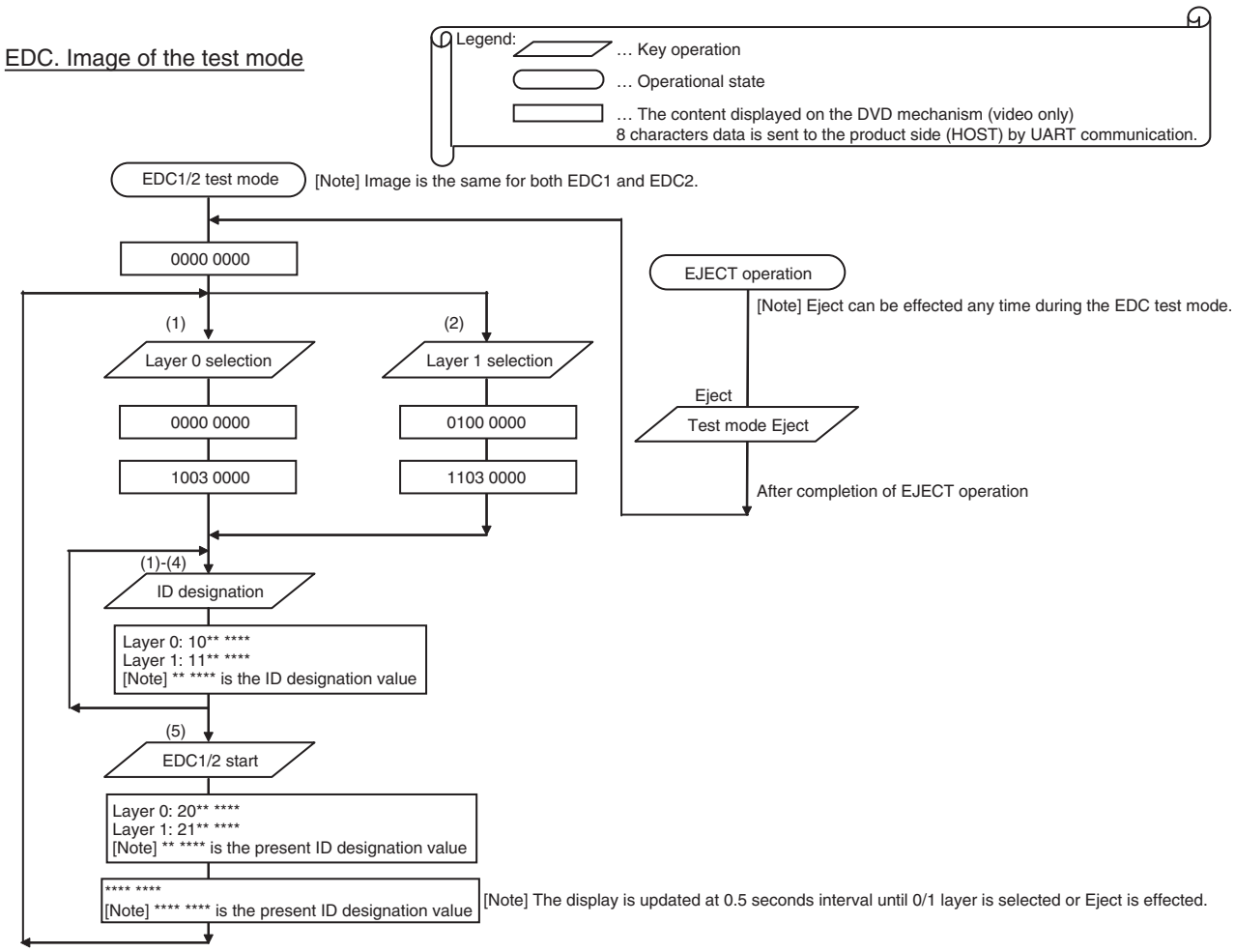
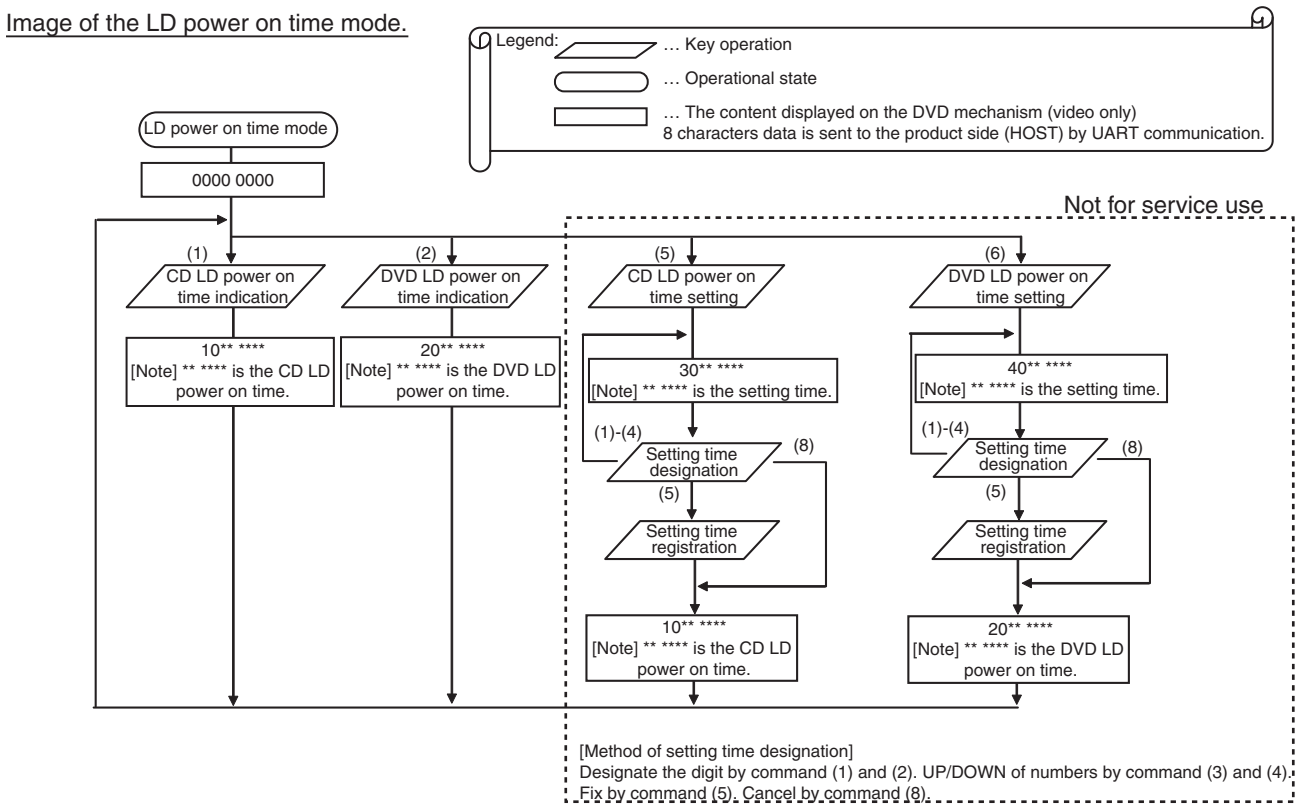


Image of the LD power on time mode.

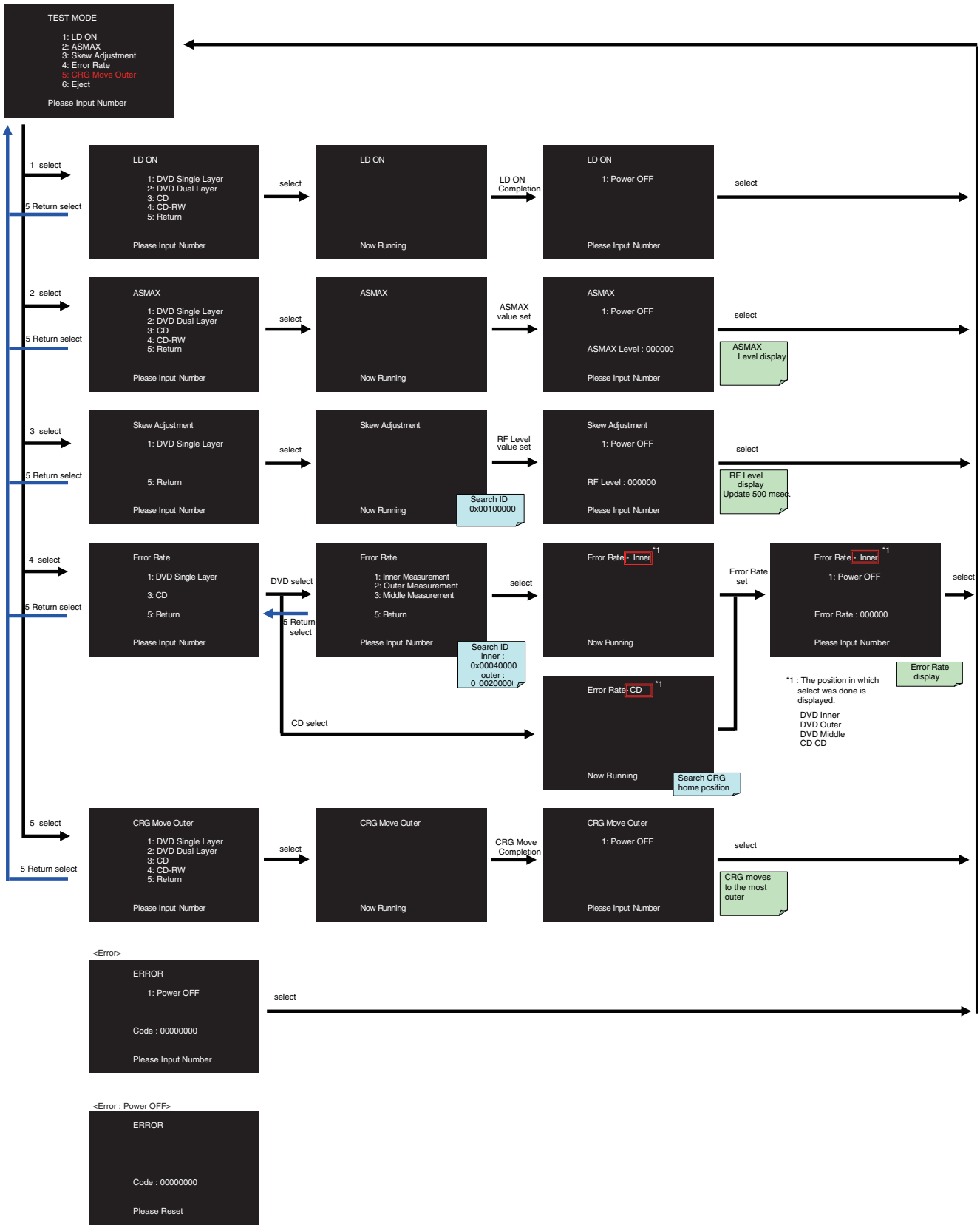


[Note] If the power on time is 999999 hours or more, it is always reported as 999999 hours.
[Note] If the power on time is "*E** ****", the value may not be correct due to the life of the flash memory.

Simple test mode

The selection of the figure of each screen can be selected by "Key command for the test".

<Flow chart>



6.3 DVD TOUCH PANEL TEST MODE

How to enter:
Reset with [VOL-] key and [TrackDOWN] key pressed.

How to unlock:
Product reset
Turning ACC ON

Summary:
It is for temporary analysis in services.
(For temporary analysis of user claim and etc. against DVD touch direct.)
(1)Display a frame border in the valid area as a button in the contents by OSD of DVD mecha on DVD-Video menu time.
(2)Display a cross-shape on the place user touched on touch direct display time by OSD of DVD mecha.
(3)Every time pressing "C (clear)" key on the remote controller, the color of the frame border and the cross-shape above (1)(2) is changed (white -> red -> black -> clear -> white -> ...).

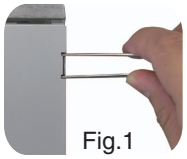
Remarks:
The aim is as follows.
1.Display the available area of the disc button by OSD of MS5AVcode2.
->To clarify the true button position enables to judge the disc cause.
2.Display a cross-shape on the position that MS5AVcode2 thinks was pressed actually.
->To detect a gap in perception between HOST and mecha enables to judge the HOST cause.

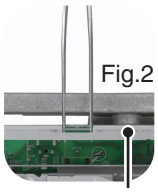
7. DISASSEMBLY

● Removing the Case and Monitor Unit (Fig.1, 2, 3)

The hook is removed with Tweezers as shown in figure. (Fig.1)

Don't remove from the hook of ✖ sign.(Fig.3)
Because the Holder may be deformed.(Fig.2)





1 Remove the four hooks with Tweezers and then remove the Case.(Fig.3)

2 Remove the four screws. (Fig.3)

3 Remove the two hooks. (Fig.3)

4 Disconnect the two cables and then remove the Monitor Unit.(Fig.4)

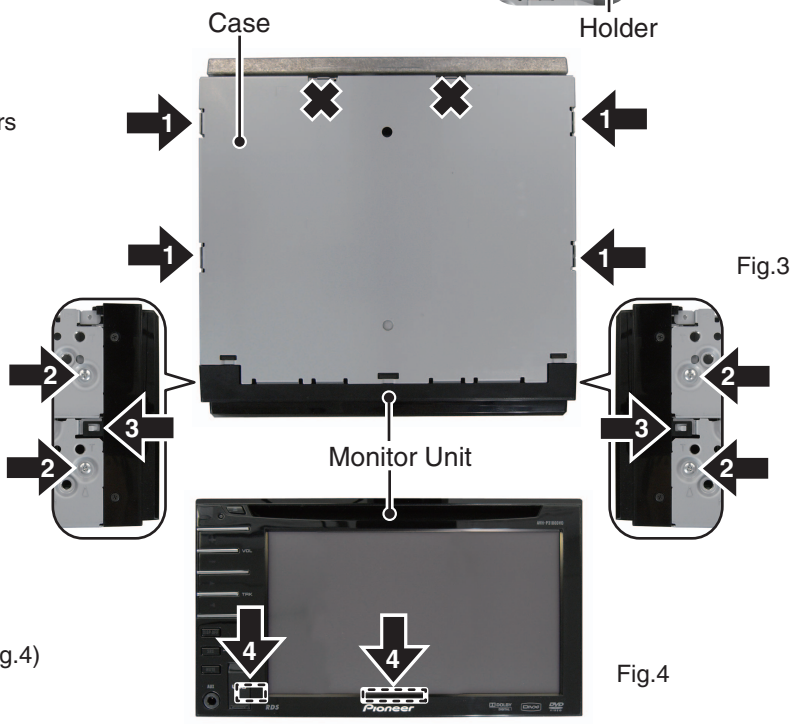


Fig.3

Fig.4

● Removing the Monitor PCB and Keybord PCB (Fig.5)

1 Remove the four screws.

2 Remove the two screws and then remove the Holder.

3 Disconnect the two cables.

4 Remove the screw.

5 Remove the five hooks and then remove the LCD Assy.

Remove the Keybord PCB.

6 Disconnect the two cables.

7 Remove the five screws and then remove the Monitor PCB.

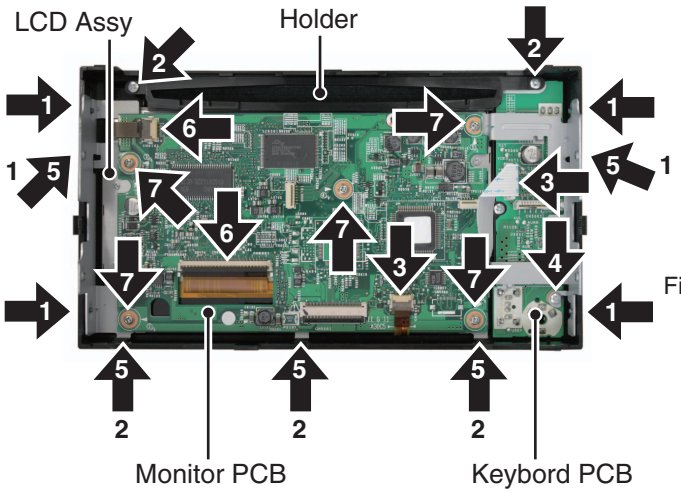


Fig.5

● Removing the DVD Mechanism Module (Fig.6)

1 Remove the four screws.

2 Disconnect the cable and then remove the DVD Mechanism Module.

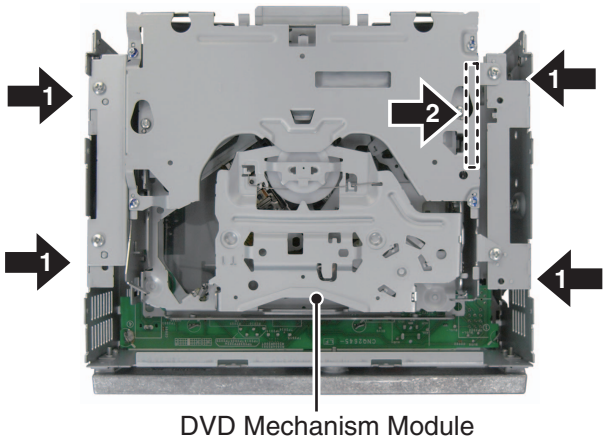


Fig.6

● Removing the Chassis(Upper) (Fig.7, 8)

1 Remove the two screws. (Fig.7)

2 Remove the five screws and then remove the Heat Sink. (Fig.7)

Remove the Holder. (Fig.7)

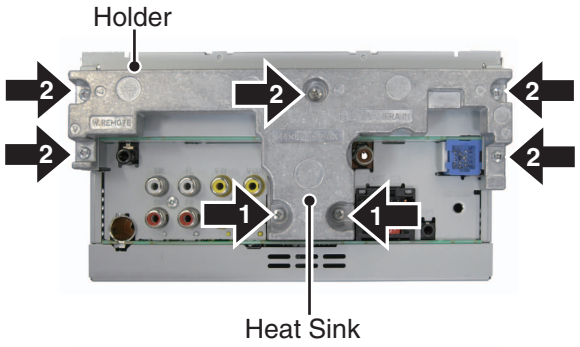


Fig.7

3 Remove the four screws and then remove Chassis(Upper) while holding both edges of the gasket. (Fig.8)

*If the gasket was damaged or lost, replace it with the new one.

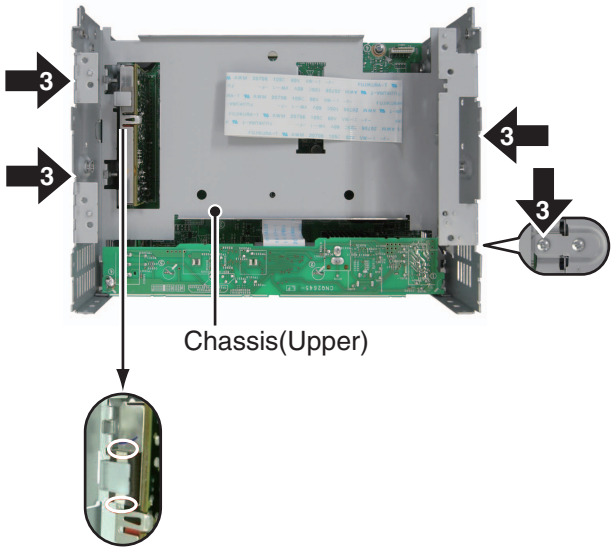


Fig.8

● Removing the Mother Unit (Fig.9)

1 Remove the screw.

2 Straighten the tabs at two locations indicated.

3 Remove the three screws and then remove the Main Unit.

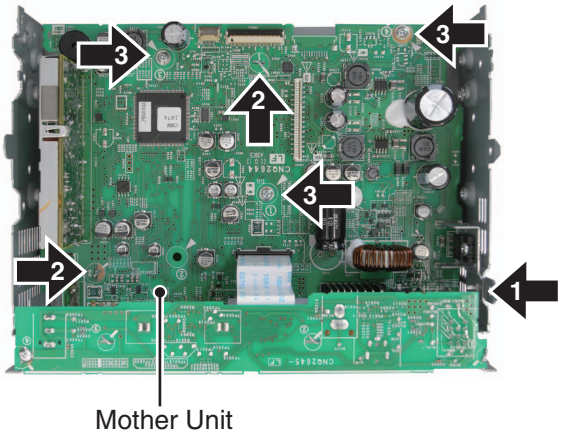
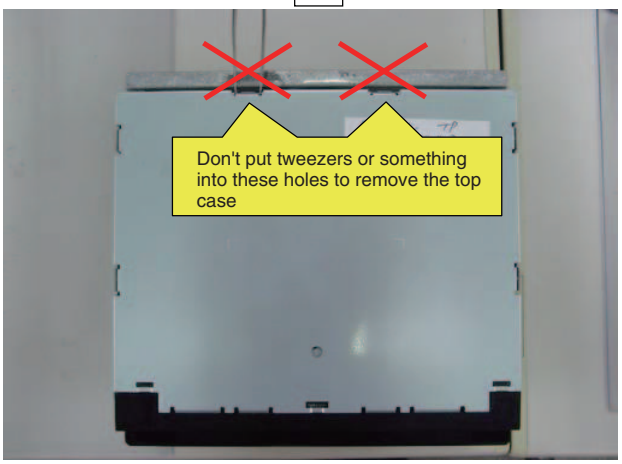


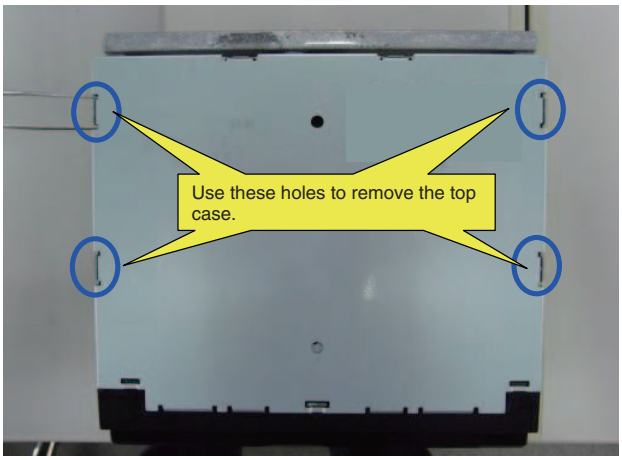
Fig.9

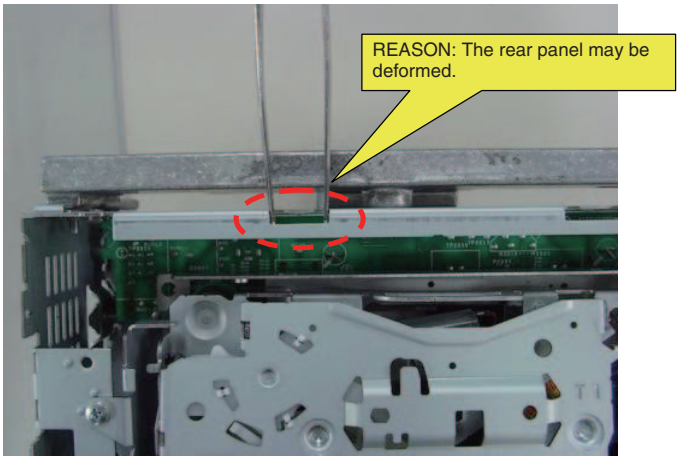
NOTE: When you remove the top case

NG



OK

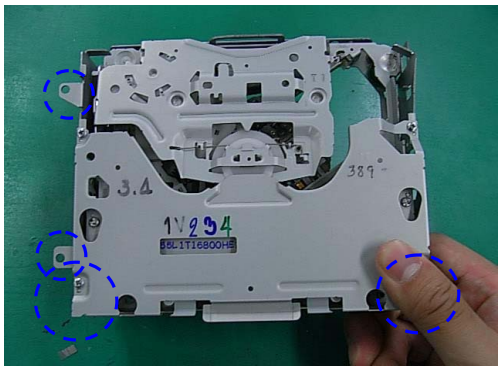


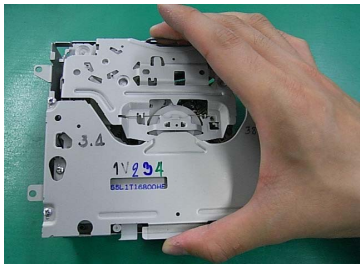


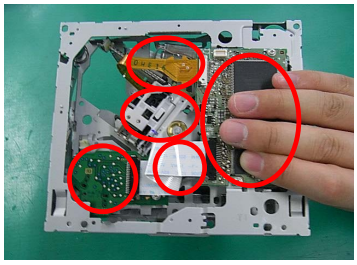
How to have it

1.Have a specified part.

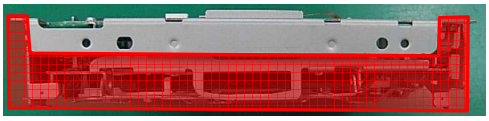
Handling OK

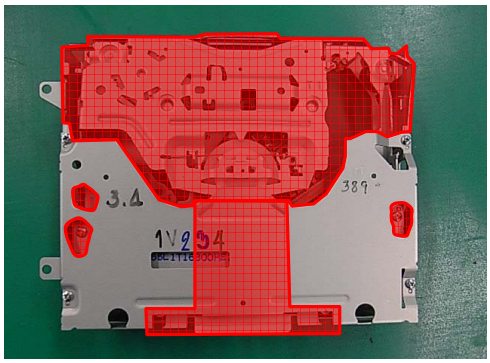


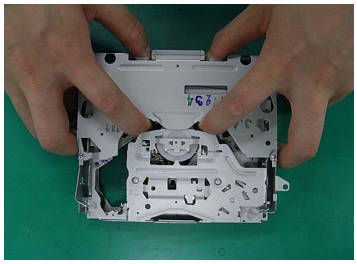


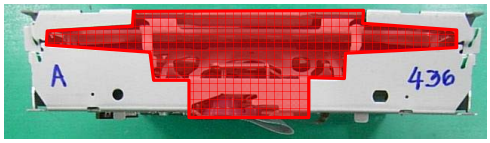


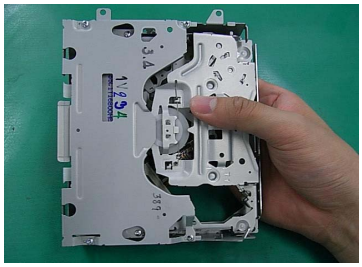
Handling NG

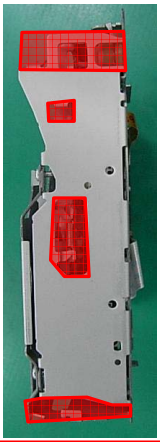


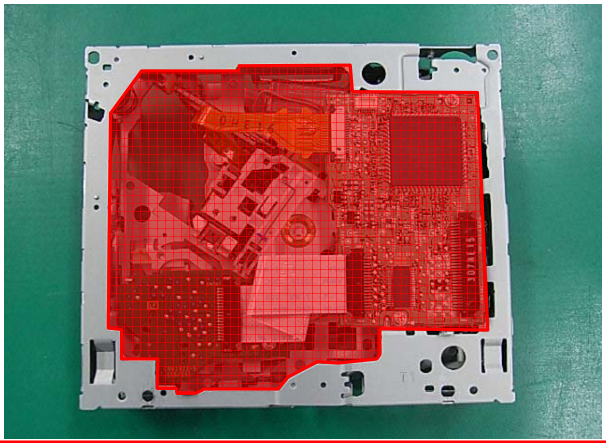


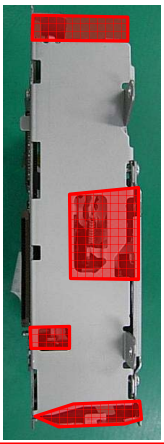












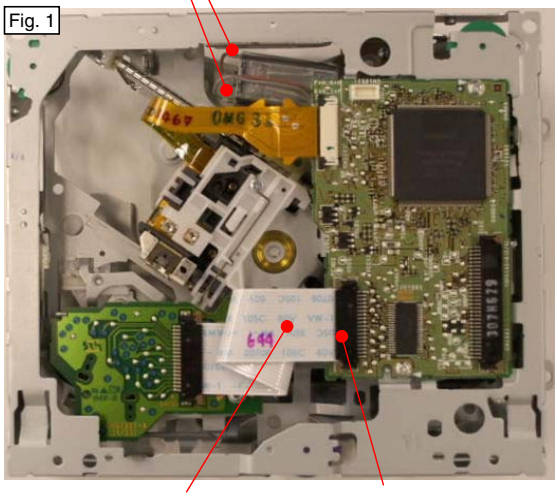
Mecha Module_Bringing into the Clamp State with No Disc Loaded

1. Remove the relay FFC from the connector on the module PCB side (Fig. 1).
(Precaution) When it is difficult to apply 4V to the motor in procedure 2 below, remove the connector on the relay PCB side, then remove the FFC, and remove the solder of the CRG motor lead and apply voltage to the lead.
2. Push the Disc detection arm while applying 4V to the CRG motor (Fig. 2)
By this action, the mecha moves to the clamp state and the PU moves to the outer periphery.
3. Stop the motor when the PU comes to the vicinity of the intermediate periphery.
(Precaution) If the PU goes to the outer most periphery, it idles.
It is not a problem, but please try not to let it idle as much as possible.

GND the brown line

4V to the gray line

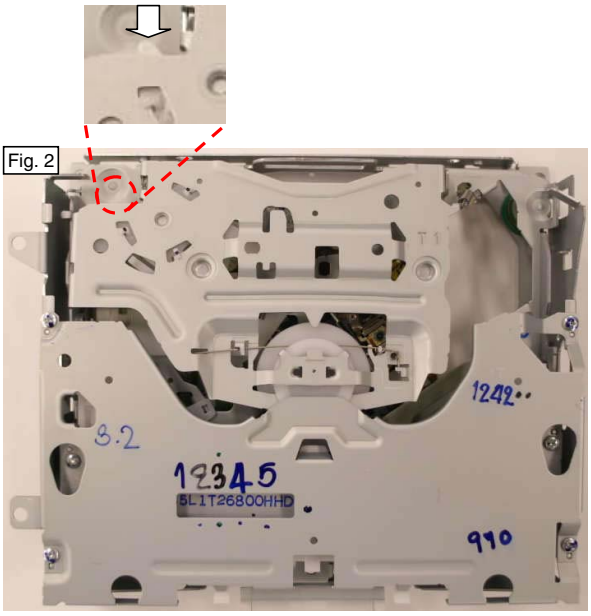
Fig. 1



Relay FFC

Connector (relay FFC)

Fig. 2



CRG Mecha_Bringing into the Clamp State with No Disc Loaded

1.Remove the T-case washer and then remove the drive gear. (Fig. 1)
2.Lift the clamp arm assy until it is in the state shown in Fig. 2_b (open-lock state).
3.Put your finger on the area A of Fig. 2_c and then slide it to the direction of the arrow (the direction of the playing state).
4.Push down the clamp arm.
(Precaution) When bringing the CRG mecha into the ejecting state again, install the drive gear after sliding the drive lever and bringing it to the ejecting state, in order to prevent the cog of the pinion in the drive gear from chipping at the time of its installation.

Fig. 1

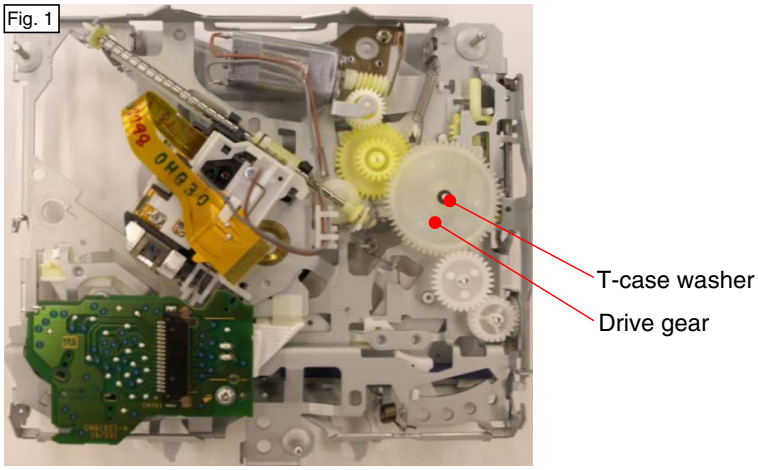
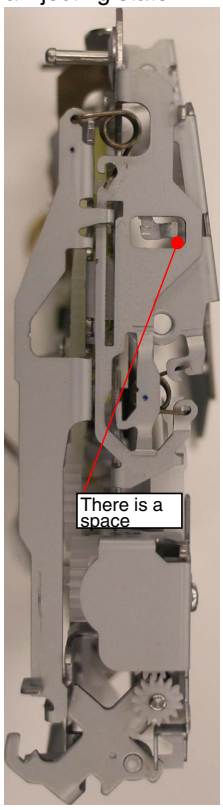
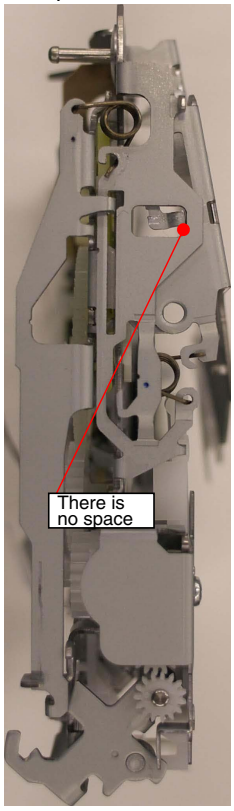


Fig. 2

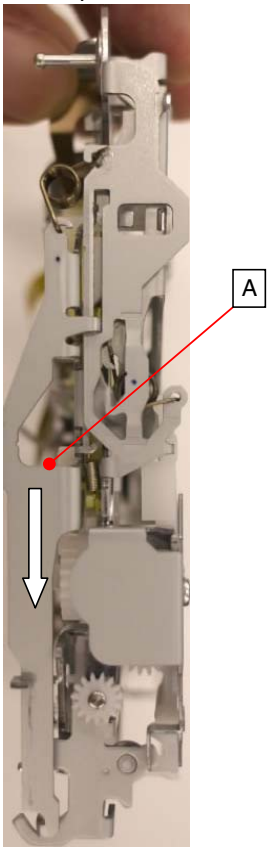
a.Ejecting state



b.Open-lock state



c.Clamp state with no disc loaded



Removing the Module PCB

1.Short-circuit two spots on the land of the pick up FPC. (Fig. 1)
2.Remove the pick up FPC and the relay FFC from the connector. (Fig. 2)
3.Temporarily attach the pick up FPC to the pick up rack. (Fig. 3)
(in order to prevent the damage to the pick up FPC)
4.Remove the two PCB clinch screws and then remove the module PCB. (Fig. 2)

Fig. 2

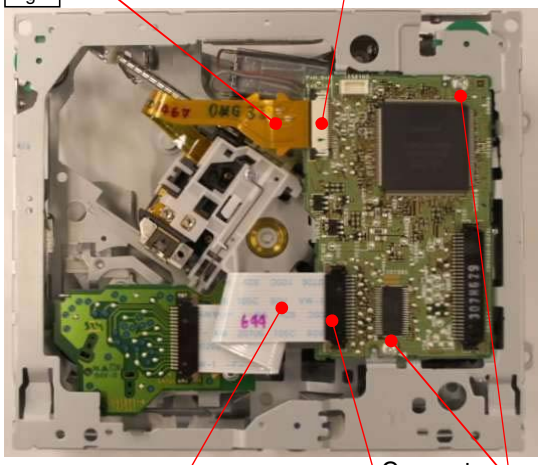
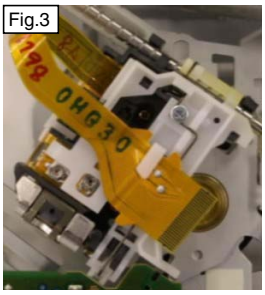


Fig.1

Fig.3



Removing/Installing the Relay PCB

Removing)
1.Remove the relay FFC from the connector
(remove both sides so that the entire FFC will be removed). (Fig. 2)
2.Remove the solder on the lead for the CRG motor. (Fig. 4)
3.Remove the one relay PCB clinch screw. (Fig. 4)
4.Slide the relay PCB to the direction of the arrow and then remove the relay PCB from the hook A and the hook B. (Fig. 4)
5.Turn the relay PCB over and then remove the SPDL motor FFC from the connector.
Installing)
1.Check the mecha is in the ejecting state (disc-load suspended state). When it is not in the ejecting state, apply 4V to the lead (motor) and then bring it to the ejecting state (4V to the brown line and GND the gray line).
2.Fit the SPDL motor FFC to the connector (back of the relay PCB).
3.Hold the relay PCB so that it does not touch the SW knob as in Fig. 5.
4.Insert it into the hook B as it is a little off to the clockwise direction.
(Precaution) This is to prevent the SW knob from getting into the NG position as in Fig. 6.
5.Push down the relay PCB lightly and then rotate it to the counterclockwise direction.
It sets the relay PCB in the hook A and the positioning dowel.
(Precaution) Pay attention so the SW knob will not get onto the PU rack. (Fig. 6)
6.As in the Figures, while supporting the location A with your fingers, screw the relay PCB. (Fig. 7 / Fig. 8)
7.Solder the lead for the CRG motor.
8.Fit the relay FFC to the connector.

Fig. 4

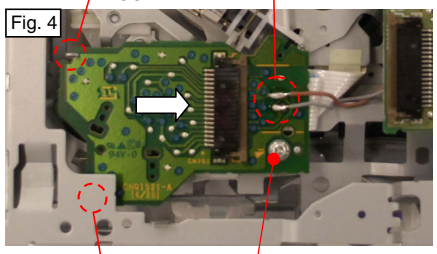


Fig. 5

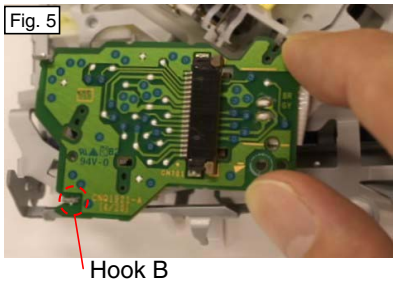


Fig. 6

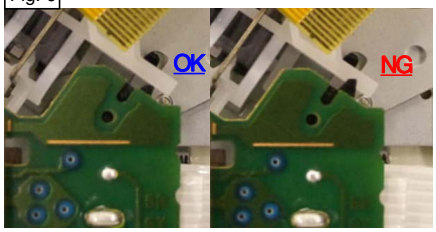


Fig. 7

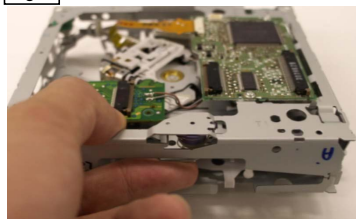
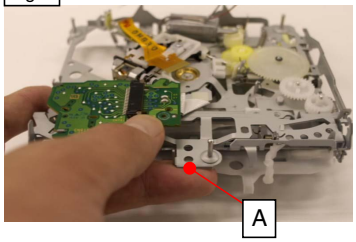


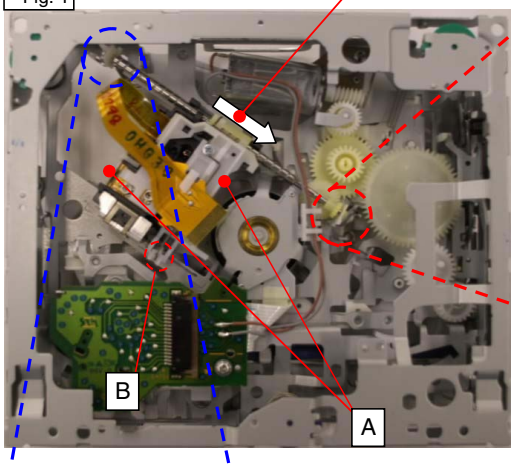
Fig. 8



Removing the PU Unit

1.Hook the feed screw biasing spring on the temporary hook (Fig. 2b). Be careful not to get injured by the tip of the spring.
2.Hold the PU at the location A in Fig. 1 and slide and scoot it to the direction of the inner periphery.
3.As in Fig. 3, shift the back end of the feed screw to the side and then to above and remove it from the outside holder.
4.Remove the tucking joint for the chassis at the location B and the PU unit by lifting them up without changing their position and then remove the PU unit.
(Precaution) When installing the PU again, make sure to tuck the chassis in B and the PU unit (Fig. 4) first.
Moreover, do not forget to permanently hook the feed screw biasing spring (Fig. 2a).
Adjustments to the PU after its installation should be made according to the service manual.

Fig. 1



Permanently hooked position Temporary hooked position

Fig. 2a

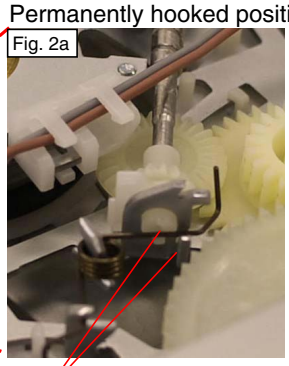
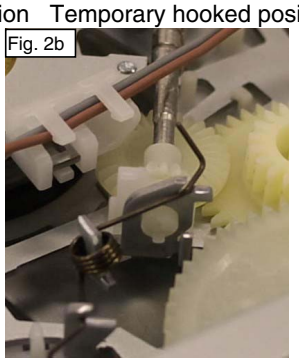
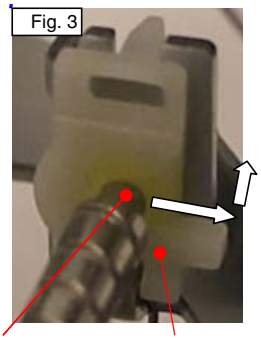


Fig. 2b



The spring is installed under the resin flange and inside the bended metal plate.

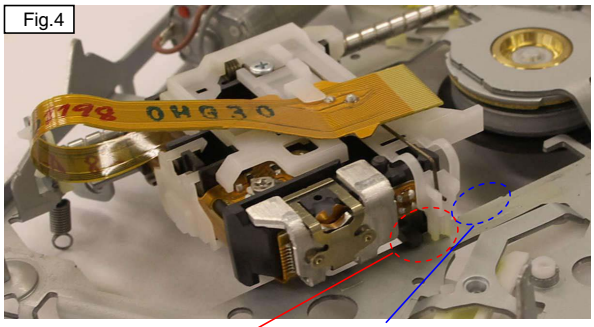
Fig. 3



Back end of the feed screw

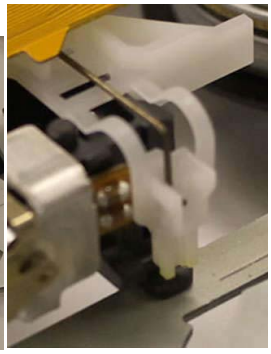
Outside holder

Fig.4



Regularly installed position

Install avoiding the area with blue broken line (the connected metal plate part)



[Installation NG]
The chassis is not tucked between the PU case and the PU rack.

Sending the PU to the outer periphery

1.Bring to the clamp state with no disc loaded according to the “Mecha Module_Bringing into the Clamp State with No Disc Loaded” manual.
(Precaution) The relay FFC must be removed for certainty in order to prevent the IC damage.
2.Apply 1.5V to the CRG motor and then transfer the PU to the outer periphery.
(Precaution) Do not forget to reinstall the relay FFC after sending the PU to the outer periphery and take the necessary measures.

8. EACH SETTING AND ADJUSTMENT
8.1 DVD ADJUSTMENT

1) Precautions

This product uses 5 V and 3.3 V as standard voltages. The electrical potential that is the reference for signals, is not GND, but VREF (approximately 2.2 V) and VHALF (approximately 1.65 V) .

During product adjustments, if the reference voltage is mistakenly taken as GND, and a grounding contact is made, not only would it be impossible to measure the accurate electrical potential, but also the servo motor would malfunction, resulting in the application of a strong impact on the pick up. The following precautionary measures should be strictly adhered to, in order to avoid such problems.

The reference voltage and GND should not be confused when using the minus probe of a measurement device. When an oscilloscope is being used special care should be taken to make sure that the reference voltage is not connected to the probe of ch1 (on the minus side), while the probe of ch2 (on the minus side), is connected to GND. Further, since the body frame of most measurement devices have the same electrical potential as the minus side of the probe, the body frame of the measurement device should be set to floating ground.

If the reference voltage is connected to GND by mistake, turn the regulator OFF immediately, or turn the power OFF.

- Remove the filters and wires used for measurements only after the regulator has been turned OFF.
- After the power supply is turned on, regulator ON the following adjustment and measurement are promptly done.
- Whenever the product is in the test mode, the software will not take any protective action. For this reason, special care should be taken to make sure that no mechanical or electrical shock could be applied to the product when taking measurements in the test mode.
- Whenever the EJECT key is pressed to eject the disk, no other keys, other than the EJECT key, should be pressed until the disk eject action has been completed.
- Press the EJECT key only after the disk has stopped completely.
- If the product hangs up turn the power OFF immediately.
- Laser didoes may be damaged, if the volume switch for the laser power adjustment of the pick up unit, is turned.

● SKEW adjustment

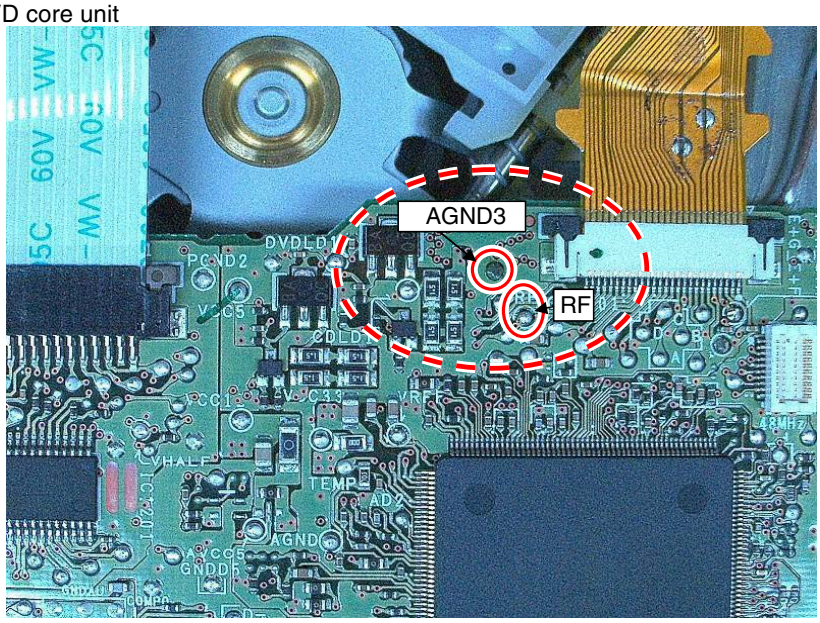
When one of the following replacements has taken place, SKEW adjustment for the pick up will be required.

(1) Replacement of the pick up unit
(2) Replacement of the spindle motor
(3) Replacement of the carriage chassis
(4) Replacement of the main shaft of the pick up unit

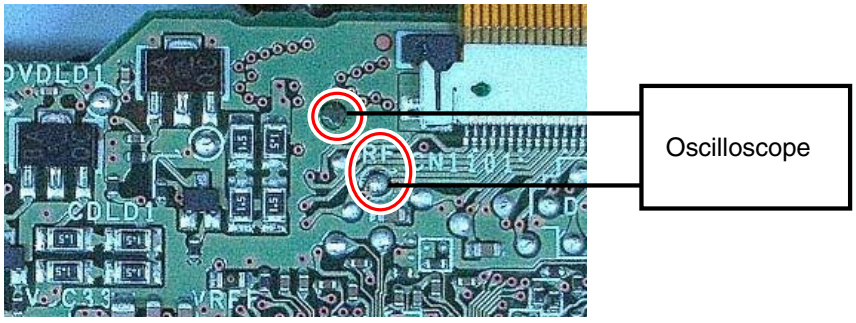
Measurement equipment and tools/jigs: Oscilloscope
Driver for SKEW adjustment -> Driver
Bond for fixing the SKEW -> GEM1033
Bond for resonance -> 1530 (1530 : produced by THREE BOND)
Bond for locking the screw -> 1401M (1401M : produced by THREE BOND)

Disc used:TDV-582

Measurement reference: AGND3
Measurement point: RF
Connection drawing
DVD core unit



Expansion

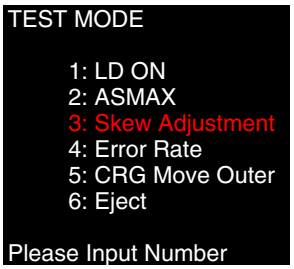


Symptom in case the adjustment is not adequate: Worsening of the error rate 10^{-3}
(10^{-4} or less.)
Large RF jitter
RF waveform distortion
Tracking drawing/Unstable servo

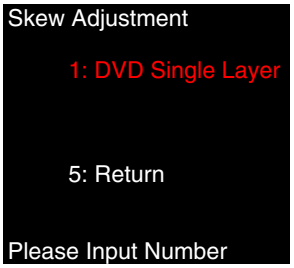
* Caution: Do not look into the laser light during adjustment.

There are two methods of making adjustment: a method of making adjustment through monitoring RF waves by the oscilloscope (method 1) and a method of making adjustment through checking the numerical value of the RF level by OSD (method 2).
Adjusting procedure is shown below, but regarding how to start the test mode and the operating procedure, please refer to the clause on the service test mode.

Adjusting Procedure:
1. Install the pickup
(Refer to the removal of the pickup from the mecha unit.)
When handling the pickup, refer to the precautions on how to handle the PU listed below.
2. Method 1:
Connect the oscilloscope according to the AGND3 standards with reference to the connection diagram so that the RF signals can be monitored.
Method 2:
The device does not need to be set. Proceed to the procedure 3.
3. Turn ON the power of the product.
4. Start the simplified FE test mode.
(Regarding how to start the test mode and the operating procedure, refer to the clause on the service test mode.)
5. Load the disc for adjustment (TDV582).
6. TEST MODE
Select “3: Skew Adjustment.”



Skew Adjustment
Select “1: DVD Single Layer.”



Adjust the Skew using a driver while checking the RF value.
Refer to the following pages concerning the locations to make SKEW adjustment.
Method 1:
Slightly turn the skew adjusting screw A while checking the RF wave level by the oscilloscope and make adjustment so the wave level would reach its maximum.
Next, slightly turn the skew adjusting screw B so the wave level would reach its maximum.
Slightly turn the skew adjusting screw A again so the wave level would reach its maximum.
(Make adjustment in the order of A->B->A and in the end complete adjustment by turning each screw in the clockwise direction.)

Method 2:
Slightly turn the skew adjusting screw A while checking the value of the RF level through the OSD display so the wave level would reach its maximum.
Next, slightly turn the skew adjusting screw B so the level would reach its maximum.
Slightly turn the skew adjusting screw A again so the level would reach its maximum.
(Make adjustment in the order of A->B->A and in the end complete adjustment by turning each screw in the clockwise direction.)

Skew Adjustment

1: Power OFF

RF Level : 000000

Please Input Number

9. Skew Adjustment
Select “1: Power OFF.”

Skew Adjustment

1: Power OFF

RF Level : 000000

Please Input Number

10. TEST MODE
Select “6: Eject.”

TEST MODE

1: LD ON
2: ASMAX
3: Skew Adjustment
4: Error Rate
5: CRG Move Outer
6: Eject

Please Input Number

11. TEST MODE
Select “5: CRG Move Outer.”

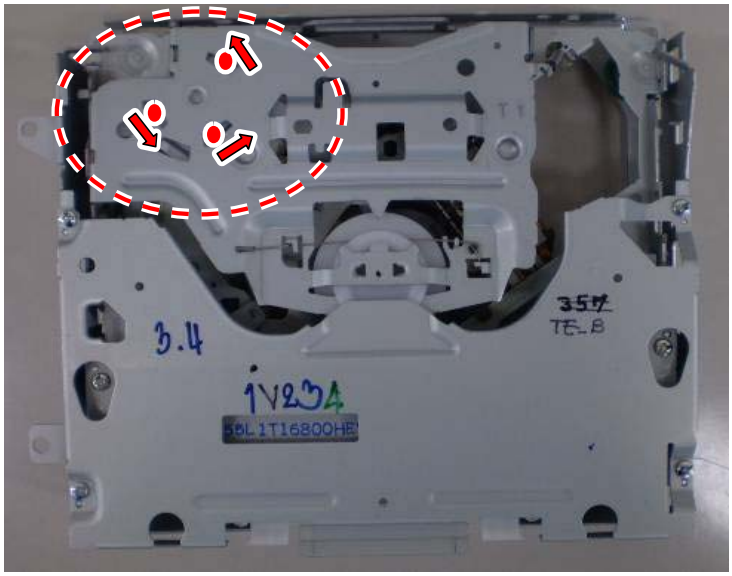
TEST MODE

1: LD ON
2: ASMAX
3: Skew Adjustment
4: Error Rate
5: CRG Move Outer
6: Eject

Please Input Number

12. In order to produce the clamping state with no disc loaded, slightly move the disc detection arm in the counterclockwise direction while moving the switch arms outward.

Switch arms



Disc Detection Arm

13. CRG Move Outer
Select “1: DVD Single Layer.”

```
CRG Move Outer

      1: DVD Single Layer
      2: DVD Dual Layer
      3: CD
      4: CD-RW
      5: Return


Please Input Number
```

The pickup moves to the outer periphery.
Apply the adhesive to fix the skew, the resonance adhesive and the screw lock.
Refer to the next page regarding the locations of adhesive joining.

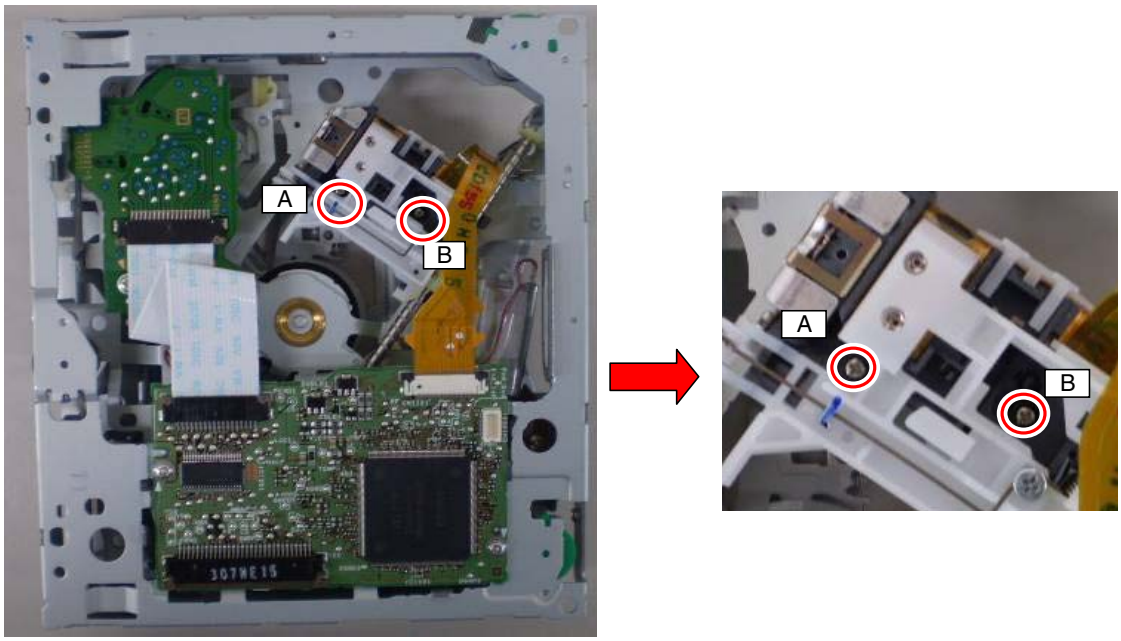
14. CRG Move Outer
1: Power OFF

```
CRG Move Outer

      1: Power OFF




Please Input Number
```

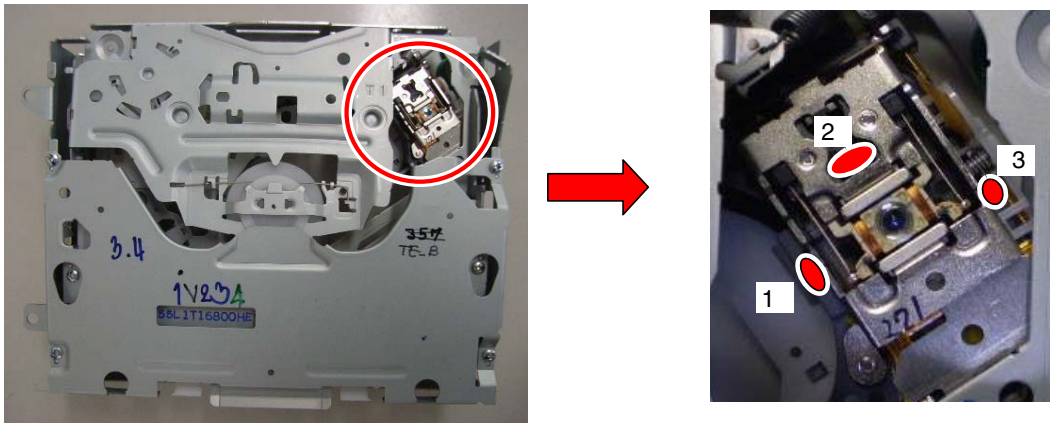
15. TEST MODE
Select “6: Eject.”

```
TEST MODE

      1: LD ON
      2: ASMAX
      3: Skew Adjustment
      4: Error Rate
      5: CRG Move Outer
      6: Eject

Please Input Number
```

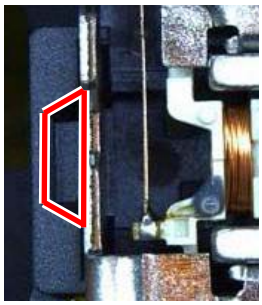
Locations to make SKEW adjustment



Locations to adhere the SKEW 1,2,3: BOND QUICK MENDER

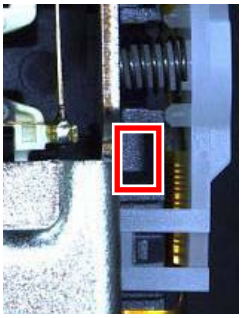


1

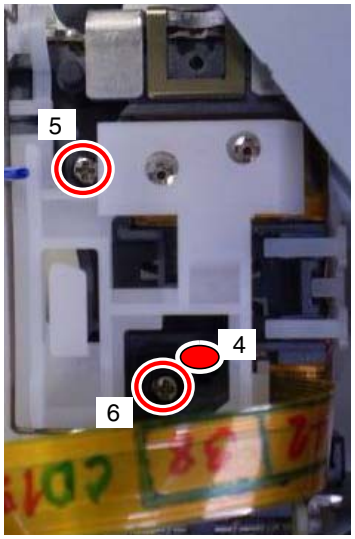


2

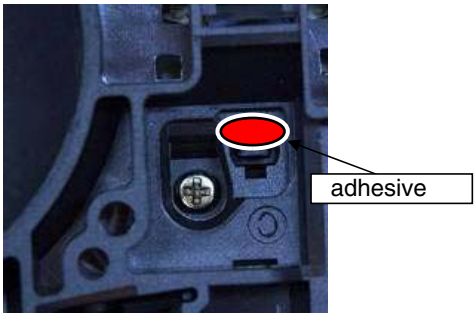
3



Bond for resonance 4:Three Bond 1530

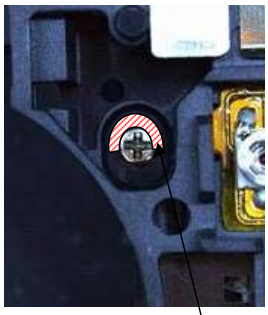


4

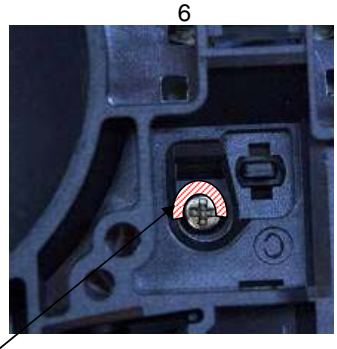


Bond for locking the screw 5,6 : Three Bond 1401M

5



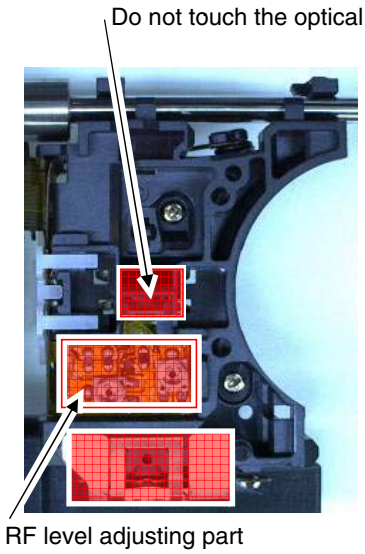
6

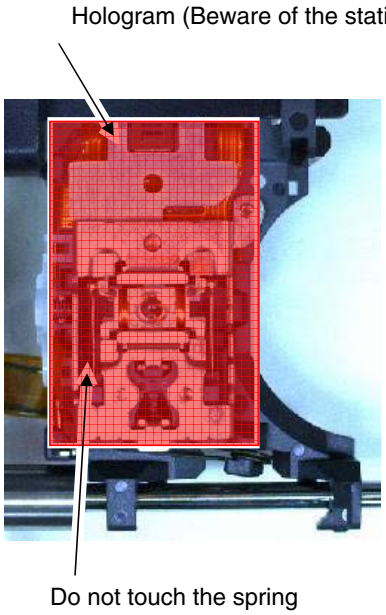


Bond for locking the screw

Precautions on handling the PU

*Precaution: Do not touch those shaded areas in the following figures.

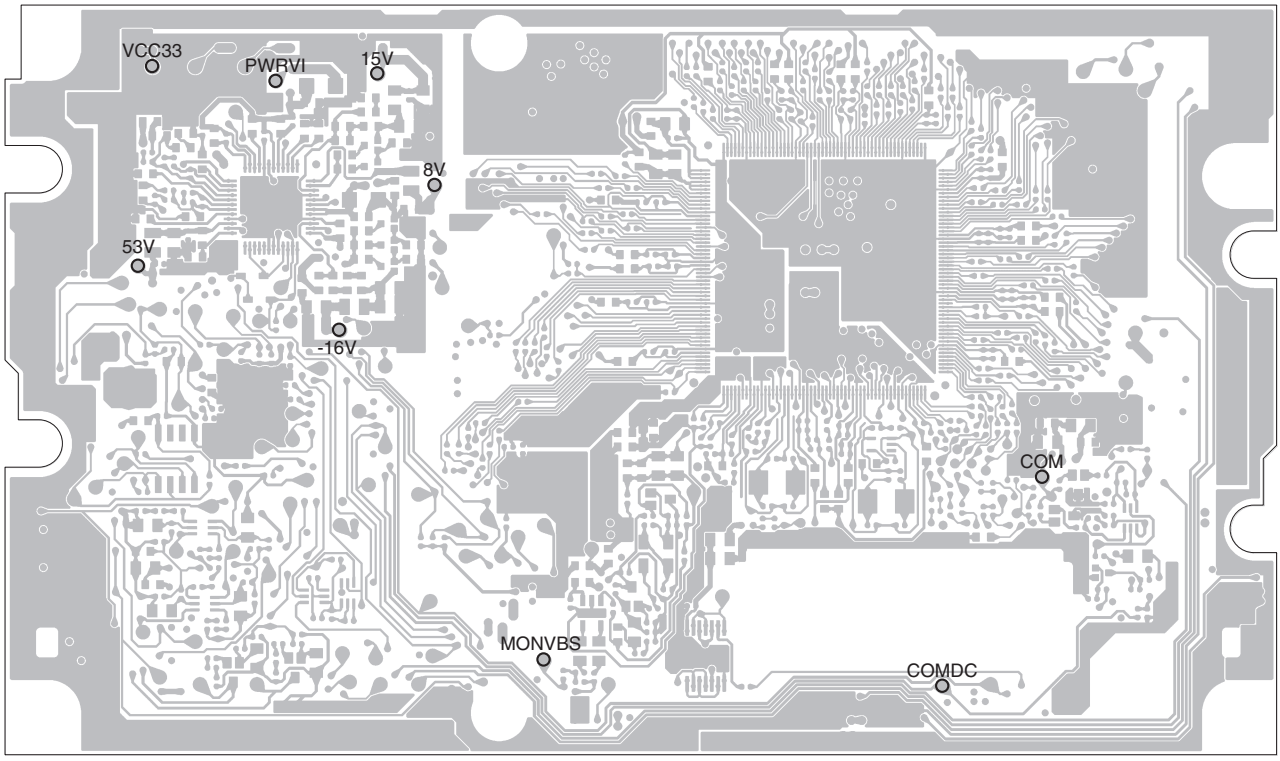




8.2 MONITOR UNIT ADJUSTMENT

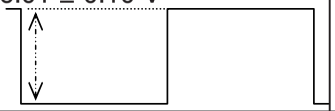
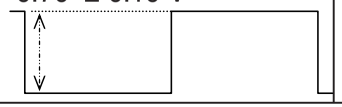
MONITOR UNIT(SIDE B)

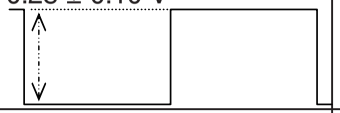
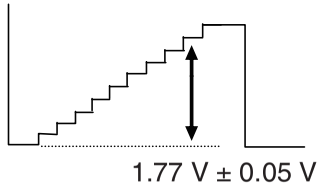
● **Adjustment Point**



MONITOR UNIT ADJUSTMENT

NOTE:When shutting off the power supply of TC90A96BFGSING, be careful not to energize each IC terminal.
However , IIC lines(SDA and SCL) is not included in this case and it is possible to energize them with up 5 V.

No.	Adustment item	Input signal	Measurement point	Adustment point	Adustment	Note
1	Check 3.3 V power supply voltage	TP:PWRVI to 14.4 V	TP:VCC33	-	VCC33 = 3.3 ± 0.3 V	
2	Check 5.3 V power supply voltage	TP:PWRVI to 14.4 V	TP:53V	-	53V = 5.3 ± 0.3 V	
3	Check 8 V power supply voltage	TP:PWRVI to 14.4 V	TP:8V	-	8V = 8.0 ± 0.5 V	
4	Check 15 V power supply voltage	TP:PWRVI to 14.4 V	TP:15V	-	15V = 15.0 ± 0.2 V	
5	Check -16 V power supply voltage	TP:PWRVI to 14.4 V	TP:-16V	-	-16V = 16.35 ± 0.35 V	
6	Vcom amplifier output amplitude check	No definition	TP:COM	-	6.01 ± 0.10 V 	Connect LCD panel for measurement
7	Tone voltage amplitude check V0	No definition	58pin of CN6001	-	4.30 ± 0.30 V 	Connect LCD panel for measurement
8	Tone voltage amplitude check V3	No definition	55pin of CN6001	-	2.25 ± 0.20 V 	Connect LCD panel for measurement
9	Tone voltage amplitude adjustment V5	No definition	53pin of CN6001	-	0.70 ± 0.10 V 	Connect LCD panel for measurement

No.	Adustment item	Input signal	Measurement point	Adustment point	Adustment	Note
10	Tone voltage amplitude adjustment V7	No definition	51pin of CN6001	-	0.28 ± 0.10 V 	Connect LCD panel for measurement
11	Tone voltage amplitude adjustment V9	No definition	49pin of CN6001	-	1.85 ± 0.20 V 	Connect LCD panel for measurement
12	Tone voltage amplitude adjustment V10	No definition	48pin of CN6001	-	3.75 ± 0.20 V 	Connect LCD panel for measurement
13	Image check of RGB signal	Input Color-bar signal from IC5702	Screen	-	-	
14	Composite level check	Input composite image 10-step signal to TP MONVBS (2.0 Vpp ± 1%)	DAC output	-	The amplitude of the 9-step and the 0-step is 1.77 ± 0.05 V.  1.77 V ± 0.05 V	
15	Image check	Input composite image lamp signal (monochrome) to TP MONVBS	Screen	-	Make sure that tone changes smoothly, and there is no colored area in the entire display.	Execute to verify that IC5702 digital-out is not bridged or "OPEN"ed.
16	Flicker adjustment	Output black-white 50% reverse signal per 1 line from IC5702	Screen	TP COMDC DC output	Adjust the flicker level to minimum from all directions.	Adjustment point can be COM DC off flicker adjustment mode.

8.3 PCL OUTPUT CONFIRMATION

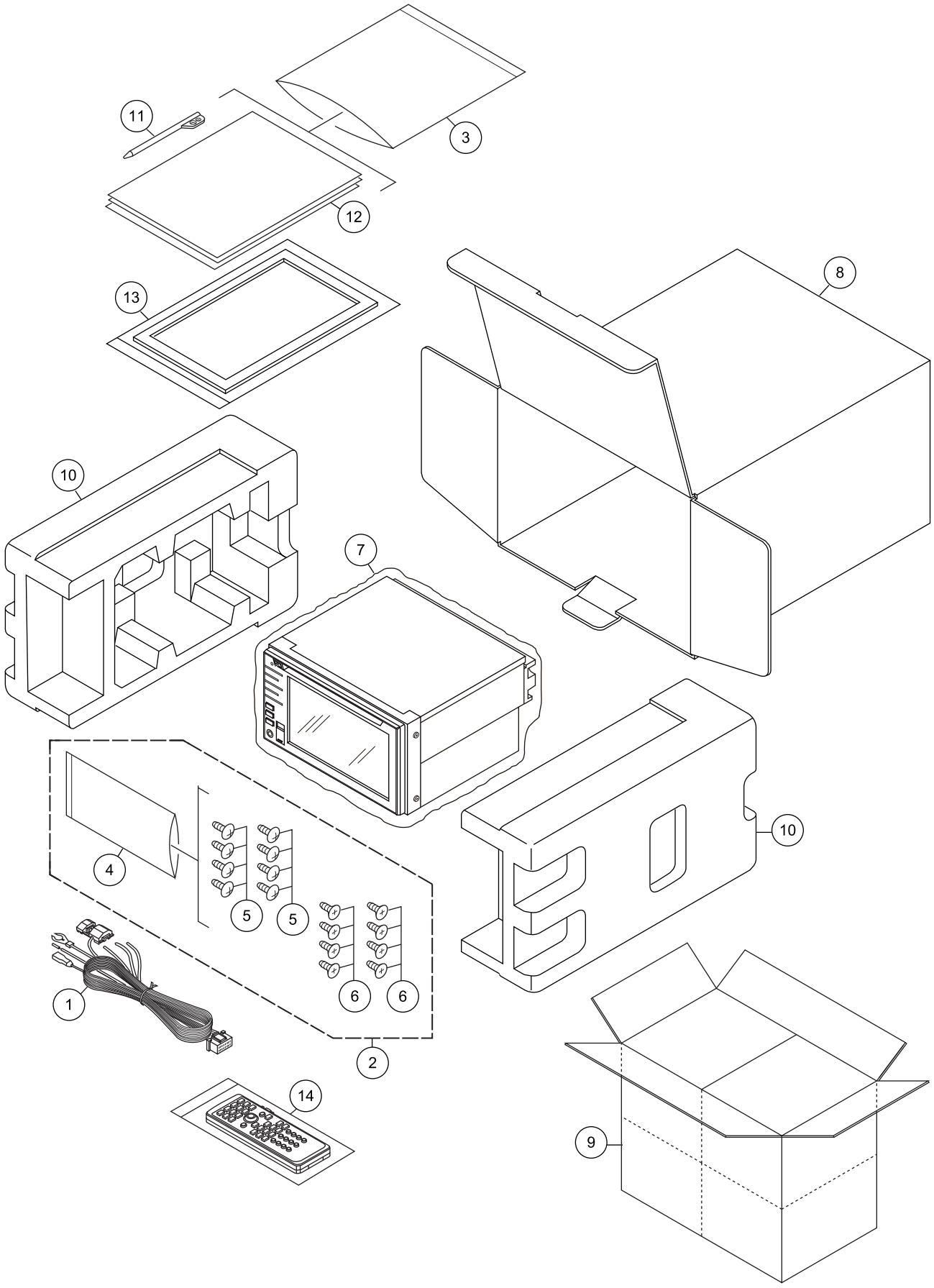
● **PCL output**

In the normal operation mode (with the detachable panel installed, the ACC switched ON, the standby mode cancelled), shift the TESTIN IC601(Pin 87) terminal to H.
The clock signal is output from the CLKOUT terminal IC601(Pin 62).
The frequency of the clock signal is 625 000 Hz that is one 32th of the fundamental frequency.
The clock signal should be 625 000 Hz (- 10 Hz, + 15 Hz).
If the clock signal out of the range, the X'tal (X601) should be replaced with new one.

9. EXPLODED VIEWS AND PARTS LIST

NOTES :
- *Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screw adjacent to ▽ mark on the product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions,apply as you think it appropriate.)*

9.1 PACKING



(1) PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Cord Assy	CDP1166
	2	Screw Assy	CEA3797
	3	Polyethylene Bag	CEG1426
*	4	Polyethylene Bag	CEG-127
	5	Screw	BMZ50P060FTC
	6	Screw	CMZ50P060FTC
	7	Cover	See Contrast table(2)
	8	Unit Box	See Contrast table(2)
	9	Contain Box	See Contrast table(2)
	10	Protector	CHP3691
	11	Pen	CNV8969
	12-1	Owner's Manual	See Contrast table(2)
	12-2	Owner's Manual	See Contrast table(2)
	12-3	Owner's Manual	See Contrast table(2)
	12-4	Installation Manual	See Contrast table(2)
	12-5	Caution Card	CRP1387
*	12-6	Warranty Card	See Contrast table(2)
	13	Panel	CNS9475
	14	Remote Control Unit	See Contrast table(2)

(2) CONTRAST TABLE

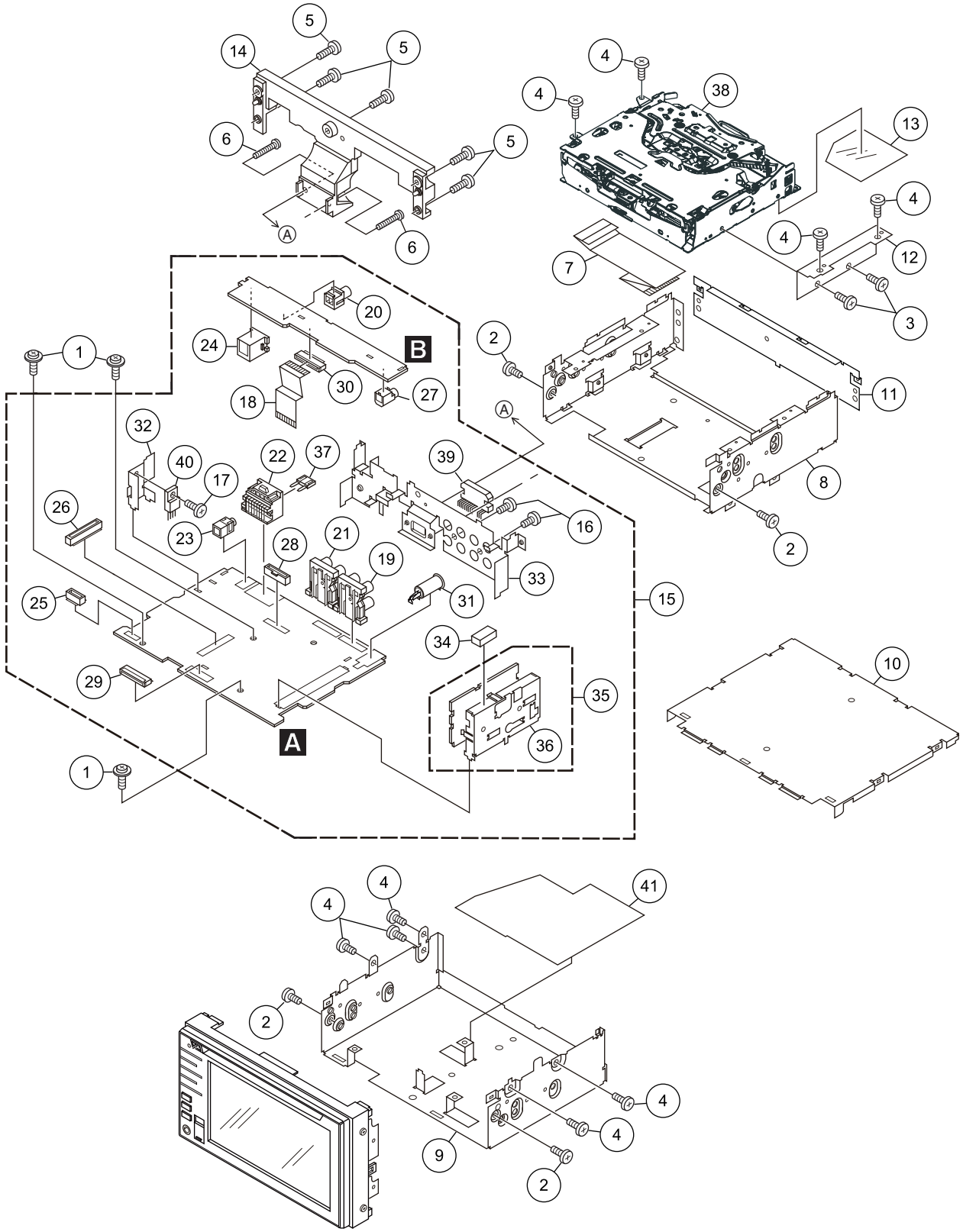
AVH-P3100DVD/XN/UC, AVH-P3150DVD/XN/RC, AVH-P3150DVD/XN/RD and AVH-P3150DVD/XN/RI are constructed the same except for the following:

Mark	No.	Description	AVH-P3100DVD/XN/UC	AVH-P3150DVD/XN/RC	AVH-P3150DVD/XN/RD	AVH-P3150DVD/XN/RI
	7	Cover	CEG1359	CEG1356	CEG1356	CEG1356
	8	Unit Box	CHG6714	CHG6715	CHG6716	CHG6717
	9	Contain Box	CHL6714	CHL6715	CHL6716	CHL6717
	12-1	Owner's Manual	CRB2864	CRB2868	CRB2868	CRB2868
	12-2	Owner's Manual	CRB2865	CRB2869	CRB2871	CRB2873
	12-3	Owner's Manual	CRB2984	CRB2870	CRB2872	Not used
	12-4	Installation Manual	CRD4371	CRD4373	CRD4374	CRD4375
*	12-6	Warranty Card	CRY1276	Not used	Not used	Not used
	14	Remote Control Unit	Not used	CXE1475	CXE1475	CXE1475

Owner's Manual,Installation Manual

Part No.	Language
CRB2864	English
CRB2865	French
CRB2984	Spanish(Espanol)
CRD4371	English, French, Spanish(Espanol)
CRB2868	English
CRB2869	Traditional Chinese
CRB2870	Korean
CRD4373	English, Traditional Chinese, Korean
CRB2871	Spanish(Espanol)
CRB2872	Portuguese(B)
CRD4374	English, Spanish(Espanol), Portuguese(B)
CRB2873	Arabic
CRD4375	English, Arabic

9.2 EXTERIOR(1)



(1) EXTERIOR(1) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	ASZ26P050FTC
	2	Screw	BMZ26P040FTC
	3	Screw	BMZ25P040FTB
	4	Screw	BSZ26P060FTC
	5	Screw	BSZ26P100FTC
	6	Screw	BSZ26P160FTC
	7	FFC	CDE8752
	8	Chassis	CNA3100
	9	Chassis	CNA3101
	10	Case	CNB3544
	11	Holder	CND4809
	12	Holder	CND4818
	13	Insulator	CNN2764
	14	Heat Sink	CNR1981
	15	Mother Unit	See Contrast table(2)
	16	Screw	BPZ26P080FTC
	17	Screw	BSZ26P060FTC
	18	FFC	CDE8747
	19	Pin Jack(JA101)	CKB1051
	20	Pin Jack(JA2003)	CKB1065
	21	Pin Jack(JA102)	CKB1085
	22	Plug(JA141)	CKM1376
	23	Jack(JA951)	CKN1042
	24	Connector(JA2004)	CKS3410
	25	Connector(CN521)	CKS3851
	26	Connector(CN901)	CKS3871
	27	Connector(JA2001)	CKS4124
	28	Connector(CN121)	CKS6051
	29	Connector(CN501)	CKS6062
	30	Connector(CN2002)	CKS6062
	31	Antenna Jack(JA401)	CKX1056
	32	Holder	CND4811
	33	Holder	CND4817
	34	Gasket	CNN2782
	35	FM/AM Tuner Unit(U401)	CWE2098
	36	Holder	CND4324
⚠	37	Fuse(10 A)	YEK5001
	38	DVD Module(LS1)	CXK6800
	39	IC(IC181)	PA2030A
	40	IC(IC1061)	NJM2388F84
	41	Sheet	CNN3043

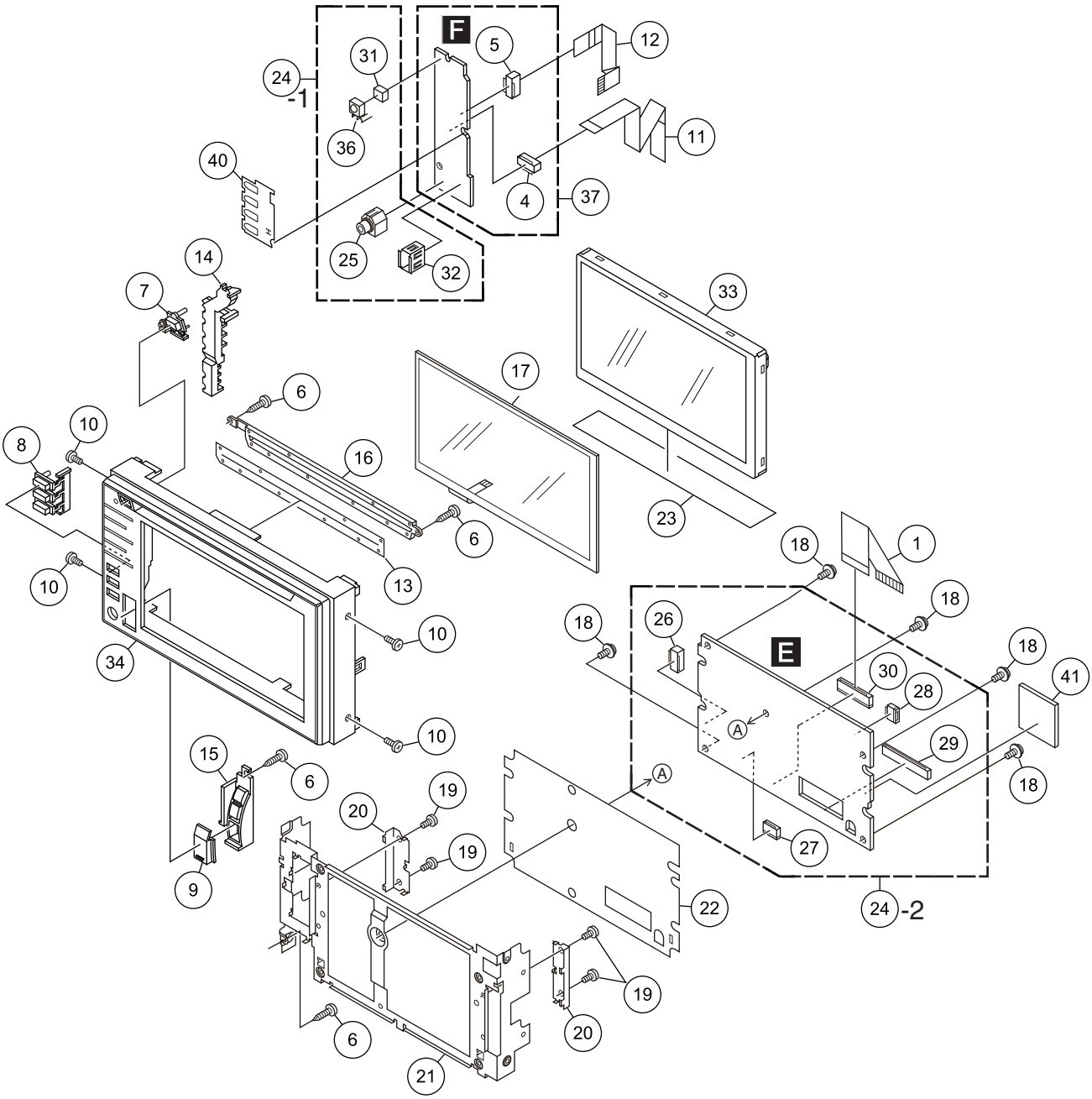
(2) CONTRAST TABLE

AVH-P3100DVD/XN/UC, AVH-P3150DVD/XN/RC, AVH-P3150DVD/XN/RD and AVH-P3150DVD/XN/RI are constructed the same except for the following:

Mark	No.	Description	AVH-P3100DVD/XN/UC	AVH-P3150DVD/XN/RC	AVH-P3150DVD/XN/RD	AVH-P3150DVD/XN/RI
	15	Mother Unit	CWN3777	CWN3778	CWN3779	CWN3780

*If the gasket (CNN2782) was damaged or lost, replace it with the new one.

9.3 EXTERIOR(2)



(1) EXTERIOR(2) SECTION PARTS LIST

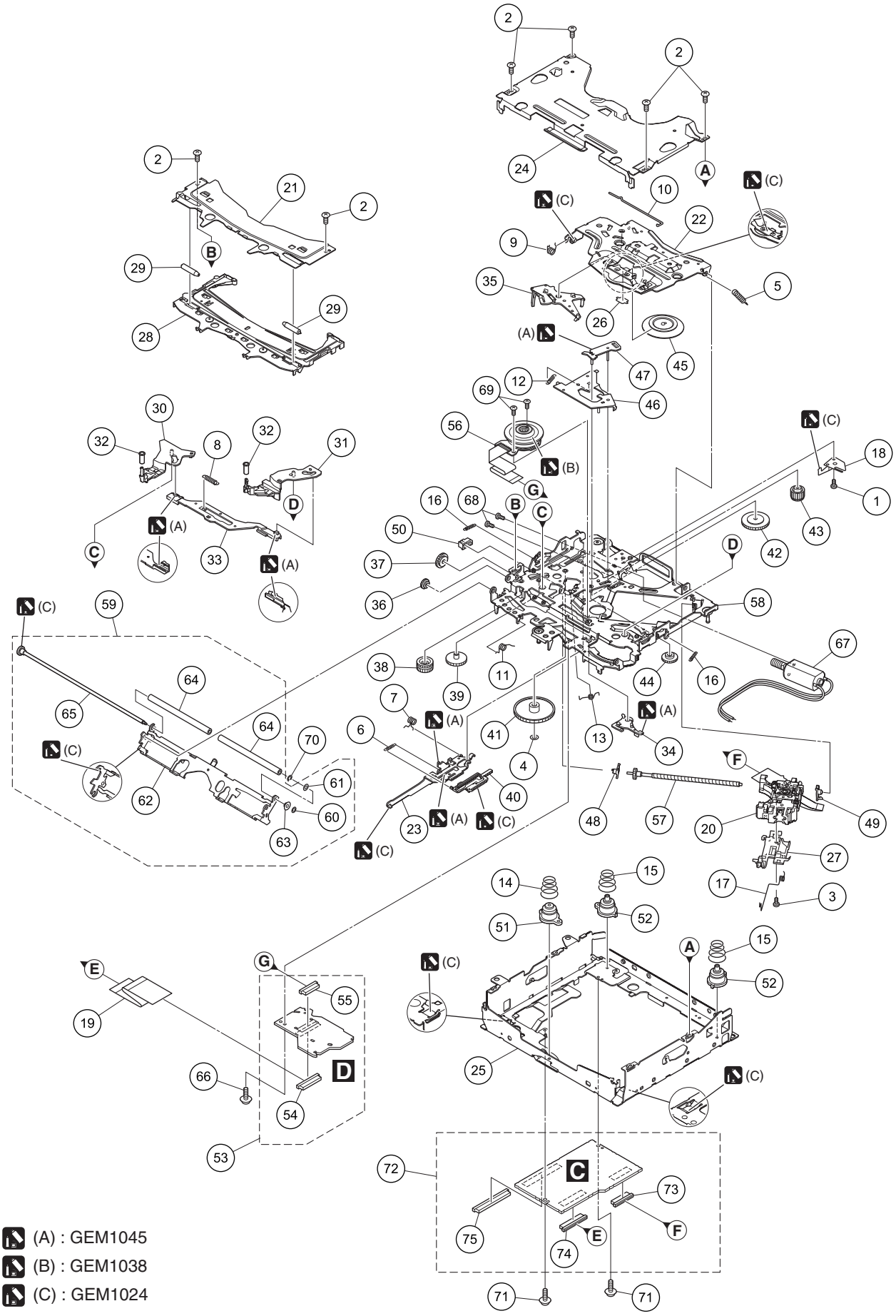
Mark	No.	Description	Part No.
	1	FFC	CDE8744
	2	Cord Assy	CDP1166
	3	Cap	CNS1472
	4	Connector(CN3001)	CKS3851
	5	Connector(CN3003)	CKS3851
	6	Screw	BPZ20P100FTC
	7	Button(EJECT,RESET)	CAI2241
	8	Button(DISP OFF,SRC,MUTE)	CAI2242
	9	Door(USB)	CAT2905
	10	Screw(M2 x 3)	CBA1877
	11	FFC	CDE8745
	12	Cable	CDE8750
	13	Cover	CNN2628
	14	Lighting Conductor	CNW1454
	15	Holder	CNW1455
	16	Holder	CNW1456
	17	Touch Panel	CSX1143
	18	Screw	AMZ20P030FTC
	19	Screw(M2 x 2)	CBA1771
	20	Holder	CND4290
	21	Holder	CND4837
	22	Insulator	CNN2596
	23	Insulator	CNN2779
	24	Monitor Unit	CWN3783
	25	Jack(JA3001)	CKN1078
	26	Connector(CN5004)	CKS3851
	27	Connector(CN5401)	CKS5561
	28	Connector(CN6101)	CKS5561
	29	Connector(CN6001)	CKS5773
	30	Connector(CN5001)	CKS5957
	31	Cushion	CNN2030
	32	Connector(CN3002)	YKS5032
	33	LCD	CWX3692
	34	Grille Unit	See Contrast table(2)
	35	Resistor	RS1/2PMF102J
	36	REMOTE IC(IC3001)	GP1UXC14RK
	37	Mother Unit	See Contrast table(2)
	38	Remote Control Unit	See Contrast table(2)
	39	Cover	See Contrast table(2)
	40	Sheet	CNN3023
	41	Sheet	CNN3108

(2) CONTRAST TABLE

AVH-P3100DVD/XN/UC, AVH-P3150DVD/XN/RC, AVH-P3150DVD/XN/RD and AVH-P3150DVD/XN/RI are constructed the same except for the following:

Mark	No.	Description	AVH-P3100DVD/XN/UC	AVH-P3150DVD/XN/RC	AVH-P3150DVD/XN/RD	AVH-P3150DVD/XN/RI
	34	Grille Unit	CXE1274	CXE1275	CXE1275	CXE1275
	38	Mother Unit	CWN3777	CWN3778	CWN3779	CWN3780
	39	Remote Control Unit	Not used	CXE1475	CXE1475	CXE1475
	40	Cover	Not used	CZN7062	CZN7062	CZN7062

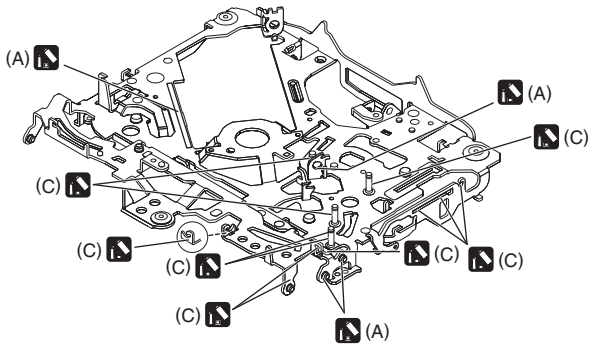
9.4 DVD MECHANISM MODULE

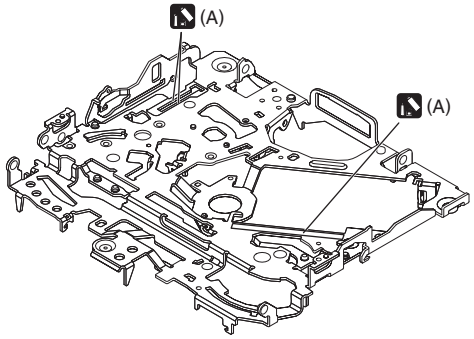


(A) : GEM1045
(B) : GEM1038
(C) : GEM1024

DVD MECHANISM MODULE SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BMZ20P020FTC
	2	Screw	BSZ20P040FTC
	3	Screw(M2 x 4)	CBA1835
	4	Washer	CBF1038
	5	Spring	CBH2860
	6	Spring	CBH3010
	7	Spring	CBH3011
	8	Spring	CBH3012
	9	Spring	CBH3013
	10	Spring	CBH3014
	11	Spring	CBH3015
	12	Spring	CBH3016
	13	Spring	CBH3017
	14	Spring	CBH3018
	15	Spring	CBH3019
	16	Spring	CBH3020
	17	Spring	CBH3030
	18	Plate Spring	CBL1797
	19	Cable	CDE8631
	20	Service PU Unit	CXX2398
	21	Bracket	CND4553
	22	Arm	CND4555
	23	Lever	CND4556
	24	Frame	CND4557
	25	Frame	CND4558
	26	Sheet	CNN2280
	27	Rack	CNW1170
	28	Guide	CNW1171
	29	Roller	CNW1172
	30	Arm	CNW1173
	31	Arm	CNW1174
	32	Roller	CNW1175
	33	Lever	CNW1176
	34	Arm	CNW1177
	35	Arm	CNW1178
	36	Gear	CNW1180
	37	Gear	CNW1181
	38	Gear	CNW1182
	39	Gear	CNW1183
	40	Rack	CNW1184
	41	Gear	CNW1185
	42	Gear	CNW1186
	43	Gear	CNW1187
	44	Gear	CNW1188
	45	Clamper	CNW1190
	46	Arm	CNW1191
	47	Arm	CNW1192
	48	Holder	CNW1193
	49	Holder	CNW1194
	50	Holder	CNW1195
	51	Damper	CNW1197
	52	Damper	CNW1198
*	53	Connect PCB Unit	CWX3618
	54	Connector(CN701)	CKS6003
	55	Connector(CN101)	CKS6063
	56	Motor Unit	CXC4026
	57	Screw Unit	CXC8894
	58	Chassis Unit	CXC8895
	59	Arm Assy	CXC8896
	60	Washer	CBF1037
	61	Washer	CBF1038
	62	Arm	CND4554
	63	Collar	CNV6906
	64	Roller	CNW1196
	65	Gear Unit	CXC8893
	66	Screw(M2 x 5)	EBA1028
	67	Motor	EXM1050
	68	Screw	JFZ20P025FTC
	69	Screw	JGZ17P022FTC
	70	Washer	YE15FTC
	71	Screw	IMS20P030FTC
	72	DVD Core Unit	YWX5007
	73	Connector(CN1101)	CKS5775
	74	Connector(CN1201)	CKS6003
	75	Connector(CN1901)	CKS6025



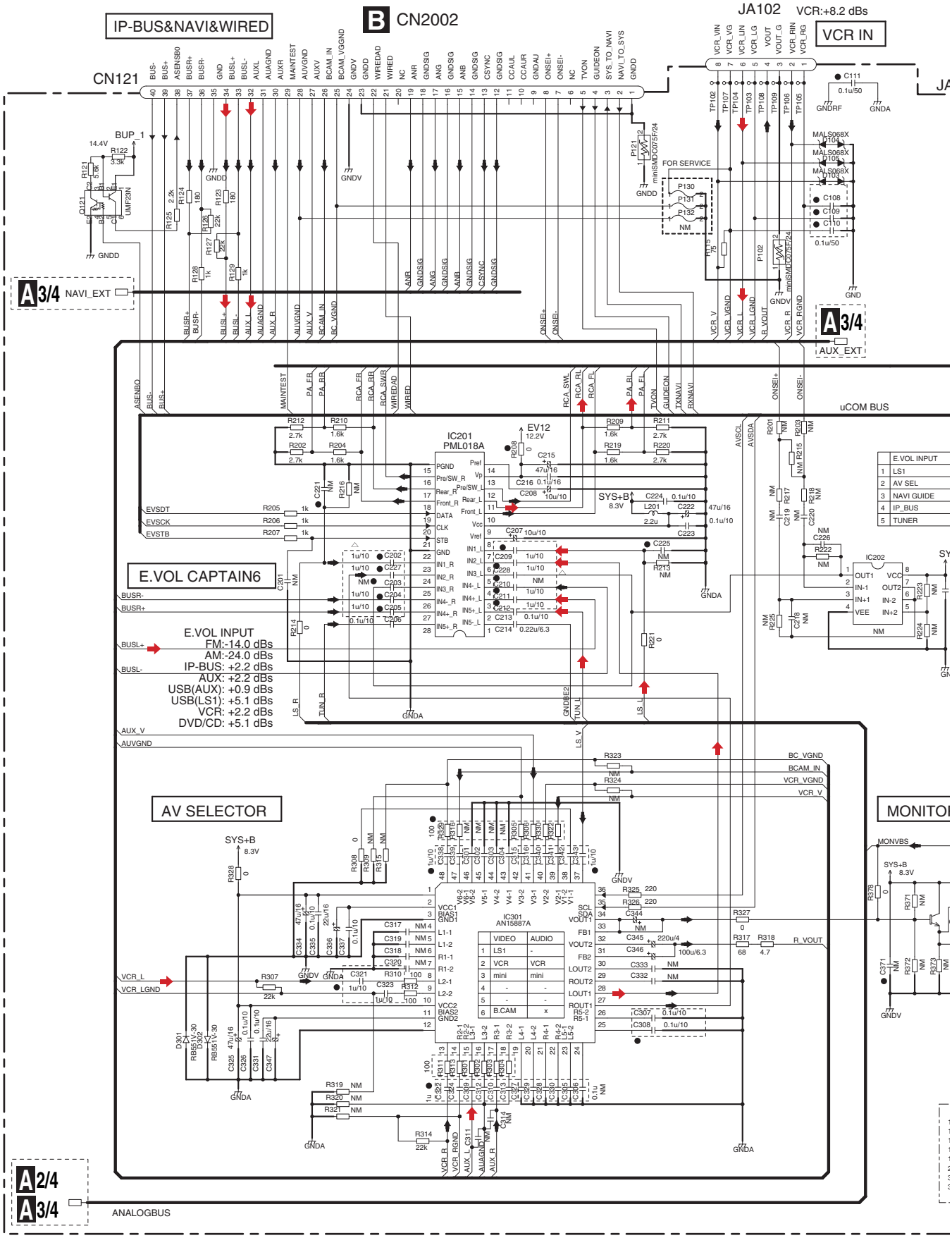


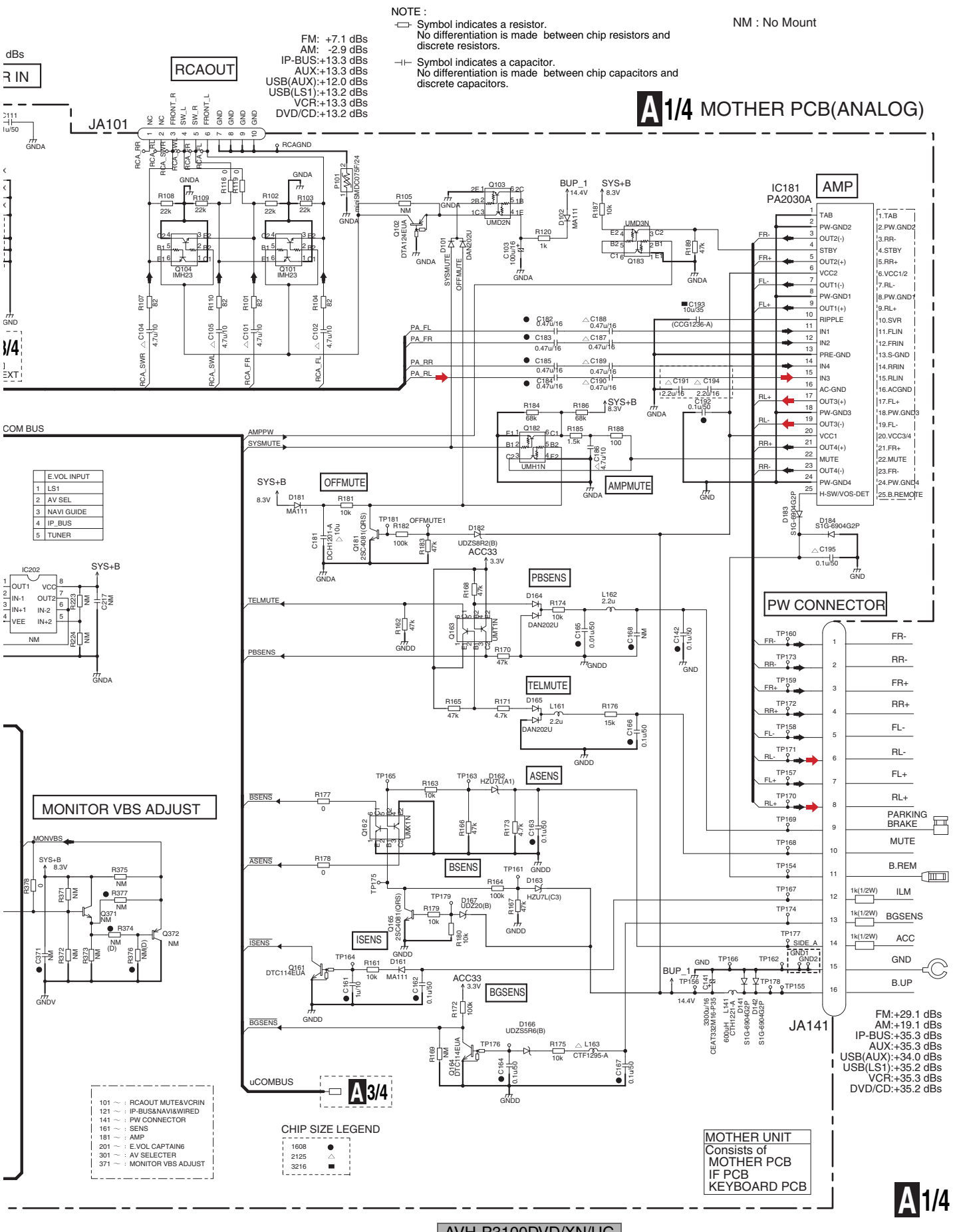
(A) : GEM1045
(B) : GEM1038
(C) : GEM1024

10. SCHEMATIC DIAGRAM

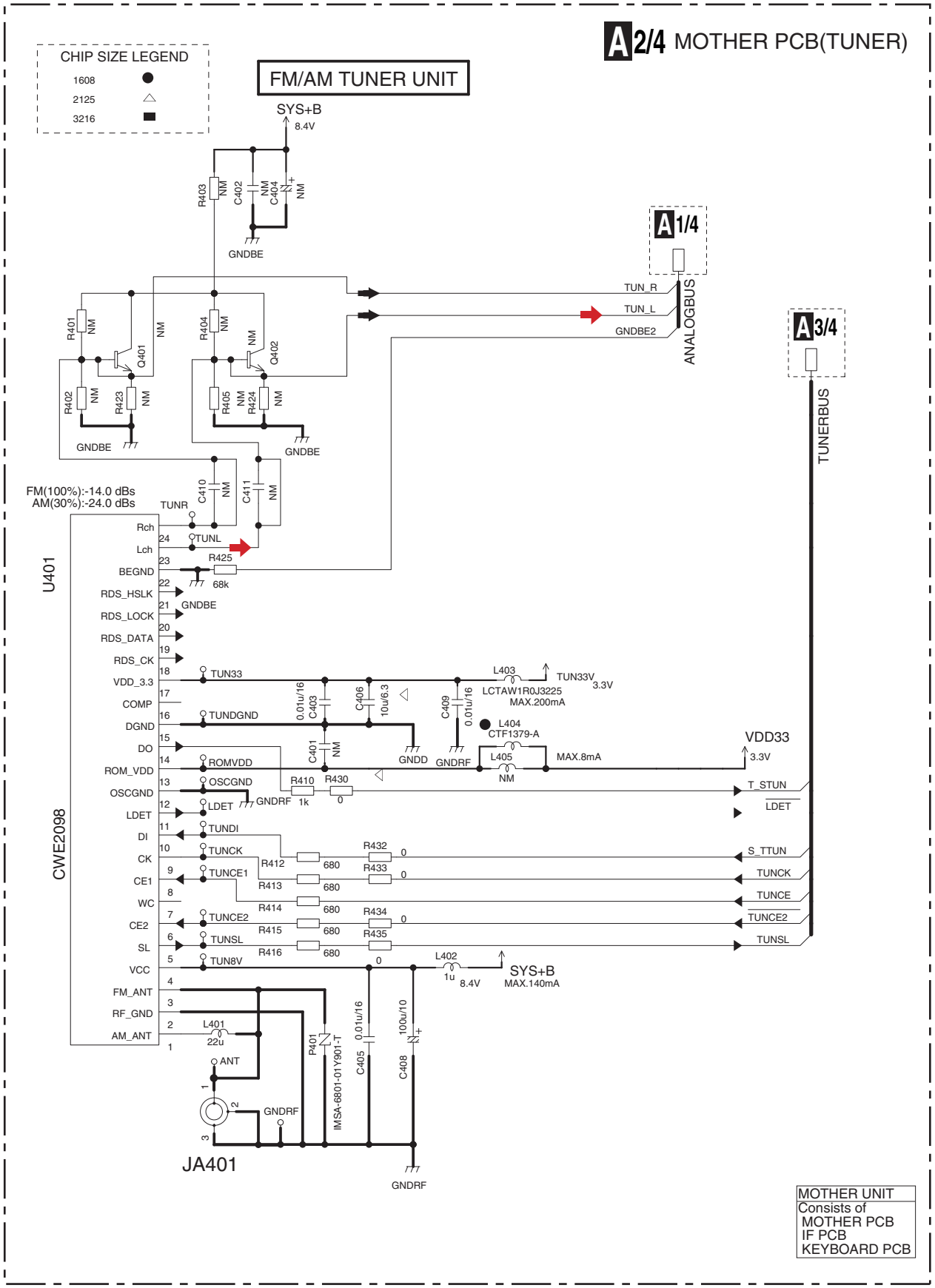
10.1 MOTHER PCB(ANALOG)

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

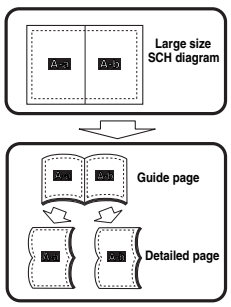


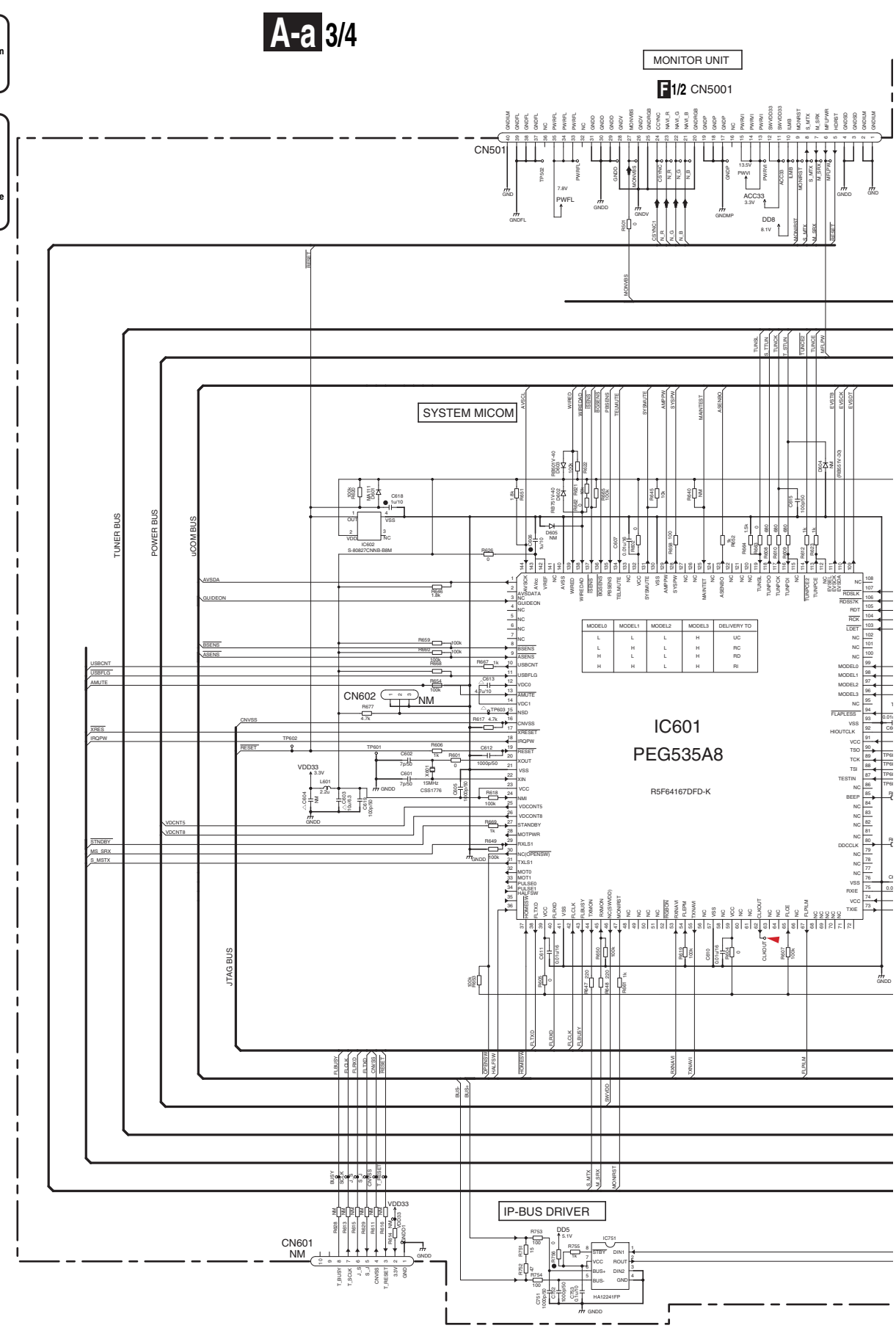

NOTE :
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
NM : No Mount
FM: +7.1 dBs
AM: -2.9 dBs
IP-BUS:+13.3 dBs
AUX:+13.3 dBs
USB(AUX):+12.0 dBs
USB(LS1):+13.2 dBs
VCR:+13.3 dBs
DVD/CD:+13.2 dBs
A1/4 MOTHER PCB(ANALOG)
RCAOUT
JA101
IC181 PA2030A
AMP
PW CONNECTOR
JA141
COM BUS
MONITOR VBS ADJUST
CHIP SIZE LEGEND
MOTHER UNIT
Consists of
MOTHER PCB
IF PCB
KEYBOARD PCB
FM:+29.1 dBs
AM:+19.1 dBs
IP-BUS:+35.3 dBs
AUX:+35.3 dBs
USB(AUX):+34.0 dBs
USB(LS1):+35.2 dBs
VCR:+35.3 dBs
DVD/CD:+35.2 dBs

10.2 MOTHER PCB(TUNER)

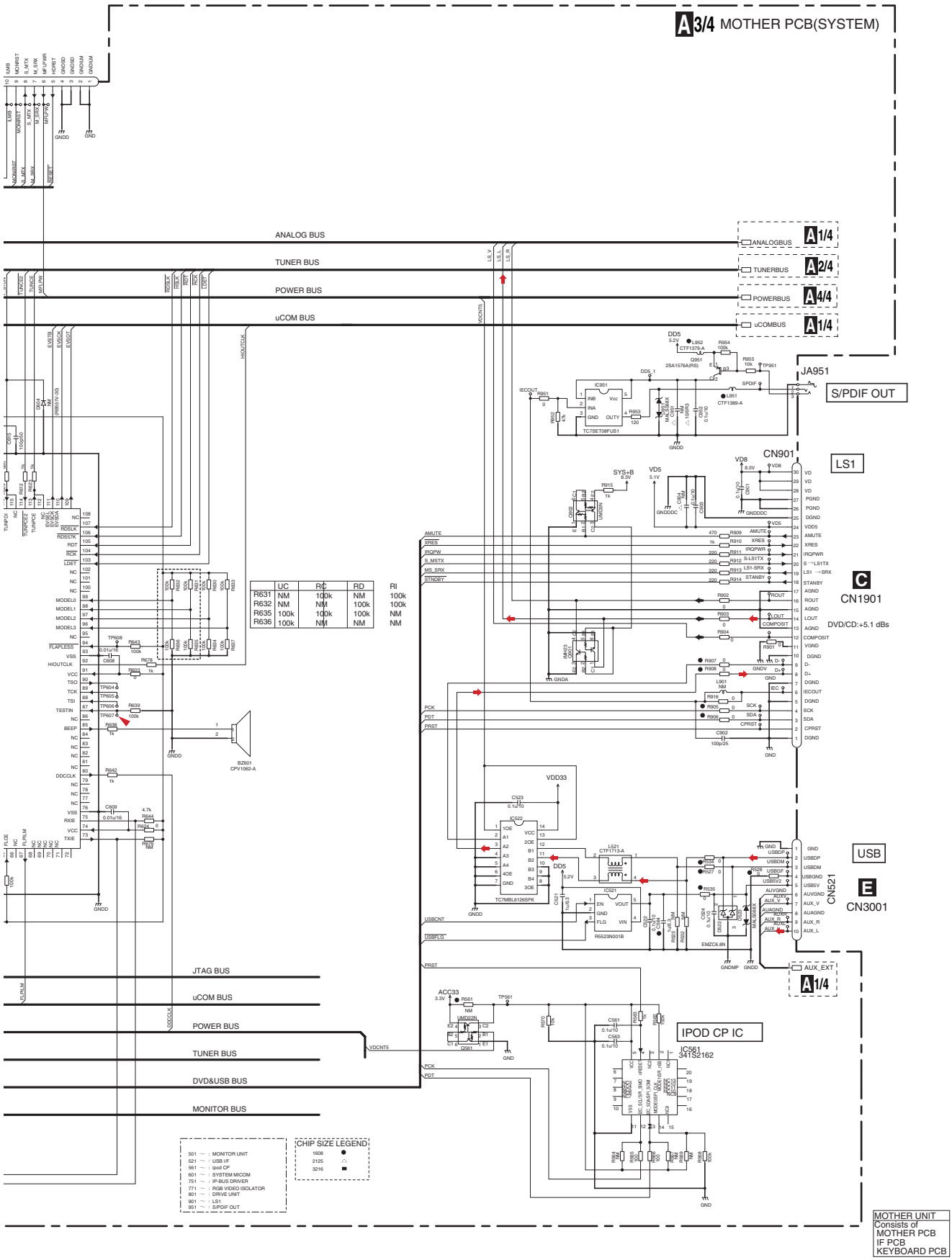


10.3 MOTHER PCB(SYSTEM)(GUIDE PAGE)

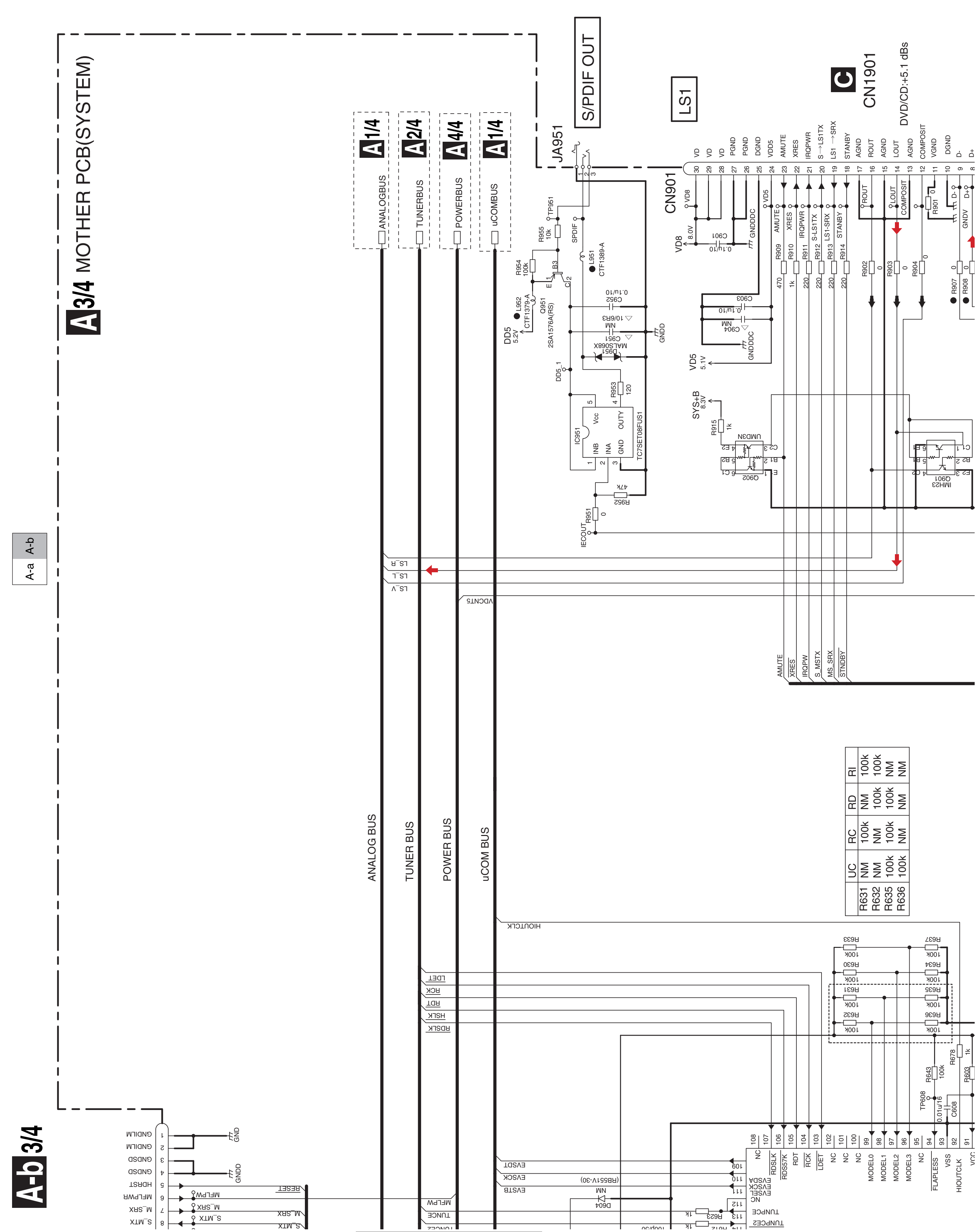




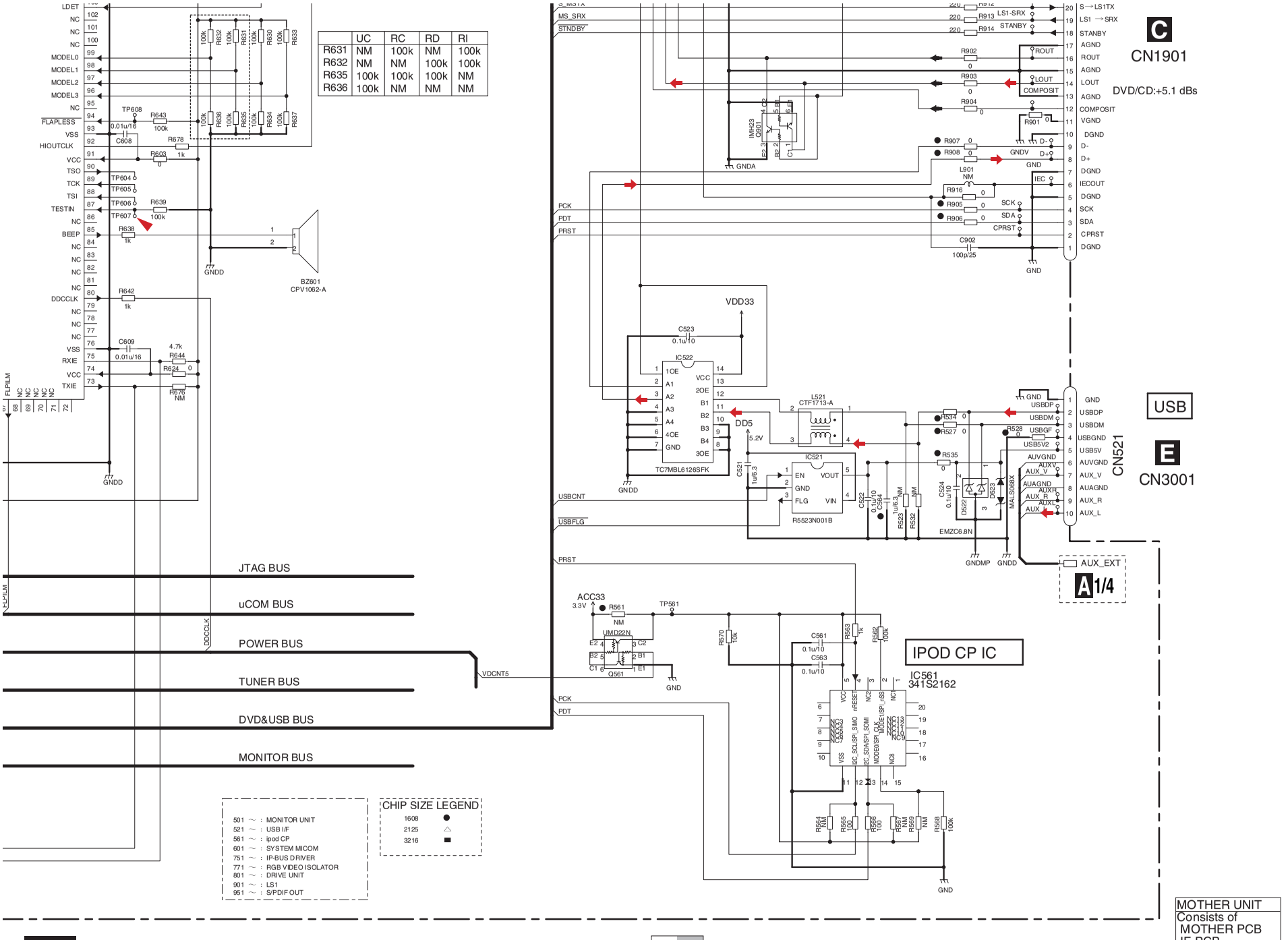
A-b 3/4



	UC	RC	RD	RI
R631	NM	100k	NM	100k
R632	NM	NM	100k	100k
R635	100k	100k	100k	NM
R636	100k	NM	NM	NM

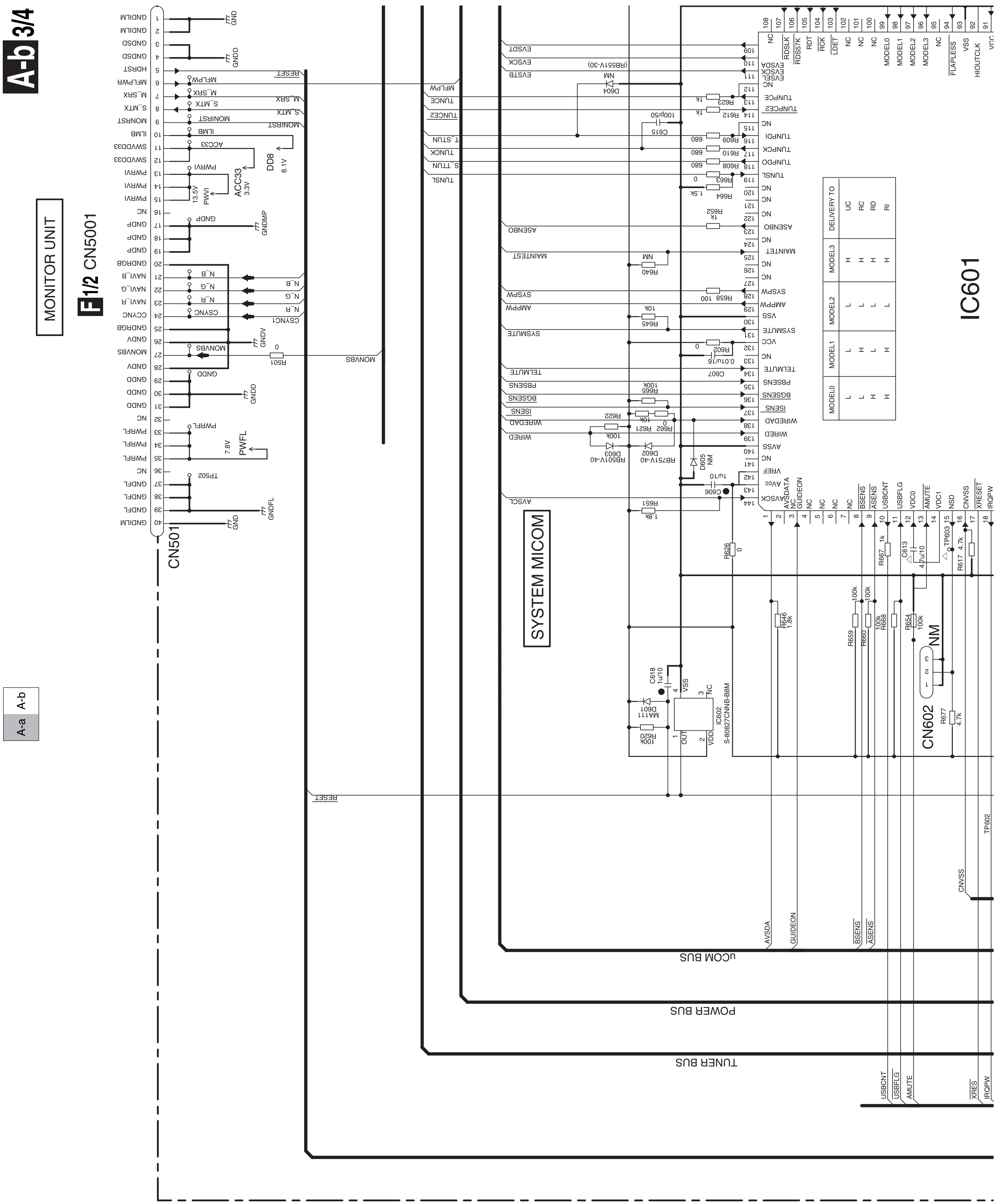


	UC	RC	RD	RI
R631	NM	100k	NM	100k
R632	NM	NM	100k	100k
R635	100k	100k	100k	NM
R636	100k	NM	NM	NM

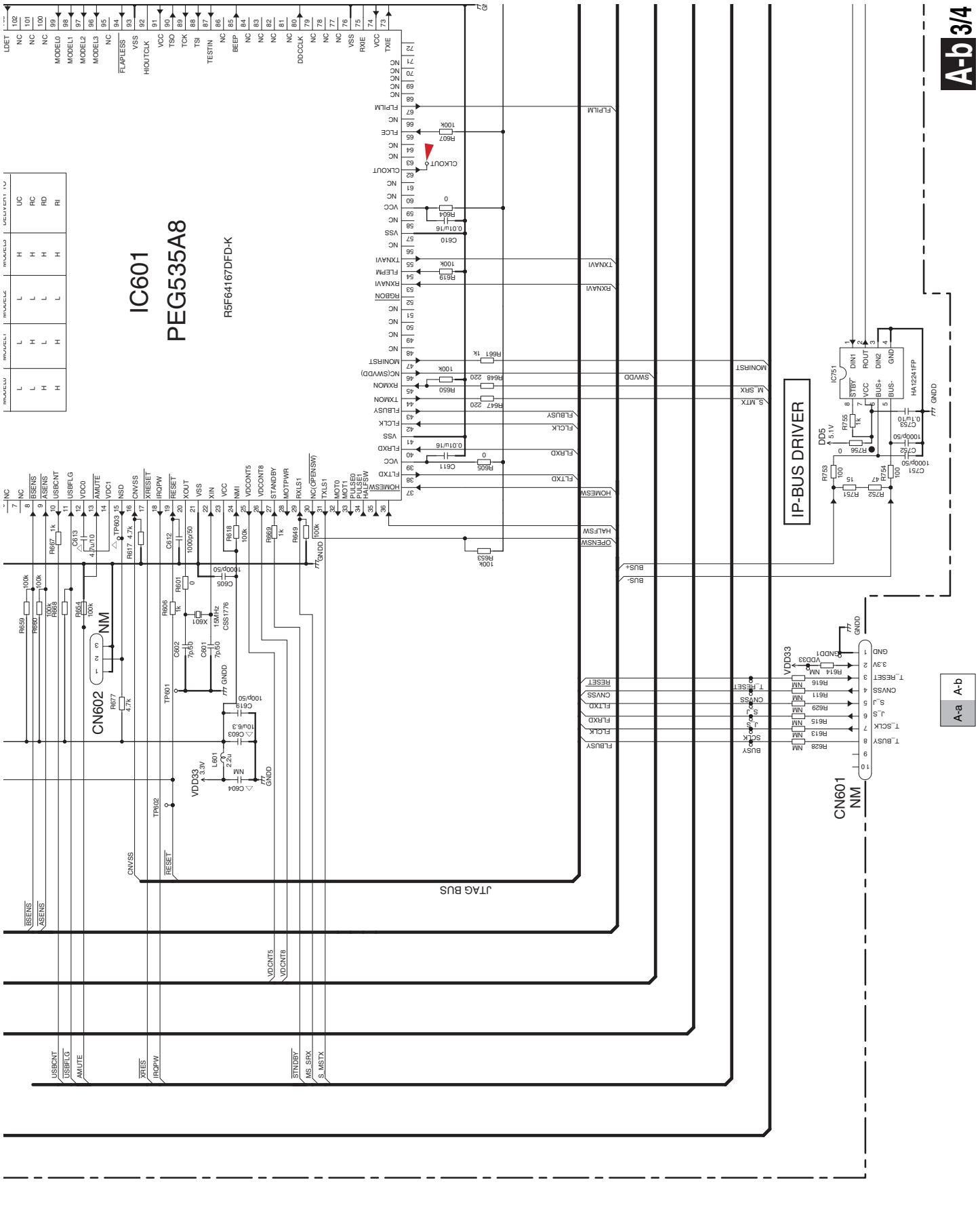


	UC	RC	RD	RI
R631	NM	100k	NM	100k
R632	NM	NM	100k	100k
R635	100k	100k	100k	NM
R636	100k	NM	NM	NM

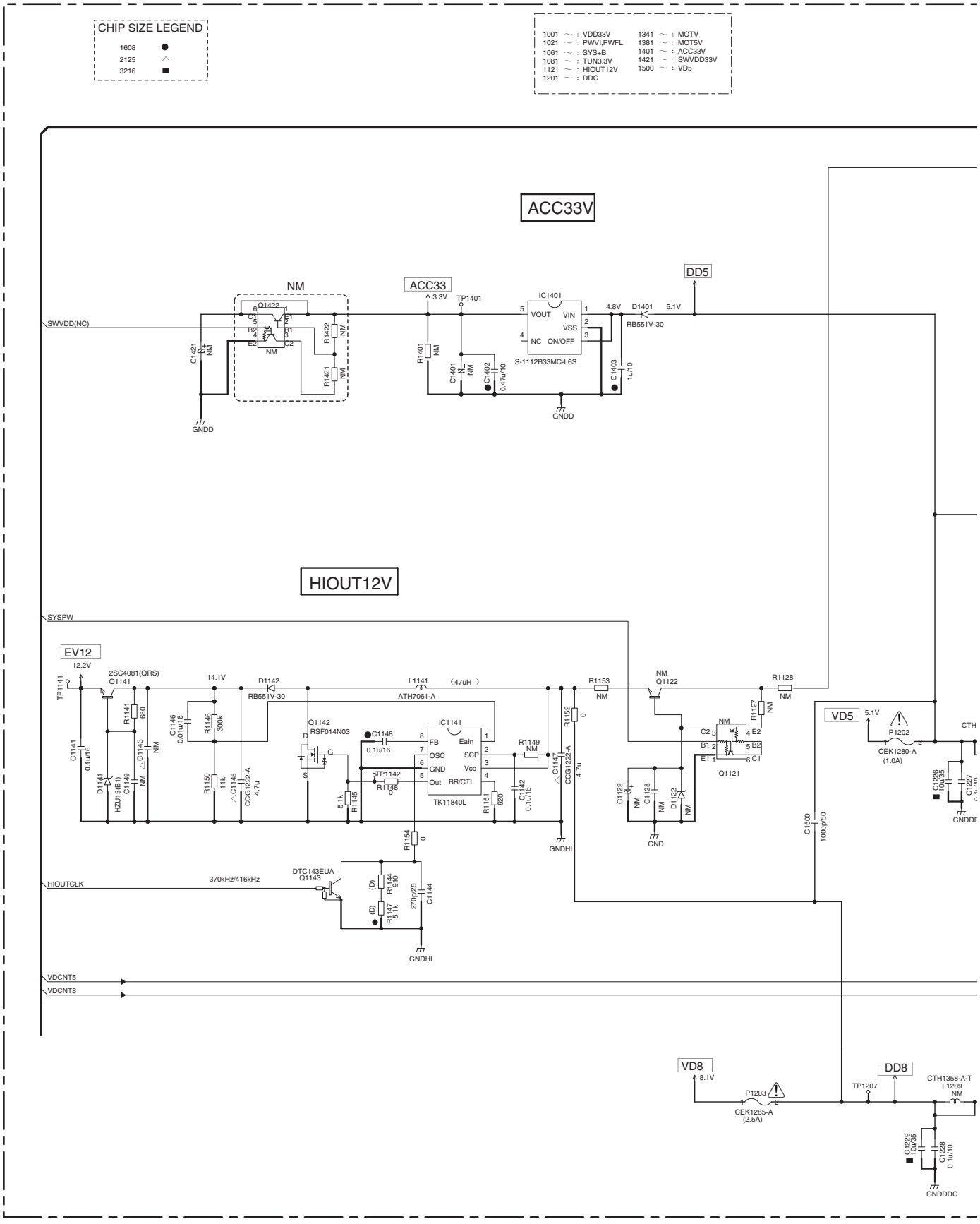
A-b 3/4


MONITOR UNIT
F 1/2 CN5001
CN501
SYSTEM MICOM
IC601
IC602
S-80827CNNB-B8M
CN602
uCOM BUS
POWER BUS
TUNER BUS

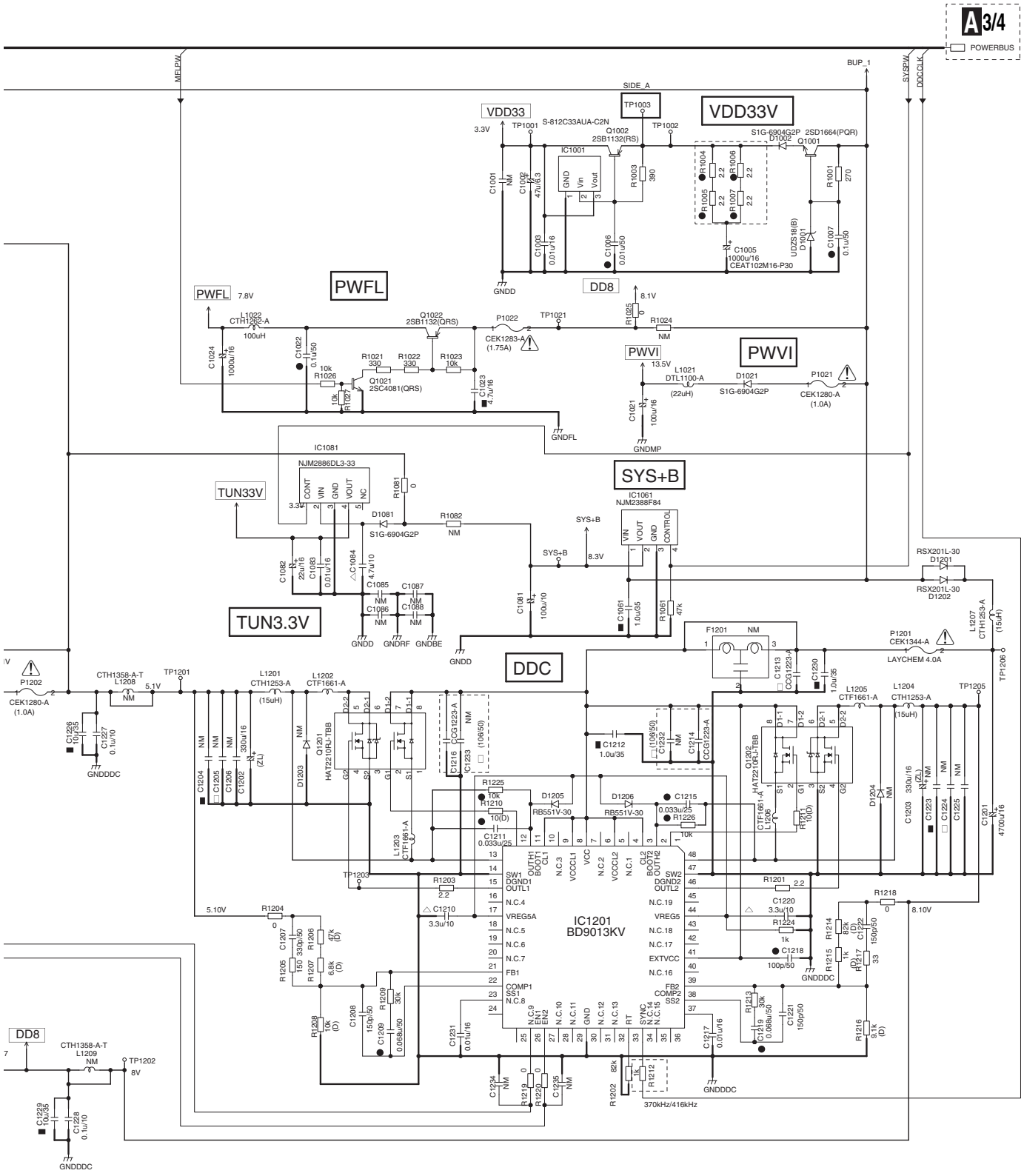
A-a 3/4


IC601
PEG535A8
R5F64167DFD-K
IP-BUS DRIVER
CN602
NM
CN601
NM
JTAG BUS
A-b
A-a

10.4 MOTHER PCB(POWER SUPPLY)

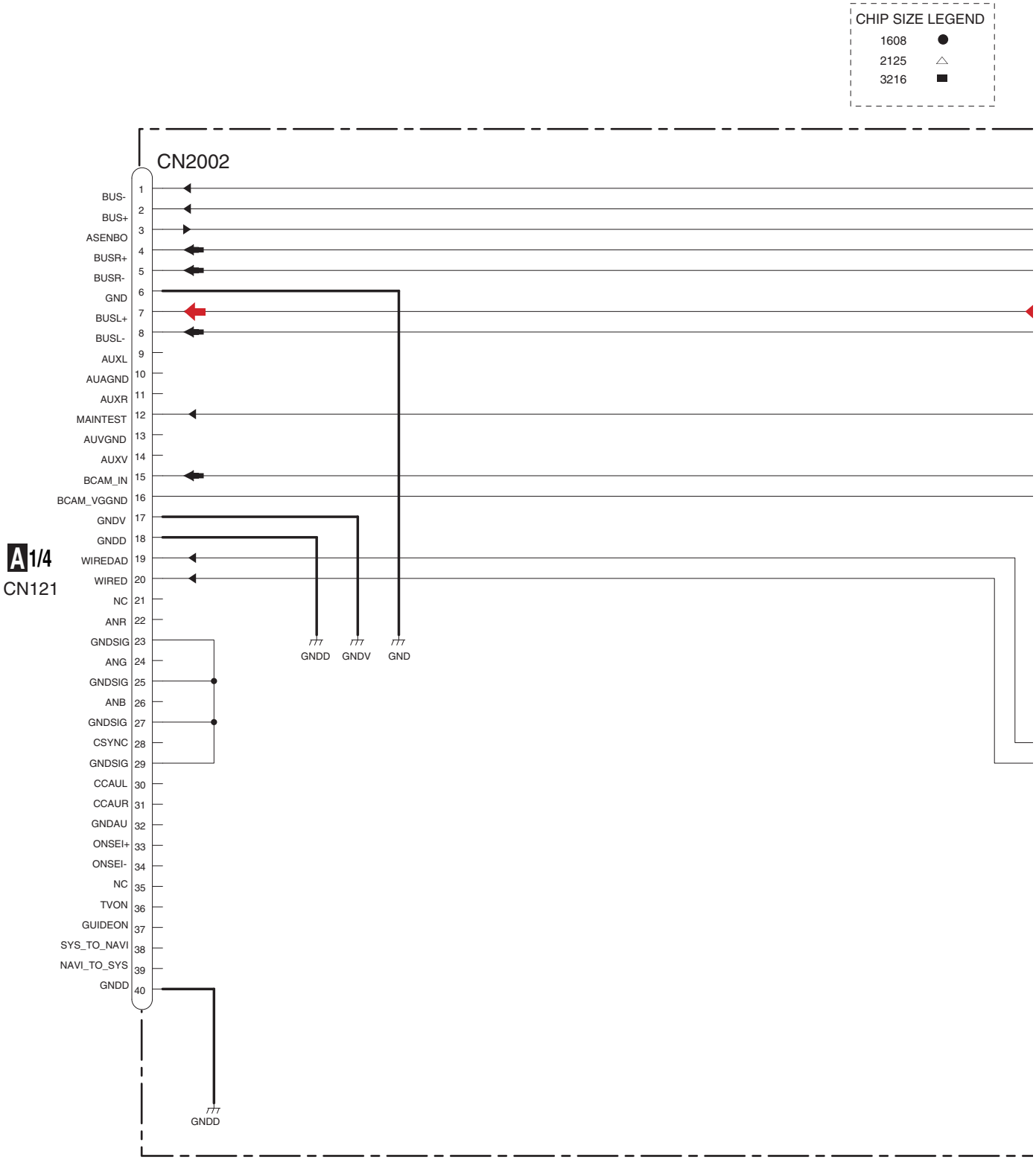


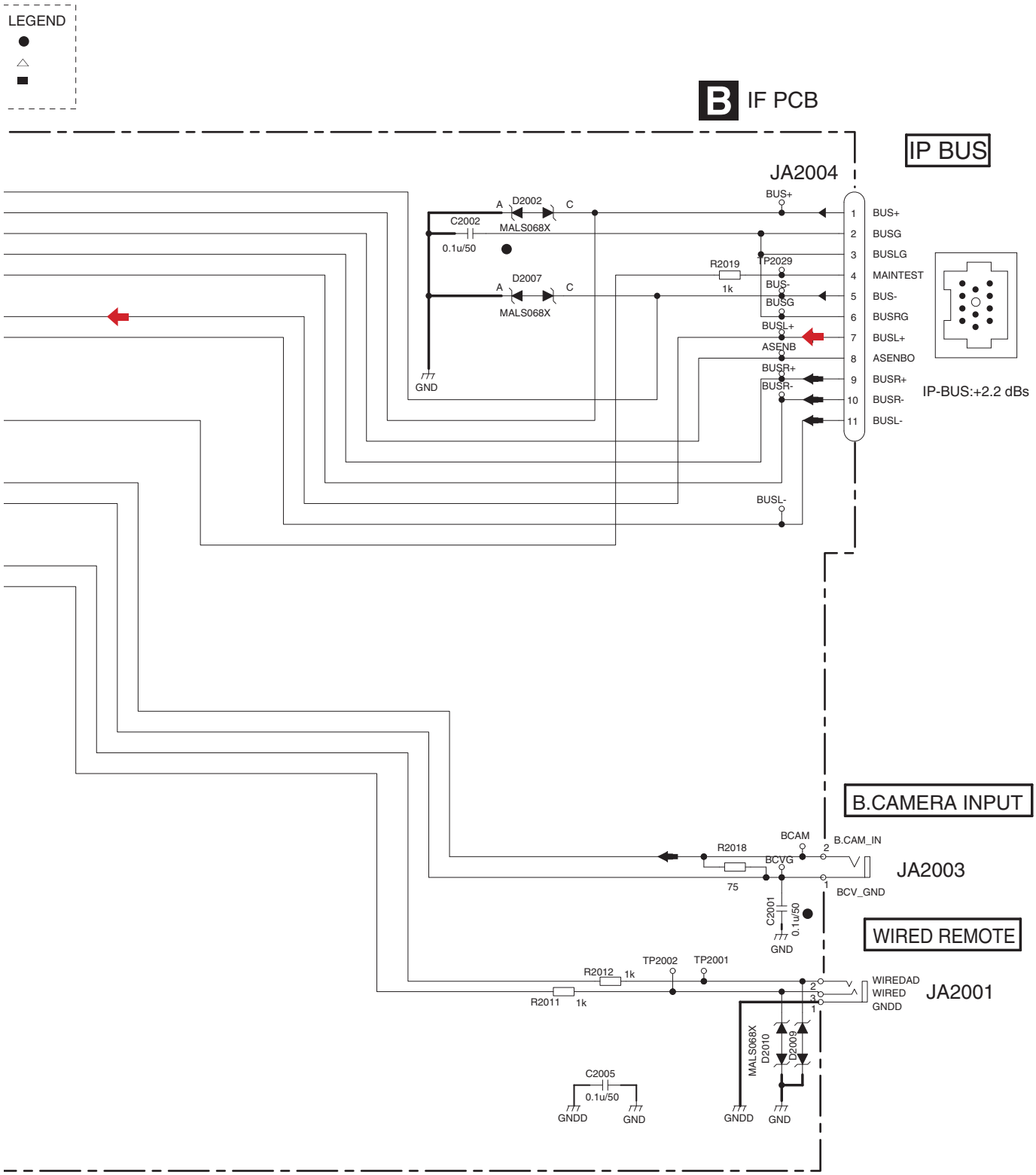
A4/4 MOTHER PCB(POWER SUPPLY)



The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

MOTHER UNIT
Consists of
MOTHER PCB
IF PCB
KEYBOARD PCB

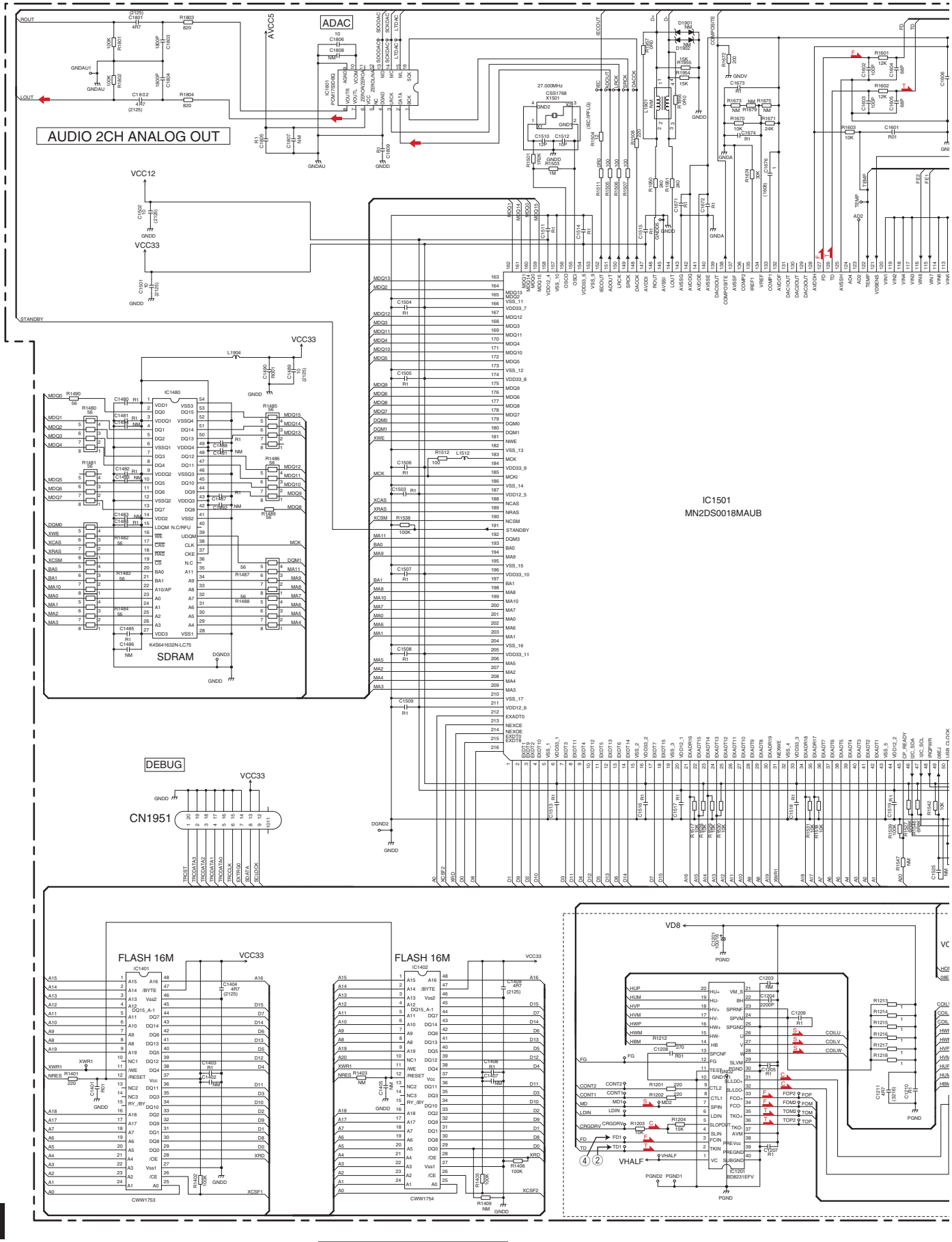

CHIP SIZE LEGEND
1608
2125
3216
CN2002
BUS- 1
BUS+ 2
ASENBO 3
BUSR+ 4
BUSR- 5
GND 6
BUSL+ 7
BUSL- 8
AUXL 9
AUAGND 10
AUXR 11
MAINTEST 12
AUVGND 13
AUXV 14
BCAM_IN 15
BCAM_VGGND 16
GNDV 17
GNDD 18
WIREDAD 19
WIRED 20
NC 21
ANR 22
GNDSIG 23
ANG 24
GNDSIG 25
ANB 26
GNDSIG 27
CSYNC 28
GNDSIG 29
CCAUL 30
CCAUR 31
GNDAU 32
ONSEI+ 33
ONSEI- 34
NC 35
TVON 36
GUIDEON 37
SYS_TO_NAVI 38
NAVI_TO_SYS 39
GNDD 40
A 1/4
CN121
GNDD
GNDV
GND
GNDD

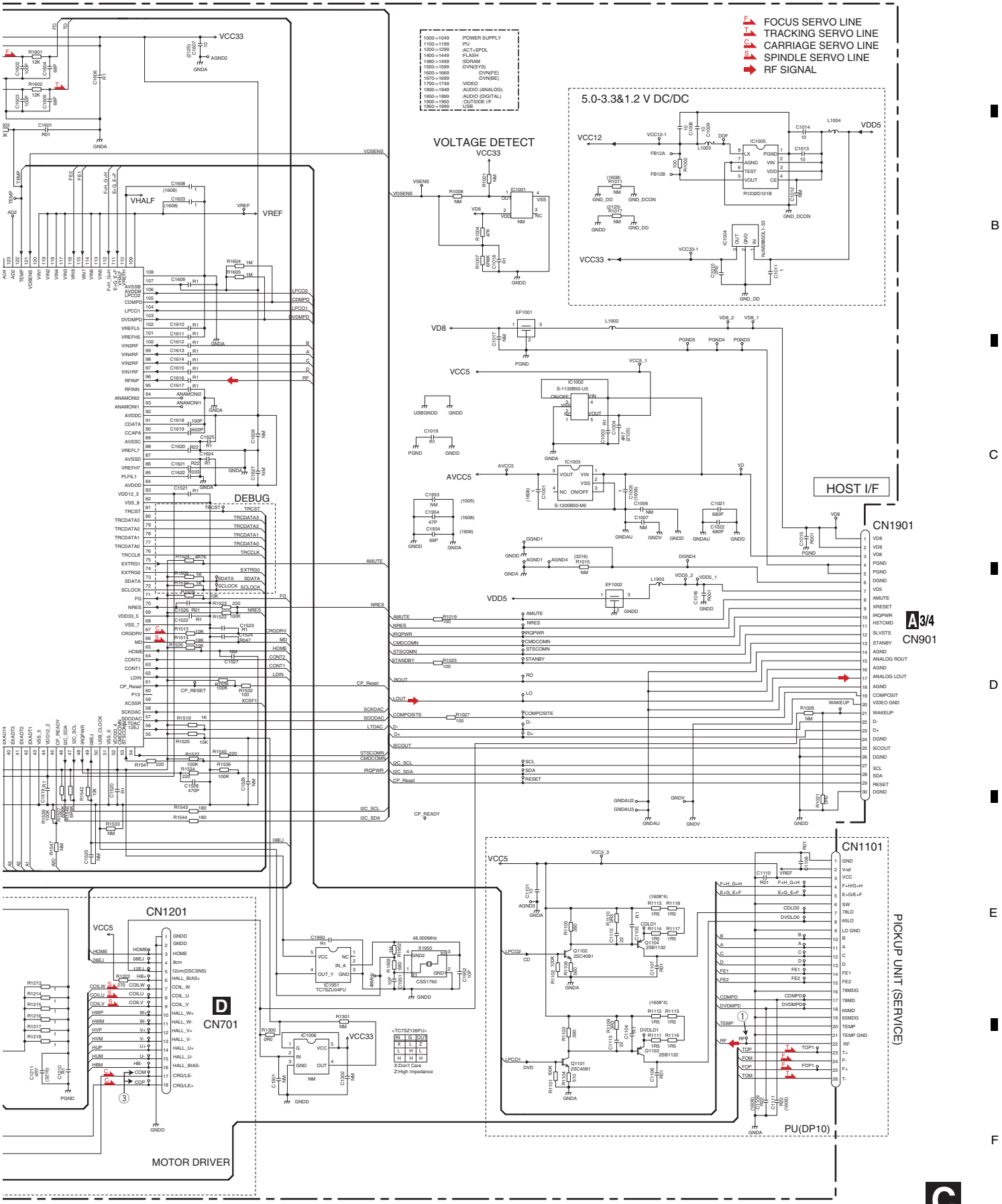


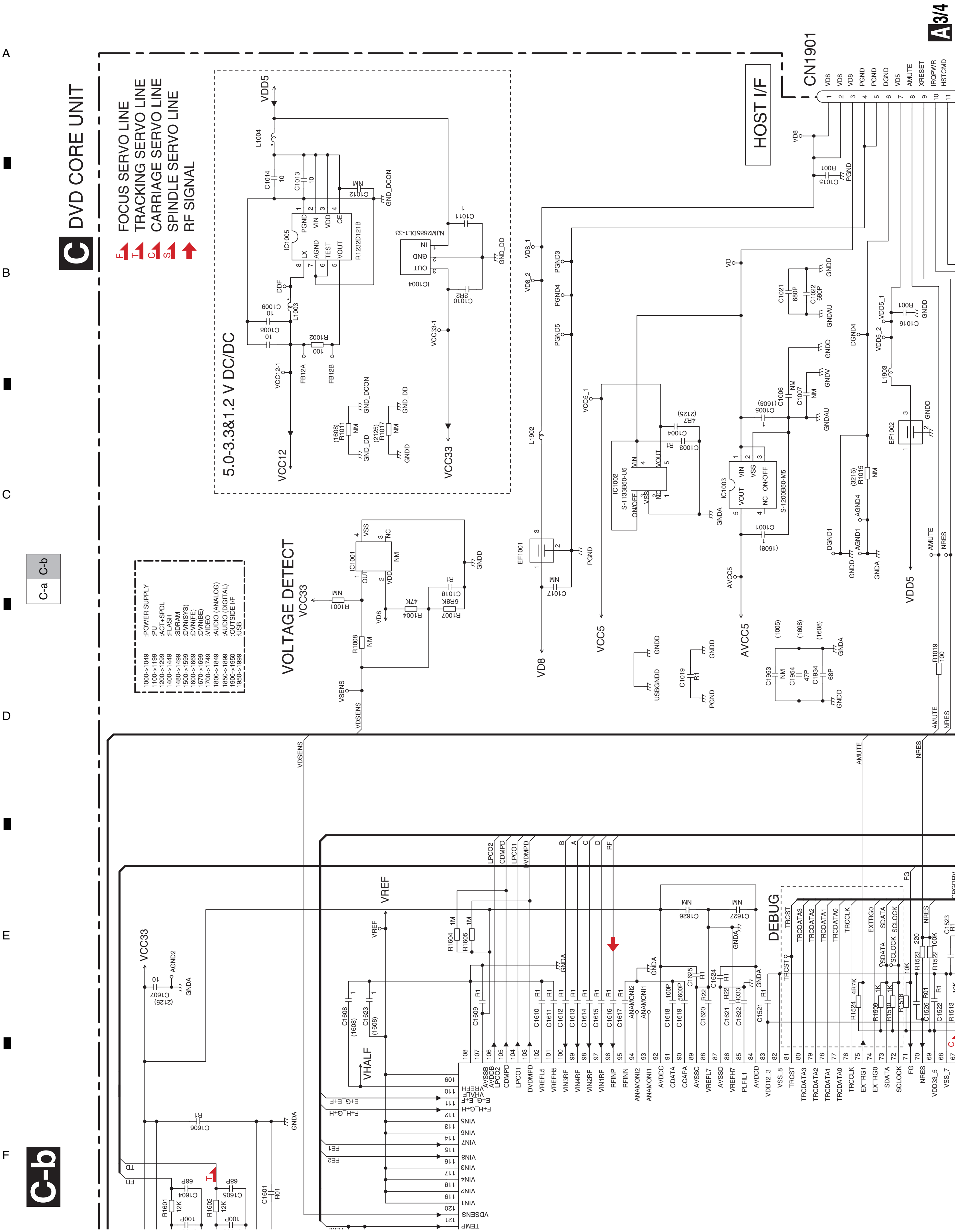
MOTHER UNIT
Consists of
MOTHER PCB
IF PCB
KEYBOARD PCB

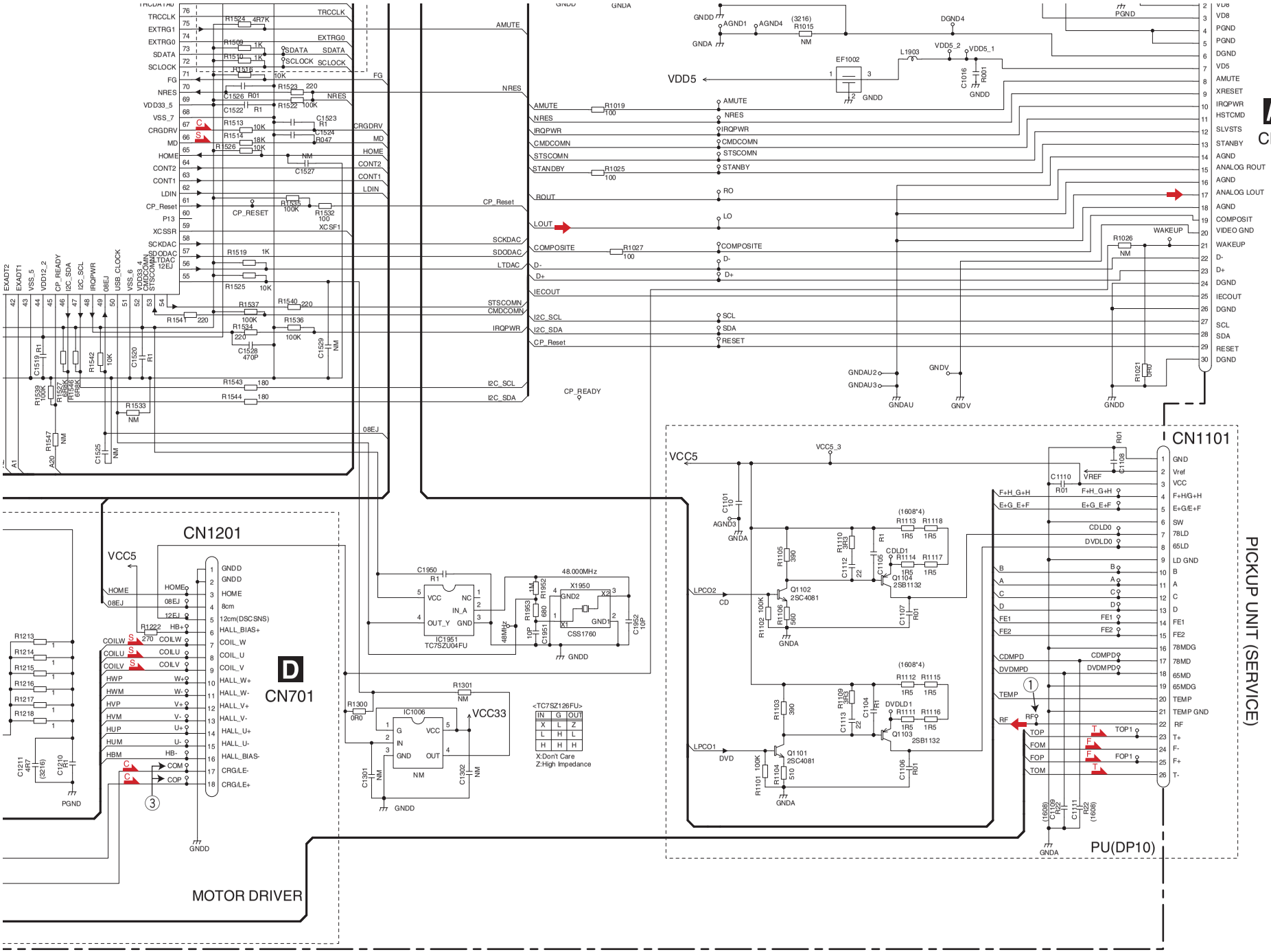
10.6 DVD CORE UNIT(GUIDE PAGE)

C-a



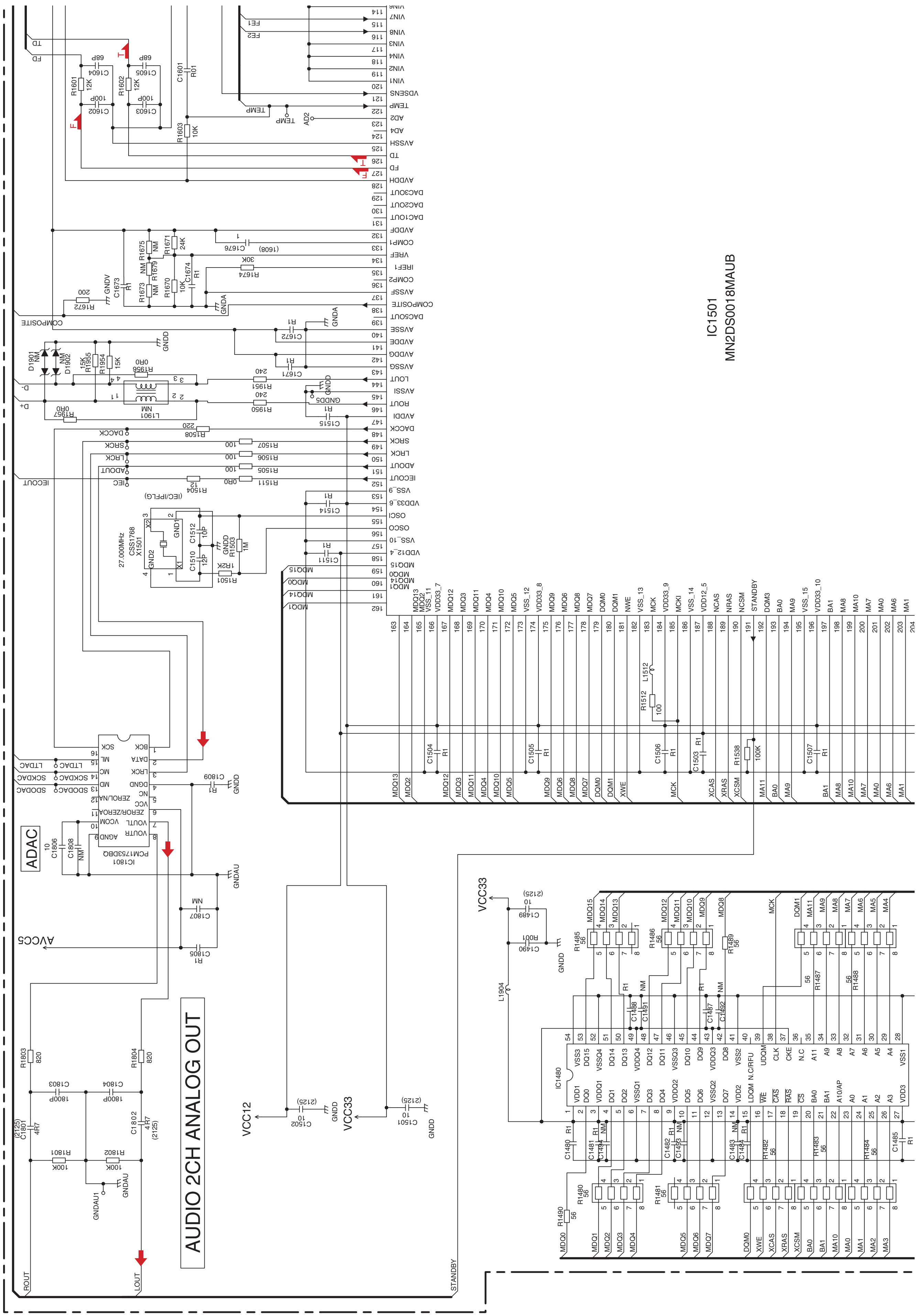

FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE
RF SIGNAL
1000->1049 :POWER SUPPLY
1100->1199 :PU
1200->1299 :ACT+SPDL
1400->1449 :FLASH
1480->1499 :SDRAM
1500->1599 :DVN(SYS)
1600->1669 :DVN(FE)
1670->1699 :DVN(BE)
1700->1749 :VIDEO
1800->1849 :AUDIO (ANALOG)
1850->1899 :AUDIO (DIGITAL)
1900->1950 :OUTSIDE I/F
1950->1999 :USB
5.0-3.3&1.2 V DC/DC
VOLTAGE DETECT
HOST I/F
DEBUG
CN1901
CN901
CN1101
CN1201
CN701
PICKUP UNIT (SERVICE)
PU(DP10)
MOTOR DRIVER
A3/4
D
C

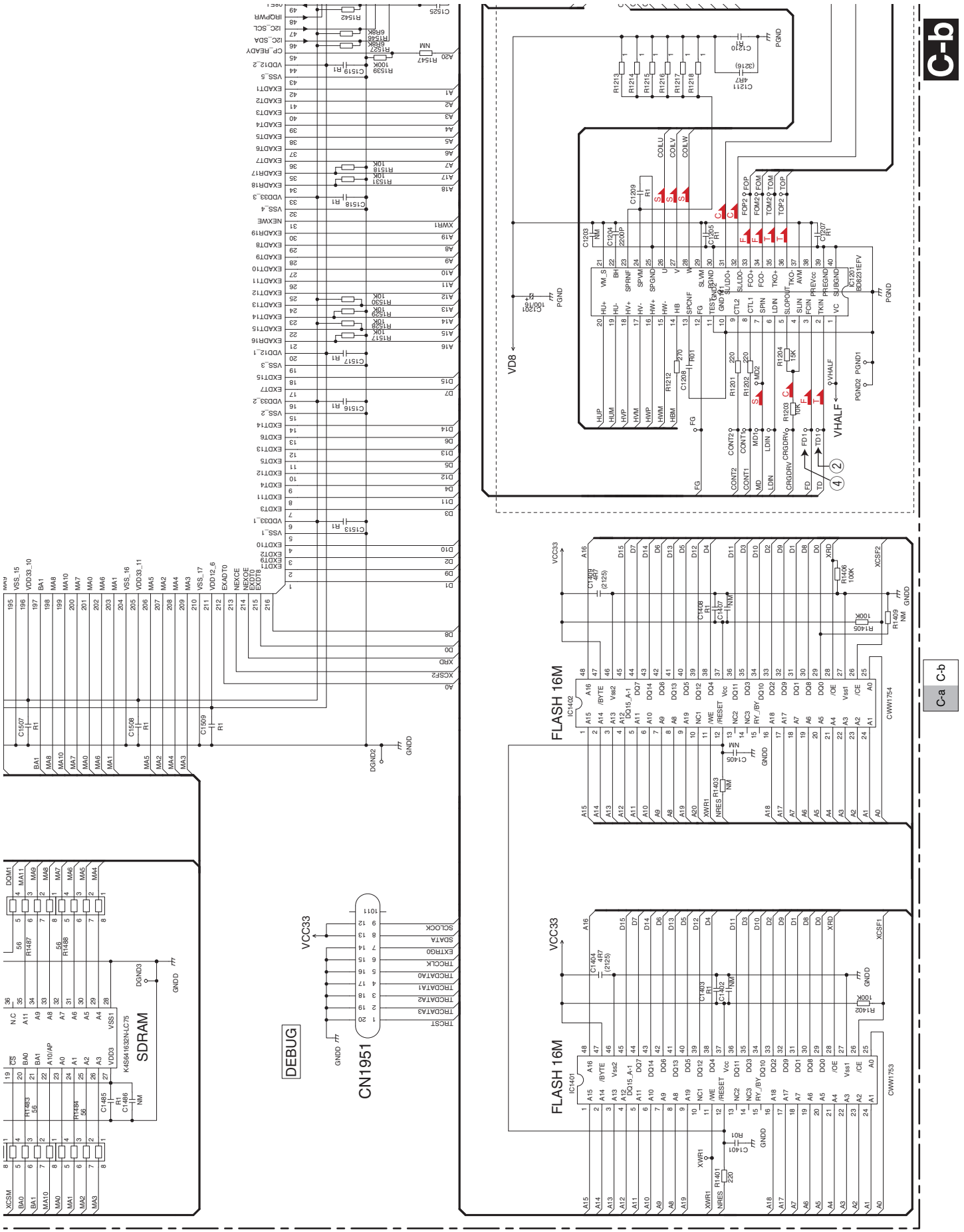

C DVD CORE UNIT
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE
RF SIGNAL
5.0-3.3&1.2 V DC/DC
VOLTAGE DETECT
HOST I/F
CN1901
DEBUG
A 3/4
C-b
C-a C-b


A3/4
CN901
CN1101
PICKUP UNIT (SERVICE)
PU(DP10)
CN1201
CN701
D
MOTOR DRIVER
VCC5
VDD5
VCC33
AMUTE
NRES
CRGDRV
HOME
CONT2
CONT1
LDIN
CP_Reset
XCSF1
SCKDAC
SDODAC
LTDAC
IECOUT
STSCOMN
CMDCOMN
IRQPWR
I2C_SCL
I2C_SDA
CP_READY
08EJ
ROUT
LOUT
COMPOSITE
WAKEUP
48.000MHz
IC1951
TC7SZU04FU
IC1006
<TC7SZ126FU>
X:Don't Care
Z:High Impedance
AVH-P3100DVD/XN/UC
C-b
C-a
C-b
141

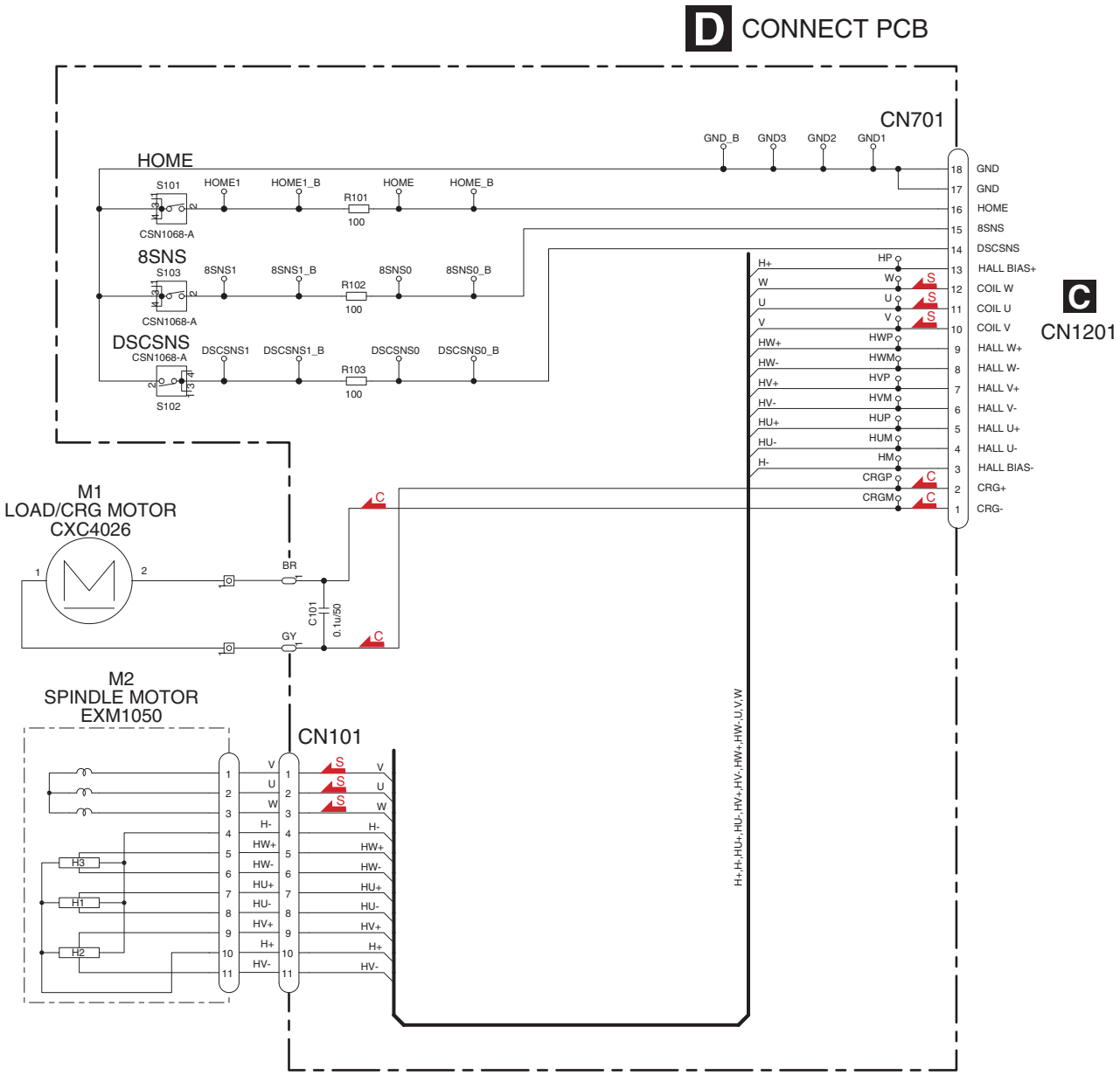
C-b

C-a

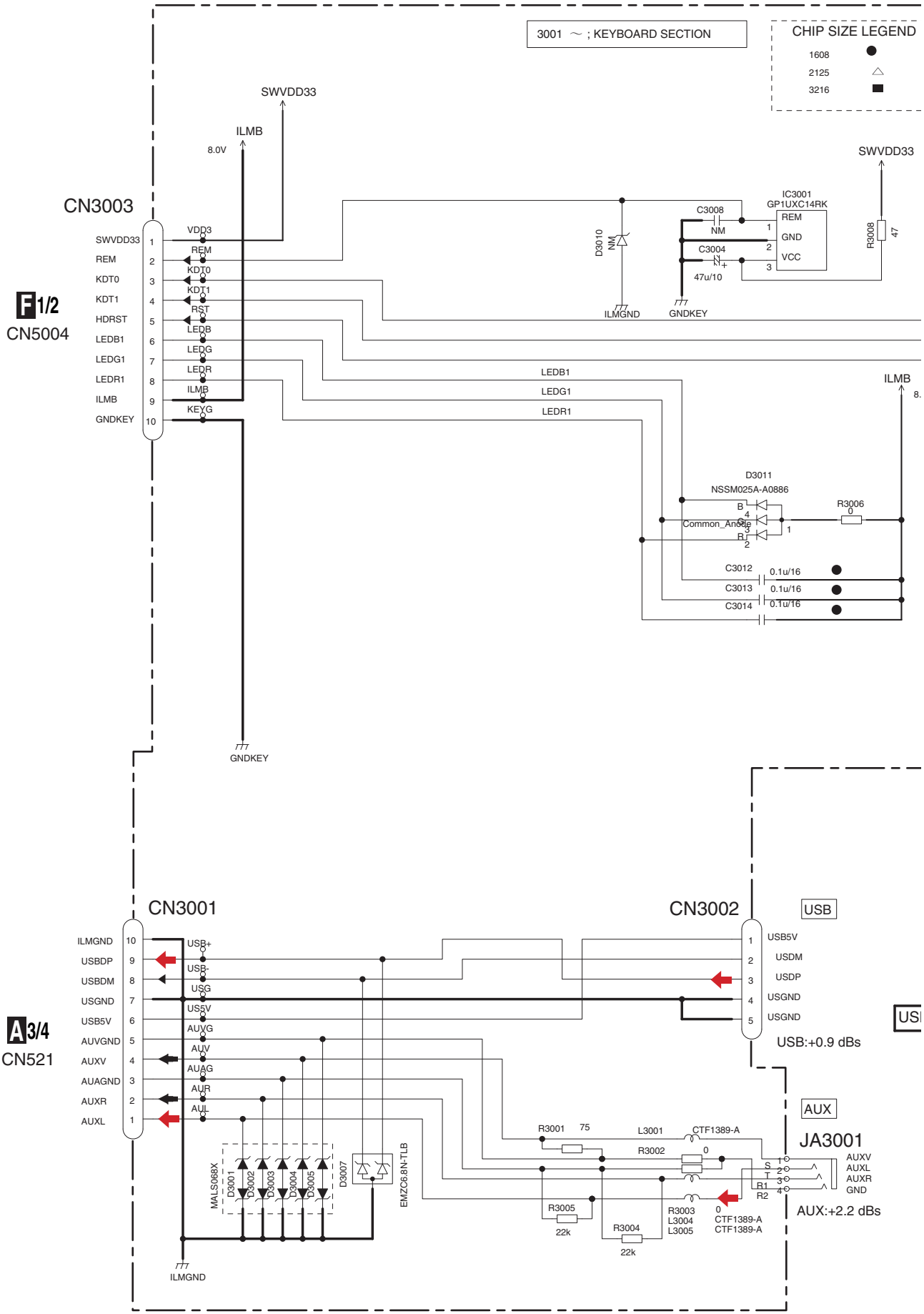

IC1501
MN2DS0018MAUB
ADAC
IC1801
PCM1753DBQ
IC1480
AUDIO 2CH ANALOG OUT
VCC33
VCC12
AVCC5
27.000MHz
CSS1768
X1501
ROUT
LOUT
STANDBY


C-b
C-a
C-a C-b
DEBUG
CN1951
SDRAM
K4S641632N-LC75
FLASH 16M
IC1402
IC1403
IC1404
CWW1754
CWW1753
IC1201
BD8231EFV
VD8
VHALF
PGND
GNDD
DGND2
DGND3
VCC33

10.7 CONNECT PCB



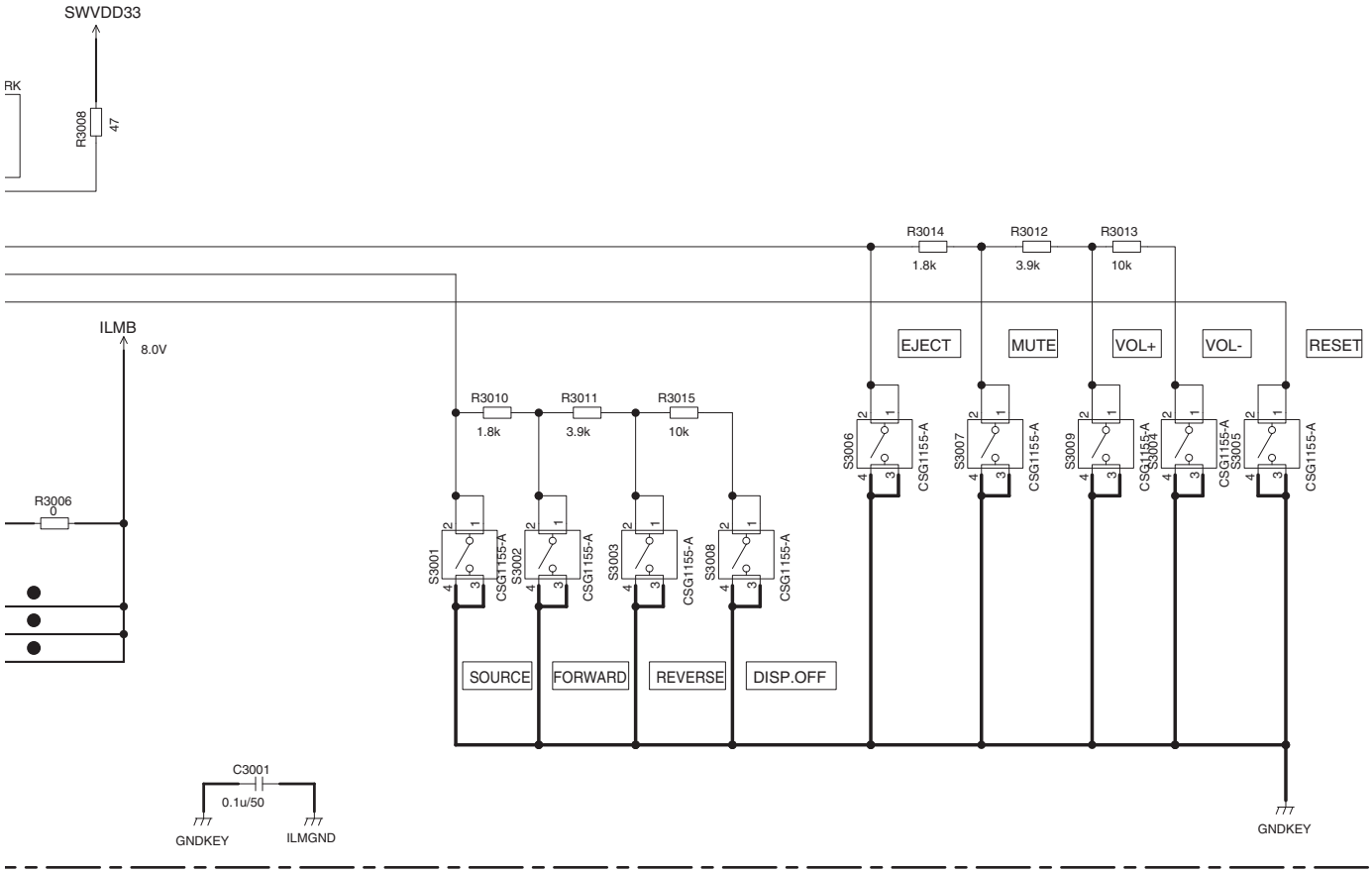
10.8 KEYBOARD PCB



P SIZE LEGEND

308 ●
125 △
216 ■

E KEYBOARD PCB



	0.0~0.5V	0.5~1.4V	1.4~2.2V	2.2~3.0V	3.0~3.3V
KDT0	EJECT	MUTE	VOL+	VOL-	x
KDT1	SOURCE	FORWARD	REVERSE	DISP.OFF	x

SB

USB, AUX

0.9 dBs

JX

A3001

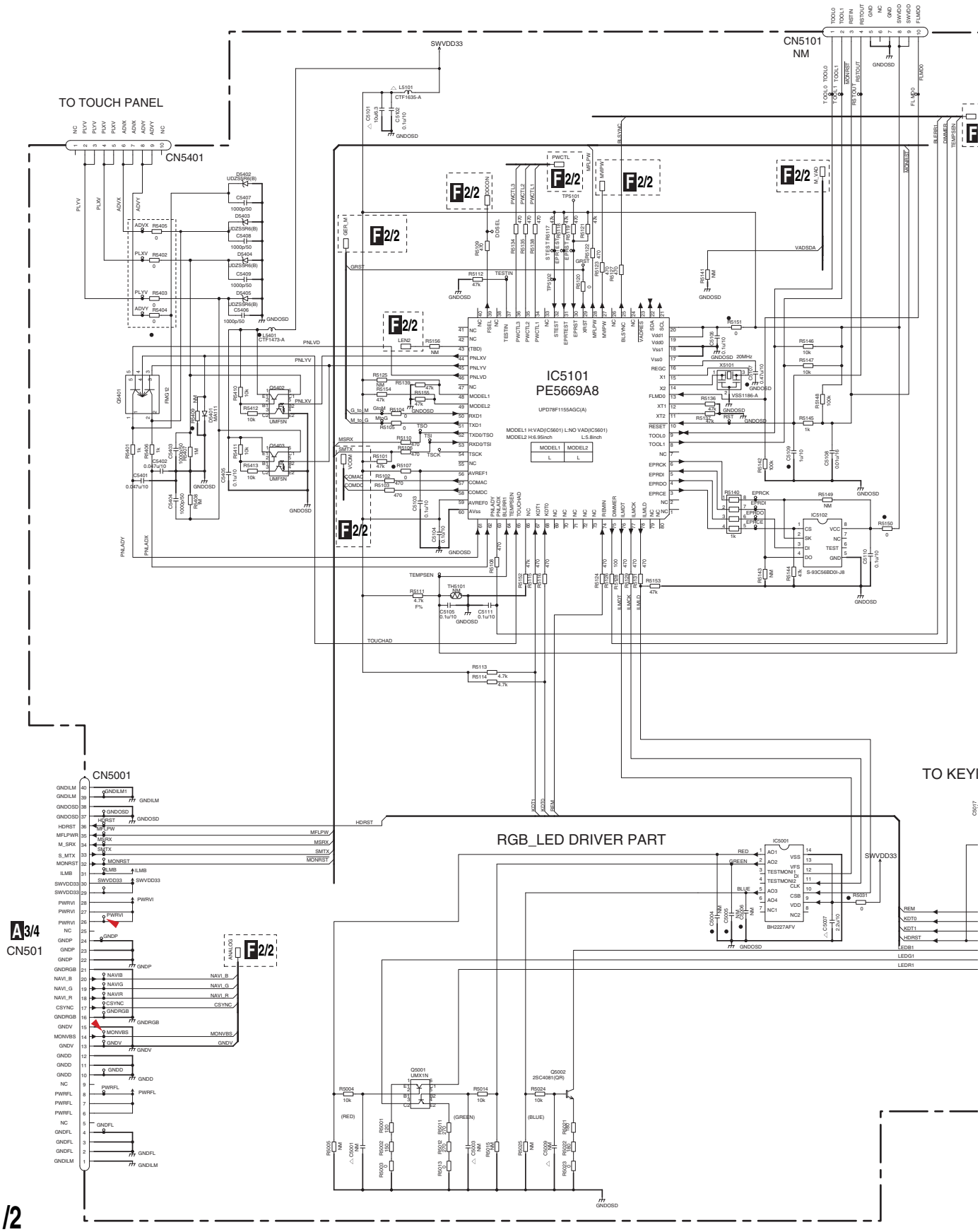
AUXV
AUXL
AUXR
GND

X:+2.2 dBs

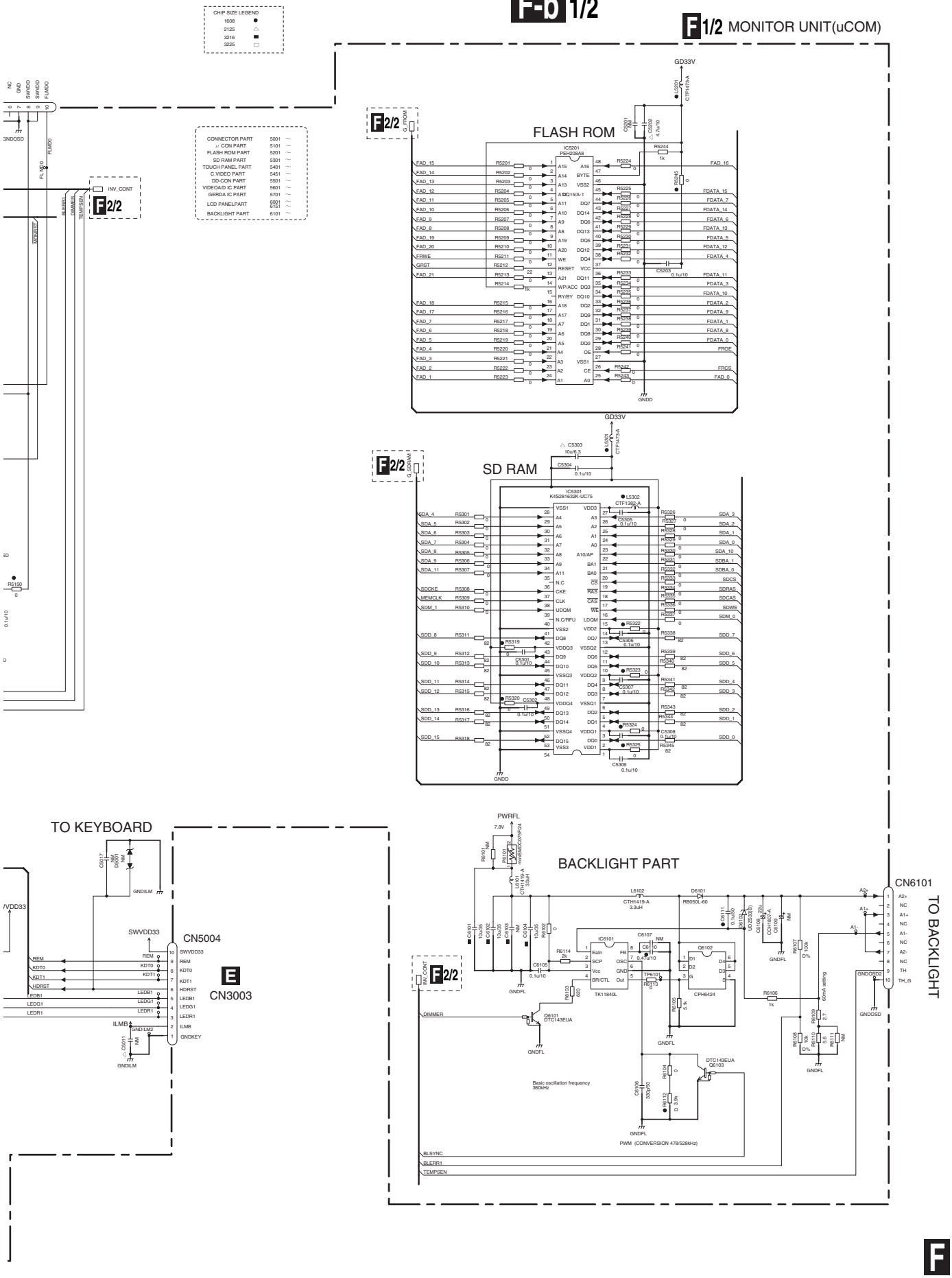
MOTHER UNIT
Consists of
MOTHER PCB
IF PCB
KEYBOARD PCB

10.9 MONITOR UNIT(uCOM)(GUIDE PAGE)

F-a 1/2



F1/2 MONITOR UNIT(uCOM)



1 2 3 4

A

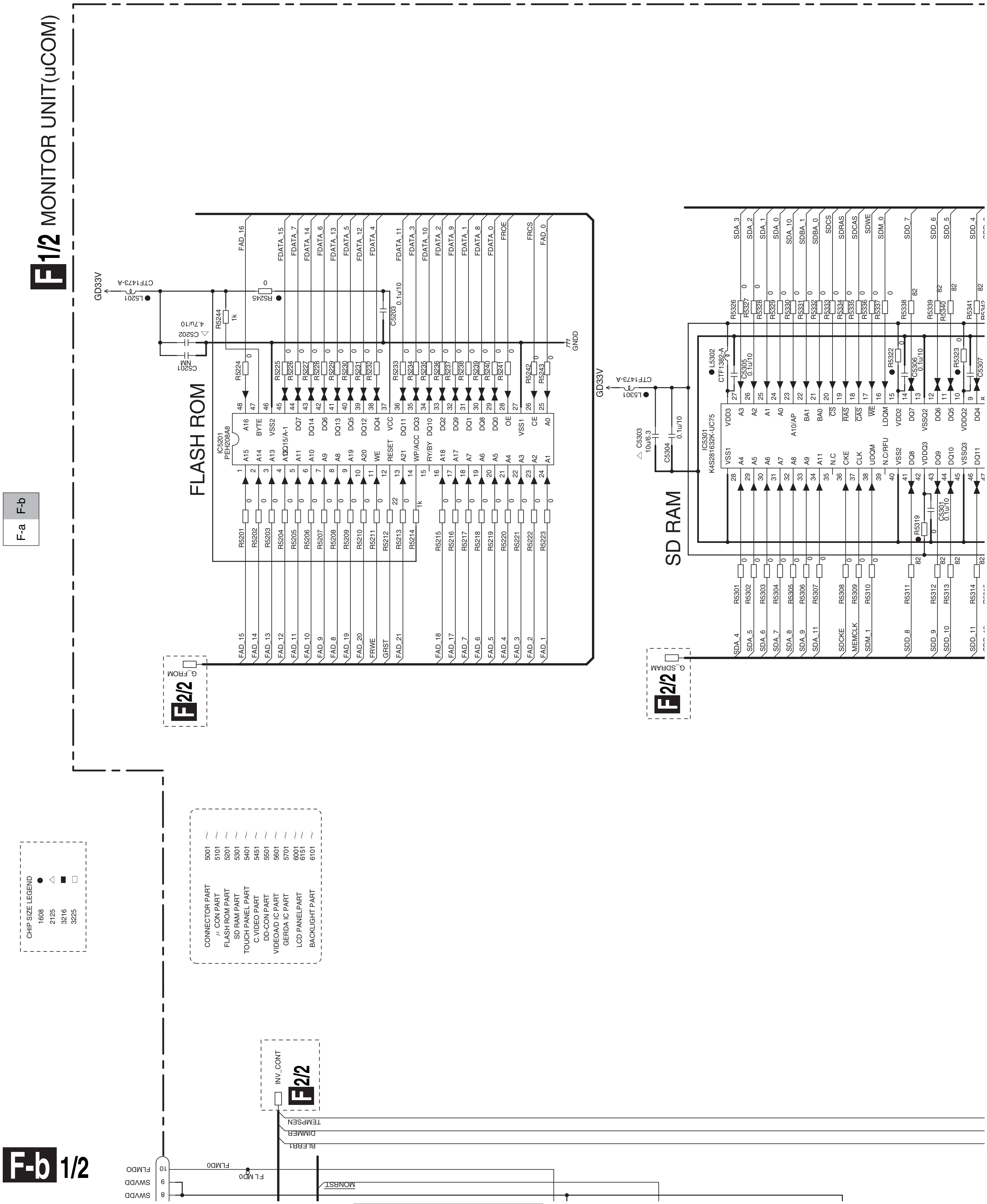
B

C

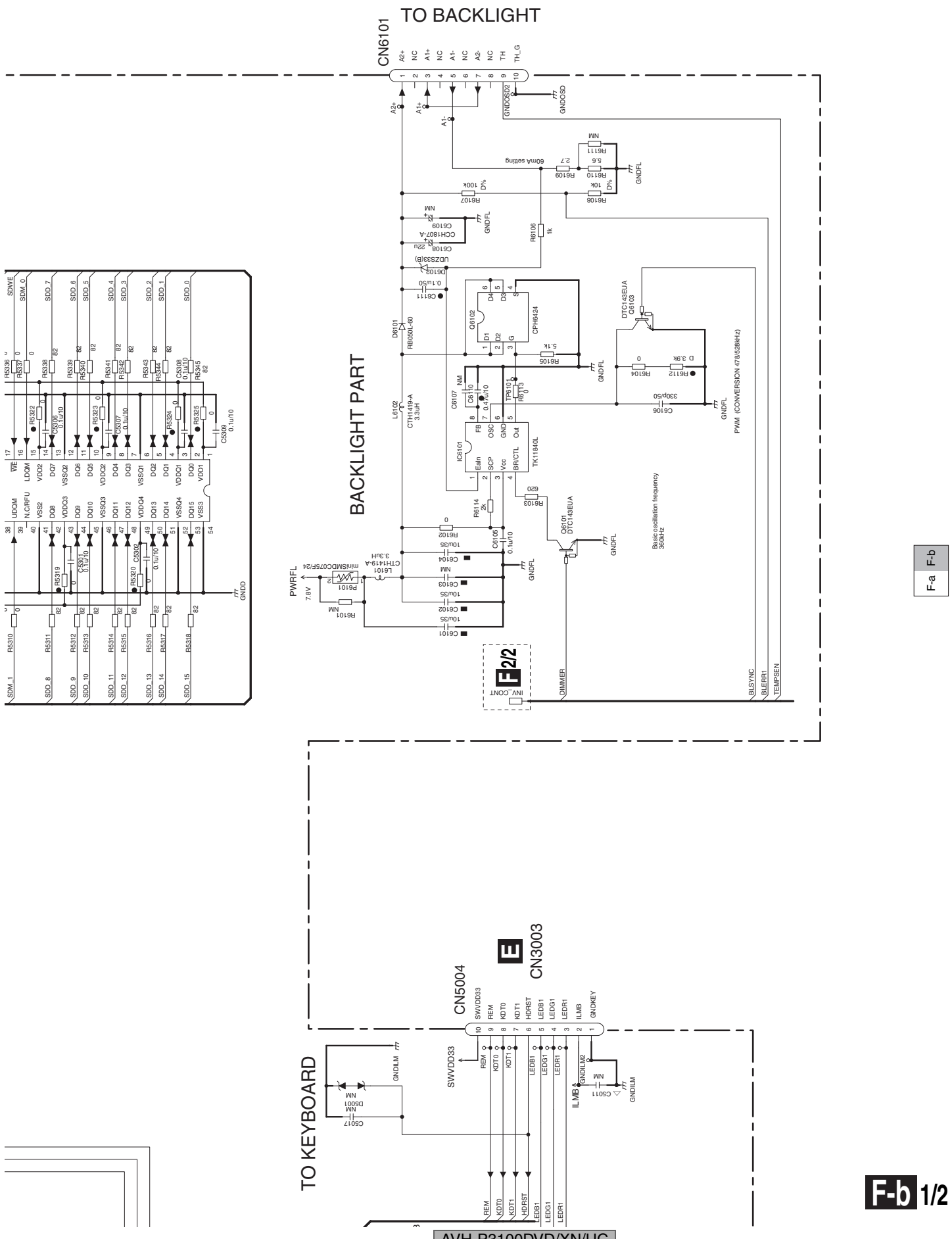
D

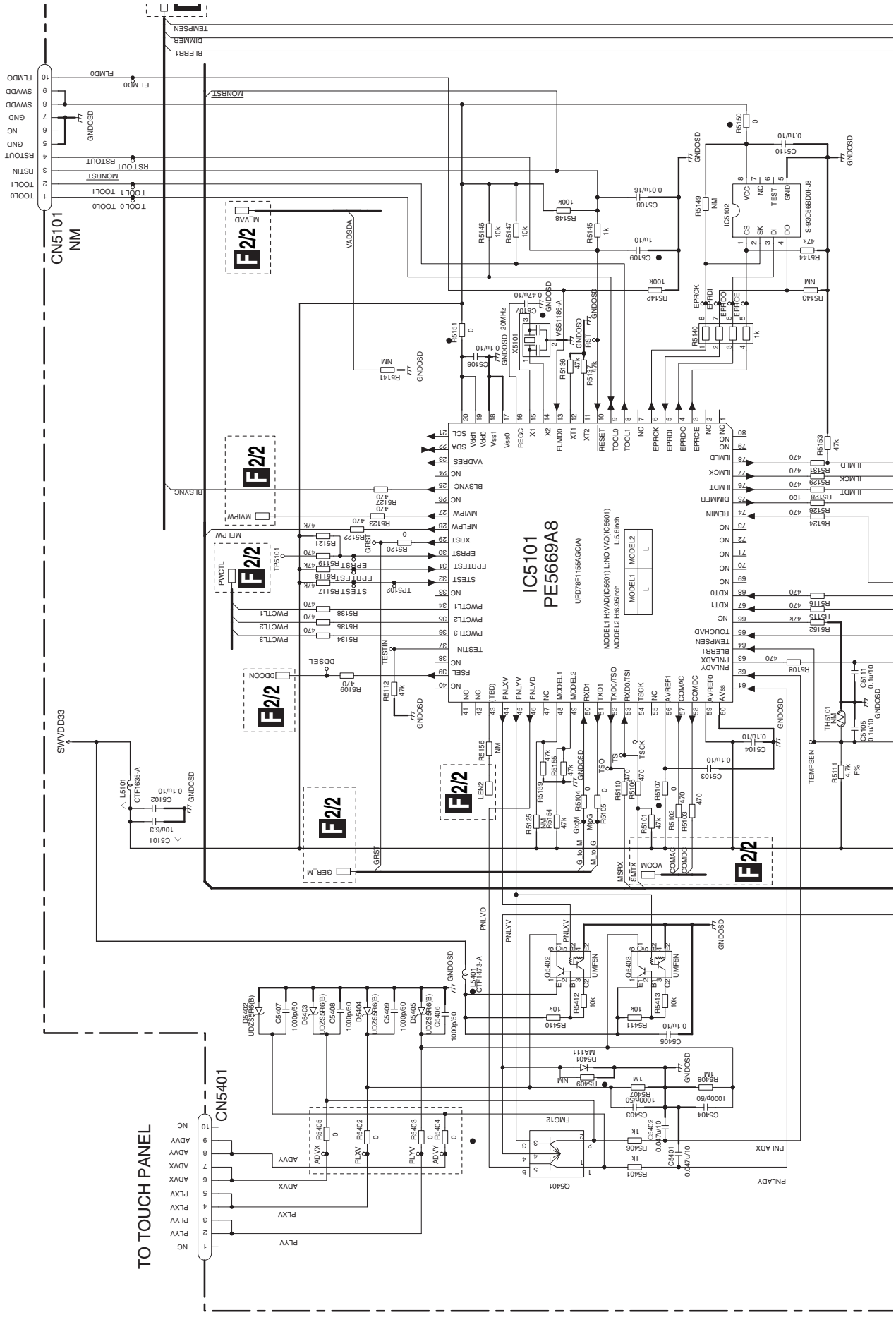
E

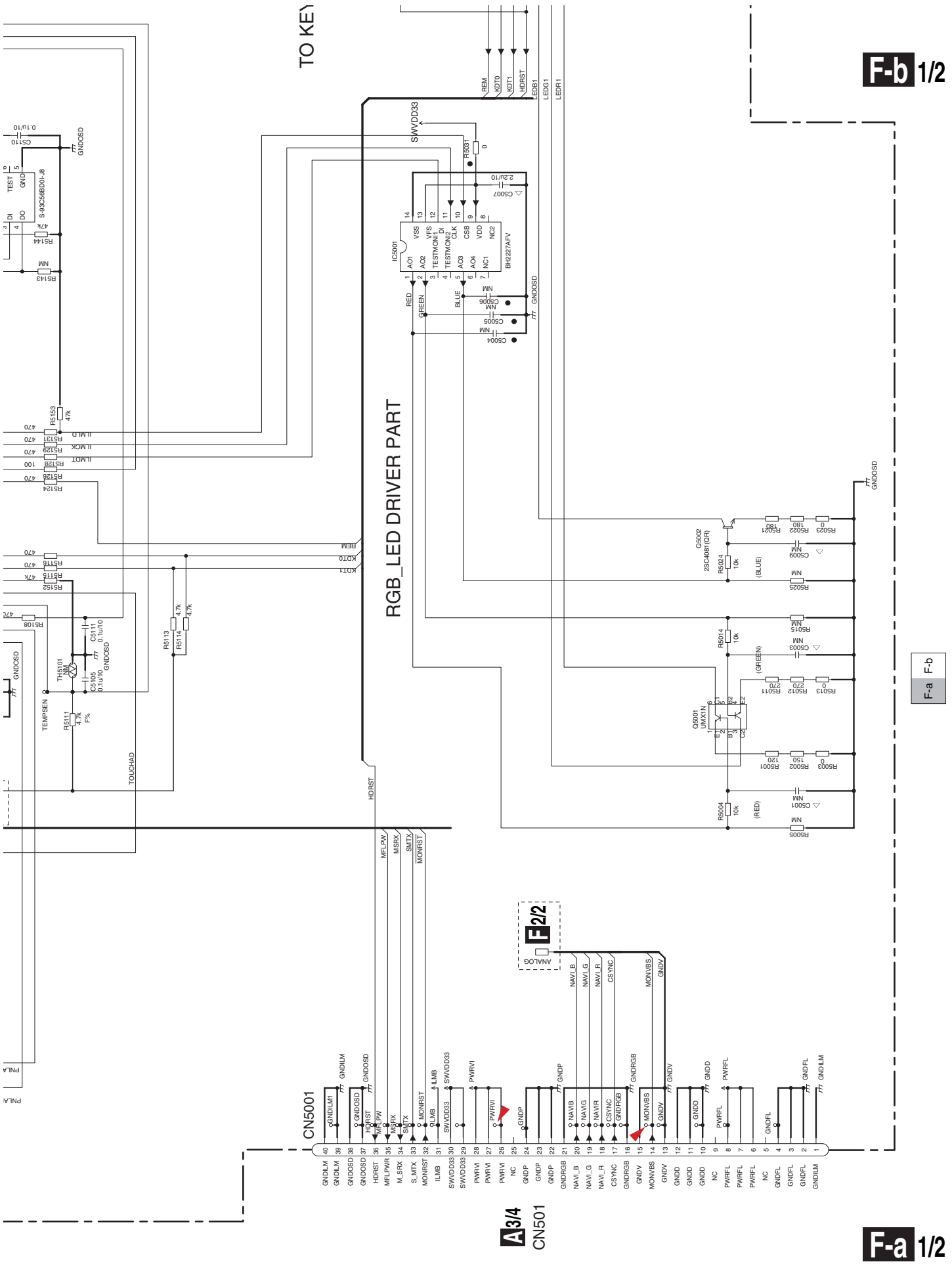
F



F 1/2 MONITOR UNIT(uCOM)
FLASH ROM
IC5201
PEH208A8
SD RAM
IC5301
K4S281632K-UC75
GD33V
GNDD
F 2/2
G_FROM
G_SDRAM
INV_CONT
CHIP SIZE LEGEND
1608
2125
3216
3225
CONNECTOR PART 5001 ~
〃 CON PART 5101 ~
FLASH ROM PART 5201 ~
SD RAM PART 5301 ~
TOUCH PANEL PART 5401 ~
C VIDEO PART 5451 ~
DD-CON PART 5501 ~
VIDEOA/D IC PART 5601 ~
GERDA IC PART 5701 ~
LCD PANELPART 6001 6151 ~
BACKLIGHT PART 6101 ~
F-a
F-b
F-b 1/2

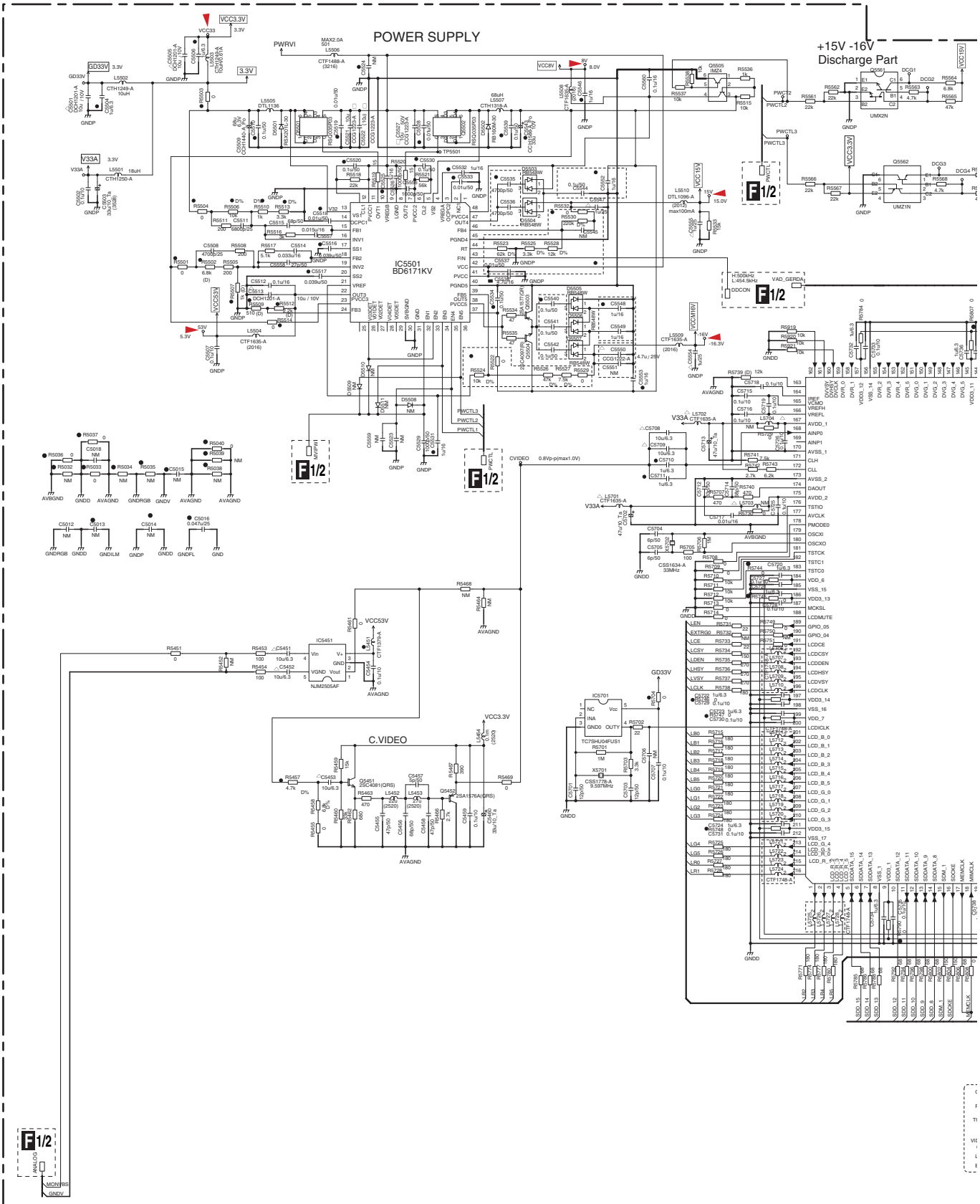

TO BACKLIGHT
CN6101
BACKLIGHT PART
F-2/2
TO KEYBOARD
CN5004
CN3003
F-b 1/2
F-a F-b
AVH-P3100DVD/XN/UC
151


CN5101
NM
IC5101
PE5669A8
UPD79F1155AGC(A)
MODEL1 H:VADI(IC5601) L:NO VADI(IC5601)
MODEL2 H:6.95inch L:8inch
MODEL1 L
MODEL2 L
CN5401
TO TOUCH PANEL
F2/2
F-b
F-a

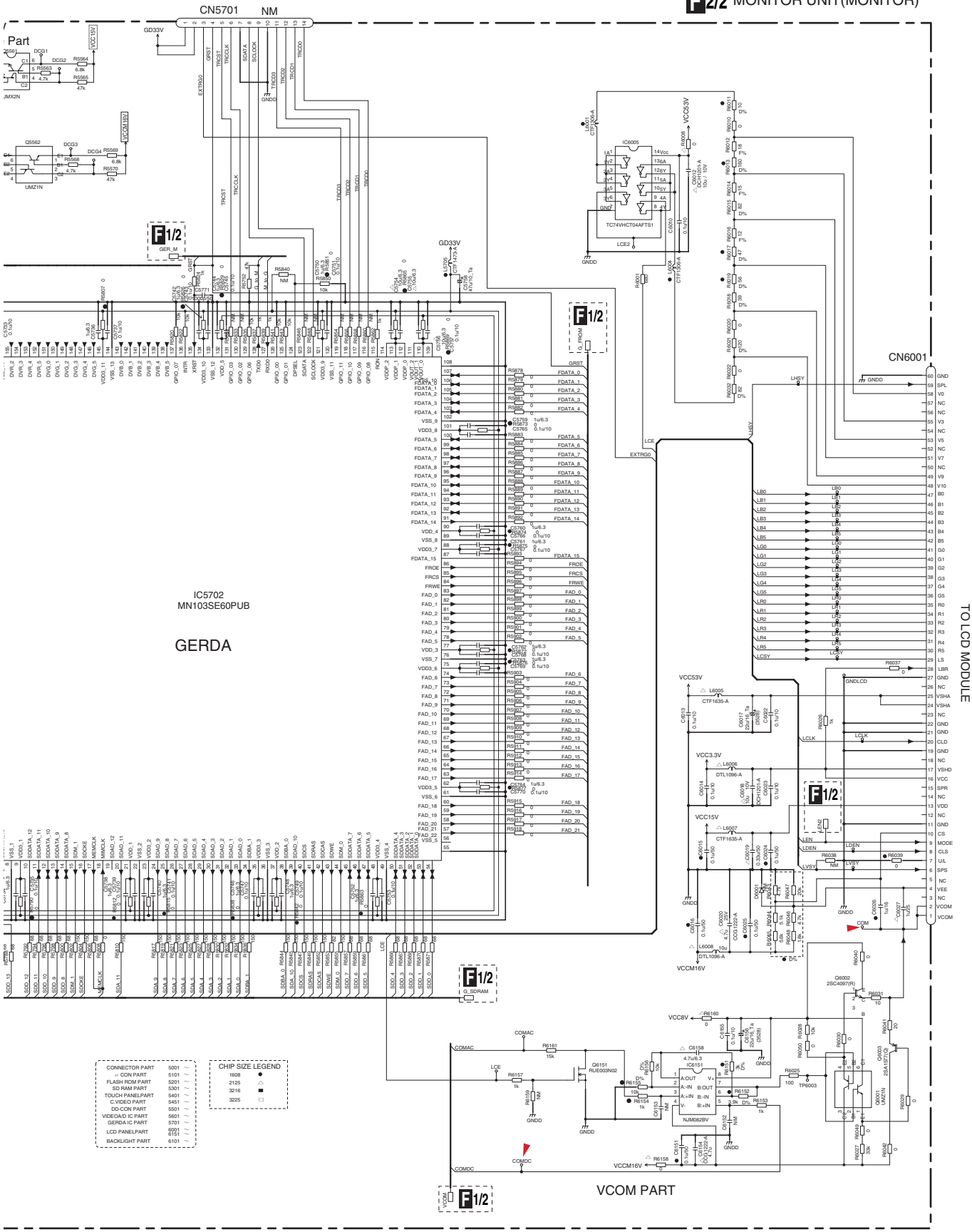

F-b 1/2
TO KEY
RGB_LED DRIVER PART
CN5001
A3/4
CN501
F2/2
ANALOG
IC5301
BH2227AFV
Q5002
2SC4081(QR)
Q5001
UMX1N
S-93C66BD0I-J8
TH5101
TEMPSEN
TOUCHAD
SWVDD33
HDRST
REM
KDT0
KDT1
LEDB1
LEDG1
LEDR1
RED
GREEN
BLUE
(BLUE)
(GREEN)
(RED)
GNDOSD
GNDILM
GNDFL
GNDD
GNDV
GNDP
GNDRGB
PWRFL
PWRVI
SWVDD33
ILMB
MONRST
S_MTX
M_SRX
MFLPWR
HDRST
GNDOSD
GNDILM
NAVI_B
NAVI_G
NAVI_R
CSYNC
MONVBS
F-a 1/2
AVH-P3100DVD/XN/UC
153

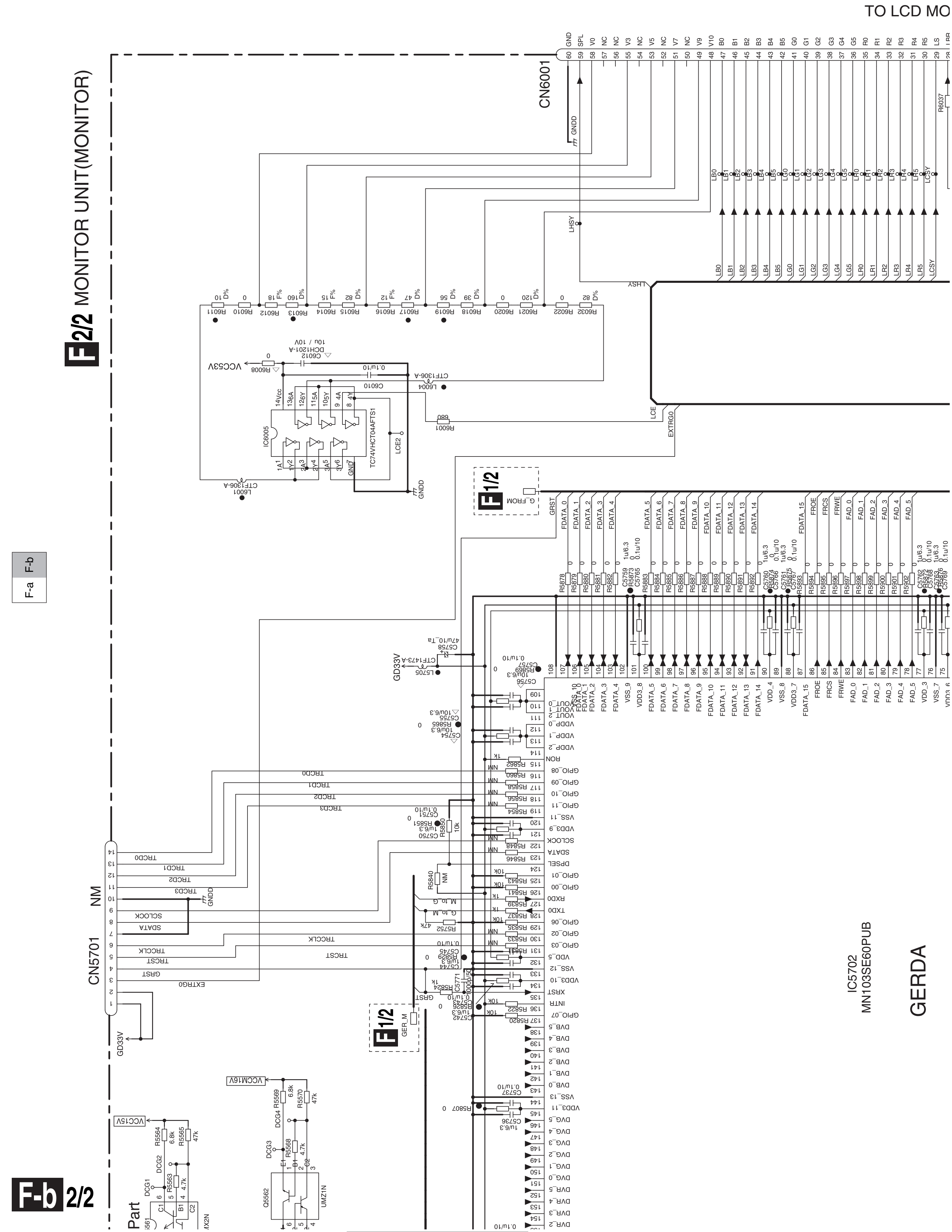
10.10 MONITOR UNIT(MONITOR)(GUIDE PAGE)

F-a 2/2

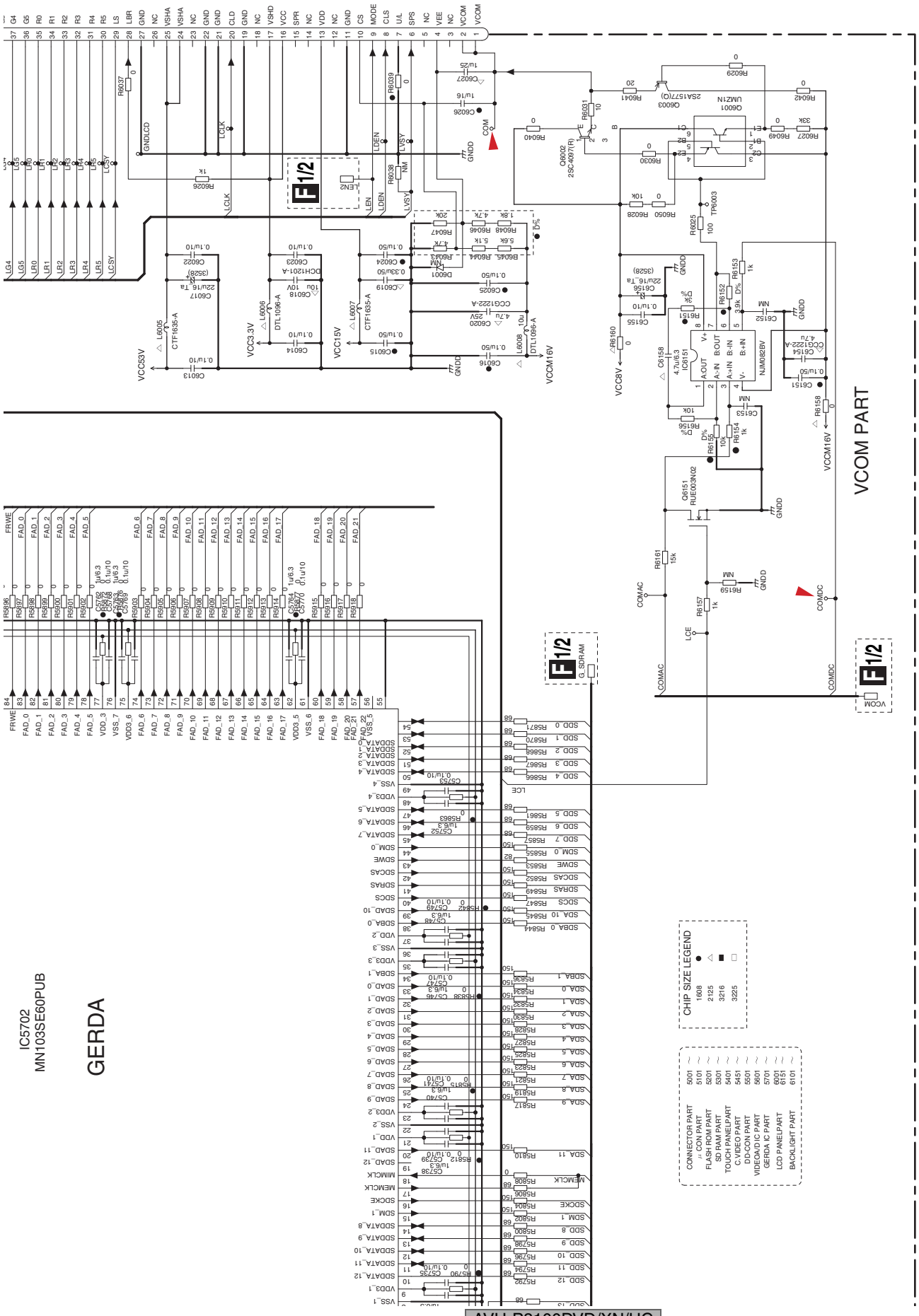


F2/2 MONITOR UNIT(MONITOR)




F 2/2 MONITOR UNIT(MONITOR)
TO LCD MO
CN6001
CN5701
NM
IC6005
TC74VHCT04AFTS1
IC5702
MN103SE60PUB
GERDA
F-b 2/2

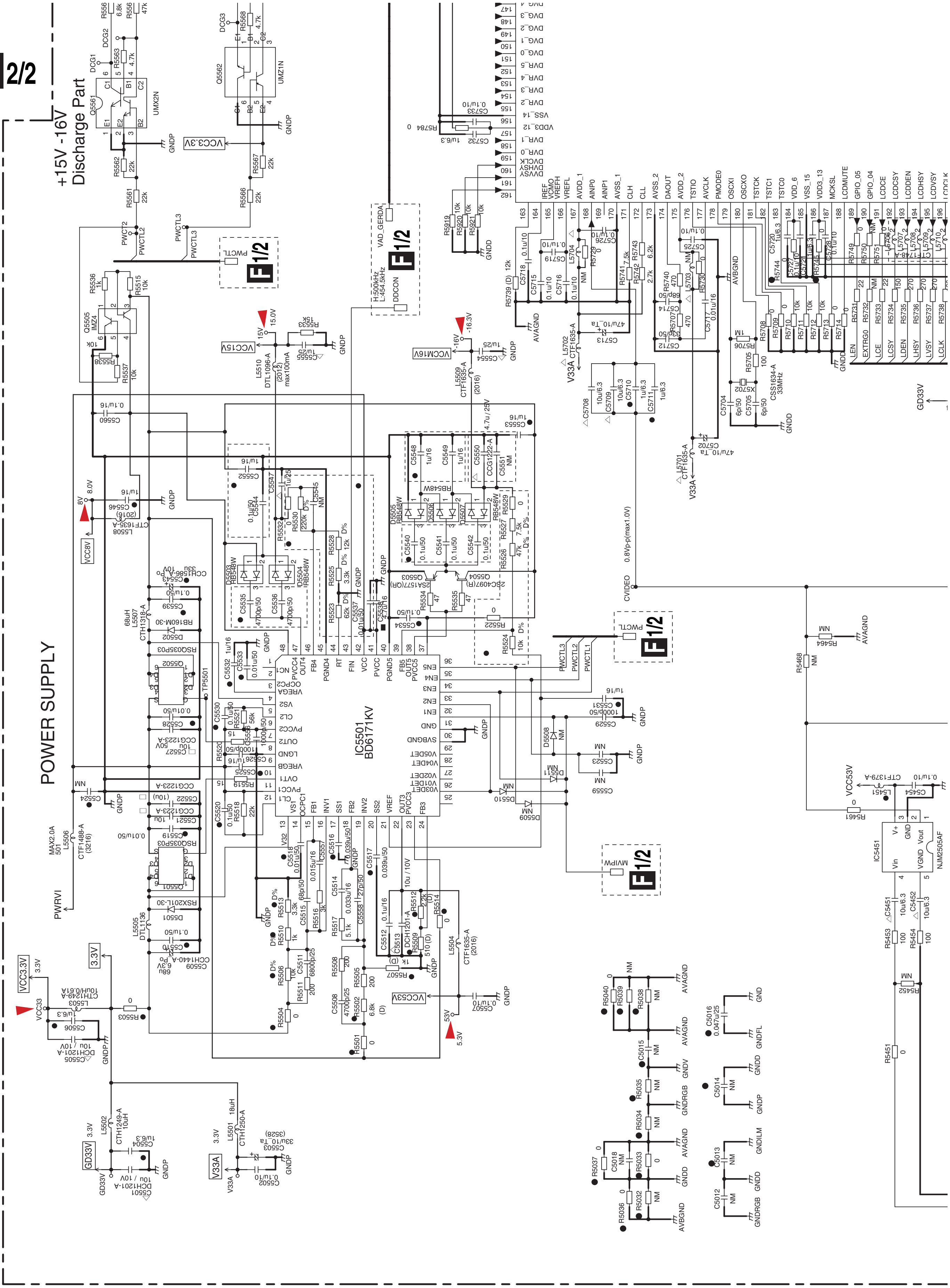
TO LCD MODULE



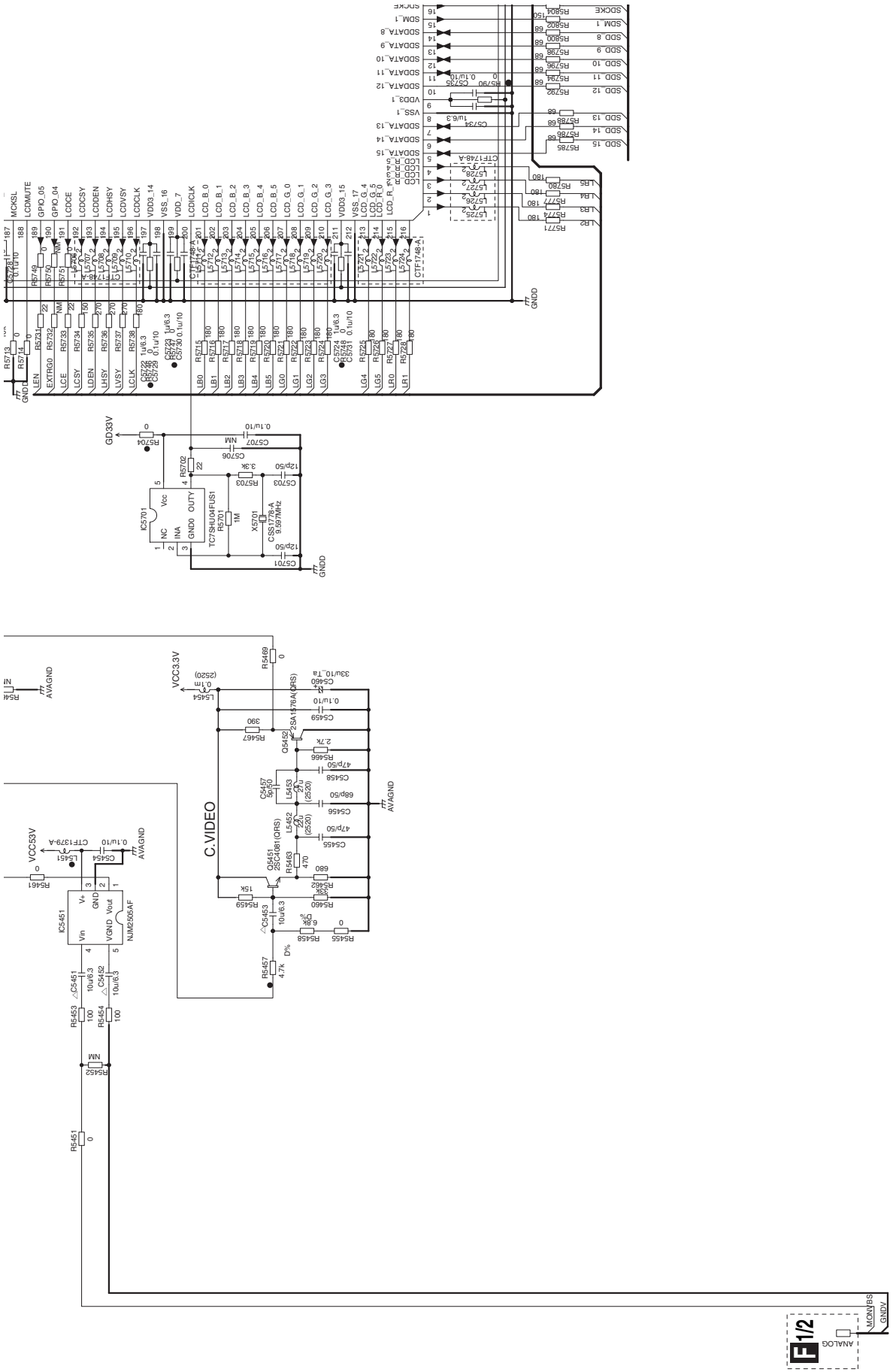
F-a F-b

F-b 2/2

F-b 2/2


POWER SUPPLY
+15V -16V Discharge Part
IC5501 BD6171KV
IC5451 NJM2505AF
F 1/2

F-a 2/2

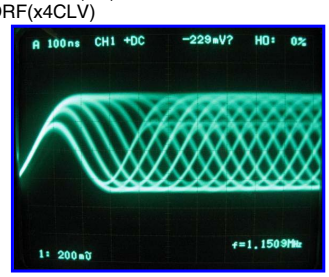
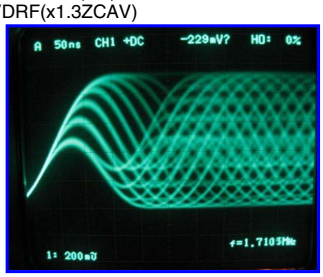
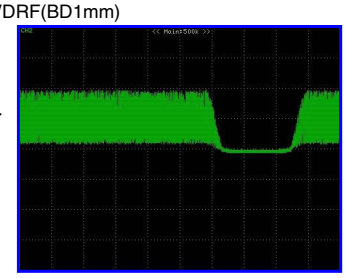
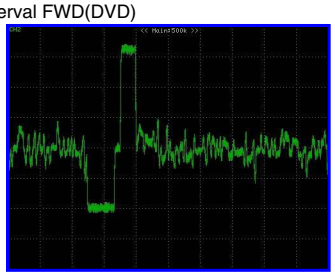
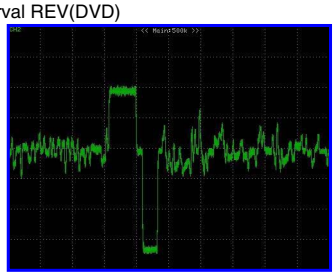
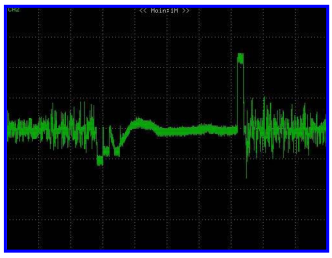
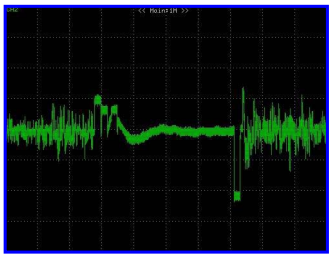
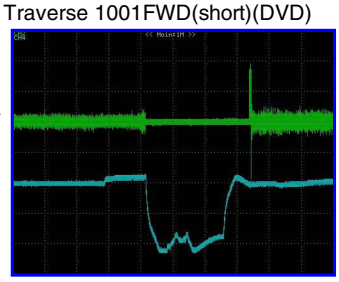

C.VIDEO
F 1/2
ANALOG
MONVBS
GNDV
AVAGND
VCC3.3V
GD33V
GNDD
IC5701
TC7SHU04FUS1
X5701
CSS1778-A
9.597MHz
IC5451
NJM2505AF
Q5451
2SC4081 (QRS)
Q5452
2SA1576A (QRS)
LCDMUTE
LCDCE
LCDCSY
LCDDEN
LCDHSY
LCDVSY
LCDCLK
LCD_B_0
LCD_B_1
LCD_B_2
LCD_B_3
LCD_B_4
LCD_B_5
LCD_G_0
LCD_G_1
LCD_G_2
LCD_G_3
LCD_G_4
LCD_G_5
LCD_R_0
LCD_R_1
LEN
EXTRG0
LCE
LCSY
LDEN
LHSY
LVSY
LCLK
LB0
LB1
LB2
LB3
LB4
LB5
LG0
LG1
LG2
LG3
LG4
LG5
LR0
LR1

10.11 WAVEFORMS

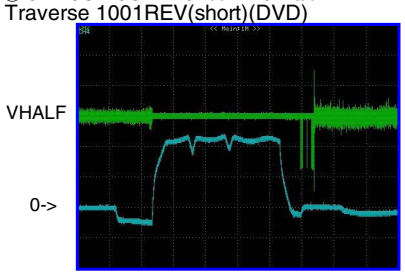
● DVD CORE UNIT

Note:1. The encircled number denote measuring points in the circuit diagram.
2. Reference voltage: 1.65 V(TD1,FD1)(=VHALF)
2.2 V(RF)(=VREF)

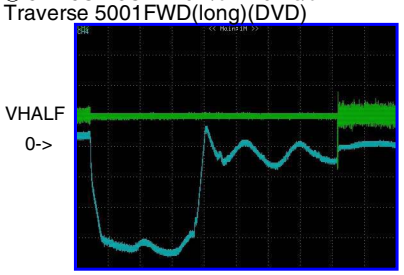
In the waveform, it is seeing on the GND standard.
Offset of 1.65 V or 2.2 V is put in.

① RF 0.2 V/div(AC) 100 ns/div CDRF(x4CLV) 	① RF 0.2 V/div(AC) 50 ns/div DVDRF(x1.3ZCAV) 	
① RF 0.5 V/div 100 us/div DVDRF(BD1mm) 2.2 V-> 	② TD1 0.2 V/div 100 us/div Interval FWD(DVD) VHALF 	② TD1 0.2 V/div 100 us/div Interval REV(DVD) VHALF 
② TD1 0.2 V/div 500 us/div Multi 32FWD(DVD) VHALF 	② TD1 0.2 V/div 500 us/div Multi 32REV(DVD) VHALF 	② CH1:TD1 0.5 V/div 10 ms/div ③ CH2:COP-COM 2.0 V/div 10 ms/div Traverse 1001FWD(short)(DVD) VHALF 0-> 

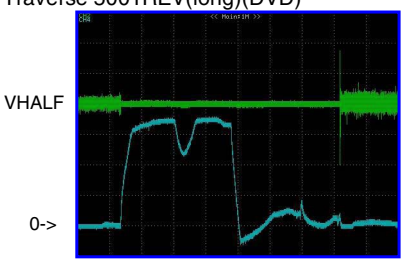
② CH1:TD1 0.5 V/div 10 ms/div
③ CH2:COP-COM 2.0 V/div 10 ms/div
Traverse 1001REV(short)(DVD)



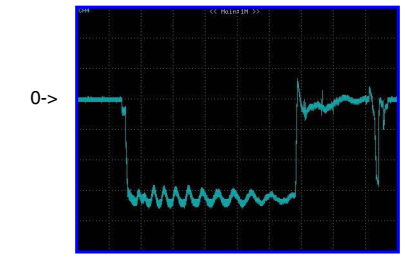
② CH1:TD1 0.5 V/div 20 ms/div
③ CH2:COP-COM 2.0 V/div 20 ms/div
Traverse 5001FWD(long)(DVD)



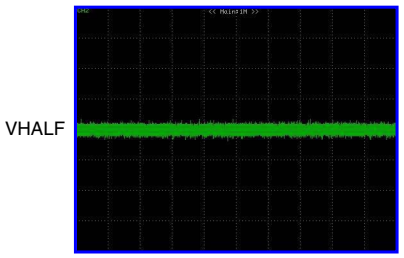
② CH1:TD1 0.5 V/div 20 ms/div
③ CH2:COP-COM 2.0 V/div 20 ms/div
Traverse 5001REV(long)(DVD)



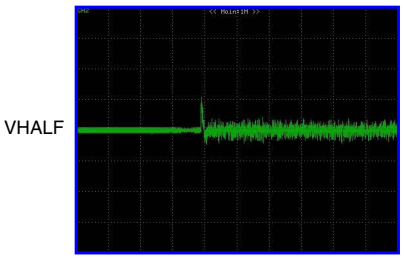
③ CH2:COP-COM 2.0 V/div 100 ms/div
ID search Inside -> Outside(DVD)



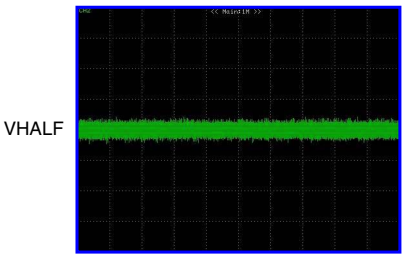
② TD1 0.5 V/div 100 ms/div
Play TD (DVD)



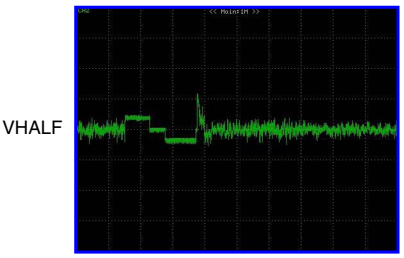
④ FD1 0.5 V/div 1 ms/div
Focus Close (DVD)



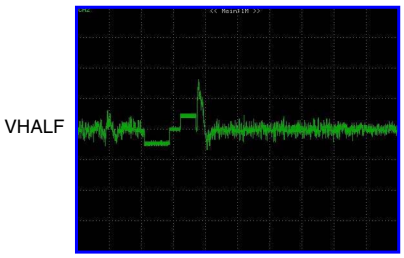
④ FD1 0.5 V/div 20 ms/div
Play FD(DVD)



④ FD1 0.5 V/div 500 us/div
Focus Jump L0 -> L1



④ FD1 0.5 V/div 500 us/div
Focus Jump L1 -> L0

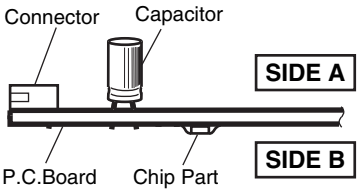


11. PCB CONNECTION DIAGRAM

11.1 MOTHER PCB

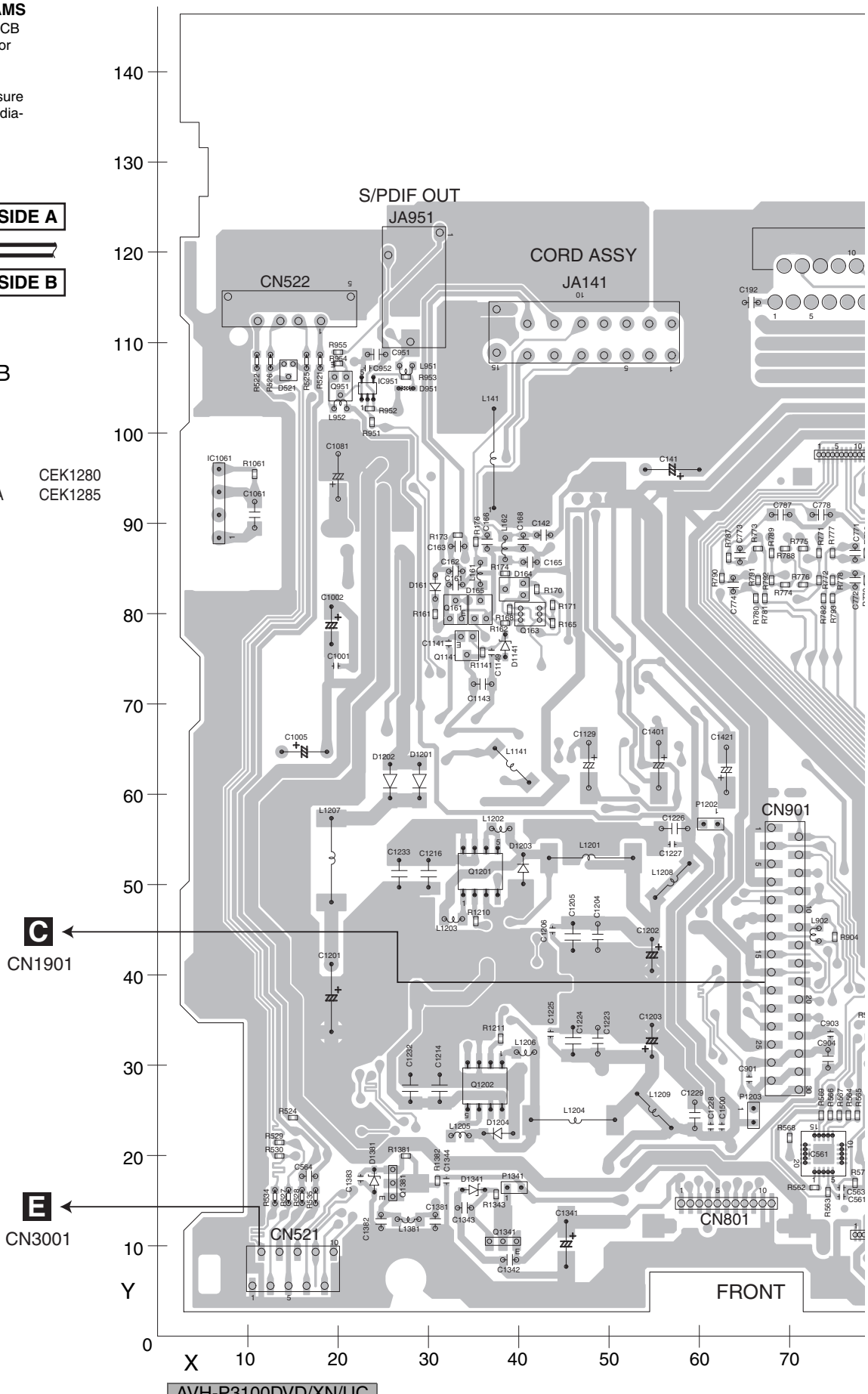
NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams

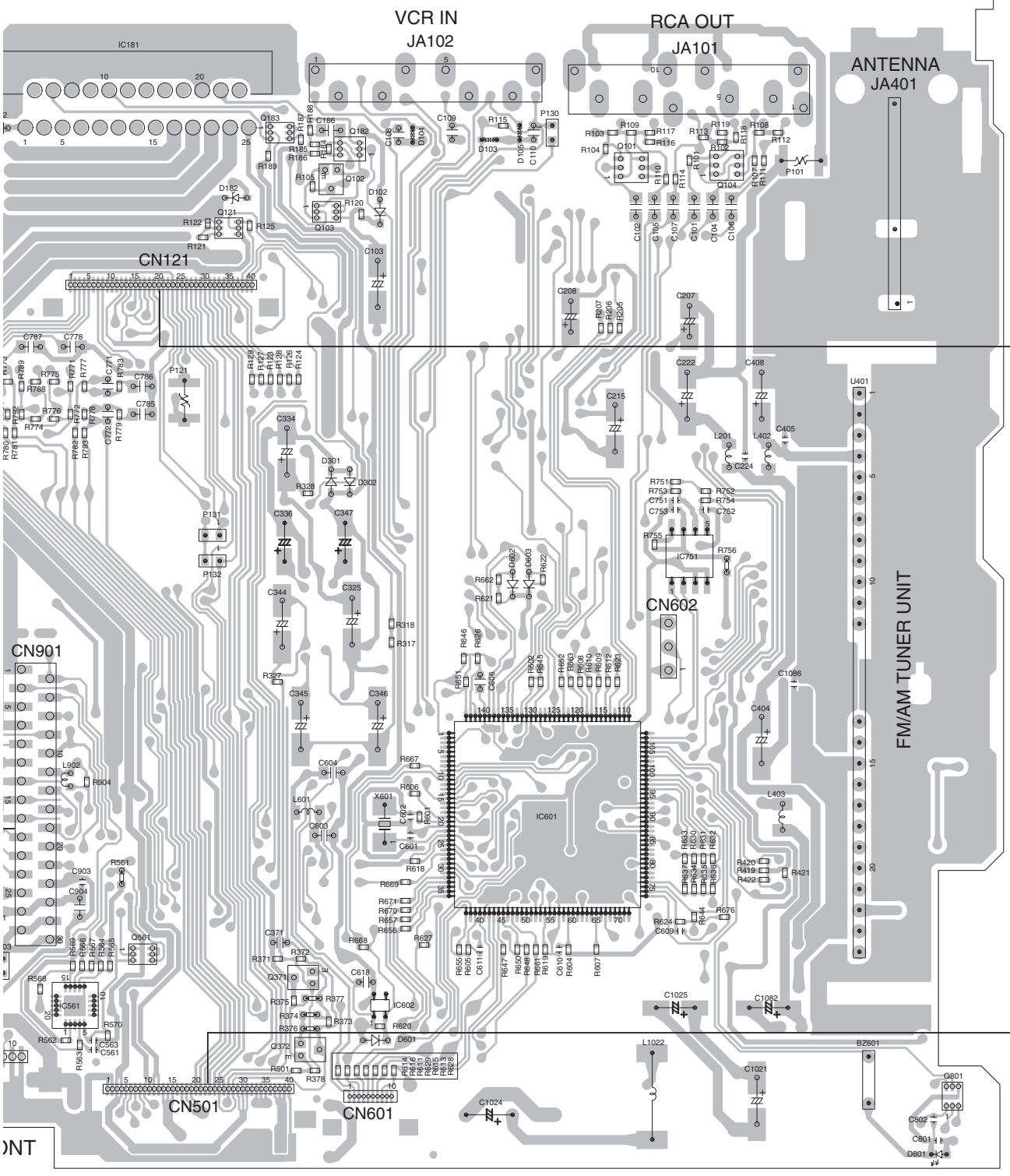


A MOTHER PCB

⚠ P 1202 (A,61,57) Fuse 1 A CEK1280
⚠ P 1203 (A,66,24) Fuse 2.5 A CEK1285

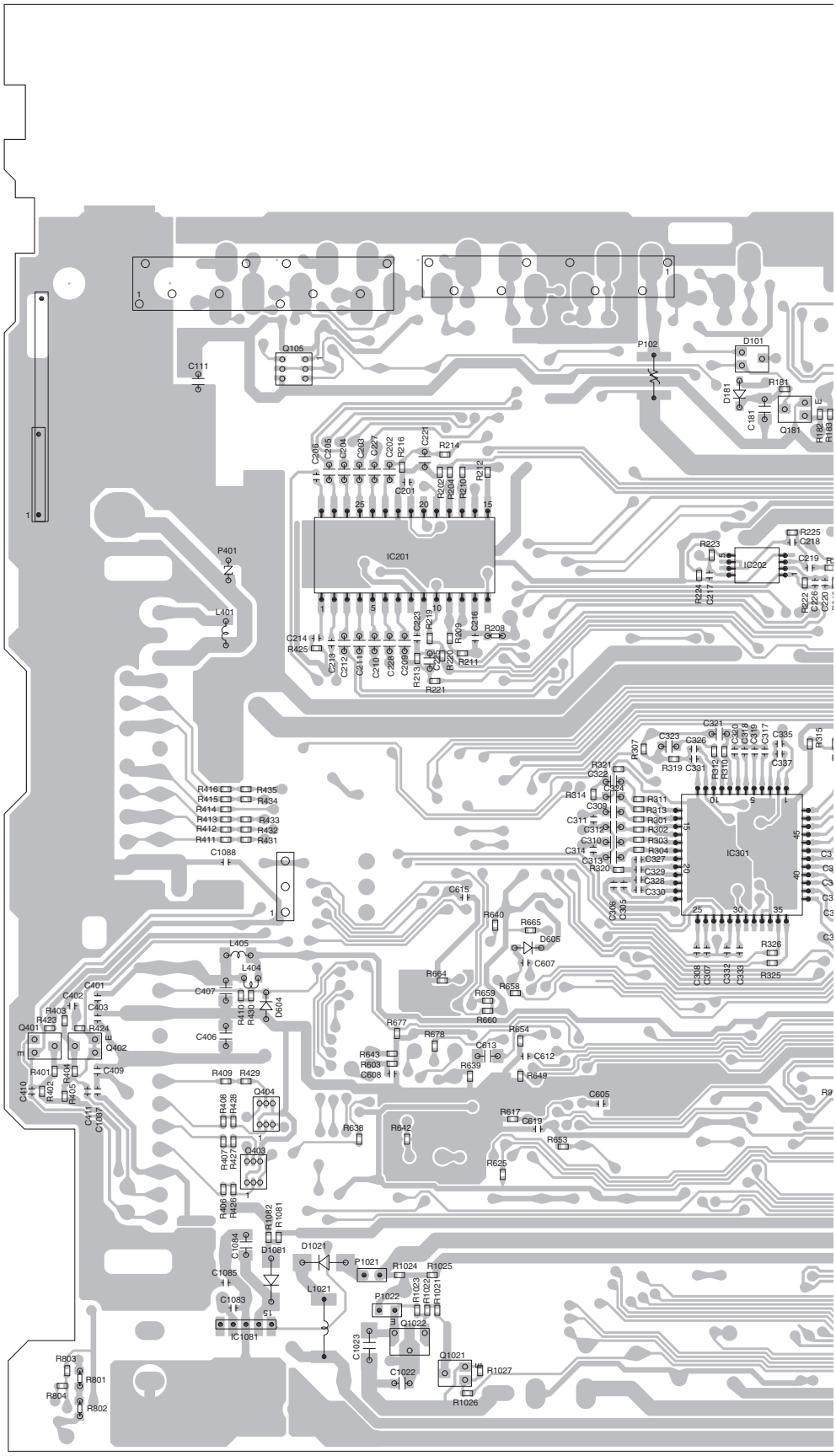


SIDE A

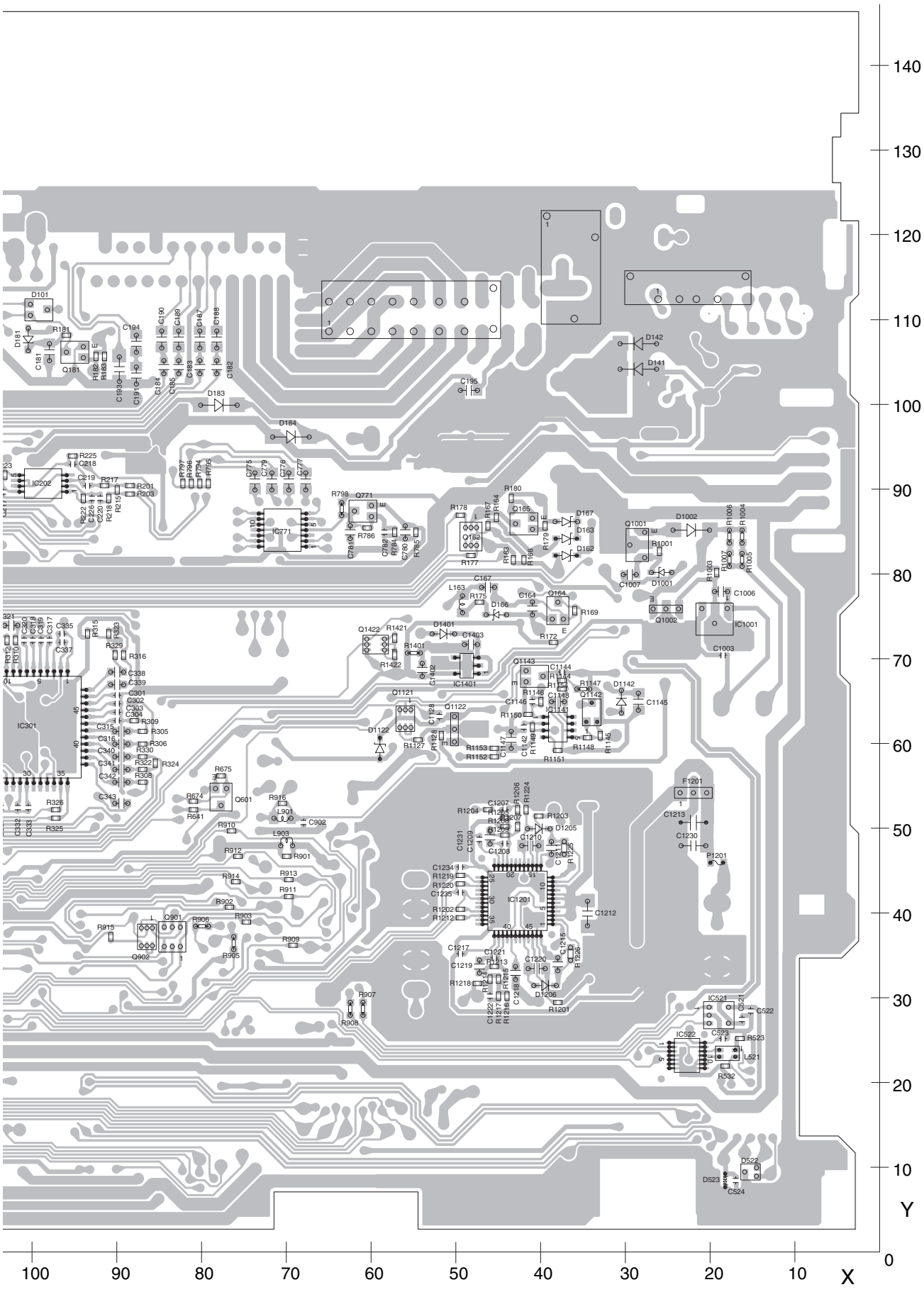

VCR IN
JA102
RCA OUT
JA101
ANTENNA
JA401
IC181
CN121
B
CN2002
CN602
CN901
FM/AM TUNER UNIT
IC601
F
CN5001
CN501
CN601
IC561
IC602
P121
P131
P130
P101
U401
L201
L402
L902
L601
L403
X601
Q603
Q561
Q371
Q372
Q103
Q121
Q104
Q183
Q801
D301
D302
D601
D801
BZ601
L1022
C1024
C1025
C1082
C1021
C1086
70 80 90 100 110 120 130 140 150 160 170

A MOTHER PCB

⚠	P 1021 (B,137,20) Fuse 1 A	CEK1280
⚠	P 1022 (B,136,17) Fuse 1.75 A	CEK1283
⚠	P 1201 (B,19,46) Fuse 4 A	CEK1344



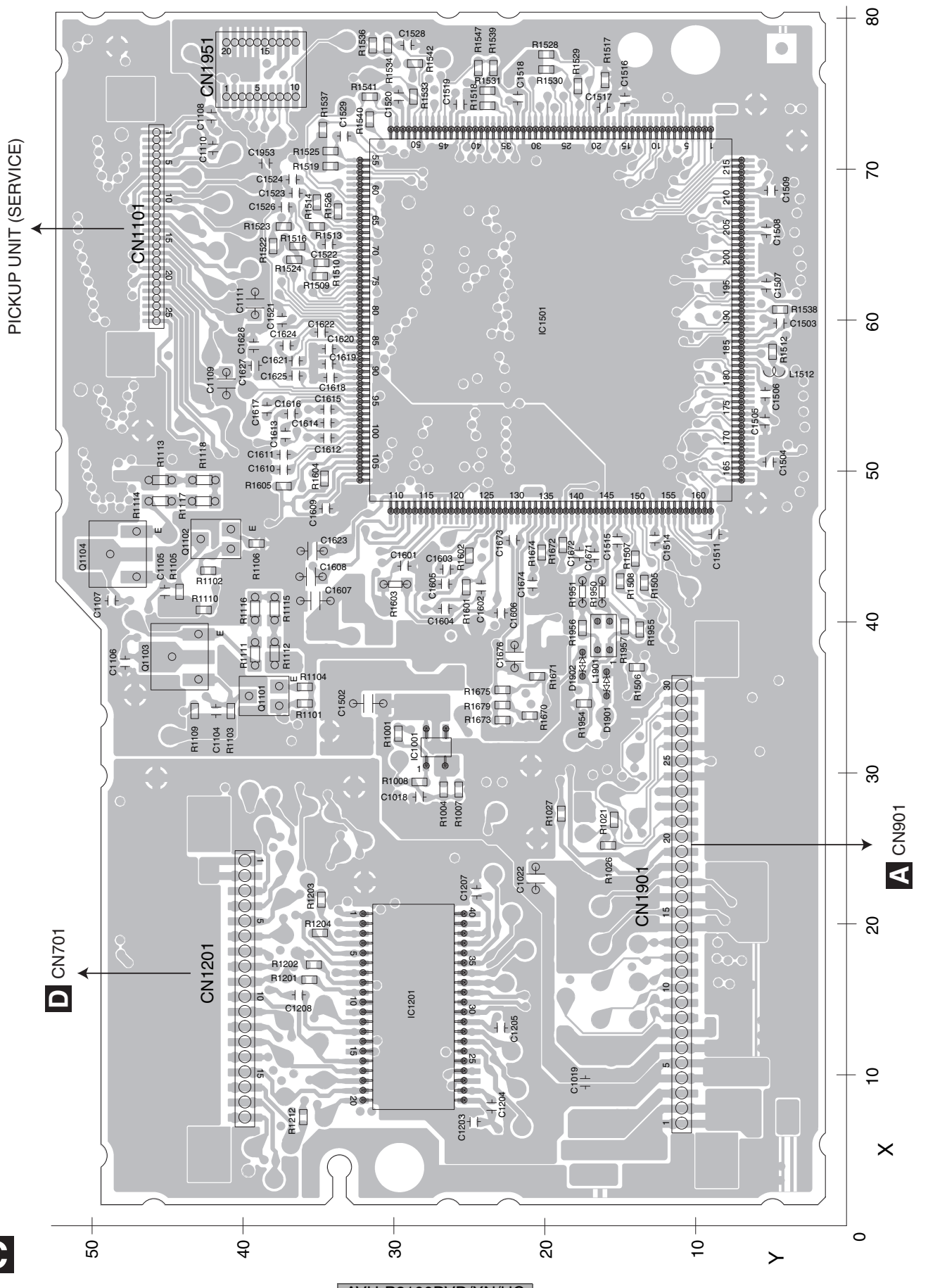
SIDE B


A
B
C
D
E
F
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Y
100
90
80
70
60
50
40
30
20
10
X

11.2 DVD CORE UNIT

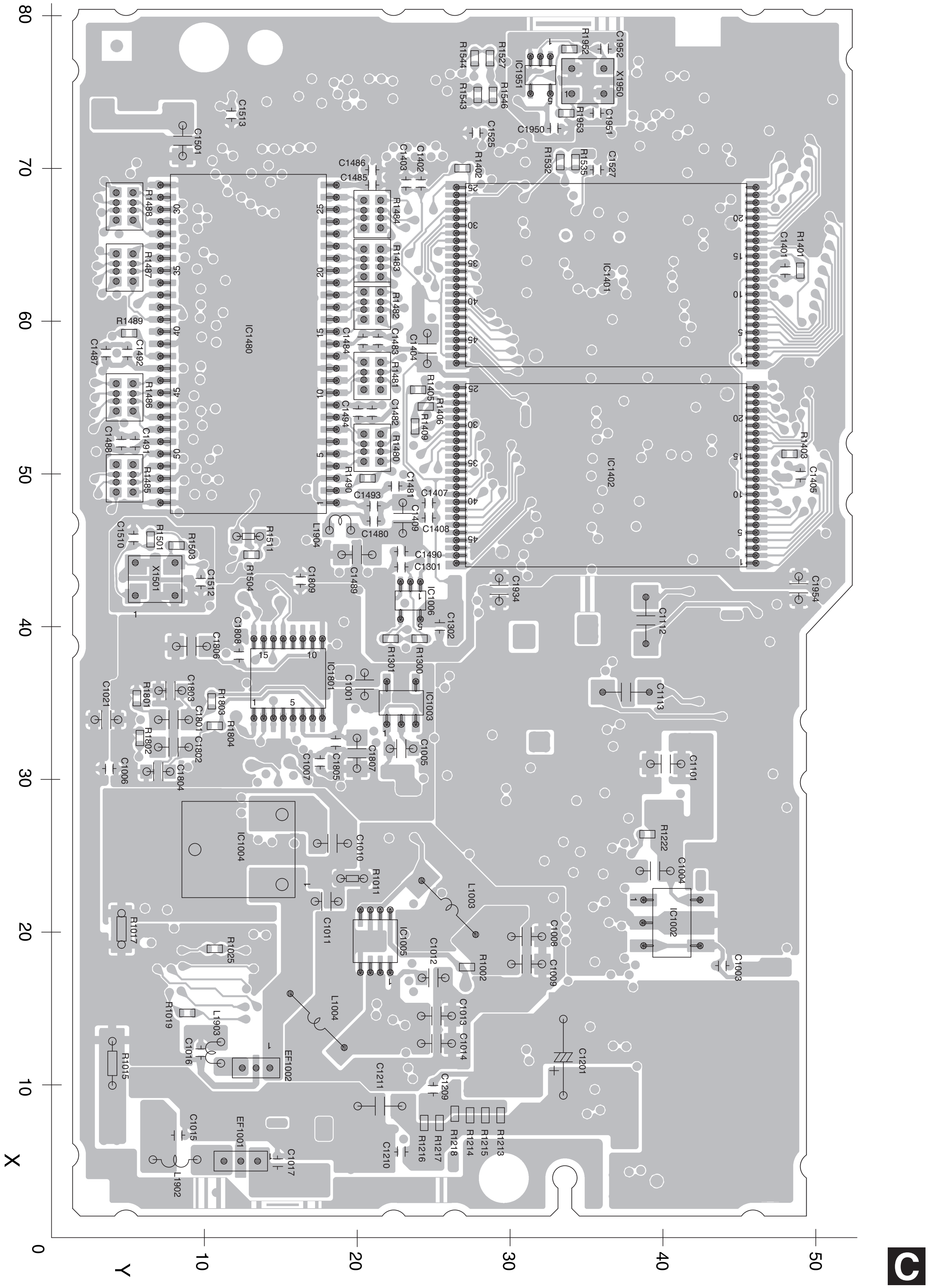
C DVD CORE UNIT

SIDE A



C DVD CORE UNIT

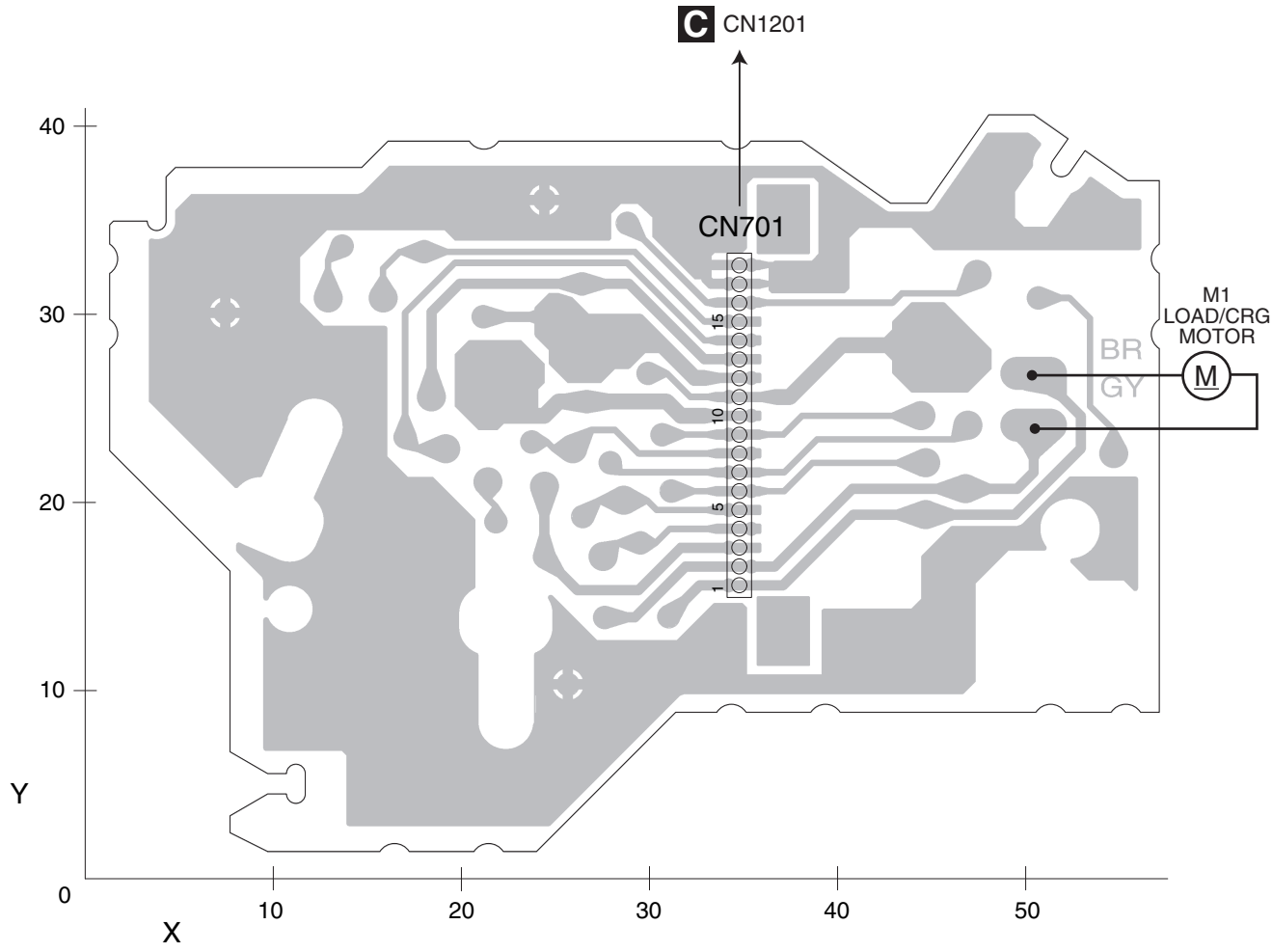
SIDE B



11.3 CONNECT PCB

D CONNECT PCB

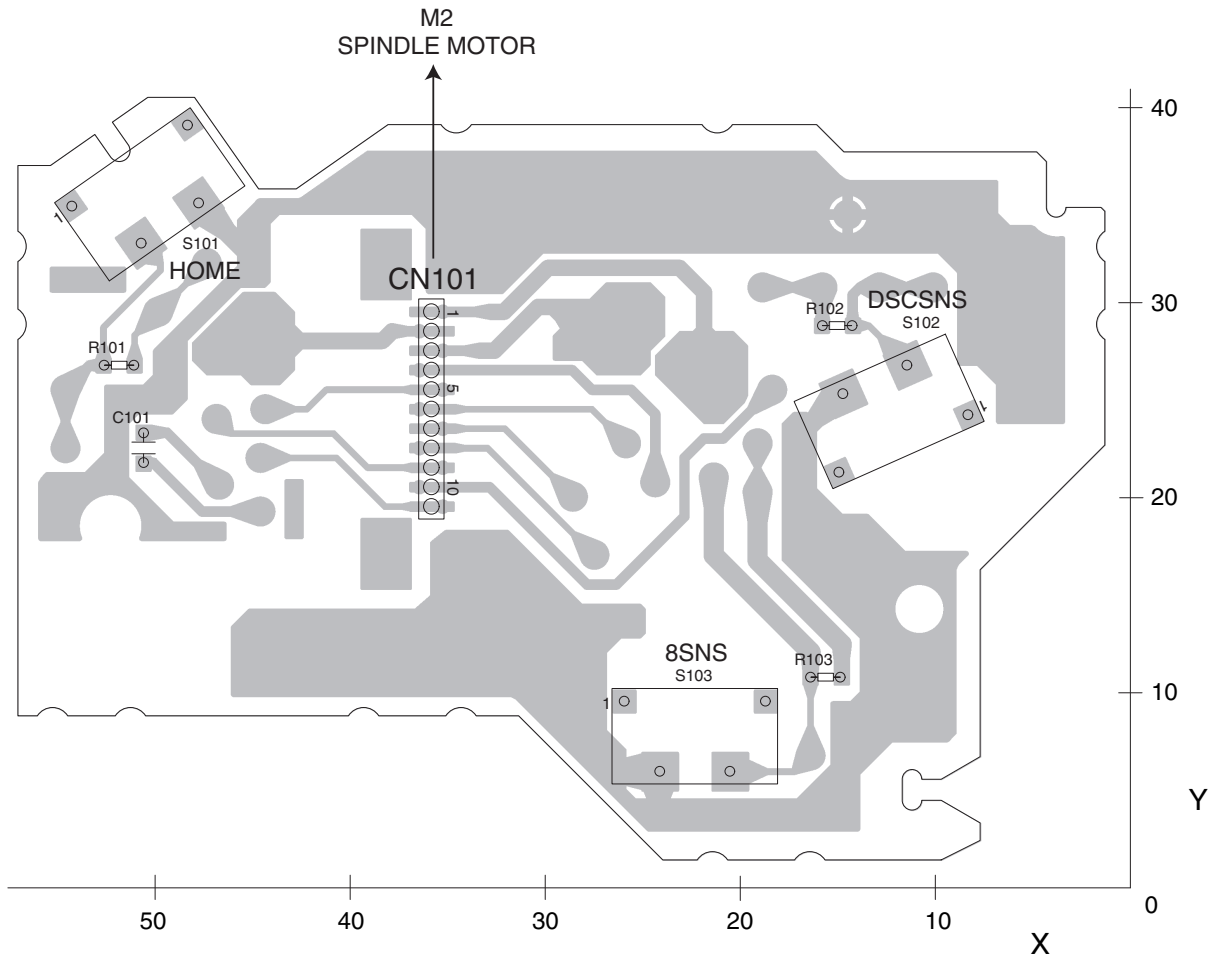
SIDE A



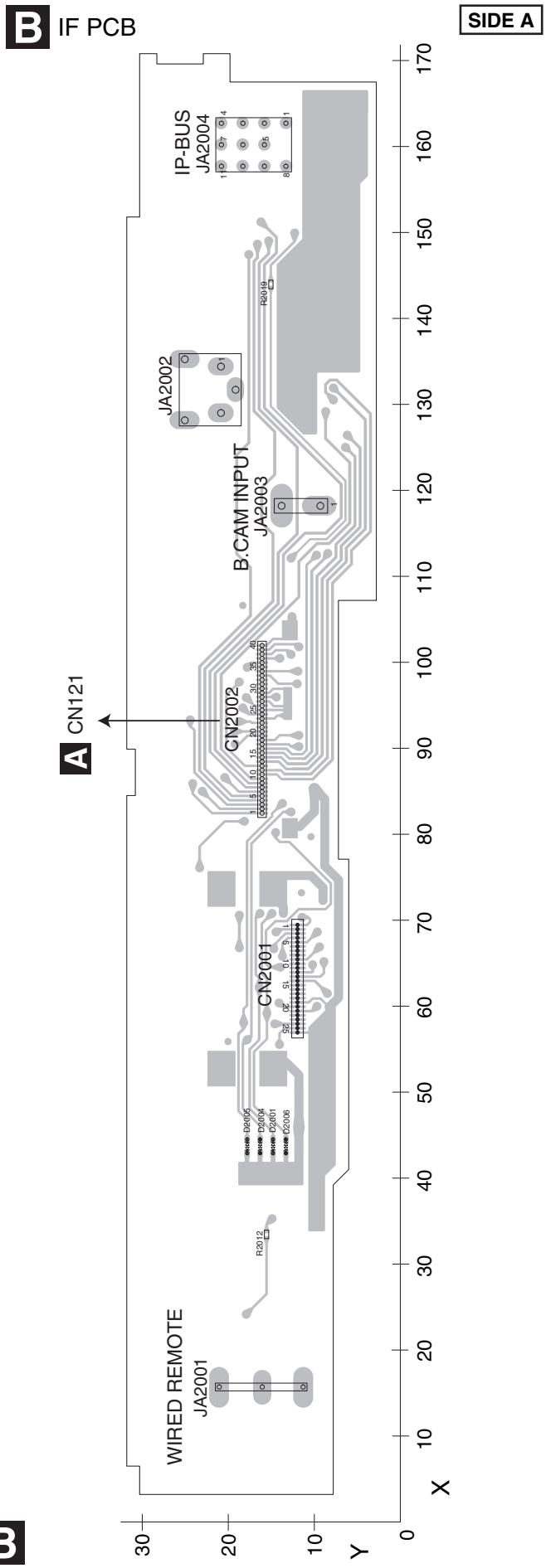
D

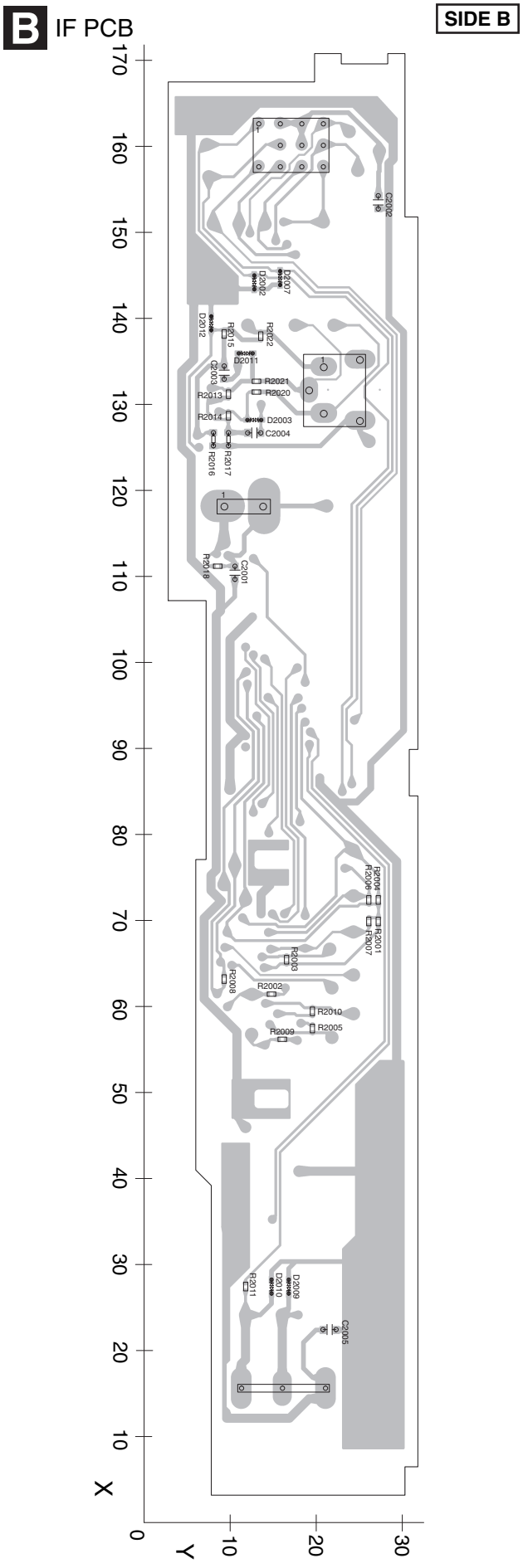
D CONNECT PCB

SIDE B



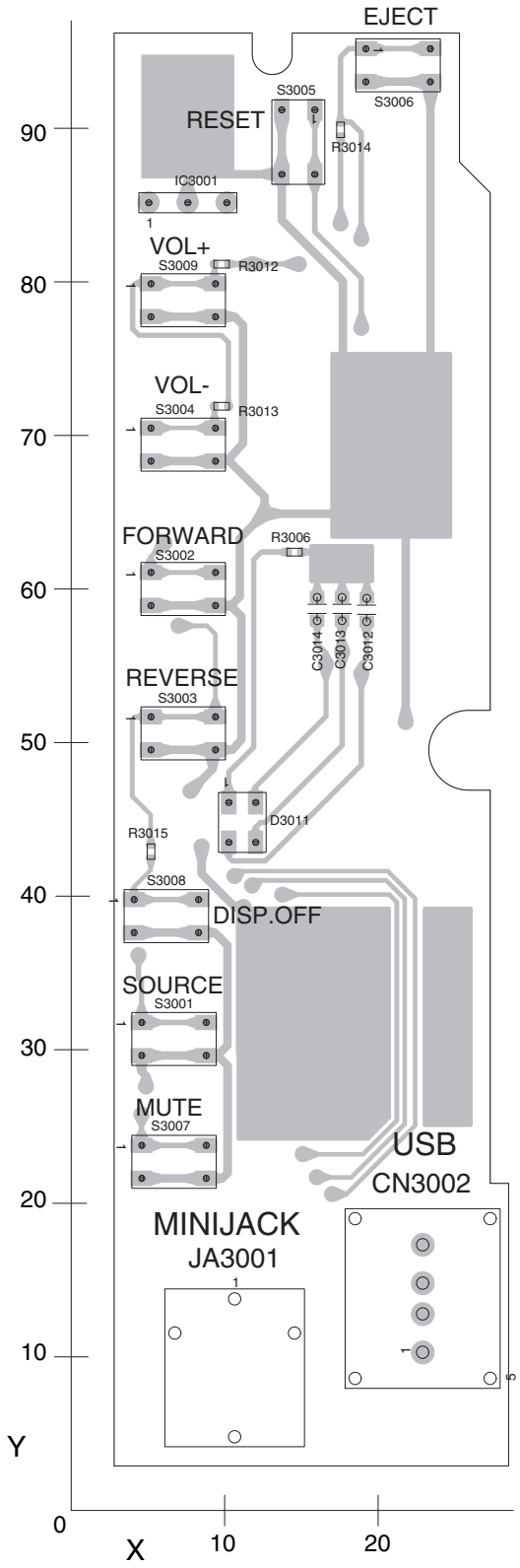
11.4 IF PCB


B IF PCB
SIDE A
IP-BUS
JA2004
JA2002
B.CAM INPUT
JA2003
A CN121
CN2002
CN2001
WIRED REMOTE
JA2001
R2019
R2012
D2005
D2004
D2001
D2006
X
Y

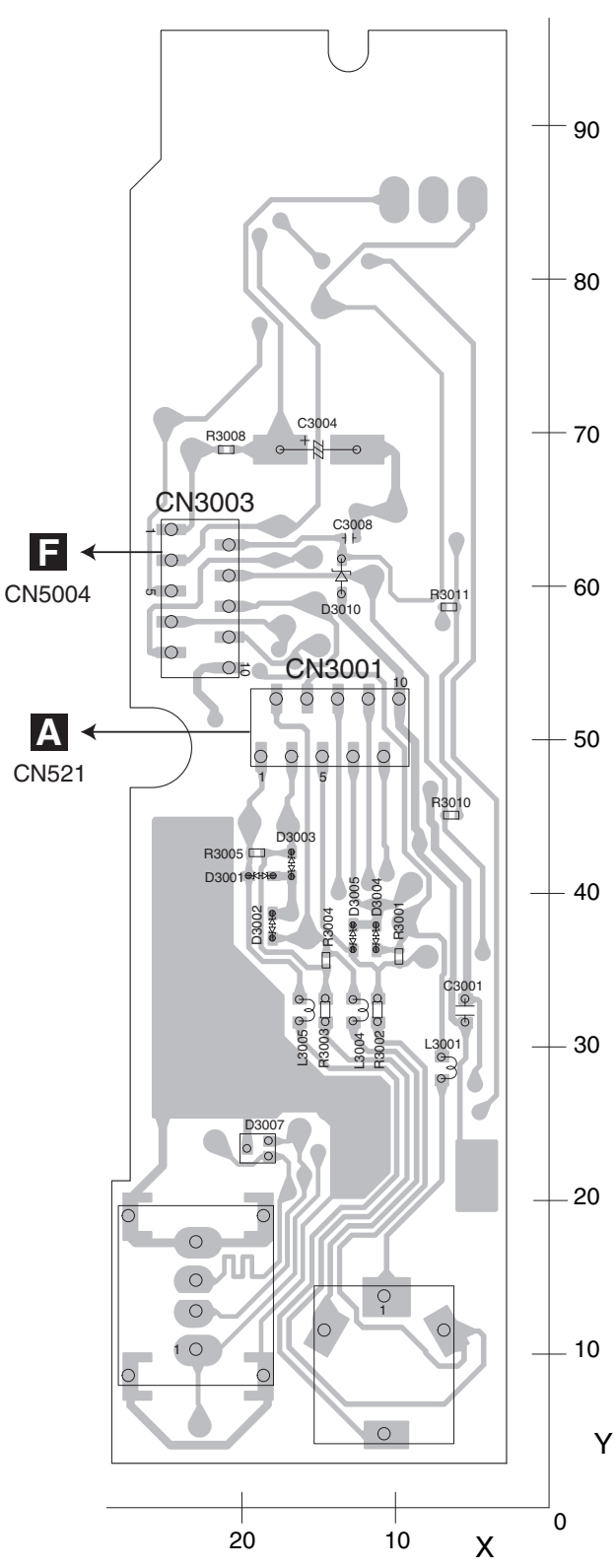

B IF PCB
SIDE B
C2002
D2002
D2007
D2012
R2015
R2022
D2011
C2003
R2021
R2013
R2020
R2014
D2003
C2004
R2016
R2017
C2001
R2018
R2004
R2006
R2001
R2007
R2003
R2008
R2002
R2010
R2005
R2009
R2011
D2009
D2010
C2005
X
Y

11.5 KEYBOARD PCB

E KEYBOARD PCB **SIDE A**

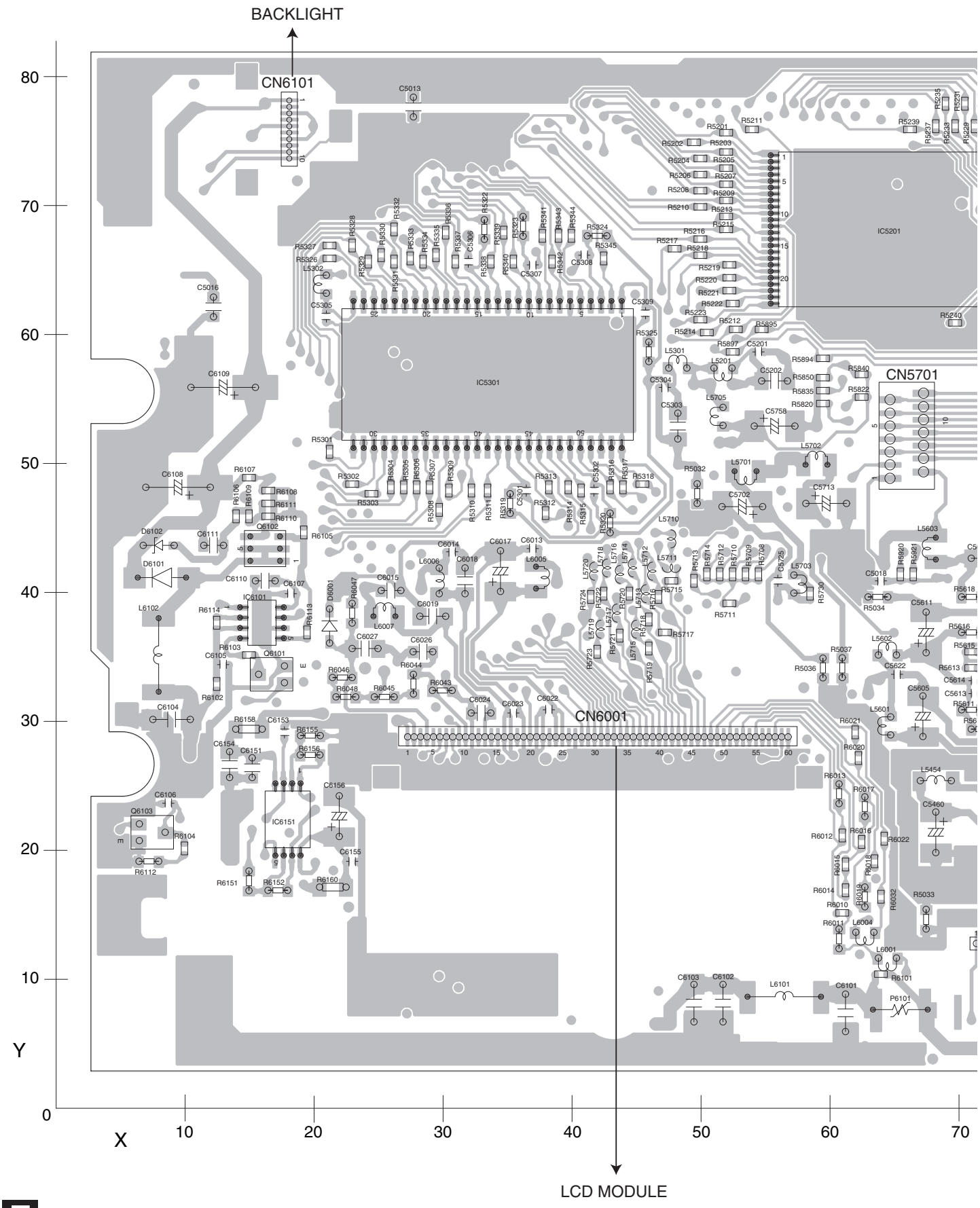


E KEYBOARD PCB **SIDE B**

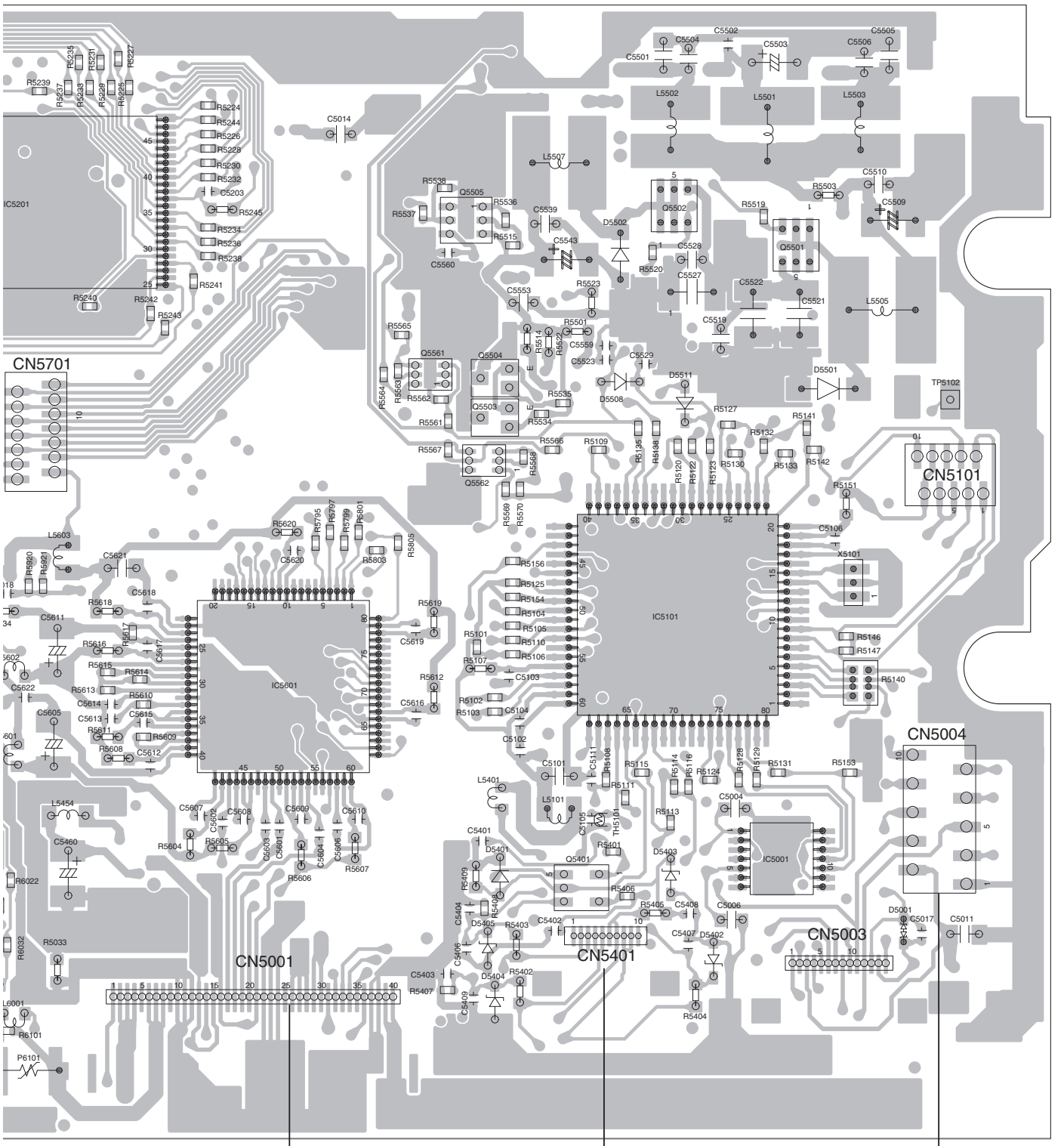


11.6 MONITOR UNIT

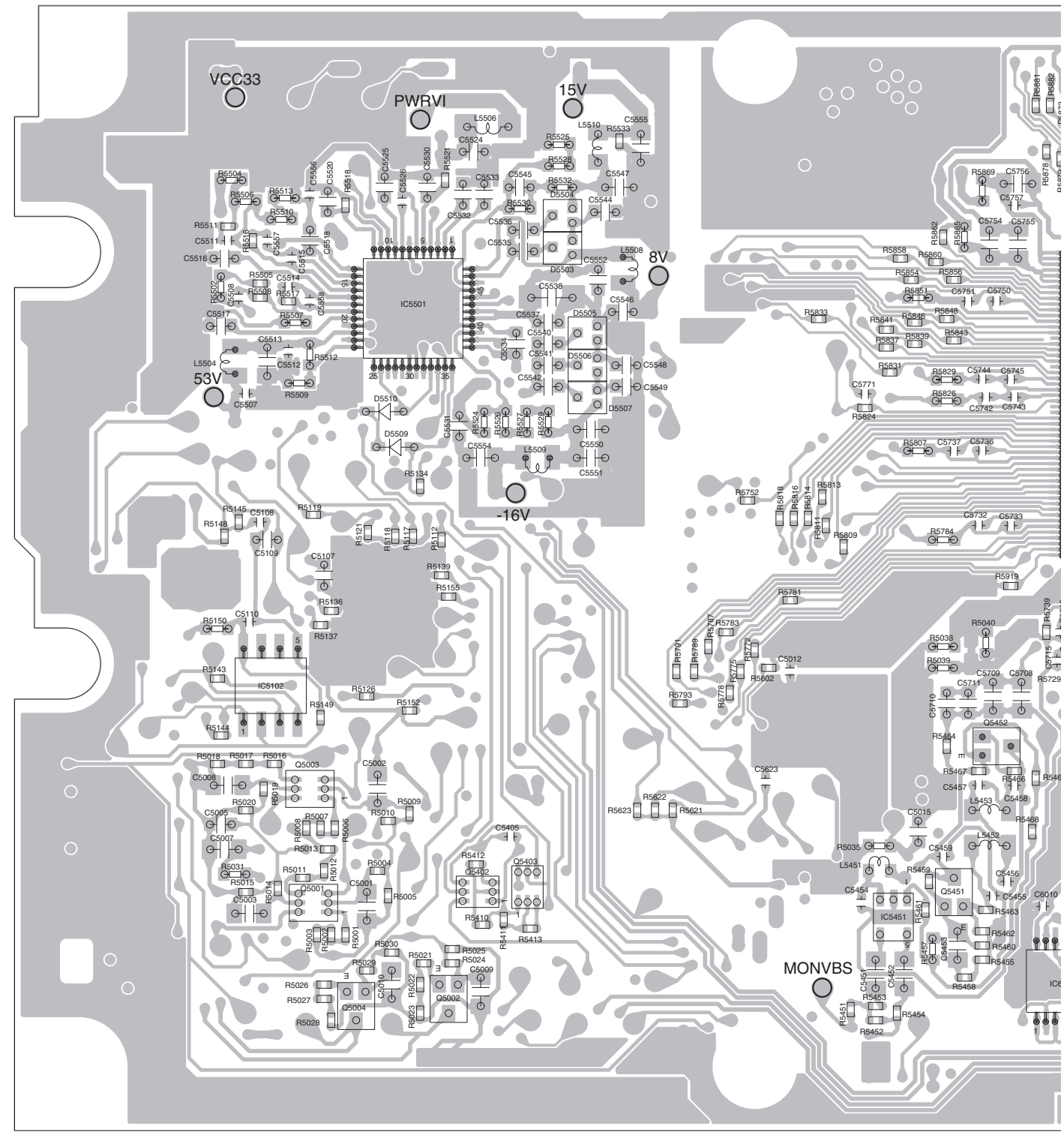
F MONITOR UNIT



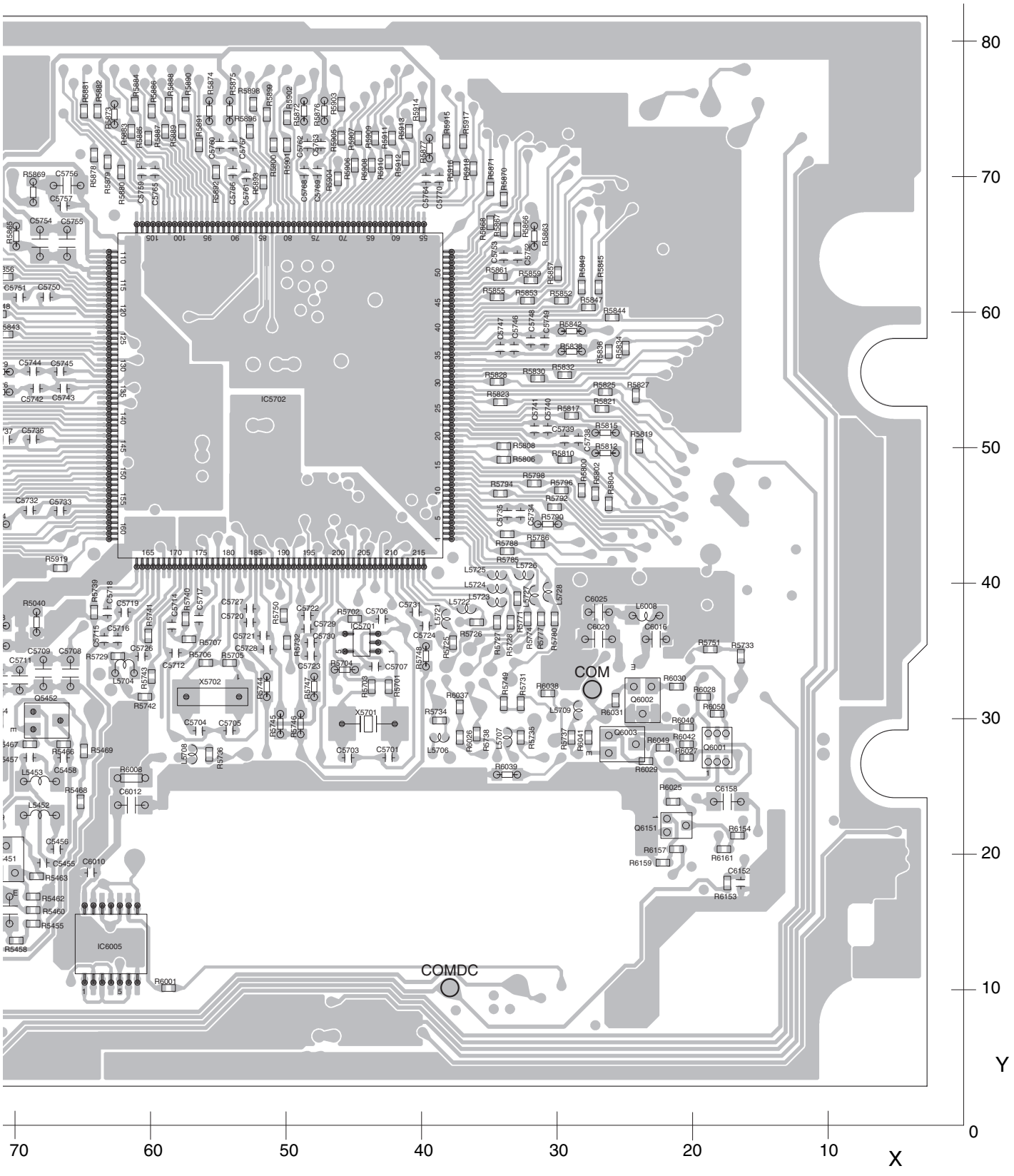
SIDE A


CN5701
CN5101
CN5004
CN5003
CN5001
CN5401
IC5201
IC5101
IC5601
IC5001
X5101
TP5102
70
80
90
100
110
120
130
A CN501
TOUCH PANEL
E CN3003

F MONITOR UNIT



SIDE B


IC5702
IC6005
X5702
X5701
COM
COMDC
Q5452
Q6002
Q6003
Q6001
Q6151
80
70
60
50
40
30
20
10
0
Y
70
60
50
40
30
20
10
X

12. ELECTRICAL PARTS LIST

NOTE:

- *Parts whose parts numbers are omitted are subject to being not supplied.*
- *The part numbers shown below indicate chip components.*

  Chip Resistor

  RS1/◯S◯◯◯J,RS1/◯◯S◯◯◯J

  Chip Capacitor (except for CQS.....)

  CKS....., CCS....., CSZS.....
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Meaning of the figures and others in the parentheses in the parts list.*

  Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

  IC 301 (A, 91, 111) IC NJM2068V
- *The expression of the unit in this manual is shown by u instead of µ. Please do not make a mistake.*

Unit Number : CWN3777(UC)
Unit Number : CWN3778(RC)
Unit Number : CWN3779(RD)
Unit Number : CWN3780(RI)
Unit Name : Mother Unit
Unit Number : CWN3783
Unit Name : Monitor Unit
Unit Number : YWX5007
Unit Name : DVD Core Unit
Unit Number :
Unit Name : Connect PCB

Mother Unit
Consists of
Mother PCB
IF PCB
Keyboard PCB

A B E

Unit Number : CWN3777(UC)
Unit Number : CWN3778(RC)
Unit Number : CWN3779(RD)
Unit Number : CWN3780(RI)
Unit Name : Mother Unit

MISCELLANEOUS

Circuit Symbol and No.		Part No.
IC 181	(A,80,120) IC	PA2030A
IC 201	(B,134,92) IC	PML018A
IC 301	(B,100,62) IC	AN15887A
IC 521	(B,19,28) IC	R5523N001B
IC 522	(B,23,23) IC	TC7MBL6126SFK

Circuit Symbol and No.		Part No.
IC 561	(A,74,20) IC	341S2162
IC 601	(A,125,41) IC	PEG535A8
IC 602	(A,107,20) IC	S-80827CNNB-B8M
IC 751	(A,140,68) IC	HA12241FP
IC 951	(A,23,105) L-MOS And Gate	TC7SET08FUS1
IC 1001	(B,20,74) IC	S-812C33AUA-C2N
IC 1061	(A,7,88) IC	NJM2388F84
IC 1081	(B,150,10) IC	NJM2886DL3-33
IC 1141	(B,38,62) IC	TK11840L
IC 1201	(B,43,41) IC	BD9013KV
IC 1401	(B,49,69) Regulator IC	S-1112B33MC-L6S
IC 3001	(A,8,91) Remote IC	GP1UXC14RK
Q 101	(A,134,110) Transistor	IMH23
Q 102	(A,101,109) Chip Digital Transistor	DTA124EUA
Q 103	(A,101,105) Transistor	UMD2N
Q 104	(A,144,110) Transistor	IMH23
Q 121	(A,90,104) Transistor	UMF23N
Q 161	(A,33,80) Chip Transistor	DTC114EUA
Q 162	(B,48,84) Transistor	UMX1N
Q 163	(A,41,80) Transistor	UMT1N
Q 164	(B,38,76) Chip Transistor	DTC114EUA
Q 165	(B,42,86) Transistor	2SC4081
Q 181	(B,95,106) Transistor	2SC4081
Q 182	(A,103,112) Transistor	UMH1N
Q 183	(A,96,114) Transistor	UMD3N
Q 561	(A,81,26) Transistor	UMD22N
Q 901	(B,84,37) Transistor	IMH23
Q 902	(B,87,37) Transistor	UMD3N
Q 951	(A,20,105) Transistor	2SA1576A
Q 1001	(B,30,83) Transistor	2SD1664
Q 1002	(B,25,74) Chip Transistor	2SB1132
Q 1021	(B,129,10) Transistor	2SC4081
Q 1022	(B,133,13) Chip Transistor	2SB1132
Q 1141	(A,34,76) Transistor	2SC4081
Q 1142	(B,34,64) FET	RSF014N03
Q 1143	(B,41,68) Digital Transistor	DTC143EUA
Q 1201	(A,36,51) FET	HAT2210RJ
Q 1202	(A,36,28) FET	HAT2210RJ
D 101	(B,99,111) Diode	DAN202U

Circuit Symbol and No.		Part No.
D 102	(A,107,105) Diode	MA111
D 103	(A,118,113) Diode	MALS068X
D 104	(A,110,114) Diode	MALS068X
D 105	(A,122,114) Diode	MALS068X
D 141	(B,29,104) Diode	S1G-6904G2P
D 142	(B,29,107) Diode	S1G-6904G2P
D 161	(A,31,83) Diode	MA111
D 162	(B,37,82) Diode	HZU7L(A1)
D 163	(B,37,84) Diode	HZU7L(C3)
D 164	(A,40,83) Diode	DAN202U
D 165	(A,36,80) Diode	DAN202U
D 166	(B,45,75) Diode	UDZS5R6(B)
D 167	(B,37,86) Diode	UDZS20(B)
D 181	(B,101,108) Diode	MA111
D 182	(A,91,107) Diode	UDZS8R2(B)
D 183	(B,78,100) Diode	S1G-6904G2P
D 184	(B,70,96) Diode	S1G-6904G2P
D 301	(A,101,76) Diode	RB551V-30
D 302	(A,103,76) Diode	RB551V-30
D 522	(B,15,9) Diode	EMZC6.8N
D 523	(B,18,8) Diode	MALS068X
D 601	(A,106,16) Diode	MA111
D 602	(A,121,65) Diode	RB751V-40
D 603	(A,123,65) Diode	RB501V-40
D 951	(A,28,105) Diode	MALS068X
D 1001	(B,26,80) Diode	UDZS18(B)
D 1002	(B,22,85) Diode	S1G-6904G2P
D 1021	(B,142,21) Diode	S1G-6904G2P
D 1081	(B,147,20) Diode	S1G-6904G2P
D 1141	(A,39,76) Diode	HZU13(B1)
D 1142	(B,31,65) Diode	RB551V-30
D 1201	(A,29,61) Diode	RSX201L-30
D 1202	(A,26,61) Diode	RSX201L-30
D 1205	(B,40,50) Diode	RB551V-30
D 1206	(B,40,31) Diode	RB551V-30
D 1401	(B,52,73) Diode	RB551V-30
D 2002	(B,144,13) Diode	MALS068X
D 2007	(B,145,16) Diode	MALS068X
D 2009	(B,27,17) Diode	MALS068X
D 2010	(B,27,15) Diode	MALS068X
D 3001	(B,19,41) Diode	MALS068X
D 3002	(B,18,38) Diode	MALS068X
D 3003	(B,17,42) Diode	MALS068X
D 3004	(B,11,37) Diode	MALS068X
D 3005	(B,13,37) Diode	MALS068X
D 3007	(B,19,23) Diode	EMZC6.8N
D 3011	(A,11,45) LED	NSSM025A-A0886
L 141	(A,37,97) Choke Coil 600 uH	CTH1221
L 161	(A,36,84) Inductor	LCTAW2R2J2520
L 162	(A,39,87) Inductor	LCTAW2R2J2520
L 163	(B,49,76) Inductor	CTF1295
L 201	(A,144,79) Inductor	LCTAW2R2J2520
L 401	(B,152,84) Inductor	LCTAW220J2520
L 402	(A,148,79) Chip Coil	LCTAW1R0J2520
L 403	(A,150,40) Inductor	LCTAW1R0J3225
L 404	(B,149,50) Inductor	CTF1379
L 521	(B,18,23) Inductor	CTF1713
L 601	(A,99,41) Inductor	LCTAW2R2J2520
L 951	(A,28,107) Inductor	CTF1389
L 952	(A,20,103) Inductor	CTF1379
L 1021	(B,142,15) Inductor	DTL1100
L 1022	(A,136,10) Inductor	CTH1262
L 1141	(A,39,63) Inductor	ATH7061
L 1201	(A,48,53) Inductor	CTH1253
L 1202	(A,38,56) Inductor	CTF1661
L 1203	(A,33,46) Inductor	CTF1661
L 1204	(A,46,24) Inductor	CTH1253
L 1205	(A,34,22) Inductor	CTF1661
L 1206	(A,41,31) Inductor	CTF1661
L 1207	(A,19,53) Inductor	CTH1253
L 3001	(B,7,29) Inductor	CTF1389
L 3004	(B,13,32) Inductor	CTF1389
L 3005	(B,16,32) Inductor	CTF1389
X 601	(A,107,40) Oscillator 15 MHz	CSS1776
S 3001	(A,7,31) Push Switch(SOURCE)	CSG1155
S 3002	(A,7,60) Push Switch(FORWARD)	CSG1155
S 3003	(A,7,51) Push Switch(REVERSE)	CSG1155
S 3004	(A,7,69) Push Switch(VOL+)	CSG1155
S 3005	(A,15,89) Push Switch(RESET)	CSG1155
S 3006	(A,21,94) Push Switch(EJECT)	CSG1155
S 3007	(A,7,23) Push Switch(MUTE)	CSG1155
S 3008	(A,6,39) Push Switch(DISP.OFF)	CSG1155
S 3009	(A,7,79) Push Switch(VOL+)	CSG1155
P 101	(A,152,111) Poly Switch	MINISMDC075F/24
P 102	(B,109,109) Poly Switch	MINISMDC075F/24
P 121	(A,86,85) Poly Switch	MINISMDC075F/24
P 401	(B,151,90) Surge Protector	IMSA-6801-01Y901
⚠P1021	(B,137,20) Fuse 1 A	CEK1280
⚠P1022	(B,136,17) Fuse 1.75 A	CEK1283
⚠P1201	(B,19,46) Fuse 4 A	CEK1344
⚠P1202	(A,61,57) Fuse 1 A	CEK1280
⚠P1203	(A,66,24) Fuse 2.5 A	CEK1285
U 401	(A,158,86) FM/AM Tuner Unit	CWE2098
BZ601	(A,159,12) Buzzer	CPV1062

RESISTORS

R 101	(A,140,111)	RS1/16SS820J
R 102	(A,143,113)	RS1/16SS223J
R 103	(A,132,114)	RS1/16SS223J
R 104	(A,131,112)	RS1/16SS820J
R 107	(A,147,111)	RS1/16SS820J
R 108	(A,147,114)	RS1/16SS223J
R 109	(A,134,114)	RS1/16SS223J
R 110	(A,137,109)	RS1/16SS820J
R 115	(A,120,115)	RS1/16SS750J
R 116	(A,136,113)	RS1/16SS0R0J
R 119	(A,143,114)	RS1/16SS0R0J
R 120	(A,105,105)	RS1/16SS102J
R 121	(A,88,103)	RS1/16SS562J
R 122	(A,88,104)	RS1/16SS332J
R 123	(A,95,87)	RS1/16SS181J
R 124	(A,98,87)	RS1/16SS181J
R 125	(A,93,104)	RS1/16SS222J
R 126	(A,97,87)	RS1/16SS223J
R 127	(A,94,87)	RS1/16SS223J
R 128	(A,96,87)	RS1/16SS102J
R 129	(A,93,87)	RS1/16SS102J
R 161	(A,31,80)	RS1/16SS103J
R 162	(A,39,79)	RS1/16SS473J
R 163	(B,43,82)	RS1/16SS103J

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
R 164	(B,45,87)	RS1/16SS104J	R 329	(B,90,70)	RS1/16SS101J
R 165	(A,44,79)	RS1/16SS473J	R 330	(B,87,58)	RS1/16SS101J
R 166	(B,42,82)	RS1/16SS473J	R 378	(A,100,13)	RS1/16SS0R0J
R 167	(B,46,86)	RS1/16SS473J	R 410	(B,150,48)	RS1/16SS102J
R 168	(A,39,80)	RS1/16SS473J	R 412	(B,152,64)	RS1/16SS681J
R 170	(A,42,83)	RS1/16SS473J	R 413	(B,152,65)	RS1/16SS681J
R 171	(A,44,81)	RS1/16SS472J	R 414	(B,152,66)	RS1/16SS681J
R 172	(B,39,72)	RS1/16SS104J	R 415	(B,152,67)	RS1/16SS681J
R 173	(A,33,89)	RS1/16SS472J	R 416	(B,152,68)	RS1/16SS681J
R 174	(A,39,84)	RS1/16SS103J	R 425	(B,143,82)	RS1/16SS683J
R 175	(B,47,77)	RS1/16SS103J	R 430	(B,149,48)	RS1/16SS0R0J
R 176	(A,35,88)	RS1/16SS153J	R 432	(B,150,64)	RS1/16SS0R0J
R 177	(B,48,82)	RS1/16SS0R0J	R 433	(B,150,65)	RS1/16SS0R0J
R 178	(B,50,87)	RS1/16SS0R0J	R 434	(B,150,67)	RS1/16SS0R0J
R 179	(B,40,86)	RS1/16SS103J	R 435	(B,150,68)	RS1/16SS0R0J
R 180	(B,44,89)	RS1/16SS103J	R 501	(A,98,13)	RS1/16SS0R0J
R 181	(B,96,108)	RS1/16SS103J	R 527	(A,15,15)	RS1/16S0R0J
R 182	(B,93,106)	RS1/16SS104J	R 528	(A,16,15)	RS1/16S0R0J
R 183	(B,92,106)	RS1/16SS473J	R 534	(A,13,15)	RS1/16S0R0J
R 184	(A,101,112)	RS1/16SS683J	R 535	(A,18,15)	RS1/16S0R0J
R 185	(A,100,113)	RS1/16SS152J	R 562	(A,73,16)	RS1/16SS104J
R 186	(A,100,112)	RS1/16SS683J	R 563	(A,74,16)	RS1/16SS102J
R 187	(A,98,113)	RS1/16SS103J	R 565	(A,78,24)	RS1/16SS101J
R 188	(A,99,114)	RS1/16SS101J	R 566	(A,75,24)	RS1/16SS101J
R 189	(A,95,111)	RS1/16SS473J	R 568	(A,70,22)	RS1/16SS1003F
R 202	(B,130,100)	RS1/16SS272J	R 570	(A,77,17)	RS1/16SS103J
R 204	(B,129,100)	RS1/16SS162J	R 601	(A,111,40)	RS1/16SS0R0J
R 205	(A,132,93)	RS1/16SS102J	R 602	(A,123,55)	RS1/16SS0R0J
R 206	(A,131,93)	RS1/16SS102J	R 603	(B,135,41)	RS1/16SS0R0J
R 207	(A,130,93)	RS1/16SS102J	R 604	(A,127,26)	RS1/16SS0R0J
R 208	(B,125,84)	RS1/16S0R0J	R 605	(A,116,26)	RS1/16SS0R0J
R 209	(B,129,83)	RS1/16SS162J	R 606	(A,110,43)	RS1/16SS102J
R 210	(B,128,100)	RS1/16SS162J	R 607	(A,130,26)	RS1/16SS104J
R 211	(B,128,82)	RS1/16SS272J	R 608	(A,128,55)	RS1/16SS681J
R 212	(B,126,100)	RS1/16SS272J	R 609	(A,130,55)	RS1/16SS472J
R 214	(B,130,102)	RS1/16SS0R0J	R 610	(A,129,55)	RS1/16SS681J
R 219	(B,131,83)	RS1/16SS162J	R 612	(A,131,55)	RS1/16SS102J
R 220	(B,130,82)	RS1/16SS272J	R 617	(B,123,36)	RS1/16SS472J
R 221	(B,131,79)	RS1/16SS0R0J	R 618	(A,110,36)	RS1/16SS104J
R 301	(B,111,65)	RS1/16SS101J	R 619	(A,124,26)	RS1/16SS104J
R 302	(B,111,64)	RS1/16SS101J	R 620	(A,107,18)	RS1/16SS104J
R 303	(B,111,63)	RS1/16SS101J	R 621	(A,119,64)	RS1/16SS103J
R 304	(B,111,62)	RS1/16SS101J	R 622	(A,124,66)	RS1/16SS104J
R 305	(B,87,61)	RS1/16SS101J	R 623	(A,132,55)	RS1/16SS102J
R 306	(B,87,60)	RS1/16SS101J	R 624	(A,139,29)	RS1/16SS0R0J
R 307	(B,110,72)	RS1/16SS223J	R 626	(A,117,57)	RS1/16SS0R0J
R 308	(B,87,55)	RS1/16SS0R0J	R 631	(A,141,36) (RC,RI)	RS1/16SS104J
R 310	(B,102,72)	RS1/16SS101J	R 632	(A,142,36) (RD,RI)	RS1/16SS104J
R 311	(B,111,67)	RS1/16SS101J	R 633	(A,139,36)	RS1/16SS104J
R 312	(B,103,72)	RS1/16SS101J	R 634	(A,140,33)	RS1/16SS104J
R 313	(B,111,66)	RS1/16SS101J	R 635	(A,141,33) (UC,RC,RD)	RS1/16SS104J
			R 636	(A,142,33) (UC)	RS1/16SS104J
R 314	(B,115,68)	RS1/16SS223J	R 638	(B,138,34)	RS1/16SS102J
R 316	(B,89,70)	RS1/16SS101J			
R 317	(A,108,59)	RS1/16SS680J	R 639	(B,127,40)	RS1/16SS104J
R 318	(A,108,61)	RS1/16SS4R7J	R 642	(B,134,34)	RS1/16SS102J
R 322	(B,87,57)	RS1/16SS101J	R 643	(B,135,42)	RS1/16SS104J
			R 644	(A,140,30)	RS1/16SS472J
R 325	(B,97,51)	RS1/16SS221J	R 645	(A,124,55)	RS1/16SS103J
R 326	(B,97,52)	RS1/16SS221J			
R 327	(A,96,55)	RS1/16SS0R0J	R 646	(A,116,57)	RS1/16SS182J
R 328	(A,99,75)	RS1/16SS0R0J	R 647	(A,120,26)	RS1/16SS221J

Circuit Symbol and No.		Part No.
R 648	(A,122,26)	RS1/16SS221J
R 649	(B,122,40)	RS1/16SS104J
R 650	(A,121,26)	RS1/16SS104J
R 651	(A,116,55)	RS1/16SS182J
R 652	(A,126,55)	RS1/16SS102J
R 654	(B,122,43)	RS1/16SS104J
R 658	(B,123,48)	RS1/16SS101J
R 659	(B,126,47)	RS1/16SS104J
R 660	(B,126,46)	RS1/16SS104J
R 661	(A,123,26)	RS1/16SS102J
R 662	(A,119,66)	RS1/16SS0R0J
R 663	(A,127,55)	RS1/16SS0R0J
R 664	(B,130,49)	RS1/16SS1501D
R 665	(B,121,54)	RS1/16SS104J
R 667	(A,110,46)	RS1/16SS102J
R 668	(A,105,26)	RS1/16SS104J
R 669	(A,109,33)	RS1/16SS102J
R 677	(B,135,44)	RS1/16SS472J
R 678	(B,131,43)	RS1/16SS102J
R 751	(A,138,76)	RS1/16SS150J
R 752	(A,142,75)	RS1/16SS470J
R 753	(A,138,75)	RS1/16SS101J
R 754	(A,142,74)	RS1/16SS101J
R 755	(A,136,70)	RS1/16SS102J
R 756	(A,144,67)	RS1/16S0R0J
R 901	(B,70,47)	RS1/16SS0R0J
R 902	(B,77,41)	RS1/16SS0R0J
R 903	(B,75,39)	RS1/16SS0R0J
R 904	(A,75,44)	RS1/16SS0R0J
R 905	(B,76,36)	RS1/16S0R0J
R 906	(B,80,38)	RS1/16S0R0J
R 907	(B,61,29)	RS1/16S0R0J
R 908	(B,63,29)	RS1/16S0R0J
R 909	(B,69,36)	RS1/16SS471J
R 910	(B,77,50)	RS1/16SS102J
R 911	(B,70,42)	RS1/16SS221J
R 912	(B,76,47)	RS1/16SS221J
R 913	(B,70,44)	RS1/16SS221J
R 914	(B,76,44)	RS1/16SS221J
R 915	(B,91,37)	RS1/16SS102J
R 916	(B,71,53)	RS1/16SS0R0J
R 951	(A,24,101)	RS1/16SS0R0J
R 952	(A,24,103)	RS1/16SS473J
R 953	(A,28,106)	RS1/16SS121J
R 954	(A,20,108)	RS1/16SS104J
R 955	(A,20,109)	RS1/16SS103J
R 1001	(B,26,83)	RS1/16SS271J
R 1003	(B,19,80)	RS1/16SS391J
R 1004	(B,16,84)	RS1/16S2R2J
R 1005	(B,16,82)	RS1/16S2R2J
R 1006	(B,18,84)	RS1/16S2R2J
R 1007	(B,18,82)	RS1/16S2R2J
R 1021	(B,131,17)	RS1/16SS331J
R 1022	(B,132,17)	RS1/16SS331J
R 1023	(B,133,17)	RS1/16SS103J
R 1025	(B,131,20)	RS1/16SS0R0J
R 1026	(B,128,8)	RS1/16SS103J
R 1027	(B,126,11)	RS1/16SS103J
R 1061	(A,11,95)	RS1/16SS473J
R 1081	(B,146,24)	RS1/16SS0R0J

Circuit Symbol and No.		Part No.
R 1141	(A,36,76)	RS1/16SS681J
R 1144	(B,38,67)	RS1/16SS9100D
R 1145	(B,33,61)	RS1/16SS512J
R 1146	(B,40,65)	RS1/16SS3003D
R 1147	(B,35,66)	RS1/16S5101D
R 1148	(B,35,61)	RS1/16SS0R0J
R 1150	(B,42,63)	RS1/16SS1102D
R 1151	(B,38,59)	RS1/16SS621J
R 1152	(B,46,58)	RS1/16SS0R0J
R 1154	(B,38,66)	RS1/16SS0R0J
R 1201	(B,38,29)	RS1/16SS2R2J
R 1202	(B,50,40)	RS1/16SS823J
R 1203	(B,40,51)	RS1/16SS2R2J
R 1204	(B,46,52)	RS1/16SS0R0J
R 1205	(B,44,51)	RS1/16SS151J
R 1206	(B,43,52)	RS1/16SS4702D
R 1207	(B,43,50)	RS1/16SS6801D
R 1208	(B,44,50)	RS1/16SS1002D
R 1209	(B,44,49)	RS1/16SS303J
R 1210	(A,35,46)	RS1/16SS10R0D
R 1211	(A,38,33)	RS1/16SS10R0D
R 1212	(B,50,39)	RS1/16SS102J
R 1213	(B,46,34)	RS1/16SS303J
R 1214	(B,46,32)	RS1/16SS8202D
R 1215	(B,45,32)	RS1/16SS102J
R 1216	(B,44,30)	RS1/16SS9101F
R 1217	(B,45,30)	RS1/16SS330J
R 1218	(B,48,32)	RS1/16SS0R0J
R 1219	(B,50,44)	RS1/16SS0R0J
R 1220	(B,50,43)	RS1/16SS0R0J
R 1224	(B,42,52)	RS1/16SS102J
R 1225	(B,37,48)	RS1/10SR103J
R 1226	(B,37,35)	RS1/10SR103J
R 2011	(B,27,12)	RS1/16SS102J
R 2012	(A,33,16)	RS1/16SS102J
R 2018	(B,111,9)	RS1/16SS750J
R 2019	(A,144,15)	RS1/16SS102J
R 3001	(B,10,36)	RS1/16SS750J
R 3002	(B,11,32)	RS1/10SR0R0J
R 3003	(B,15,32)	RS1/10SR0R0J
R 3004	(B,15,36)	RS1/16SS223J
R 3005	(B,19,43)	RS1/16SS223J
R 3006	(A,15,62)	RS1/16SS0R0J
R 3008	(B,21,69)	RS1/16SS470J
R 3010	(B,6,45)	RS1/16SS182J
R 3011	(B,7,59)	RS1/16SS392J
R 3012	(A,10,81)	RS1/16SS392J
R 3013	(A,10,72)	RS1/16SS103J
R 3014	(A,18,90)	RS1/16SS182J
R 3015	(A,5,43)	RS1/16SS103J

CAPACITORS

C 101	(A,140,106)	CKSQYB475K10
C 102	(A,134,106)	CKSQYB475K10
C 103	(A,106,98)	CEVW101M16
C 104	(A,142,106)	CKSQYB475K10
C 105	(A,136,106)	CKSQYB475K10
C 108	(A,109,114)	CKSRYB104K50
C 109	(A,114,114)	CKSRYB104K50
C 110	(A,123,114)	CKSRYB104K50

Circuit Symbol and No.			Part No.	Circuit Symbol and No.		Part No.
C 111	(B,154,109)		CKSRYB104K50	C 336	(A,96,70)	CEVW220M16
C 141	(A,57,96)		CEAT332M16	C 337	(B,97,72)	CKSSYB104K10
C 142	(A,43,89)		CKSRYB104K50	C 338	(B,90,68)	CKSRYB105K10
C 161	(A,33,83)		CKSRYB105K10	C 339	(B,90,67)	CKSRYB105K10
C 162	(A,33,85)		CKSRYB104K50	C 340	(B,90,58)	CKSRYB105K10
C 163	(A,33,87)		CKSRYB104K50	C 341	(B,90,57)	CKSRYB105K10
C 164	(B,41,76)		CKSRYB104K50	C 342	(B,90,55)	CKSRYB105K10
C 165	(A,41,86)		CKSRYB103K50	C 343	(B,90,53)	CKSRYB105K10
C 166	(A,37,88)		CKSRYB104K50	C 345	(A,98,50)	CEVW221M4
C 167	(B,46,78)		CKSRYB104K50	C 346	(A,106,50)	CEVW101M6R3
C 181	(B,98,106)	10 uF	DCH1201	C 347	(A,103,70)	CEVW220M16
C 182	(B,78,104)		CKSRYB474K16	C 403	(B,164,46)	CKSSYB103K16
C 183	(B,80,104)		CKSRYB474K16	C 405	(A,150,81)	CKSSYB103K16
C 184	(B,85,104)		CKSRYB474K16	C 406	(B,152,44)	CKSQYB106K6R3
C 185	(B,83,104)		CKSRYB474K16	C 408	(A,148,86)	CEVW101M10
C 186	(A,101,114)		CKSQYB475K10	C 409	(B,164,40)	CKSSYB103K16
C 187	(B,80,108)		CKSQYB474K16	C 521	(B,16,27)	CKSSYB105K6R3
C 188	(B,78,108)		CKSQYB474K16	C 522	(B,15,28)	CKSSYB104K10
C 189	(B,83,108)		CKSQYB474K16	C 523	(B,19,25)	CKSSYB104K10
C 190	(B,85,108)		CKSQYB474K16	C 524	(B,17,8)	CKSSYB104K10
C 191	(B,88,103)		CKSQYB225K16	C 561	(A,76,15)	CKSSYB104K10
C 192	(A,66,114)		CKSRYB104K50	C 563	(A,76,16)	CKSSYB104K10
C 193	(B,90,104)	10 uF	CCG1236	C 564	(A,17,18)	CKSRYB105K6R3
C 194	(B,88,107)		CKSQYB225K16	C 601	(A,110,38)	CCSSCH7R0D50
C 195	(B,49,102)		CKSQYB104K50	C 602	(A,110,40)	CCSSCH7R0D50
C 202	(B,135,100)		CKSRYB105K10	C 603	(A,101,38)	CKSQYB106K6R3
C 204	(B,140,100)		CKSRYB105K10	C 605	(B,114,37)	CKSSYB102K50
C 205	(B,141,100)		CKSRYB105K10	C 606	(A,117,55)	CKSRYB105K10
C 206	(B,143,99)		CKSSYB104K10	C 607	(B,122,51)	CKSSYB103K16
C 207	(A,140,94)		CEVW100M10	C 608	(B,135,40)	CKSSYB103K16
C 208	(A,127,94)		CEVW100M10	C 609	(A,139,28)	CKSSYB103K16
C 209	(B,134,83)		CKSRYB105K10	C 610	(A,126,26)	CKSSYB103K16
C 211	(B,138,83)		CKSRYB105K10	C 611	(A,117,26)	CKSSYB103K16
C 212	(B,140,83)		CKSRYB105K10	C 612	(B,122,42)	CKSSYB102K50
C 213	(B,141,83)		CKSSYB104K10	C 613	(B,126,42)	CKSQYB475K10
C 214	(B,143,83)		CKSSYB224K6R3	C 615	(B,128,58)	CCSSCH101J50
C 215	(A,132,82)		CEVW470M16	C 618	(A,105,23)	CKSRYB105K10
C 216	(B,127,83)		CKSSYB104K16	C 619	(B,121,35)	CCSSCH101J50
C 222	(A,140,86)		CEVW470M16	C 751	(A,138,74)	CKSSYB102K50
C 223	(B,133,83)		CKSSYB104K10	C 752	(A,142,73)	CKSSYB102K50
C 224	(A,146,79)		CKSSYB104K10	C 753	(A,138,73)	CKSSYB104K10
C 227	(B,137,100)		CKSRYB105K10	C 901	(A,66,28)	CKSSYB104K10
C 228	(B,135,83)		CKSRYB105K10	C 902	(B,68,51)	CCSSCH101J50
C 307	(B,104,52)		CKSSYB104K10	C 903	(A,75,33)	CKSSYB104K10
C 308	(B,105,52)		CKSSYB104K10	C 952	(A,23,107)	CKSSYB104K10
C 309	(B,113,66)		CKSRYB105K10	C 1002	(A,19,79)	CEVW470M6R3
C 310	(B,113,63)		CKSRYB105K10	C 1003	(B,19,70)	CKSSYB103K16
C 312	(B,113,65)		CKSRYB105K10	C 1005	(A,16,65)	CEAT102M16(P30)
C 313	(B,113,62)		CKSRYB105K10	C 1006	(B,19,78)	CKSRYB103K50
C 315	(B,90,61)		CKSRYB105K10	C 1007	(B,30,80)	CKSRYB104K50
C 316	(B,90,60)		CKSRYB105K10	C 1021	(A,147,10)	CEVW101M16
C 321	(B,103,74)		CKSRYB105K10	C 1022	(B,134,9)	CKSRYB104K50
C 322	(B,113,69)		CKSRYB105K10	C 1023	(B,137,13)	CKSYB475K16
C 323	(B,108,73)		CKSRYB105K10	C 1024	(A,118,8)	CEAT102M10(P30)
C 324	(B,113,68)		CKSRYB105K10	C 1061	(A,11,91)	CKSYB105K35
C 325	(A,104,61)		CEVW470M16	C 1081	(A,20,95)	CEVW101M10
C 326	(B,105,72)		CKSSYB104K10	C 1082	(A,148,20)	CEVW220M16
C 331	(B,105,71)		CKSSYB104K10	C 1083	(B,151,17)	CKSSYB103K16
C 334	(A,97,80)		CEVW470M16	C 1084	(B,150,23)	CKSQYB475K10
C 335	(B,97,73)		CKSSYB104K10	C 1141	(A,32,77)	CKSSYB104K16

Circuit Symbol and No.			Part No.
C 1142	(B,42,62)		CKSSYB104K16
C 1144	(B,38,68)		CCSSCH271J25
C 1145	(B,29,65)	4.7 uF	CCG1222
C 1146	(B,41,65)		CKSSYB103K16
C 1147	(B,44,60)	4.7 uF	CCG1222
C 1148	(B,38,65)		CKSRYB104K16
C 1201	(A,19,37)		CEAT472M16(P30)
C 1202	(A,55,42)		CEHAZL331M16(P30)
C 1203	(A,55,33)		CEHAZL331M16(P30)
C 1207	(B,44,52)		CCSSCH331J50
C 1208	(B,44,48)		CCSSCH151J50
C 1209	(B,46,49)		CKSRYB683K50
C 1210	(B,41,48)		CKSQYB335K10
C 1211	(B,39,48)		CKSRYB333K25
C 1212	(B,35,40)		CKSYB105K35
C 1213	(B,22,51)	10 uF	CCG1223
C 1214	(A,31,27)	10 uF	CCG1223
C 1215	(B,38,34)		CKSRYB333K25
C 1216	(A,30,51)	10 uF	CCG1223
C 1217	(B,50,35)		CKSSYB103K16
C 1218	(B,43,33)		CCSRCH101J50
C 1219	(B,47,34)		CKSRYB683K50
C 1220	(B,41,33)		CKSQYB335K10
C 1221	(B,46,35)		CCSSCH151J50
C 1222	(B,46,30)		CCSSCH151J50
C 1226	(A,57,56)	10 uF	CCG1236
C 1227	(A,57,54)		CKSSYB104K10
C 1228	(A,61,23)		CKSSYB104K10
C 1229	(A,60,24)	10 uF	CCG1236
C 1230	(B,22,48)		CKSYB105K35
C 1231	(B,47,49)		CKSSYB103K16
C 1402	(B,54,69)		CKSRYB474K10
C 1403	(B,48,72)		CKSRYB105K10
C 2001	(B,110,11)		CKSRYB104K50
C 2002	(B,154,27)		CKSRYB104K50
C 2005	(B,22,22)		CKSRYB104K50
C 3001	(B,6,32)		CKSRYB104K50
C 3004	(B,15,69)		CEVW470M10
C 3012	(A,19,59)		CKSRYB104K16
C 3013	(A,18,59)		CKSRYB104K16
C 3014	(A,16,59)		CKSRYB104K16

F

Unit Number : CWN3783
Unit Name : Monitor Unit

MISCELLANEOUS

IC 5001	(A,118,22)	IC	BH2227AFV
IC 5101	(A,111,39)	BLANK IC	PE5669A8
IC 5102	(B,119,34)	IC	S-93C56BD0I-J8
IC 5201	(A,65,68)	IC	PEH208A8
IC 5301	(A,33,57)	SDRAM	K4S281632K-UC75
IC 5451	(B,75,18)	IC	NJM2505AF
IC 5501	(B,109,61)	IC	BD6171KV
IC 5701	(B,44,36)	Logic IC	TC7SHU04FUS1
IC 5702	(B,50,54)	IC	MN103SE60PUB
IC 6005	(B,63,13)	Logic IC	TC74VHCT04AFTS1
IC 6101	(A,16,38)	IC	TK11840L
IC 6151	(A,18,22)	IC	NJM082BV
Q 5001	(B,116,19)	Transistor	UMX1N
Q 5002	(B,106,12)	Transistor	2SC4081
Q 5401	(A,104,20)	Transistor	FMG12
Q 5402	(B,104,20)	Transistor	UMF5N
Q 5403	(B,101,20)	Transistor	UMF5N
Q 5451	(B,71,20)	Transistor	2SC4081
Q 5452	(B,68,30)	Transistor	2SA1576A
Q 5501	(A,119,65)	FET	RSQ035P03
Q 5502	(A,110,68)	FET	RSQ035P03
Q 5503	(A,98,53)	Transistor	2SA1577
Q 5504	(A,98,56)	Transistor	2SC4097
Q 5505	(A,96,67)	Transistor	IMZ4
Q 5561	(A,93,56)	Transistor	UMX2N
Q 5562	(A,97,50)	Transistor	UMZ1N
Q 6001	(B,18,28)	Transistor	UMZ1N
Q 6002	(B,24,31)	Transistor	2SC4097
Q 6003	(B,25,28)	Transistor	2SA1577
Q 6101	(A,17,34)	Digital Transistor	DTC143EUA
Q 6102	(A,16,43)	FET	CPH6424
Q 6103	(A,7,21)	Digital Transistor	DTC143EUA
Q 6151	(B,21,22)	FET	RUE003N02
D 5401	(A,98,21)	Diode	MA111
D 5402	(A,113,15)	Diode	UDZS5R6(B)
D 5403	(A,110,21)	Diode	UDZS5R6(B)
D 5404	(A,98,12)	Diode	UDZS5R6(B)
D 5405	(A,97,16)	Diode	UDZS5R6(B)
D 5501	(A,121,55)	Diode	RSX201L-30
D 5502	(A,107,64)	Diode	RB160M-30
D 5503	(B,98,65)	Diode	RB548W
D 5504	(B,98,67)	Diode	RB548W
D 5505	(B,96,59)	Diode	RB548W
D 5506	(B,96,57)	Diode	RB548W
D 5507	(B,96,54)	Diode	RB548W
D 6101	(A,8,41)	Diode	RB50L-60
D 6102	(A,8,44)	Diode	UDZS33(B)
L 5101	(A,102,26)	Inductor	CTF1635
L 5201	(A,52,57)	Inductor	CTF1473
L 5301	(A,48,57)	Inductor	CTF1473
L 5302	(A,21,64)	Inductor	CTF1382
L 5401	(A,98,27)	Inductor	CTF1473
L 5451	(B,76,21)	Inductor	CTF1379
L 5452	(B,68,23)	Inductor	LCTAW220J2520
L 5453	(B,68,25)	Chip Coil	LCTAW270J2520
L 5454	(A,68,25)	Inductor	LCTAW101J2520
L 5501	(A,117,73)	Choke Coil 18 uH	CTH1250
L 5502	(A,110,73)	Choke Coil 10 uH	CTH1249
L 5503	(A,123,73)	Choke Coil 10 uH	CTH1249
L 5504	(B,121,57)	Inductor	CTF1635
L 5505	(A,125,61)	Inductor	DTL1136
L 5506	(B,103,73)	Inductor	CTF1488
L 5507	(A,102,71)	Choke Coil 68 uH	CTH1318
L 5508	(B,94,63)	Inductor	CTF1635
L 5509	(B,100,50)	Inductor	CTF1635
L 5510	(B,96,72)	Inductor	DTL1096
L 5701	(A,53,49)	Inductor	CTF1635
L 5702	(A,59,50)	Inductor	CTF1635
L 5705	(A,52,54)	Inductor	CTF1473
L 5706	(B,39,29)	Inductor	CTF1748
L 5707	(B,34,29)	Inductor	CTF1748

Circuit Symbol and No.		Part No.
L 5708	(B,57,27) Inductor	CTF1748
L 5709	(B,28,31) Inductor	CTF1748
L 5710	(A,48,44) Inductor	CTF1748
L 5711	(A,48,42) Inductor	CTF1748
L 5712	(A,46,42) Inductor	CTF1748
L 5713	(A,46,40) Inductor	CTF1748
L 5714	(A,45,42) Inductor	CTF1748
L 5715	(A,45,37) Inductor	CTF1748
L 5716	(A,44,41) Inductor	CTF1748
L 5717	(A,43,38) Inductor	CTF1748
L 5718	(A,43,42) Inductor	CTF1748
L 5719	(A,42,37) Inductor	CTF1748
L 5720	(A,42,42) Inductor	CTF1748
L 5721	(B,38,37) Inductor	CTF1748
L 5722	(B,37,38) Inductor	CTF1748
L 5723	(B,34,39) Inductor	CTF1748
L 5724	(B,34,40) Inductor	CTF1748
L 5725	(B,34,41) Inductor	CTF1748
L 5726	(B,32,41) Inductor	CTF1748
L 5727	(B,32,39) Inductor	CTF1748
L 5728	(B,31,39) Inductor	CTF1748
L 6001	(A,64,12) Inductor	CTF1306
L 6004	(A,63,14) Inductor	CTF1306
L 6005	(A,37,41) Inductor	CTF1635
L 6006	(A,30,41) Inductor	DTL1096
L 6007	(A,25,38) Inductor	CTF1635
L 6008	(B,23,38) Inductor	DTL1096
L 6101	(A,56,9) Choke Coil 3.3 uH	CTH1419
L 6102	(A,8,35) Choke Coil 3.3 uH	CTH1419
X 5101	(A,123,42) Ceramic Resonator 20.000 MHz	VSS1186
X 5701	(B,44,30) Oscillator 9.597 MHz	CSS1778
X 5702	(B,55,32) Radiator 33.000 MHz	CSS1634
P 6101	(A,65,8) Poly Switch	MINISMDC075F/24

RESISTORS

R 5001	(B,113,17)	RS1/16SS121J
R 5002	(B,114,17)	RS1/16SS151J
R 5003	(B,115,17)	RS1/16SS0R0J
R 5004	(B,111,21)	RS1/16SS103J
R 5011	(B,116,21)	RS1/16SS271J
R 5012	(B,115,21)	RS1/16SS271J
R 5013	(B,115,23)	RS1/16SS0R0J
R 5014	(B,118,20)	RS1/16SS103J
R 5021	(B,108,15)	RS1/16SS181J
R 5022	(B,108,13)	RS1/16SS181J
R 5023	(B,108,11)	RS1/16SS0R0J
R 5024	(B,106,15)	RS1/16SS103J
R 5031	(B,121,21)	RS1/16S0R0J
R 5033	(A,67,15)	RS1/16S0R0J
R 5036	(A,59,34)	RS1/16S0R0J
R 5037	(A,61,34)	RS1/16S0R0J
R 5040	(B,68,37)	RS1/16S0R0J
R 5101	(A,97,37)	RS1/16SS473J
R 5102	(A,98,34)	RS1/16SS471J
R 5103	(A,98,33)	RS1/16SS471J
R 5104	(A,99,40)	RS1/16SS0R0J
R 5105	(A,99,39)	RS1/16SS0R0J
R 5106	(A,99,37)	RS1/16SS471J
R 5107	(A,97,36)	RS1/16S0R0J
R 5108	(A,106,28)	RS1/16SS471J
R 5109	(A,105,51)	RS1/16SS471J
R 5110	(A,99,38)	RS1/16SS471J
R 5111	(A,107,27)	RS1/16SS4701D
R 5112	(B,107,44)	RS1/16SS473J
R 5113	(A,110,25)	RS1/16SS472J
R 5114	(A,110,27)	RS1/16SS472J
R 5115	(A,108,28)	RS1/16SS471J
R 5116	(A,111,27)	RS1/16SS471J
R 5117	(B,109,45)	RS1/16SS473J
R 5118	(B,110,45)	RS1/16SS473J
R 5119	(B,116,46)	RS1/16SS471J
R 5120	(A,111,51)	RS1/16SS0R0J
R 5121	(B,112,45)	RS1/16SS473J
R 5122	(A,112,51)	RS1/16SS471J
R 5123	(A,113,51)	RS1/16SS471J
R 5124	(A,113,28)	RS1/16SS471J
R 5126	(B,112,33)	RS1/16SS101J
R 5127	(A,114,53)	RS1/16SS471J
R 5128	(A,115,28)	RS1/16SS471J
R 5129	(A,116,28)	RS1/16SS471J
R 5131	(A,118,28)	RS1/16SS471J
R 5134	(B,108,48)	RS1/16SS471J
R 5135	(A,108,52)	RS1/16SS471J
R 5136	(B,114,39)	RS1/16SS473J
R 5137	(B,115,38)	RS1/16SS473J
R 5138	(A,109,52)	RS1/16SS471J
R 5139	(B,107,42)	RS1/16SS473J
R 5140	(A,123,35)	RAB4CQ102J
R 5142	(A,120,51)	RS1/16SS104J
R 5144	(B,122,31)	RS1/16SS473J
R 5145	(B,121,46)	RS1/16SS102J
R 5146	(A,122,38)	RS1/16SS103J
R 5147	(A,122,37)	RS1/16SS103J
R 5148	(B,122,45)	RS1/16SS104J
R 5150	(B,122,38)	RS1/16S0R0J
R 5151	(A,122,47)	RS1/16S0R0J
R 5152	(B,109,32)	RS1/16SS473J
R 5153	(A,123,28)	RS1/16SS473J
R 5155	(B,106,40)	RS1/16SS473J
R 5201	(A,52,76)	RS1/16SS0R0J
R 5202	(A,49,75)	RS1/16SS0R0J
R 5203	(A,52,74)	RS1/16SS0R0J
R 5204	(A,50,74)	RS1/16SS0R0J
R 5205	(A,52,73)	RS1/16SS0R0J
R 5206	(A,50,72)	RS1/16SS0R0J
R 5207	(A,52,72)	RS1/16SS0R0J
R 5208	(A,50,71)	RS1/16SS0R0J
R 5209	(A,52,70)	RS1/16SS0R0J
R 5210	(A,50,70)	RS1/16SS0R0J
R 5211	(A,54,76)	RS1/16SS0R0J
R 5212	(A,53,60)	RS1/16SS220J
R 5213	(A,52,69)	RS1/16SS0R0J
R 5214	(A,50,60)	RS1/16SS102J
R 5215	(A,52,68)	RS1/16SS0R0J
R 5216	(A,50,67)	RS1/16SS0R0J
R 5217	(A,48,67)	RS1/16SS0R0J
R 5218	(A,50,66)	RS1/16SS0R0J
R 5219	(A,52,65)	RS1/16SS0R0J
R 5220	(A,52,64)	RS1/16SS0R0J
R 5221	(A,52,63)	RS1/16SS0R0J

Circuit Symbol and No.		Part No.
R 5222	(A,52,62)	RS1/16SS0R0J
R 5223	(A,50,61)	RS1/16SS0R0J
R 5224	(A,78,75)	RS1/16SS0R0J
R 5225	(A,72,76)	RS1/16SS0R0J
R 5226	(A,78,73)	RS1/16SS0R0J
R 5227	(A,72,78)	RS1/16SS0R0J
R 5228	(A,78,72)	RS1/16SS0R0J
R 5229	(A,71,76)	RS1/16SS0R0J
R 5230	(A,78,71)	RS1/16SS0R0J
R 5231	(A,70,78)	RS1/16SS0R0J
R 5232	(A,78,70)	RS1/16SS0R0J
R 5233	(A,70,76)	RS1/16SS0R0J
R 5234	(A,78,66)	RS1/16SS0R0J
R 5235	(A,69,78)	RS1/16SS0R0J
R 5236	(A,78,65)	RS1/16SS0R0J
R 5237	(A,68,76)	RS1/16SS0R0J
R 5238	(A,78,64)	RS1/16SS0R0J
R 5239	(A,66,76)	RS1/16SS0R0J
R 5240	(A,70,61)	RS1/16SS0R0J
R 5241	(A,77,63)	RS1/16SS0R0J
R 5242	(A,74,60)	RS1/16SS0R0J
R 5243	(A,75,59)	RS1/16SS0R0J
R 5244	(A,78,74)	RS1/16SS102J
R 5245	(A,79,68)	RS1/16S0R0J
R 5301	(A,21,51)	RS1/16SS0R0J
R 5302	(A,23,48)	RS1/16SS0R0J
R 5303	(A,24,48)	RS1/16SS0R0J
R 5304	(A,26,48)	RS1/16SS0R0J
R 5305	(A,27,48)	RS1/16SS0R0J
R 5306	(A,28,48)	RS1/16SS0R0J
R 5307	(A,29,48)	RS1/16SS0R0J
R 5308	(A,30,46)	RS1/16SS0R0J
R 5309	(A,30,48)	RS1/16SS0R0J
R 5310	(A,32,48)	RS1/16SS0R0J
R 5311	(A,33,48)	RS1/16SS820J
R 5312	(A,38,46)	RS1/16SS820J
R 5313	(A,38,48)	RS1/16SS820J
R 5314	(A,40,48)	RS1/16SS820J
R 5315	(A,41,48)	RS1/16SS820J
R 5316	(A,43,48)	RS1/16SS820J
R 5317	(A,44,48)	RS1/16SS820J
R 5318	(A,45,48)	RS1/16SS820J
R 5319	(A,35,47)	RS1/16S0R0J
R 5320	(A,43,45)	RS1/16S0R0J
R 5322	(A,33,68)	RS1/16S0R0J
R 5323	(A,36,68)	RS1/16S0R0J
R 5324	(A,42,68)	RS1/16S0R0J
R 5325	(A,46,59)	RS1/16S0R0J
R 5326	(A,21,66)	RS1/16SS0R0J
R 5327	(A,21,67)	RS1/16SS0R0J
R 5328	(A,23,67)	RS1/16SS0R0J
R 5329	(A,24,66)	RS1/16SS0R0J
R 5330	(A,25,66)	RS1/16SS0R0J
R 5331	(A,26,66)	RS1/16SS0R0J
R 5332	(A,26,68)	RS1/16SS0R0J
R 5333	(A,27,66)	RS1/16SS0R0J
R 5334	(A,28,66)	RS1/16SS0R0J
R 5335	(A,29,66)	RS1/16SS0R0J
R 5336	(A,30,68)	RS1/16SS0R0J
R 5337	(A,31,66)	RS1/16SS0R0J

Circuit Symbol and No.		Part No.
R 5338	(A,34,66)	RS1/16SS820J
R 5339	(A,35,68)	RS1/16SS820J
R 5340	(A,35,66)	RS1/16SS820J
R 5341	(A,38,68)	RS1/16SS820J
R 5342	(A,38,66)	RS1/16SS820J
R 5343	(A,39,68)	RS1/16SS820J
R 5344	(A,40,68)	RS1/16SS820J
R 5345	(A,42,66)	RS1/16SS820J
R 5401	(A,106,23)	RS1/16SS102J
R 5402	(A,100,13)	RS1/16S0R0J
R 5403	(A,99,16)	RS1/16S0R0J
R 5404	(A,112,13)	RS1/16S0R0J
R 5405	(A,109,19)	RS1/16S0R0J
R 5406	(A,107,20)	RS1/16SS102J
R 5407	(A,95,13)	RS1/16SS105J
R 5408	(A,97,19)	RS1/16SS105J
R 5410	(B,104,17)	RS1/16SS103J
R 5411	(B,102,18)	RS1/16SS103J
R 5412	(B,104,22)	RS1/16SS103J
R 5413	(B,100,17)	RS1/16SS103J
R 5451	(B,78,11)	RS1/16SS0R0J
R 5453	(B,76,12)	RS1/16SS101J
R 5454	(B,75,11)	RS1/16SS101J
R 5455	(B,69,15)	RS1/16SS0R0J
R 5457	(B,72,16)	RS1/16S4701D
R 5458	(B,70,14)	RS1/16SS6801D
R 5459	(B,72,20)	RS1/16SS153J
R 5460	(B,69,16)	RS1/16SS333J
R 5461	(B,73,18)	RS1/16SS0R0J
R 5462	(B,69,17)	RS1/16SS681J
R 5463	(B,68,18)	RS1/16SS471J
R 5466	(B,66,28)	RS1/16SS272J
R 5467	(B,69,28)	RS1/16SS391J
R 5469	(B,65,28)	RS1/16SS0R0J
R 5501	(A,104,59)	RS1/16S0R0J
R 5502	(B,122,62)	RS1/16S6801D
R 5503	(A,121,69)	RS1/16S0R0J
R 5504	(B,121,70)	RS1/16S0R0J
R 5505	(B,119,62)	RS1/16SS201J
R 5506	(B,120,68)	RS1/16S1002D
R 5507	(B,117,60)	RS1/16S1001D
R 5508	(B,119,61)	RS1/16SS201J
R 5509	(B,117,55)	RS1/16S5100D
R 5510	(B,118,67)	RS1/16S1001D
R 5511	(B,122,66)	RS1/16SS201J
R 5512	(B,116,57)	RS1/16S2201D
R 5513	(B,118,68)	RS1/16S3301D
R 5514	(A,100,59)	RS1/16S0R0J
R 5515	(A,99,65)	RS1/16SS103J
R 5516	(B,120,65)	RS1/16SS302J
R 5517	(B,117,61)	RS1/16SS512J
R 5518	(B,113,68)	RS1/16SS223J
R 5519	(A,117,67)	RS1/16SS150J
R 5520	(A,109,65)	RS1/16SS150J
R 5521	(B,106,70)	RS1/16SS563J
R 5522	(A,102,58)	RS1/16S0R0J
R 5523	(A,105,61)	RS1/16S6202D
R 5524	(B,104,53)	RS1/16S1002D
R 5525	(B,98,72)	RS1/16S3301D
R 5526	(B,102,53)	RS1/16S4702D

Circuit Symbol and No.		Part No.
R 5527	(B,101,53)	RS1/16S7501D
R 5528	(B,98,71)	RS1/16S1202D
R 5529	(B,99,53)	RS1/16S0R0J
R 5530	(B,101,68)	RS1/16S2203D
R 5532	(B,98,69)	RS1/16S0R0J
R 5533	(B,94,72)	RS1/16SS153J
R 5534	(A,101,53)	RS1/16SS470J
R 5535	(A,103,54)	RS1/16SS470J
R 5536	(A,99,67)	RS1/16SS102J
R 5537	(A,93,67)	RS1/16SS103J
R 5538	(A,94,69)	RS1/16SS103J
R 5561	(A,95,53)	RS1/16SS223J
R 5562	(A,94,54)	RS1/16SS223J
R 5563	(A,91,56)	RS1/16SS472J
R 5564	(A,90,56)	RS1/16SS682J
R 5565	(A,91,59)	RS1/16SS473J
R 5566	(A,102,51)	RS1/16SS223J
R 5567	(A,95,51)	RS1/16SS223J
R 5568	(A,100,50)	RS1/16SS472J
R 5569	(A,99,48)	RS1/16SS682J
R 5570	(A,100,48)	RS1/16SS473J
R 5701	(B,42,32)	RS1/16SS105J
R 5702	(B,45,37)	RS1/16SS220J
R 5703	(B,44,32)	RS1/16SS332J
R 5704	(B,46,34)	RS1/16S0R0J
R 5705	(B,54,34)	RS1/16SS101J
R 5706	(B,56,34)	RS1/16SS105J
R 5707	(B,57,36)	RS1/16SS471J
R 5708	(A,54,41)	RS1/16SS0R0J
R 5709	(A,53,41)	RS1/16SS0R0J
R 5710	(A,52,41)	RS1/16SS103J
R 5711	(A,52,39)	RS1/16SS103J
R 5712	(A,51,41)	RS1/16SS103J
R 5713	(A,49,41)	RS1/16SS0R0J
R 5714	(A,50,41)	RS1/16SS0R0J
R 5715	(A,48,41)	RS1/16SS181J
R 5716	(A,47,40)	RS1/16SS181J
R 5717	(A,47,37)	RS1/16SS181J
R 5718	(A,46,38)	RS1/16SS181J
R 5719	(A,46,36)	RS1/16SS181J
R 5720	(A,44,40)	RS1/16SS181J
R 5721	(A,44,37)	RS1/16SS181J
R 5722	(A,42,40)	RS1/16SS181J
R 5723	(A,42,35)	RS1/16SS181J
R 5724	(A,41,40)	RS1/16SS181J
R 5725	(B,38,36)	RS1/16SS181J
R 5726	(B,36,37)	RS1/16SS181J
R 5727	(B,34,37)	RS1/16SS181J
R 5728	(B,33,37)	RS1/16SS181J
R 5729	(B,62,35)	RS1/16SS0R0J
R 5730	(A,58,40)	RS1/16SS0R0J
R 5731	(B,33,31)	RS1/16SS220J
R 5733	(B,16,35)	RS1/16SS220J
R 5734	(B,39,30)	RS1/16SS151J
R 5735	(B,33,29)	RS1/16SS271J
R 5736	(B,56,27)	RS1/16SS271J
R 5737	(B,29,29)	RS1/16SS271J
R 5738	(B,36,29)	RS1/16SS181J
R 5739	(B,64,38)	RS1/16SS1202D
R 5740	(B,57,37)	RS1/16SS471J

Circuit Symbol and No.		Part No.
R 5741	(B,60,36)	RS1/16SS752J
R 5742	(B,60,32)	RS1/16SS272J
R 5743	(B,60,33)	RS1/16SS622J
R 5744	(B,51,32)	RS1/16S0R0J
R 5745	(B,50,30)	RS1/16S0R0J
R 5746	(B,49,30)	RS1/16S0R0J
R 5747	(B,48,32)	RS1/16S0R0J
R 5748	(B,40,35)	RS1/16S0R0J
R 5749	(B,34,31)	RS1/16SS0R0J
R 5751	(B,19,35)	RS1/16SS0R0J
R 5752	(B,85,47)	RS1/16SS473J
R 5771	(B,33,39)	RS1/16SS181J
R 5774	(B,32,37)	RS1/16SS181J
R 5777	(B,31,37)	RS1/16SS181J
R 5780	(B,30,37)	RS1/16SS181J
R 5784	(B,71,44)	RS1/16S0R0J
R 5785	(B,34,42)	RS1/16SS680J
R 5786	(B,31,43)	RS1/16SS680J
R 5788	(B,34,44)	RS1/16SS680J
R 5790	(B,31,44)	RS1/16S0R0J
R 5792	(B,30,46)	RS1/16SS680J
R 5794	(B,34,47)	RS1/16SS680J
R 5796	(B,30,47)	RS1/16SS680J
R 5798	(B,32,47)	RS1/16SS680J
R 5800	(B,28,47)	RS1/16SS680J
R 5802	(B,27,47)	RS1/16SS151J
R 5804	(B,26,46)	RS1/16SS151J
R 5806	(B,34,49)	RS1/16SS680J
R 5807	(B,73,51)	RS1/16S0R0J
R 5808	(B,34,50)	RS1/16SS0R0J
R 5810	(B,29,49)	RS1/16SS151J
R 5812	(B,26,50)	RS1/16S0R0J
R 5815	(B,26,51)	RS1/16S0R0J
R 5817	(B,29,52)	RS1/16SS151J
R 5819	(B,24,50)	RS1/16SS151J
R 5820	(A,59,55)	RS1/16SS103J
R 5821	(B,27,53)	RS1/16SS151J
R 5822	(A,62,55)	RS1/16SS103J
R 5823	(B,34,53)	RS1/16SS151J
R 5824	(B,77,54)	RS1/16SS102J
R 5825	(B,26,54)	RS1/16SS151J
R 5826	(B,71,54)	RS1/16S0R0J
R 5827	(B,24,54)	RS1/16SS151J
R 5828	(B,34,55)	RS1/16SS151J
R 5829	(B,71,56)	RS1/16S0R0J
R 5830	(B,31,55)	RS1/16SS151J
R 5832	(B,29,55)	RS1/16SS151J
R 5834	(B,25,57)	RS1/16SS151J
R 5835	(A,59,56)	RS1/16SS103J
R 5836	(B,26,57)	RS1/16SS151J
R 5837	(B,75,58)	RS1/16SS102J
R 5838	(B,29,57)	RS1/16S0R0J
R 5839	(B,73,58)	RS1/16SS102J
R 5841	(B,75,59)	RS1/16SS103J
R 5842	(B,29,59)	RS1/16S0R0J
R 5843	(B,71,58)	RS1/16SS103J
R 5844	(B,26,60)	RS1/16SS151J
R 5845	(B,27,62)	RS1/16SS151J
R 5847	(B,28,60)	RS1/16SS151J
R 5849	(B,28,62)	RS1/16SS151J

Circuit Symbol and No.		Part No.
R 5850	(A,59,57)	RS1/16SS103J
R 5851	(B,73,61)	RS1/16S0R0J
R 5852	(B,30,61)	RS1/16SS151J
R 5853	(B,32,61)	RS1/16SS820J
R 5855	(B,34,61)	RS1/16SS151J
R 5857	(B,30,63)	RS1/16SS680J
R 5859	(B,32,62)	RS1/16SS680J
R 5861	(B,34,63)	RS1/16SS680J
R 5862	(B,71,66)	RS1/16SS102J
R 5863	(B,32,66)	RS1/16S0R0J
R 5865	(B,70,66)	RS1/16S0R0J
R 5866	(B,33,66)	RS1/16SS680J
R 5867	(B,34,66)	RS1/16SS680J
R 5868	(B,35,67)	RS1/16SS680J
R 5869	(B,69,69)	RS1/16S0R0J
R 5870	(B,34,68)	RS1/16SS680J
R 5871	(B,35,69)	RS1/16SS680J
R 5872	(B,49,75)	RS1/16S0R0J
R 5873	(B,63,75)	RS1/16S0R0J
R 5874	(B,56,75)	RS1/16S0R0J
R 5875	(B,54,75)	RS1/16S0R0J
R 5876	(B,47,75)	RS1/16S0R0J
R 5877	(B,39,72)	RS1/16S0R0J
R 5878	(B,64,72)	RS1/16SS0R0J
R 5879	(B,63,71)	RS1/16SS0R0J
R 5880	(B,62,70)	RS1/16SS0R0J
R 5881	(B,65,75)	RS1/16SS0R0J
R 5882	(B,64,75)	RS1/16SS0R0J
R 5883	(B,61,73)	RS1/16SS0R0J
R 5884	(B,61,75)	RS1/16SS0R0J
R 5885	(B,60,73)	RS1/16SS0R0J
R 5886	(B,60,75)	RS1/16SS0R0J
R 5887	(B,59,73)	RS1/16SS0R0J
R 5888	(B,59,75)	RS1/16SS0R0J
R 5889	(B,58,73)	RS1/16SS0R0J
R 5890	(B,57,75)	RS1/16SS0R0J
R 5891	(B,56,72)	RS1/16SS0R0J
R 5892	(B,55,70)	RS1/16SS0R0J
R 5893	(B,52,70)	RS1/16SS0R0J
R 5894	(A,59,58)	RS1/16SS0R0J
R 5895	(A,55,60)	RS1/16SS0R0J
R 5896	(B,53,73)	RS1/16SS0R0J
R 5897	(A,52,59)	RS1/16SS0R0J
R 5898	(B,52,75)	RS1/16SS0R0J
R 5899	(B,51,75)	RS1/16SS0R0J
R 5900	(B,51,72)	RS1/16SS0R0J
R 5901	(B,50,72)	RS1/16SS0R0J
R 5902	(B,50,74)	RS1/16SS0R0J
R 5903	(B,46,75)	RS1/16SS0R0J
R 5904	(B,46,70)	RS1/16SS0R0J
R 5905	(B,46,73)	RS1/16SS0R0J
R 5906	(B,45,71)	RS1/16SS0R0J
R 5907	(B,45,73)	RS1/16SS0R0J
R 5908	(B,44,71)	RS1/16SS0R0J
R 5909	(B,43,73)	RS1/16SS0R0J
R 5910	(B,42,71)	RS1/16SS0R0J
R 5911	(B,42,73)	RS1/16SS0R0J
R 5912	(B,41,71)	RS1/16SS0R0J
R 5913	(B,41,73)	RS1/16SS0R0J
R 5914	(B,40,75)	RS1/16SS0R0J

Circuit Symbol and No.		Part No.
R 5915	(B,38,73)	RS1/16SS0R0J
R 5916	(B,37,71)	RS1/16SS0R0J
R 5917	(B,37,73)	RS1/16SS0R0J
R 5918	(B,36,71)	RS1/16SS0R0J
R 5919	(B,67,41)	RS1/16SS103J
R 5920	(A,65,41)	RS1/16SS103J
R 5921	(A,66,41)	RS1/16SS103J
R 6001	(B,59,10)	RS1/16SS681J
R 6008	(B,61,26)	RS1/10S0R0J
R 6010	(A,61,15)	RS1/16SS0R0J
R 6011	(A,61,13)	RS1/16S10R0D
R 6012	(A,61,21)	RS1/16SS18R0F
R 6013	(A,61,24)	RS1/16S1600D
R 6014	(A,61,17)	RS1/16SS15R0F
R 6015	(A,61,19)	RS1/16SS82R0D
R 6016	(A,62,21)	RS1/16SS12R0F
R 6017	(A,63,23)	RS1/16S47R0D
R 6018	(A,63,19)	RS1/16SS39R0D
R 6019	(A,63,16)	RS1/16S56R0D
R 6020	(A,62,27)	RS1/16SS0R0J
R 6021	(A,62,29)	RS1/16SS1200D
R 6022	(A,64,21)	RS1/16SS0R0J
R 6025	(B,21,24)	RS1/16SS101J
R 6026	(B,37,29)	RS1/16SS102J
R 6027	(B,20,27)	RS1/16SS333J
R 6028	(B,19,32)	RS1/16SS103J
R 6029	(B,23,27)	RS1/16SS0R0J
R 6030	(B,21,32)	RS1/16SS0R0J
R 6031	(B,26,31)	RS1/16SS100J
R 6032	(A,64,16)	RS1/16SS82R0D
R 6037	(B,37,31)	RS1/16SS0R0J
R 6039	(B,34,26)	RS1/16S0R0J
R 6040	(B,20,29)	RS1/16SS0R0J
R 6041	(B,28,29)	RS1/16SS200J
R 6042	(B,20,28)	RS1/16SS0R0J
R 6043	(A,30,32)	RS1/16S4701D
R 6044	(A,28,33)	RS1/16S5101D
R 6045	(A,25,32)	RS1/16S5601D
R 6046	(A,22,33)	RS1/16S4701D
R 6047	(A,23,38)	RS1/16S2002D
R 6048	(A,22,32)	RS1/16S1801D
R 6049	(B,22,28)	RS1/16SS0R0J
R 6050	(B,18,30)	RS1/16SS0R0J
R 6102	(A,12,33)	RS1/16SS0R0J
R 6103	(A,15,35)	RS1/16SS621J
R 6104	(A,10,20)	RS1/16SS0R0J
R 6105	(A,19,45)	RS1/16SS512J
R 6106	(A,14,46)	RS1/16SS102J
R 6107	(A,15,49)	RS1/16SS1003D
R 6108	(A,16,48)	RS1/16SS1002D
R 6109	(A,15,46)	RS1/16SS2R7J
R 6110	(A,16,46)	RS1/16SS5R6J
R 6112	(A,7,19)	RS1/16S3901D
R 6113	(A,19,37)	RS1/16SS0R0J
R 6114	(A,12,38)	RS1/16SS202J
R 6151	(A,15,18)	RS1/16S3001D
R 6152	(A,17,17)	RS1/16S3901D
R 6153	(B,17,18)	RS1/16SS102J
R 6154	(B,17,21)	RS1/16SS102J
R 6155	(A,20,29)	RS1/16S1002D

Circuit Symbol and No.			Part No.
R 6156	(A,20,27)		RS1/16S1002D
R 6157	(B,21,20)		RS1/16SS102J
R 6158	(A,15,29)		RS1/10S0R0J
R 6160	(A,21,17)		RS1/10S0R0J
R 6161	(B,18,20)		RS1/16SS153J

CAPACITORS

C 5007	(B,122,23)		CKSQYB225K10
C 5016	(A,12,62)		CKSRYB473K25
C 5101	(A,102,28)		CKSQYB106K6R3
C 5102	(A,100,30)		CKSSYB104K10
C 5103	(A,99,35)		CKSSYB104K10
C 5104	(A,100,32)		CKSSYB104K10
C 5105	(A,105,25)		CKSSYB104K10
C 5106	(A,122,45)		CKSSYB104K10
C 5107	(B,115,42)		CKSRYB474K10
C 5108	(B,119,46)		CKSSYB103K16
C 5109	(B,119,44)		CKSRYB105K10
C 5110	(B,120,39)		CKSSYB104K10
C 5111	(A,105,28)		CKSSYB104K10
C 5202	(A,56,56)		CKSQYB475K10
C 5203	(A,78,69)		CKSSYB104K10
C 5301	(A,36,48)		CKSSYB104K10
C 5302	(A,42,48)		CKSSYB104K10
C 5303	(A,48,53)		CKSQYB106K6R3
C 5304	(A,47,56)		CKSSYB104K10
C 5305	(A,21,61)		CKSSYB104K10
C 5306	(A,32,66)		CKSSYB104K10
C 5307	(A,37,65)		CKSSYB104K10
C 5308	(A,41,66)		CKSSYB104K10
C 5309	(A,46,62)		CKSSYB104K10
C 5401	(A,97,24)		CKSSYB473K10
C 5402	(A,102,17)		CKSSYB473K10
C 5403	(A,95,14)		CKSSYB102K50
C 5404	(A,96,19)		CKSSYB102K50
C 5405	(B,102,24)		CKSSYB104K10
C 5406	(A,96,16)		CKSSYB102K50
C 5407	(A,111,16)		CKSSYB102K50
C 5408	(A,112,19)		CKSSYB102K50
C 5409	(A,96,13)		CKSSYB102K50
C 5451	(B,76,14)		CKSQYB106K6R3
C 5452	(B,74,14)		CKSQYB106K6R3
C 5453	(B,70,16)		CKSQYB106K6R3
C 5454	(B,77,19)		CKSSYB104K10
C 5455	(B,68,19)		CCSSCH470J50
C 5456	(B,67,20)		CCSSCH680J50
C 5457	(B,69,27)		CCSSCH5R0C50
C 5458	(B,66,27)		CCSSCH470J50
C 5459	(B,71,22)		CKSSYB104K10
C 5460	(A,68,21)		CSZSR330M10
C 5501	(A,110,78)	10 uF	DCH1201
C 5502	(A,114,79)		CKSSYB104K10
C 5503	(A,117,78)		CSZSR330M10
C 5504	(A,111,78)		CKSRYB105K6R3
C 5505	(A,125,78)	10 uF	DCH1201
C 5506	(A,124,78)		CKSRYB105K6R3
C 5507	(B,120,55)		CKSSYB104K10
C 5508	(B,121,61)		CKSSYB472K25
C 5509	(A,126,67)	68 uF/6.3 V	CCH1440

Circuit Symbol and No.			Part No.
C 5510	(A,125,69)		CKSRYB104K50
C 5511	(B,122,65)		CKSSYB682K25
C 5512	(B,117,58)		CKSSYB104K16
C 5513	(B,119,57)	10 uF	DCH1201
C 5514	(B,117,62)		CKSSYB333K16
C 5515	(B,117,64)		CCSSCH680J50
C 5516	(B,122,64)		CKSRYB393K50
C 5517	(B,122,59)		CKSRYB393K50
C 5518	(B,116,65)		CKSRYB103K50
C 5519	(A,114,59)		CKSRYB103K50
C 5520	(B,115,68)		CKSRYB104K50
C 5521	(A,119,60)	10 uF	CCG1223
C 5522	(A,116,60)	10 uF	CCG1223
C 5525	(B,111,69)		CKSRYB105K16
C 5526	(B,109,68)		CKSSYB102K50
C 5527	(A,112,62)	10 uF	CCG1223
C 5528	(A,112,64)		CKSRYB103K50
C 5529	(A,108,57)		CKSSYB102K50
C 5530	(B,108,69)		CKSRYB104K50
C 5531	(B,105,52)		CKSRYB105K16
C 5532	(B,105,69)		CKSRYB105K16
C 5533	(B,104,69)		CKSRYB103K50
C 5534	(B,101,58)		CKSRYB104K50
C 5535	(B,101,65)		CKSRYB472K50
C 5536	(B,101,66)		CKSRYB472K50
C 5537	(B,99,60)		CKSRYB103K50
C 5538	(B,99,61)		CKSYB475K16
C 5539	(A,101,67)		CKSRYB104K50
C 5540	(B,99,58)		CKSRYB104K50
C 5541	(B,99,57)		CKSRYB104K50
C 5542	(B,99,55)		CKSRYB104K50
C 5543	(A,103,64)	33 uF/10 V	CCH1586
C 5544	(B,95,67)		CKSRYB104K50
C 5546	(B,94,60)		CKSRYB105K16
C 5547	(B,94,69)		CKSQYB105K25
C 5548	(B,94,57)		CKSRYB105K16
C 5549	(B,94,55)		CKSRYB105K16
C 5550	(B,96,52)	4.7 uF	CCG1222
C 5552	(B,96,63)		CKSRYB105K16
C 5553	(A,100,61)		CKSRYB105K16
C 5554	(B,104,50)		CKSQYB105K25
C 5555	(B,93,72)		CKSQYB105K25
C 5556	(B,116,69)		CKSSYB102K50
C 5557	(B,119,65)		CKSSYB153K16
C 5558	(B,116,61)		CCSSCH270J50
C 5560	(A,95,65)		CKSSYB104K16
C 5701	(B,42,27)		CCSSCH120J50
C 5702	(A,53,47)		CSZSR470M10
C 5703	(B,45,27)		CCSSCH120J50
C 5704	(B,56,29)		CCSSCH6R0D50
C 5705	(B,54,29)		CCSSCH6R0D50
C 5707	(B,43,34)		CKSSYB104K10
C 5708	(B,66,33)		CKSQYB106K6R3
C 5709	(B,68,33)		CKSQYB106K6R3
C 5710	(B,71,33)		CKSRYB105K6R3
C 5711	(B,70,33)		CKSRYB105K6R3
C 5712	(B,58,35)		CCSSCH330J50
C 5713	(A,60,47)		CSZSR470M10
C 5714	(B,58,37)		CCSSCH680J50
C 5715	(B,63,36)		CKSSYB104K10

Circuit Symbol and No.			Part No.
C 5716	(B,62,36)		CKSSYB104K10
C 5717	(B,56,37)		CKSSYB103K16
C 5718	(B,63,38)		CKSSYB104K10
C 5719	(B,62,38)		CKSSYB104K10
C 5720	(B,53,37)		CKSSYB105K6R3
C 5721	(B,52,36)		CKSSYB105K6R3
C 5722	(B,48,38)		CKSSYB105K6R3
C 5723	(B,48,35)		CKSSYB105K6R3
C 5724	(B,40,37)		CKSSYB105K6R3
C 5725	(A,56,41)		CKSSYB104K10
C 5726	(B,61,35)		CKSSYB104K10
C 5727	(B,53,38)		CKSSYB104K10
C 5728	(B,51,35)		CKSSYB104K10
C 5729	(B,48,37)		CKSSYB104K10
C 5730	(B,48,36)		CKSSYB104K10
C 5731	(B,40,38)		CKSSYB104K10
C 5732	(B,69,45)		CKSSYB105K6R3
C 5733	(B,67,45)		CKSSYB104K10
C 5734	(B,33,45)		CKSSYB105K6R3
C 5735	(B,34,45)		CKSSYB104K10
C 5736	(B,69,51)		CKSSYB105K6R3
C 5737	(B,71,51)		CKSSYB104K10
C 5738	(B,28,51)		CKSSYB105K6R3
C 5739	(B,29,51)		CKSSYB104K10
C 5740	(B,31,51)		CKSSYB105K6R3
C 5741	(B,32,51)		CKSSYB104K10
C 5742	(B,68,54)		CKSSYB105K6R3
C 5743	(B,66,54)		CKSSYB104K10
C 5744	(B,69,56)		CKSSYB105K6R3
C 5745	(B,67,56)		CKSSYB104K10
C 5746	(B,33,57)		CKSSYB105K6R3
C 5747	(B,34,57)		CKSSYB104K10
C 5748	(B,32,58)		CKSSYB105K6R3
C 5749	(B,31,58)		CKSSYB104K10
C 5750	(B,68,61)		CKSSYB105K6R3
C 5751	(B,70,61)		CKSSYB104K10
C 5752	(B,33,64)		CKSSYB105K6R3
C 5753	(B,34,64)		CKSSYB104K10
C 5754	(B,68,65)		CKSQYB106K6R3
C 5755	(B,66,65)		CKSQYB106K6R3
C 5756	(B,66,69)		CKSQYB106K6R3
C 5757	(B,66,68)		CKSSYB104K10
C 5758	(A,56,53)		CSZSR470M10
C 5759	(B,61,70)		CKSSYB105K6R3
C 5760	(B,55,72)		CKSSYB105K6R3
C 5761	(B,53,70)		CKSSYB105K6R3
C 5762	(B,48,72)		CKSSYB105K6R3
C 5763	(B,47,72)		CKSSYB105K6R3
C 5764	(B,40,70)		CKSSYB105K6R3
C 5765	(B,60,70)		CKSSYB104K10
C 5766	(B,54,70)		CKSSYB104K10
C 5767	(B,54,72)		CKSSYB104K10
C 5768	(B,49,70)		CKSSYB104K10
C 5769	(B,48,70)		CKSSYB104K10
C 5770	(B,39,70)		CKSSYB104K10
C 5771	(B,77,55)		CKSSYB102K50
C 6010	(B,64,19)		CKSSYB104K10
C 6012	(B,61,24)	10 uF	DCH1201
C 6013	(A,37,43)		CKSSYB104K10
C 6014	(A,31,43)		CKSSYB104K10
C 6015	(A,26,40)		CKSRYB104K50
C 6016	(B,23,36)		CKSRYB104K50
C 6017	(A,34,42)		CSZSR220M16
C 6018	(A,32,41)	10 uF	DCH1201
C 6019	(A,29,38)		CKSQYB334K50
C 6020	(B,27,36)	4.7 uF	CCG1222
C 6022	(A,38,31)		CKSSYB104K10
C 6023	(A,35,31)		CKSSYB104K10
C 6024	(A,33,31)		CKSRYB104K50
C 6025	(B,27,38)		CKSRYB104K50
C 6026	(A,28,35)		CKSRYB105K16
C 6027	(A,24,36)		CKSQYB105K25
C 6101	(A,61,7)	10 uF	CCG1236
C 6102	(A,52,8)	10 uF	CCG1236
C 6104	(A,9,30)	10 uF	CCG1236
C 6105	(A,13,34)		CKSSYB104K10
C 6106	(A,9,24)		CCSSCH331J50
C 6108	(A,9,48)	22 uF/35 V	CCH1807
C 6110	(A,16,41)		CKSRYB474K10
C 6111	(A,12,44)		CKSRYB104K50
C 6151	(A,15,26)		CKSRYB104K50
C 6154	(A,13,27)	4.7 uF	CCG1222
C 6155	(A,23,19)		CKSSYB104K10
C 6156	(A,22,23)		CSZSR220M16
C 6158	(B,17,24)		CKSQYB475K6R3

C

Unit Number : YWX5007
Unit Name : DVD Core Unit

MISCELLANEOUS

IC 1002	(B,21,41)	Regulator IC	S-1133B50-U5
IC 1003	(B,35,23)	IC	S-1200B50-M5
IC 1004	(B,25,11)	IC	NJM2885DL1-33
IC 1005	(B,19,21)	IC	R1232D121B
IC 1201	(A,15,29)	IC	BD8231EFV
*IC1401	(B,63,36)	Flash ROM Unit	CWW1753
*IC1402	(B,50,36)	Flash ROM Unit	CWW1754
IC 1480	(B,59,13)	SDRAM(64M)	K4S641632N-LC75
IC 1501	(A,60,20)	IC	MN2DS0018MAUB
IC 1801	(B,37,16)	D/A Converter	PCM1753DBQ
IC 1951	(B,76,32)	Logic IC	TC7SZU04FU
Q 1101	(A,35,39)	Transistor	2SC4081
Q 1102	(A,46,42)	Transistor	2SC4081
Q 1103	(A,38,45)	Transistor	2SB1132
Q 1104	(A,45,49)	Transistor	2SB1132
L 1003	(B,22,26)	Inductor	CTF1677
L 1004	(B,14,17)	Inductor	CTF1678
L 1512	(A,57,5)	Inductor	CTF1743
L 1902	(B,5,8)	Inductor	CTF1487
L 1903	(B,12,11)	Inductor	CTF1558
L 1904	(B,46,19)	Inductor	CTF1473
X 1501	(B,43,7)	Oscillator 27.000 MHz	CSS1768
X 1950	(B,76,35)	Oscillator 48.000 MHz	CSS1760
EF1001	(B,5,12)	Chip EMI Filter	DTF1106
EF1002	(B,11,13)	Chip EMI Filter	DTL1106

RESISTORS

R 1002	(B,18,27)	RS1/16SS101J

Circuit Symbol and No.		Part No.
R 1004	(A,29,27)	RS1/16SS4702D
R 1007	(A,29,26)	RS1/16SS6801D
R 1019	(B,15,9)	RS1/16SS101J
R 1021	(A,27,15)	RS1/16S0R0J
R 1025	(B,19,11)	RS1/16SS101J
R 1027	(A,27,19)	RS1/16SS101J
R 1101	(A,35,36)	RS1/16SS104J
R 1102	(A,43,42)	RS1/16SS104J
R 1103	(A,34,41)	RS1/16SS391J
R 1104	(A,36,36)	RS1/16SS511J
R 1105	(A,42,44)	RS1/16SS391J
R 1106	(A,45,39)	RS1/16SS561J
R 1109	(A,34,43)	RS1/16SS3R3J
R 1110	(A,41,43)	RS1/16SS3R3J
R 1111	(A,38,39)	RS1/10SR1R5J
R 1112	(A,38,38)	RS1/10SR1R5J
R 1113	(A,49,46)	RS1/10SR1R5J
R 1114	(A,48,46)	RS1/10SR1R5J
R 1115	(A,41,38)	RS1/10SR1R5J
R 1116	(A,41,39)	RS1/10SR1R5J
R 1117	(A,48,43)	RS1/10SR1R5J
R 1118	(A,49,43)	RS1/10SR1R5J
R 1201	(A,16,36)	RS1/16SS221J
R 1202	(A,17,35)	RS1/16SS221J
R 1203	(A,22,35)	RS1/16SS103J
R 1204	(A,19,35)	RS1/16SS153J
R 1212	(A,7,36)	RS1/16SS271J
R 1213	(B,8,29)	RS1/16SS1R0J
R 1214	(B,8,27)	RS1/16SS1R0J
R 1215	(B,8,28)	RS1/16SS1R0J
R 1216	(B,8,24)	RS1/16SS1R0J
R 1217	(B,8,25)	RS1/16SS1R0J
R 1218	(B,8,26)	RS1/16SS1R0J
R 1222	(B,26,39)	RS1/16SS271J
R 1300	(B,39,24)	RS1/16SS0R0J
R 1401	(B,63,49)	RS1/16SS221J
R 1402	(B,70,27)	RS1/16SS104J
R 1405	(B,56,24)	RS1/16SS104J
R 1406	(B,54,25)	RS1/16SS104J
R 1480	(B,52,21)	RAB4CQ560J
R 1481	(B,56,21)	RAB4CQ560J
R 1482	(B,61,21)	RAB4CQ560J
R 1483	(B,64,21)	RAB4CQ560J
R 1484	(B,67,21)	RAB4CQ560J
R 1485	(B,50,5)	RAB4CQ560J
R 1486	(B,55,5)	RAB4CQ560J
R 1487	(B,64,5)	RAB4CQ560J
R 1488	(B,68,5)	RAB4CQ560J
R 1489	(B,59,5)	RS1/16SS560J
R 1490	(B,50,21)	RS1/16SS560J
R 1501	(B,46,7)	RS1/16SS122J
R 1503	(B,45,8)	RS1/16SS105J
R 1504	(B,45,13)	RS1/16SS120J
R 1505	(A,43,13)	RS1/16SS101J
R 1506	(A,37,14)	RS1/16SS101J
R 1507	(A,44,14)	RS1/16SS101J
R 1508	(A,43,15)	RS1/16SS221J
R 1509	(A,63,35)	RS1/16SS102J
R 1510	(A,64,35)	RS1/16SS102J
R 1511	(B,46,13)	RS1/16S0R0J

Circuit Symbol and No.		Part No.
R 1512	(A,58,5)	RS1/16SS101J
R 1513	(A,66,35)	RS1/16SS103J
R 1514	(A,68,35)	RS1/16SS183J
R 1516	(A,65,36)	RS1/16SS103J
R 1517	(A,76,16)	RS1/16SS103J
R 1518	(A,74,24)	RS1/16SS103J
R 1519	(A,70,34)	RS1/16SS102J
R 1522	(A,65,38)	RS1/16SS104J
R 1523	(A,66,37)	RS1/16SS221J
R 1524	(A,64,37)	RS1/16SS472J
R 1525	(A,71,34)	RS1/16SS103J
R 1526	(A,67,34)	RS1/16SS103J
R 1527	(B,77,29)	RS1/16SS682J
R 1528	(A,78,20)	RS1/16SS103J
R 1529	(A,76,18)	RS1/16SS103J
R 1530	(A,77,20)	RS1/16SS103J
R 1531	(A,75,24)	RS1/16SS103J
R 1532	(B,70,33)	RS1/16SS101J
R 1534	(A,78,30)	RS1/16SS221J
R 1535	(B,70,34)	RS1/16SS104J
R 1536	(A,78,31)	RS1/16SS104J
R 1537	(A,73,35)	RS1/16SS104J
R 1538	(A,61,4)	RS1/16SS104J
R 1539	(A,77,23)	RS1/16SS104J
R 1540	(A,73,32)	RS1/16SS221J
R 1541	(A,75,32)	RS1/16SS221J
R 1542	(A,77,29)	RS1/16SS103J
R 1543	(B,75,28)	RS1/16SS181J
R 1544	(B,77,28)	RS1/16SS181J
R 1546	(B,75,29)	RS1/16SS682J
R 1601	(A,42,25)	RS1/16SS123J
R 1602	(A,44,25)	RS1/16SS123J
R 1603	(A,43,30)	RN1/16SE1002D
R 1604	(A,50,35)	RS1/16SS105J
R 1605	(A,49,37)	RS1/16SS105J
R 1670	(A,34,21)	RS1/16SS1002D
R 1671	(A,36,21)	RS1/16SS2402D
R 1672	(A,45,19)	RS1/16SS2000D
R 1674	(A,45,20)	RS1/16SS3002D
R 1801	(B,35,6)	RS1/16SS104J
R 1802	(B,33,6)	RS1/16SS104J
R 1803	(B,35,11)	RS1/16SS821J
R 1804	(B,34,11)	RS1/16SS821J
R 1950	(A,42,16)	RS1/16S24R0F
R 1951	(A,42,18)	RS1/16S24R0F
R 1952	(B,78,34)	RS1/16SS105J
R 1953	(B,74,34)	RS1/16SS681J
R 1954	(A,35,17)	RS1/16SS153J
R 1955	(A,40,14)	RS1/16SS153J
R 1956	(A,40,18)	RS1/16SS0R0J
R 1957	(A,40,15)	RS1/16SS0R0J

CAPACITORS

C 1001	(B,36,21)		CKSRYB105K10
C 1003	(B,18,44)		CKSSYB104K16
C 1004	(B,24,40)		CKSQYB475K10
C 1005	(B,32,23)		CKSRYB105K16
C 1008	(B,20,31)	10 uF	DCH1201
C 1009	(B,18,31)	10 uF	DCH1201

Circuit Symbol and No.			Part No.
C 1010	(B,26,18)		CKSQYB225K10
C 1011	(B,22,18)		CKSRYB105K10
C 1013	(B,15,25)	10 uF	DCH1201
C 1014	(B,13,25)	10 uF	DCH1201
C 1015	(B,7,8)		CKSSYB102K50
C 1016	(B,12,10)		CKSSYB102K50
C 1018	(A,28,28)		CKSSYB104K10
C 1019	(A,10,17)		CKSSYB104K10
C 1021	(B,34,4)		CCSRCH681J50
C 1022	(A,23,21)		CCSRCH681J50
C 1101	(B,31,40)	10 uF	DCH1201
C 1104	(A,34,42)		CKSSYB104K10
C 1105	(A,42,45)		CKSSYB104K10
C 1106	(A,37,48)		CKSSYB103K16
C 1107	(A,41,49)		CKSSYB103K16
C 1108	(A,74,42)		CKSSYB103K16
C 1109	(A,56,41)		CKSRYB224K10
C 1110	(A,71,42)		CKSSYB103K16
C 1111	(A,61,39)		CKSRYB224K10
C 1112	(B,40,39)	22 uF	CCG1178
C 1113	(B,36,38)	22 uF	CCG1178
C 1201	(B,12,34)		CEVW101M16
C 1204	(A,8,24)		CKSSYB222K50
C 1205	(A,13,23)		CKSSYB104K16
C 1207	(A,22,25)		CKSSYB104K16
C 1208	(A,15,36)		CKSSYB103K16
C 1209	(B,10,25)		CKSSYB104K16
C 1210	(B,6,23)		CKSSYB104K16
C 1211	(B,9,22)		CKSYB475K16
C 1401	(B,63,48)		CKSSYB103K16
C 1403	(B,69,23)		CKSSYB104K10
C 1404	(B,58,25)		CKSQYB475K6R3
C 1408	(B,47,25)		CKSSYB104K10
C 1409	(B,47,23)		CKSQYB475K6R3
C 1480	(B,47,21)		CKSSYB104K10
C 1481	(B,49,23)		CKSSYB104K10
C 1482	(B,54,21)		CKSSYB104K10
C 1484	(B,59,20)		CKSSYB104K10
C 1485	(B,69,21)		CKSSYB104K10
C 1487	(B,58,4)		CKSSYB104K10
C 1488	(B,52,5)		CKSSYB104K10
C 1489	(B,45,20)		CKSQYB106K6R3
C 1490	(B,45,23)		CKSSYB102K50
C 1501	(B,72,9)		CKSQYB106K6R3
C 1502	(A,35,32)		CKSQYB106K6R3
C 1503	(A,60,4)		CKSSYB104K10
C 1504	(A,51,5)		CKSSYB104K10
C 1505	(A,53,5)		CKSSYB104K10
C 1506	(A,55,5)		CKSSYB104K10
C 1507	(A,62,5)		CKSSYB104K10
C 1508	(A,66,5)		CKSSYB104K10
C 1509	(A,69,5)		CKSSYB104K10
C 1510	(B,46,5)		CCSSCH120J50
C 1511	(A,46,9)		CKSSYB104K10
C 1512	(B,43,10)		CCSSCH100D50
C 1513	(B,74,12)		CKSSYB104K10
C 1514	(A,46,13)		CKSSYB104K10
C 1515	(A,45,15)		CKSSYB104K10
C 1516	(A,75,15)		CKSSYB104K10
C 1517	(A,74,16)		CKSSYB104K10

Circuit Symbol and No.			Part No.
C 1518	(A,75,22)		CKSSYB104K10
C 1519	(A,74,26)		CKSSYB104K10
C 1520	(A,75,30)		CKSSYB104K10
C 1521	(A,60,37)		CKSSYB104K10
C 1522	(A,65,34)		CKSSYB104K10
C 1523	(A,68,37)		CKSSYB104K10
C 1524	(A,69,37)		CKSSYB473K10
C 1526	(A,68,37)		CKSSYB103K16
C 1528	(A,78,29)		CCSSCH471J16
C 1601	(A,44,29)		CKSSYB103K16
C 1602	(A,42,24)		CCSSCH101J50
C 1603	(A,44,27)		CCSSCH101J50
C 1604	(A,41,27)		CCSSCH680J50
C 1605	(A,43,27)		CCSSCH680J50
C 1606	(A,41,23)		CKSSYB104K10
C 1607	(A,41,35)		CKSQYB106K6R3
C 1608	(A,43,36)		CKSRYB105K10
C 1609	(A,48,35)		CKSSYB104K10
C 1610	(A,50,37)		CKSSYB104K10
C 1611	(A,51,37)		CKSSYB104K10
C 1612	(A,52,34)		CKSSYB104K10
C 1613	(A,52,37)		CKSSYB104K10
C 1614	(A,53,34)		CKSSYB104K10
C 1615	(A,54,34)		CKSSYB104K10
C 1616	(A,54,37)		CKSSYB104K10
C 1617	(A,54,38)		CKSSYB104K10
C 1618	(A,56,34)		CCSSCH101J50
C 1619	(A,57,34)		CKSSYB562K25
C 1620	(A,58,34)		CKSSYB224K6R3
C 1621	(A,57,37)		CKSSYB224K6R3
C 1622	(A,59,35)		CKSSYB333K16
C 1623	(A,45,35)		CKSRYB105K10
C 1624	(A,58,37)		CKSSYB104K10
C 1625	(A,56,37)		CKSSYB104K10
C 1671	(A,44,17)		CKSSYB104K10
C 1672	(A,45,18)		CKSSYB104K10
C 1673	(A,45,22)		CKSSYB104K10
C 1674	(A,43,21)		CKSSYB104K10
C 1676	(A,38,22)		CKSRYB105K10
C 1801	(B,34,8)		CKSQYB475K6R3
C 1802	(B,32,8)		CKSQYB475K6R3
C 1803	(B,36,8)		CCSRCH182J50
C 1804	(B,31,7)		CCSRCH182J50
C 1805	(B,32,19)		CKSSYB104K10
C 1806	(B,39,9)	10 uF	DCH1201
C 1809	(B,43,16)		CKSSYB104K10
C 1934	(B,42,29)		CCSRCH680J50
C 1950	(B,73,33)		CKSSYB104K10
C 1951	(B,74,36)		CCSSCH100D50
C 1952	(B,78,36)		CCSSCH100D50
C 1954	(B,43,49)		CCSRCH470J50

D

Unit Number :

Unit Name : Connect PCB

MISCELLANEOUS

S 101	(B,51,37)	Switch(HOME)	CSN1068
S 102	(B,12,23)	Switch(DSCSNS)	CSN1068

Circuit Symbol and No.			Part No.
S 103	(B,22,10)	Switch(8SNS)	CSN1068
R 101	(B,52,27)		RS1/16S101J
R 102	(B,15,29)		RS1/16S101J
R 103	(B,16,11)		RS1/16S101J
C 101	(B,51,23)		CKSRYB104K50

Miscellaneous Parts List

	Pickup Unit(Service)	CXX2398
M 1	Motor Unit(LOAD/CRG)	CXC4026
M 2	Motor(SPINDLE)	EXM1050