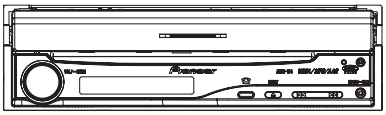
Pioneer sound.vision.soul

Service Manual



AVIC-N4/XU/UC

ORDER NO.
CRT3971

DVD MULTIMEDIA AV NAVIGATION SERVER

AVIC-N4/XU/UC

DVD MULTIMEDIA AV NAVIGATION HEAD UNIT

AVIC-X3/XU/EW5

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

Model No.	Order No.	Mech.Module	Remarks
CX-3212	CRT3896	MS5	DVD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

This product has the unit part number as below.

Unit Part No.	Description
CPN2375	Navigation Unit(AVIC-N4/XU/UC)
CPN2377	H/A Unit(AVIC-N4/XU/UC)
CPN2376	Navigation Unit(AVIC-X3/XU/EW5)
CPN2378	H/A Unit(AVIC-X3/XU/EW5)

*) The unit part numbers listed above are not for the service components.



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
ⓒ**PIONEER CORPORATION 2007**

K-ZZA.-001 AUG. 2007 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 safely 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 safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and 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

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

1. **Safety Precautions for those who Service this Unit.**
   - **Follow the adjustment steps in the service manual when servicing this unit. When check - ing 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.**

2. **The triangular label is attached to the mechanism unit frame.**

CAUTION
This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution label appears on your unit.

On the top of the player.



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

Maximum Output
DVD : 1.27 mW(Emitting period :9 sec.)
CD : 6.26 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.

[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.

⓪ 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

SAFETY INFORMATION 2
1. SERVICE PRECAUTIONS 6
1.1 SERVICE PRECAUTIONS 6
1.2 NOTES ON SOLDERING 7
2. SPECIFICATIONS 8
2.1 SPECIFICATIONS 8
2.2 DISC/CONTENT FORMAT 12
2.3 PANEL FACILITIES 13
2.4 CONNECTION DIAGRAM 16
3. BASIC ITEMS FOR SERVICE 21
3.1 CHECK POINTS AFTER SERVICING 21
3.2 PCB LOCATIONS 22
3.3 JIGS LIST 24
3.4 JIG CONNECTION DIAGRAM 25
3.5 CLEANING 25
4. BLOCK DIAGRAM 26
4.1 OVERALL WIRING DIAGRAM 26
4.2 BLOCK DIAGRAM 28
4.3 POWER BLOCK DIAGRAM 44
5. DIAGNOSIS 46
5.1 OPERATIONAL FLOWCHART 46
5.2 DIAGNOSIS FLOWCHART 50
5.3 ERROR CODE LIST 72
5.4 CONNECTOR FUNCTION DESCRIPTION 73
6. SERVICE MODE 75
6.1 TEST MODE 75
6.2 TEST DISC 96
6.3 DVD TEST MODE 108
6.4 EJECT LOCK 111
6.5 SLAVE TEST MODE 111
7. DISASSEMBLY 112
8. EACH SETTING AND ADJUSTMENT 119
8.1 DVD ADJUSTMENT 119
8.2 CC UNIT ADJUSTMENT 124
8.3 MOTHER PCB ADJUSTMENT 126
8.4 MONITOR PCB ADJUSTMENT 128
8.5 TOUCH PANEL TEST MODE 143
8.6 SERVICE ADJUSTMENT 148
9. EXPLODED VIEWS AND PARTS LIST 150
9.1 PACKING(UC) 150
9.2 PACKING(EW5) 152
9.3 EXTERIOR(1) 154
9.4 EXTERIOR(2) 156
9.5 EXTERIOR(3) 160
9.6 EXTERIOR(4) 162
9.7 DVD MECHANISM MODULE 164
10. SCHEMATIC DIAGRAM 166
10.1 CC UNIT(P/S)(GUIDE PAGE) 166
10.2 CC UNIT(SYSCOM,VIDEO,IF)(GUIDE PAGE) 172
10.3 CC UNIT(AUDIO)(GUIDE PAGE) 178
10.4 CC UNIT(CPU,ASIC,SDRAM)(GUIDE PAGE) 184
10.5 CC UNIT(ROM,SRAM,BUS-BUFFER) 190
10.6 CC UNIT(GRAPHIC) 192
10.7 CC UNIT(MAIN,CC,I/F&OTHERS) 194
10.8 KEYBOARD UNIT 196
10.9 GPS UNIT(GUIDE PAGE) 198
10.10 DVD CORE UNIT(1/2)(GUIDE PAGE) 204
10.11 DVD CORE UNIT(2/2) 210
10.12 COMPOUND UNIT(A) AND COMPOUND UNIT(B) 212
10.13 MONITOR PCB(MONITOR)(GUIDE PAGE) 214
10.14 MONITOR PCB(INVERTER) 220
10.15 UPPER PCB 222
10.16 IPOD PCB AND CONNECTOR PCB 223
10.17 MEZZANINE PCB 224
10.18 MOTHER PCB(GPS,TMC&OTHERS) 226
10.19 MOTHER PCB(H/A SYSTEM)(GUIDE PAGE) 228
10.20 MAIN PCB UNIT(SERVICE), SWITCH PCB UNIT AND VOLUME PCB UNIT 234
10.21 WAVEFORMS 236
11. PCB CONNECTION DIAGRAM 238
11.1 CC UNIT 238
11.2 KEYBOARD UNIT 242
11.3 GPS UNIT 243
11.4 DVD CORE UNIT 244
11.5 COMPOUND UNIT(A) AND COMPOUND UNIT(B) 248
11.6 MONITOR PCB 250
11.7 UPPER PCB 254
11.8 IPOD PCB 255
11.9 MEZZANINE PCB 256
11.10 MOTHER PCB 258
11.11 CONNECTOR PCB 262
11.12 MAIN PCB UNIT(SERVICE), SWITCH PCB UNIT AND VOLUME PCB UNIT 263
12. ELECTRICAL PARTS LIST 264

1. SERVICE PRECAUTIONS

1.1 SERVICE PRECAUTIONS

● Service Precaution

1. You should conform to the regulations govering 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 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 aconnector is plugged or unplugged.

DVD is a trademark of DVD Format/Logo Licensing Corporation.

1.2 NOTES ON SOLDERING

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

● AVIC-N4/XU/UC

General

Rated power source ..... 14.4 V DC (allowable voltage range: 10.8 V to 15.1 V DC)
Grounding system ..... Negative type
Max. current consumption ..... 10.0 A
Backup current ..... 5.5 mA or less
Display unit:
Dimensions (W × H × D):
DIN
Chassis ..... 178 × 50 × 160 mm (7 × 2 × 6-1/4 in.)
Nose ..... 188 × 58 × 33 mm (7-3/8 × 2-1/4 × 1-3/8 in.)
D
Chassis ..... 178 × 50 × 165 mm (7 × 2 × 6-1/2 in.)
Nose ..... 170 × 46 × 28 mm (6-3/4 × 1-3/4 × 1-1/4 in.)
Weight ..... 2.3 kg(5.1 lbs)
Hideaway unit:
Dimensions (W × H × D): ..... 180 × 30 × 140 mm
Weight ..... 0.7 kg(1.5 lbs)

Navigation

GPS Receiver:
System ..... L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system ..... 8-channel multi-channel reception system
Reception frequency ... 1 575.42 MHz
Sensitivity ..... –130 dBm
Position update frequency ..... Approx. once per second
GPS antenna:
Antenna ..... Micro strip flat antenna/ right-handed helical polarization
Antenna cable ..... 5.0 m(16 ft. 5 in.)
Dimensions (W × H × D) ..... 33 × 13 × 36 mm (1-1/4 × 1/2 × 1-3/8 in.)
Weight ..... 105 g(0.23 lbs)

Display

Screen size/aspect ratio ..... 7 inch wide/16:9 (effective display area: 156 × 89 mm)
Pixels ..... 336 960 (1 440 × 234)
Type ..... TFT active matrix, transmissive type
Color system ..... NTSC
Operating temperature range ..... +14 °F to +122 °F
Storage temperature range ..... –4 °F to +176 °F

Audio

Continuous power output is 22 W per channel minimum into 4 ohms, both channels driven 50 to 15 000 Hz with no more than 5% THD.
Maximum power output ..... 50 W × 4 50 W × 2 ch/4 Ω + 70 W × 1 ch/2 Ω (for subwoofer)
Load impedance ..... 4 Ω (4 Ω to 8 Ω [2 Ω for 1 ch] allowable)
Preout max output level/output impedance ..... 1.7 V/1 kΩ
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 ..... ±12dB
Mid
Frequency ..... 200 Hz/500 Hz/1 kHz/2 kHz
Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain ..... ±12dB
High
Frequency ..... 3.15/8/10/12.5 kHz
Q Factor ..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain ..... ±12dB
Loudness contour:
Low ..... +3.5 dB (100 Hz), +3 dB (10 kHz)
Mid ..... +10 dB (100 Hz), +6.5 dB (10 kHz)
High ..... +11 dB (100 Hz), +11 dB (10 kHz) (volume: –30 dB)
HPF:
Frequency ..... 50/80/125 Hz
Slope ..... –12 dB/oct
Subwoofer:
Frequency ..... 50/80/125 Hz
Slope ..... –18 dB/oct
Gain ..... ±12dB
Phase ..... Normal/Reverse

DVD Drive

System ..... DVD-Video, Compact disc audio, MP3, WMA, AAC, DivX system
Usable discs ..... DVD-Video, Compact disc, MP3, WMA, AAC, DivX
Region number 1
Signal format:
Sampling frequency .... 44.1/48/96 kHz
Number of quantization bits ..... 16/20/24; linear
Frequency response ..... 5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio ..... 97 dB (1 kHz) (IHF-A network) (CD: 96 dB (1 kHz) (IHF-A network))

Dynamic range ..... 95 dB (1 kHz)
(CD: 94 dB (1 kHz))
Distortion..... 0.008 % (1 kHz)
Output level:
Video ..... 1.0 Vp-p/75Ω (±0.2 V)
Audio ..... 1.0 V (1 kHz, 0 dB)
Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format..... Ver.9.0 L3
AAC decoding format..... MPEG-4 AAC (only encoded by iTunes)
: .m4a
DivX decoding format ..... Home Theater Ver.3, Ver.4, Ver.5.2
: .avi, .divx

FM tuner

Frequency range..... 87.9 MHz to 107.9 MHz
Usable sensitivity..... 8 dBf (0.7 µV/75Ω, mono, S/N: 30 dB)
Signal-to-noise ratio ..... 75 dB (IHF-A network)
Distortion..... 0.3 % (at 65 dBf, 1 kHz, stereo)
0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response..... 30 Hz to 15 000 Hz (±3 dB)
Stereo separation ..... 45 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range..... 530 kHz to 1 710 kHz (10 kHz)
Usable sensitivity..... 18 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 65 dB (IHF-A network)

Note:

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

● AVIC-X3/XU/EW5

General

Rated power source ..... 14.4 V DC (allowable voltage range: 12.0 V to 14.4 V DC)
Earthing system..... Negative type
Maximum current consumption ..... 10.0 A
Backup current..... 5.5 mA or less
Display unit:
Dimensions (W × H × D):
DIN
Chassis..... 178 × 50 × 160 mm
Nose..... 188 × 58 × 33 mm
D
Chassis..... 178 × 50 × 165 mm
Nose..... 170 × 46 × 28 mm
Weight ..... 2.3 kg
Hideaway unit:
Dimensions (W × H × D):
..... 180 × 30 × 140 mm
Weight ..... 0.7 kg

Navigation

GPS Receiver:
System..... L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system..... 8-channel multi-channel reception system
Reception frequency ... 1 575.42 MHz
Sensitivity..... –130 dBm
Position update frequency ..... Approx. once per second
GPS aerial:
Aerial ..... Micro strip flat aerial/right-handed helical polarisation
Aerial cable ..... 5.0 m
Dimensions (W × H × D) ..... 33 × 13 × 36 mm
Weight..... 105 g

Display

Screen size/aspect ratio ..... 7 inch wide/16:9 (effective display area: 156 × 89 mm)
Pixels ..... 336 960 (1 440 × 234)
Type ..... TFT active matrix, transmissive type
Colour system..... NTSC/PAL compatible
Operating temperature range ..... –10 °C to +50 °C
Storage temperature range ..... –20 °C to +80 °C
Angle adjustment..... 50° to 110° (Initial setting angle: 90°)

Audio

Maximum power output..... 50 W × 4
50 W × 2 ch/4 Ω + 70 W × 1 ch/2 Ω (for subwoofer)
Continuous power output ... 22 W × 4 (50 Hz to 15 kHz, 5 %THD, 4Ω LOAD, Both Channels Driven)
Load impedance ..... 4Ω (4Ω to 8Ω [2Ω for 1 ch] allowable)
Preout max output level/output impedance ..... 1.7 V/1 kΩ
Equaliser (3-Band Parametric Equaliser):
Low
Frequency..... 40/80/100/160 Hz
Q Factor..... 0.35/ 0.59/0.95/1.15 (+6 dB when boosted)
Gain..... ±12dB
Mid
Frequency..... 200 Hz/500 Hz/1 kHz/2 kHz
Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain..... ±12dB
High
Frequency..... 3.15/8/10/12.5 kHz
Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain..... ±12dB
Loudness contour:
Low..... +3.5 dB (100 Hz), +3 dB (10 kHz)
Mid..... +10 dB (100 Hz), +6.5 dB (10 kHz)
High ..... +11 dB (100 Hz), +11 dB (10 kHz) (volume: –30 dB)
HPF:
Frequency..... 50/80/125 Hz
Slope..... –12 dB/oct
Subwoofer:
Frequency..... 50/80/125 Hz
Slope..... –18 dB/oct
Gain..... ±12dB
Phase..... Normal/Reverse

DVD Drive

System..... DVD-Video, Compact disc audio, MP3, WMA, AAC, DivX system
Usable discs..... DVD-Video, Compact disc, MP3, WMA, AAC, DivX
Region number..... 2

Signal format:
Sampling frequency .... 44.1/48/96 kHz
Number of quantisation bits
..... 16/20/24; linear
Frequency response ..... 5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio ..... 97 dB (1 kHz) (IEC-A network)
(CD: 96 dB (1 kHz) (IEC-A network))
Dynamic range ..... 95 dB (1 kHz)
(CD: 94 dB (1 kHz))
Distortion..... 0.008 % (1 kHz)
Output level:
Video ..... 1.0 Vp-p/75 Ω (±0.2 V)
Audio ..... 1.0 V (1 kHz, 0 dB)
Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format..... Ver.9.0 L3
AAC decoding format..... MPEG-4 AAC (only encoded by iTunes)
: .m4a
DivX decoding format ..... Home theater Ver.3, Ver.4, Ver.5.2
: avi, .divx

FM tuner
Frequency range..... 87.5 MHz to 108.0 MHz
Usable sensitivity..... 8 dBf (0.7 µV/75Ω , mono, S/N: 30 dB)
Signal-to-noise ratio ..... 75 dB (IEC-A network)
Distortion..... 0.3 % (at 65 dBf, 1 kHz, stereo)
0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response..... 30 Hz to 15 000 Hz (±3 dB)
Stereo separation ..... 45 dB (at 65 dBf, 1 kHz)

MW tuner
Frequency range..... 531 kHz to 1 602 kHz (9 kHz)
Usable sensitivity..... 18 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 65 dB (IEC-A network)

LW tuner
Frequency range..... 153 kHz to 281 kHz
Usable sensitivity..... 30 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 65 dB (IEC-A network)

Note:
- Specifications and design are subject to possible modifications without notice due to improvements.

2.2 DISC/CONTENT FORMAT

Playable Discs

About DVD-Video and CD

DVD and CD discs that display the logos shown below generally can be played back on this built-in DVD drive.

DVD-Video



CD





- ❒ is a trademark of DVD Format/Logo Licensing Corporation.
- ❒ It is not possible to play back DVD-Audio discs. This DVD drive may not be able to play all discs bearing the marks shown above.

About AVCHD recorded discs

This unit is not compatible with discs recorded in AVCHD (Advanced Video Codec High Definition) format.
Do not insert AVCHD discs.If inserted, the disc may not be ejected.

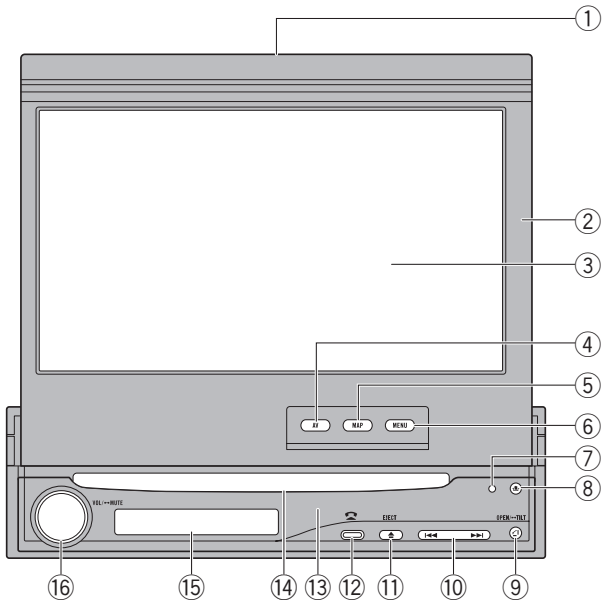
About Dual layer discs

The unit cannot play back DVD-R/-RW discs that are written in Layer Jump Recording mode. For more information about the writing method, see the operation manual for the writing device.

About DVD Map Disc

You can use discs intended for this navigation system. Use only discsapproved by Pioneer.

2.3 PANEL FACILITIES



① Disc indicator
When a disc is set in navigation system, this indicator lights.

② LCD panel

③ LCD screen

④ AV button
Press to display the AV operation screen.

⑤ MAP button
Press to view the map or change view mode.

⑥ MENU button
Press to display the navigation menu or AV menu.

⑦ RESET button

⑧ DETACH button
Press to remove the front panel from the display unit.

⑨ OPEN/CLOSE button
Press to open or close the LCD panel.
Press and hold to display Flap Setup screen.

⑩ ⏮/⏭ button
Press to perform manual seek tuning, fast forward, reverse and track search controls.

⑪ EJECT button

⑫ PHONE button
Press to display BT-TEL operation screen.
Press and hold to switch the indication of sub display in the following order:
Present time — No indication — AV source information

⑬ Front panel

⑭ Disc loading slot

⑮ Sub Display
Displays the current time or information about the AV source that is currently playing.

⑯ VOLUME knob
Turn to adjust the AV (Audio and Video) volume or press to change the AV source. Press and hold the VOLUME knob to switch the source to mute.

Resetting the Microprocessor

⚠ CAUTION

- Pressing the RESET button deletes the contents of the system's memory.

About the data being deleted

The information is erased by pressing the RESET button or disconnecting the yellow lead from the battery (or removing the battery itself). However, the following items are not erased:

- Sensor learning status and driving status
- Memory areas that were memorised manually
- Areas to avoid
- Registered Locations in "Address Book"

Reset the navigation system without changing the condition memory

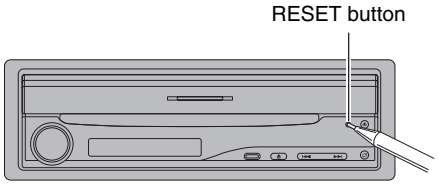
Pressing the RESET button of the navigation system lets you reset the microprocessor to its initial settings without changing the condition memory.

The microprocessor must be reset under the following conditions:

- Prior to using this product for the first time after installation.
- If the product fails to operate properly.
- If there appear to be problems with the operation of the system.
- When changing the combination of the equipment.
- When adding/removing additional products that connect to the navigation system.

1 Turn the ignition switch OFF.

2 Press the RESET button with a pen tip or other pointed instrument.



❒ If you have connected other equipment (for example, Bluetooth adapter) to this navigation system, be sure to reset that equipment too.

Reset the navigation system to the initial (factory) setting

When you want to erase memorised settings and return the navigation system to its initial (factory) settings, carry out the following operations.

1 Turn the engine ON or set the ignition switch to ACC position.

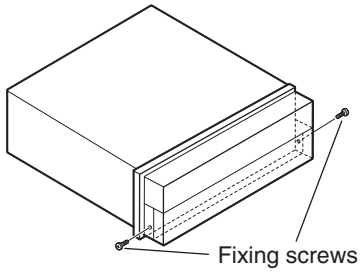
2 Press the RESET button with a pen tip or other pointed instrument.

❒ Some navigation settings and data are not erased.

Fixing the front panel

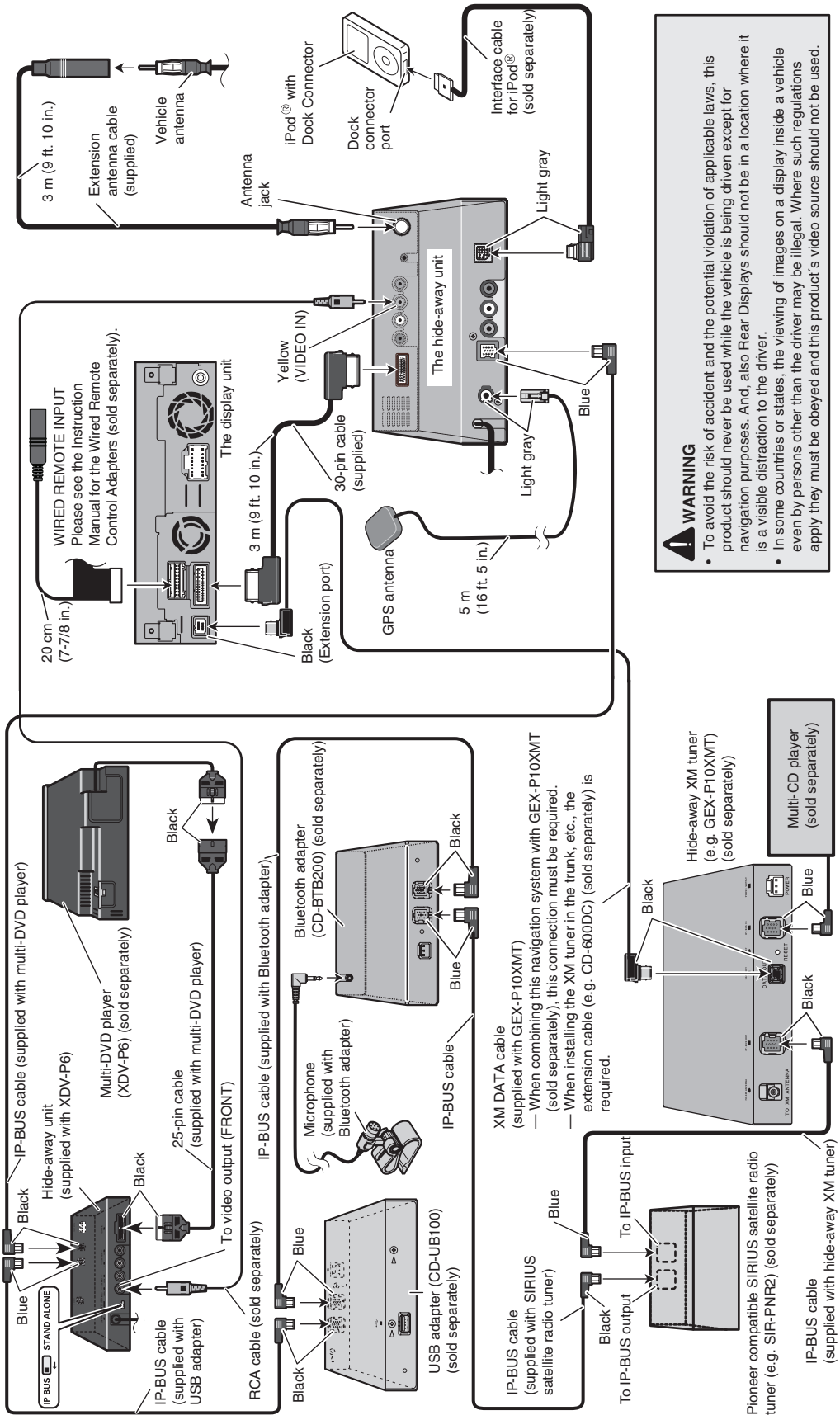
If you do not operate the removing and attaching the front panel function, use the supplied fixing screws to fix the front panel to the display unit.

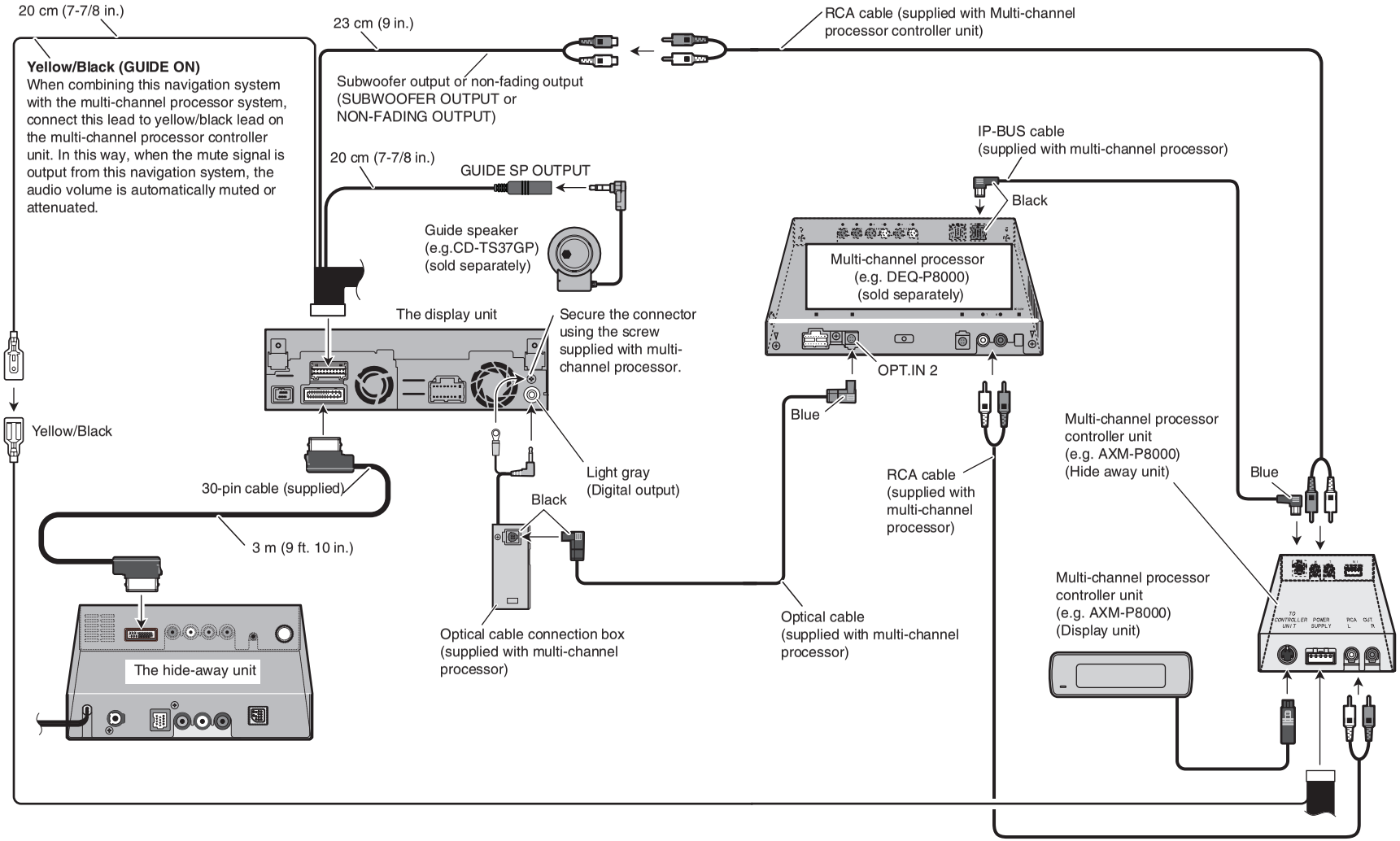
● Fix the front panel to the display unit using the fixing screws after removing the frame.

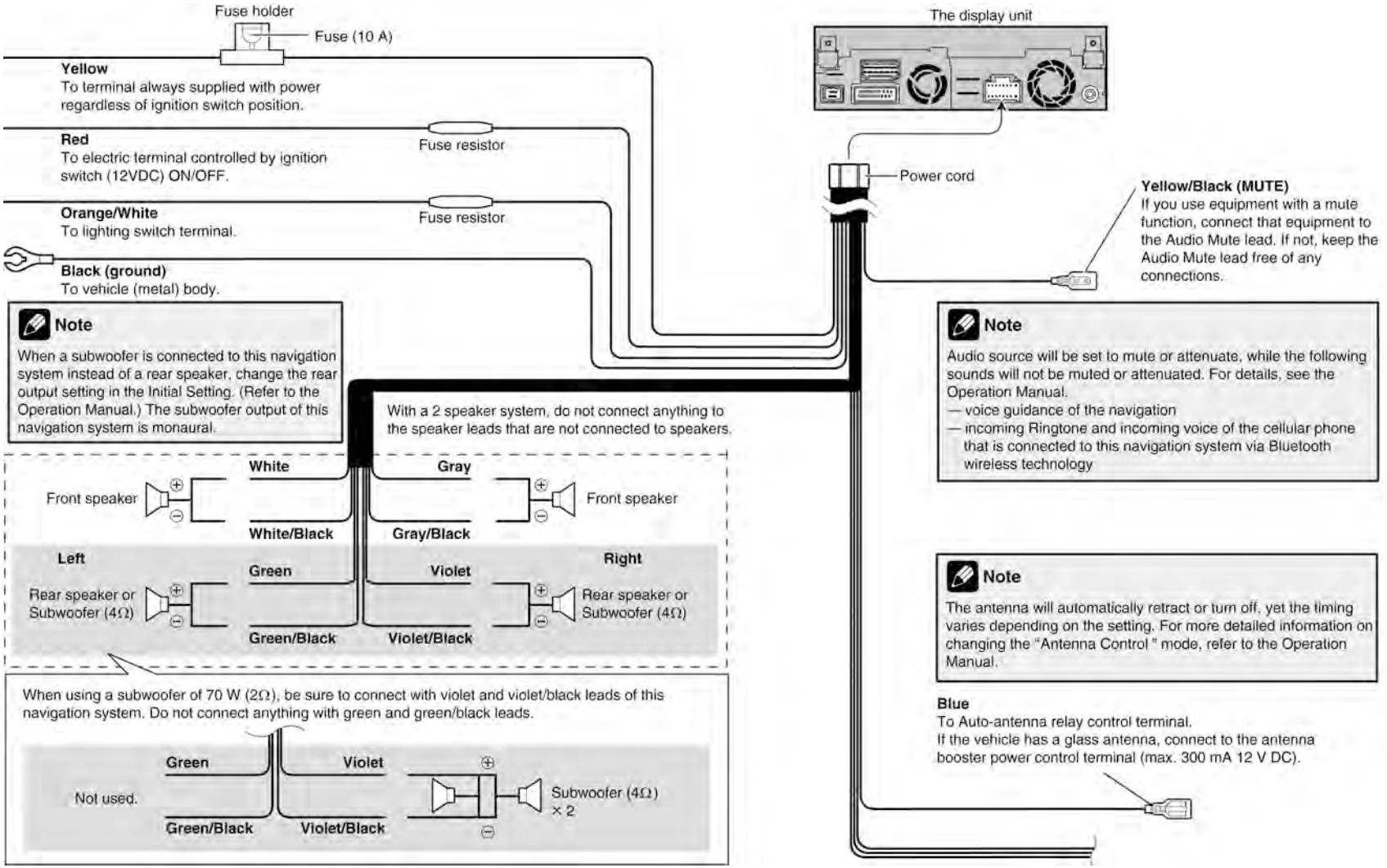


2.4 CONNECTION DIAGRAM

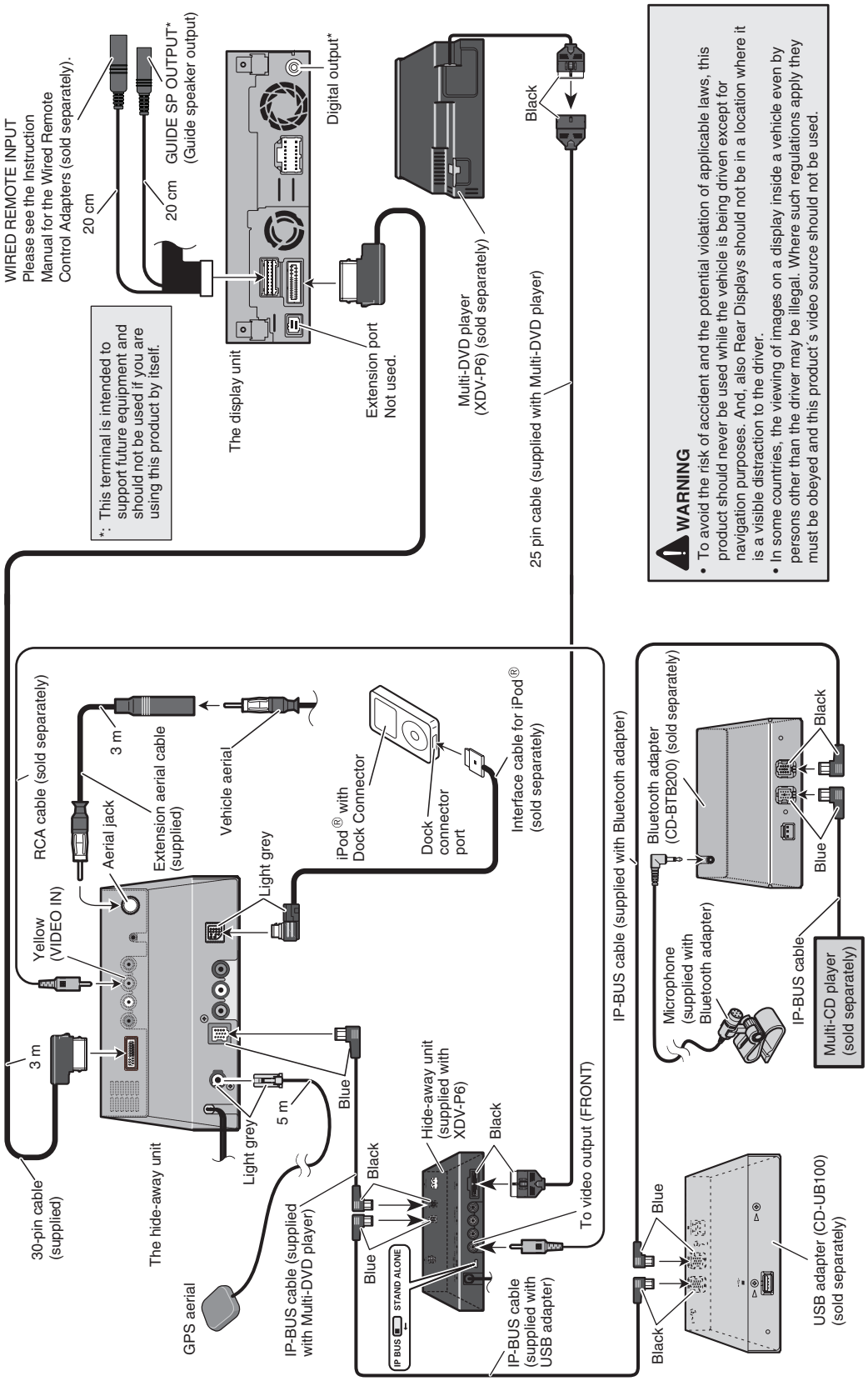
● CONNECTION DIAGRAM (AVIC-N4/XU/UC)




20 cm (7-7/8 in.)
23 cm (9 in.)
RCA cable (supplied with Multi-channel processor controller unit)
Yellow/Black (GUIDE ON)
When combining this navigation system with the multi-channel processor system, connect this lead to yellow/black lead on the multi-channel processor controller unit. In this way, when the mute signal is output from this navigation system, the audio volume is automatically muted or attenuated.
Subwoofer output or non-fading output (SUBWOOFER OUTPUT or NON-FADING OUTPUT)
IP-BUS cable (supplied with multi-channel processor)
20 cm (7-7/8 in.)
GUIDE SP OUTPUT
Black
Guide speaker (e.g.CD-TS37GP) (sold separately)
Multi-channel processor (e.g. DEQ-P8000) (sold separately)
The display unit
Secure the connector using the screw supplied with multi-channel processor.
OPT.IN 2
Blue
Yellow/Black
Multi-channel processor controller unit (e.g. AXM-P8000) (Hide away unit)
Blue
30-pin cable (supplied)
Light gray (Digital output)
Black
RCA cable (supplied with multi-channel processor)
3 m (9 ft. 10 in.)
Multi-channel processor controller unit (e.g. AXM-P8000) (Display unit)
The hide-away unit
Optical cable connection box (supplied with multi-channel processor)
Optical cable (supplied with multi-channel processor)


Fuse holder
Fuse (10 A)
Yellow
To terminal always supplied with power regardless of ignition switch position.
Red
To electric terminal controlled by ignition switch (12VDC) ON/OFF.
Fuse resistor
Orange/White
To lighting switch terminal.
Fuse resistor
Black (ground)
To vehicle (metal) body.
The display unit
Power cord
Yellow/Black (MUTE)
If you use equipment with a mute function, connect that equipment to the Audio Mute lead. If not, keep the Audio Mute lead free of any connections.
Note
When a subwoofer is connected to this navigation system instead of a rear speaker, change the rear output setting in the Initial Setting. (Refer to the Operation Manual.) The subwoofer output of this navigation system is monaural.
With a 2 speaker system, do not connect anything to the speaker leads that are not connected to speakers.
Front speaker
White
White/Black
Gray
Gray/Black
Front speaker
Left
Rear speaker or Subwoofer (4Ω)
Green
Green/Black
Violet
Violet/Black
Right
Rear speaker or Subwoofer (4Ω)
When using a subwoofer of 70 W (2Ω), be sure to connect with violet and violet/black leads of this navigation system. Do not connect anything with green and green/black leads.
Not used.
Green
Green/Black
Violet
Violet/Black
Subwoofer (4Ω) × 2
Note
Audio source will be set to mute or attenuate, while the following sounds will not be muted or attenuated. For details, see the Operation Manual.
— voice guidance of the navigation
— incoming Ringtone and incoming voice of the cellular phone that is connected to this navigation system via Bluetooth wireless technology
Note
The antenna will automatically retract or turn off, yet the timing varies depending on the setting. For more detailed information on changing the "Antenna Control" mode, refer to the Operation Manual.
Blue
To Auto-antenna relay control terminal.
If the vehicle has a glass antenna, connect to the antenna booster power control terminal (max. 300 mA 12 V DC).

● CONNECTION DIAGRAM (AVIC-X3/XU/EW5)



Note

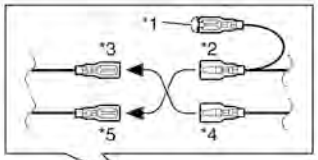
Depending on the kind of vehicle, the function of *3 and *5 may be different. In this case, be sure to connect *2 to *5 and *4 to *3.

Notes

- When a subwoofer (*8) is connected to this navigation system instead of a rear speaker, change the rear output setting in the Initial Setting. (Refer to the Operation Manual.) The subwoofer output of this navigation system is monaural.
- When using a subwoofer of 70 W (2Ω), be sure to connect with violet and violet/black leads of this navigation system. Do not connect anything with green and green/black leads.

Note

Cords for this navigation system and those for other products may be different colours even if they have the same function. When connecting this navigation system to another product, refer to the supplied manuals of both products and connect cords that have the same function.



The display unit



Power cord

Connect leads of the same colour to each other.

Cap (*1)
When not using this terminal, do not remove the cap.

Fuse holder

Fuse (10 A)

Yellow (*3)
Back-up
(or accessory)

Yellow (*2)
To terminal always supplied with power regardless of ignition switch position.

Red (*5)
Accessory
(or back-up)

Red (*4)
To electric terminal controlled by ignition switch (12 V DC) ON/OFF

Fuse resistor

Fuse resistor

Yellow/Black (MUTE)
If you use an equipment with mute function, connect that equipment to the Audio Mute lead. If not, keep the Audio Mute lead free of any connections.

Note

Audio source will be set to mute or attenuate, while the following sounds will not be muted or attenuated. For details, see the Operation Manual.
— voice guidance of the navigation
— incoming ringtone and incoming voice of the mobile phone that is connected to this navigation system via Bluetooth wireless technology

Orange/White
To lighting switch terminal.

Note

The aerial will automatically retract or turn off, yet the timing varies depending on the setting. For more detailed information on changing the "Antenna Control " mode, refer to the Operation Manual.

Black (earth)
To vehicle (metal) body.

ISO connector

Speaker leads

White:	Front left ⊕
White/Black:	Front left ⊖
Grey:	Front right ⊕
Grey/Black:	Front right ⊖
Green:	Rear left ⊕ or Subwoofer ⊕ (*8)
Green/Black:	Rear left ⊖ or Subwoofer ⊖ (*8)
Violet:	Rear right ⊕ or Subwoofer ⊕ (*8)
Violet/Black:	Rear right ⊖ or Subwoofer ⊖ (*8)

Blue (*6)

Blue

Blue (*7)
To Auto-aerial relay control terminal. If the vehicle has a glass aerial, connect to the aerial booster power control terminal (max. 300 mA 12 V DC).

Note

In some vehicles, the ISO connector may be divided into two. In this case, be sure to connect to both connectors.

The pin position of the ISO connector will differ depending on the type of vehicle. Connect *6 and *7 when Pin 5 is an aerial control type. In other types of vehicle, never connect *6 and *7.

3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

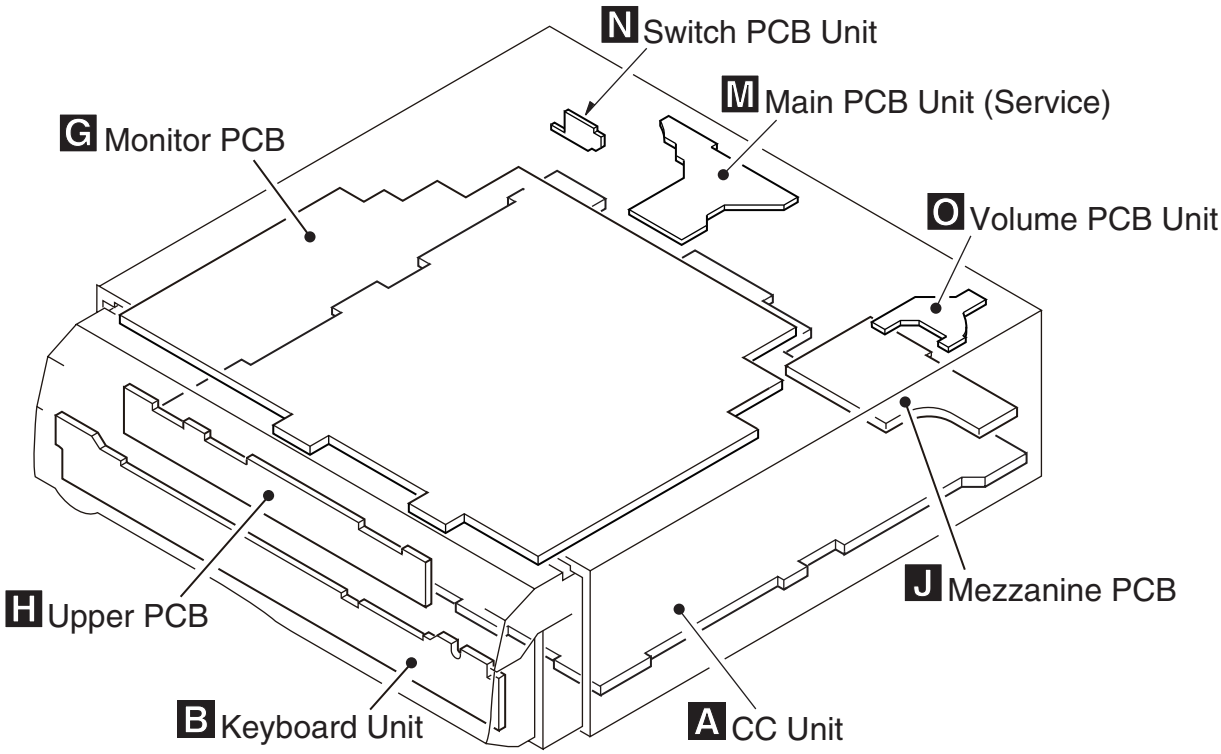
To keep the product quality after servicing, please confirm following check points.

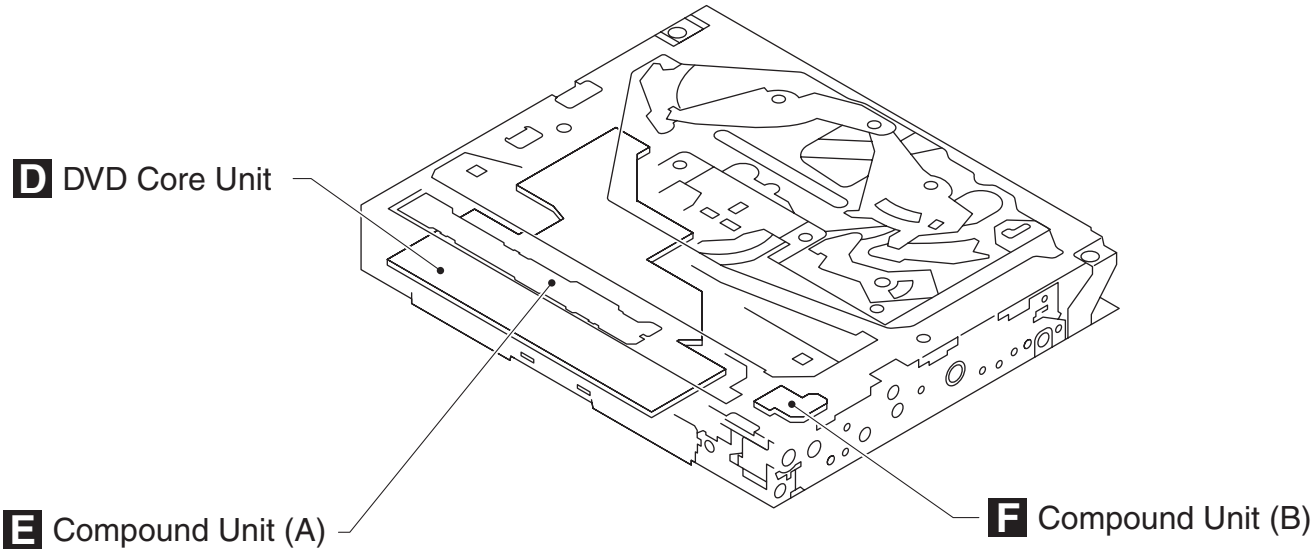
No.		Procedures	Item to be confirmed
1		Confirm whether the customer complain has been solved. If the customer complain occurs with the specific media, use it for the operation check.	The customer complain must not be reappeared. Display, video, audio and operations must be normal.
2	Flap-mecha	Check the operation of the flap mechanism.	The flap mechanism operation must be smooth without making the noise and scratches.
3	DVD	Measure playback error rates at the innermost and outermost tracks by using the test mode with the following disc. DVD test disc (GGV1025)	Deterioration of mecha-drive can be checked. The error rates must be less than 2.5e-4.
4	DVD	Play back a DVD. (Menu operation; Title/chapter search)	Display, video, audio and operations must be normal.
5	CD	Play back a CD. (Track search)	Display, audio and operations must be normal.
6	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.
7	TV tuner	Check TV tuner action. (Seek; Preset)	Display, video, audio and operations must be normal.
8	GPS positioning	Connect GPS antenna to the product, and check whether the current location is correct.	Current location must be correct. Display and operations must be normal.
9	Gyro action	On "3D Calibration Status", check whether the gyro sensor works well by moving the front face of the product from left to right and up and down.	Gyro-sensing, display and operations must be normal.
10	Map display Touch-panel operation Remote-control operation	Check functions of map scale change and map scroll.	Display and operations must be normal.
11		Delete data added during the operating check. Check whether no media (CD etc.) is inside the product.	Make sure to delete data added during the operating check. The media used for the operating check must be ejected.
12		Appearance check	No scratches or dirt on its appearance after receiving it for service.

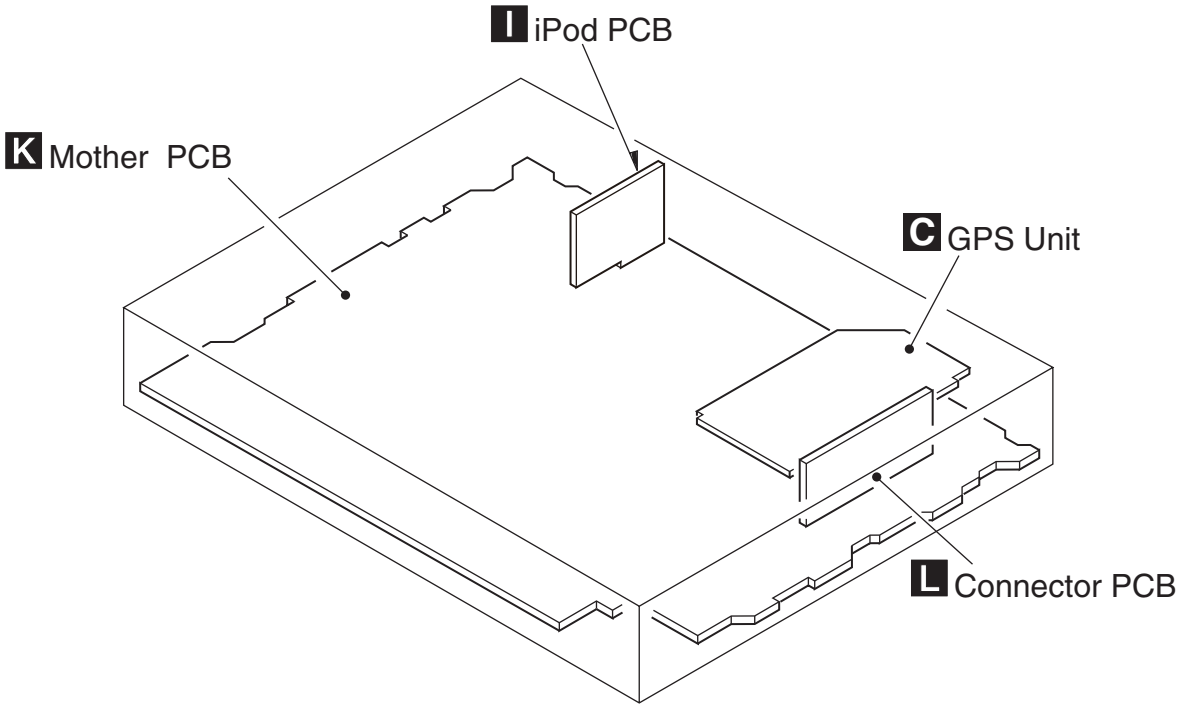
See the table below for the items to be checked regarding video and audio:

Item to be checked regarding video	**Item to be checked regarding audio**
Block-noise	Distortion
Horizontal noise	Noise
Dot noise	Volume too low
Disturbed image (video jumpiness)	Volume too high
Too dark	Volume fluctuating
Too bright	Sound interrupted
Mottled color	

3.2 PCB LOCATIONS







Unit Number	:	CWN2308(UC)
Unit Number	:	CWN2309(EW5)
Unit Name	:	CC Unit
Unit Number	:	
Unit Name	:	Keyboard Unit
Unit Number	:	CWX3533(UC)
Unit Number	:	CWX3534(EW5)
Unit Name	:	GPS Unit
Unit Number	:	CWN2304
Unit Name	:	Monitor Unit
Unit Number	:	CWN2310(UC)
Unit Name	:	Mother Tuner Unit(UC)
Unit Number	:	CWN2311(EW5)
Unit Name	:	Mother Unit(EW5)
Unit Number	:	CXX2316
Unit Name	:	Main PCB Unit(SERVICE)
Unit Number	:	CZW5029
Unit Name	:	Switch PCB Unit
Unit Number	:	CZW5028
Unit Name	:	Volume PCB Unit
Unit Number	:	CWX3401
Unit Name	:	DVD Core Unit
Unit Number	:	CWX3154
Unit Name	:	Compound Unit(A)
Unit Number	:	CWX3394
Unit Name	:	Compound Unit(B)

3.3 JIGS LIST

● Jigs List

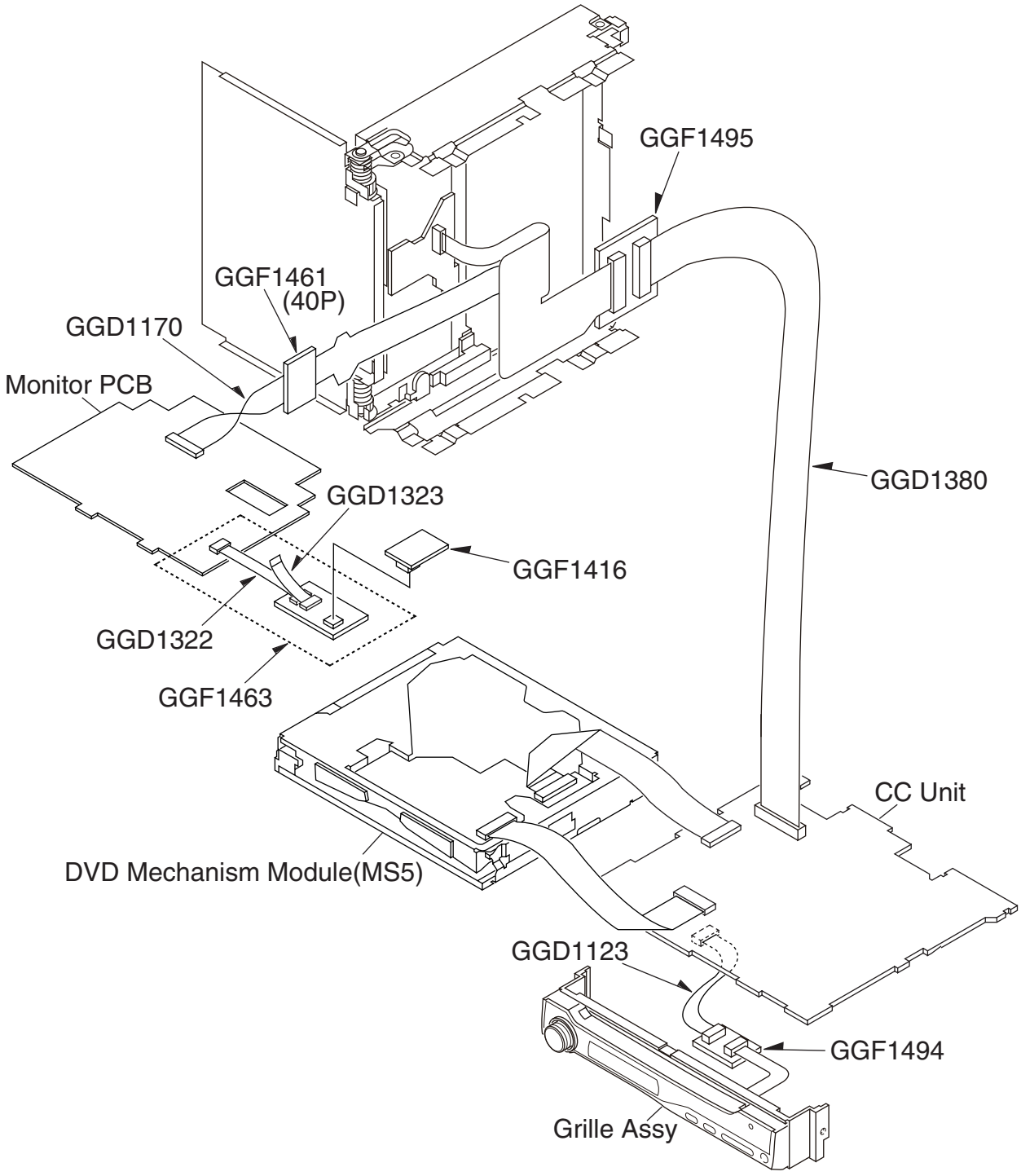
Name	Jig No.	Remarks
Disc	GGV1018	Skew adjustment
TORX driver(T2)	GGK1095	Skew adjustment
Bond	GEM1033	Skew adjustment
DVD test disc	GGV1025	Check points after servicing
60P PCB	GGF1495	CC Unit (CN608) <--> Main Unit (CN101)
60P FFC	GGD1380	CC Unit (CN608) <--> GGF1495
40P+20P PCB	GGF1461	CC Unit (CN608) <--> Monitor PCB (CN5003)
15P PCB	GGF1494	CC Unit (CN2701) <--> Grille Assy
15P FFC	GGD1123	CC Unit (CN2701) <--> GGF1494
40P FFC	GGD1170	Monitor PCB (CN5003) <--> GGF1461
OSD PCB	GGF1416	Monitor Adjustment PCB (*)
PCB and FFC	GGF1463	JIG connector Assy (*)
14P FFC	GGD1322	Monitor Unit (CN5801) <--> GGF1463 (*)
DVD-ROM	GGV1310	TEST DISC (Operation check)

*) Since this product does not have OSD IC, OSD for adjustment is displayed by using GGF1416 and GGF1463 at the time of monitor adjustment. As GGD1323 is not used, be careful not to short the terminal.

● Grease List

Name	Jig No.	Remarks
Grease	GEM1024	DVD Mechanism Module and Drive Unit
Grease	GEM1043	DVD Mechanism Module and Drive Unit
Grease	GEM1045	DVD Mechanism Module
Grease	GEM1050	DVD Mechanism Module
Locking agents	1401M	DVD Mechanism Module (1401M:produced by THREE BOND)
Grease	GEM1011	Drive Unit
Grease	GEM1047	Drive Unit
Grease	GEM1071	Drive Unit
Grease	GEM1072	Drive Unit

3.4 JIG CONNECTION DIAGRAM



3.5 CLEANING

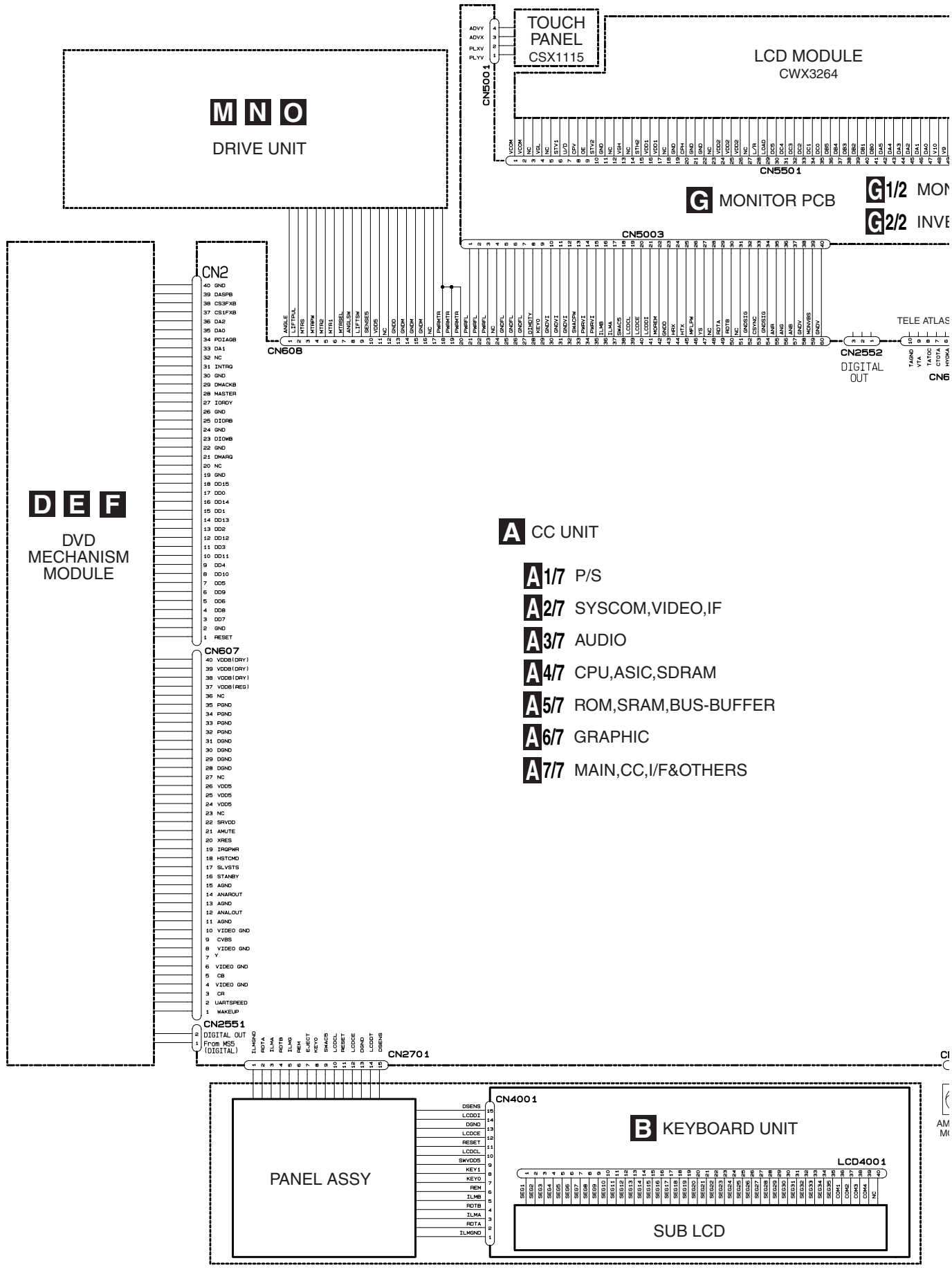
Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

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

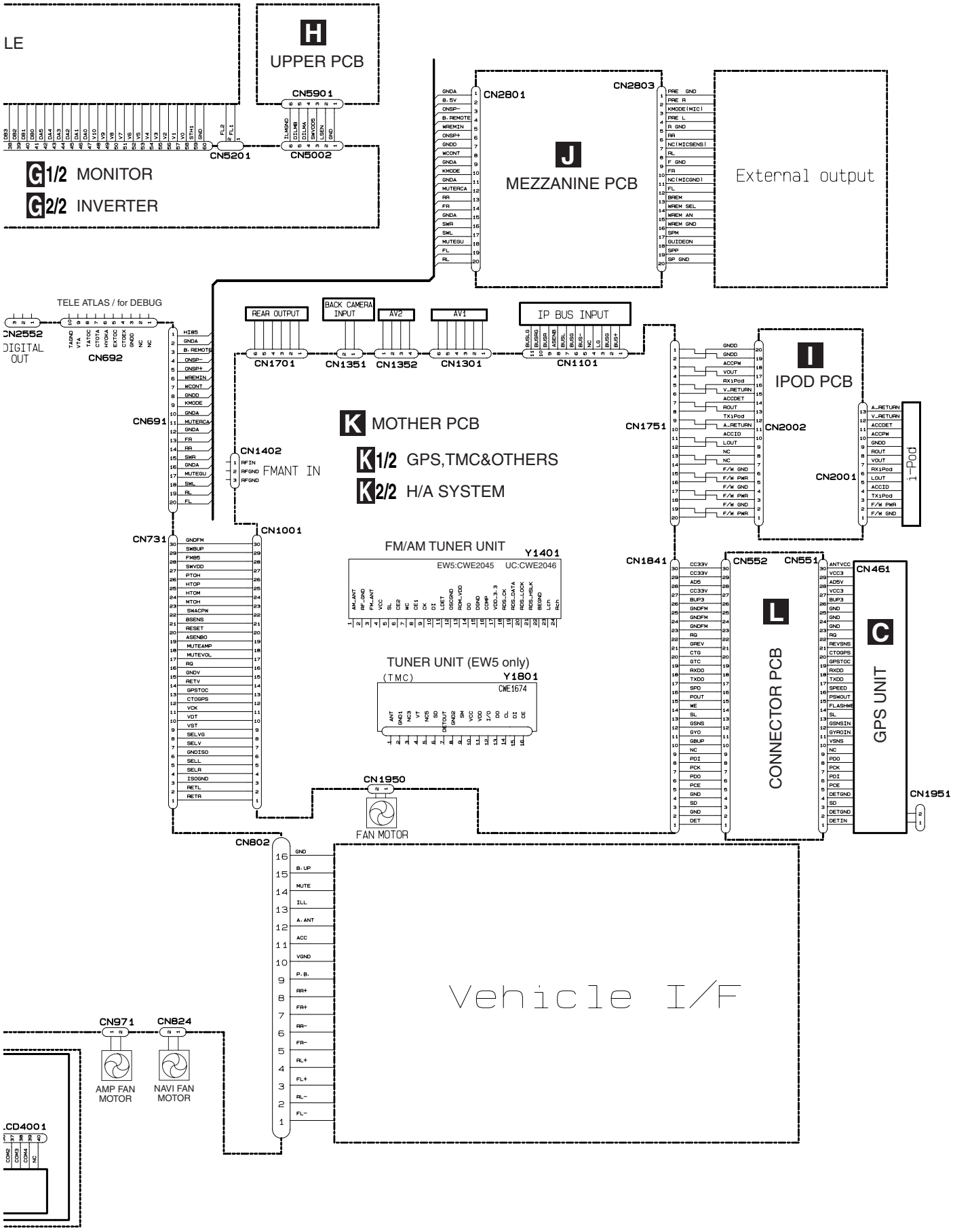
Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

4. BLOCK DIAGRAM

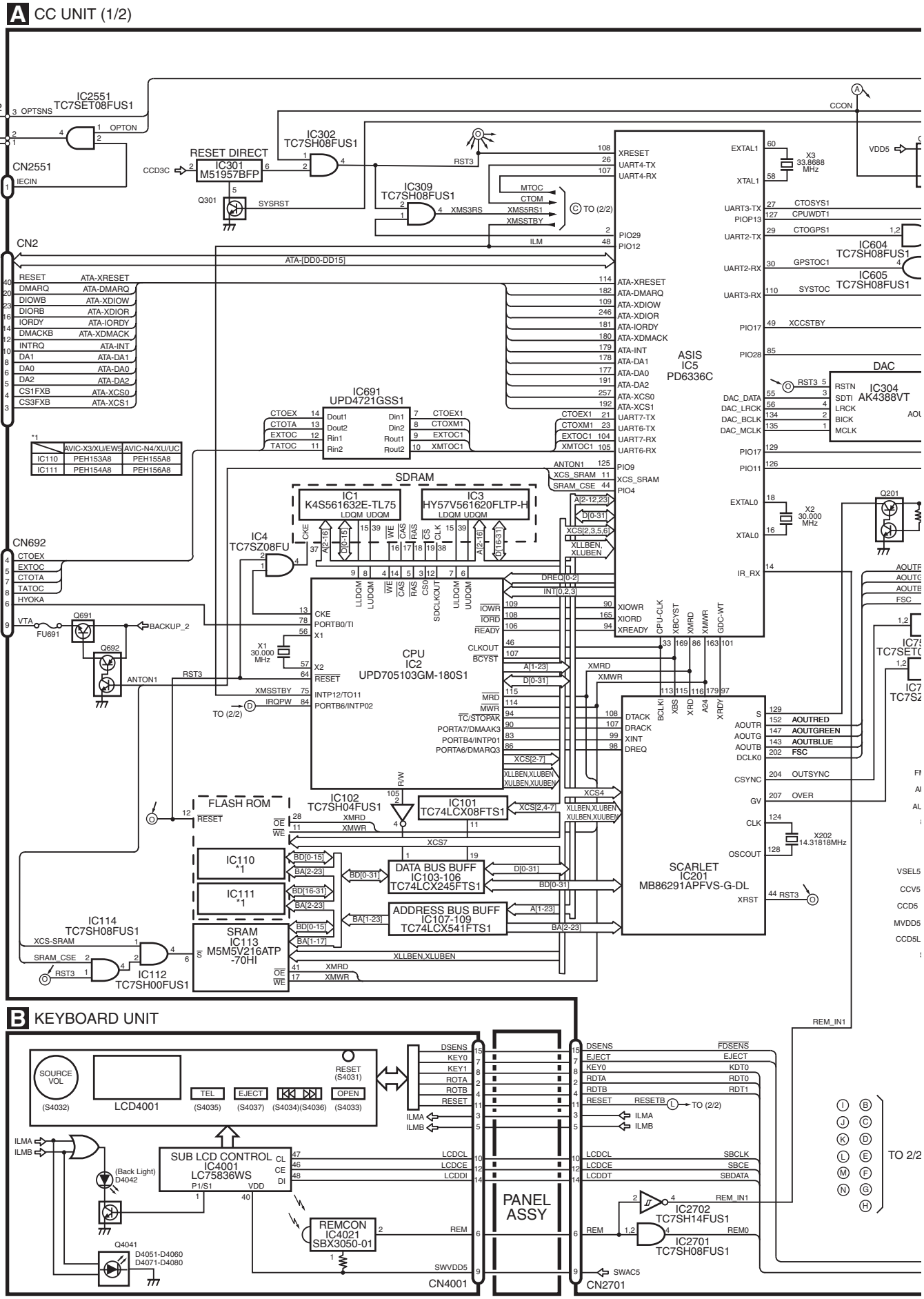
4.1 OVERALL WIRING DIAGRAM

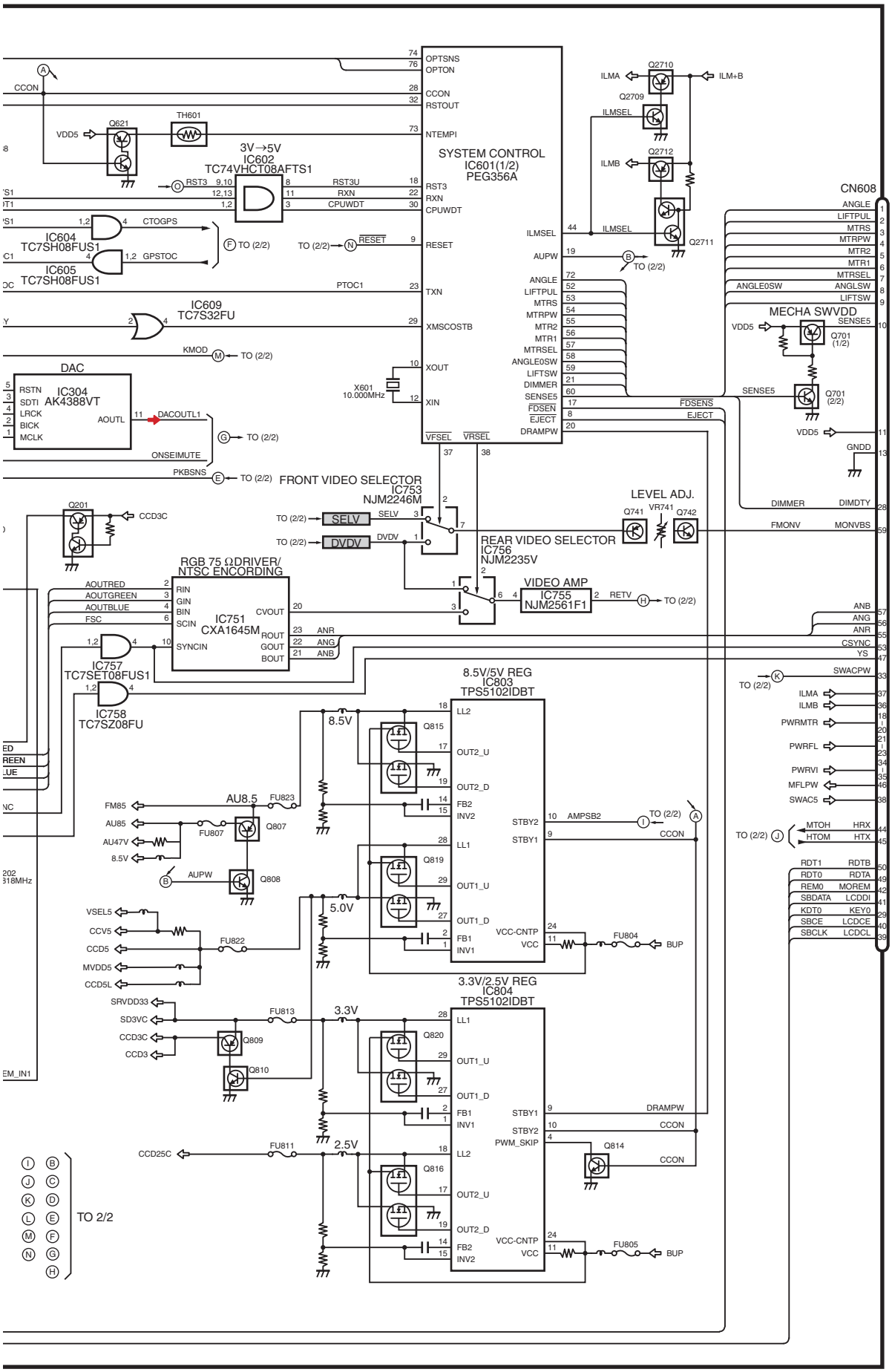


Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

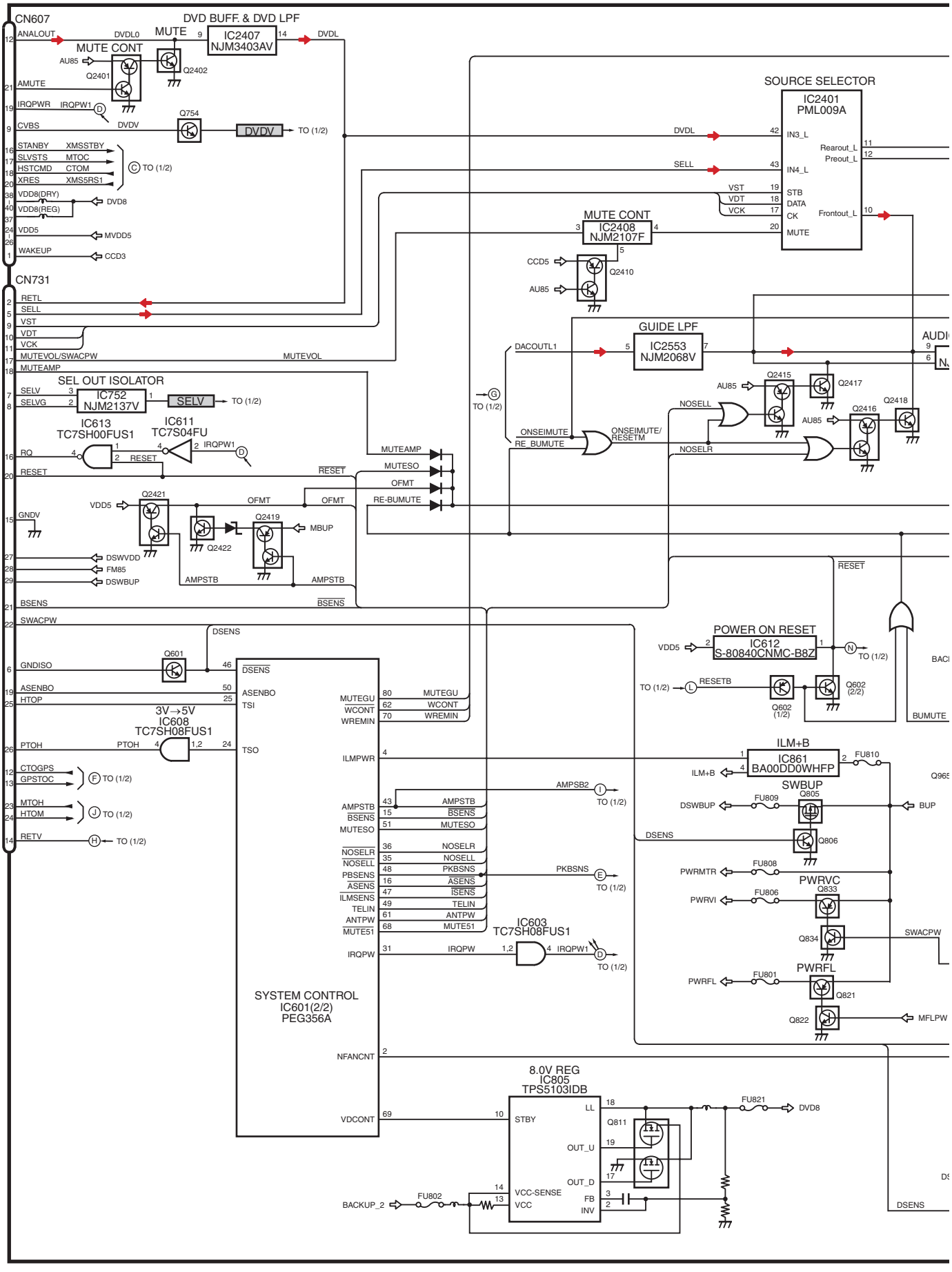


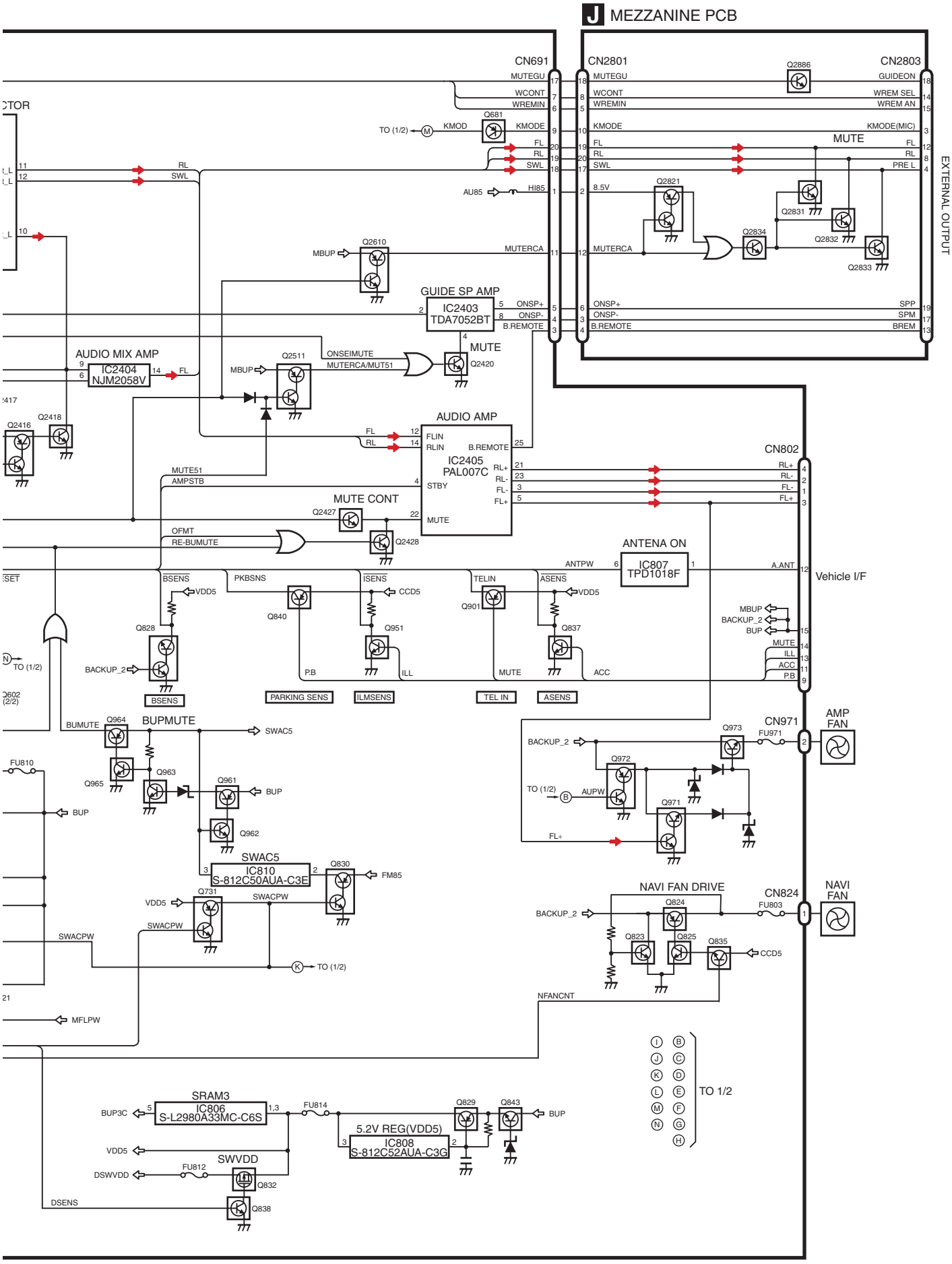
4.2 BLOCK DIAGRAM

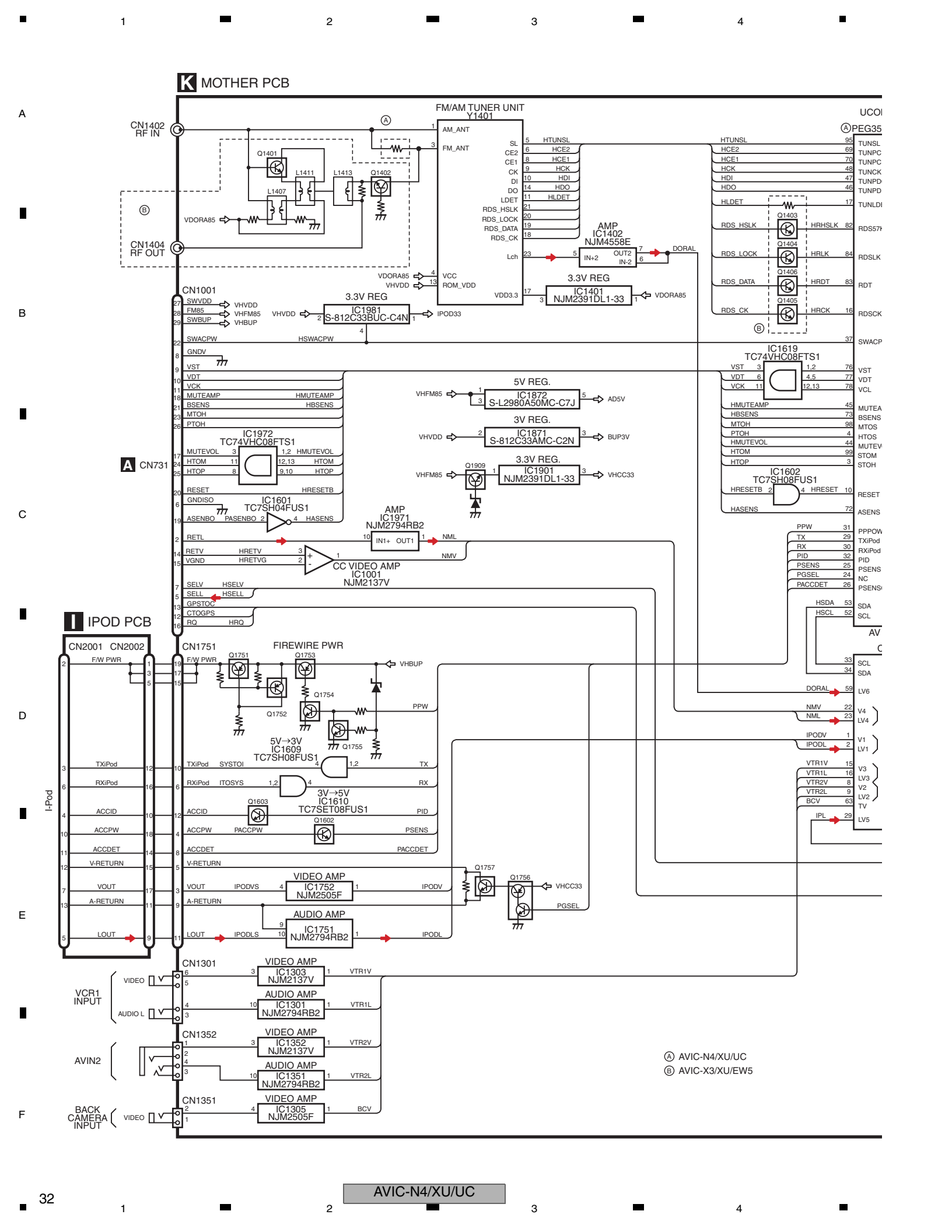


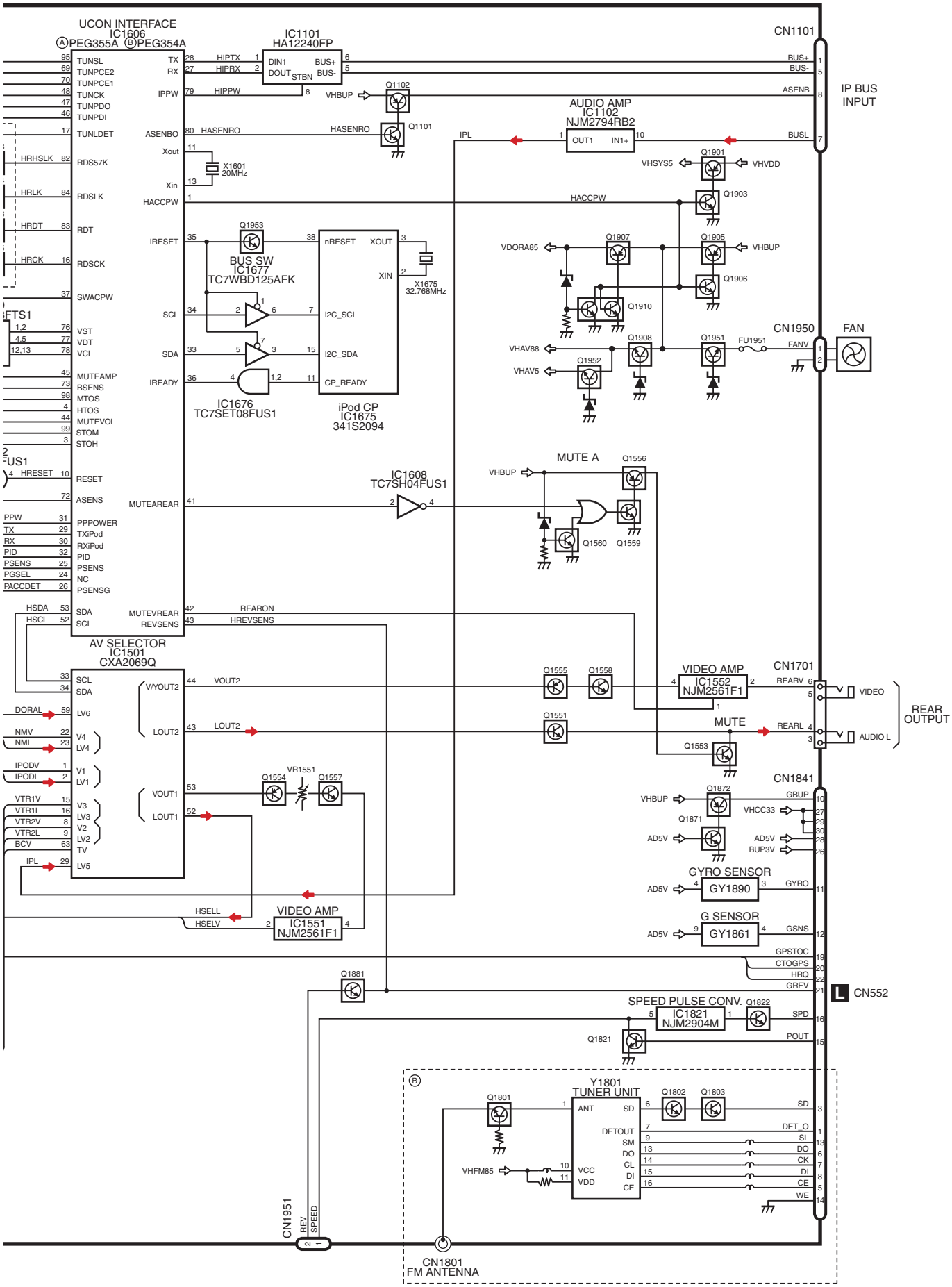

SYSTEM CONTROL
IC601(1/2)
PEG356A
OPTSNS
OPTON
CCON
RSTOUT
NTEMPI
RST3
RXN
CPUWDT
RESET
TXN
XMSCOSTB
XOUT
XIN
VFSEL
VRSEL
ILMSEL
AUPW
ANGLE
LIFTPUL
MTRS
MTRPW
MTR2
MTR1
MTRSEL
ANGLE0SW
LIFTSW
DIMMER
SENSE5
FDSEN
EJECT
DRAMPW
3V→5V
IC602
TC74VHCT08AFTS1
IC604
TC7SH08FUS1
IC605
TC7SH08FUS1
CTOGPS
GPSTOC
IC609
TC7S32FU
PTOC1
KMOD
X601
10.000MHz
DAC
IC304
AK4388VT
RSTN
SDTI
LRCK
BICK
MCLK
AOUTL
DACOUTL1
ONSEIMUTE
PKBSNS
TH601
Q621
VDD5
Q2710
Q2709
Q2712
Q2711
ILMA
ILMB
ILM+B
CN608
MECHA SWVDD
Q701
(1/2)
(2/2)
CN101
FRONT VIDEO SELECTOR
IC753
NJM2246M
SELV
DVDV
REAR VIDEO SELECTOR
IC756
NJM2235V
LEVEL ADJ.
Q741
VR741
Q742
FMONV
MONVBS
DIMDTY
VIDEO AMP
IC755
NJM2561F1
RETV
RGB 75 ΩDRIVER/
NTSC ENCORDING
IC751
CXA1645M
AOUTRED
AOUTGREEN
AOUTBLUE
FSC
RIN
GIN
BIN
SCIN
SYNCIN
CVOUT
ROUT
GOUT
BOUT
ANR
ANG
ANB
CSYNC
YS
IC757
TC7SET08FUS1
IC758
TC7SZ08FU
Q201
CCD3C
8.5V/5V REG
IC803
TPS5102IDBT
LL2
OUT2_U
OUT2_D
FB2
INV2
LL1
OUT1_U
OUT1_D
FB1
INV1
STBY2
STBY1
VCC-CNTP
VCC
AMPSB2
CCON
8.5V
5.0V
AU8.5
FM85
AU85
AU47V
FU807
FU823
Q807
Q808
AUPW
VSEL5
CCV5
CCD5
MVDD5
CCD5L
FU822
Q815
Q819
FU804
BUP
3.3V/2.5V REG
IC804
TPS5102IDBT
PWM_SKIP
SRVDD33
SD3VC
CCD3C
CCD3
FU813
3.3V
Q809
Q810
Q820
DRAMPW
Q814
2.5V
CCD25C
FU811
Q816
FU805
SWACPW
PWRMTR
PWRFL
PWRVI
MFLPW
SWAC5
MTOH
HTOM
HRX
HTX
RDT1
RDT0
REM0
SBDATA
KDT0
SBCE
SBCLK
RDTB
RDTA
MOREM
LCDDI
KEY0
LCDCE
LCDCL
CN5003
TO 2/2
TO (2/2)

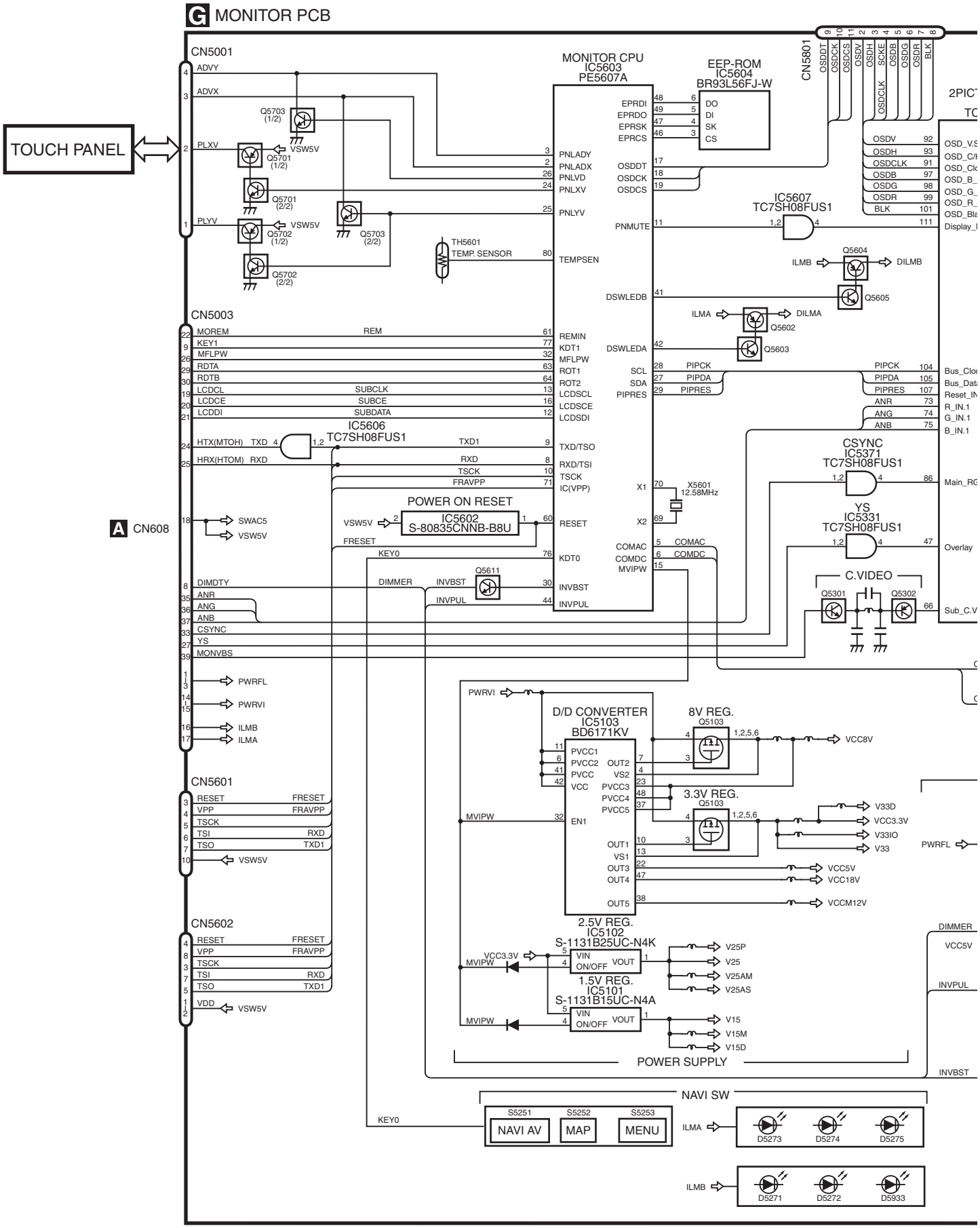
A CC UNIT (2/2)

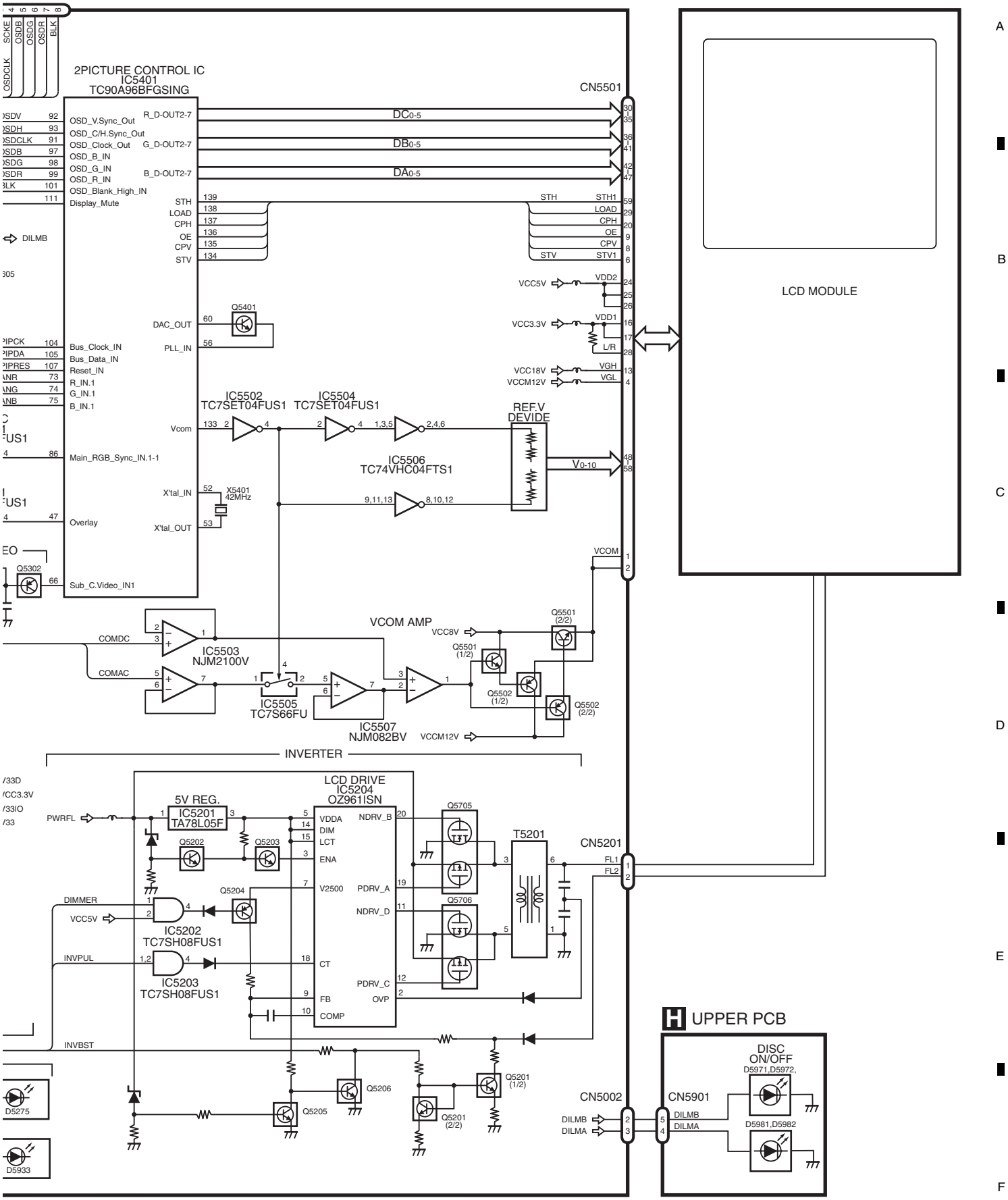

CN607
DVD BUFF. & DVD LPF
IC2407
NJM3403AV
MUTE CONT
Q2401
Q2402
Q754
DVDV
TO (1/2)
SOURCE SELECTOR
IC2401
PML009A
MUTE CONT
IC2408
NJM2107F
Q2410
GUIDE LPF
IC2553
NJM2068V
CN731
SEL OUT ISOLATOR
IC752
NJM2137V
SELV
IC613
TC7SH00FUS1
IC611
TC7S04FU
Q2421
Q2422
Q2419
MBUP
Q2415
Q2417
Q2416
Q2418
POWER ON RESET
IC612
S-80840CNMC-B8Z
Q602 (1/2)
Q602 (2/2)
Q601
3V→5V
IC608
TC7SH08FUS1
SYSTEM CONTROL
IC601(2/2)
PEG356A
ILM+B
IC861
BA00DD0WHFP
SWBUP
Q805
Q806
PWRVC
Q833
Q834
PWRFL
Q821
Q822
MFLPW
8.0V REG
IC805
TPS5103IDB
Q811
FU821
DVD8
IC603
TC7SH08FUS1
CN1901
CN1001


J MEZZANINE PCB
CN691
CN2801
CN2803
EXTERNAL OUTPUT
MUTEGU
WCONT
WREMIN
KMODE
FL
RL
SWL
HI85
8.5V
MUTERCA
GUIDEON
WREM SEL
WREM AN
KMODE(MIC)
PRE L
SPP
SPM
BREM
ONSP+
ONSP-
B.REMOTE
Q681
Q2610
Q2821
Q2831
Q2832
Q2833
Q2834
Q2886
MUTE
GUIDE SP AMP
IC2403
TDA7052BT
AUDIO MIX AMP
IC2404
NJM2058V
Q2511
Q2420
ONSEIMUTE
MUTERCA/MUT51
AUDIO AMP
IC2405
PAL007C
FLIN
RLIN
STBY
RL+
RL-
FL-
FL+
CN802
MUTE51
AMPSTB
MUTE CONT
Q2427
Q2428
OFMT
RE-BUMUTE
ANTENA ON
IC807
TPD1018F
ANTPW
A.ANT
Vehicle I/F
BSENS
PKBSNS
ISENS
TELIN
ASENS
VDD5
CCD5
Q828
Q840
Q951
Q901
Q837
BACKUP_2
P.B
ILL
ACC
PARKING SENS
ILMSENS
TEL IN
ASENS
BUMUTE
Q964
BUPMUTE
SWAC5
Q965
Q963
Q961
Q962
BUP
FU810
SWAC5
IC810
S-812C50AUA-C3E
Q830
FM85
Q731
SWACPW
TO (1/2)
MFLPW
AMP FAN
CN971
FU971
Q973
Q972
Q971
AUPW
FL+
NAVI FAN DRIVE
CN824
FU803
NAVI FAN
Q824
Q823
Q825
Q835
NFANCNT
SRAM3
IC806
S-L2980A33MC-C6S
BUP3C
FU814
5.2V REG(VDD5)
IC808
S-812C52AUA-C3G
Q829
Q843
SWVDD
FU812
DSWVDD
Q832
DSENS
Q838
TO 1/2

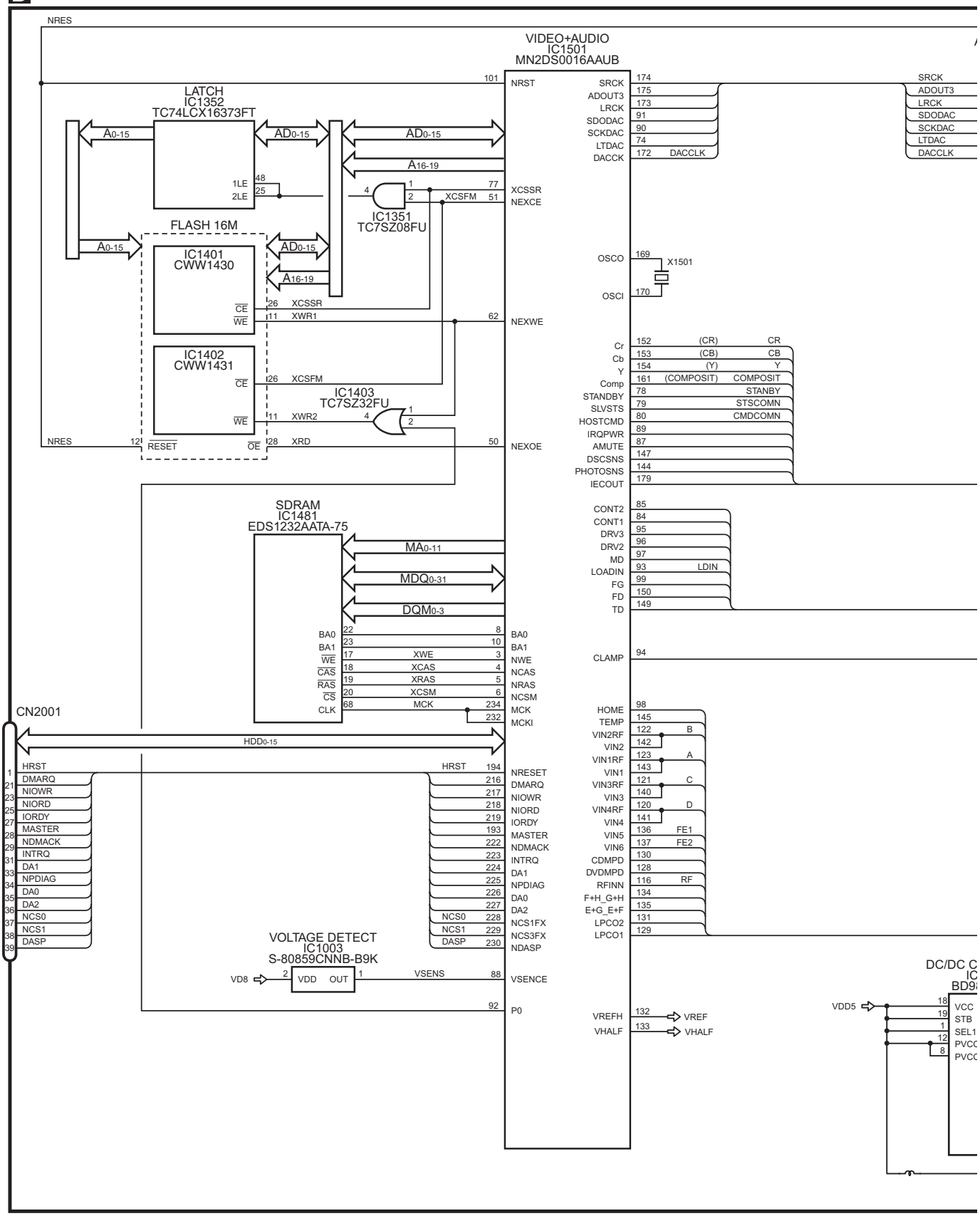

K MOTHER PCB
FM/AM TUNER UNIT
Y1401
CN1402
RF IN
CN1404
RF OUT
AM_ANT
FM_ANT
Q1401
Q1402
L1411
L1413
L1407
VDORA85
AMP
IC1402
NJM4558E
3.3V REG
IC1401
NJM2391DL1-33
CN1001
IC1981
S-812C33BUC-C4N
IC1972
TC74VHC08FTS1
IC1601
TC7SH04FUS1
IC1619
TC74VHC08FTS1
IC1602
TC7SH08FUS1
5V REG.
IC1872
S-L2980A50MC-C7J
3V REG.
IC1871
S-812C33AMC-C2N
IC1901
NJM2391DL1-33
AMP
IC1971
NJM2794RB2
CC VIDEO AMP
IC1001
NJM2137V
A CN731
I IPOD PCB
CN2001 CN2002
CN1751
FIREWIRE PWR
5V→3V
IC1609
TC7SH08FUS1
3V→5V
IC1610
TC7SET08FUS1
VIDEO AMP
IC1752
NJM2505F
AUDIO AMP
IC1751
NJM2794RB2
CN1301
VCR1
INPUT
VIDEO AMP
IC1303
NJM2137V
AUDIO AMP
IC1301
NJM2794RB2
CN1352
AVIN2
VIDEO AMP
IC1352
NJM2137V
AUDIO AMP
IC1351
NJM2794RB2
CN1351
BACK
CAMERA
INPUT
VIDEO AMP
IC1305
NJM2505F
Ⓐ AVIC-N4/XU/UC
Ⓑ AVIC-X3/XU/EW5

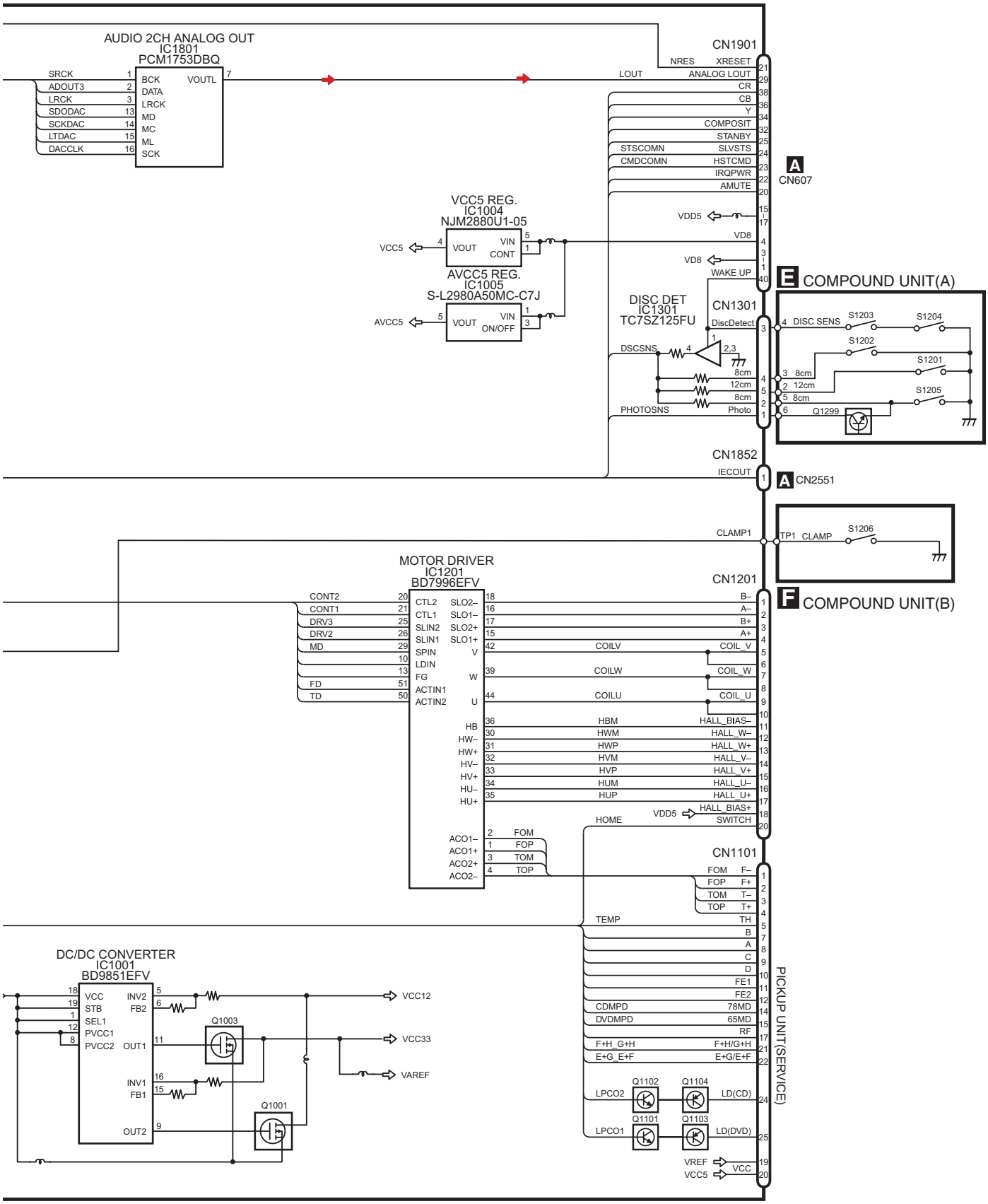

UCON INTERFACE
IC1606
Ⓐ PEG355A Ⓑ PEG354A
IC1101
HA12240FP
CN1101
IP BUS INPUT
AUDIO AMP
IC1102
NJM2794RB2
X1601
20MHz
BUS SW
IC1677
TC7WBD125AFK
X1675
32.768MHz
IC1676
TC7SET08FUS1
iPod CP
IC1675
341S2094
IC1608
TC7SH04FUS1
MUTE A
CN1950
FAN
AV SELECTOR
IC1501
CXA2069Q
VIDEO AMP
IC1552
NJM2561F1
CN1701
REAR OUTPUT
MUTE
CN1841
GYRO SENSOR
GY1890
G SENSOR
GY1861
VIDEO AMP
IC1551
NJM2561F1
SPEED PULSE CONV.
IC1821
NJM2904M
CN552
Y1801
TUNER UNIT
CN1951
CN1801
FM ANTENNA

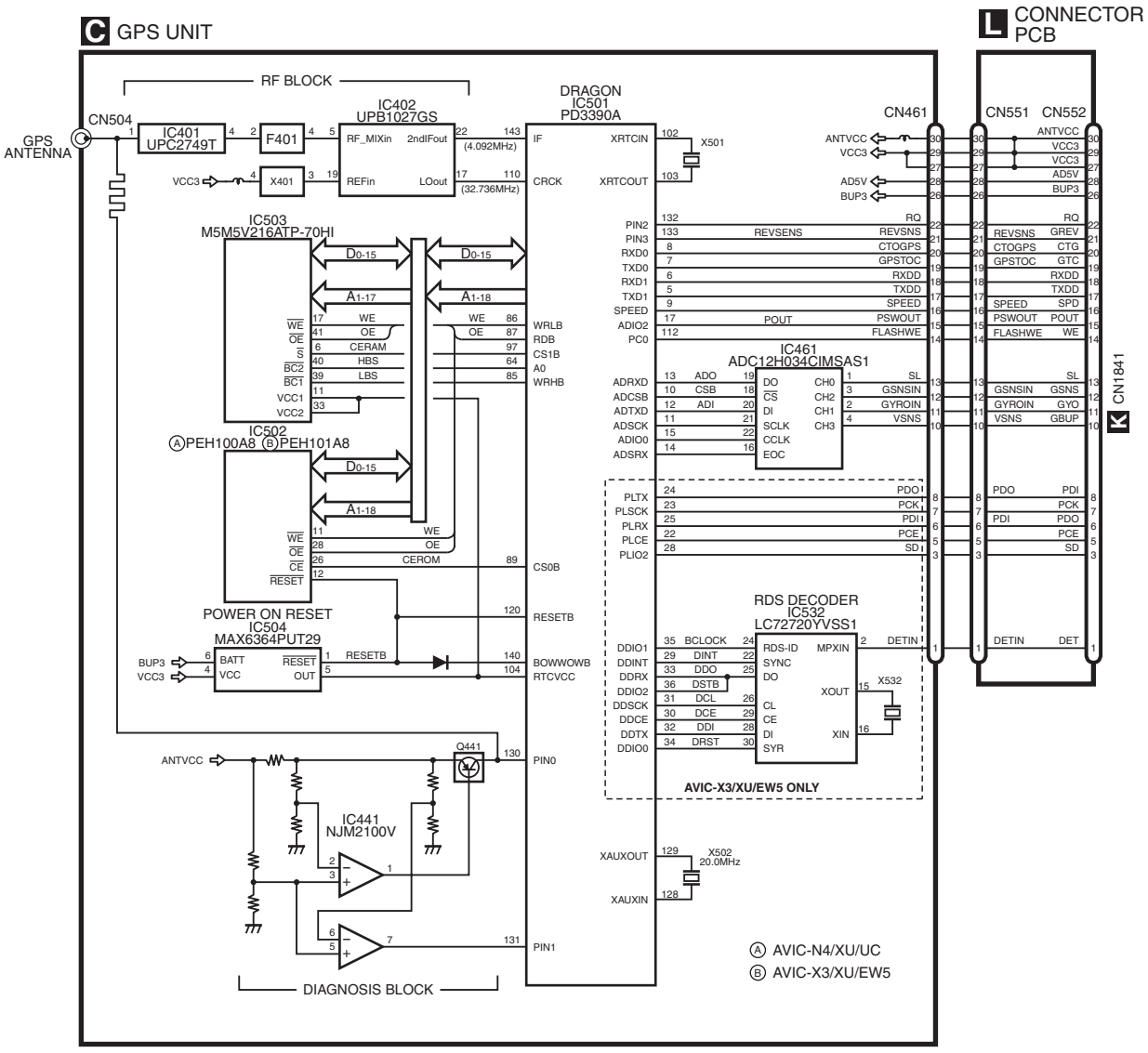

G MONITOR PCB
TOUCH PANEL
CN5001
ADVY
ADVX
PLXV
PLYV
Q5703 (1/2)
Q5701 (1/2)
Q5701 (2/2)
Q5702 (1/2)
Q5703 (2/2)
Q5702 (2/2)
VSW5V
TH5601
TEMP. SENSOR
MONITOR CPU
IC5603
PE5607A
EEP-ROM
IC5604
BR93L56FJ-W
EPRDI
EPRDO
EPRSK
EPRCS
DO
DI
SK
CS
PNLADY
PNLADX
PNLVD
PNLXV
PNLYV
TEMPSEN
OSDDT
OSDCK
OSDCS
PNMUTE
DSWLEDB
DSWLEDA
CN5801
OSDV
OSDH
OSDCLK
OSDB
OSDG
OSDR
BLK
IC5607
TC7SH08FUS1
Q5604
ILMB
DILMB
Q5605
ILMA
DILMA
Q5602
Q5603
CN5003
MOREM
KEY1
MFLPW
RDTA
RDTB
LCDCL
LCDCE
LCDDI
REM
SUBCLK
SUBCE
SUBDATA
REMIN
KDT1
MFLPW
ROT1
ROT2
LCDSCL
LCDSCE
LCDSDI
SCL
SDA
PIPRES
PIPCK
PIPDA
PIPRES
IC5606
TC7SH08FUS1
HTX(MTOH) TXD
HRX(HTOM) RXD
TXD1
RXD
TSCK
FRAVPP
TXD/TSO
RXD/TSI
TSCK
IC(VPP)
CSYNC
IC5371
TC7SH08FUS1
ANR
ANG
ANB
R_IN.1
G_IN.1
B_IN.1
Main_RGB
POWER ON RESET
IC5602
S-80835CNNB-B8U
VSW5V
RESET
FRESET
KEY0
X1
X2
X5601
12.58MHz
YS
IC5331
TC7SH08FUS1
Overlay
C.VIDEO
Q5301
Q5302
Sub_C.V
A CN608
SWAC5
VSW5V
DIMDTY
DIMMER
INVBST
INVPUL
Q5611
COMAC
COMDC
MVIPW
CSYNC
YS
MONVBS
PWRFL
PWRVI
ILMB
ILMA
CN5601
RESET
VPP
TSCK
TSI
TSO
FRESET
FRAVPP
RXD
TXD1
VSW5V
CN5602
RESET
VPP
TSCK
TSI
TSO
VDD
FRESET
FRAVPP
RXD
TXD1
VSW5V
PWRVI
D/D CONVERTER
IC5103
BD6171KV
PVCC1
PVCC2
PVCC
VCC
OUT2
VS2
PVCC3
PVCC4
PVCC5
EN1
OUT1
VS1
OUT3
OUT4
OUT5
MVIPW
8V REG.
Q5103
VCC8V
3.3V REG.
Q5103
V33D
VCC3.3V
V33IO
V33
VCC5V
VCC18V
VCCM12V
2.5V REG.
IC5102
S-1131B25UC-N4K
VIN
ON/OFF
VOUT
VCC3.3V
V25P
V25
V25AM
V25AS
1.5V REG.
IC5101
S-1131B15UC-N4A
V15
V15M
V15D
POWER SUPPLY
DIMMER
VCC5V
INVPUL
INVBST
NAVI SW
S5251
S5252
S5253
NAVI AV
MAP
MENU
KEY0
ILMA
ILMB
D5273
D5274
D5275
D5271
D5272
D5933

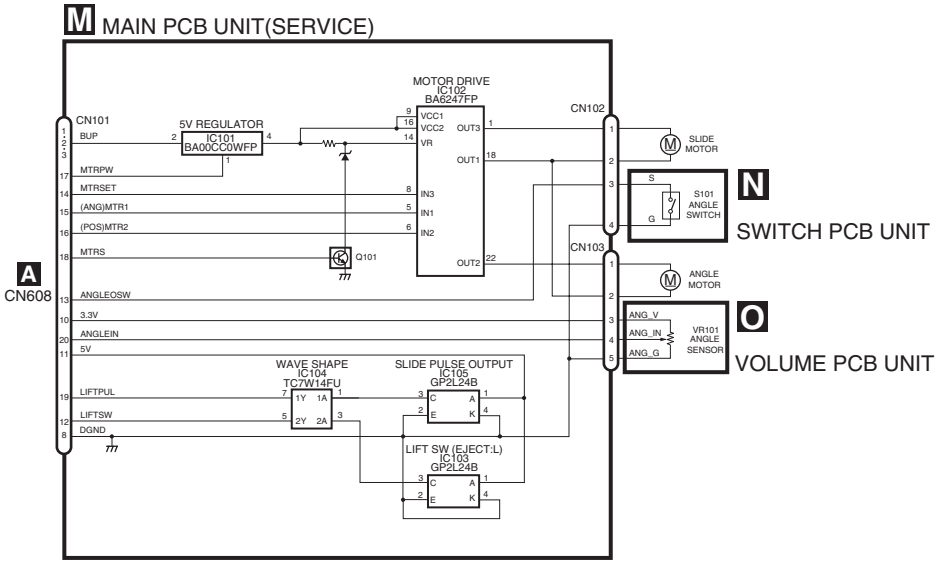

2PICTURE CONTROL IC
IC5401
TC90A96BFGSING
CN5501
LCD MODULE
OSD_V.Sync_Out
OSD_C/H.Sync_Out
OSD_Clock_Out
OSD_B_IN
OSD_G_IN
OSD_R_IN
OSD_Blank_High_IN
Display_Mute
R_D-OUT2-7
G_D-OUT2-7
B_D-OUT2-7
DC0-5
DB0-5
DA0-5
STH
LOAD
CPH
OE
CPV
STV
DAC_OUT
PLL_IN
Bus_Clock_IN
Bus_Data_IN
Reset_IN
R_IN.1
G_IN.1
B_IN.1
Vcom
Main_RGB_Sync_IN.1-1
X'tal_IN
X'tal_OUT
Overlay
Sub_C.Video_IN1
Q5401
X5401
42MHz
IC5502
TC7SET04FUS1
IC5504
TC7SET04FUS1
IC5506
TC74VHC04FTS1
REF.V
DEVIDE
V0-10
VCC5V
VCC3.3V
VCC18V
VCCM12V
VDD2
VDD1
VGH
VGL
L/R
VCOM
Q5302
VCOM AMP
IC5503
NJM2100V
IC5505
TC7S66FU
IC5507
NJM082BV
Q5501
(2/2)
Q5501
(1/2)
Q5502
(1/2)
Q5502
(2/2)
COMDC
COMAC
INVERTER
LCD DRIVE
IC5204
OZ961ISN
5V REG.
IC5201
TA78L05F
PWRFL
VDDA
DIM
LCT
ENA
V2500
CT
FB
COMP
NDRV_B
PDRV_A
NDRV_D
PDRV_C
OVP
Q5705
Q5706
T5201
CN5201
FL1
FL2
Q5202
Q5203
Q5204
DIMMER
VCC5V
IC5202
TC7SH08FUS1
INVPUL
IC5203
TC7SH08FUS1
INVBST
Q5206
Q5205
Q5201
(1/2)
Q5201
(2/2)
D5275
D5933
H UPPER PCB
DISC
ON/OFF
D5971,D5972,
D5981,D5982
CN5901
CN5002
DILMB
DILMA

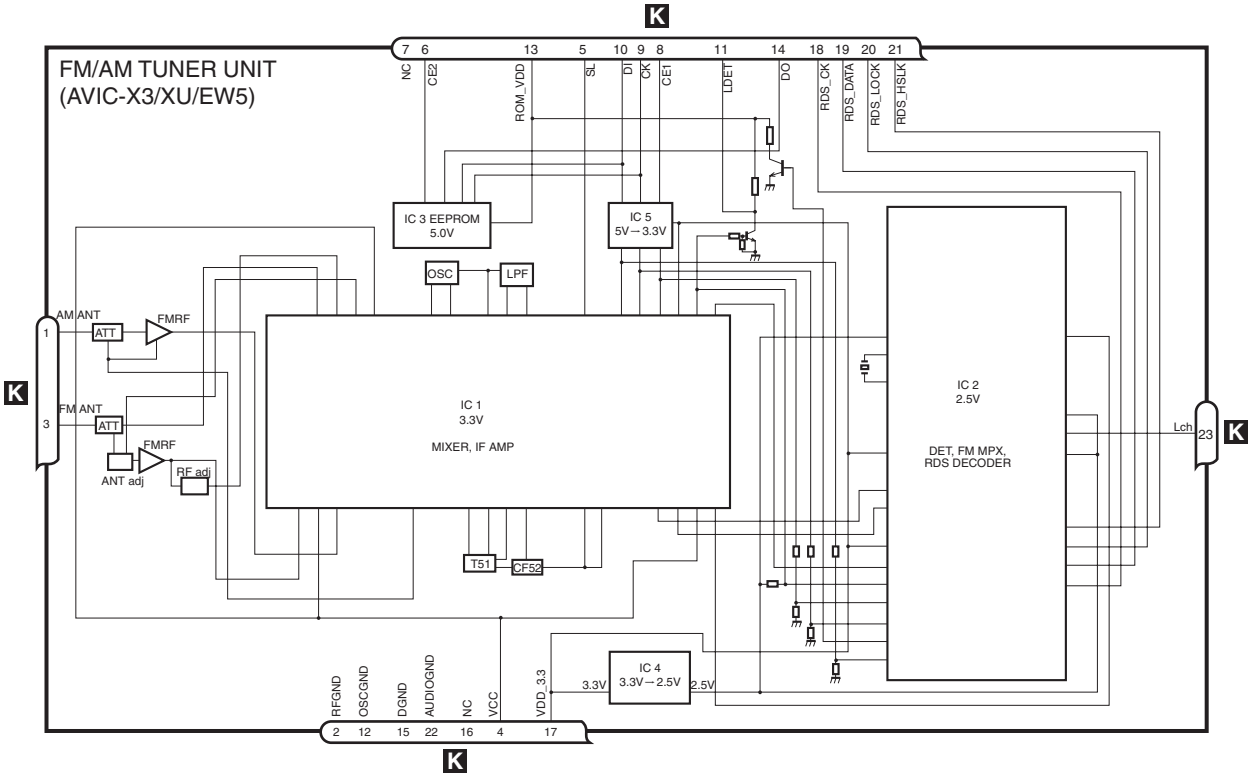
D DVD CORE UNIT

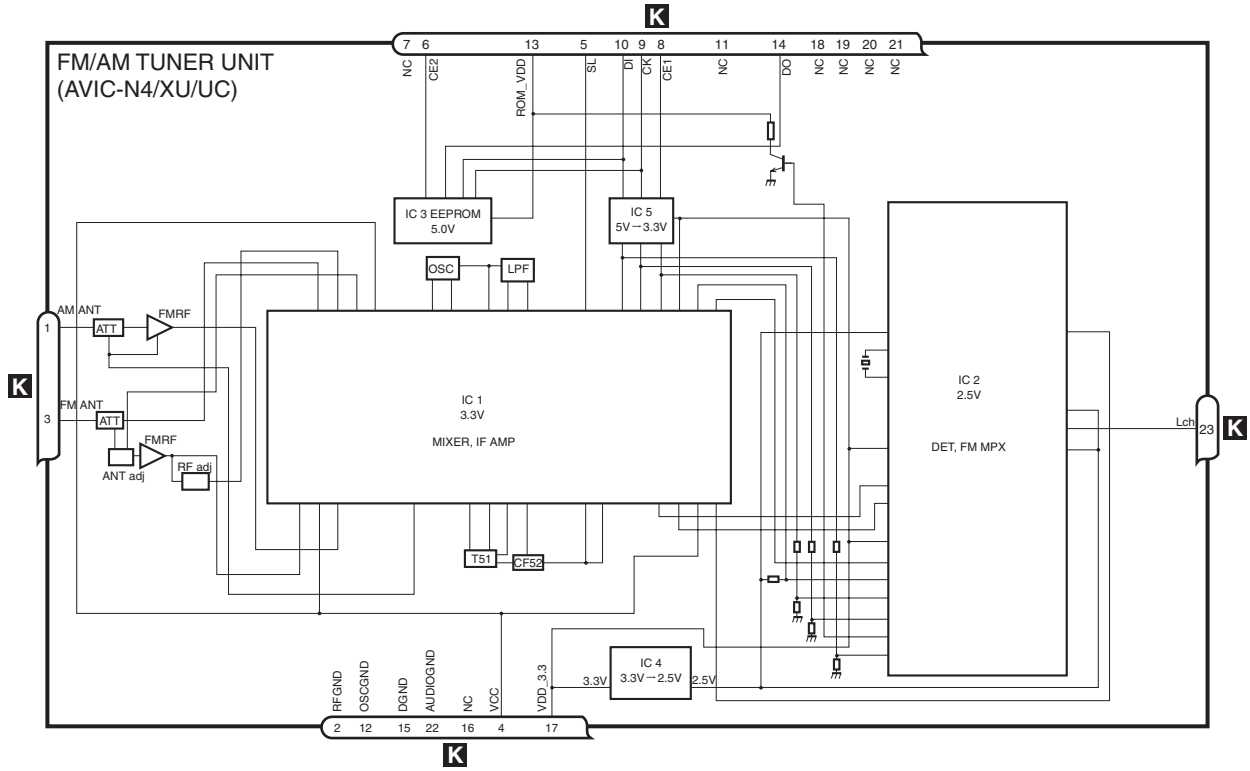



AUDIO 2CH ANALOG OUT
IC1801
PCM1753DBQ
SRCK
ADOUT3
LRCK
SDODAC
SCKDAC
LTDAC
DACCLK
BCK
DATA
LRCK
MD
MC
ML
SCK
VOUTL
LOUT
CN1901
NRES
XRESET
ANALOG LOUT
CR
CB
Y
COMPOSIT
STANBY
STSCOMN
SLVSTS
CMDCOMN
HSTCMD
IRQPWR
AMUTE
A
CN607
VCC5 REG.
IC1004
NJM2880U1-05
VCC5
VOUT
VIN
CONT
VDD5
VD8
AVCC5 REG.
IC1005
S-L2980A50MC-C7J
AVCC5
ON/OFF
WAKE UP
E
COMPOUND UNIT(A)
DISC DET
IC1301
TC7SZ125FU
CN1301
DiscDetect
DISC SENS
S1203
S1204
S1202
S1201
S1205
DSCSNS
8cm
12cm
PHOTOSNS
Photo
Q1299
CN1852
IECOUT
A
CN2551
CLAMP1
TP1
CLAMP
S1206
F
COMPOUND UNIT(B)
MOTOR DRIVER
IC1201
BD7996EFV
CONT2
CONT1
DRV3
DRV2
MD
FD
TD
CTL2
CTL1
SLIN2
SLIN1
SPIN
LDIN
FG
ACTIN1
ACTIN2
SLO2–
SLO1–
SLO2+
SLO1+
V
W
U
HB
HW–
HW+
HV–
HV+
HU–
HU+
ACO1–
ACO1+
ACO2+
ACO2–
FOM
FOP
TOM
TOP
CN1201
B–
A–
B+
A+
COILV
COIL_V
COILW
COIL_W
COILU
COIL_U
HBM
HWM
HWP
HVM
HVP
HUM
HUP
HALL_BIAS–
HALL_W–
HALL_W+
HALL_V–
HALL_V+
HALL_U–
HALL_U+
HALL_BIAS+
SWITCH
HOME
CN1101
F–
F+
T–
T+
TEMP
TH
B
A
C
D
FE1
FE2
CDMPD
78MD
DVDMPD
65MD
RF
F+H_G+H
F+H/G+H
E+G_E+F
E+G/E+F
Q1102
Q1104
LPCO2
LD(CD)
Q1101
Q1103
LPCO1
LD(DVD)
VREF
VCC5
VCC
PICKUP UNIT(SERVICE)
DC/DC CONVERTER
IC1001
BD9851EFV
VCC
STB
SEL1
PVCC1
PVCC2
INV2
FB2
OUT1
INV1
FB1
OUT2
Q1003
Q1001
VCC12
VCC33
VAREF

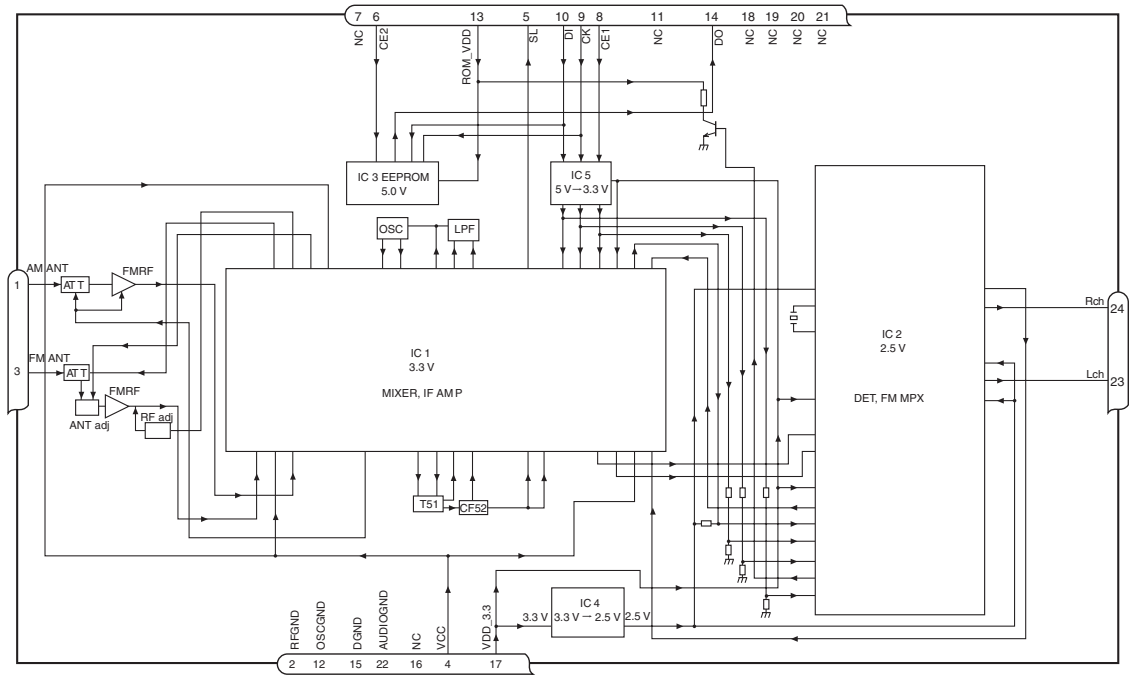

C GPS UNIT
L CONNECTOR PCB
RF BLOCK
GPS ANTENNA
CN504
IC401 UPC2749T
F401
X401
IC402 UPB1027GS
RF_MIXin
2ndIFout
REFin
LOout
(4.092MHz)
(32.736MHz)
DRAGON IC501 PD3390A
IF
CRCK
XRTCIN
XRTCOUT
X501
IC503 M5M5V216ATP-70HI
IC502 Ⓐ PEH100A8 Ⓑ PEH101A8
POWER ON RESET IC504 MAX6364PUT29
RESETB
BOWWOWB
RTCVCC
CS0B
WRLB
RDB
CS1B
A0
WRHB
Q441
PIN0
PIN1
IC441 NJM2100V
DIAGNOSIS BLOCK
IC461 ADC12H034CIMSAS1
RDS DECODER IC532 LC72720YVSS1
AVIC-X3/XU/EW5 ONLY
X502 20.0MHz
XAUXOUT
XAUXIN
X532
CN461
CN551
CN552
CN1841
Ⓐ AVIC-N4/XU/UC
Ⓑ AVIC-X3/XU/EW5


M MAIN PCB UNIT(SERVICE)
CN101
5V REGULATOR IC101 BA00CC0WFP
MOTOR DRIVE IC102 BA6247FP
CN102
SLIDE MOTOR
S101 ANGLE SWITCH
N
SWITCH PCB UNIT
CN103
ANGLE MOTOR
VR101 ANGLE SENSOR
O
VOLUME PCB UNIT
A
CN608
WAVE SHAPE IC104 TC7W14FU
SLIDE PULSE OUTPUT IC105 GP2L24B
LIFT SW (EJECT:L) IC103 GP2L24B
Q101


FM/AM TUNER UNIT
(AVIC-X3/XU/EW5)
NC
CE2
ROM_VDD
SL
DI
CK
CE1
LDET
DO
RDS_CK
RDS_DATA
RDS_LOCK
RDS_HSLK
IC 3 EEPROM
5.0V
IC 5
5V→3.3V
OSC
LPF
AM ANT
FMRF
ATT
FM ANT
ANT adj
RF adj
IC 1
3.3V
MIXER, IF AMP
IC 2
2.5V
DET, FM MPX,
RDS DECODER
Lch
T51
CF52
RFGND
OSCGND
DGND
AUDIOGND
NC
VCC
VDD_3.3
IC 4
3.3V→2.5V
3.3V
2.5V

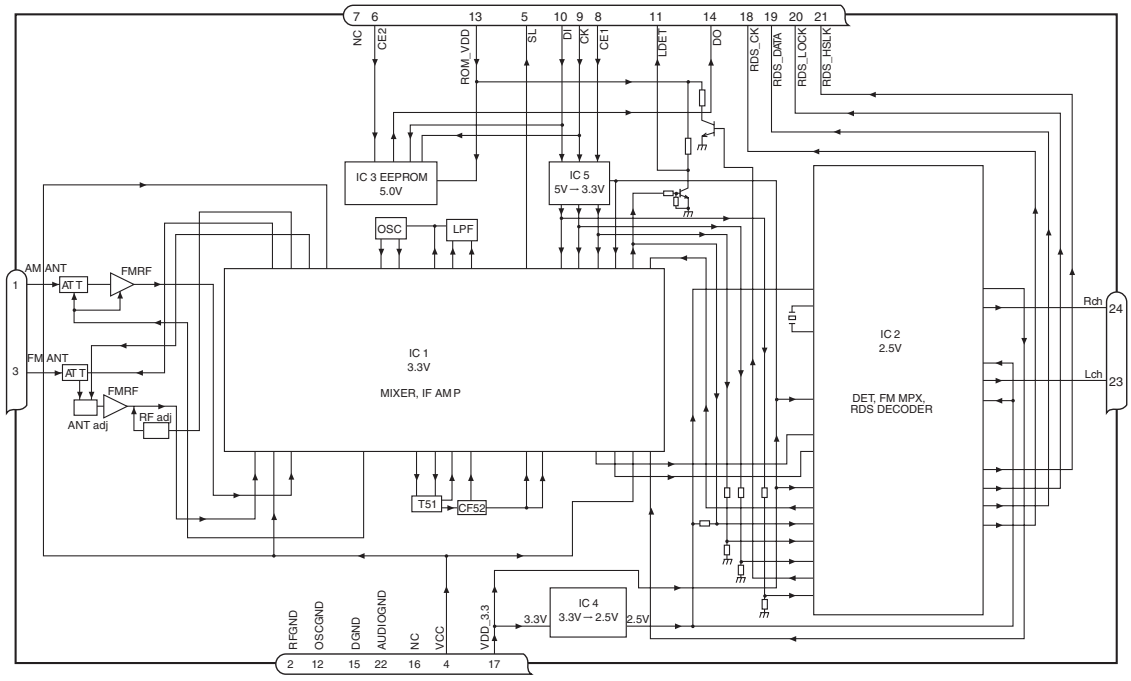

FM/AM TUNER UNIT
(AVIC-N4/XU/UC)
NC
CE2
ROM_VDD
SL
DI
CK
CE1
NC
DO
NC
NC
NC
NC
IC 3 EEPROM
5.0V
IC 5
5V→3.3V
OSC
LPF
AM ANT
FMRF
ATT
FM ANT
ANT adj
RF adj
IC 1
3.3V
MIXER, IF AMP
IC 2
2.5V
DET, FM MPX
Lch
T51
CF52
RFGND
OSCGND
DGND
AUDIOGND
NC
VCC
VDD_3.3
IC 4
3.3V→2.5V
3.3V
2.5V

● FM/AM Tuner Unit (AVIC-N4/XU/UC)



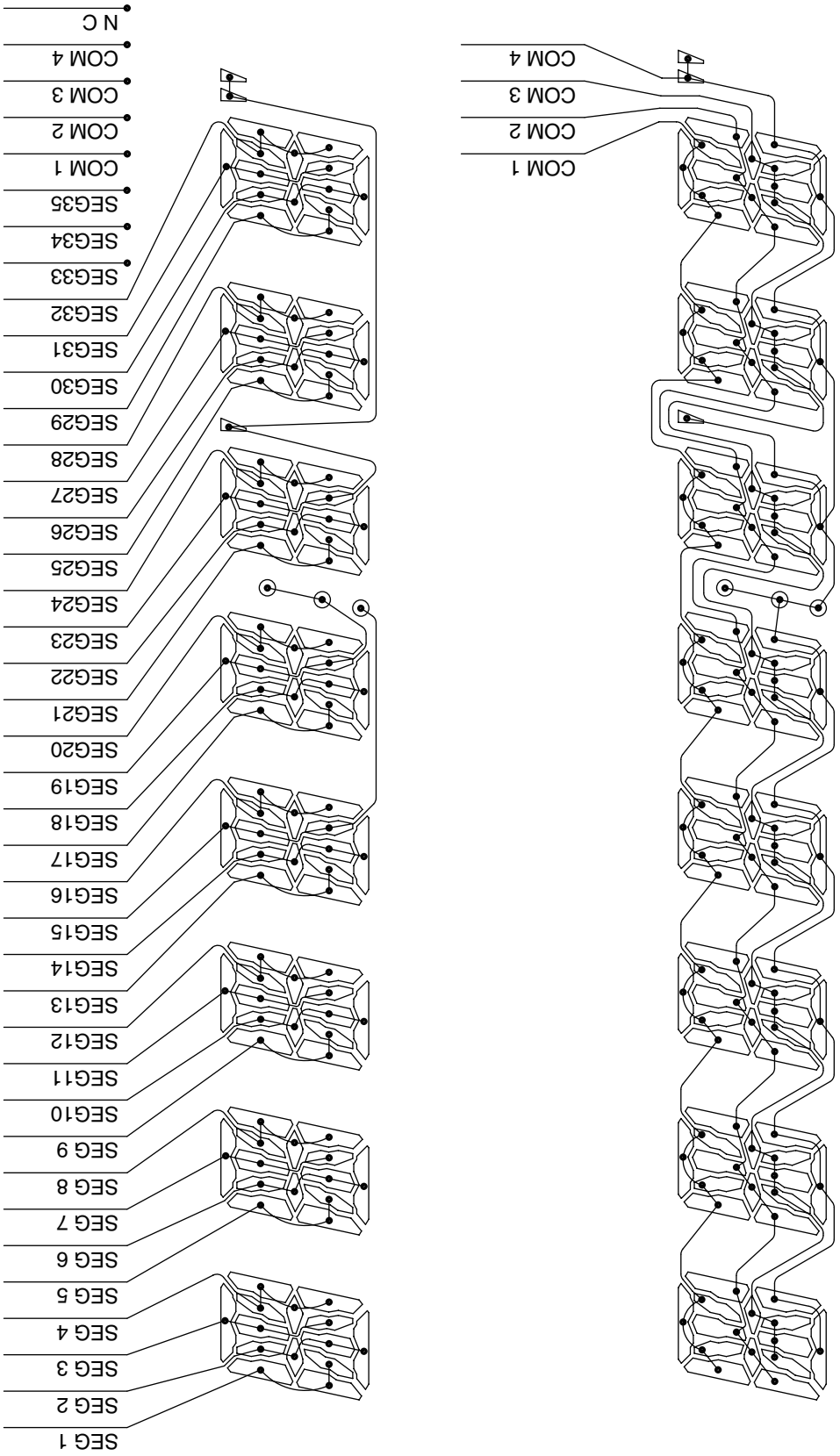
No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 4.7 µH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75 ohm Surge absorber (DSP-201M-S00B) is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4 V ± 0.3 V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM "Low" active
7	NC		non connection	Not used
8	CE1	I	chip enable-1	Chip enable for AF•RF "High" active
9	CK	I	clock	Clock
10	DI	I	data in	Data input
11	NC		non connection	Not used
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	NC		non connection	Not used
17	VDD_3.3		power supply	The power supply for digital block. 3.3 V ± 0.2 V
18	NC		non connection	Not used
19	NC		non connection	Not used
20	NC		non connection	Not used
21	NC		non connection	Not used
22	AUDIOGND		audio ground	Ground of audio block
23	L ch	O	L channel output	FM stereo "L-ch" signal output or AM audio output
24	R ch	O	R channel output	FM stereo "R-ch" signal output or AM audio output

● FM/AM Tuner Unit (AVIC-X3/XU/EW5)



No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 4.7 µH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75 ohm Surge absorber(DSP-201M-S00B)is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4 V ± 0.3 V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM ”Low” active
7	NC		non connection	Not used
8	CE1	I	chip enable-1	Chip enable for AF•RF ”High” active
9	CK	I	clock	Clock
10	DI	I	data in	Data input
11	LDET	O	lock detector	“Low” active
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	NC		non connection	Not used
17	VDD_3.3		power supply	The power supply for digital block. 3.3 V ± 0.2 V
18	RDS_CK	O	RDS clock	Output of RDS clock(2.5 V)
19	RDS_DATA	O	RDS data	Output of RDS data(2.5 V)
20	RDS_LOCK	O	RDS lock	Output unit “High” active(2.5 V) (RDS_LOCK turns over by the external transistor . “Low” active)
21	RDS_HSLK	O	RDS high speed lock	Output unit “High” active(2.5 V)(RDS_HSLK turns over by the external transistor. “Low” active)
22	AUDIOGND		audio ground	Ground of audio block
23	L ch	O	L channel output	FM stereo “L-ch” signal output or AM audio output
24	R ch	O	R channel output	FM stereo “R-ch” signal output or AM audio output

● LCD(CAW1950)


N C
COM 4
COM 3
COM 2
COM 1
SEG35
SEG34
SEG33
SEG32
SEG31
SEG30
SEG29
SEG28
SEG27
SEG26
SEG25
SEG24
SEG23
SEG22
SEG21
SEG20
SEG19
SEG18
SEG17
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
SEG10
SEG 9
SEG 8
SEG 7
SEG 6
SEG 5
SEG 4
SEG 3
SEG 2
SEG 1
SEGMENT
COMMON

A

B

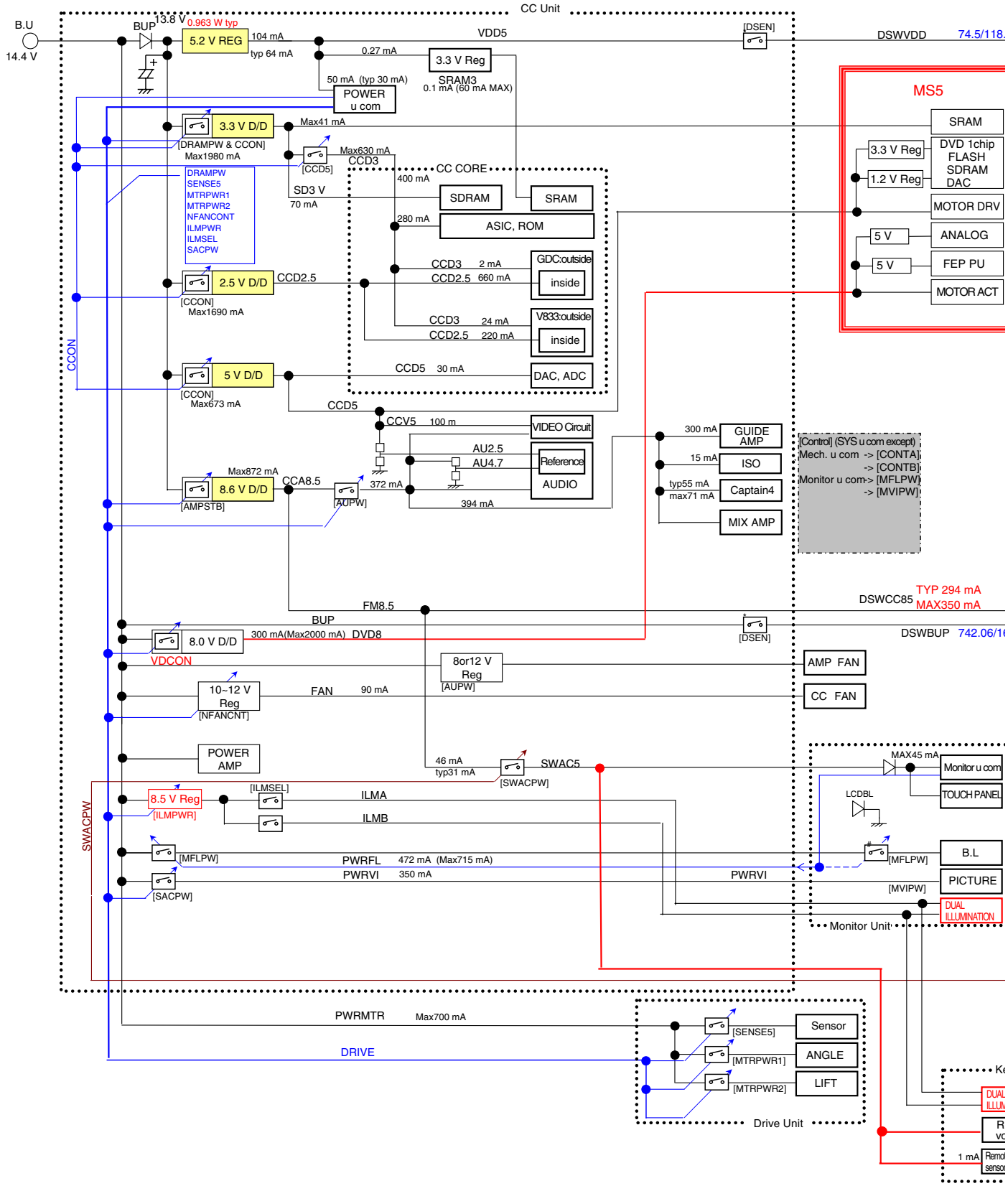
C

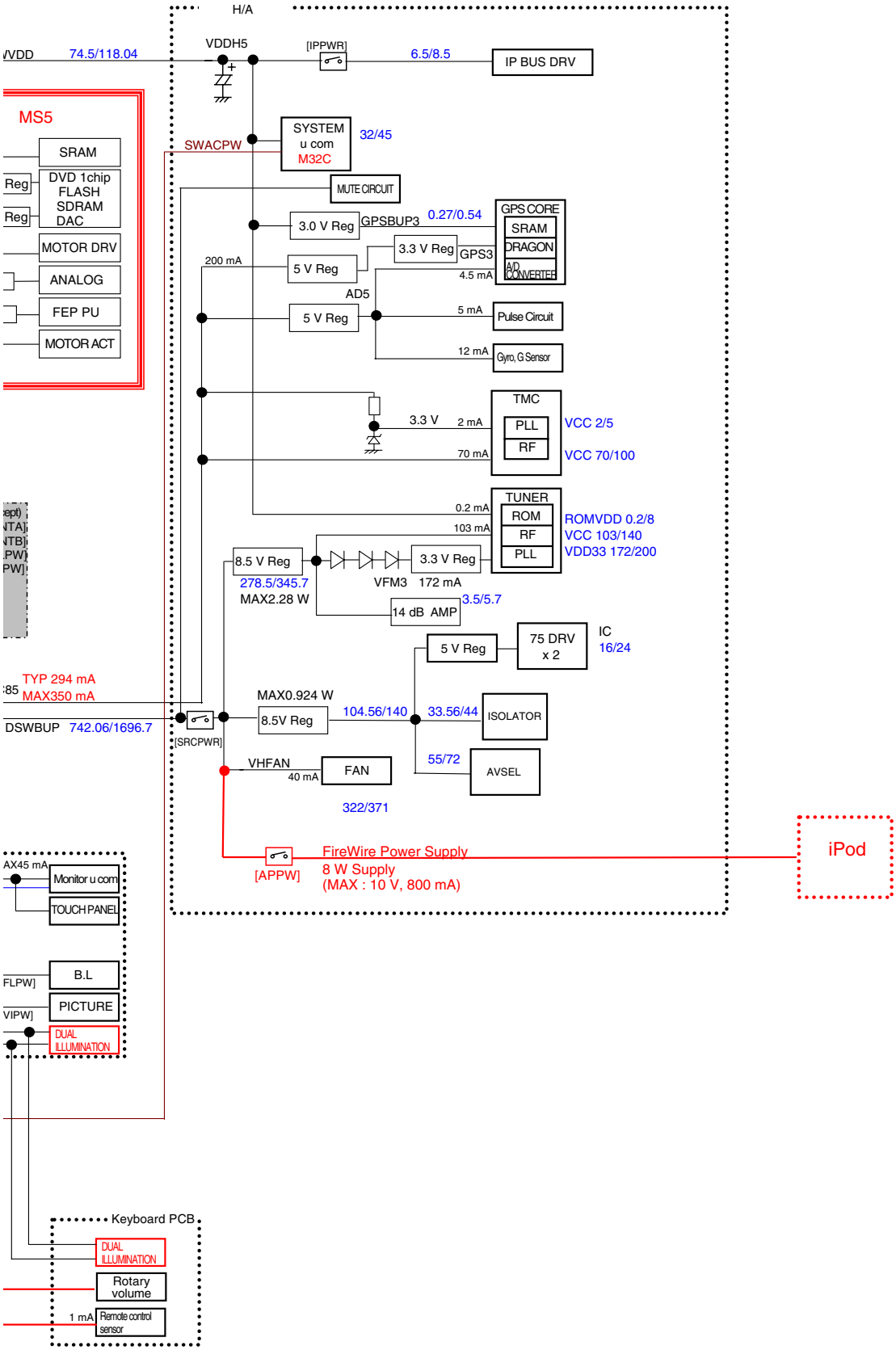
D

E

F

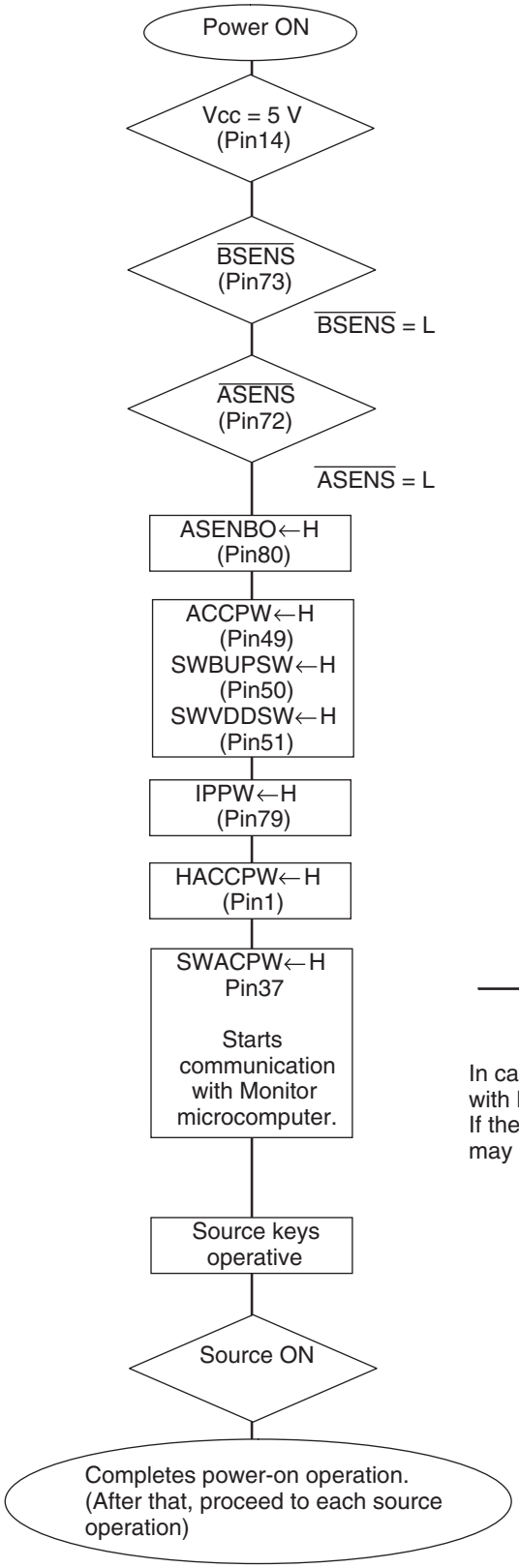
4.3 POWER BLOCK DIAGRAM

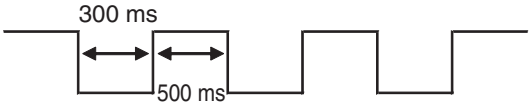



H/A
VDDH5
[IPPWR]
6.5/8.5
IP BUS DRV
74.5/118.04
MS5
SRAM
DVD 1chip
FLASH
SDRAM
DAC
MOTOR DRV
ANALOG
FEP PU
MOTOR ACT
SWACPW
SYSTEM
u com
M32C
32/45
MUTE CIRCUIT
3.0 V Reg
GPSBUP3
0.27/0.54
GPS CORE
SRAM
DRAGON
A/D CONVERTER
3.3 V Reg
GPS3
4.5 mA
200 mA
5 V Reg
AD5
5 V Reg
5 mA
Pulse Circuit
12 mA
Gyro, G Sensor
3.3 V
2 mA
70 mA
TMC
PLL
RF
VCC 2/5
VCC 70/100
0.2 mA
103 mA
TUNER
ROM
RF
PLL
ROMVDD 0.2/8
VCC 103/140
VDD33 172/200
8.5 V Reg
278.5/345.7
MAX2.28 W
3.3 V Reg
VFM3 172 mA
14 dB AMP
3.5/5.7
5 V Reg
75 DRV
x 2
IC
16/24
TYP 294 mA
MAX350 mA
DSWBUP 742.06/1696.7
[SRCPWR]
MAX0.924 W
8.5V Reg
104.56/140
33.56/44
ISOLATOR
VHFAN
40 mA
FAN
55/72
AVSEL
322/371
[APPW]
FireWire Power Supply
8 W Supply
(MAX : 10 V, 800 mA)
iPod
Monitor u com
TOUCH PANEL
B.L
PICTURE
DUAL ILLUMINATION
Keyboard PCB
DUAL ILLUMINATION
Rotary volume
1 mA
Remote control sensor

5. DIAGNOSIS
5.1 OPERATIONAL FLOWCHART

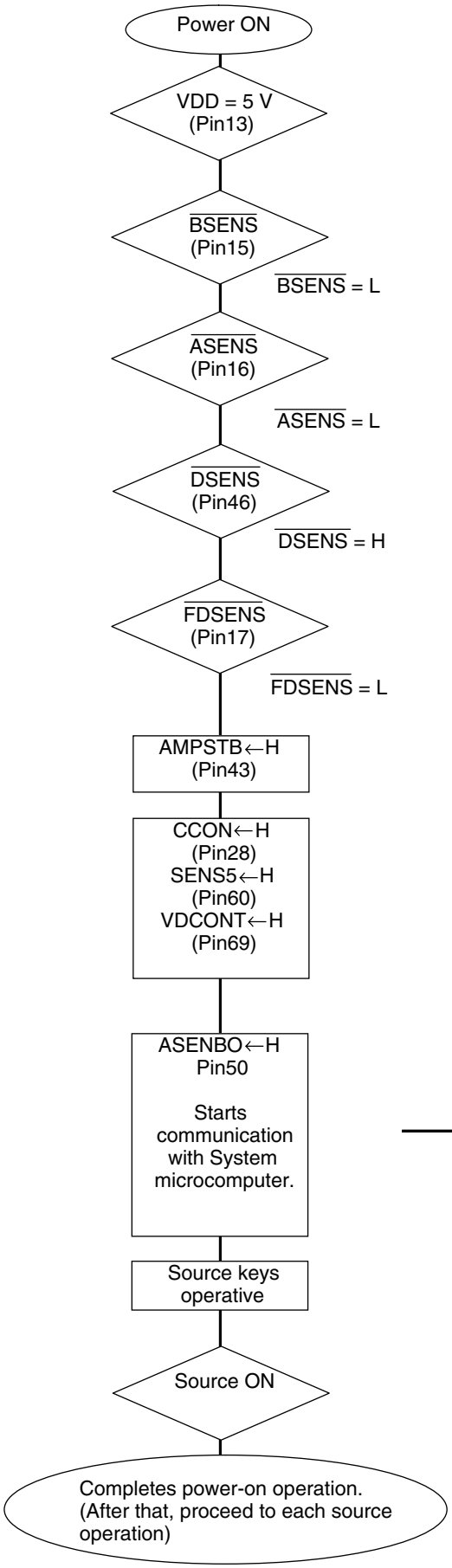
OPERATIONAL FLOW CHART(H/A UNIT SYSTEM MICROCOMPUTER)

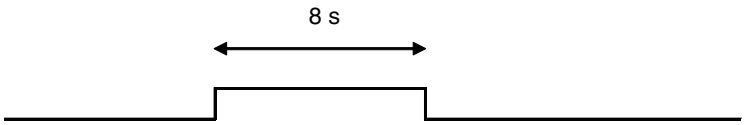




In case of the above signal, the communication with Monitor microcomputer may fail.
If the time interval is not 300/500 msec, the oscillator may be defective.

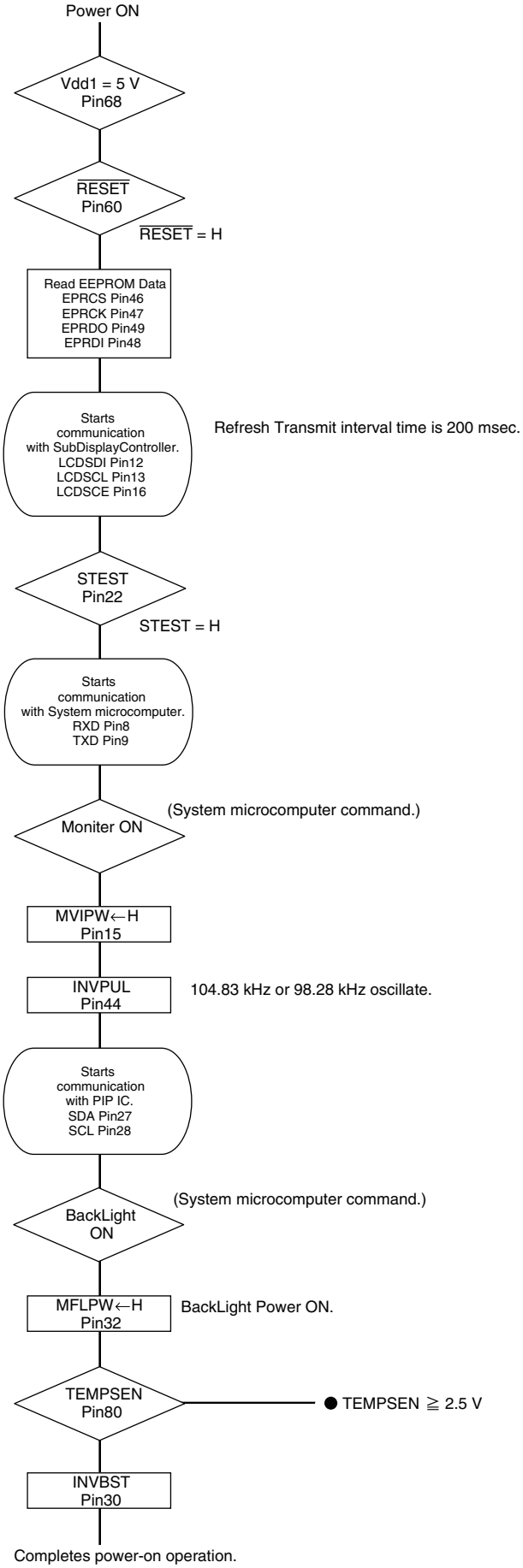
OPERATIONAL FLOW CHART(NAVIGATION UNIT SYSTEM POWER MICROCOMPUTER)



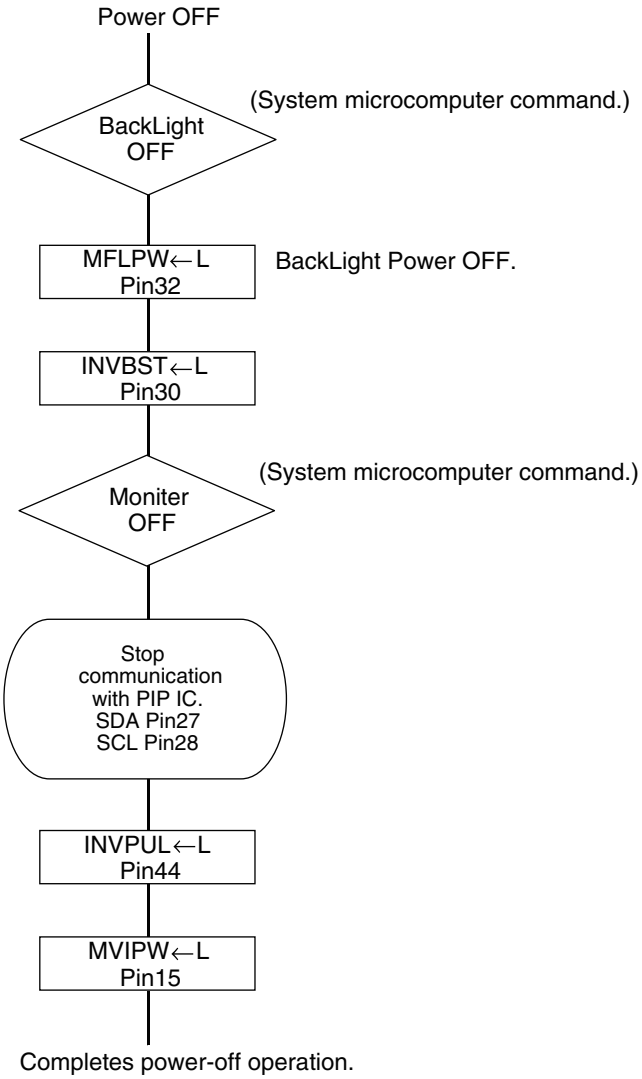


When set to Low in 8 seconds,
It means having failed communication with System microcomputer.

OPERATIONAL FLOW CHART(MONITOR MICROCOMPUTER)

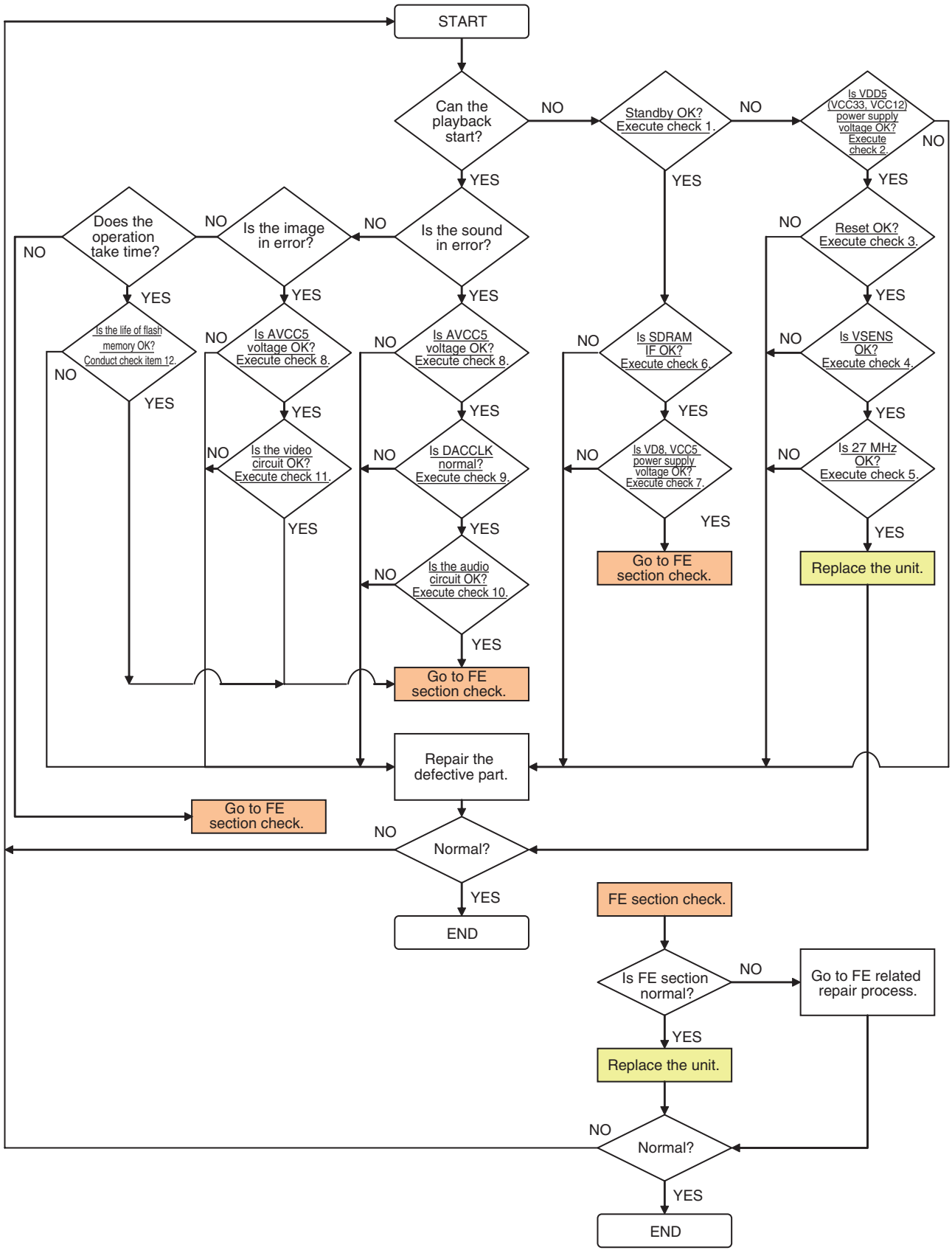


OPERATIONAL FLOW CHART(MONITOR PowerOFF)



5.2 DIAGNOSIS FLOWCHART

BACK END section flow



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

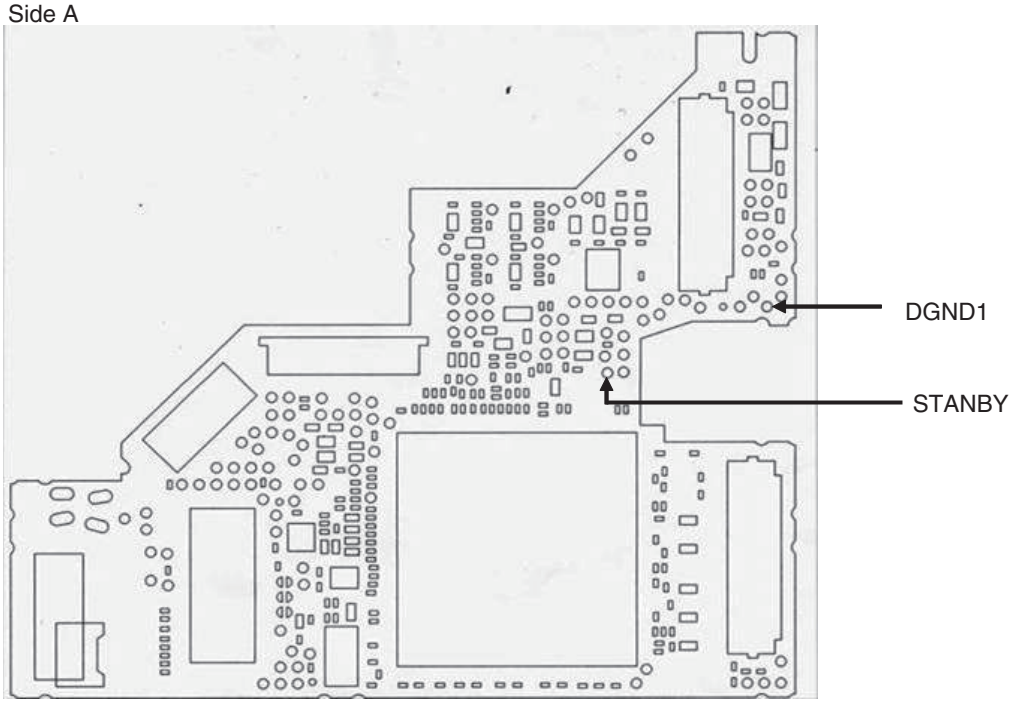


Fig 1.1: STANBY check point

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

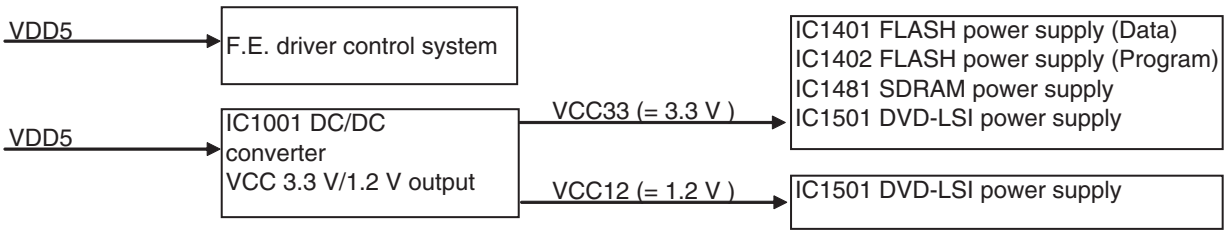


Fig 2.1: Power supply configuration

<Check> Check the voltage at the “VDD5_3, VCC33_3 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_3 - DGND1	ALL	5.0 ± 0.4	V
2	VCC33_3 - DGND1	ALL	3.3 ± 0.15	V
3	VCC12_1 - DGND1	ALL	1.2 ± 0.12	V

Side A

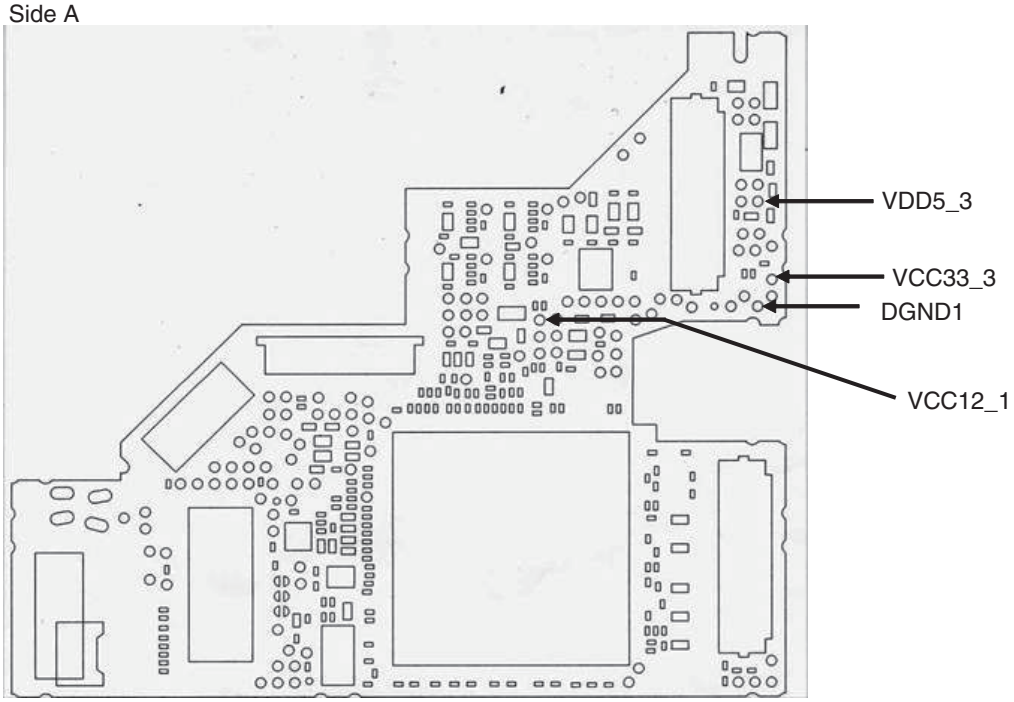


Fig 2.2: VDD5, VCC33, VCC12 voltage check points

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

Side A

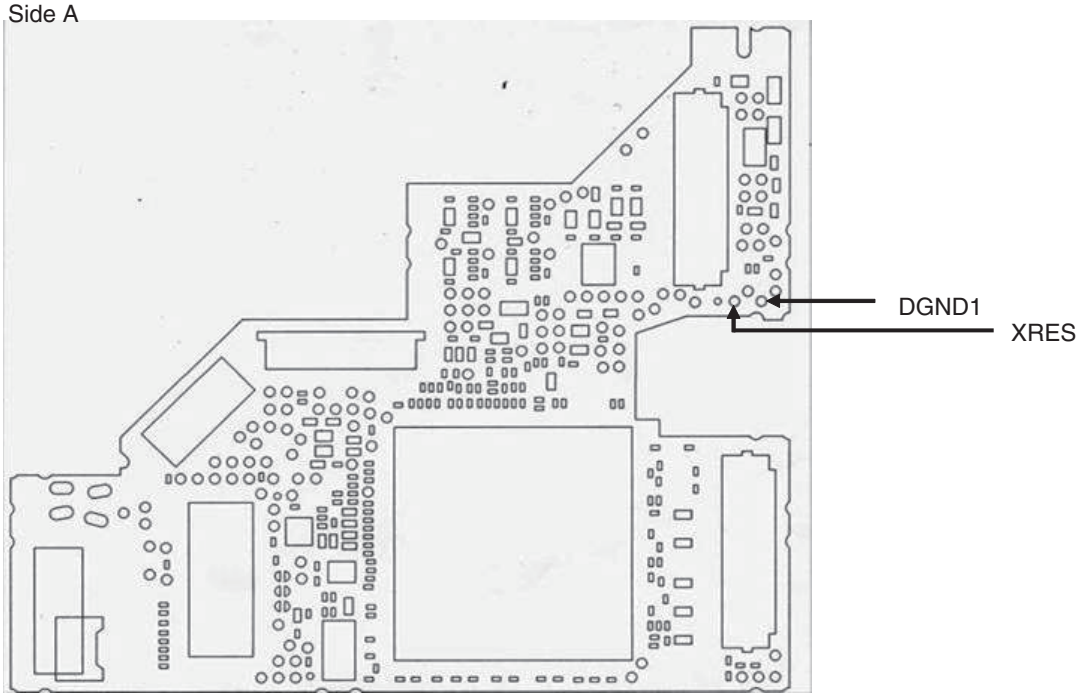


Fig 3.1: RESET check point

Check 4: Is VSENS OK?

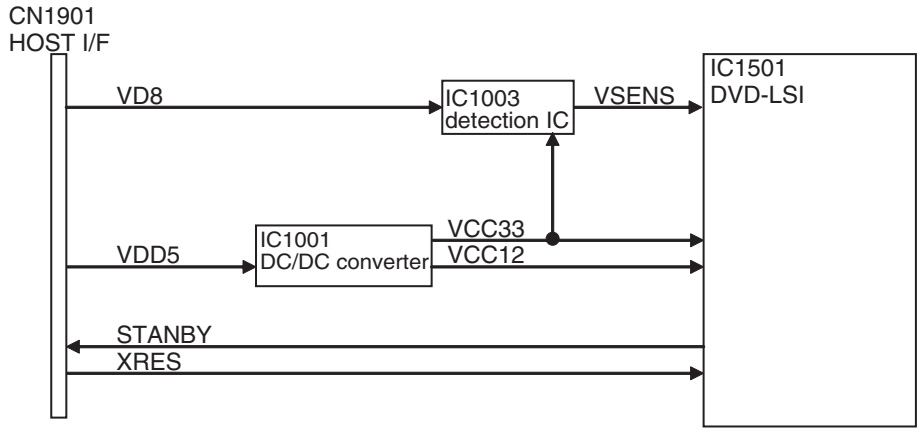


Fig 4.1: Power supply configuration and VSENS

<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	VCC33 × 0.7 or more	V

Side A

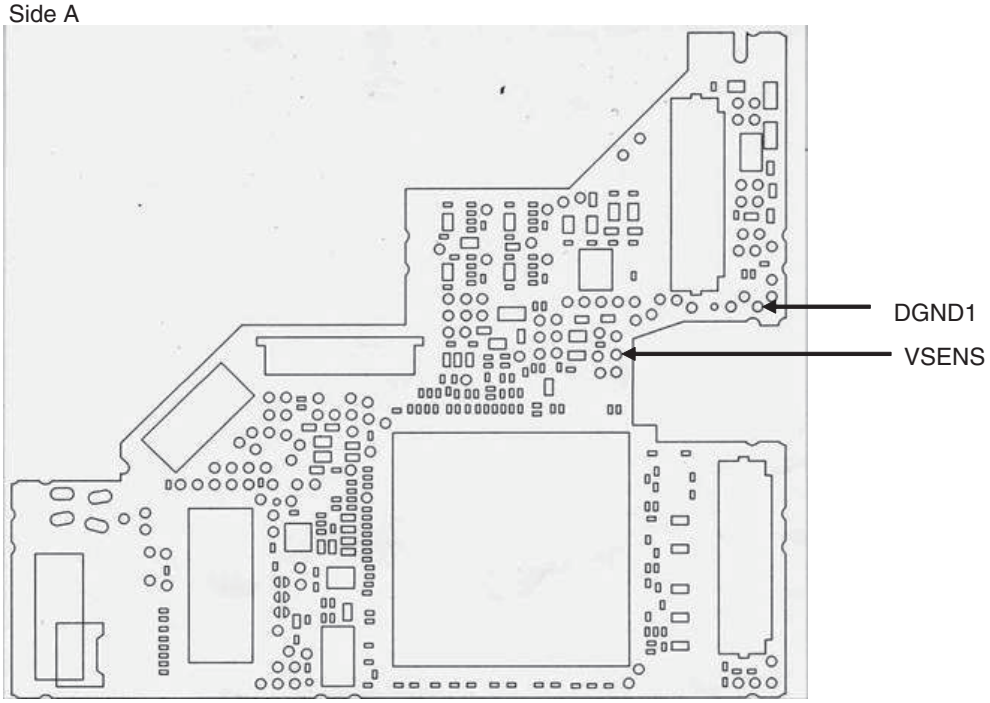


Fig 4.2: VSENS check point

Check 5: 27 MHz Normal?

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

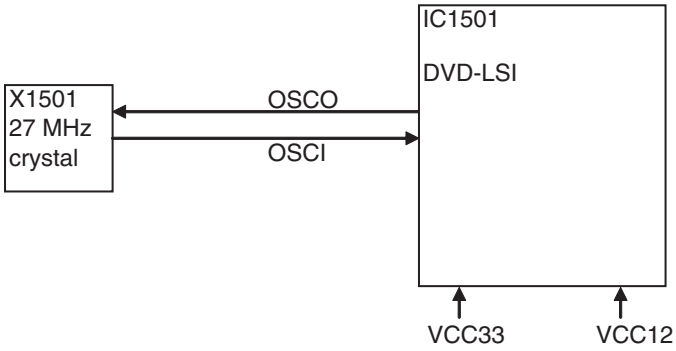


Fig 5.1: Clock configuration

<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

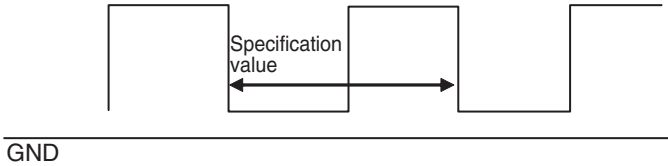


Fig 5.2: Clock specification value

Side A

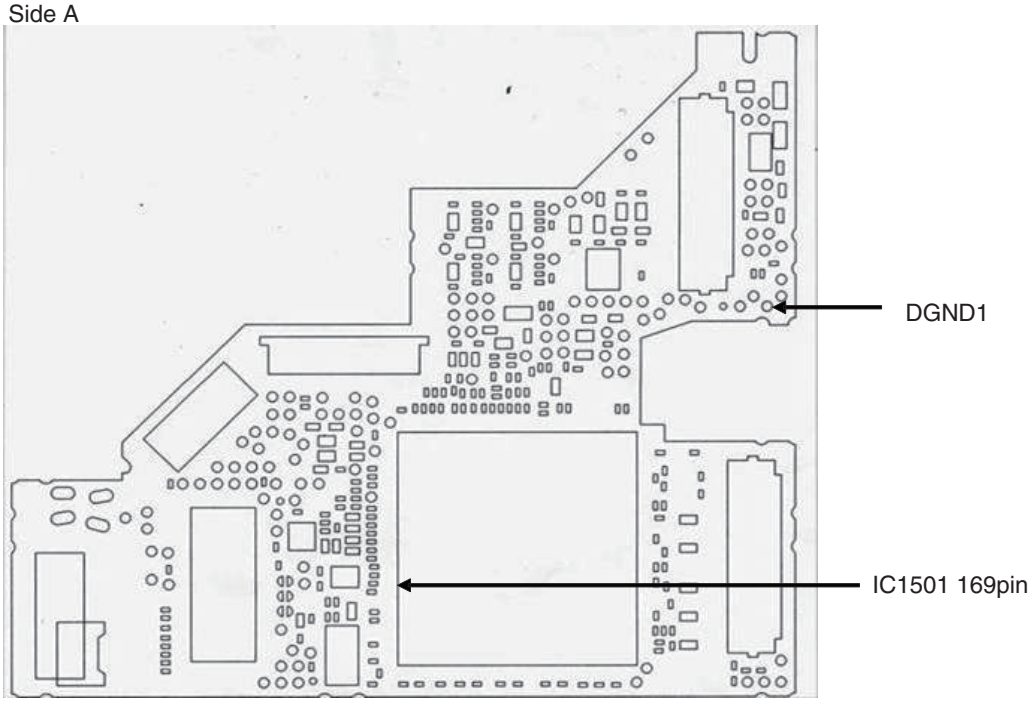


Fig 5.3: 27 MHz check point

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 128Mbit.
Be careful as XCSM, XWE, XCAS, XRAS and XSCM of IC1481 are called differently in IC1501,
namely NCSM, NWE, NCAS, NRAS, NCSM.

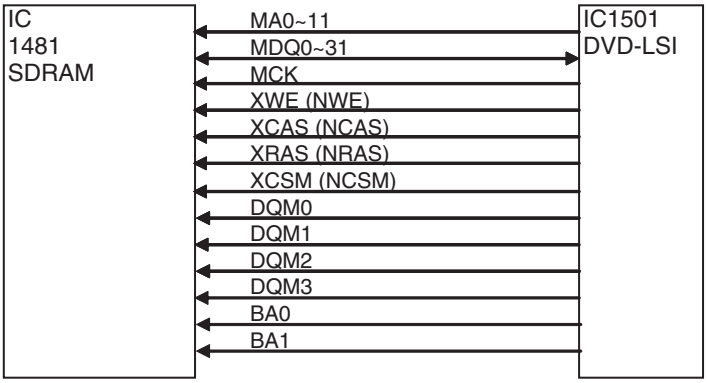
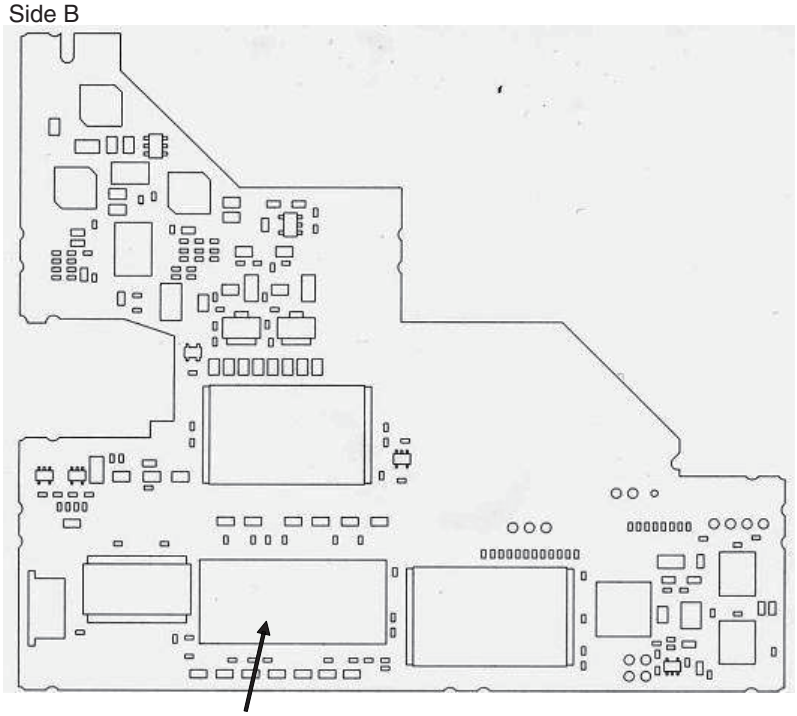


Fig 6.1: SDRAM I/F

<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.

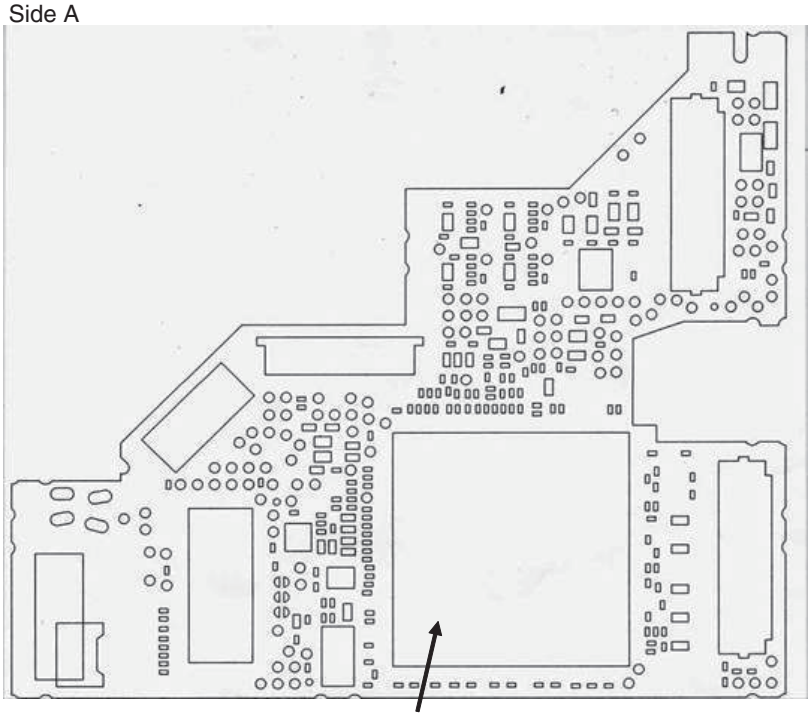
NO.	Signal name	Check point 1		Check point 2		Specification value
1	MA0	IC1481	25pin	IC1501	16pin	56 Ω ± 5 %
2	MA1	IC1481	26pin	IC1501	18pin	56 Ω ± 5 %
3	MA2	IC1481	27pin	IC1501	20pin	56 Ω ± 5 %
4	MA3	IC1481	60pin	IC1501	22pin	56 Ω ± 5 %
5	MA4	IC1481	61pin	IC1501	21pin	56 Ω ± 5 %
6	MA5	IC1481	62pin	IC1501	19pin	56 Ω ± 5 %
7	MA6	IC1481	63pin	IC1501	17pin	56 Ω ± 5 %
8	MA7	IC1481	64pin	IC1501	15pin	56 Ω ± 5 %
9	MA8	IC1481	65pin	IC1501	11pin	56 Ω ± 5 %
10	MA9	IC1481	66pin	IC1501	9pin	56 Ω ± 5 %
11	MA10	IC1481	24pin	IC1501	14pin	56 Ω ± 5 %
12	MA11	IC1481	21pin	IC1501	7pin	56 Ω ± 5 %
13	MDQ0	IC1481	2pin	IC1501	237pin	56 Ω ± 5 %
14	MDQ1	IC1481	4pin	IC1501	239pin	56 Ω ± 5 %
15	MDQ2	IC1481	5pin	IC1501	241pin	56 Ω ± 5 %
16	MDQ3	IC1481	7pin	IC1501	243pin	56 Ω ± 5 %
17	MDQ4	IC1481	8pin	IC1501	248pin	56 Ω ± 5 %
18	MDQ5	IC1481	10pin	IC1501	250pin	56 Ω ± 5 %
19	MDQ6	IC1481	11pin	IC1501	252pin	56 Ω ± 5 %
20	MDQ7	IC1481	13pin	IC1501	254pin	56 Ω ± 5 %
21	MDQ8	IC1481	74pin	IC1501	253pin	56 Ω ± 5 %
22	MDQ9	IC1481	76pin	IC1501	251pin	56 Ω ± 5 %
23	MDQ10	IC1481	77pin	IC1501	249pin	56 Ω ± 5 %
24	MDQ11	IC1481	79pin	IC1501	244pin	56 Ω ± 5 %
25	MDQ12	IC1481	80pin	IC1501	242pin	56 Ω ± 5 %
26	MDQ13	IC1481	82pin	IC1501	240pin	56 Ω ± 5 %
27	MDQ14	IC1481	83pin	IC1501	238pin	56 Ω ± 5 %
28	MDQ15	IC1481	85pin	IC1501	236pin	56 Ω ± 5 %
29	MDQ16	IC1481	31pin	IC1501	29pin	56 Ω ± 5 %
30	MDQ17	IC1481	33pin	IC1501	31pin	56 Ω ± 5 %
31	MDQ18	IC1481	34pin	IC1501	33pin	56 Ω ± 5 %
32	MDQ19	IC1481	36pin	IC1501	37pin	56 Ω ± 5 %
33	MDQ20	IC1481	37pin	IC1501	39pin	56 Ω ± 5 %
34	MDQ21	IC1481	39pin	IC1501	41pin	56 Ω ± 5 %
35	MDQ22	IC1481	40pin	IC1501	43pin	56 Ω ± 5 %
36	MDQ23	IC1481	42pin	IC1501	45pin	56 Ω ± 5 %
37	MDQ24	IC1481	45pin	IC1501	44pin	56 Ω ± 5 %
38	MDQ25	IC1481	47pin	IC1501	42pin	56 Ω ± 5 %
39	MDQ26	IC1481	48pin	IC1501	40pin	56 Ω ± 5 %
40	MDQ27	IC1481	50pin	IC1501	38pin	56 Ω ± 5 %
41	MDQ28	IC1481	51pin	IC1501	34pin	56 Ω ± 5 %
42	MDQ29	IC1481	53pin	IC1501	32pin	56 Ω ± 5 %
43	MDQ30	IC1481	54pin	IC1501	30pin	56 Ω ± 5 %
44	MDQ31	IC1481	56pin	IC1501	28pin	56 Ω ± 5 %
45	MCK	IC1481	68pin	IC1501	234pin	0.17 Ω ± or lower
46	XWE	IC1481	17pin	IC1501	3pin	56 Ω ± 5 %
47	XCAS	IC1481	18pin	IC1501	4pin	56 Ω ± 5 %
48	XRAS	IC1481	19pin	IC1501	5pin	56 Ω ± 5 %
49	XCSM	IC1481	20pin	IC1501	6pin	56 Ω ± 5 %
50	DQM0	IC1481	16pin	IC1501	255pin	56 Ω ± 5 %
51	DQM1	IC1481	71pin	IC1501	256pin	56 Ω ± 5 %
52	DQM2	IC1481	28pin	IC1501	26pin	56 Ω ± 5 %
53	DQM3	IC1481	59pin	IC1501	27pin	56 Ω ± 5 %
54	BA0	IC1481	22pin	IC1501	8pin	56 Ω ± 5 %
55	BA1	IC1481	23pin	IC1501	10pin	56 Ω ± 5 %

Side B



Check point 1 (IC1481)

Side A



Check point 2 (IC1501)

Fig 6.2: SDRAM I/F check point

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

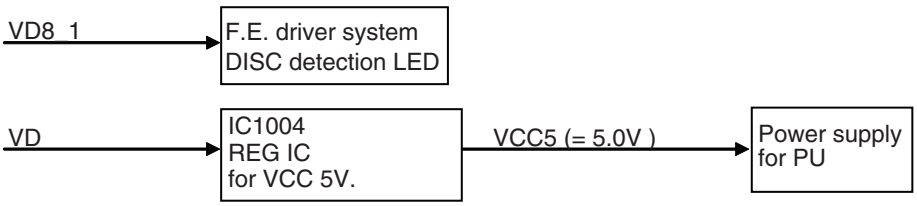


Fig 7.1: Power supply configuration

<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

Side A

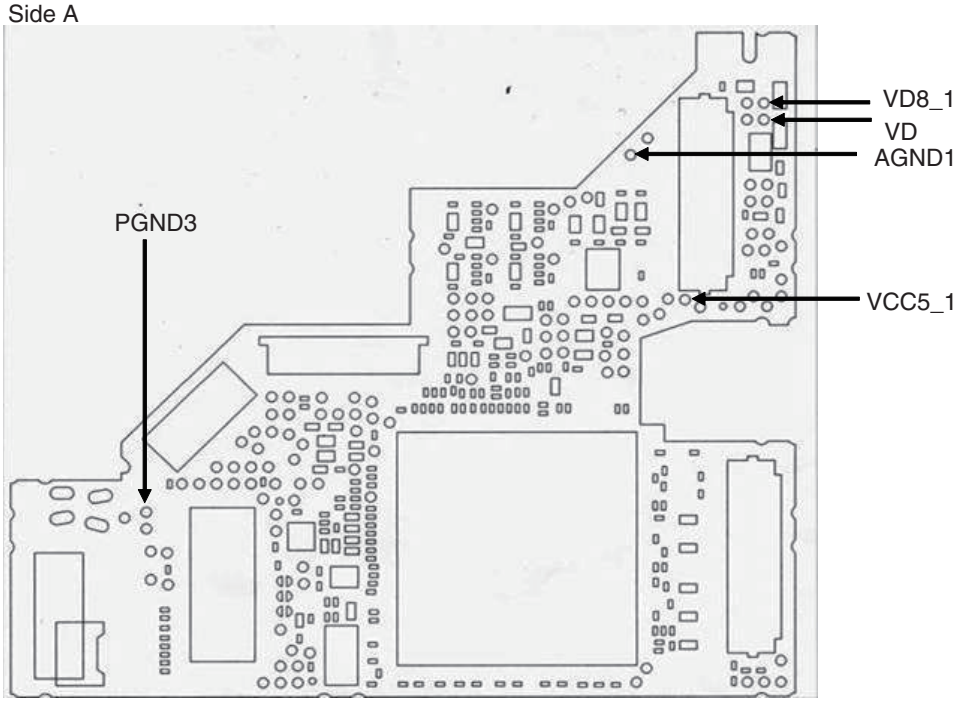


Fig 7.2: VD8, VCC5 voltage check points

Check 8: Is AVCC5 voltage OK?

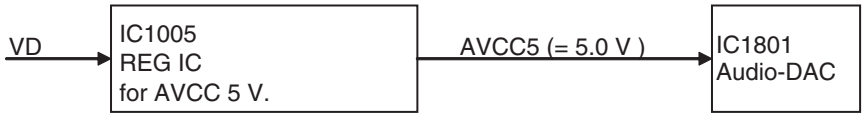


Fig 8.1: Power supply configuration

<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

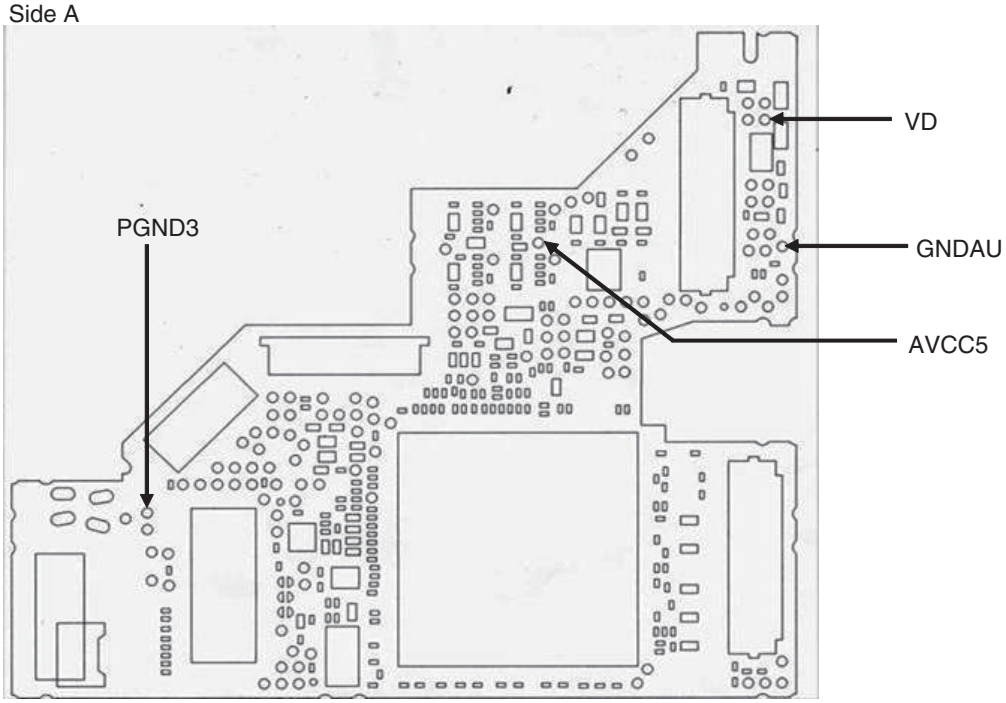


Fig 8.2: VD8, AVCC5 voltage check points

Check 9: Is DACCLK normal?

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

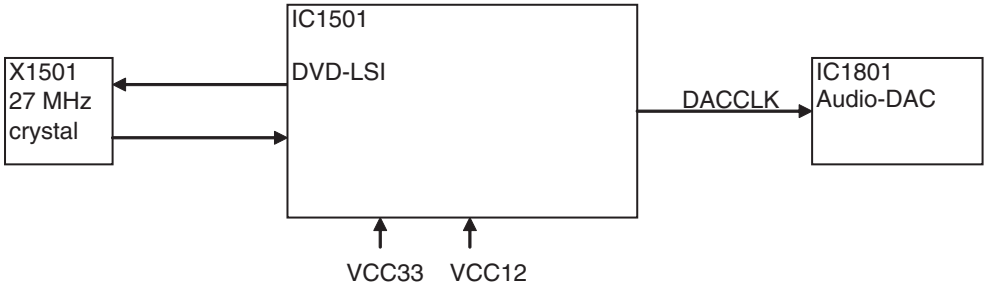


Fig 9.1: Clock configuration

<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	36.8640 MHz±300 ppm
2	DACCK	CD	2.0 V~VCC33 V	DGND~0.8 V	33.8688 MHz±300 ppm

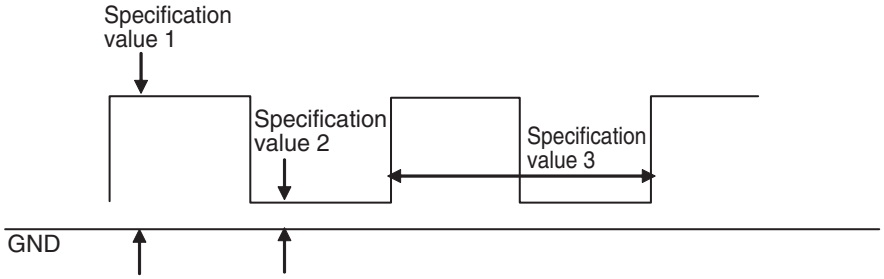


Fig 9.2: Clock specification value

Side A

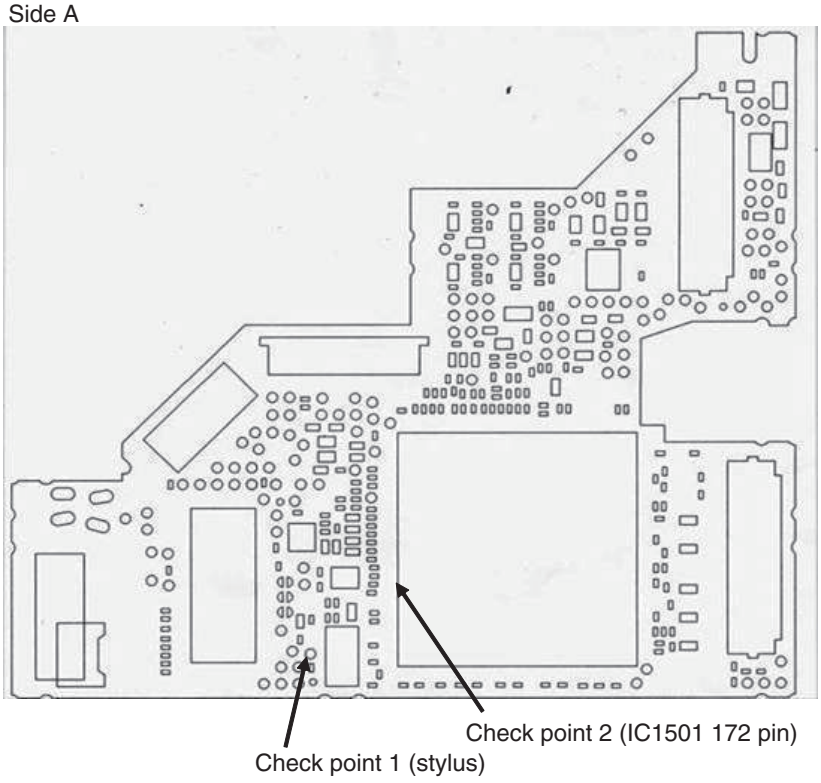


Fig 9.3: 27 MHz, DACCLK check point

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), is output via CN1852.

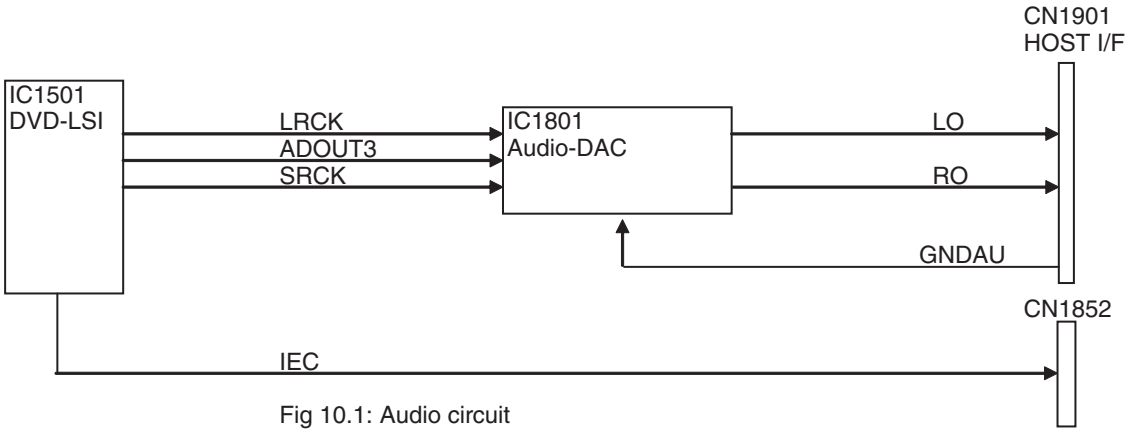


Fig 10.1: Audio circuit

<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

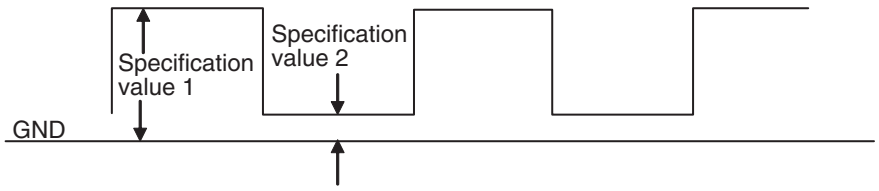


Fig 10.2: Serial 3 lines specification value

Side A

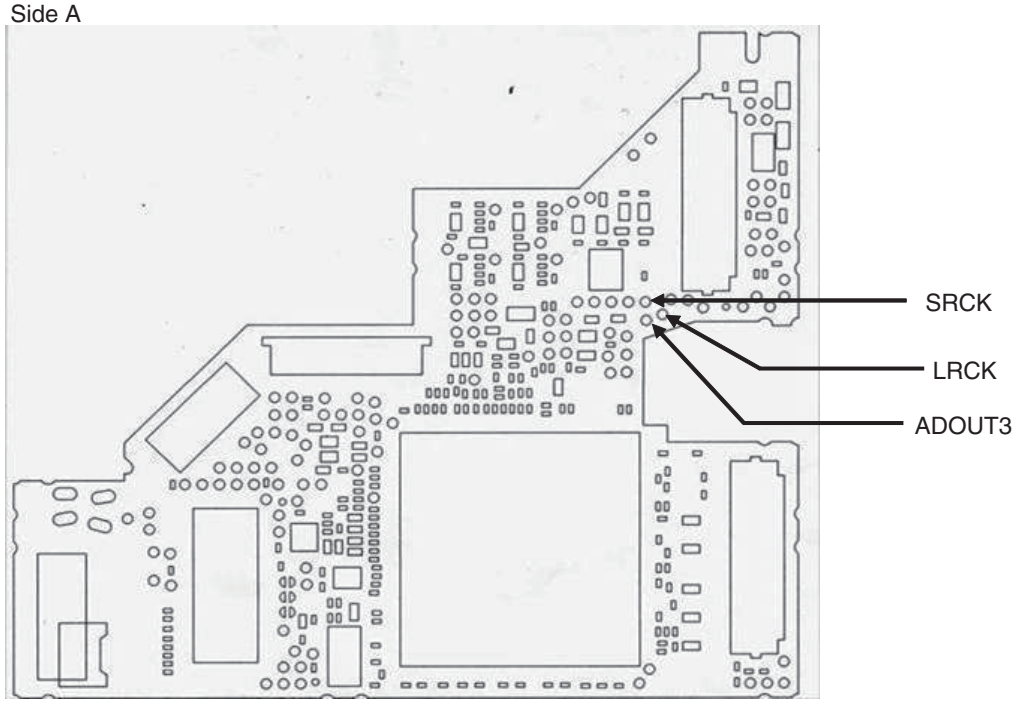
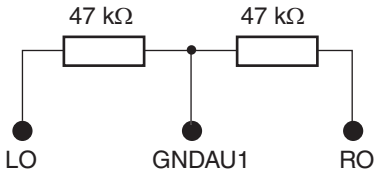


Fig 10.3: Serial 3 lines check points

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

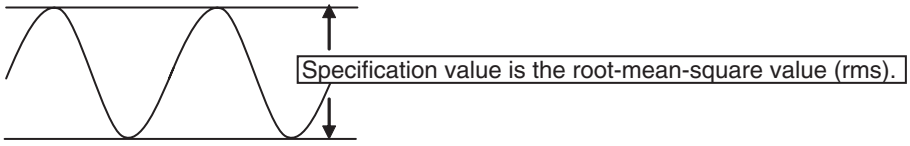


Fig 10.4: Analog audio out (LO, RO) specification value.

Side A

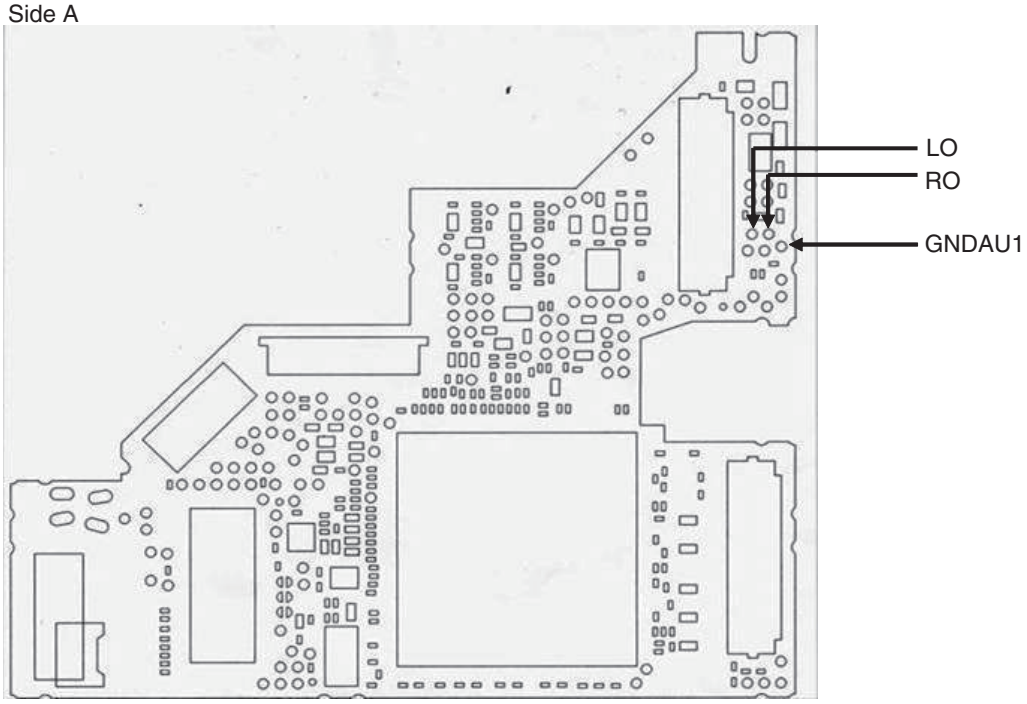


Fig 10.5: Analog audio out check point

Check with DGND being the reference.
Check 2pin cord after connecting it to a jig, etc.

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

Side A

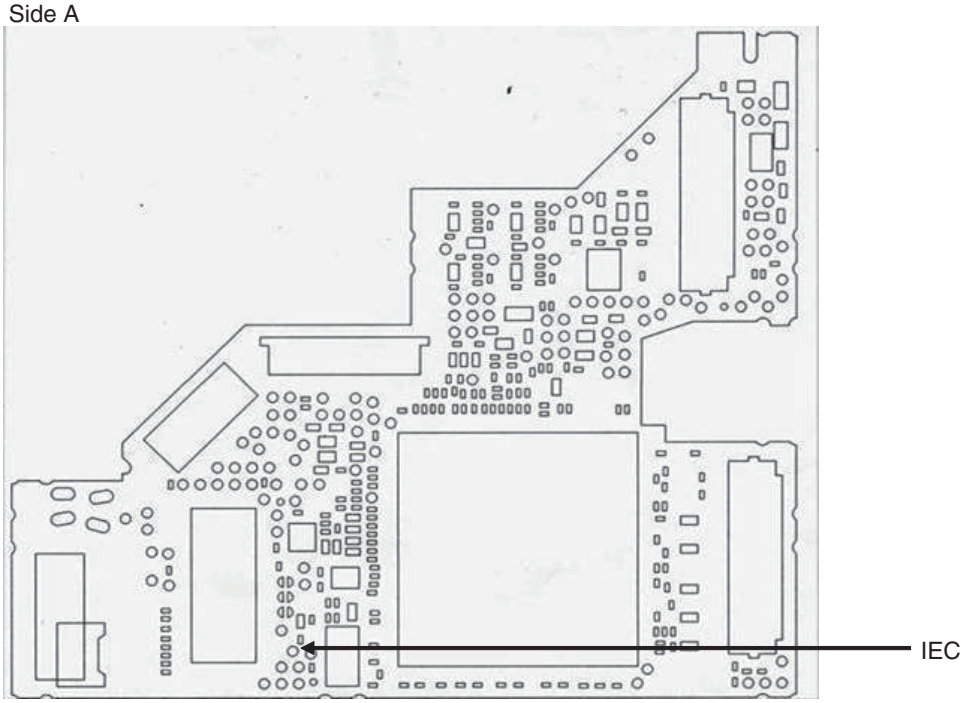
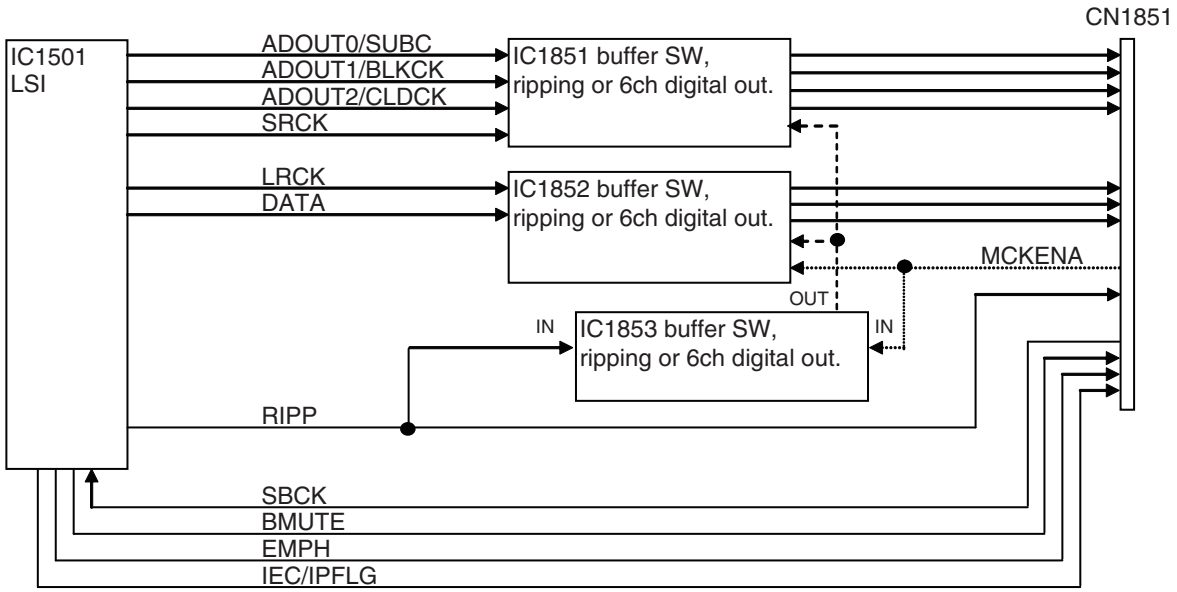


Fig 10.6: Digital audio signal (IECOUT) check point

<Outline> At the time of 6ch digital out, the serial 6 lines output from DVD-LSI (IC1501) is output via CN1581. Furthermore, at the time of ripping, the serial 3 lines digital output + SUBC, output from DVD-LSI (IC1501), is output in 4 times speed via CN1851.



The signal at CN1851 for 6ch digital out/Ripping.

Pin No.	Pin name	6ch digital out	Ripping
2	SRCK	SRCK	SRCK
4	LRCK	LRCK	LRCK
6	AD0/SUBC	ADOUT0	SUBC
8	AD1/BLK	ADOUT1	BLKCK
10	AD2/CLD	ADOUT2	CLDCK
12	AD3/DATA	ADOUT3	DATA
14	IEC/IPFLG	IEC	IPFLG
16	-	-	-
18	SBCK	-	SBCK
20	BMUTE	BMUTE	-
21	MCKENA	Low	High
22	RIPP	High	Low
23	EMPH	EMPH	EMPH
Pins 1, 3, 5, 7, 9, 11, 13, 15, 17, 19 and 24 are GNDD.			

Fig 10.7: 6ch digital out/Ripping circuit

Playback DVD-REF-A1 TITLE22 CHAPTER 1, and check with GNDD being the reference.
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.

Check 24pin FFC after connecting it to a jig, etc.

NO.	Check point 1 (stylus)	Specification value 1	Specification value 2
7	SRCK	VCC33 V-0.6 V or higher	0.4 V or lower
8	LRCK	VCC33 V-0.6 V or higher	0.4 V or lower
9	ADOUT0	VCC33 V-0.6 V or higher	0.4 V or lower
10	ADOUT1	VCC33 V-0.6 V or higher	0.4 V or lower
11	ADOUT2	VCC33 V-0.6 V or higher	0.4 V or lower
12	IEC	VCC33 V-0.6 V or higher	0.4 V or lower
13	MCKENA	-	VCC33 V x 0.3 V or lower

Rip common CDDA, and check with GNDD being the reference.
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.

Check 24pin FFC after connecting it to a jig, etc.

NO.	Check point 1 (stylus)	Specification value 1	Specification value 2
14	SRCK	VCC33 V-0.6 V or higher	0.4 V or lower
15	LRCK	VCC33 V-0.6 V or higher	0.4 V or lower
16	SUBC	VCC33 V-0.6 V or higher	0.4 V or lower
17	BLKCK	VCC33 V-0.6 V or higher	0.4 V or lower
18	CLDCK	VCC33 V-0.6 V or higher	0.4 V or lower
19	DATA	VCC33 V-0.6 V or higher	0.4 V or lower
20	SBCK	VCC33 V-0.6 V or higher	0.4 V or lower
21	RIPP	-	VCC33 V x 0.3 V or lower

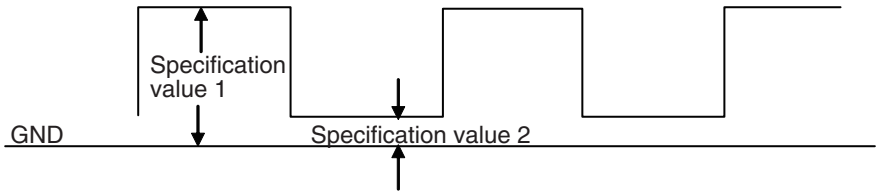
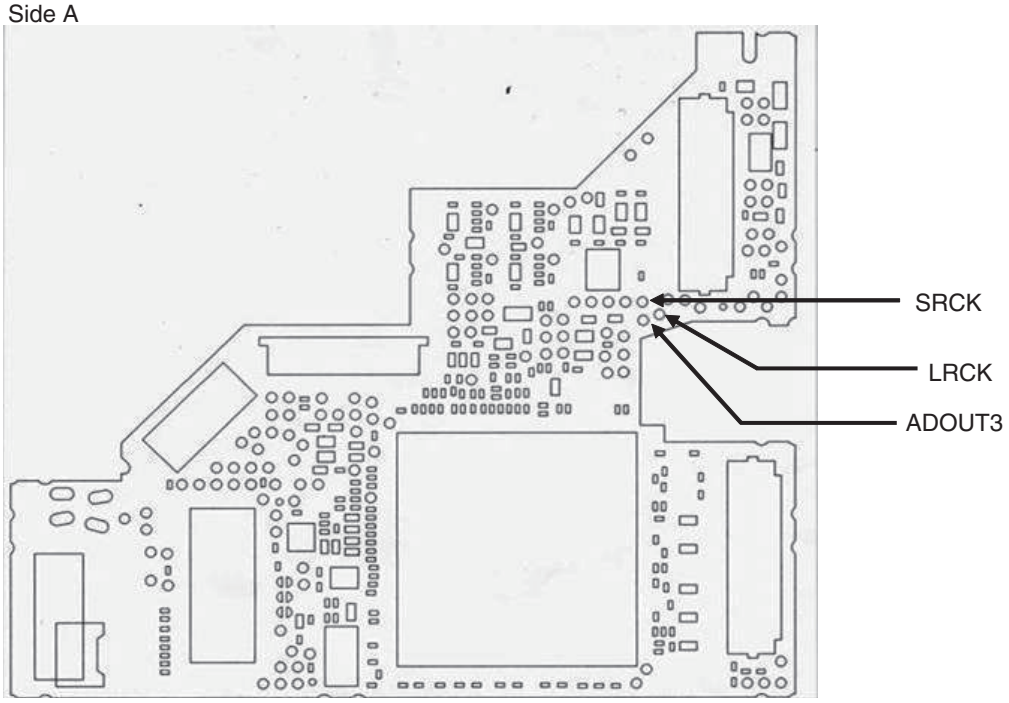


Fig 10.8: 6ch digital out/Ripping specification value

Side A



Side B

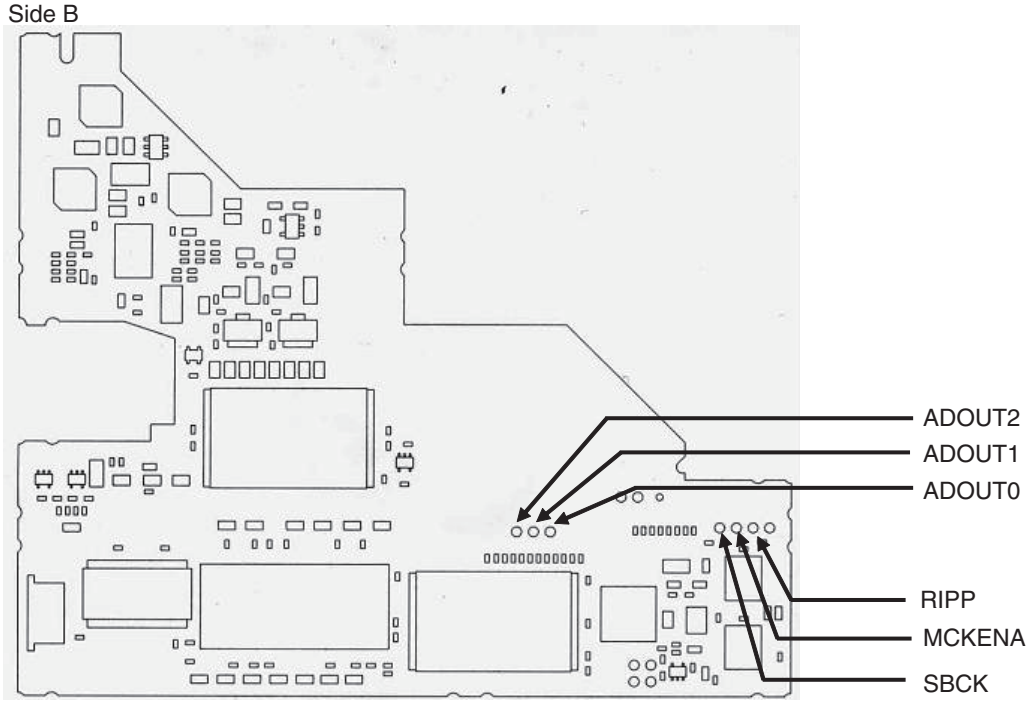


Fig 10.9: 6ch digital out/Ripping check point

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.

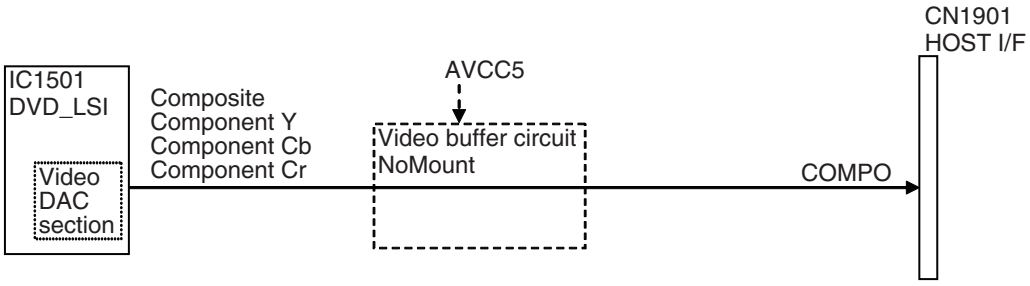


Fig 11.1: Video circuit

<Checking method> Playback DVD-REF-A1 TITLE2 CHAPTER5 (WHITE 100%), and monitor COMPO 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	COMPO	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.

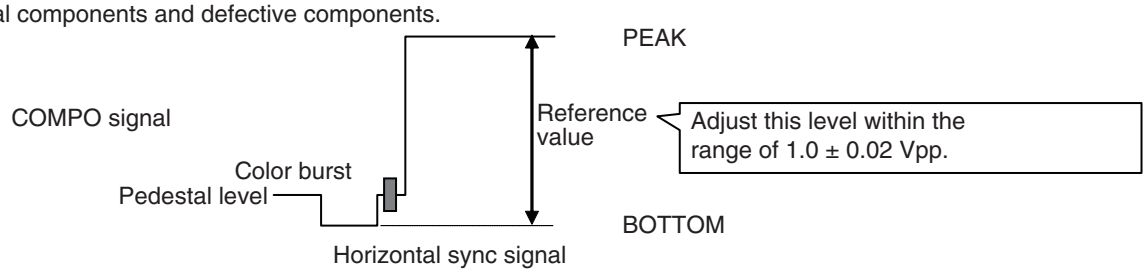


Fig 11.2: Waveform for the case of composite white 100% output

<Video level readjustment method>
In case the video composite output is outside of the specification value, readjust the level according to the method described below.
Turn the volume (VR1671) to adjust the video level within the range of 1.0 ± 0.02 Vpp.
The adjustment specification is 1.0 ± 0.02 Vpp.

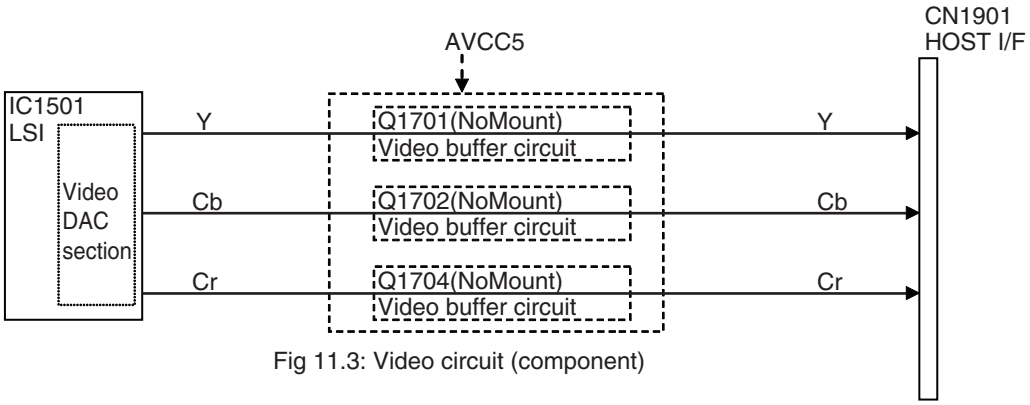


Fig 11.3: Video circuit (component)

<Checking method> Playback DVD-REF-A1 TITLE2 CHAPTER19 (100% Color Bars), and monitor Y, Cb, and Cr signal with an oscilloscope with GNDV1 (stylus) being the reference. Set the trigger mode to "TV trigger" and the trigger line to "150 line".

NO.	Check point 1 (stylus)	Specification value	Reference waveform
2	Y	1 000 mVpp ± 5%	Waveform 7
3	Cb	700 mVpp ± 5%	Waveform 7
4	Cr	700 mVpp ± 5%	Waveform 7

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.

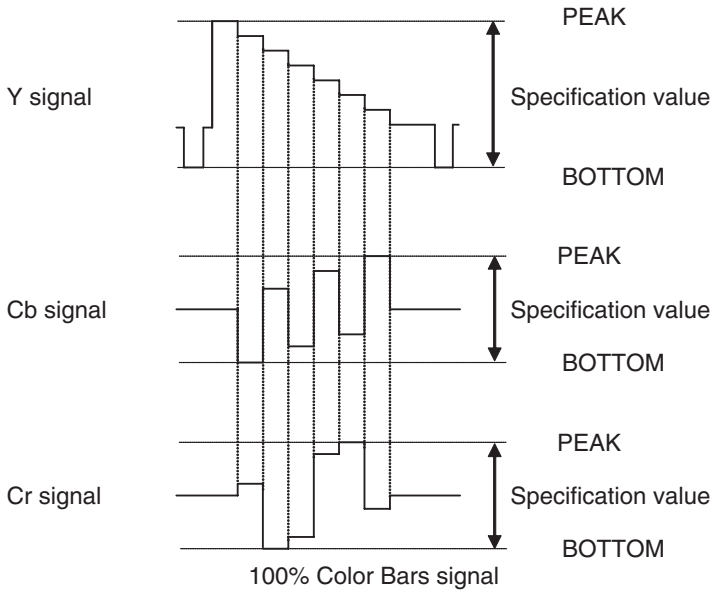


Fig 11.4 Waveform for the case of component 100% Color Bars output

Side A

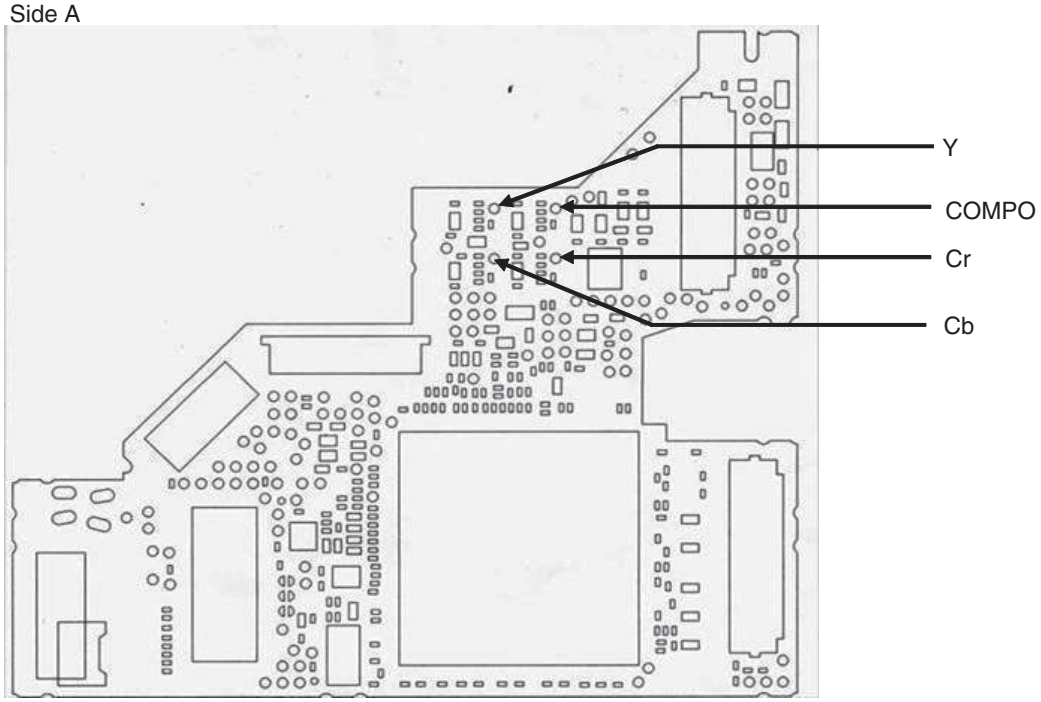


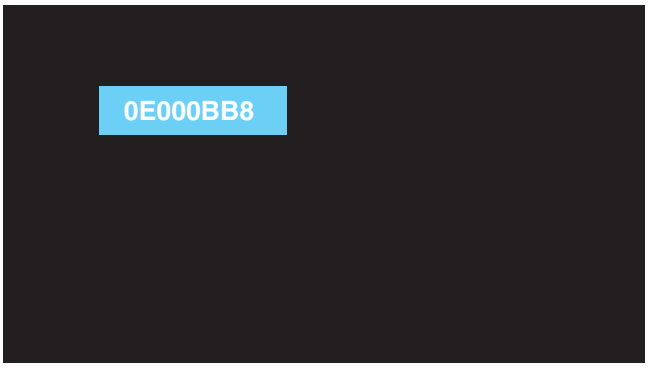
Fig 11.5: VIDEO signal check point

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.

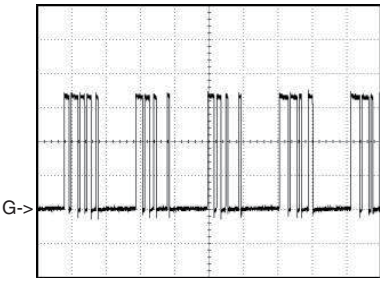
1.Let the LD energizing time displayed.
(Refer to the FE test mode for the method of displaying the LD energizing time.)
2.If the second digit from the left of the energizing time display is showing E,
such as " ∗E∗∗ ∗∗∗∗ ", it means that the flash memory has reached its life.

Example:



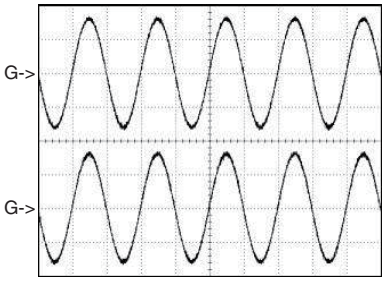
AUDIO VIDEO

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



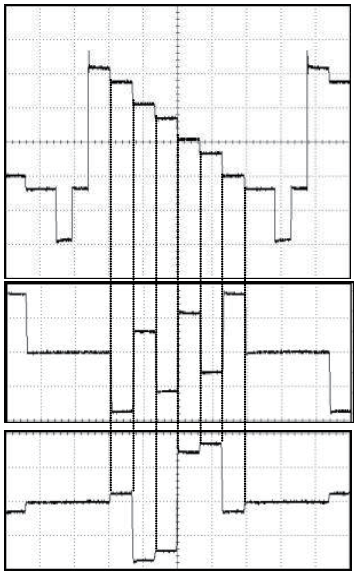
Waveform 1

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



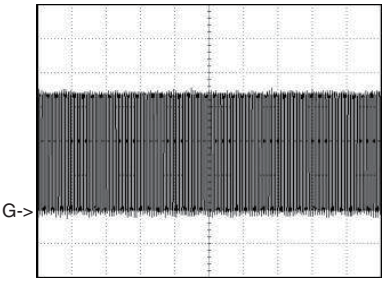
Waveform 4

[100% Color Bars]
CH1 : Y
CH2 : Cb
CH3 : Cr
Reference voltage: GNDV1 200 mV/div. 5 μsec/div



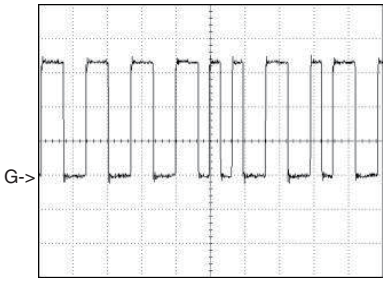
Waveform 7

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



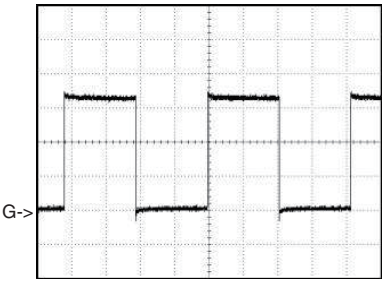
Waveform 2

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



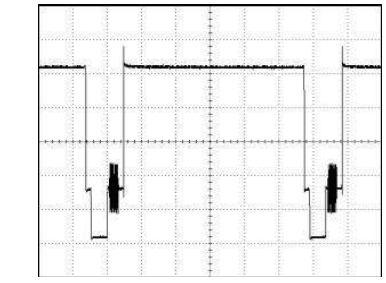
Waveform 5

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



Waveform 3

[WHITE 100IRE]
CH1 : COMPO
Reference voltage: GNDV1 200 mV/div. 10 μsec/div



Waveform 6

5.3 ERROR CODE LIST

Error status	OSD *1	UART *2	Meaning	Method of reset			
				ACC Off/On	Source Off/On	Eject	Play Key
Media Error	It is a disc unable to be played back. NON-PLAYABLE DISC	00h	A disc containing the unplayable Format only.	X	X	X	-
Open	(No display)	10h	Door open error	*	*	*	*
Read Error	ERROR-02-99	20h	Transfer start error	X	X	X	X
Focus Error(Focus Error in mechanism set up)	ERROR-02-90	21h	Focus error	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
Address not found (Invalid Track)	ERROR-02-80	23h	Address not found.	X	X	X	X
Spindle Lock	ERROR-02-91	24h	Spindle lock NG (the disc cannot rotate)	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
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
AV CHIP decode Error	ERROR-02-9A	2Ah	AV CHIP decode NG (AV chip cannot be decoded.)	X	X	X	X
AV CHIP Recovery NG	ERROR-02-9B	2Bh	AV CHIP recovery NG	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
Disc Data Error	ERROR-02-9D	2Dh	Disc Data NG	X	X	X	X
Temp Error (In Case of High Temperature)	Temperature protection circuit is being activated. THERMAL PROTECTION IN MOTION	30h	High temperature (Playback is stopped because the pick up temperature is 89 °C or higher.)	X	-	-	-
No Disc (including Disc loading and ejecting)	(No display)	40h	Disc has not been inserted. (Including Load in process or Eject in process.)	*	*	*	*
Loading_Mecha Error	(No display)	50h	Loading mechanism error (The disc cannot be clamped.)	X	-	X	-
DRM Error	It is a protected disc. PROTECTED DISC	70h	DRM error (All music cannot be played back due to DRM.)	-	-	X	-
Region code Error NG	Region code is incorrect. DIFFERENT REGION DISC	90h	Region code NG (Unable to be played back due to incorrect mechanism region.)	-	-	X	-
CPPM*3 Key Error *4	It is a disc unable to be played back. NON-PLAYABLE DISC	91h	Key Error for playback	-	-	X	-
CPRM Key Error *7	NON-PLAYABLE DISC	93h	Key Error for playback	-	-	X	-
AWM*5 Error *4	(No display)	*6	Playback the illegally copied disc by DVD-A (Mute the sound on the mechanism side.)	X	X	X	-
REQUEST error	ERROR-02-A0	A0h	REQUEST error	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
Adjustment of L0 is NG.	ERROR-02-A2	A2h	L0 adjustment is NG.	X	X	X	X
Adjustment of L1 is NG.	ERROR-02-A3	A3h	L1 adjustment is NG	X	X	X	X
LD system NG	ERROR-02-A4	A4h	LD system NG	X	X	X	X
Gain adjustment system NG.	ERROR-02-A5	A5h	Gain adjustment system NG.	X	X	X	X
Gain determining system NG.	ERROR-02-A6	A6h	Gain determining system NG.	X	X	X	X
Servo initial setting related items NG.	ERROR-02-A7	A7h	Servo initial setting related items NG.	X	X	X	X
Disc is not clamped yet.	ERROR-02-A8	A8h	Disc is not clamped yet.	X	X	X	X
Tracking system NG.	ERROR-02-A9	A9h	Tracking system NG	X	X	X	X
Media setting system NG.	ERROR-02-AA	AAh	Media setting system NG	X	X	X	X
Focus Error	ERROR-02-AB	ABh	JUMP over layers NG	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-B0	B0h	Navigation command error	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-B1	B1h	Retry over	X	X	X	X
Undefined Error	ERROR-FF-FF	FFh	Undefined error	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.

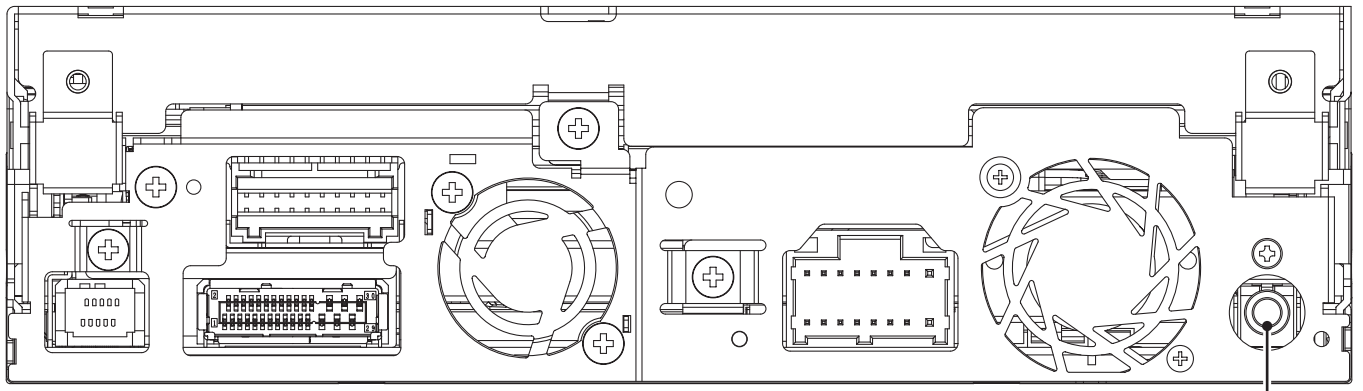
*6 Notice as an error status will not be given

*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)

RCA

1	3	5	7	9	11	13	15	17	19
2	4	6	8	10	12	14	16	18	20

1 : SWGND
2 : SW ROUT
3 : NC
4 : SW LOUT
5 : REAR GND
6 : REAR ROUT
7 : NC
8 : REAR LOUT
9 : FLONT GND
10 : FLONT ROUT
11 : NC
12 : FLONT LOUT
13 : BREM
14 : WREM SEL
15 : WREM IN
16 : WREM GND
17 : SPM
18 : GUIDE ON
19 : SPP
20 : GUIDE GND



DIGITAL OUTPUT

EXTENSION

2	4	6	8	10
1	3	5	7	9

1 : NC
2 : NC
3 : GNDD
4 : CTOEX
5 : EXTOC
6 : HYOKA
7 : CTOTA
8 : TATOC
9 : NC
10 : TAGND

TO H/A

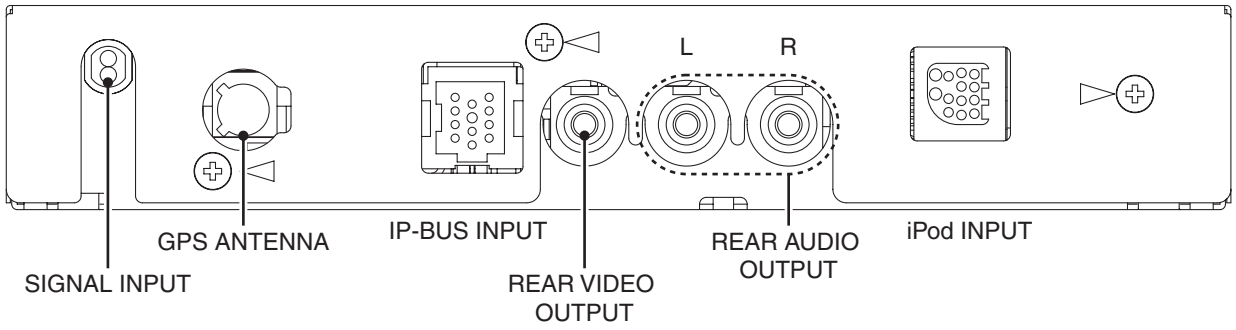
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29

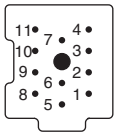
1 : RETR
2 : RETL
3 : ISOGND
4 : SELR
5 : SELL
6 : GNDISO
7 : SELV
8 : GNDV
9 : VST
10 : VDT
11 : VCK
12 : CTOGPS
13 : GPSTOC
14 : RETV
15 : VGND
16 : RQ
17 : MUTEVOL
18 : MUTEAMP
19 : ASENBO
20 : RESET
21 : BSENS
22 : SWACPW
23 : MTOH
24 : HTOM
25 : HTOP
26 : PTOH
27 : SWVDD
28 : FM85
29 : SWBUP
30 : GND

POWER SUPPLY

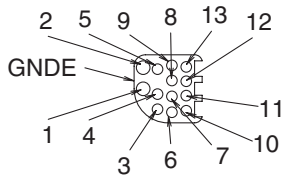
1	3	5	7	9	11	13	15
2	4	6	8	10	12	14	16

1 : FL-
2 : RL-
3 : FL+
4 : RL+
5 : FR-
6 : RR-
7 : FR+
8 : RR+
9 : PKB
10 : GND
11 : ACC
12 : AANT
13 : ILM
14 : CELL MUTE
15 : BUP
16 : GND

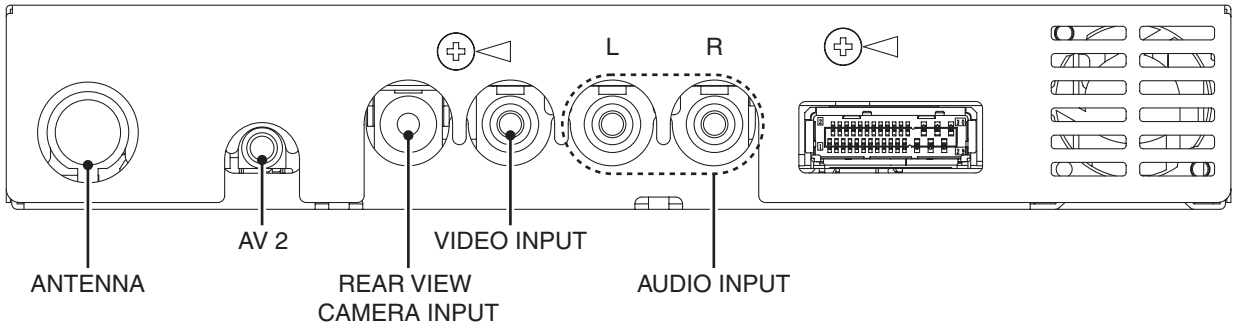




1 : BUS+
2 : IPBUSG
3 : IPLG
4 : NC
5 : BUS-
6 : IPRG
7 : Lch
8 : ASENBO
9 : Rch
10 : Rch_GND
11 : Lch_GND



1 : F/W GND
2 : F/W PWR
3 : TXiPod
4 : ACCID
5 : LOUT
6 : RXiPod
7 : VOUT
8 : ROUT
9 : GNDD
10 : ACCPW
11 : ACCDET
12 : V_RETURN
13 : A_RETURN
GNDE : SHIELD GND



TO NAVI

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	

1 : RETR
2 : RETL
3 : ISOGND
4 : SELR
5 : SELL
6 : GNDISO
7 : SELV
8 : GNDV
9 : VST
10 : VDT
11 : VCK
12 : CTOGPS
13 : GPSTOC
14 : RETV
15 : VGND
16 : RQ
17 : MUTEVOL
18 : MUTEAMP
19 : ASENBO
20 : RESET
21 : BSENS
22 : SWACPW
23 : MTOH
24 : HTOM
25 : HTOP
26 : PTOH
27 : SWVDD
28 : FM85
29 : SWBUP
30 : GND

6. SERVICE MODE
6.1 TEST MODE

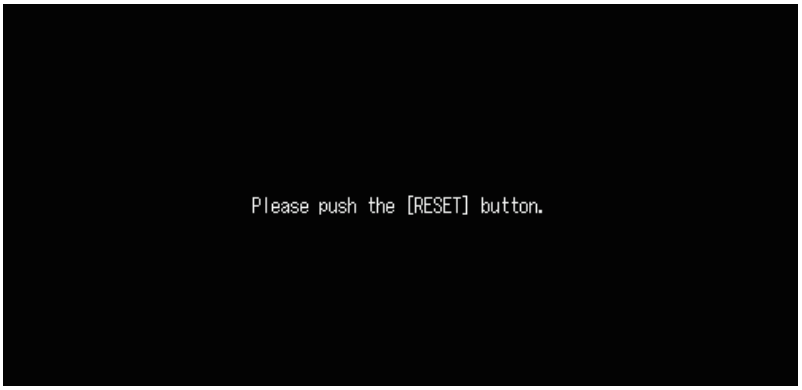
1. How to start the test mode

1. Service Specification

1. When +Battery and ACC are ON, push RESET and EJECT buttons simultaneously.
2. Release RESET button only.
3. When “Password Entry Screen” is displayed, release EJECT button.
4. Enter the password.
5. If the correct password has been entered, the test mode menu will be displayed.

<< Password for the service >>
[8] → [1] → [8] → [3] → [7] → [2] → [0] → [8]
If 8 digits or more are entered and [ENTER] key is pressed, it will be treated as a password error.

• Password Entry Screen



• Password OK : After 2 seconds or so, the screen will automatically move on to the menu screen



• Password error: Nothing will be displayed, and reboot action will be taken.

2. How to operate in the Test Mode

Use the remote controller for operation (Part No.:CXC6317 SW1:AVH SW2:DVD)

Key notation in the test mode	Operation	Key allocation
UP	Cursor upward movement ↑	Ten-key 2
DOWN	Cursor downward movement ↓	Ten-key 8
==> next ==>	Cursor rightward movement (to the next page) →	Ten-key 6
<== <== back	Cursor leftward movement (to the previous page) ←	Ten-key 4
OK ENTER	Selection / Execution	Ten-key 5
BACK	Go back / cancel	Ten-key C
NAVI	-	Ten-key 7
MENU	-	Ten-key 0

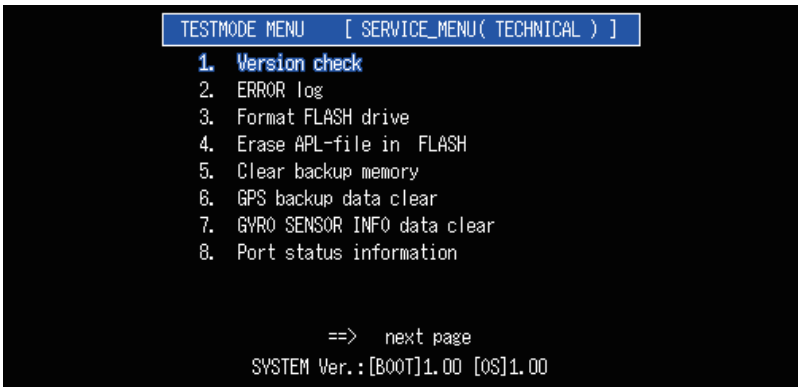
3. Test Mode Menu

1. Production Engineering Specification

2. Service Specification

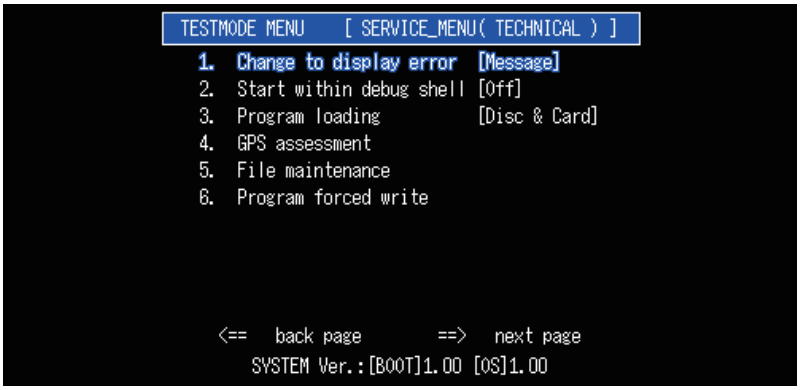
• OS Version

[1st Page]



No	Inspection item	Outline of inspection	Content of inspection
1	Version check	Version check	Display of various version information (system software, GPS, application, system microprocessor, etc.)The system will return to “menu” by BACK key. (⮌)
2	ERROR log	Error history entry	History of system software errors stored in SRAM is displayed. Maximum 24 events can be displayed, with the error last occurred on the top. The system will return to “menu” by BACK key. (⮌)
3	Format FLASH drive	FLASH format	FLASH domain used by the file system is initialized. When the job is done, the screen will return to “menu”.
4	Erase APL-file in FLASH	Clearing application files within FLASH	Files except for files related to the SRAM backup variable are cleared. When the job is done, the screen will return to “menu”.
5	Clear backup memory	Back up variables initialization	SRAM domain used by the system software is initialized. When the job is done, reboot action will be taken.
6	GPS backup data clear	GPS back up data clear	SRAM domain used by GPS is initialized. When the job is done, the screen will return to “menu”.
7	GYRO SENSOR INFO data clear	Clearing learned data inside gyro sensor	Learned data inside gyro sensor is cleared. When the job is done, the screen will return to “menu”.
8	Port status information	Port status display	Port status is displayed (reverse, parking, pulse.)

[2nd page]

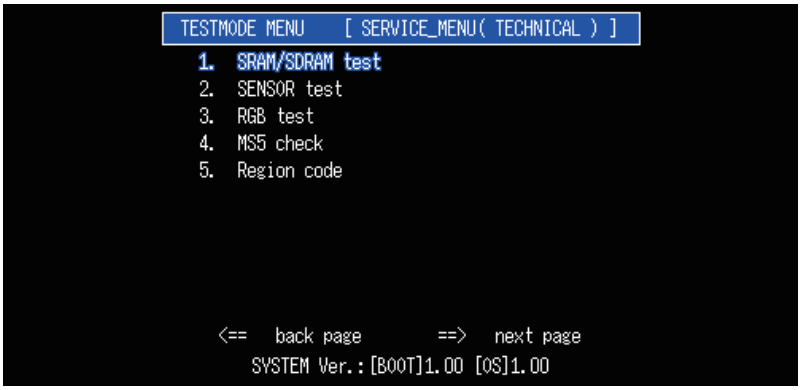


No	Inspection item	Outline of inspection	Content of inspection
1	Change to display error	Switching of error information display	Display setting for error cases (for debugging) Message (message)/Information (error information) selectable.
2	Start within debug shell	Switching of debug shell start	Setting for debug shell start (for debugging) Off (no initial start)/On (initial start) selectable.
3	Program loading *Not yet supported in 07 Overseas models	Switching of program loading	Setting of the recording media to be referred to in the program automatic version upgrade

Disc (default)	System program	Write when the version No. in the disc is higher.
	System data	Write when the version No. in the disc is higher.
	GPS program	Write when the version No. in the disc is higher.
	Application program	Write when the version information is different from the one in disc.
Disc & Card (for debugging)	System program	Write when the version No. in disc or card is higher.
	System data	Write when the version No. in disc or card is higher.
	GPS program	Write when the version No. in disc or card is higher.
	Application program	Write when the version No. in disc or card is higher.

4	GPS assessment	GPS assessment system start	GPS assessment system can be used. The system will return to “menu” by BACK key. (⮌)
5	File maintenance	File maintenance function	File maintenance operations are made: Formatting of SRAM drive and PC card (ATA Flash Card) are made. SRAM data is retrieved and copied to PC card. Data retrieved from SRAM is copied to SRAM from PC card.
6	Program forced write	Program forced write	Rewriting of SYS (system), GPS (GPS) and APL (application) software are done by force. Flags in the initial status are switched, and the language setting is changed. (Joystick is used) The system will return to “menu” by BACK key. (⮌)

[3rd page]



No	Inspection item	Outline of inspection	Content of inspection
1	SDRAM/SRAM test	Memory inspection	SDRAM : Device inspection and bus inspection are performed against SDRAM domains. Data will be protected for both BIOS domain and USER domain. SRAM : Device inspection and bus inspection are performed against all SRAM domains. Data will be protected.
2	SENSOR test	Sensor inspection	G sensor, gyro, power supply voltage and installation conditions are displayed. The system will return to “menu” by BACK key. (⮌)
3	RGB test	Image RGB inspection	RGB inspection The display will be as follows: red (FULL) → green (FULL) → blue (FULL) → color pattern (upper half in 8 colors of black/blue/red/pink/ green/light blue/yellow/white & lower half in 3 colors of red/green/blue). The display is toggled by the [←] and [→] keys. The system will return to “menu” by BACK key. (⮌)
4	MS5 check	MS5 check	MS5 mechanism test mode inspection
5	Region code	Region code display	Region code display

4. Version information

SYSTEM Ver.:[BOOT]X.XX

Version No. for BOOT section = X.XX System software does not exist.

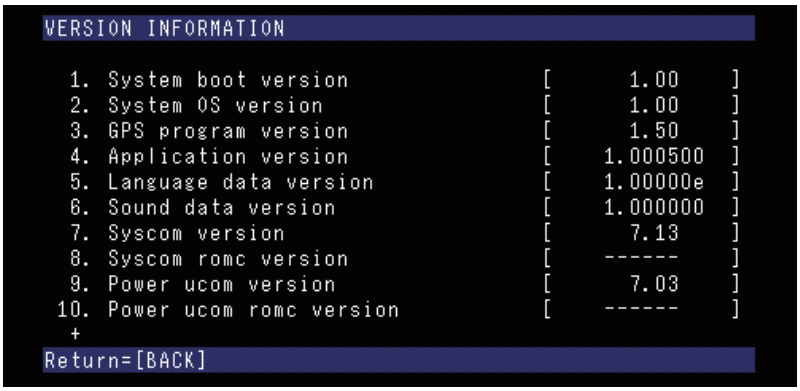
SYSTEM Ver.:[BOOT]X.XX [OS]Y.YY

Version No. for BOOT Section = X.XX Version No. of the system software = Y.YY

[1st Page]

1. Version check

Version Information Screen



Item Description

	Item	Content	Displayed Information	File name
1	System boot version	Version information of the system software BOOT section (FLASH) is displayed	[**.**]→Version information of the system software BOOT section	EW071BOT.PRG UC071BOT.PRG
2	System OS version	Version information of the system software OS section (FLASH) is displayed	[**.**]→Version information of the system software OS section [NG]→System program doesn't exist.	EW071SYS.PRG UC071SYS.PRG
3	GPS program version	Version information of the GPS program (DRAGON) is displayed	[**.**]→Version information of the GPS program. [NG]→GPS program doesn't exist.	EW071GPS.PRG UC071GPS.PRG
4	Application version	Version information of the application program (FLASH) is displayed	[**.**]→Version information of the application program [NG]→Application program doesn't exist.	EU071APL.PRG
5	Language data version	Version information of the language data (FLASH) is displayed.	[**.**]→Version information of the language data [NG]→Language data do not exist.	EW070DAT.xxx (xxx : An extension is specified for each language. GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK) UC070DAT.yyy (yyy : An extension is specified for each language. USA, FRA, ESP,)
6	Sound data version	Version information of the language sound data (FLASH) is displayed.	[**.**]→Version information of the language sound data. [NG]→Language sound data do not exist.	EW070SDF.xxx (xxx : An extension is specified for each language. GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK, BEL) UC070SDF.yyy (yyy : An extension is specified for each language. USA, FRA, ESP,)
7	Syscom version	Version information of the system microprocessor is displayed.	[**.**]→Version information of the system microprocessor. [NG]→Communication with the system microprocessor has not been established.	
8	Syscom romc version	ROM-collection version information of the system microprocessor is displayed.	[**.**]→ROM-collection version information of the system microprocessor [------]→Not equipped with ROM collection.	
9	Power ucom version	Version information of the power supply microprocessor is displayed.	[**.**]→Version information of the power supply microprocessor [NG]→Communication with the power supply microprocessor has not been established.	
10	Power ucom romc version	ROM-collection version information of the power supply microprocessor is displayed.	[**.**]→ROM-collection version information of the power supply microprocessor [------]→Not equipped with ROM collection.	
11	Drive version	Core version information of the microprocessor for mechanism control is displayed.	[**.**]→Core version information of the microprocessor for mechanism control [NG]→Communication with the microprocessor for mechanism control has not been established. [------]→Mechanical region is different.	
12	Monitor ucom version	Version information of the microprocessor for monitor is displayed.	[**.**]→Version information of the microprocessor for monitor [NG]→Communication with the microprocessor for monitor has not been established.	
13	Monitor ucom romc version	ROM-collection version information of the microprocessor for monitor is displayed	[**.**]→ROM-collection version information of the microprocessor for monitor [------]→Not equipped with ROM collection.	
14	System program	System software file is displayed.	[EW071SYS.PRG]→System software file for EW [UC071SYS.PRG]→System software file for UC [NG]→System software file doesn't exist.	
15	Application language	Language data file is displayed.	[EW070DAT.xxx]→Language data file for EW [UC070DAT.yyy]→Language data file for UC [NG]→Language data do not exist.	EW070DAT.xxx (xxx : An extension is specified for each language. GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK) UC070DAT.yyy (yyy : An extension is specified for each language. USA, FRA, ESP,)
16	Sound data language	Language sound data file is displayed.	[EW070SDF.xxx]→Language data file for EW [UC070SDF.yyy]→Language data file for UC [NG]→Language sound data do not exist.	EW070SDF.xxx (xxx : An extension is specified for each language. GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK, BEL) UC070SDF.yyy (yyy : An extension is specified for each language. USA, FRA, ESP,)

2. ERROR log

1. Error Information

Descriptions of error information, for errors arising from system software problems, will be provided in this section.
In the system software, up to 24 sets of information related to errors occurred will be stored in the SRAM as error history.
The line number on which error occurred, error code, and detailed information of the error will be stored as the error history.

There are the following three types:

1. When hi_sysdwn( ) is executed intentionally at the time of fatal error with each BIOS. It is a common error.
2. When either of the following error occurred: multiple exceptions, fatal exceptions, illegal command codes, zero divide, and trap command error
3. When the watchdog timer has activated reset. It occurs when the program fails to function properly.

2. Error Log's Entry

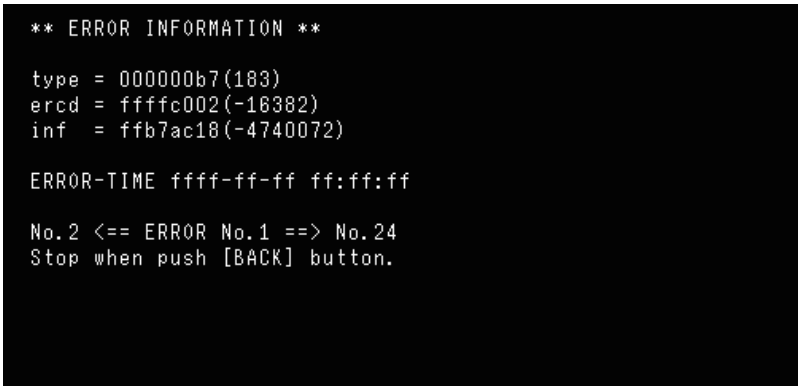
Up to twenty-four sets of information will be displayed by the error log entry function, with the latest error appearing on the top.
The display differs, depending on whether the argument passed to hi_sysdwn( ) includes detailed information (such as program name, version number, creation date, creation time and creator name) or not.

• When detailed information is included:



ERCD	Error code (If the FILE cell is “int_wdt.c”, the ID of the task, which was being executed when the lower 4 digits were reset, is displayed)
FILE	Program name where the error occurred (In case of “int_wdt.c”, it means that watch dog timer activated the reset. At this time, the content of ERCD shows something other than error information).
LINE	Error-occurring program line number.
VERS	Error-occurring program version number
DATE	Error-occurring program creation date
TIME	Error-occurring program creation time
AUTH	Error-occurring program creator name
ERROR-TIME	Date & time of error occurrence

• When detailed information does not exist (in case of an error occurring somewhere else but in the C-source file):



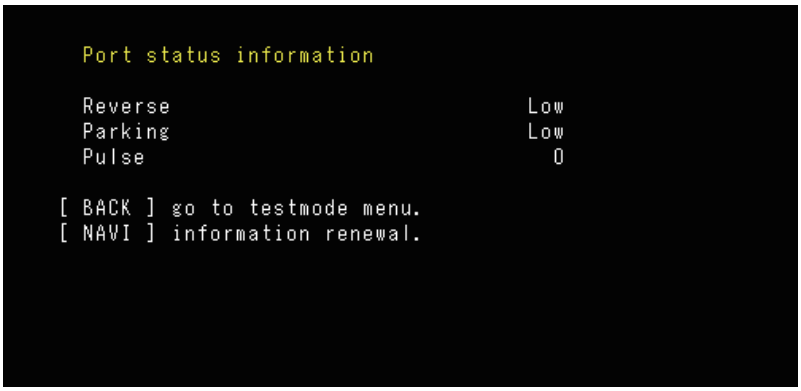
type	Execution address at the time of error occurrence.
ercd	Contributing factor for the exceptions.
inf	Task number where an exception error occurred. (If it is “0”, it means that an error occurred in a non-task section)
ERROR-TIME	Date & time of error occurrence

4. Watch dog timer

This product has a built-in mechanism to monitor at a certain interval whether the software is correctly operating or not.
Once this mechanism becomes inoperable, “reset request” will be sent to the power supply microprocessor when a preset time (approximately 4 seconds) has elapsed.
In order to record operational situation of such an occasion, a special code which is not an error code is recorded in the ERCD.

8. Port status information

Test Screen



Display	Content of inspection
Reverse	Reverse port status
Parking	Parking port status
Pulse	Pulse status

The vehicle speed pulse is displayed in a value equals to 1/5 of the frequency of the input vehicle speed signal.
Example: If the vehicle speed signal is 100Hz, the value will be 20.
Notwithstanding the above, the displayed value may vary depending on the model.

* How to operate

[BACK]	Return to the test mode menu.
[NAVI]	Update of the port status

[2nd page]

1. Change to display error

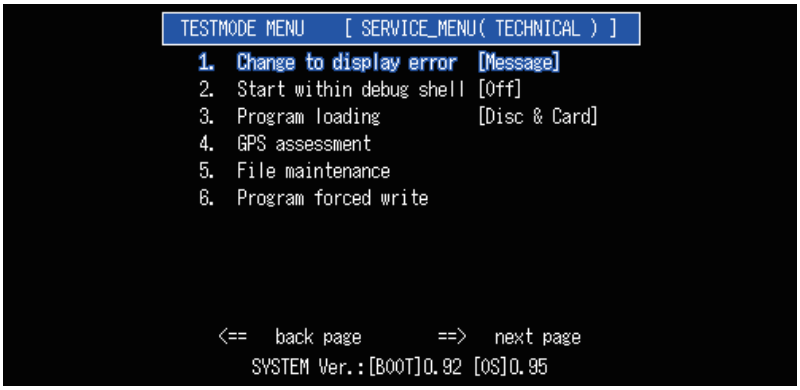
1. Switching of Error Information

The product (with default settings) will display error messages to the user if an error occurs.
Error information can be displayed if an error occurs, by switching the error information in the test mode.

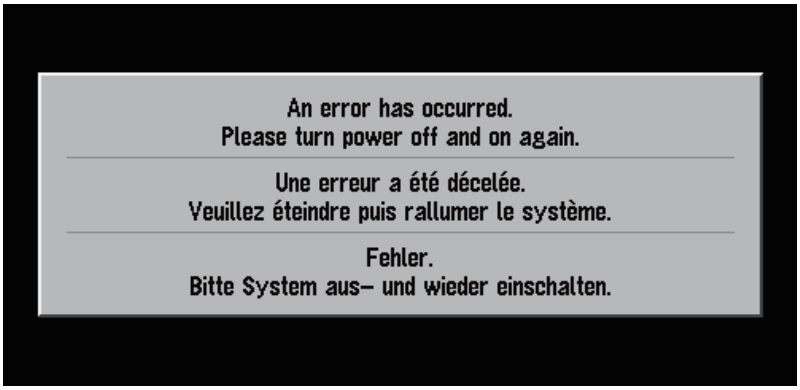
In either case, however, the error log entry display will be the same.

Error message display (default settings):

• Setting in the test mode:

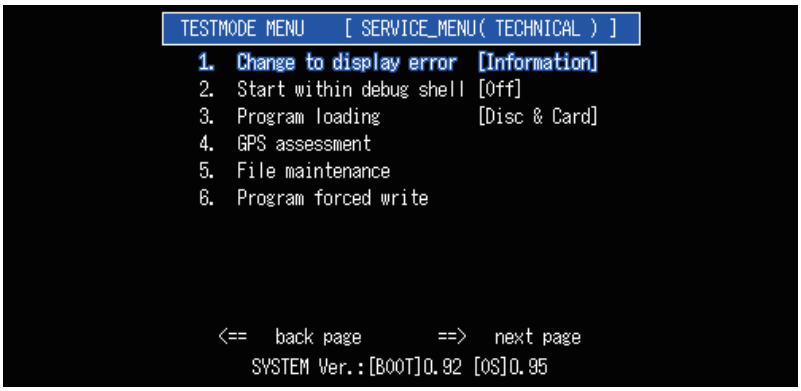


• Display when an error occurs:



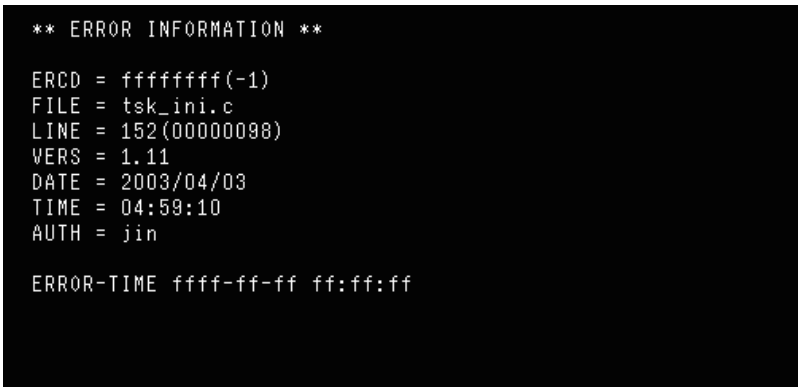
Error information display:

• Settings in the test mode:

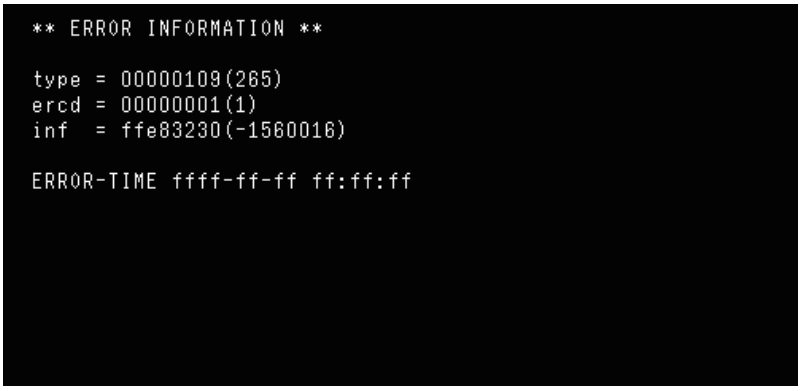


Display when an error occurs:

• If detailed information exists:



• If detailed information does not exist:



4. GPS assessment

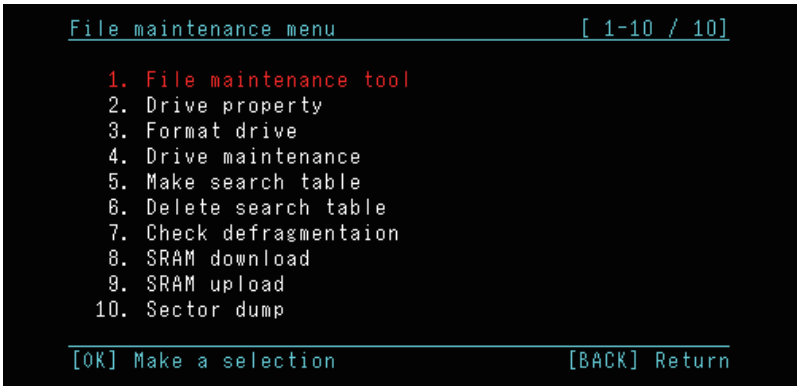
Test Screen



FLASH	Display of DRAGON FLASH ROM version information
GPS	Display of GPS version information
SENSOR	Display of sensor version information

5. File maintenance

File maintenance menu

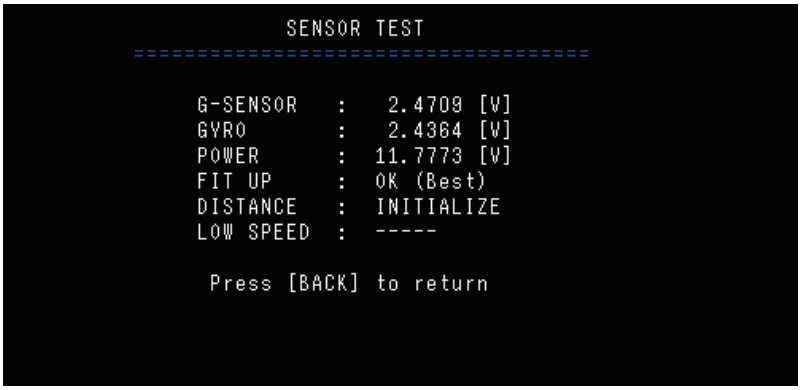


1. File maintenance tool
2. Drive property
   Display of drive property
3. Format drive
   Drive initialization
4. Drive maintenance – Options
   Inspection & repair of FAT file system
5. Make search table
   HDD cluster table creation (not available in overseas models)
6. Delete search table
   HDD cluster table deletion (not available in overseas models)
7. SRAM download
   SRAM → PC ATA CARD download
8. SRAM upload
   SRAM ← PC ATA CARD upload
9. Sector dump

[3rd page]

2. SENSOR test

Test Screen



G-SENSOR	Display of G sensor voltage
GYRO	Display of gyro voltage
POWER	Display of power supply voltage
FIT UP	Display of installation status

Display	Status
• NG	Installation position is NG.
• OK	Installation position is OK. (3rd best)
• OK(Better)	Installation position is OK. (2nd best)
• OK(Best)	Installation position is OK. (Best)

DISTANCE — Display of distance calculation status.

Display	Status
• INITIALIZE	Sensor initial learning is under way.
• GPS	GPS distance. (Model without G sensor, no pulse connection.)
• G-SENSOR	G sensor distance. (simple hybrid.)
• ND-PG1	ND-PG1 distance.
• SPEED PULSE	Vehicle speed pulse distance

LOW SPEED — Display of minimum output speed of a low speed NG vehicle (depends on DISTANCE status).

DISTANCE status	SPEED PULSE status	Display
SPEED PULSE	Low vehicle speed pulse learning is under way.	CHECK
	Low vehicle speed pulse is OK.	OK
	Low vehicle speed is NG.	NG xx[km/h]
Others		------

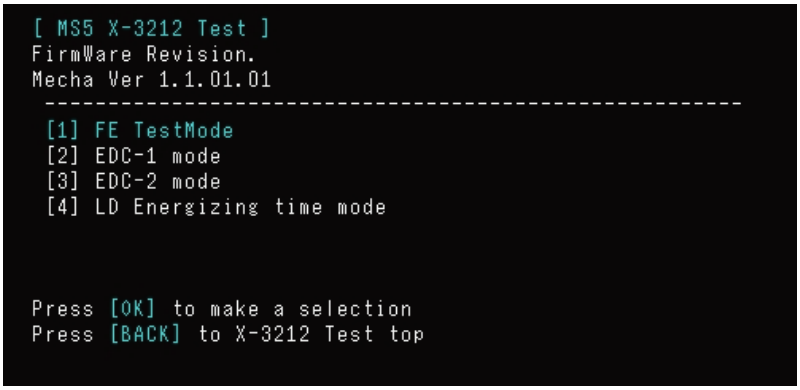
4. MS5 check

Specification for X-3212 (MS5 Mecha) Test Mode Operation

* CAUTIONS
  Protection is not operational against mechanical runaway conditions during servo testing.
  Critical damage can result if the system is allowed to continue in a mechanical runaway state.
  If abnormal noise is heard during the test, turn the power OFF immediately.

Keys used:
[OK] : Selection key
[BACK] : Go-back key
Directional keys : joystick upward/downward/leftward/rightward movement

[MS5 X-3212 Test] : Test Mode Initial Screen



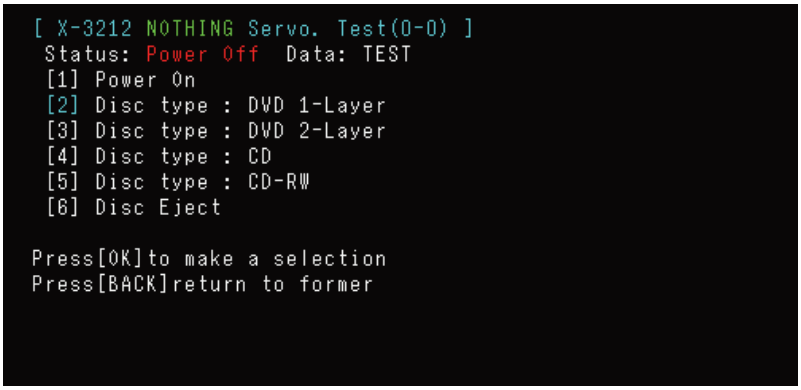
Mecha Ver : Software Version of MS5 Mecha.
[1] Start the FE test
[2] Start EDC-1 Test
[3] Start EDC-2 Test
[4] Start LD Energizing-time mode
[BACK] Exit from X-3212 Test Mode

FE Test Operation Specification

* CAUTIONS
Protection is not operational against mechanical runaway conditions during servo testing.
Critical damage can result if the system is allowed to continue in a mechanical runaway state.
If abnormal noise is heard during the test, turn the power OFF immediately.
If “E” is displayed as the first digit of the data, you can operate only [BACK] key.

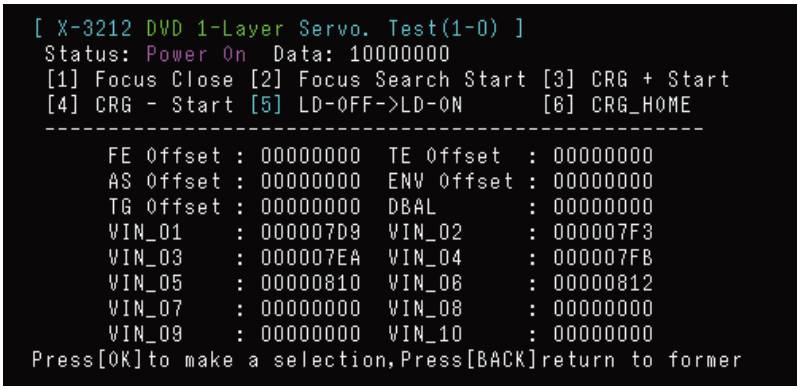
Keys used:
[OK] : Selection key
[BACK] : Go-back key
Directional keys : joystick upward/downward/leftward/rightward movement

1. [X-3212 Servo Test] : Screen in the Power OFF status



• The display of “NOTHING” will change to a respective medium type, when you select the corresponding number from [2] to [5] shown below.
• The status remains in “POWER OFF”.
• The data values will change corresponding to the command executed.
Note:
[1] can be selected for execution only after execution of either of the commands from [2] to [5].
[1] Transition to Power On status
[2] Specification of the DVD 1st layer
[3] Specification of the DVD 2nd layer
[4] Specification of CD
[5] Specification of CD-RM
[6] Disc eject
[OK] Execution
[BACK] Exit from X-3212 Test Mode

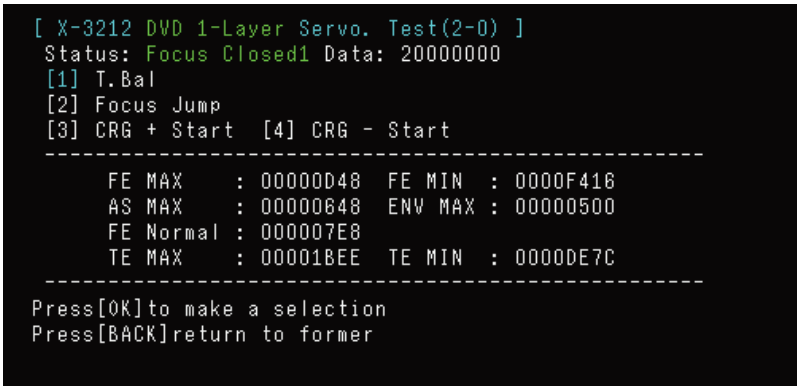
2. [X-3121 Servo Test (1-0)] : Power-On Status Screen



Note:
If no operation is made in about 10 seconds after LD-ON, the system performs LD-OFF automatically.
If you perform Focus Close while the LD is OFF, it will result in an error.
Also during Focus Search (S-curve measurement mode), the safety system is activated if LD-OFF does not occur within 10 seconds. Therefore, LD goes off in 9 seconds, also when Focus Search is performed after LD-ON.
If you perform Focus Close after Focus Search operation (S-curve measurement mode), turn the power off once, and then turn it on, before performing Focus Close.
Note:
You cannot perform operation till completion of the display of values from FE Offset to VIN_10.
Note:
[1] cannot be executed, unless [5] command is executed beforehand.

[1] Transition to Focus Close 1 status
[2] Execution and stop of Focus Search operation
[3] Execution and stop of CRG+
[4] Execution and stop of CRG-
[5] LD On/OFF
[6] Execution of CRG_HOME
[OK] Execution/Stop
[BACK] 1, [X-3212 Servo Test] : Return to the Power Off Status screen.

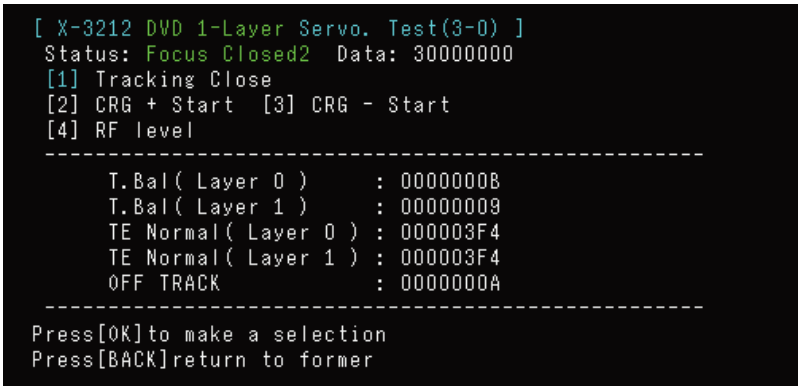
3. [X-3212 Servo Test (2-0)] : Focus Close 1 Status Screen



Note:
The data values will change upon execution of a command.
Note:
You cannot perform operation till completion of the display of values from FE MAX to TE MIN.

[1] Transition to Focus Close 2 status
[2] Execution of Focus Jump
[3] Execution and stop of CRG+
[4] Execution and stop of CRG-
[OK] Execution/Stop
[BACK] 1, [X-3212 Servo Test]: Return to the Power Off Status screen.

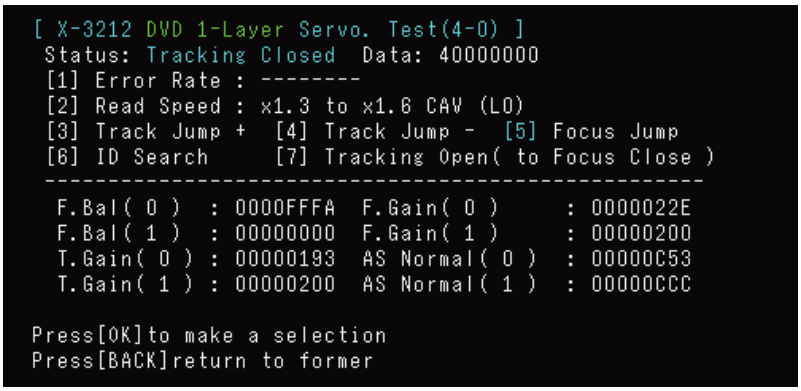
4. [X-3212 Servo Test (3-0)] : Focus Close 2 Status Screen



Note:
The data values will change upon execution of a command.
Note:
You cannot perform operation till completion of the display of values from T.Bal to OFF TRACK.

[1] Transition to Tracking Close status
[2] Execution and stop of CRG+
[3] Execution and stop of CRG-
[4] Transition to RF Level Display status
[OK] Execution/Stop
[BACK] 1, [X-3212 Servo Test]: Return to the Power Off Status screen.

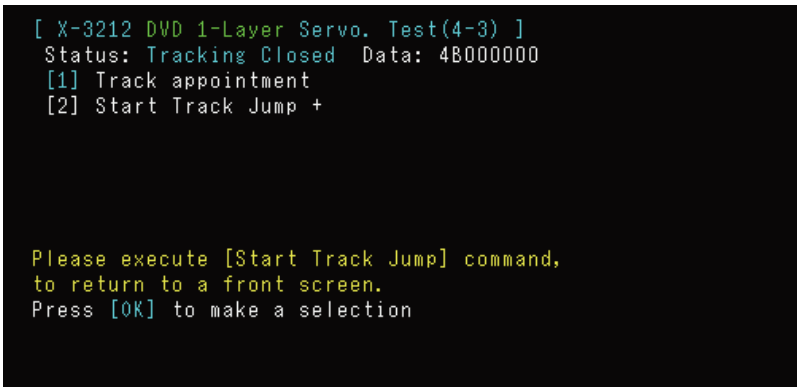
5. [X-3212 Servo Test (4-0)] : Tracking Close Status Screen



Note:
The data values will change upon execution of a command.
Note:
You cannot perform operation till completion of the display of values from F.Bal(0) to AS Normal(1).

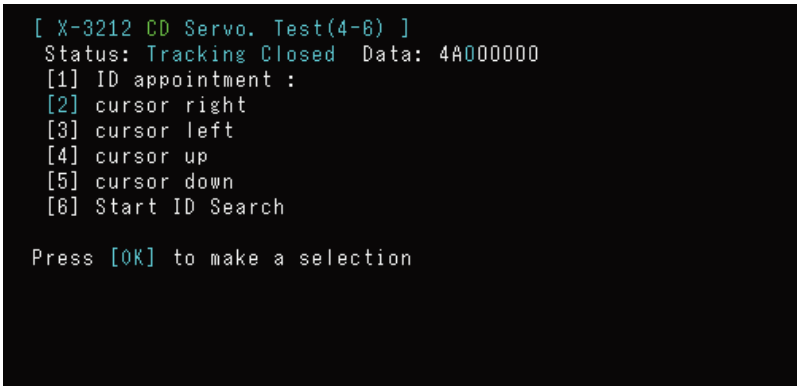
[1] Display of the Error Rate (The system become inoperable for about 10 seconds after execution).
[2] Read speed change (CD: fixed speed)
[3] To Track Jump+ Screen
[4] To Track Jump- Screen
[5] Execution of Focus Jump
[6] To ID Search Screen
[7] 3, [X-3212 Servo Test(2-0)]: Transition to Focus Close 1 Status Screen
[OK] Execution/Stop
[BACK] 1, [X-3212 Servo Test]: Return to the Power Off Status screen.

6. [X-3212 Servo Test (4-3)] : Track Jump +/- Screen



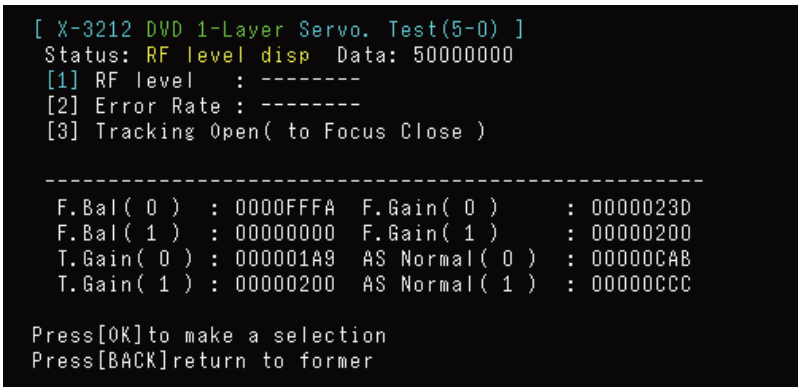
Note:
The data values will change upon execution of a command.
[1] Upon every execution, the data value is switched cyclically.
In case of CD: 1→4→10→11→32→1→ ··· [Truck]
In case of DVD: 1→4→10→11→32→64→100→1→ ··· [Truck]
[2] Execution of Track Jump+/-
[OK] Execution
[Back] 5, [X-3212 Servo Test(4-0) : Return to Tracking Close Status Screen
(This can be selected only after execution of Track Jump)

7. [X-3212 Servo Test (4-5)] : ID Search Screen



Note:
The data values will change upon execution of a command.
[1] Display of ID
[2] The blue indication on the data is shifted by one digit to the right.
[3] The blue indication on the data is shifted by one digit to the left.
(You cannot move it to the 1st and 2nd digits from the left)
[4] The blue digit of the data is incremented by one.
[5] The blue digit of the data is decremented by one.
[6] Start of the ID Search
[OK] Execution
[Back] 5, [X-3212 Servo Test(4-0) : Return to Tracking Close Status Screen
(This can be selected only after execution of ID Search)

8. [X-3212 Servo Test (5-0)] : RF-Level Display Status Screen



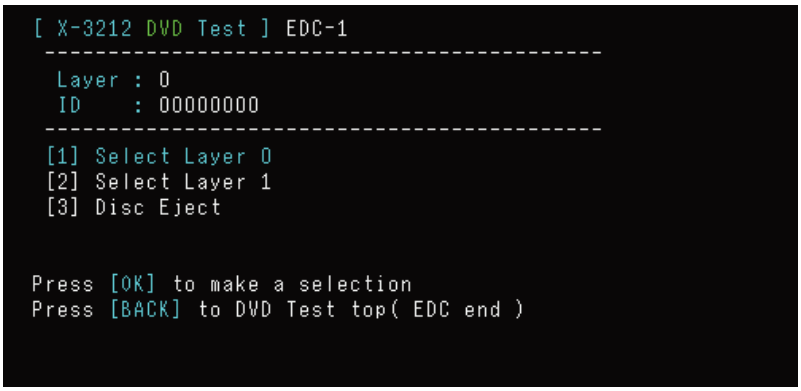
Note:
The data values will change upon execution of a command.
Note:
You cannot perform operation till completion of the display of values from F.Bal(0) to AS Normal(1).
[1] Display of RF-level
[2] Display of the Error Rate
[3] Transition to Focus Close 1 Status
[OK] Execution
[Back] 5, [X-3212 Servo Test(4-0) : Return to Tracking Close Status Screen

EDC Test Operation Specification

Keys to use:
[OK]
[BACK]
[Directional keys]

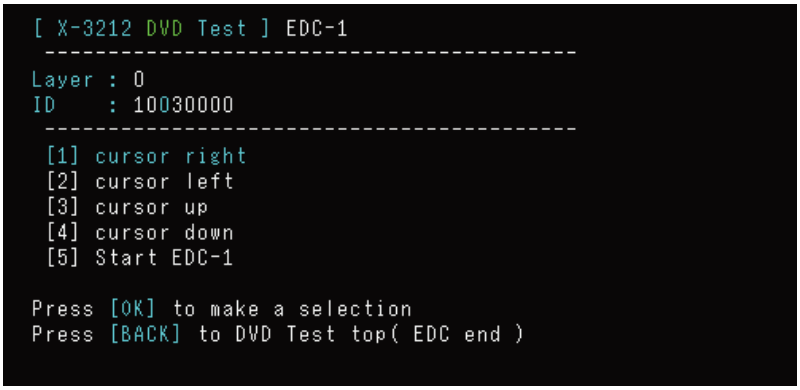
Note:
The same operational method applies to both of EDC-1 and EDC-2 tests.

1. [X-3212 EDC-1/2 TEST] : Initial Screen



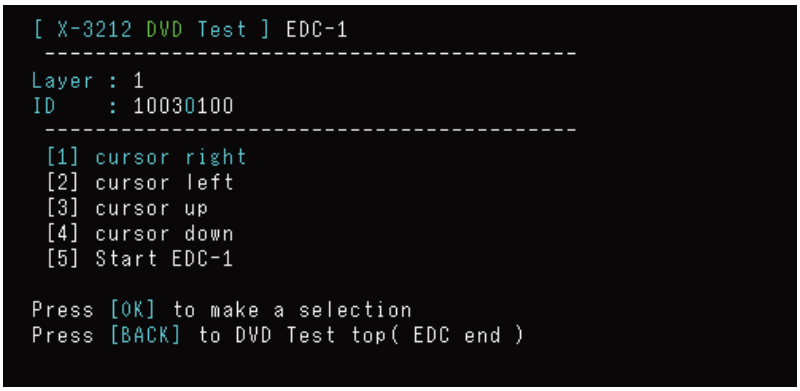
Note:
The ID values will change upon execution of a command.
[1] 2: To setting screen of [X-3212 EDC-1/2 Test Layer 0]
[2] 3: To setting screen of [X-3212 EDC-1/2 Test Layer 1]
[3] Disc eject
[OK] Execution
[BACK] Exit from MS5 check

2. [X-3212 EDC-1/2 Test Layer 0]



Note:
The ID values will change upon execution of a command.
[1] The blue indication on the ID is shifted by one digit to the right.
[2] The blue indication on the ID is shifted by one digit to the left.
(You cannot move it to the 1st and 2nd digits from the left)
[3] The blue digit of the ID is incremented by one.
[4] The blue digit of the ID is decremented by one.
[5] Start of EDC test
[OK] Execution
[BACK] Exit from MS5 check

3. [X-3212 EDC-1/2 Test Layer 1]



Note:
The ID values will change upon execution of a command.
[1] The blue indication on the ID is shifted by one digit to the right.
[2] The blue indication on the ID is shifted by one digit to the left.
(You cannot move it to the 1st and 2nd digits from the left)
[3] The blue digit of the ID is incremented by one.
[4] The blue digit of the ID is decremented by one.
[5] Start of EDC test
[OK] Execution
[BACK] Exit from MS5 check

LD Energizing Time Setting Operation Specification

Keys to use :
[OK]
[BACK]
[Directional keys]

1. [X-3212 CD/DVD Energizing Time Mode] : LD Initial Screen

```
[ X-3212 CD/DVD Energizing Time Mode ]
   Display Mode   Data : 00000000
-----------------------------------------
  [1] CD  LD-Energizing time display
  [2] DVD LD-Energizing time display
  [3] CD  LD-Energizing time set
  [4] DVD LD-Energizing time set

-----------------------------------------
    CD  LD-Energizing time : ------
    DVD LD-Energizing time : ------
-----------------------------------------
Press [OK] to make a selection
Press [BACK] to Exit this Mode
```

Note:
The data values will change upon execution of a command.
[1] Currently-set CD energizing time is displayed.
[2] Currently-set DVD energizing time is displayed.
[3] To CD Energizing Time Setting Screen
[4] To DVD Energizing Time Setting Screen
[OK] Execution
[BACK] Exit from MS5 check

5. Region code

No region can be obtained when a ROM DISC is inserted.
Execute this after ejecting the DISC.

```
    === Region code  check ===



       region code    < 2 >

     Press  [BACK]  return.
```

You can go back to the test mode menu by the [BACK] key.

```
    === Region code  check ===



       The ROM-DISC is inserted. Please eject.

     Press  [BACK]  return.
```

6.2 TEST DISC

Jig No.: GGV1310
Remote controller: CXC6317 (SW1: AVH, SW2: DVD)

1. Start / End

1-1. Start

When the test disc is inserted, the title “NN701 TEST DISC” will be displayed.
If [C] key on the remote controller is pressed while the title is being displayed, the menu screen will be displayed.
If no key is pressed, the second inspection (external connection check / C.C) screen for line inspection will be displayed.

Title Screen



1-2. End

No action is taken.

2. Key Operation

Operate the test disc using the [10-key] number pad of the DVD remote controller.
The basic operation method of the DVD remote controller is as follows:

- ↑ (cursor upward movement) ····· [2] of the 10-key
- ↓ (cursor downward movement) ····· [8] of the 10-key
- ← (cursor leftward movement) ····· [4] of the 10-key
- → (cursor rightward movement) ····· [6] of the 10-key

Decision / Confirmation (Enter) ····· [5] of the 10-key
Going Back / Cancel (Cancel) ····· [C] of the 10-key
Execution of inspection / repeat of inspection, etc. ····· [0] of the 10-key

- In the case of inspection screens 1 – 13:
  1. The inspection screen and the menu screen can be switched alternately using the [5] key on the DVD remote controller.
  2. The screen will go back to the previous inspection screen by the [2] key on the DVD remote controller.
  3. The screen will move forward to the next inspection screen by the [8] key on the DVD remote controller. (Unless the inspection is finished, the screen will not move forward. The screen will not move forward, too, if there is an NG item.)

* Refer to the explanation of each screen for the details.

- In the case of menu screens 14 – 23:
  1. Select an inspection item by the [2] and [8] keys on the DVD remote controller, and inspection screen will appear when the [5] key is pressed.
  2. The menu pages can be switched by the [4] and [6] keys on the DVD remote controller.
  3. When the [C] key on the DVD remote controller is pressed, the screen will go back to the menu screen.

* Refer to the explanation of each screen for the details.

Menu Screen List

```
                --- Self Test Menu ---
   1. External Connection(H/W)
   2. External Connection(C.C.)
   3. Data Communication (Short Circuit) Check
   4. Data Communication (Open Circuit) Check
   5. Natural Drawing & Rear View
   6. VTR1 In check
   7. VTR2 In check
   8. FM Multiplex Tuner Error Rate
   9. GPS Self check


[2/8] : Change cursol, [4/6] : Change page
 [5]  : Select item
```

```
                --- Self Test Menu ---
  10. Dual Illumination color check
  11. Monitor adjustment check
  12. Language Flag setup mode
  13. Memory all clear









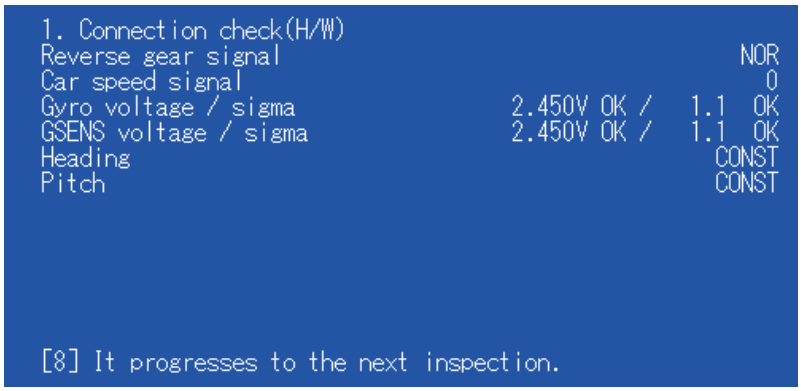
[2/8] : Change cursol, [4/6] : Change page
 [5]  : Select item
```

```
                --- Self Test Menu ---
  14. Software version display
  15. Picture RGB check
  16. GPS information
  17. GPS sensitivity measurement
  18. Sound play
  19. File Maintenance mode
  20. Picture check
  21. Device check(Design engineer only)
  22. Memory all clear(for Service)
  23. BackUp Memory clear

[2/8] : Change cursol, [4/6] : Change page
 [5]  : Select item
```

3. Inspection Screens

3-1. External Connection Check (H/W)



- The status of the items indicated in the above figure will be updated every second.
- Set ANTON port to H when starting the inspection and set it to L when ending.
- When the gyro is in operation, a BEEP sound will be made when the G sensor is activated.
  Right: 500 Hz, Left: 700 Hz. Up: 800 Hz, Down: 600 Hz
- Conditions for moving on to the next inspection
  Reverse status is changing between NOR and REV.
  Pulse is changing to a value other than 0/0.

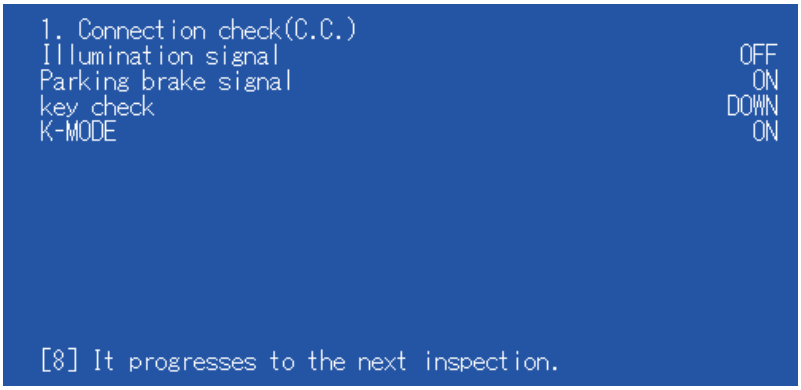
Standard value for other items
- GYRO voltage
  OK: 2.5 ± 0.15
  USABLE: 2.5 ± 0.30
- GYRO variation
  OK: Less than 30
- G sensor voltage
  OK: 2.5 ± 0.15
  USABLE: 2.5 ± 0.30
- G sensor variation
  OK: Less than 60

- Only when all the conditions are met, you can move on to the next inspection by the [8] key on the DVD remote controller. It should be noted, however, that you will not be able to move on to the next inspection if there is an error (background color is red) even if the conditions are met.

<Supplemental explanation regarding error display>

Displayed message	Details of the error
Structural data error	Error which occurs when data cannot be received from A/D converter. Defect of the A/D converter seems to be the cause. It will also happen in case the vehicle speed pulse cannot be measured. (rare)
No connection to DRAGON	Error which occurs when communication with DRAGON is not established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Unknown error	Error due to unknown reason.

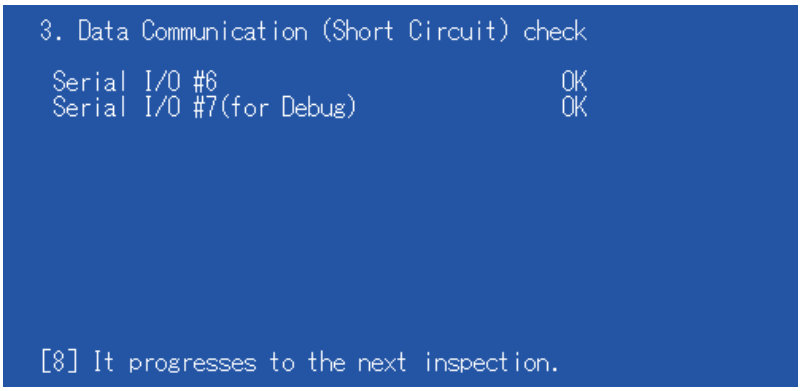
3-2. External connection check (C.C.)



- The external port at the C.C. board side is checked.
- The status of the items indicated in the above figure will be updated every second.
- Conditions for moving on to the next inspection
  Illumination status is changing between ON and OFF.
  Parking brake status is changing between ON and OFF.
  K-MODE value is changing between ON and OFF.
- Only when all the conditions are met, you can move on to the next inspection by the [8] key on the DVD remote controller. It should be noted, however, that you will not be able to move on to the next inspection if there is an error (background color is red) even if the conditions are met.

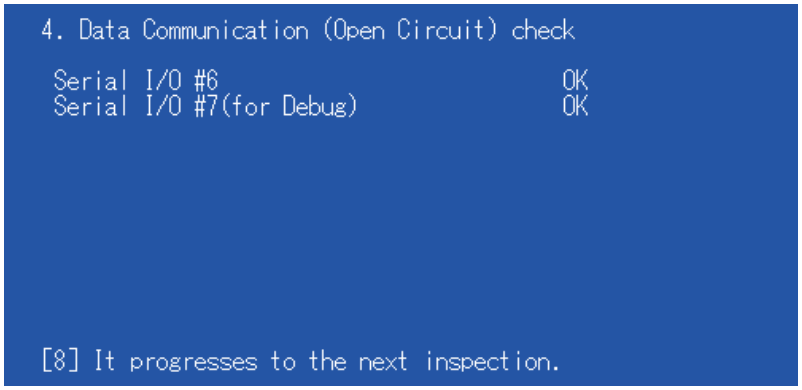
* "K-MODE" port check can be performed only for models for North America. In case of models for Europe, no "K-MODE" is displayed.

3-3. Data Communication (short-circuit) check (Not for service)



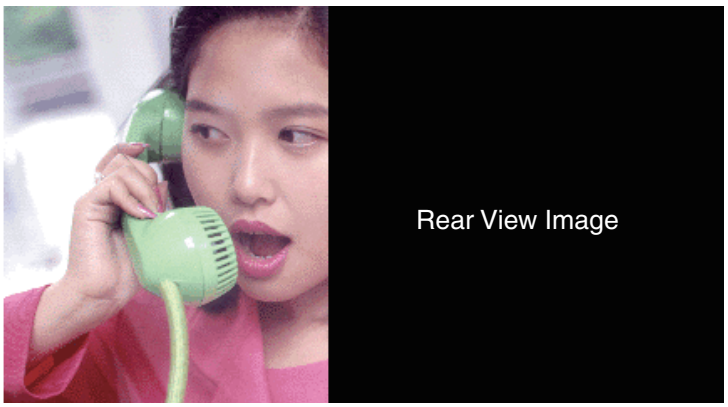
- SIO connection short circuit is checked.
- Loop back check is performed on 6CH and 7CH.
- Wait screen is displayed until the checking is completed.
- When [0] key on the DVD remote controller is pressed while the inspection result is being displayed on the screen, inspection will be performed once again.
- Only in the case of OK, you can move on to the next inspection by the [8] key on the DVD remote controller.

3-4. Data Communication (Open Circuit) check (Not for service)



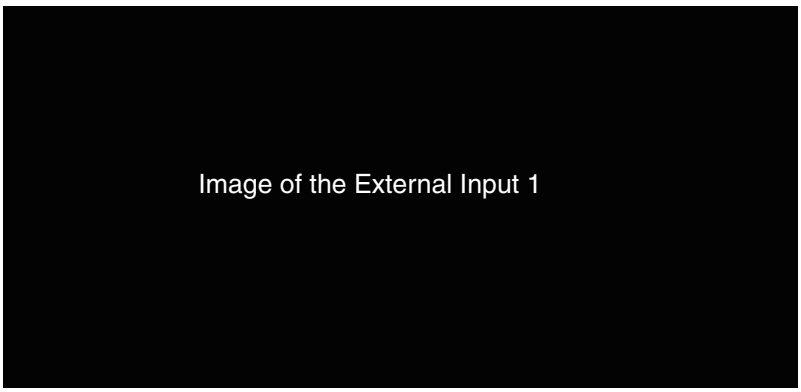
- SIO connection open circuit is checked.
- Check is performed on 6CH and 7CH.
- Do not connect anything to the terminal. OK will be indicated under “open” condition.
- Wait screen is displayed until the checking is completed.
- When [0] key on the DVD remote controller is pressed while the inspection result is being displayed on the screen, inspection will be performed once again.
- Only in the case of OK, you can move on to the next inspection by the [8] key on the DVD remote controller.

3-5. Natural Drawing



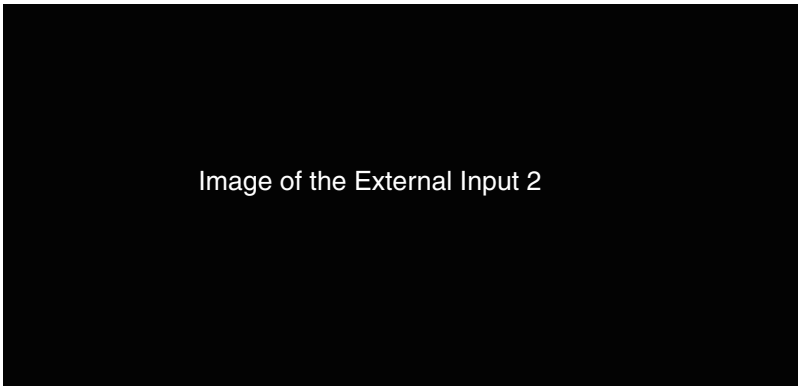
- Natural image consisting of 256 colors will be drawn on the screen.
- ADPCM 1kHz sine wave at the sampling rate of 19kHz will be output for 30 seconds.
- Rear view image will be displayed on the right hand side of the screen.
- Set GUIDEON terminal to H when entering the screen, and set it to L when exiting the screen.
- Volume level can be changed by the [4] and [6] keys on the DVD remote controller. (0 to 9)
  [JPEG file name: ZHITO1.JPEG]
  [Voice file name: A19K01KS.WAV]
- You can move on to the next inspection by the [8] key on the DVD remote controller.

3-6. External Input (AV1) Check



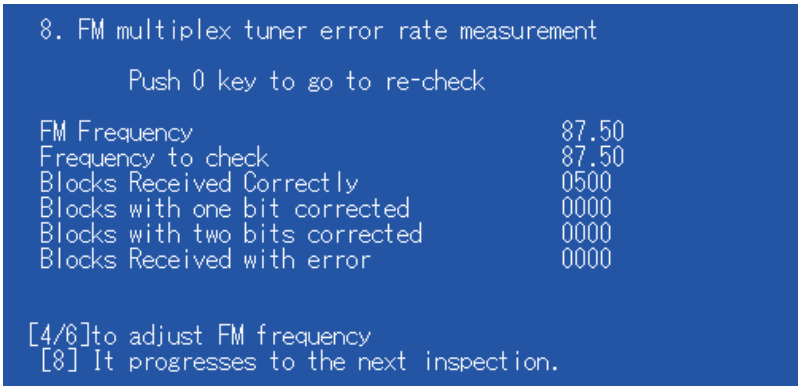
- External input image (AV1 port input image) is displayed and voice is output.
- You can move on to the next inspection by the [8] key on the DVD remote controller.

3-7. External Input (AV2) Check



- External input image (AV2 port input image) is displayed and voice is output.
- You can move on to the next inspection by the [8] key on the DVD remote controller.

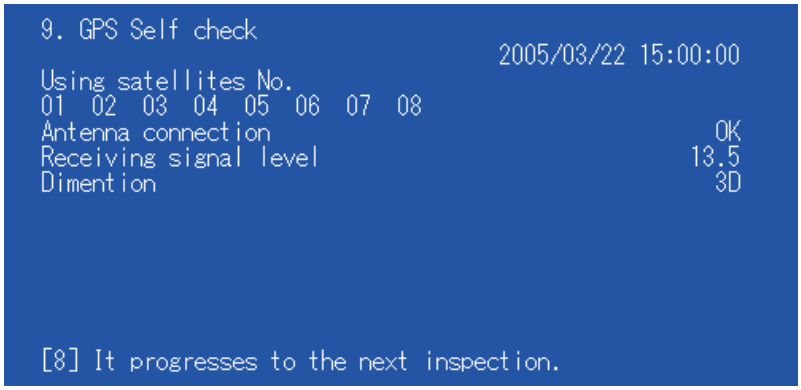
3-8. FM multiplex tuner error rate measurement



- FM multiplexing error is measured.
- Default frequency is 87.5MHz.
- When entering this mode for the first time, the result of measurement at the time of test disc boot up will be displayed.
- After the measurement is taken, the frequency can be changed by the [4] and [6] keys.
- 500 blocks will be measured, and if there are 450 or more blocks without error, then it will be determined as OK.
- Only in the case of OK, you can move on to the next inspection by the [8] key on the DVD remote controller.
- You can repeat the inspection by the [0] key on the DVD remote controller.

* For AVIC-N4/XU/UC models, this inspection is not performed and the system will move on to the next inspection.

3-9. GPS Receiving Status



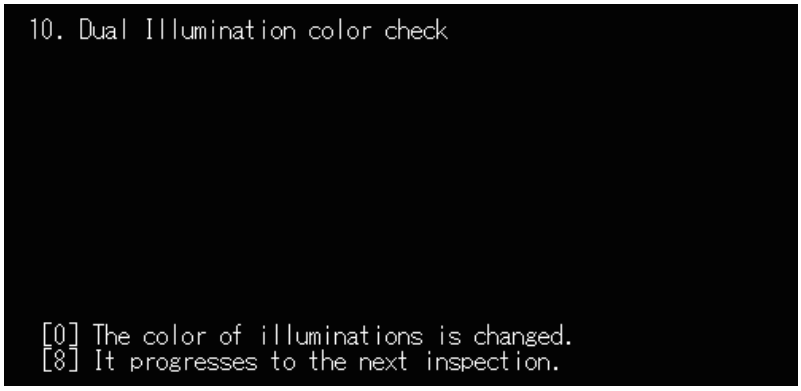
- GPS receiving status will be displayed.
- Conditions to move on to the next inspection.
  Antenna connection is OK.
  Data is received from one or more satellites.
  Time is being displayed.
- When all the conditions are met, the background color will change to blue.
- Only when all the conditions are met, you can move on to the next inspection by the [8] key on the DVD remote controller. It should be noted, however, that you will not be able to move on to the next inspection if there is an error (background color is red) even if the conditions are met.
- If a command error occurs during GPS Receiving Status inspection, Command Error Details Screen is displayed. Command Error Details Screen consists of a screen which displays the real-time status of the BIOS call which is used in GPS reception, and a screen which displays command error logs of maximum 40 events, with the last – occurred command error being at the top. You can switch between them by the [5] key.

* For the purpose of error information retention, the system prevents you to go from the Command Error Details Screen back to the normal inspection screen. If you want to resume inspection, eject the test disc once and then insert it again.

<Supplemental explanation regarding error display>

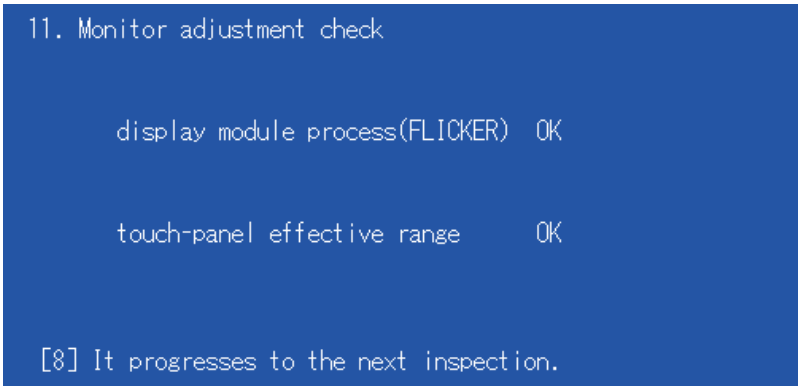
Displayed message	Details of the Error
No connection to DRAGON	Error which occurs when communication with DRAGON is not established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time-out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Invalid data	Error which occurs when request is made while the data for response is not yet ready (not obtained from DRAGON). Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.

3-10. Dual Illumination Check



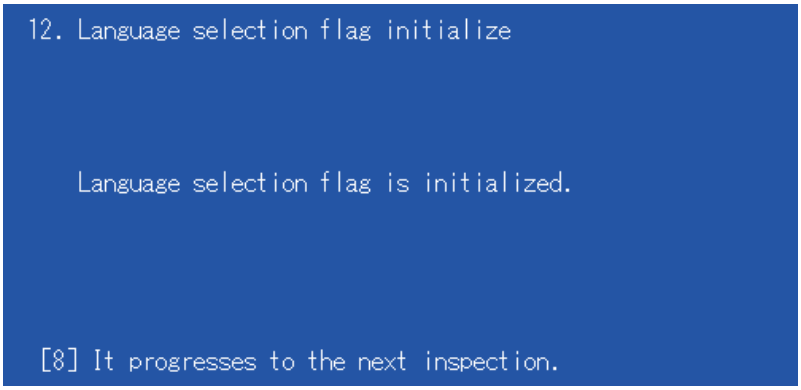
- The color of illumination is changed.
- The illumination color is toggled between Red and Blue every time you press the [0] key on the DVD remote controller.
- You can move on the next inspection by the [8] key on the DVD remote controller.

3-11. Monitor Adjustment Check



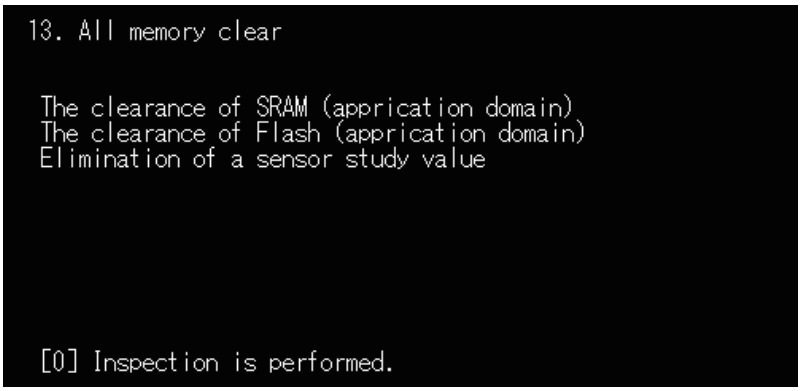
- Each status of the “flicker adjustment” and “touch panel outermost circumference correction” is obtained from the microprocessor to display the result as to whether the monitor is duly adjusted in the production line.
- If both “flicker adjustment” and “touch panel outermost circumference correction” have been duly performed, the monitor is assumed to be adjusted. You can go to the next inspection by the [8] key.
  If either adjustment is found to be missing, the NG screen is displayed to prevent you from going to the next inspection.

3-12. Language Selection Flag Initialization



- When the system enters into this inspection, language selection will be set to the original setting made at the time of shipment (i.e. no setting).
  * The setting is made to display the screen for selecting the language to be used at the initial boot up after the shipment out of the factory.
- The setting is made when the system enters into this inspection.
- You can move on to the next inspection by the [8] key on the DVD remote controller.

3-13. All Memory Clear (Not for service)

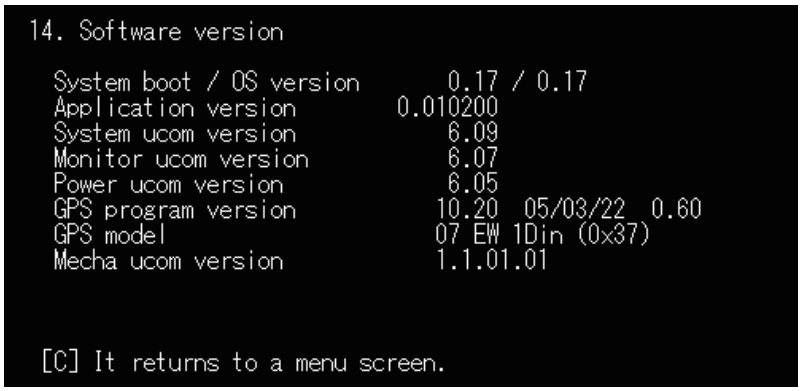


- SRAM (application domain) is cleared.
- FLASH (application domain) is cleared.
- Sensor learning level is cleared.
- If SRAM clear is not successful, FLASH will not be cleared.
- After the inspection screen is displayed, the above process is executed by the [0] key on the DVD remote controller.
- The result of the process is displayed.
- Only when everything is OK, you can exit the line inspection process by the [8] key on the DVD remote controller to go back to the menu screen.

4. Other Screens

From 4-1 – 4-13, the same inspections are performed as in the line inspection

4-14 Display of the Software Version



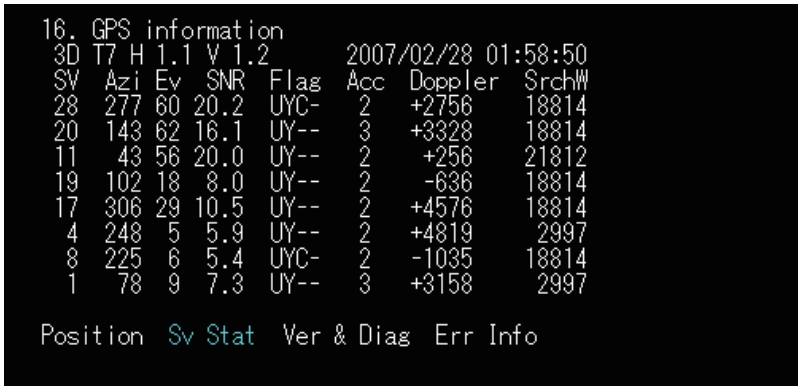
- Software versions are displayed.
- For the “GPS model specification”, AVIC-X3/XU/EW models are indicated as “07 EW 1Din (0x37)”, while AVIC-N4/XU/UC models are indicated as “07 UC 1Din (0x38)”.

4-15. Picture RGB



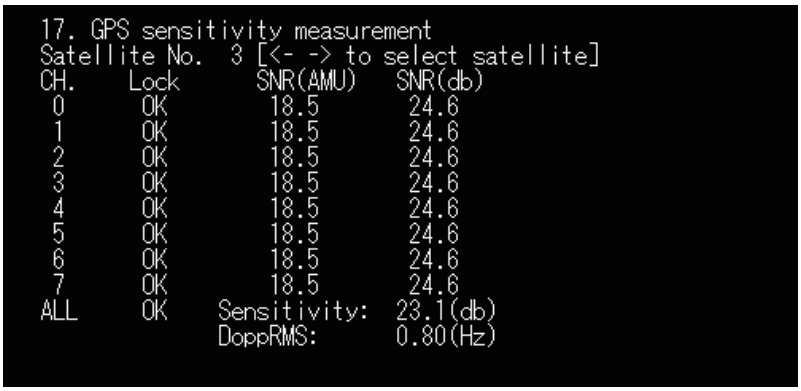
- RGB bridge is inspected.
- The screen can be switched by the [4] and [6] keys on the DVD remote controller.
- RGB is drawn in the following pattern: R 100% → R 50% → G 100%→ G 50% → B 100% → B 50%.
- Total of 6 screens will be displayed.

4-16. GPS Information



- Move the cursor using the [4] and [6] keys on the DVD remote controller.
- ”Position information” will be displayed when the [5] key is pressed on the DVD remote controller while the cursor is at the “Position” position.
- “Status information” will be displayed when the [5] key is pressed on the DVD remote controller while the cursor is at the “Sv Stat” position.
- “Diagnosis information” will be displayed when the [5] key is pressed on the DVD remote controller while the cursor is at the “Ver&Diag” position.
- “Error information” will be displayed when the [5] key is pressed on the DVD remote controller while the cursor is at the “Err Info” position.
- When an inspection is performed, “status information” (the screen shown above) will be displayed first.

4-17. GSP Sensitivity Measurement

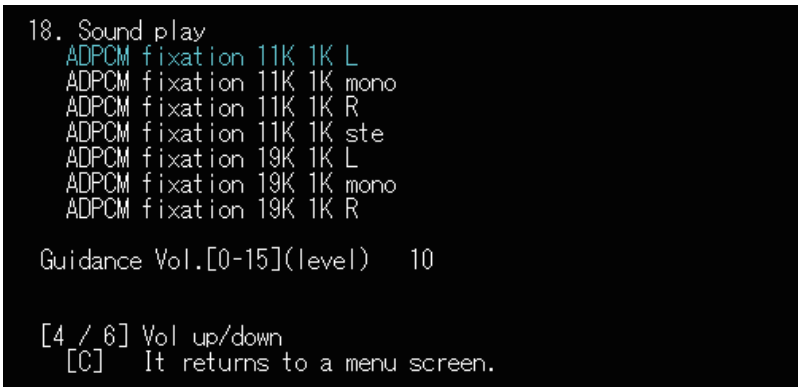


- GPS can be changed by the [4] and [6] keys.
- Sensitivity of the selected GPS is displayed by the [5] key.
- In case of an unsuccessful communication with the GPS unit, an error screen is displayed.

<Supplemental explanation regarding error display>

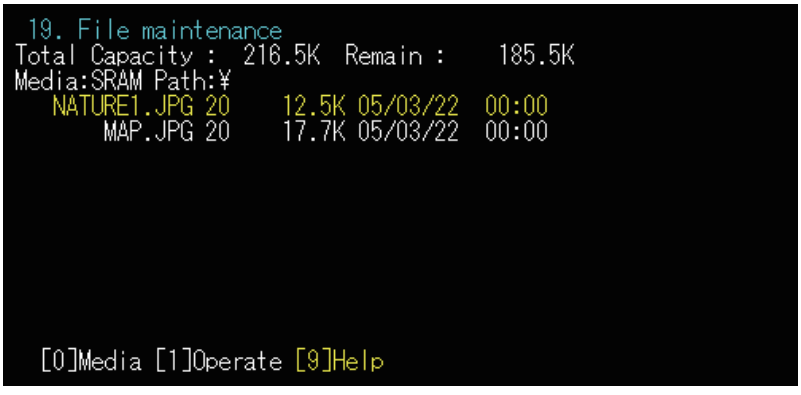
Displayed message	Details of the error
No connection to DRAGON	Error which occurs when communication with DRAGON is not established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command Error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.

4-18. Sound Play



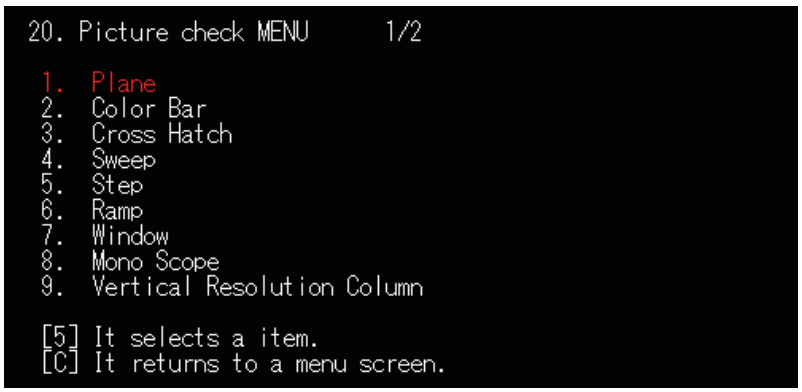
- Voice file (WAVE format) will be played back.
- The voice selected by the [5] key on the DVD remote controller will be played back.
- Volume level can be changed by the [4] and [6] keys on the DVD remote controller.

4-19. File Maintenance



- Files can be copied, deleted or dumped.
  Refer to [9] HELP for how to use each function.

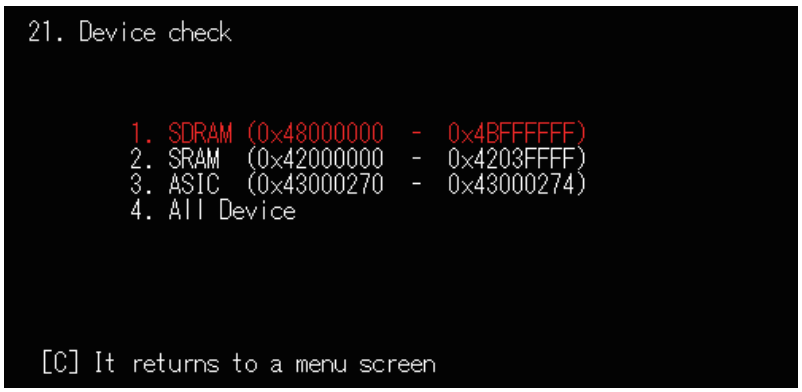
4-20. Picture Check



• A pattern is selected by the [2] and [8] keys and an image is displayed by the [5] key.

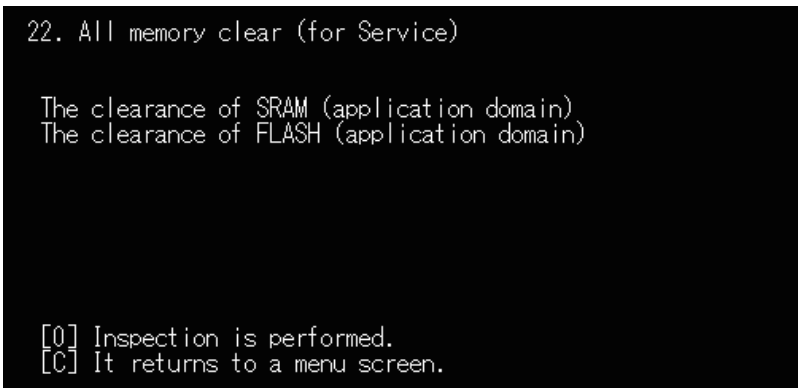
1. Plain
   ···You can display it in the following order by the [4] and [6] keys on the DVD remote controller: black, blue, red, pink, green, light blue, yellow, white.
2. Color bar
   ···White, yellow, light blue, green, pink, red, blue, and black bars will be displayed from left to right.
3. Cross hatch
4. Sweep
5. Step
6. Lamp
7. Window
8. Mono scope
9. Cycle line 1
10. Cycle line 2
11. Horizontal stripe 1
12. Horizontal stripe 2
13. Chinese character pattern
14. Map (map.jpg)
15. Natural image (nature.jpg)
16. Portrait 1 (hito1.jpg)
17. Portrait 2 (hito2.jpg)

4-21. Device Check (for Engineers only) (Not for Service)



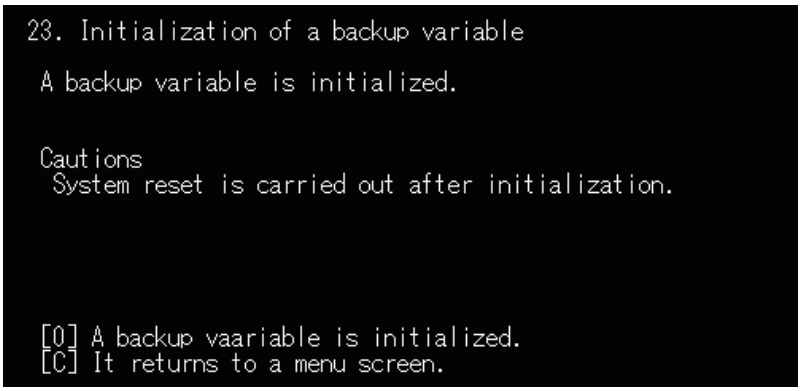
• The above devices will be inspected for engineering purpose.
• On each device screen, select a pattern by the [2] and [8] keys on the DVD remote controller, start inspection by the [5] key on the DVD remote controller.

4-22. All Memory Clear (for Service)



- SRAM (application domain) is cleared.
- FLASH (application domain) is cleared.
- If SRAM clear is not successful, FLASH will not be cleared.
- After the inspection screen is displayed, the above process is executed by the [0] key on the DVD remote controller.
- The result of the process is displayed.

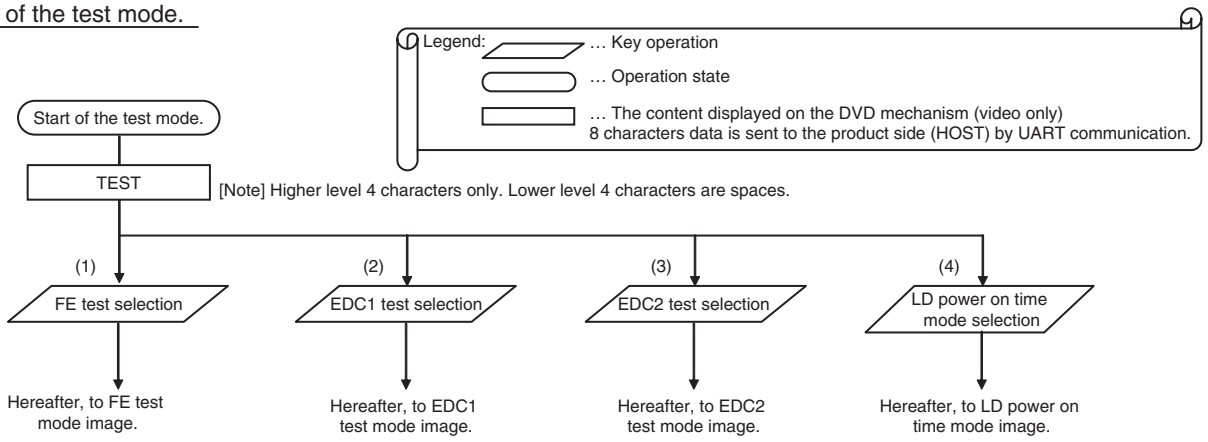
4-23. Initialization of a Backup Variable



- Backup variables are initialized by the [0] key on the DVD remote controller for system reset.
- The screen will return to the menu screen by the [C] key on the DVD remote controller.

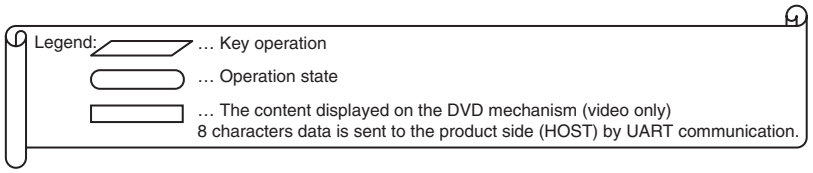
6.3 DVD TEST MODE

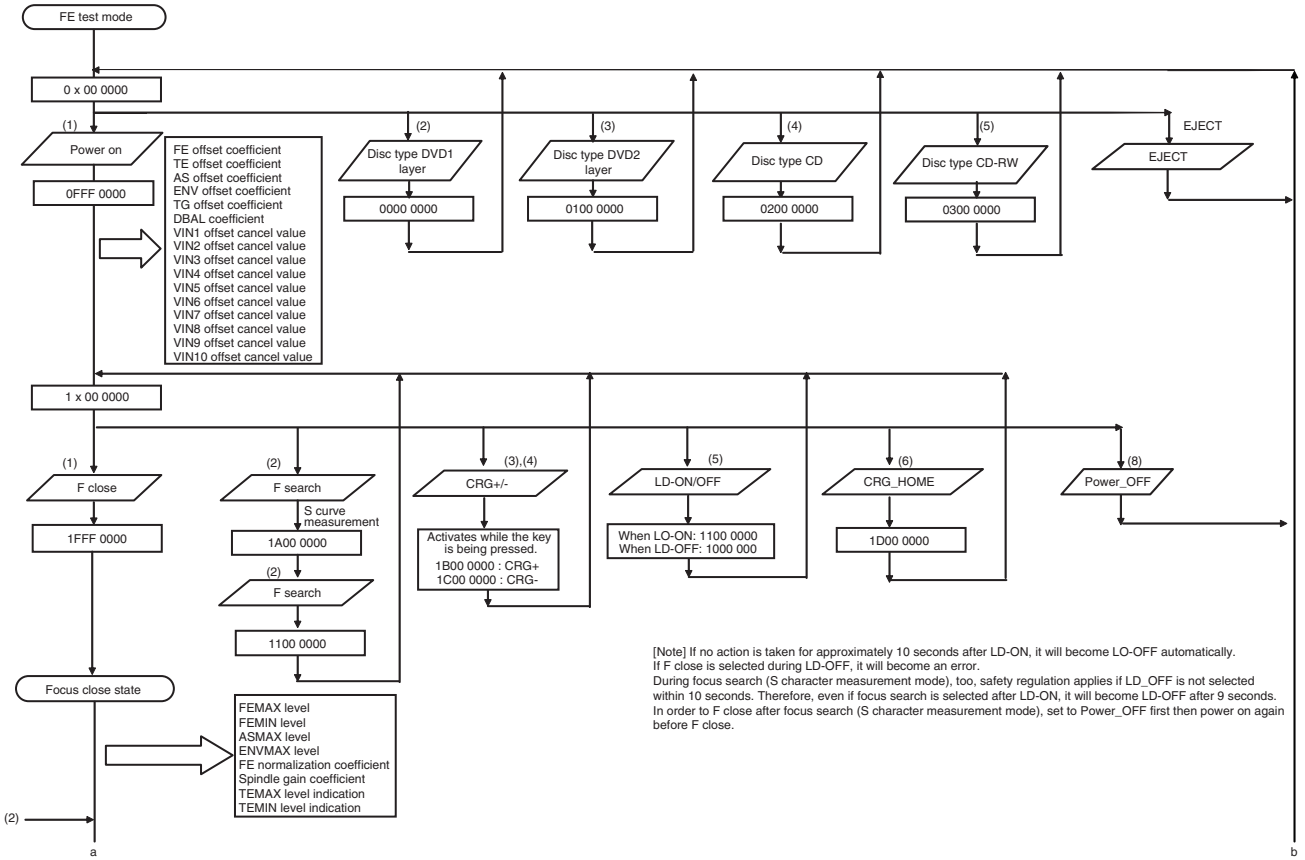
Image of the test mode.

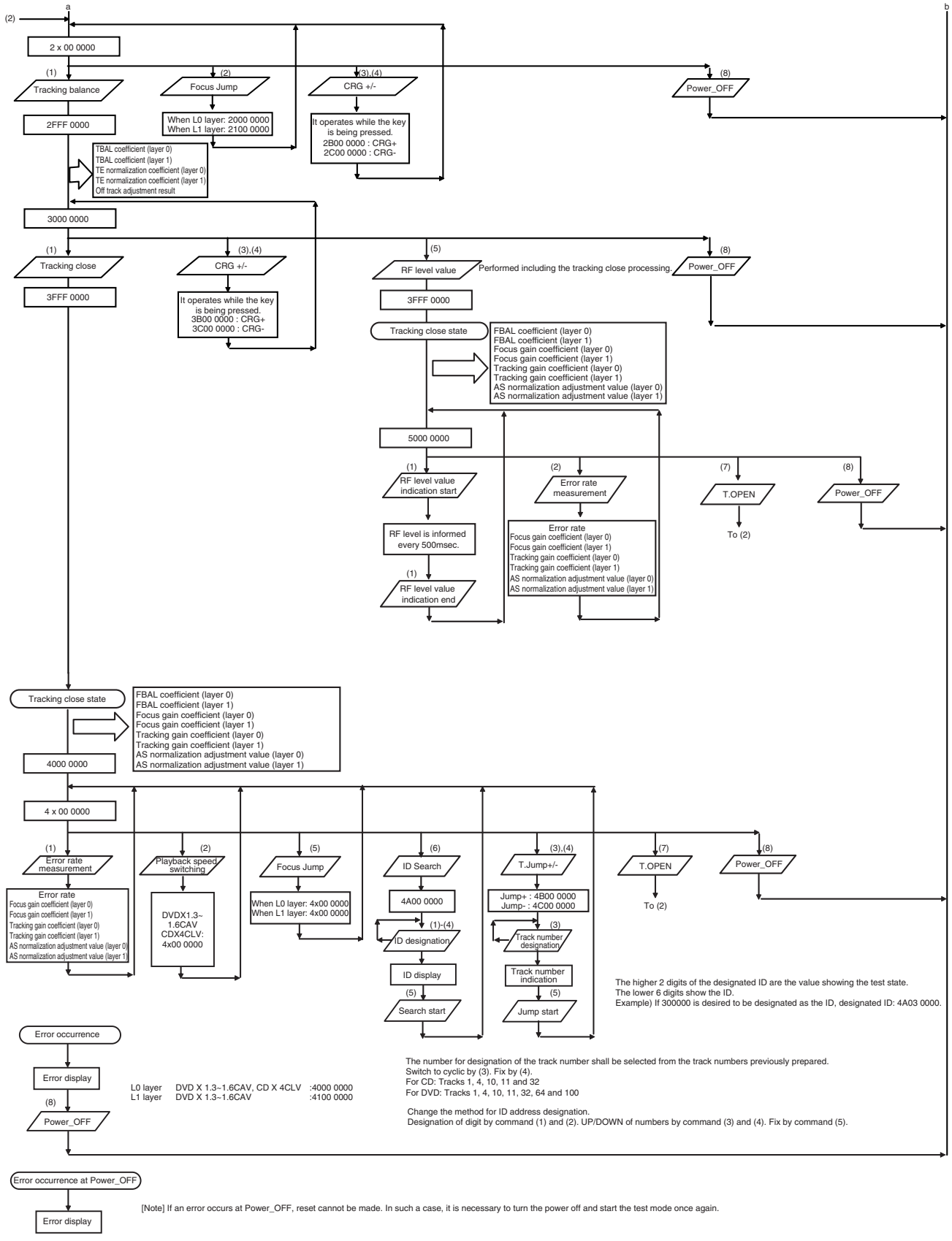


[Note] In order to move on to another test after selecting a test (FE/EDC1/EDC2), it is necessary to restart the DVD mechanism in the test mode.

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.
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)
AS normalization adjustment value (layer 1)
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)
AS normalization adjustment value (layer 1)
(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)
AS normalization adjustment value (layer 0)
AS normalization adjustment value (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)
AS normalization adjustment value (layer 1)
(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

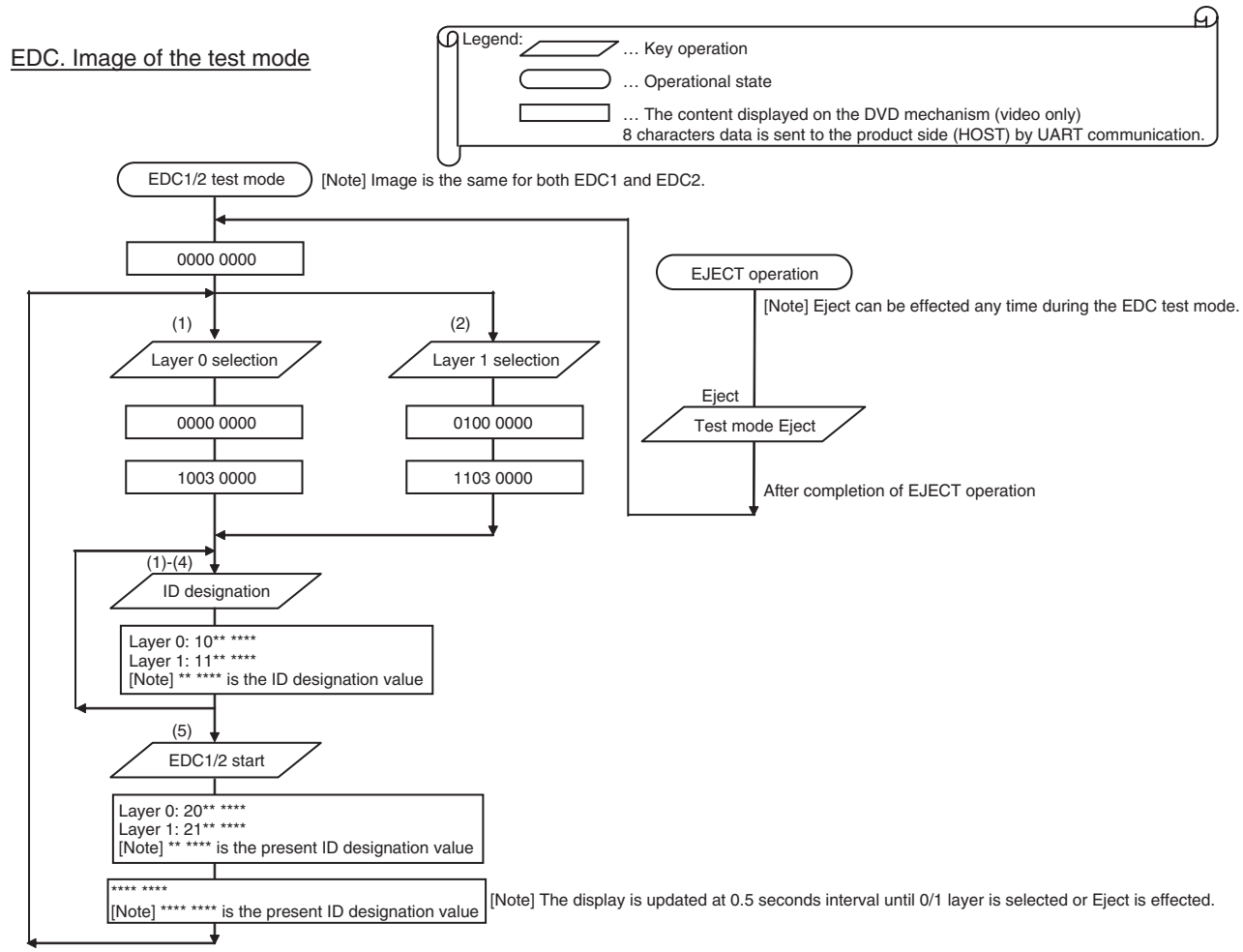
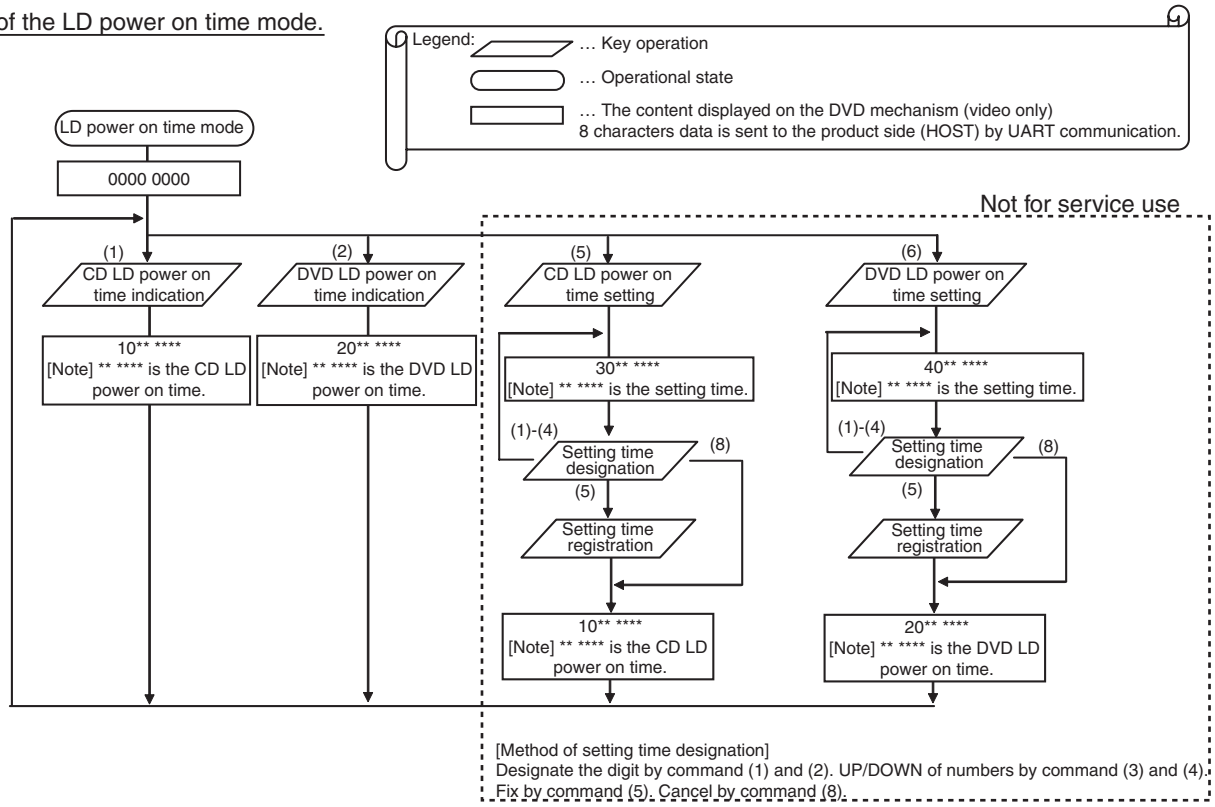


Image of the LD power on time mode.



[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.

6.4 EJECT LOCK

The setup change method of "EJECT LOCK"

"EJECT LOCK"- ON: When the "EJECT" button is pressed , the disc is not ejected.
"EJECT LOCK" is not canceled by ACC OFF and B.UP OFF and SYSTEM RESET (Press the "RESET" button).
"EJECT LOCK" is canceled by reoperations(① to ⑥).
(Or it's canceled by the backupmemory initialization function in NAVI TEST MODE.)

"EJECT LOCK"- OFF: When the "EJECT" button is pressed , the disc is ejected.

If the following operations(① to ⑥) are performed, a setup of "EJECT LOCK" switches between ON and OFF.

①Press the "LEFT" button.
②Press the "RESET" button, continuing pressing the "LEFT" button.
③Wait for FLAP to stop, continuing pressing the "LEFT" button.
④Press the "MENU" button , continuing pressing the "LEFT" button.
⑤Releasing the "MENU" button , continuing pressing the "LEFT" button.
⑥Releasing the "LEFT" button.

* "LEFT" button =  button

6.5 SLAVE TEST MODE

The setup change method of "SLAVE TEST MODE"

"SLAVE TEST MODE"-ON: The test mode of each source can be used. While a setup is test mode, a touch key for test modes is displayed in each source.
Source with a test mode:iPOD, IP-BUS(CDM, DVDM, BT TEL, XM, USB, EXT1, EXT2)
"SLAVE TEST MODE" is canceled by ACC OFF.

"SLAVE TEST MODE"-OFF:The test mode of each source can not be used.

If the following operations(① to ⑥) are performed, a setup of "SLAVE TEST MODE" switches to ON.

①Press the "RIGHT" button.
②Press the "RESET" button, continuing pressing the "RIGHT" button.
③Wait for FLAP to stop, continuing pressing the "RIGHT" button.
④Press the "MAP" button , continuing pressing the "RIGHT" button.
⑤Releasing the "MAP" button , continuing pressing the "RIGHT" button.
⑥Releasing the "RIGHT" button.

* "RIGHT" button =  button

7. DISASSEMBLY

● Removing the Grille Assy (Fig.1)

1 Remove the two screws and then remove the Holder.
Disconnect the connector.

2 Remove the two screws and then remove the Grille Assy.

● Removing the Case

3 Remove the six screws.(Fig.1)

4 Remove the screw and then remove the Case.(Fig.1)

Note) Inside the product there is a flexible substrate that connects the Case and the Bracket.
Be very careful and do not give it a strong pull when removing the Case, otherwise it may be torn.

5 Remove the four screws. (Fig.2)

Disconnect the connector and then remove the Bracket. (Fig.2)
Remove the Case.(Fig.1)

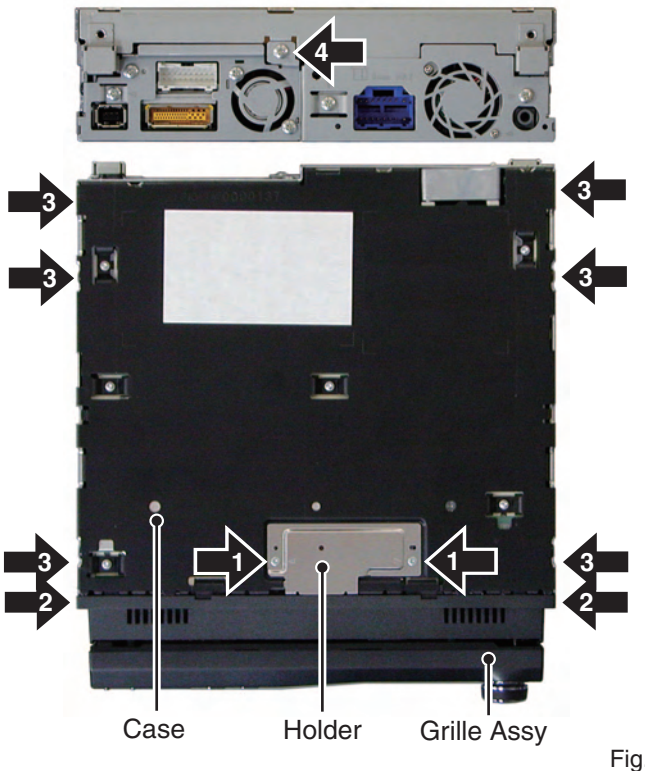


Fig.1

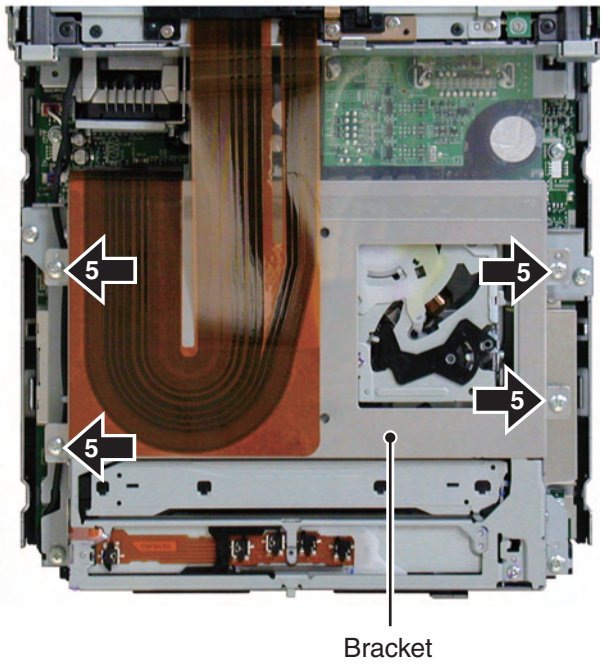


Fig.2

● Removing the DVD Mechanism Module (Fig.3)

1 Remove the four screws.

Disconnect the connector and then remove the DVD Mechanism Module.

● Removing the Mezzanine PCB (Fig.3)

2 Straighten the tab at location indicated.

3 Remove the screw.

Disconnect the connector and then remove the Mezzanine PCB.

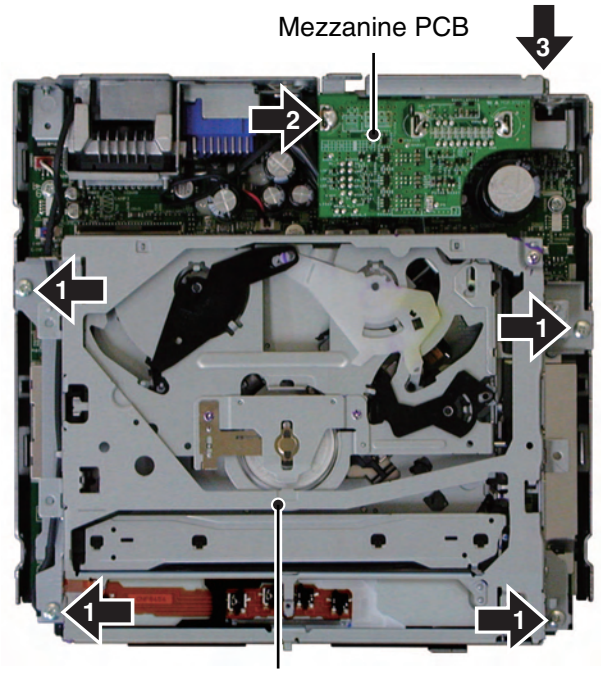


Fig.3

● Removing the CC Unit (Fig.4)

1 Remove the screw.

2 Remove the five screws and then remove the Bracket.

3 Remove the six screws and then remove the CC Unit.

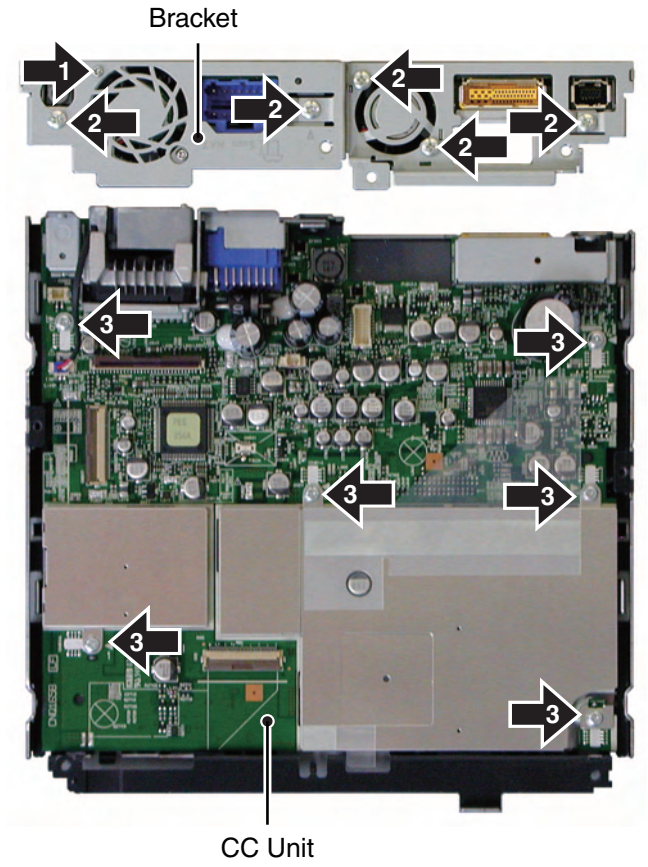


Fig.4

● Removing the Case (Fig.5)

1 Remove the two screws and then remove the Lever.

2 Remove the three screws and then remove the Cover.

3 Remove the five screws and then remove the Cover.

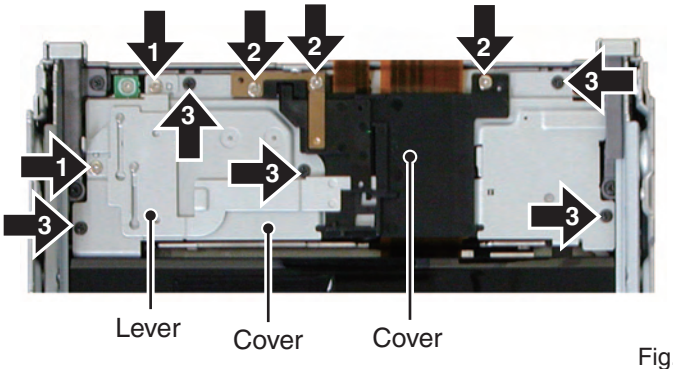


Fig.5

● Removing the Display Assy

1 Remove the three screws.(Fig.6)

Disconnect the connector and then remove the Motor Unit.

2 Remove the two screws and then remove the two Holders.(Fig.6)

3 Pull out the Display Assy in the arrow indicated direction.(Fig.6)

4 Pull out the Display Assy to the proper position (indicated on Fig. 7). And then, push the white knob (indicated on the figure) and draw out the Display Assy.

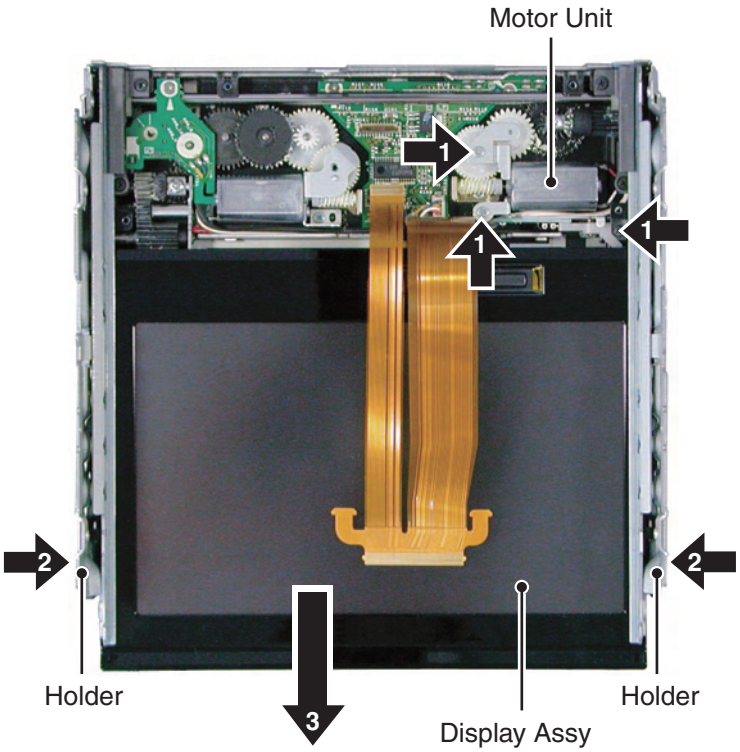


Fig.6

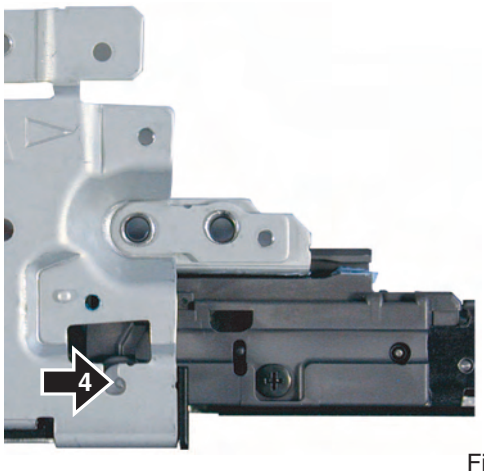


Fig.7

● Removing the Display Assy (Fig.8)

1 Remove the two screws and then remove the Holder.

2 Remove the four screws and then remove the Cover Unit.

3 Remove the four screws.

Disconnect the connector and then remove the Display Assy.

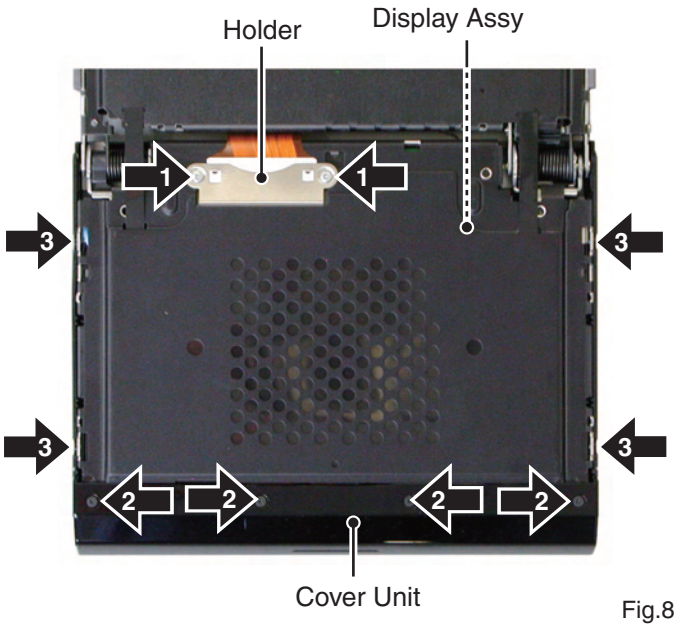


Fig.8

● Removing the Monitor PCB (Fig.9)

1 Straighten the tabs at two locations indicated.

2 Remove the screw.

Disconnect the connector and then remove the Monitor PCB.

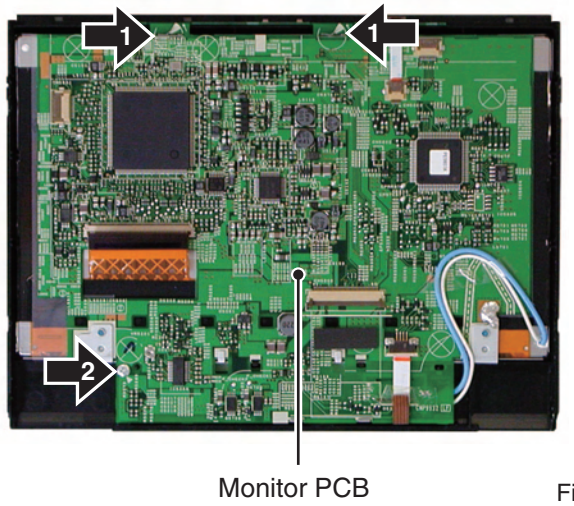


Fig.9

● Removing the Case (Fig.10)

1 Remove the three screws.

2 Remove the seven screws and then remove the Case.

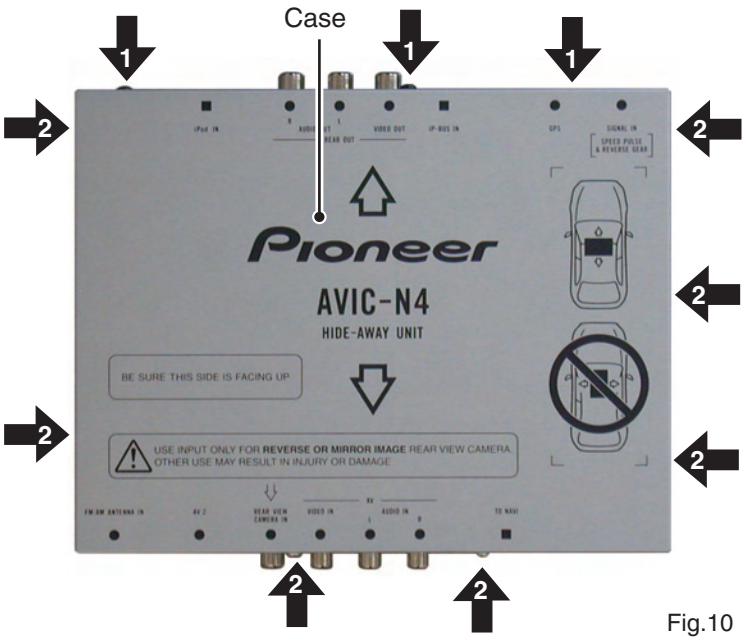


Fig.10

● Removing the Mother Tuner Unit (Fig.11)

1 Remove the five screws.

Disconnect the connector and then remove the Mother Tuner Unit.

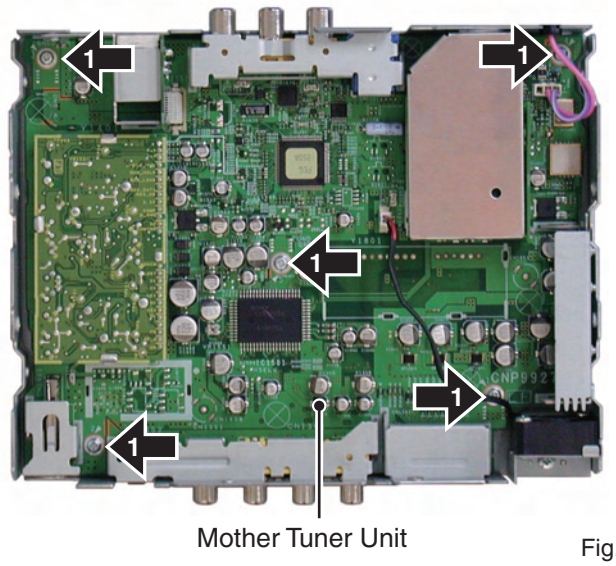


Fig.11

● How to hold the mechanism section (Fig 1)

1. Hold the main frame and the top frame.
2. As the mechanical strength of the front part of the top frame is not strong, do not hold this part.
3. Do not touch the switches provided on the top face of the mechanism section.
4. Be careful not to pull the flexible PCB on the side face.

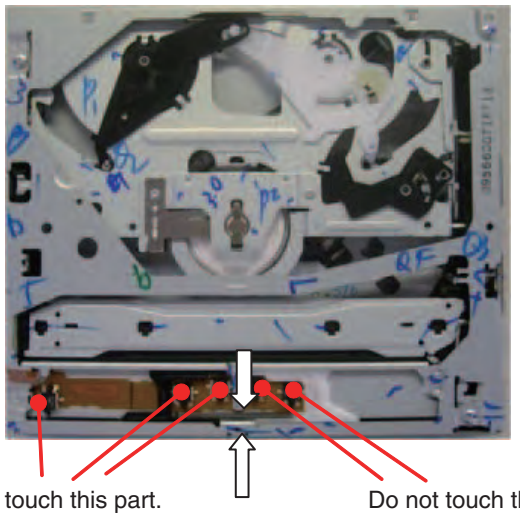


Fig 1

● How to remove the module PCB (Fig 2, Fig 3)

1. Put the mechanism section in locked state (disc load standby position).
2. Hold the mechanism module with its top face down.
3. Make the lands at 2 locations on the pick up flexible PCB short.
4. Disconnect the connectors of the pick up flexible PCB and the SPDL flexible PCB.
   (Be sure to disconnect the connectors as the flexible PCB will be damaged if the PCB is removed without removing the flexible PCB.)
5. Remove the solder joint of the lead wire of the load motor and the clamp SW.
6. Remove the two screws, and then remove the module PCB.
   (Lift up point A slightly and remove it toward B direction. Be careful as the point C is connected with a flexible PCB.)
7. Disconnect the connector of the 8-12 detection flexible PCB from the PCB.

Fig 2

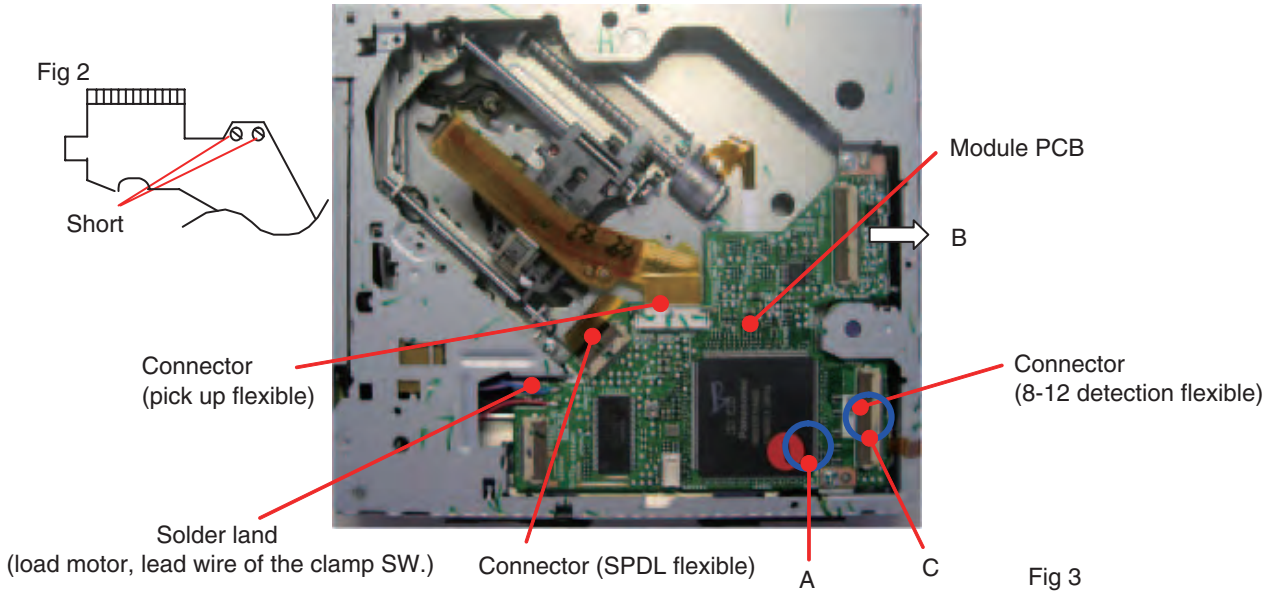


Fig 3

● How to remove the CRG motor assy (Fig 4)

1. Remove the module PCB according to the instructions in “How to remove the module PCB”.
2. Remove the Mylar tape.
3. Remove the flexible PCB of the CRG motor from the connector of the spindle motor.
4. Remove the two screws, and then remove the CRG motor assy.

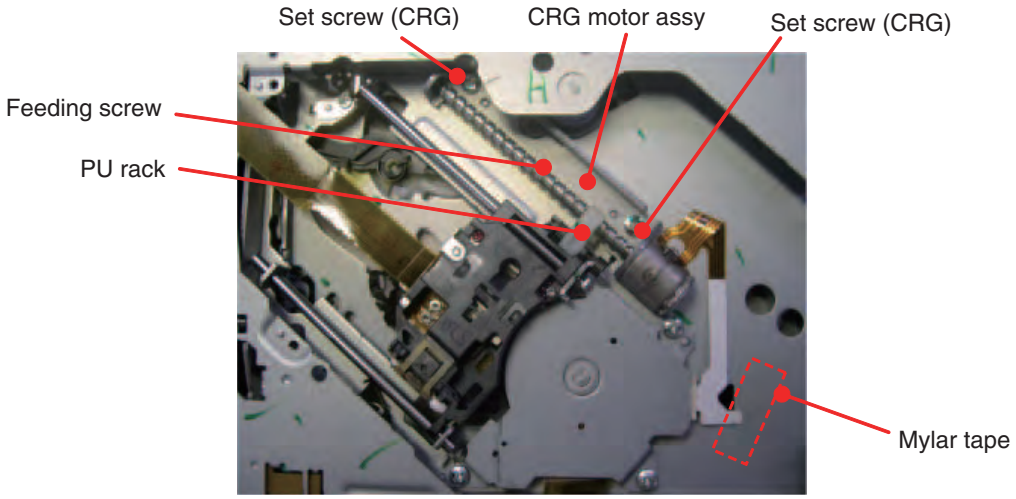


Fig 4

● How to remove the PU unit (Fig 5)

1. Remove the module PCB according to the instructions in “How to remove the module PCB”.
2. Hang the main shaft holding spring to the CRG chassis temporary hanger.
3. Remove the CRG motor assy according to the instructions in “How to remove the CRG motor assy”.
4. Remove the holding plate spring of the main shaft.
5. While lifting up the tip of the pick up rack, slide the main shaft, and remove the PU unit.

(Note) When mounting the PU unit again, make sure to do the adjustments of the devices mounted thereon according to the descriptions of the service manual. Furthermore, make sure to hang the main shaft holding spring permanently.

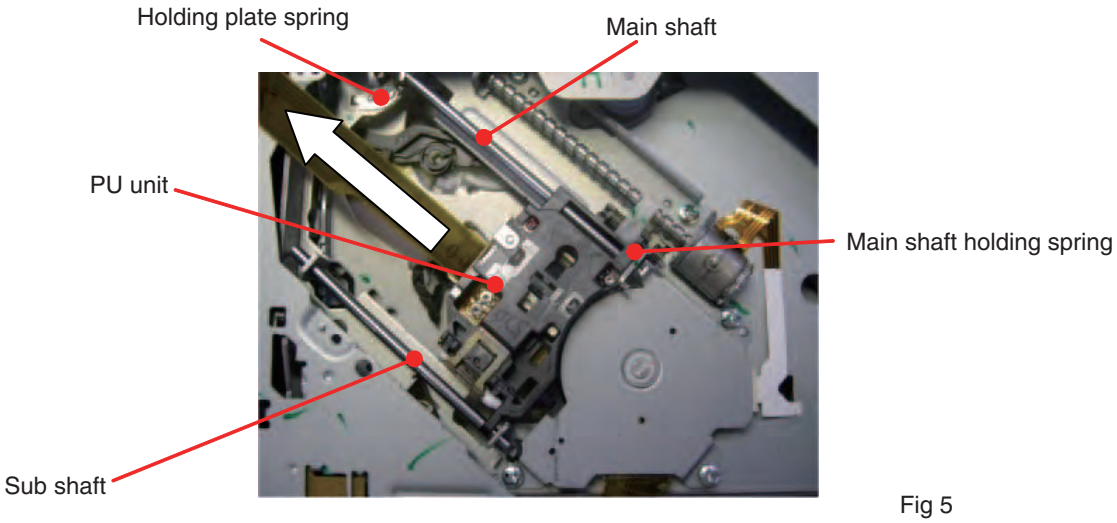
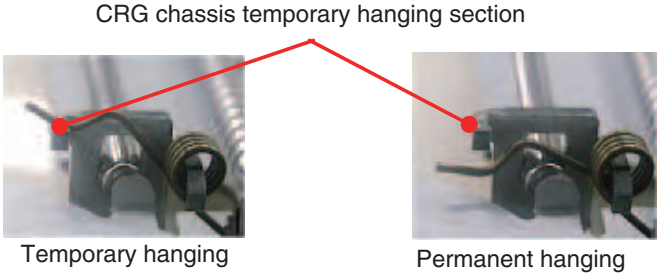


Fig 5



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.
- For stable circuit operation, keep the mechanism operating for about one minute or more after the regulator is turned on.
- 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.
- 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.

Attention)
- Test mode stopping procedure
  Reset or ACC OFF-ON.

● SKEW adjustment

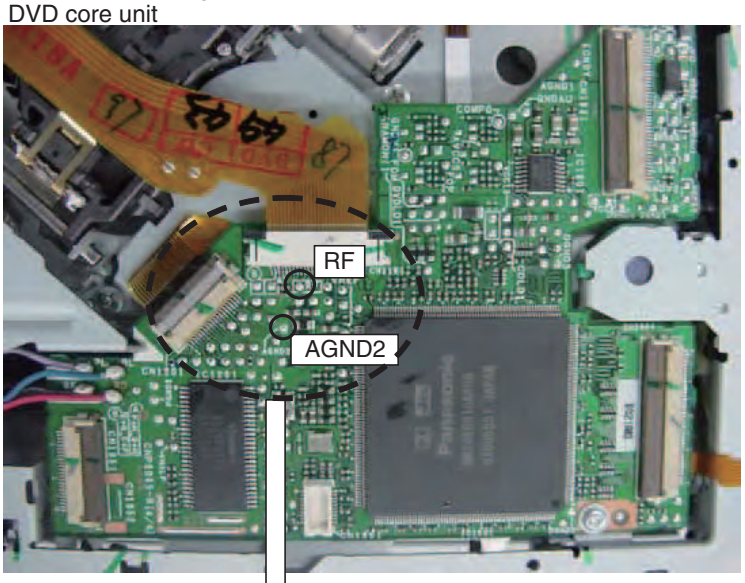
When one of the following replacements has taken place, SKEW adjustment for the pick up will be required.
(1) Replacement of the pick up unit
(2) Replacement of the spindle motor
(3) Replacement of the carriage chassis
(4) Replacement of the main shaft of the pick up unit
(5) Replacement of the sub shaft of the pick up unit

・Measurement equipment and tools/jigs: Oscilloscope
Driver for SKEW adjustment → TORX driver (T2) (GGK1095)
Bond for fixing the SKEW (GEM1033)
Bond for locking the screw (Locking agents(1401M : produced by THREE BOND))

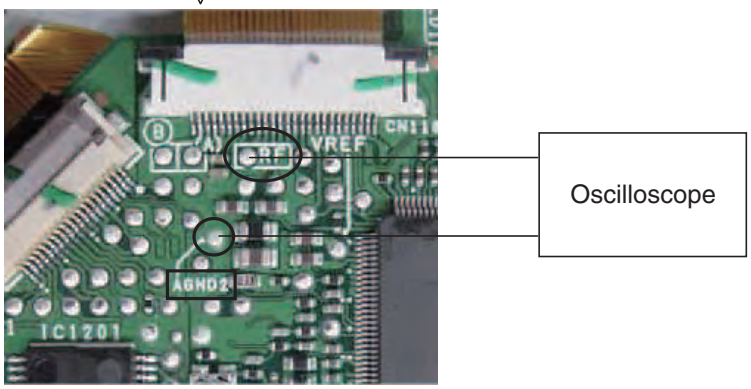
・Disc used: GGV1018

・Measurement reference: AGND2
・Measurement point: RF

・Connection drawing
DVD core unit



Enlargement



Symptom in case the adjustment is not adequate: Worsening of the error rate 10^{-3}
(Normally 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 for adjustment, a method whereby the adjustment is made while monitoring the RF waveform using the oscilloscope (method ①) and a method whereby the adjustment is made while checking the RF level in value by OSD (method ②).

The adjustment procedure is shown below. Refer to the paragraph for the service test mode regarding entering of the test mode and the operation procedure.

Adjustment procedure:

1. Turn the DVD mechanism module upside down so that the pick up can be adjusted.
   When the module is turned upside down, there is a possibility that the disc is rubbed.
   So, first place a coin with the thickness of approximately 1.5 mm on a desk, and set the module upside down in a way that section ① in the illustration below comes right above the coin.

2. Install the pick up. (Refer to the section regarding removal of the pick up from the mechanism unit.)
   As for the precautions in handling the pick up, refer to the precautions in handling the PU as described below.

3. Method ①:
   Connect the oscilloscope by referring to the connection drawing so that the RF signal can be monitored with AGND2 as the reference.
   Method ②:
   There is no need for setting of any equipment. Proceed to step 4.

4. Turn the power ON, and load the disc for adjustment.(GGV1018)

5. After setting the disc type to DVD layer 1 in the front end test mode, turn the power ON, and move the pick up to the inner periphery. (CRG – Home)

6. Turn the LD ON.

7. Set to focus close, and make auto adjustment for all items under that state, then set to tracking close.
   And make auto adjustment for all items under that state as well.

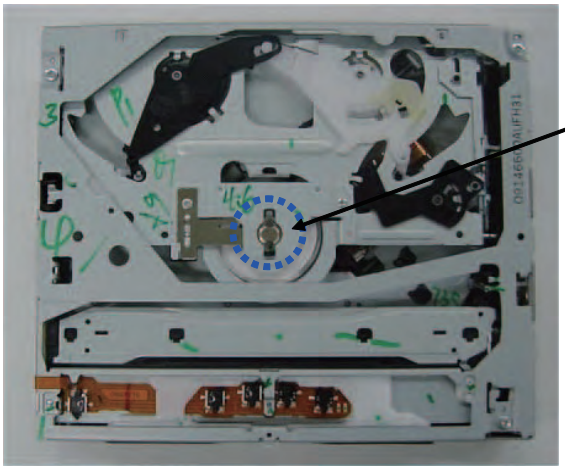
8. Make an intermediate periphery (ID: 100 000) search, and move the PU to intermediate periphery.

9. Method ①:
   Proceed to step 10.
   Method ②:
   After setting to Tracking Open, make all auto adjustments, and set to Tracking Close this time with a command that can be RF displayed. Make auto adjustment for all items under that state as well.

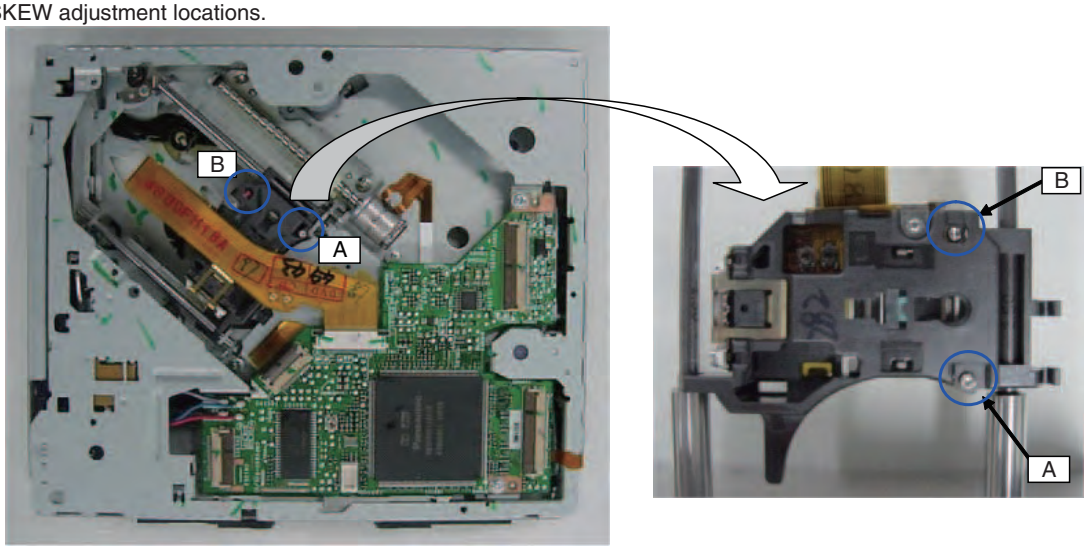
10. Use TORX driver (T2) (GGK1095) for the following.
    Method ①:
    While monitoring the RF waveform on the oscilloscope, turn SKEW adjustment screw A just a little bit in a way that the level will reach the maximum.
    While the pick up is at the intermediate periphery, turn SKEW adjustment screw B just a little bit in a way that the level will reach the maximum.
    While the pick up is at the intermediate periphery, turn SKEW adjustment screw A just a little bit in a way that the level will reach the maximum.
    (Make adjustment in the order of A -> B -> A, Please end the each adjustment by turning screw clockwise.)
    Method ②:
    While monitoring the RF level value on the OSD display, turn the SKEW adjustment screw A just a little bit in a way that the level will reach the maximum.
    While the pick up is at the intermediate periphery, turn SKEW adjustment screw B just a little bit in a way that the level will reach the maximum.
    While the pick up is at the intermediate periphery, turn SKEW adjustment screw A just a little bit in a way that the level will reach the maximum.
    (Make adjustment in the order of A -> B -> A, Please end the each adjustment by turning screw clockwise.)
    If the error is not good, please perform Method ① again.

11. Turn the power OFF in the test mode, and after confirming that the disc has stopped, eject the disc.

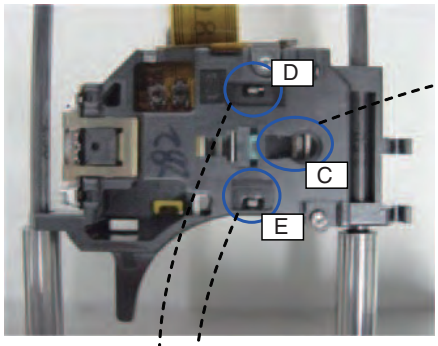
12. Apply adhesive for fixing the SKEW and lock the screw.
    Refer to the illustration below for the adhesion points.



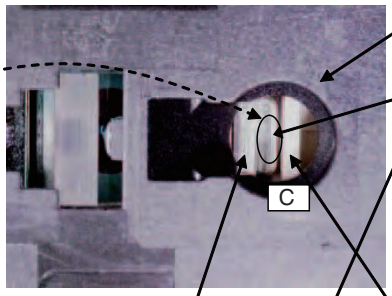
SKEW adjustment locations.



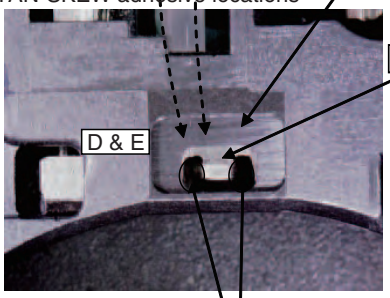
SKEW adhesive locations(GEM1033)



RAD-SKEW adhesive locations



TAN-SKEW adhesive locations

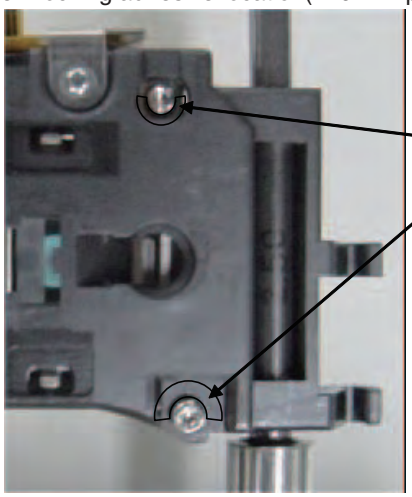


Cross section of R-SKEW adhesive locations.

* Caution: Make a cross link to both the resin section and the sheet metal section.

* Caution: Make a cross link to both the case section and the sheet metal section.

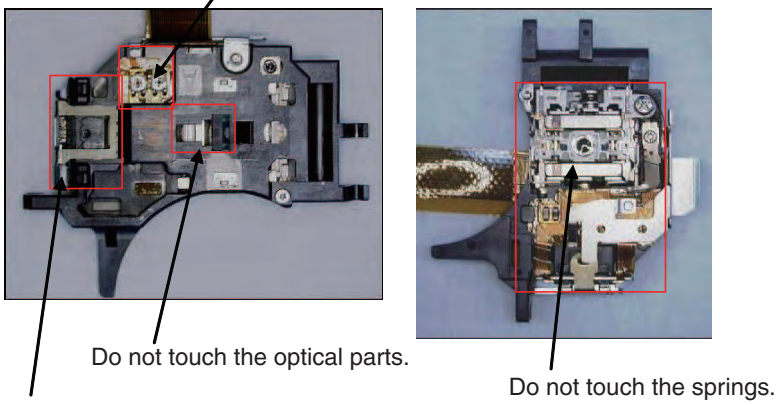
Screw locking adhesive location(1401M : produced by THREE BOND)



Screw locking adhesive location
Apply the locking agent for more than half of the screw head circumference.
* Caution: The locking agent shall not overflow to outside of the PU case.

Precautions in handling the PU.

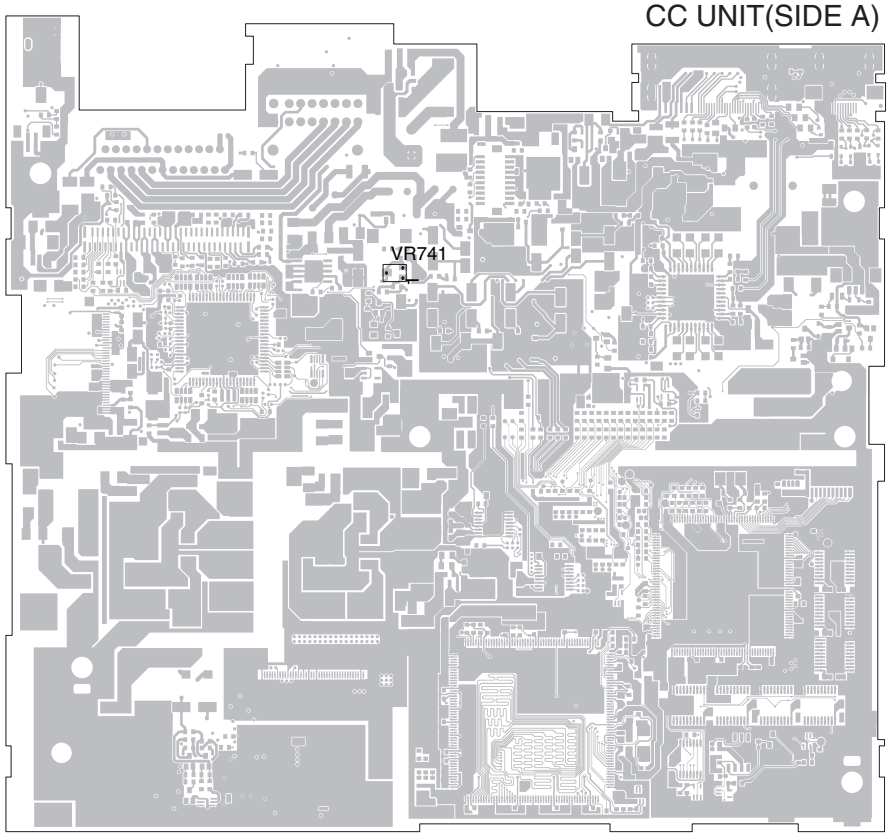
* Caution: Do not touch the shaded section in the drawing below.



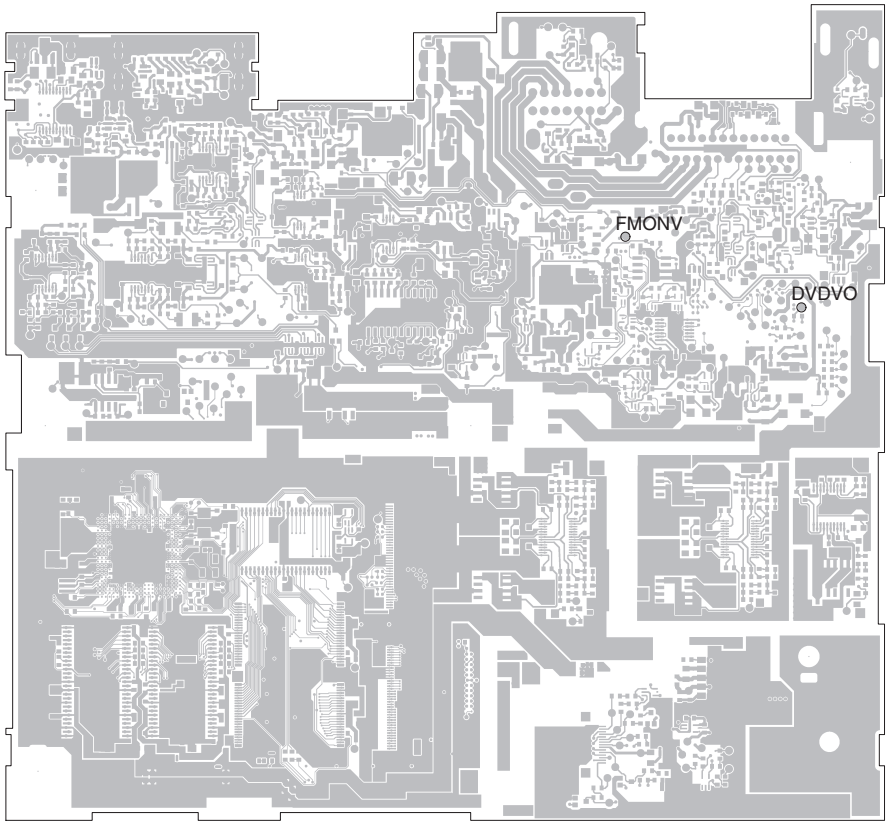
8.2 CC UNIT ADJUSTMENT

● **Adjustment point**

CC UNIT(SIDE A)



CC UNIT(SIDE B)

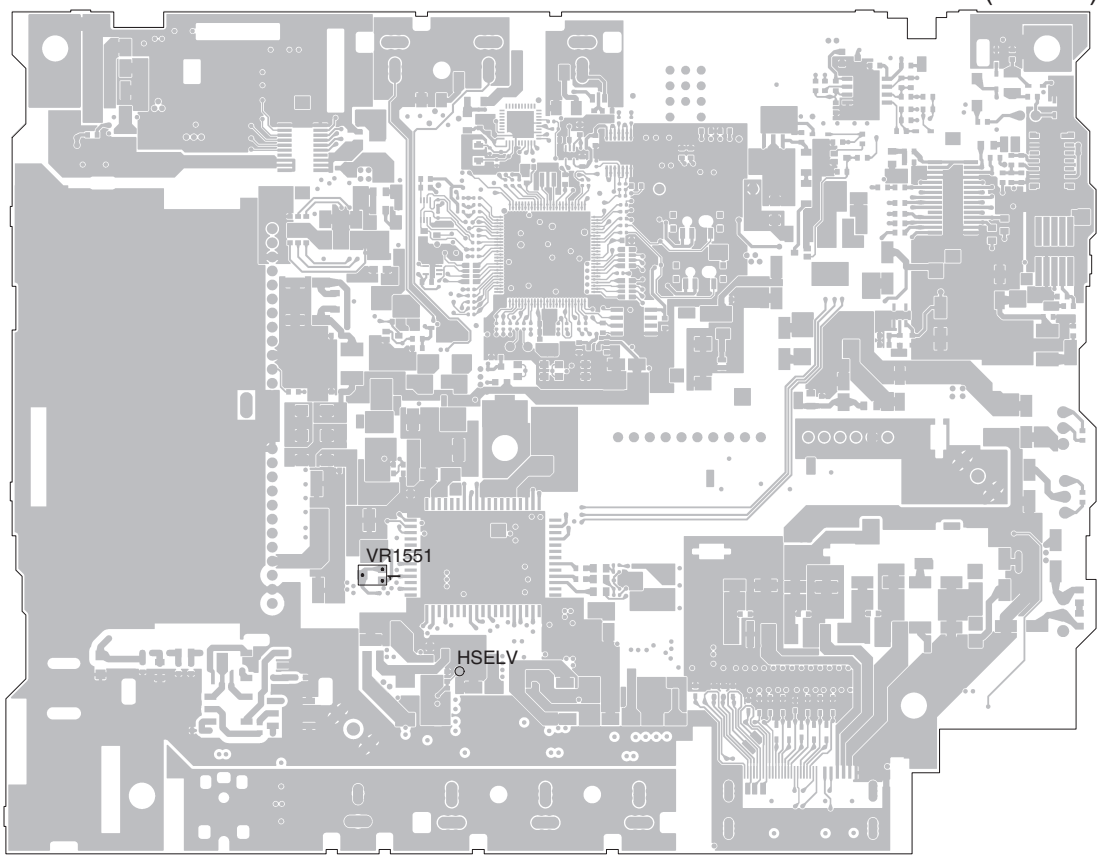


Step	Item	Mode	Input signals (Input test pin, standard, other conditions)	Output signals (Measurement test pin, circuit description)	Measuring instrument	Standard (Other instructions)	Adjusting element
1	Image adjustment/ inspection	Image					
1-1	Image level adjustment		Apply a white 100% image signal (1Vp-p) to TP DVDVO, and set the monitor image output to DVD. Receive 75 Ω from the signal generator.	Measuring point : TP FMONV (To be terminated in 10 kΩ or above) 	Oscilloscope	1.0±0.05 Vp-p	VR741

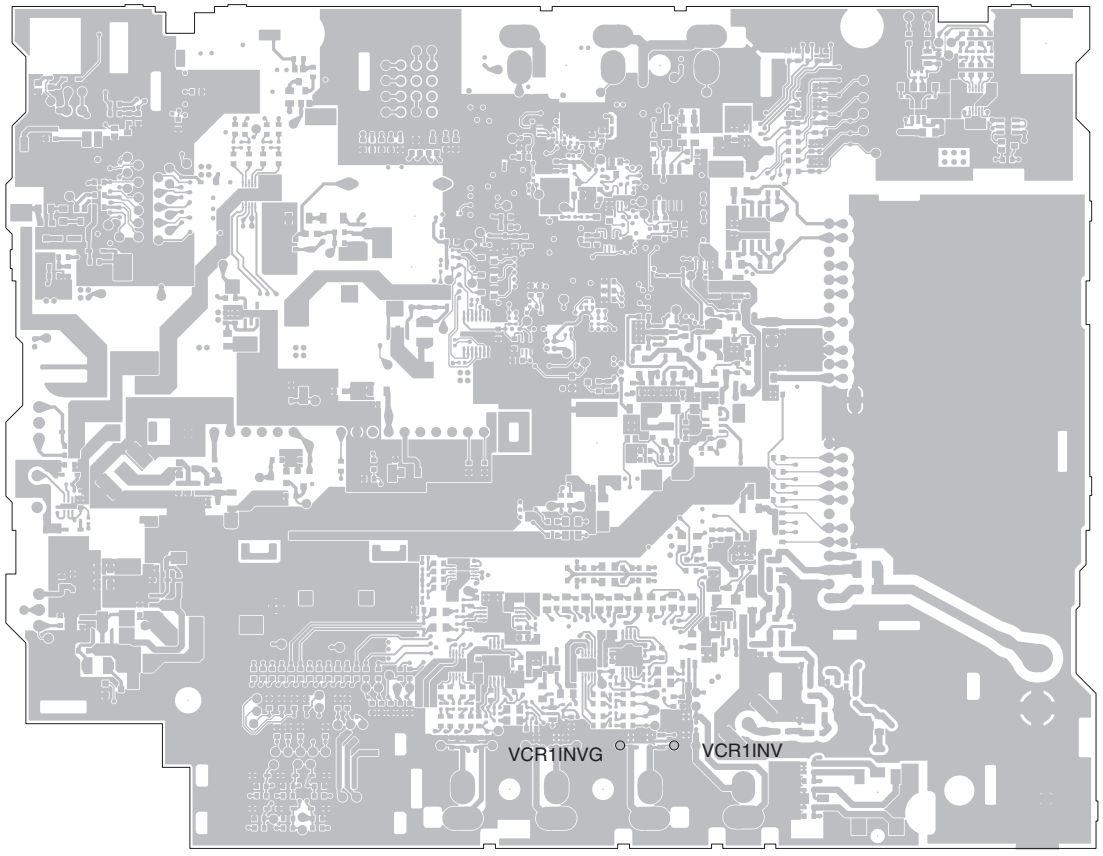
8.3 MOTHER PCB ADJUSTMENT

● **Adjustment point**

MOTHER PCB(SIDE A)



MOTHER PCB(SIDE B)

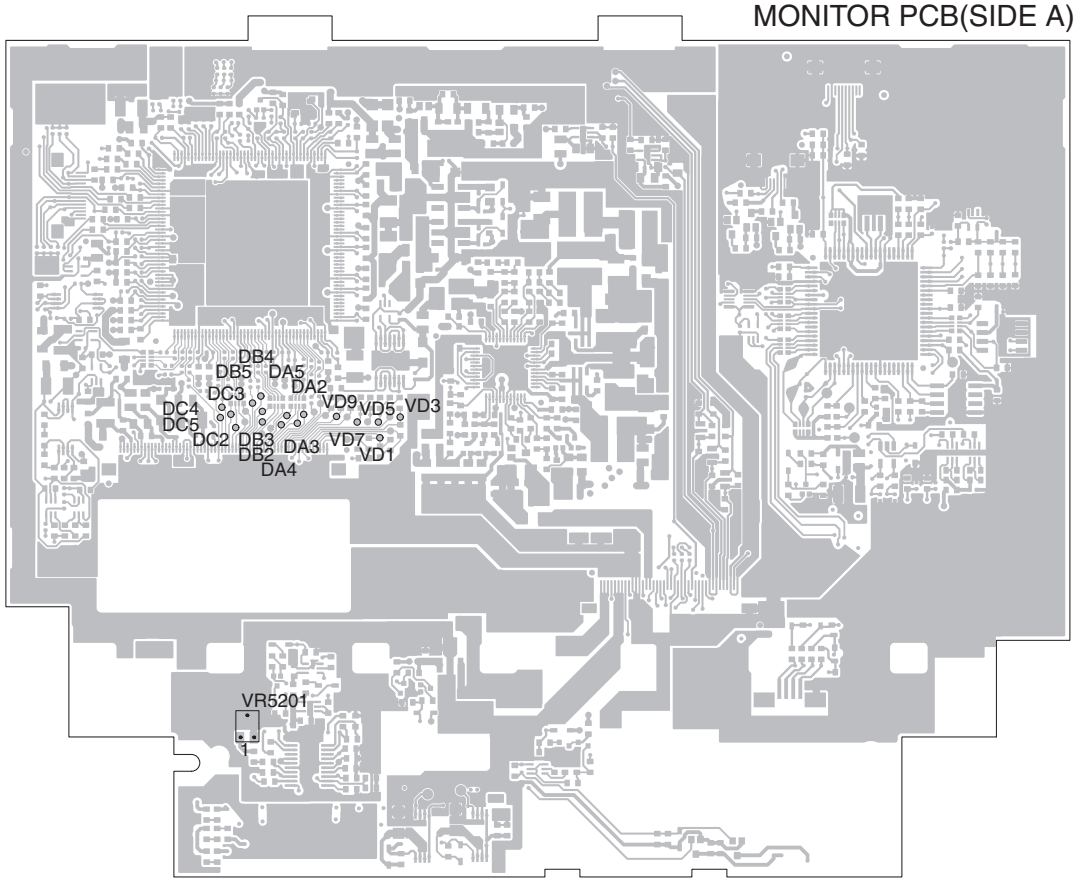


Step	Adjustment item	Mode	Input signals (Input test pin, standard, other conditions)	Output signals (Measurement test pin, wave pattern)	Measuring instruments	Standard (Other instructions)	Adjusting element
1	Select-Image level adjustment	Image	Input test pin: VCR1INV(Signal line) VCR1INVG(Signal GND) 100 IRE (white 100%) 1.0 Vp-p (Input signal is terminated in 75 Ω)	Measurement test pin:HSELV 	Oscilloscope	• 1.00 ± 0.05 Vp-p The level is measured between the sync tip and 100IRE (wave top) • To be terminated in 75 Ω	VR1551

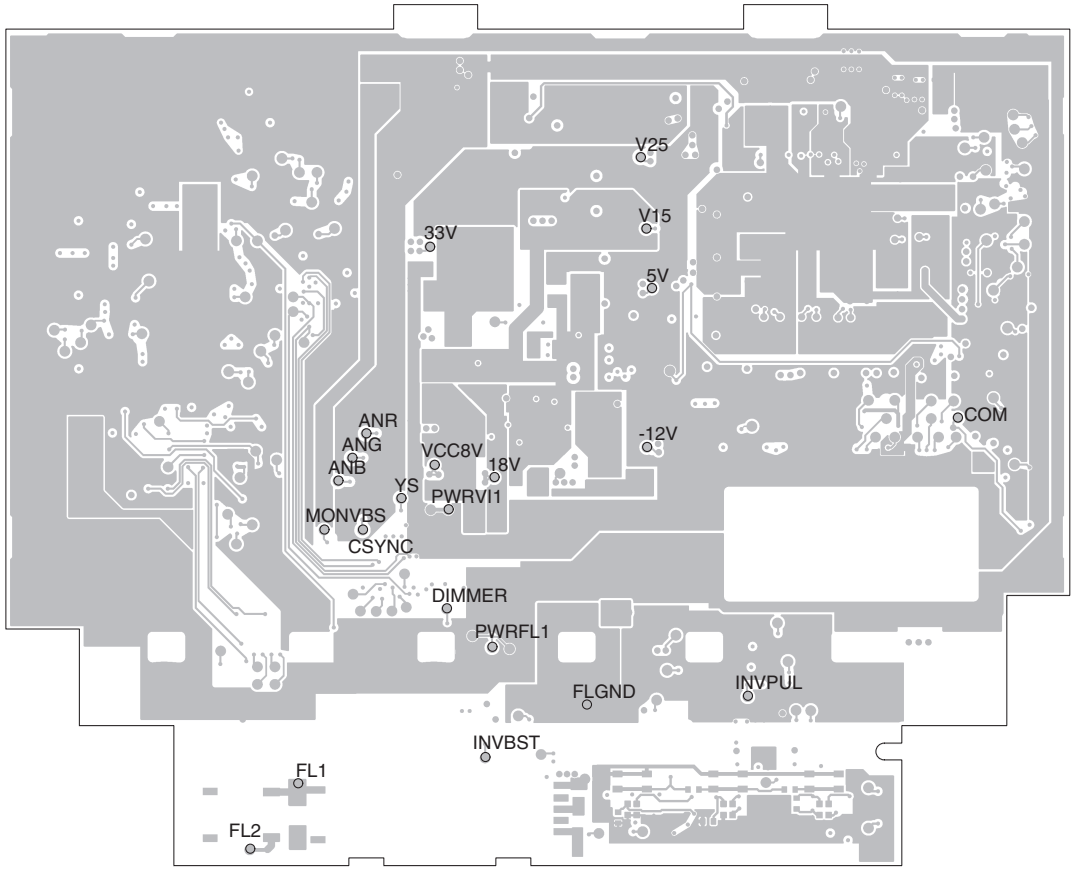
8.4 MONITOR PCB ADJUSTMENT

● **Adjustment point**

MONITOR PCB(SIDE A)

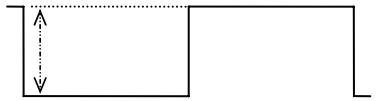
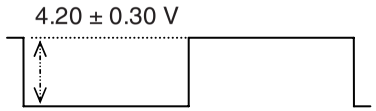
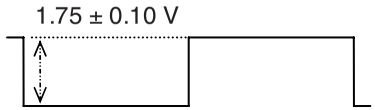
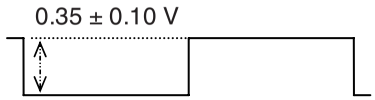
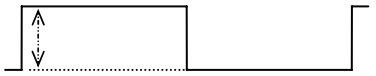
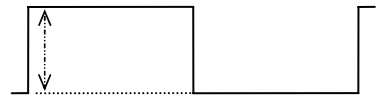


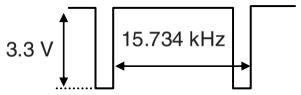
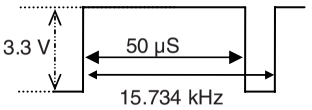
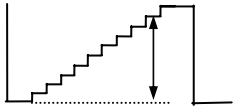
MONITOR PCB(SIDE B)



Notes:
When the power supply for TC90A96BFG is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL).
The IIC lines can accept a maximum of 5V.

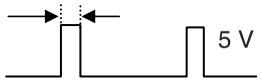
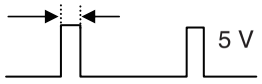
No	Adjustment Item	Input Signal	Measurement Point	Adjustment Point	Description of Adjustment	Remarks
1	3.3 V Power supply verification	14.4v to TP PWRVI1	TP 33V	—	V33 = 3.3 ± 0.25 V	
2	2.5 V Power supply verification	ditto	TP V25	—	V25 = 2.5 ± 0.15 V	
3	1.5 V Power supply verification	ditto	TP V15	—	V15 = 1.5 ± 0.08 V	
4	5 V Power supply verification	ditto	TP 5V	—	V5 = 4.9 ± 0.3 V	
5	8 V Power supply verification	ditto	TP VCC8V	—	V8 = 8.0 ± 0.5 V	
6	18.5 V Power supply verification	ditto	TP 18V	—	V18 = 18.5 ± 0.8 V	
7	-12 V Power supply verification	ditto	TP -12V	—	VM12 = -12.0 ± 0.6 V	

No	Adjustment Item	Input Signal	Measurement Point	Adjustment Point	Description of Adjustment	Remarks
8	Vcom Amplifier Output Amplitude Adjustment	Not defined	TP COM	COM AMP AJ Set value (COMAC output of monitor microprocessor)	4.70 ± 0.10 V 	Measure with LCD panel connected [Symptoms of poor adjustment] • Bright Screen (Snall amplitude) • Dark Screen (large amplitude)
9	Gradation voltage amplitude verification V1	Not defined	TP VD1	—	4.20 ± 0.30 V 	Measure with LCD panel connected
10	Gradation voltage amplitude verification V3	Not defined	TP VD3	—	1.75 ± 0.10 V 	Measure with LCD panel connected
11	Gradation voltage amplitude verification V5	Not defined	TP VD5	—	0.35 ± 0.10 V 	Measure with LCD panel connected
12	Gradation voltage amplitude verification V7	Not defined	TP VD7	—	0.60 ± 0.10 V 	Measure with LCD panel connected
13	Gradation voltage amplitude verification V9	Not defined	TP VD9	—	3.30 ± 0.20 V 	Measure with LCD panel connected

No	Adjustment Item	Input Signal	Measurement Point	Adjustment Point	Description of Adjustment	Remarks
14	Preparation for image check	Input of sync signal to TP CSYNC				0-3.3 V logic level input (Synchronized section 0 V)
15	RGB digital output check	Input of White-100% signal to TP ANR, ANG,ANB (0.70 Vpp ± 1%)	TP DA2 - DA5 TP DB2 - DB5 TP DC2 - DC5		Check that each output keeps Hi level (3.3 V) during the image display period. 	During OSD display in microprocessor test mode, the output of the area with characters sometimes drops to a low level.
16	Composite level adjustment	Input of composite image 10STEP signal to TP MONVBS (1.0 Vpp ± 1%)	DAC jig output	Register setting of SA13h D5-0	Amplitude between the 9th and 0 tones shall be 1.77 V ± 0.03 V. 	[Symptoms of poor adjustment] • White screen on the TV/video source • Dark screen on the TV/video source
17	YS operation check	Signal input to TP YS 0-3.3 V			Check that YS operates.	
18	YS_OFFSET Setting verification	Not defined	—	Register setting of SA2Fh D3-0	[YS DELAY] shall be 7 in EEPROM test mode.	Check the EEPROM set value after writing.
19	Image verification	Input of composite image lamp signal (monochrome) to TP MONVBS	Screen	—	Check that the tones change smoothly, and that there are no colored section on the whole screen.	Perform verification in order to check whether the digital output of P in P IC is bridged or open.

"SA**h" in the table denotes the sub-address of TC90A96BFG.

Backlight Inverter Adjustment

No	Adjustment Item	Input Signal	Measurement Point	Adjustment Point	Description of Adjustment	Remarks
20	Adjustment of standard driving frequency	14.4 ± 0.2 V to TP PWRFL1. Ground TP DIMMER. Ground TP FLGND. Ground TP INVPUL. Ground TP INVBST.	TP FL1 TP FL2	VR5201	48.0 ± 0.1 kHz	Connect 100 kΩ between TP FL1 and FL2. Measure by means of the wave pattern after voltage division, or at TP FL2. Do not measure TP FL1 directly. (Due to high voltage, it may result in damage of the measuring instrument.) [Symptoms of poor adjustment] • Backlight does not light up.
21	Frequency change check 1	Input the following wave pattern of 98.0 ± 1 kHz to INVPUL. 10 ± 2%  	TP FL1 TP FL2		49.0 ± 0.5 kHz	Check that the frequency of the wave pattern recorded in No.20 is 49 kHz.
22	Frequency change check 2	Input the following wave pattern of 104.0 ± 1kHz to INVPUL. 10 ± 2%  	TP FL1 TP FL2		52.0 ± 0.5 kHz	Check that the frequency of the wave pattern recorded in No.20 is 52 kHz.

In case of a check of the product

No	Procedure	Measurement Point	Adjustment Point	Description of operation	Remarks
1	Aging	—	—	Keep the unit in the operation mode for 30 minutes or longer.	
2	“Service Adjustment Mode”	—	—	Enter the “Service Adjustment Mode”	
3	Screen display verification	Screen	—	Background screen : Insert the “GGV1310” (Test Disc) and select “11. Horizontal Stripe 1” from the “20. Picture Check Menu” Character display : SERVICE MODE COM DC ** [FACTORY **]	Pattern for flicker adjustment… Picture consisting of White 50% and Black displayed alternately in each horizontal scanning line. The value of “**” differs depending on the product status.
4	Flicker adjustment	Screen	COM DC	Change the value using the left/right buttons to select a value to minimize the flickering on the screen.	Operable with the buttons on the main unit. [Symptoms of poor adjustment] • The screen flickers

*) Since this product dose not have OSD IC, OSD for adjustment is displayed by using GGF1416 at the time of monitor adjustment.

● EEPROM Setting Mode

[Operation Specification]

- When you reset the microprocessor for the monitor while the [EPRTEST] port is set at "Low", the system goes to [Flicker Adjustment Mode]
- Use remote controller (CXC6317 SW1 : AVH, SW2 : AVH) MENU key on the remote controller to switch between the setting modes:
  →[Flicker Adjustment Mode]→[Line Adjustment 1 Mode]→[Line Adjustment 2 Mode]→[Line Adjustment 3 Mode]
  →[Line Adjustment 4 Mode]→[Line Adjustment 5 Mode]→[Line Adjustment 6Mode]→[Line Adjustment 7 Mode]
  →[Line Adjustment 8 Mode]→[Line Adjustment 9 Mode]→[Line Adjustment 10 Mode]→[Dimmer Parameter Setting mode]→

- Use ↓ and ↑ keys to select the item to adjust.
- Use ← and → keys to adjust the selected item.
  (Pressing of the monitor key in this adjustment mode does not affect the operation of the main unit.)

* In AVIC-N4/XU/UC and AVIC-X3/XU/EW5, key operation on the main unit is invalid.

* The setting values are written in the EEPROM and then read-out to display the read out data.
  WRITE and READ operations are processed by the block data of 16 bits. The total bits for the settings depend on adjusting items
* For CS (Check Sum) operation items, when the settings are changed, the CS value is written in 8 bits by applying the exclusive logic sum (XOR). The CS value here is also first written in the EEPROM and then read out to display the read out data. If the written data is different from the read-out data, the letter color for the read-out data is changed.

EEPROM Memory Allocation (BR93L56FJ-W)

Dimmer
Calibration
VCOM
PIP
Dot Adjust

	Address	BIT15	BIT14	BIT13	BIT12	BIT11	BIT10	BIT9	BIT8	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0	Initial value (HEX)	
Bank 1	00h	Don't Care (Secured as data storage area for intelligent dimmer)								Don't Care (Secured as data storage area for intelligent dimmer)								BA60	
	01h	Don't Care (Secured as data storage area for intelligent dimmer)								Don't Care (Secured as data storage area for intelligent dimmer)								C459	
	02h	Touch Panel X Coordinate 1								Touch Panel Y Coordinate 1								0000	
	03h	Touch Panel X Coordinate 2								Touch Panel Y Coordinate 2								0000	
	04h	Touch Panel X Coordinate 3								Touch Panel Y Coordinate 3								0000	
	05h	Touch Panel X Coordinate 4								Touch Panel Y Coordinate 4								0000	
	06h	Touch Panel X Coordinate 5								Touch Panel Y Coordinate 5								0000	
	07h	Touch Panel X Coordinate 6								Touch Panel Y Coordinate 6								0000	
	08h	Touch Panel X Coordinate 7								Touch Panel Y Coordinate 7								0000	
	09h	Touch Panel X Coordinate 8								Touch Panel Y Coordinate 8								0000	
	0Ah	Touch Panel X Coordinate 9								Touch Panel Y Coordinate 9								0000	
	0Bh	Touch Panel X Coordinate 10								Touch Panel Y Coordinate 10								0000	
	0Ch	Touch Panel X Coordinate 11								Touch Panel Y Coordinate 11								0000	
	0Dh	Touch Panel X Coordinate 12								Touch Panel Y Coordinate 12								0000	
	0Eh	Touch Panel X Coordinate 13								Touch Panel Y Coordinate 13								0000	
	0Fh	Touch Panel X Coordinate 14								Touch Panel Y Coordinate 14								0000	
	10h	Touch Panel X Coordinate 15								Touch Panel Y Coordinate 15								0000	
	11h	Touch Panel X Coordinate 16								Touch Panel Y Coordinate 16								0000	
	12h	Outermost periphery X min								Outermost periphery Y min								282D	
	13h	Outermost periphery X max								Outermost periphery Y max								F3EC	
	14h	Touch Panel Calibration Adjustment Result								Touch Panel Outermost Periphery Adjustment Result								0000	
	15h	Common Reverse Output DC Center Value								Common Reverse Output Amplitude Adjusting Value								5C96	
	16h	Don't care		Brightness R						Don't care								5000	SA0Ch
	17h	Bit Processing	Don't care	Brightness G						Don't care								9000	SA0Dh
	18h	Don't care		Brightness B						Don't care								1000	SA0Eh
	19h	Don't care								Don't care	Main Y Contrast							3C22	SA0Fh
	1Ah	Don't care	Main Horizontal Enhancer							Main Vertical Enhancer							Don't care	0000	SA10h
			Gain		Limiter			f0		Gain		Loopback		Core Ring					
	1Bh	Don't care								Sub Y Contrast								3E1A	SA13h
	1Ch	Don't care	Sub Horizontal Enhancer							Sub Vertical Enhancer							Don't care	1598	SA14h
			Gain		Limiter			f0		Gain		Loopback		Core Ring					
	1Dh	Don't care	RGB Simu. γ Gradient B			R Output DC Offset				Don't care	RGB Simul. γ 1 Inflection Point							C800	SA1Ah

Dimmer
Calibration
VCOM
PIP
Dot Adjust

	Address	BIT15	BIT14	BIT13	BIT12	BIT11	BIT10	BIT9	BIT8	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0	Initial value (HEX)	
Bank 1	1Eh	RGB Simu. γ Gradient B				RGB Simu. γ 2 Inflection Point				RGB Simu. γ Gradient B			RGB Simu. γ 3 Inflection Point					2421	SA1Bh
	1Fh	Don't care				G Output DC Offset				Don't care								C800	SA1Ch
	20h	Don't care				B Output DC Offset				Don't care								4800	SA1Eh
	21h	RGB & YS Horizontal Alignment								Don't care								3F11	SA2Bh
	22h	YS Sampling Phase				Bch Sampling Phase				Gch Sampling Phase				Rch Sampling Phase				8777	SA2Dh
	23h	Don't care												YS Inside-delay Adjusting Value				0007	SA2Fh
	24h	Dot Search Thresh Value								YS Search Thresh Value								7003	
	25h	Phase Search Thresh Value								Xdisp (RGB Display Allowable Difference Level)								7020	
	26h	Don't care								YSdisp (Display Allowable Difference Level)								0002	
	27h	SA24h UPPER								SA24h LOWER								9E0D	SA24h
	28h	SA25h UPPER								SA25h LOWER								CC04	SA25h
	29h	SA26h UPPER TV								SA26h LOWER TV								8C88	for TV Source: SA26h
	2Ah	SA26h UPPER								SA26h LOWER								8C8D	for other sources: SA26h
	2Bh	SA27h UPPER TV								SA27h LOWER TV								6444	for TV Source: SA27h
	2Ch	SA27h UPPER								SA27h LOWER								9889	for other sources: SA27h
	2Dh	SA46h UPPER								SA46h LOWER								0200	SA46h
	2Eh	SA47h UPPER								SA47h LOWER								0300	SA47h
	2Fh	SA48h UPPER								SA48h LOWER								0000	SA48h
	30h	SA49h UPPER								SA49h LOWER								0000	SA49h
	31h	SA4Ah UPPER								SA4Ah LOWER								0000	SA4Ah
	32h	SA4Bh UPPER								SA4Bh LOWER								0000	SA4Bh
	33h	SA4Ch UPPER								SA4Ch LOWER								0000	SA4Ch
	34H	SA4Dh UPPER								SA4Dh LOWER								0000	SA4Dh
	35H	SA4Eh UPPER								SA4Eh LOWER								0000	SA4Eh
	36H	SA4Fh UPPER								SA4Fh LOWER								0000	SA4Fh
	37H	Coordinate Value for Xmin Correction								Coordinate Calue for Ymin Correction								0101	
	38H	Coordinate Value for Xmax Correction																01E0	
	39H	Coordinate Value for Ymax Correction																00EA	
	3Ah	Touch AD Correction Value X Coordinate								Touch AD Correction Value Y Coordinate								0000	
	3Bh	Checksum																4565	

Dimmer
Calibration
VCOM
PIP
Dot Adjust

	Address	BIT15	BIT14	BIT13	BIT12	BIT11	BIT10	BIT9	BIT8	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0	Initial value (HEX)
Bank 1	3Ch	Don't care					With/without flicker adjustment		Flicker Adjust.	Common Reverse Output DC Center Reference Value								005C
	3Dh	RGB & YS Horizontal Alignment Reference Value								Don't care								3F11
	3Eh	YS Sampling Phase Ref. Value				Bch Sampling Phase Ref. Value				Gch Sampling Phase Ref. Value				Rch Sampling Phase Ref. Value				8777
	3FH	Don't care												YS Inside-delay Adjust. Value Ref. Value				0007
Bank 2	40H	**Don't Care** (Secured as data storage area for intelligent dimmer)								**Don't Care** (Secured as data storage area for intelligent dimmer)								BBC4
	41H	**Don't Care** (Secured as data storage area for intelligent dimmer)								**Don't Care** (Secured as data storage area for intelligent dimmer)								BAC4
	42H	**Don't Care** (Secured as data storage area for intelligent dimmer)								**Don't Care** (Secured as data storage area for intelligent dimmer)								6059
	43H	[User] Touch Panel X Coordinate 1								[User] Touch Panel Y Coordinate 1								0000
	44H	[User] Touch Panel X Coordinate 2								[User] Touch Panel Y Coordinate 2								0000
	45H	[User] Touch Panel X Coordinate 3								[User] Touch Panel Y Coordinate 3								0000
	46H	[User] Touch Panel X Coordinate 4								[User] Touch Panel Y Coordinate 4								0000
	47H	[User] Touch Panel X Coordinate 5								[User] Touch Panel Y Coordinate 5								0000
	48H	[User] Touch Panel X Coordinate 6								[User] Touch Panel Y Coordinate 6								0000
	49H	[User] Touch Panel X Coordinate 7								[User] Touch Panel Y Coordinate 7								0000
	4AH	[User] Touch Panel X Coordinate 8								[User] Touch Panel Y Coordinate 8								0000
	4BH	[User] Touch Panel X Coordinate 9								[User] Touch Panel Y Coordinate 9								0000
	4CH	[User] Touch Panel X Coordinate 10								[User] Touch Panel Y Coordinate 10								0000
	4DH	[User] Touch Panel X Coordinate 11								[User] Touch Panel Y Coordinate 11								0000
	4EH	[User] Touch Panel X Coordinate 12								[User] Touch Panel Y Coordinate 12								0000
	4FH	[User] Touch Panel X Coordinate 13								[User] Touch Panel Y Coordinate 13								0000
	50H	[User] Touch Panel X Coordinate 14								[User] Touch Panel Y Coordinate 14								0000
	51H	[User] Touch Panel X Coordinate 15								[User] Touch Panel Y Coordinate 15								0000
	52H	[User] Touch Panel X Coordinate 16								[User] Touch Panel Y Coordinate 16								0000
	53H	[User] Outermost Periphery Xmin								[User] Outermost Periphery Ymin								282D
	54H	[User] Outermost Periphery Xmax								[User] Outermost Periphery Ymax								F3EC
	55H	[User] Touch Panel Calibration Adjustment Result								[User] Touch Panel Outermost Periphery Adjustment Result								0000
	56H	(USER) Touch AD Correction Value X Coordinate								(USER) Touch AD Correction Value Y Coordinate								0000
	~	Don't care																
	~	Don't care																
	7FH	Don't care																

Add AVIC-N4/XU/UC, AVIC-X3/XU/EW5

[Display in each mode]

The part within the bold frame is an example of an actual OSD display.
Blue values are subject to change due to adjustment on each screen.
Red items are for design study and line adjustment.

■ Flicker Adjustment Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
Common reverse output center value	[0-255]	COM DC *	92		

Notes:

1) [COM DC] data are reflected also on the common reverse output center reference value
(The common reverse output center reference value is treated as an initial value set at the line)

2) " * " mark is displayed whenever the value is adjusted, no matter how small the adjustment is.

■ Line Adjustment 1 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
					LINE1
Brightness	[0-255]	BRIGHT	150	NOT	EEPROM
RGB simultaneous contrast (SA0C[D7-0])	[0-255]	CONTRAST	168	NOT	EEPROM
Common reverse output amplitude adjusting value	[0-255]	COM AMP AJ	150		
R-output DC offset (SA1A[D11-8])	[0-15]	ROUT BIAS	8		
G-output DC offset (SA1C[D11-8])	[0-15]	GOUT BIAS	8		
B-output DC offset (SA1E[D11-8])	[0-15]	BOUT BIAS	8		
Main Y Contrast (SA0F[D5-0])	[0-63]	RGB CNTRST	34		
Sub Y Contrast (SA13[D5-0])	[0-63]	CMP CNTRST	26		
DRT Bit Processing ON/OFF (SA0Ch[D15])	[OFF-ON]	DTR	ON	CS	FFFF

Notes:

[BRIGHT] and [CONTRAST] data are reference values for adjustment of other items, and are not memorized in the EEPROM.

■ Line Adjustment 2 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
RGB&YS Horizontal Alignment (SA2B[D15-8])	[0-255]	DOT H POSIT	63		LINE2
YS Sampling Phase 1 (SA2D[D15-12])	[0-15]	YS SAMPL	8		
AD Sampling Phase B (SA2D[D11-8])	[0-15]	B SAMPL	8		
AD Sampling PhaseG (SA2D[D7-4])	[0-15]	G SAMPL	8		
AD Sampling PhaseR (SA2D[D3-0])	[0-15]	R SAMPL	8		
YS Inside-delay Adjustment (SA2F[D3-0])	[0-15]	YS DELAY	8		
				CS	FFFF

■ Line Adjustment 3 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
Dot search thresh	[0-255]	TH DOT	112		LINE3
YS search thresh	[0-4]	TH YS	3		
Phase search thresh	[0-255]	TH PHASE	112		
Xdisp	[0-63]	X DISP	32		
YSdisp	[0-4]	YS DISP	2		
				CS	FFFF

■ Line Adjustment 4 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
Main horizontal enhancer Gain (SA10[D13-12])	[0-3]	M H GAIN	0		LINE4
Main horizontal enhancer Limiter (SA10[D11-10])	[0-3]	M H LIMIT	0		
Main horizontal enhancer f0 (SA10[D8])	[0-1]	M H F0	0		
Main vertical enhancer Gain (SA10[D7-6])	[0-3]	M V GAIN	0		
Main vertical enhancer Loopback (SA10[D5-4])	[0-3]	M V ORI	0		
Main vertical enhancer Core Ring (SA10[D3-2])	[0-3]	M V CORE	0		
				CS	FFFF

■ Line Adjustment 5 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
Sub horizontal enhancer Gain (SA14[D13-12])	[0-3]	S H GAIN	1		LINE5
Sub horizontal enhancer Limiter (SA14[D11-10])	[0-3]	S H LIMIT	1		
Sub horizontal enhancer f0 (SA14[D8])	[0-1]	S H F0	1		
Sub vertical enhancer Gain (SA14[D7-6])	[0-3]	S V GAIN	2		
Sub vertical enhancer Loopback (SA14[D5-4])	[0-3]	S V ORI	1		
Sub vertical enhancer Core Ring (SA14[D3-2])	[0-3]	S V CORE	2		
				CS	FFFF

■ Line Adjustment 6 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
Brightness R (SA0C[D13-8])	[0-63]	BRIGHT R	16		LINE6
Brightness G (SA0D[D13-8])	[0-63]	BRIGHT G	16		
Brightness B (SA0E[D13-8])	[0-63]	BRIGHT B	16		
γ Correction ON/OFF (SA1A[D15])		GAMMA	OFF		
RGB Simultaneous γ 1 inflection point (SA1A[D5-D0])	[0-63]	GAMMA 1	0		
RGB Simultaneous γ 2 inflection point (SA1B[D12-8])	[0-31]	GAMMA 2	4		
RGB Simultaneous γ 3 inflection point(SA1B[D4-D0])	[0-31]	GAMMA 3	1		
RGB Simultaneous γ Gradient A (SA1A[D14-12])	[0-7]	GAMMASLP A	4		
RGB Simultaneous γ Gradient B (SA1B[D15-13])	[0-7]	GAMMASLP B	1		
RGB Simultaneous γ Gradient C (SA1B[D7-5])	[0-7]	GAMMASLP C	1	CS	FFFF

■ Line Adjustment 7 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
					LINE7
Main PLL0 (SA24[D15-D8])	[0-255]	MAIN PLL0	158		
Main PLL1 (SA24[D7-D0])	[0-255]	MAIN PLL1	13		
Main PLL2 (SA25[D15-D8])	[0-255]	MAIN PLL2	204		
Main PLL3 (SA25[D7-D0])	[0-255]	MAIN PLL3	4		
				CS	FFFF

■Line Adjustment 8 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
					LINE8
Sub PLL0 for TV (SA26[D15-D8])	[0-255]	SUB PLL0 TV	140		
Sub PLL1 for TV (SA26[D7-D0])	[0-255]	SUB PLL1 TV	136		
Other Sub PLL0 (SA27[D15-D8])	[0-255]	SUB PLL0	140		
Other Sub PLL1 (SA27[D7-D0])	[0-255]	SUB PLL1	141		
Sub PLL2 for TV (SA28[D15-D8])	[0-255]	SUB PLL2 TV	100		
Sub PLL3 for TV (SA28[D7-D0])	[0-255]	SUB PLL3 TV	68		
Other Sub PLL2 (SA29[D15-D8])	[0-255]	SUB PLL2	152		
Other Sub PLL3 (SA29[D7-D0])	[0-255]	SUB PLL3	135		
				CS	FFFF

■Line Adjustment 9 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
					LINE9
SA46[D15-D8]	[0-255]	SA46H UPPER	0		
SA46[D7-D0]	[0-255]	SA46H LOWER	0		
SA47[D15-D8]	[0-255]	SA47H UPPER	0		
SA47[D7-D0]	[0-255]	SA47H LOWER	0		
SA48[D15-D8]	[0-255]	SA48H UPPER	0		
SA48[D7-D0]	[0-255]	SA48H LOWER	0		
SA49[D15-D8]	[0-255]	SA49H UPPER	0		
SA49[D7-D0]	[0-255]	SA49H LOWER	0		
SA4A[D15-D8]	[0-255]	SA4AH UPPER	0		
SA4A[D7-D0]	[0-255]	SA4AH LOWER	0		
				CS	FFFF

■Line Adjustment 10 Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
SA4B[D15-D8]	[0-255]	SA4BH UPPER	0		LINE10
SA4B[D7-D0]	[0-255]	SA4BH LOWER	0		
SA4C[D15-D8]	[0-255]	SA4CH UPPER	0		
SA4C[D7-D0]	[0-255]	SA4CH LOWER	0		
SA4D[D15-D8]	[0-255]	SA4DH UPPER	0		
SA4D[D7-D0]	[0-255]	SA4DH LOWER	0		
SA4E[D15-D8]	[0-255]	SA4EH UPPER	0		
SA4E[D7-D0]	[0-255]	SA4EH LOWER	0		
SA4F[D15-D8]	[0-255]	SA4FH UPPER	0		
SA4F[D7-D0]	[0-255]	SA4FH LOWER	0		
				CS	FFFF

■ Dimmer Parameter Setting Mode

Description of adjustment	Adjustment range	Display of the item	Adjusted value/ Written value (HEX)		
Backlight MAX Output	[0-255]	BL MAX	C4		DIMMER
Backlight MIN Output	[0-255]	BL MIN	59		
Dimmer Threshold (high)	[0-255]	REF H	C0		
Dimmer Threshold (low)	[0-255]	REF L	60		
External light point (high)	[0-255]	LUM H	E2		
External light point (middle)	[0-255]	LUM M	87		
External light point (low)	[0-255]	LUM L	52		
Backlight point (high)	[0-255]	BL H	C4		
Backlight point (middle)	[0-255]	BL M	C4		
Backlight point (low)	[0-255]	BL L	68	CS	FFFF

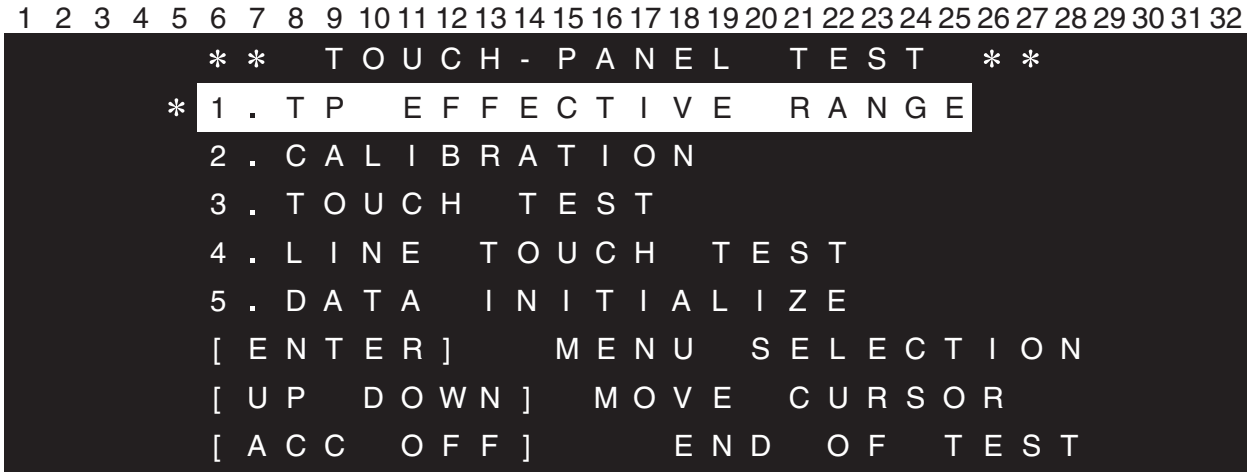
* Though data of dimmer points (coordinates) are memorized in EEPROM, they are not treated as a CS item, because they are adjustable by the user.

* Since AVIC-N4/XU/UC and AVIC-X3/XU/EW5 do not support intelligent dimmer, adjustment result in this mode is not reflected on these products.

8.5 TOUCH PANEL TEST MODE

● MAIN MENU

Screen configuration
Select each item of the touch panel test mode.



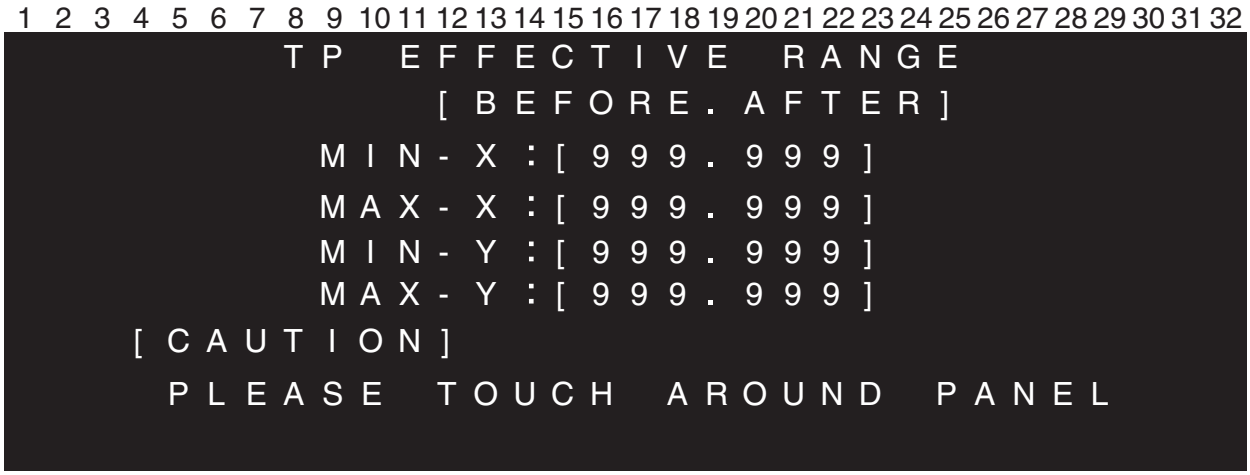
- Conditions for the adjusted mark (✻) to light on.
  1. TP EFFECTIVE RANGE
  →When the outermost circumference adjustment has been completed correctly.
  2. CALIBRATION
  →When the calibration has been completed correctly.
  →When the line touch panel test has been completed correctly.
  *) If one of the above conditions is met, the light will turn on.
  4. LINE TOUCH TEST
  →When the line touch panel test has been completed correctly.

- Conditions for the adjusted mark (✻) to go out.
  1. TP EFFECTIVE RANGE
  →If the outermost circumference adjustment has never been made.
  →When the EEPROM initialization is made.
  →When the outermost circumference adjustment value initialization is made in the initialization menu.
  →When the outermost circumference adjustment has failed.
  2. CALIBRATION
  →If the calibration adjustment has never been conducted.
  →When the EEPROM initialization is made.
  →When the calibration adjustment value initialization is made in the initialization menu.
  →When the calibration adjustment has failed.
  →When the line touch panel verification has failed.
  4. LINE TOUCH TEST
  →If the line touch panel verification has never been conducted.
  →When the EEPROM initialization is made.
  →When the calibration adjustment value initialization is made in the initialization menu.
  →When the line touch panel verification has failed.

● TP EFFECTIVE RANGE

Screen configuration

Trace the white line displayed on the each four corner of touch panel with a soft stick(ex. wooden toothpick), and the setting values are saved in the EEPROM.



Operational specifications

Touch on the touch panel, and check the outermost circumference.
OK (NG) is displayed in the screen center by the MENU key, and 2 seconds later, the screen will return to the top MENU.

Details of the process

After pressing the MENU key, the setting values are judged.
If the value is within the allowable range, the upper limit and the lower limit of the setting value and the normal ending information are saved in the EEPROM and OK is displayed. After 2 seconds, the screen will return to the top MENU.
If the setting value is outside of the range, the upper limit and the lower limit values are not saved in the EEPROM, NG ending information is saved and NG is displayed. After 2 seconds, the screen will return to the top MENU.
The initial values and the setting value allowable range are as shown below.

[The list of AFTER initial value]

Coordinate	Minimum value	Maximum value
X	129	157
Y	132	153

[The list of initial setting value at the time of EEPROM reset]

Coordinate	Minimum value	Maximum value
X	40	247
Y	45	240

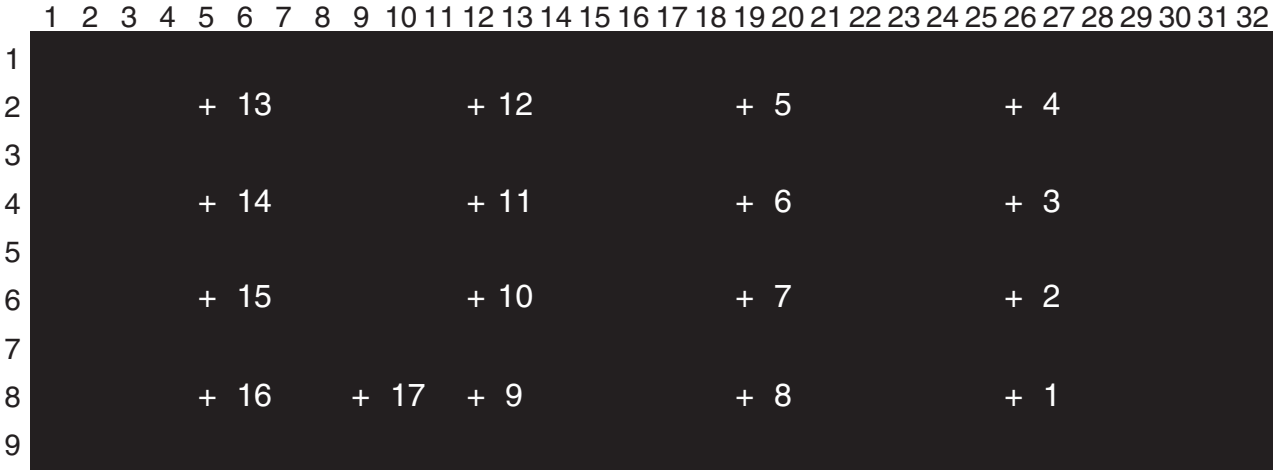
[The list of AFTER setting allowable range]

Coordinate	Minimum value	Maximum value
X	0 to 128	158 to 255
Y	0 to 131	154 to 255

● CALIBRATION

Outline

Press “+” cursors on the screen one by one for calibration, and the setting values are saved in the EEPROM.



*) The numbers above indicate the order of the cursors being displayed.

Operational specifications

Press the cursors displayed at 16 locations on the screen one by one for calibration, and the process will be completed by pressing the last cursor (total 17 locations).

After the 17th location has been displayed, “FINISHED” will be displayed in the center of the screen. After 2 seconds, the screen will return to the top MENU.

The cursor is displayed only one at a time, and the next cursor will be displayed when the previous one has been pressed correctly.

If the MENU key is pressed before pressing 17 locations, NG will be displayed, and after 2 seconds, the screen will return to the top MENU.

Details of the process

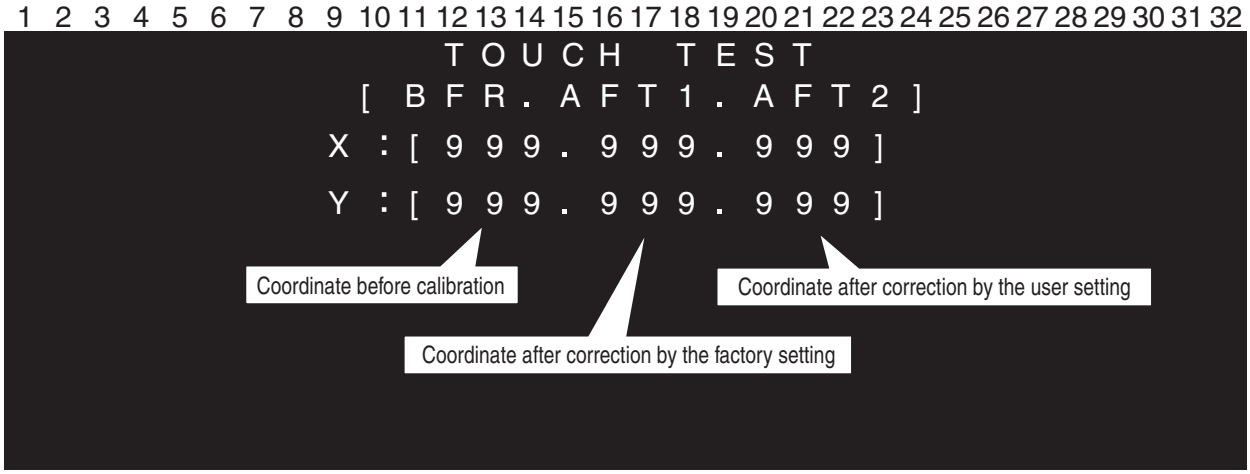
When the 17th location is pressed, the setting values and normal ending information are saved in the EEPROM, and “FINISHED” will be displayed.

If the MENU key is pressed during the process and the inspection is finished, the EEPROM will save the NG ending information, and “NG” is displayed.

● TOUCH TEST

Screen configuration

The coordinate before correction and after correction at the time of the touch panel pressing are displayed to verify the operation.



Operational specifications

Touch the touch panel to display the coordinate. Verify the coordinate before correction and the coordinate after correction by the factory setting. Return to the top MENU by pressing the MENU key.

● LINE TOUCH TEST

Outline

Press the "+" cursors on the screen one by one to judge OK/NG of the touch panel.



*) The above numbers indicate the order that the cursors are displayed.

Operational specifications

Press the cursors displayed at 16 locations on the screen one by one for inspection.

After the 16th location has been displayed, "OK" will be displayed in the center of the screen. After 2 seconds, the screen will return to the top MENU.

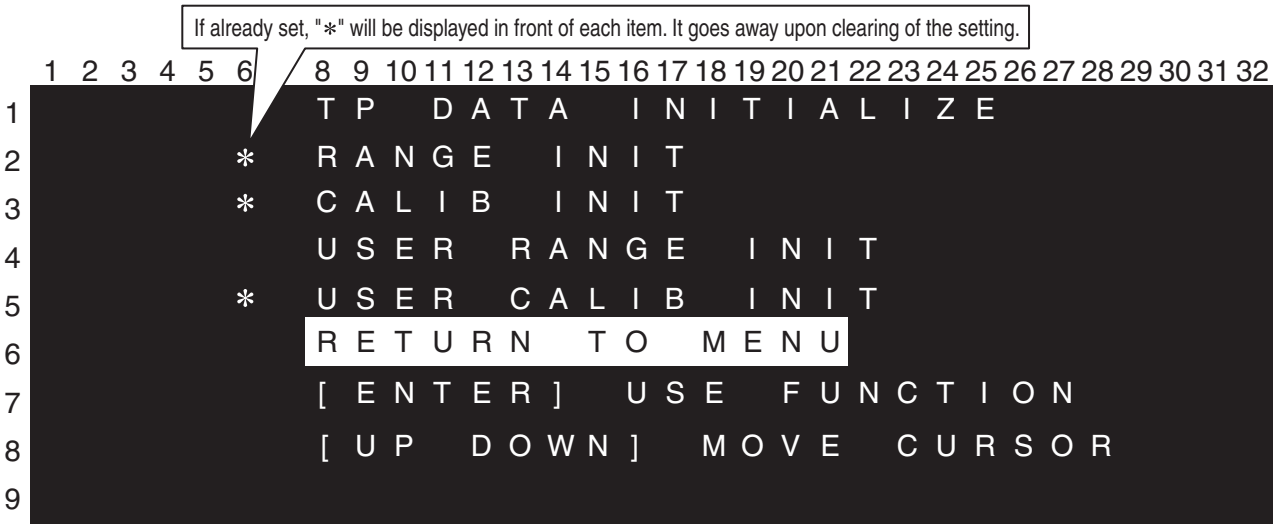
The cursor is displayed only one at a time, and the next cursor will be displayed when the previous one has been pressed correctly.

If not pressed correctly (if not within the OK range), "OUTSIDE OF THE RANGE" will be displayed.

If the MENU key is pressed before pressing 16 locations, NG will be displayed, and after 2 seconds, the screen will return to the top MENU.

● TP DATA INITIALIZE

Screen configuration
Outermost circumference and 16 point calibration data are returned to the initial value.



The functions by the items selected are as follows.

RANGE INIT	The factory preset outermost circumference setting is initialized.
CALIB INIT	The factory preset calibration is initialized.
USER RANGE INIT	The user preset outermost circumference setting is initialized. By this action, the factory preset outermost circumference setting is used.
USER CALIB INIT	The user preset calibration setting is initialized. By this action, the factory preset outermost circumference setting is used.

• Conditions for the adjusted mark (∗) to light on.
RANGE INIT
→The same condition as the item for outermost circumference adjustment in the top MENU.
CALIB INIT
→The same condition as the item for line touch panel verification in the top MENU.
USER RANGE INIT
→In case the user outermost circumference adjustment made a normal ending.
USER CALIB INIT
→In case the user calibration made a normal ending.

• Conditions for the adjusted mark (∗) to go out.
RANGE INIT
→The same condition as the item for outermost circumference adjustment in the top MENU.
CALIB INIT
→The same condition as the item for line touch panel verification in the top MENU.
USER RANGE INIT
→In case the user outermost circumference adjustment has never been conducted.
→When the EEPROM initialization is made.
→In case the user outermost circumference adjustment value initialization was conducted in the initialization menu.
→In case the outermost circumference adjustment made a normal ending.
→In case the calibration adjustment made a normal ending.
USER CALIB INIT
→In case the user calibration adjustment has never been conducted.
→When the EEPROM initialization is made.
→In case the user calibration adjustment value initialization was conducted in the initialization menu.
→In case the outermost circumference adjustment made a normal ending.
→In case the calibration adjustment made a normal ending.

Operational specifications
Select each item by the MENU key and the MAP key.
The function of the item selected by the MENU key is executed.
When “RETURN TO MENU” is executed, the screen will return to the top MENU.

8.6 SERVICE ADJUSTMENT

• Used remote controller CXC6317(SW1: AVH, SW2: AVH)

[Operation Specification]

- The operation method to shift to [Adjustment mode for service] is shown below.
  - Set TPTEST and SRVTEST to High and Low, respectively, and turn ON the ACC.
    It is also available by pressing reset, however, the user data is deleted, so it is not recommended.
- The operation method to release [Adjustment mode for service] is shown below.
  - ACC OFF -> ON (BUP OFF -> ON is also available)
- The switching, selection and adjustment operations in this setting mode can be implemented from remote controller.
  (Even if the MONITOR key is pressed in this adjustment mode, it does not affect the operation of main unit.)
- Switch the page by MENU key.
- Select the item you want to adjust by DOWN and UP keys.
  As the screen is displayed in two pages, the pages are switched.
- Adjusted by LEFT and RIGHT keys.

[Specification of display]

Within thick frame shows the example of actual OSD display.
The blue values show the parts that are changed at the adjustment. (In the display example, MAX value is displayed)
Red items are for design study and line adjustment.
The brown values show the default values for adjustment used for line. (Rewritable in EEPROM setting mode)
* This default value is not the setting value for each product, however, it is the value that has no problem when it is set.

■ Adjustment mode for service

Description of adjustment : 1st page	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
Common reverse output center value	[0-255]	COM DC	92		
Common reverse output center setting value (Factory value)	[0-255]	[FACTORY	92	]	
RGB&YS Horizontal Alignment	[0-255]	DOT H POSIT	69		
RGB & YS horizontal Alignment setting value (Factory value)	[0-255]	[FACTORY	69	]	
YS Sampling Phase 1	[0-15]	YS SAMPL	8		
YS Sampling Phase 1 setting value (Factory value)	[0-15]	[FACTORY	8	]	
AD Sampling Phase B	[0-15]	B SAMPL	8		
AD Sampling Phase B setting value (Factory value)	[0-15]	[FACTORY	8	]	

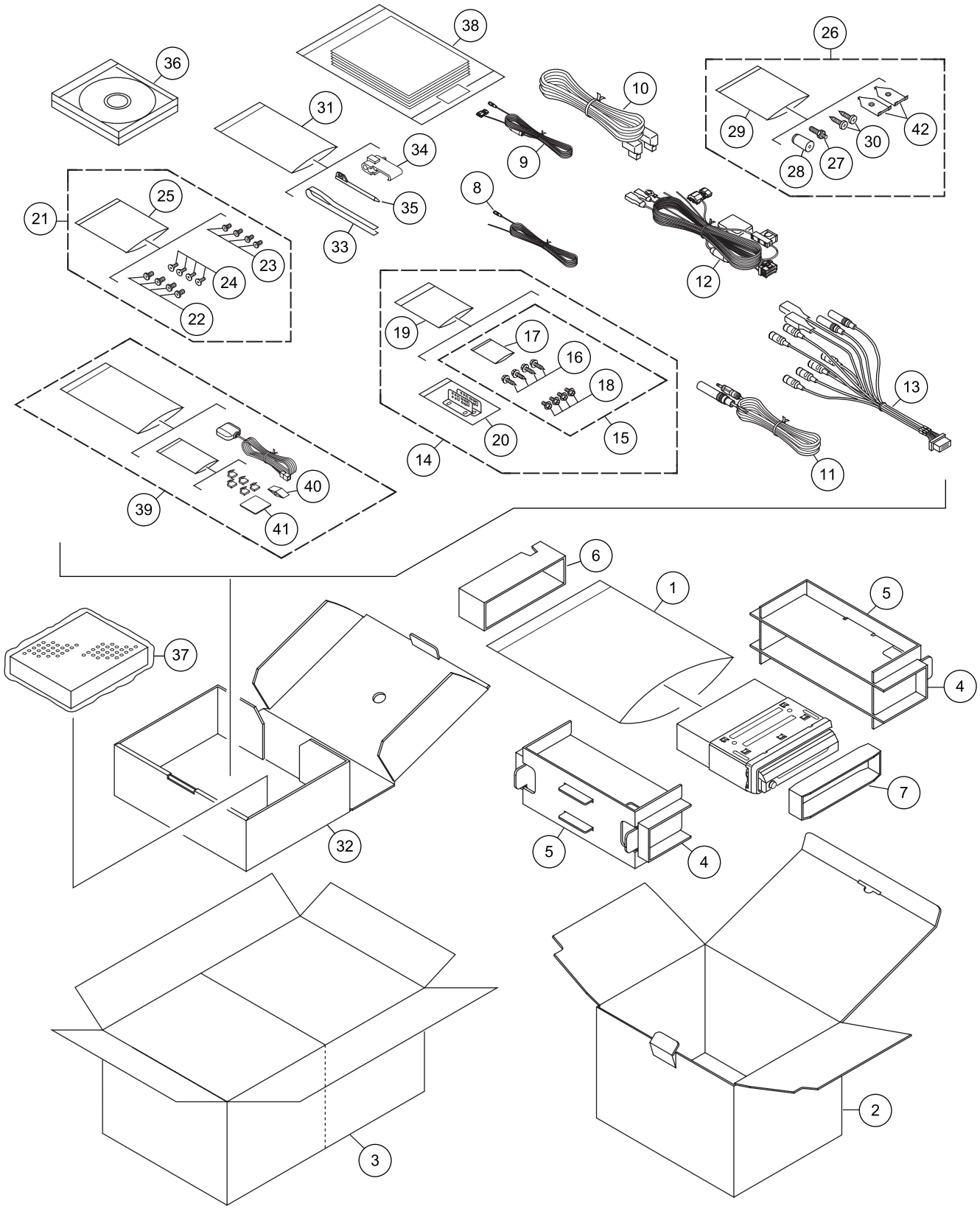
Description of adjustment : 2nd page	Adjustment range	Display of the item	Adjusted value/ Written value (DEC)		
AD Sampling Phase G	[0-15]	G SAMPL	8		
AD Sampling Phase G setting value (Factory value)	[0-15]	[FACTORY	8	]	
AD Sampling Phase R	[0-15]	R SAMPL	8		
AD Sampling Phase R setting value (Factory value)	[0-15]	[FACTORY	8	]	
YS inside-delay Adjustment	[0-15]	YS DELAY	8		
YS inside-delay Adjustment setting value (Factory value)	[0-15]	[FACTORY	8	]	

* CS display is not implemented.

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(UC)



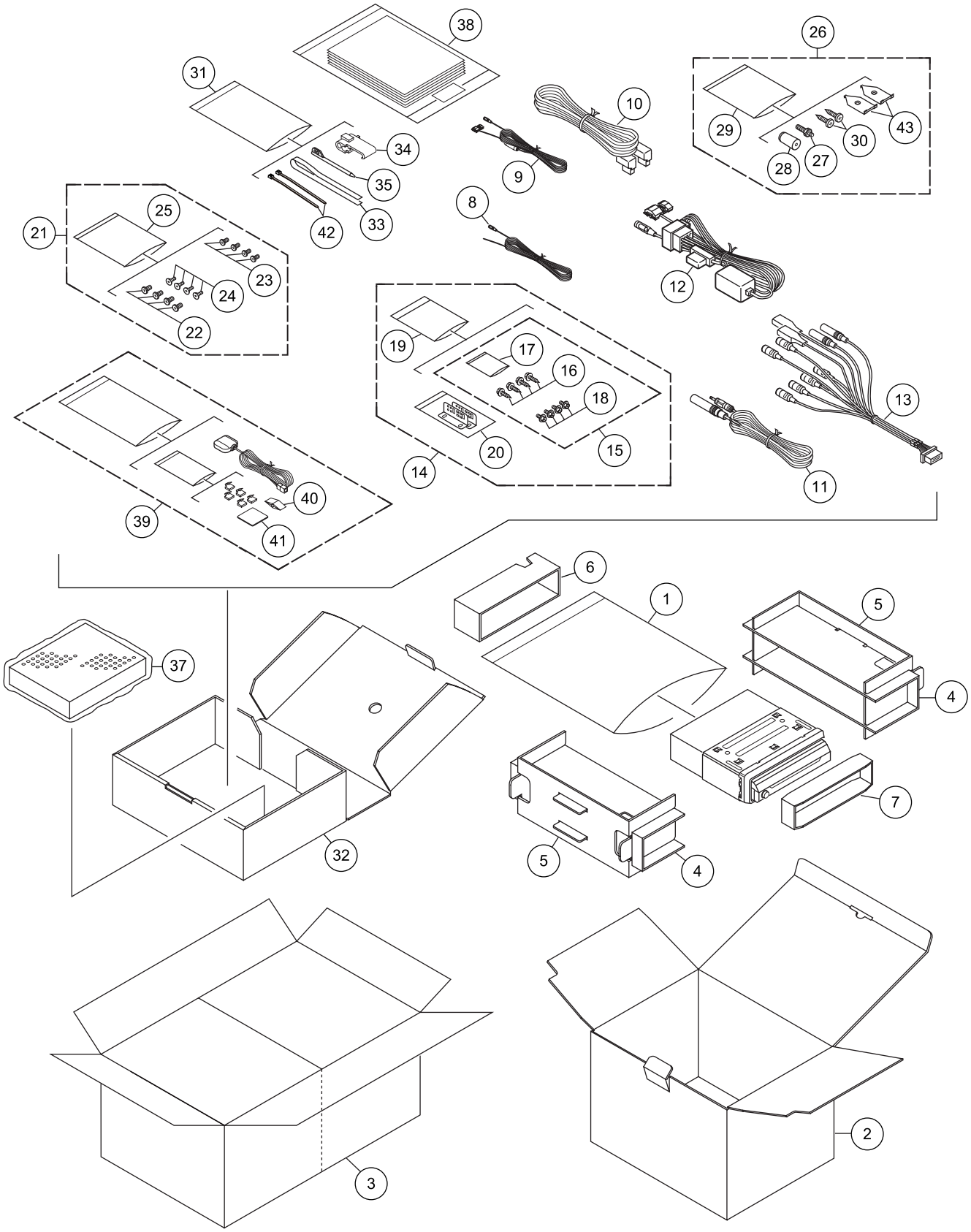
PACKING(UC) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Polyethylene Bag	CEG1173
	2	Unit Box	CHG6243
	3	Contain Box	CHL6243
	4	Protector	CHP2876
	5	Protector	CHP2877
	6	Protector	CHP2945
	7	Protector	CHP3454
	8	Cord	CDE5044
	9	Cord	CDE6825
	10	Cord Assy	CDE7398
	11	Antenna Cable	CDH1325
	12	Cord Assy	CDP1058
	13	Cord Assy	CDP1059
	14	Accessory Assy	CEA3996
	15	Screw Assy	CEA4396
	16	Screw(M6 x 16)	CBA1795
*	17	Polyethylene Sheet	CNM4338
	18	Screw	HMF40P080FTC
*	19	Polyethylene Bag	CEG1163
	20	Angle Assy	CXC1079
	21	Screw Assy	CEA5144
	22	Screw	BMZ50P060FTC
	23	Screw(M4 x 3)	CBA1870
	24	Screw	CMZ50P060FTC
*	25	Polyethylene Sheet	CNM4338
*	26	Accessory Assy	CEA7737
	27	Screw	CBA1650
	28	Bush	CNV3930
*	29	Polyethylene Bag	E36-615
	30	Fixing Screw	JGZ20P070FTC
	31	Cover	CEG1385
	32	Sub Unit Box	CHG5440
	33	Sheet	CNN1741
	34	Connector	CKX1049
	35	Pen	CNV8969
	36	DVD-ROM	CPJ1184
	37	Air Cushioned Bag	CEG1007
	38-1	Polyethylene Bag	CEG1116
	38-2	Owner's Manual	CRB2449
	38-3	Owner's Manual/POC/FRE	CRB2450
	38-4	Owner's Manual	CRB2451
	38-5	Owner's Manual/POC/FRE	CRB2452
	38-6	Installation Manual	CRD4241
	38-7	Caution Card	CRP1310
*	38-8	Warranty Card	CRY1246
*	38-9	Registration Card	CRY1263
	39	GPS Antenna Assy	CXC4864
	40	Packing	CZN5442
	41	Grand Sheet	CZN7008
	42	Bracket	CND4079

Owner's Manual,Installation Manual

Part No.	Language
CRB2449	English
CRB2450	French
CRB2451	English
CRB2452	French
CRD4241	English, French

9.2 PACKING(EW5)



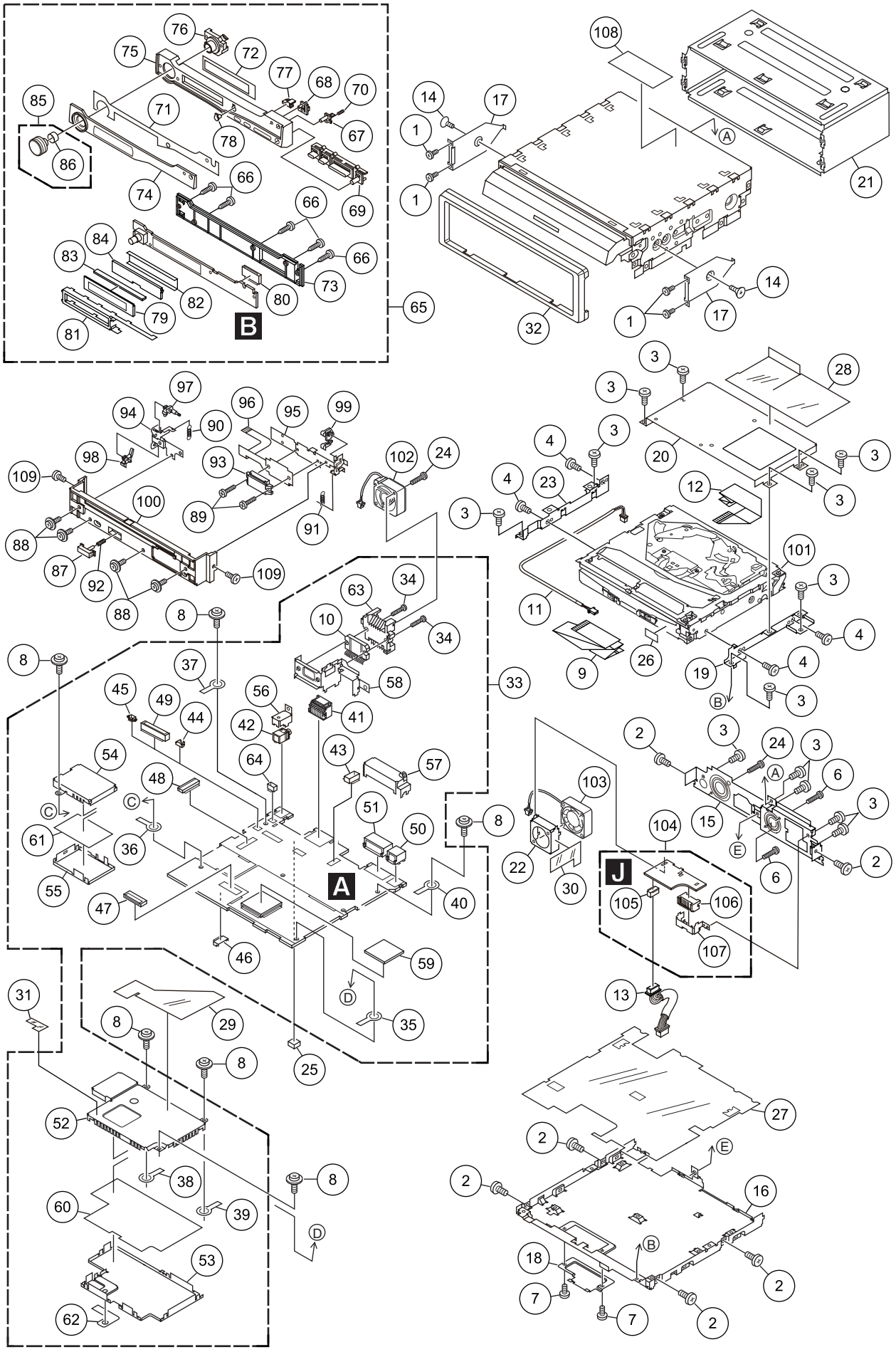
PACKING(EW5) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Polyethylene Bag	CEG-162
	2	Unit Box	CHG6242
	3	Contain Box	CHL6242
	4	Protector	CHP2876
	5	Protector	CHP2877
	6	Protector	CHP2945
	7	Protector	CHP3454
	8	Cord	CDE5044
	9	Cord	CDE6825
	10	Cord Assy	CDE7398
	11	Antenna Cable	CDH1325
	12	Cord Assy	CDP1057
	13	Cord Assy	CDP1059
	14	Accessory Assy	CEA3996
	15	Screw Assy	CEA4396
	16	Screw(M6 x 16)	CBA1795
*	17	Polyethylene Sheet	CNM4338
	18	Screw	HMF40P080FTC
*	19	Polyethylene Bag	CEG1163
	20	Angle Assy	CXC1079
	21	Screw Assy	CEA5144
	22	Screw	BMZ50P060FTC
	23	Screw(M4 x 3)	CBA1870
	24	Screw	CMZ50P060FTC
*	25	Polyethylene Sheet	CNM4338
*	26	Accessory Assy	CEA7737
	27	Screw	CBA1650
	28	Bush	CNV3930
*	29	Polyethylene Bag	E36-615
	30	Fixing Screw	JGZ20P070FTC
	31	Cover	CEG1385
	32	Sub Unit Box	CHG5440
	33	Sheet	CNN1741
	34	Connector	CKX1049
	35	Pen	CNV8969
	36	•••••	
	37	Air Cushioned Bag	CEG1007
	38-1	Polyethylene Bag	CEG1116
	38-2	Owner's Manual/PEE/ENG	CRB2453
	38-3	Owner's Manual/PEE/SPE	CRB2454
	38-4	Owner's Manual/PEE/GER	CRB2455
	38-5	Owner's Manual/PEE/FRE	CRB2456
	38-6	Owner's Manual/PEE/ITA	CRB2457
	38-7	Owner's Manual/PEE/DUT	CRB2458
	38-8	Owner's Manual/PEE/ENG	CRB2459
	38-9	Owner's Manual/PEE/SPE	CRB2460
	38-10	Owner's Manual/PEE/GER	CRB2461
	38-11	Owner's Manual/PEE/FRE	CRB2462
	38-12	Owner's Manual/PEE/ITA	CRB2463
	38-13	Owner's Manual/PEE/DUT	CRB2464
	38-14	Installation Manual	CRD4242
*	38-15	Warranty Card	CRY1265
*	38-16	Caution Card	CRP1362
	39	GPS Antenna Assy	CXC4864
	40	Packing	CZN5442
	41	Grand Sheet	CZN7008
*	42	Lock Tie	CNV-754
	43	Bracket	CND4079

Owner's Manual,Installation Manual

Part No.	Language
CRB2453	English
CRB2454	Spanish
CRB2455	German
CRB2456	French
CRB2457	Italian
CRB2458	Dutch
CRB2459	English
CRB2460	Spanish
CRB2461	German
CRB2462	French
CRB2463	Italian
CRB2464	Dutch
CRD4242	English, Spanish, German, French, Italian, Dutch

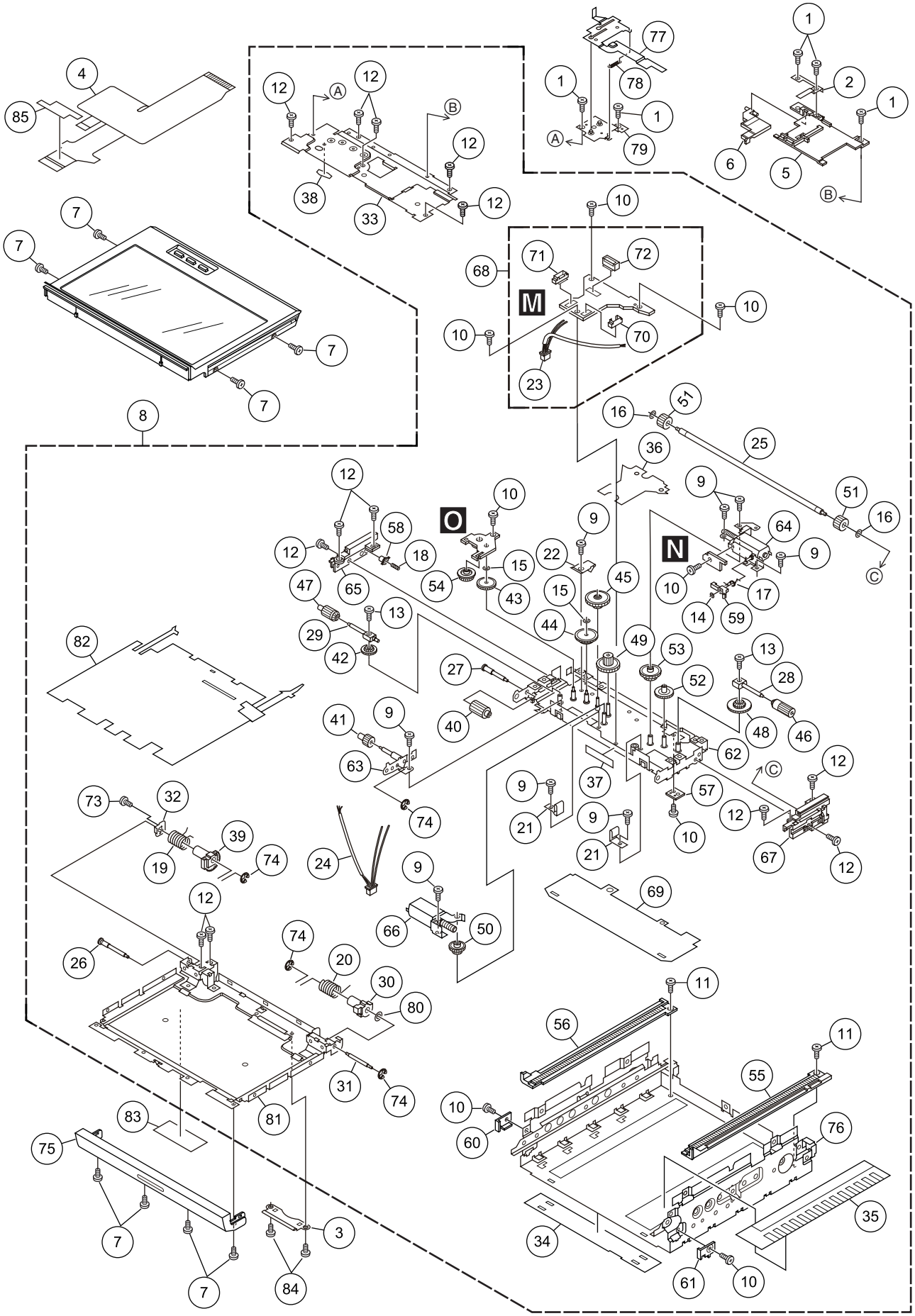
9.3 EXTERIOR(1)



EXTERIOR(1) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BMZ20P030FTB
	2	Screw	BMZ26P030FTB
	3	Screw	BMZ26P040FTC
	4	Screw(M2 x 3)	CBA2096
	5	•••••	
	6	Screw(M2.6 x 14)	CBA2103
	7	Screw(M2 x 1.4)	CBA2106
	8	Screw	ISS26P050FTC
	9	FFC	CDE7740
	10	IC(IC2405)	PAL007C
	11	Cord Assy	CDE8461
	12	FFC	CDE8462
	13	Cord Assy	CDE8463
	14	Screw	CMZ50P060FTC
	15	Panel	CNB3411
	16	Case	CNB3412
	17	Bracket	CND1482
	18	Holder	CND1948
	19	Bracket	CND3842
	20	Bracket	CND3845
	21	Holder	CND3854
	22	Holder	CND4033
	23	Bracket	CND4034
	24	Screw	PMZ20P160FTC
	25	Spacer	CNM9200
	26	Spacer	CNN1582
	27	Insulator	CNN1671
	28	Insulator	CNN1672
	29	Insulator	CNN1673
	30	Insulator	CNN1674
	31	Insulator	CNN1782
	32	Panel	CNS8978
	33	CC Unit(UC model)	CWN2308
		CC Unit(EW5 model)	CWN2309
	34	Screw	BMZ26P160FTC
	35	Terminal(CN100)	CKF1064
	36	Terminal(CN604)	CKF1064
	37	Terminal(CN605)	CKF1064
	38	Terminal(CN614)	CKF1064
	39	Terminal(CN615)	CKF1064
	40	Terminal(CN2601)	CKF1064
	41	Plug(CN802)	CKM1516
	42	Jack(CN2552)	CKN1043
	43	Connector(CN691)	CKS4674
	44	Connector(CN824)	CKS4822
	45	Connector(CN971)	CKS4822
	46	Connector(CN2701)	CKS5038
	47	Connector(CN2)	CKS5100
	48	Connector(CN607)	CKS5100
	49	Connector(CN608)	CKS5586
	50	Connector(CN692)	CKS5598
	51	Connector(CN731)	CKS5696
	52	Shield	CND1949
	53	Shield	CND1950
	54	Shield	CND1951
	55	Shield	CND1952
	56	Holder	CND4036
	57	Holder	CND4037
	58	Holder	CND4038
	59	Sheet	CNM7902
	60	Insulator	CNM8572
	61	Insulator	CNM8573
	62	Insulator	CNM8856
	63	Heat Sink	CNR1739
	64	Connector(CN2551)	VKN1928
	65	Grille Assy(UC model)	CXC7367
		Grille Assy(EW5 model)	CXC7368
	66	Screw	BPZ20P080FTB
	67	Button(DETACH)	CAI1176
	68	Button(RESET)	CAI1177
	69	Button(TEL, EJECT, <, >, OPEN/TILT)	CAI1245
	70	Spring	CBH2680
	71	Double Side Tape	CNN1579
	72	Sheet	CNN1991
	73	Cover	CNS8964
	74	Plate(UC model)	CNS9023
		Plate(EW5 model)	CNS9024
	75	Grille	CNS9028
	76	Lighting Conductor	CNV9504
	77	Lighting Conductor	CNV9506
	78	Lighting Conductor	CNV9507
	79	LCD(LCD4001)	CAW1950
	80	Connector(CN4001)	CKS4657
	81	Holder	CND3851
	82	Sheet	CNN1580
	83	Connector	CNV9502
	84	Lighting Conductor	CNV9503
	85	Knob Unit(VOL/MUTE)	CXC7631
	86	Spring	CBL1761
	87	Button(DETACH)	CAI1460
	88	Screw(M2 x 3)	CBA2104
	89	Screw(M2 x 3)	CBA2105
	90	Spring	CBH2681
	91	Spring	CBH2682
	92	Spring	CBH2683
	93	Connector	CKS4658
	94	Holder	CND3852
	95	Holder	CND3853
	96	Flexible PCB	CNQ1002
	97	Arm	CNV8571
	98	Arm	CNV8572
	99	Arm	CNV8573
	100	Panel Unit	CXC7633
	101	DVD Mechanism Module(MS5)	CXK6601
	102	Fan Motor	CXM1284
	103	Fan Motor	CXM1343
	104	Mother Tuner Unit(UC model)	CWN2310
		Mother Unit(EW5 model)	CWN2311
	105	Connector(CN2801)	CKS4674
	106	Connector(CN2803)	CKM1506
	107	Holder	CND4039
	108	Label(EW5 model)	CAN5448
	109	Screw(M2 x 3)	CBA1797

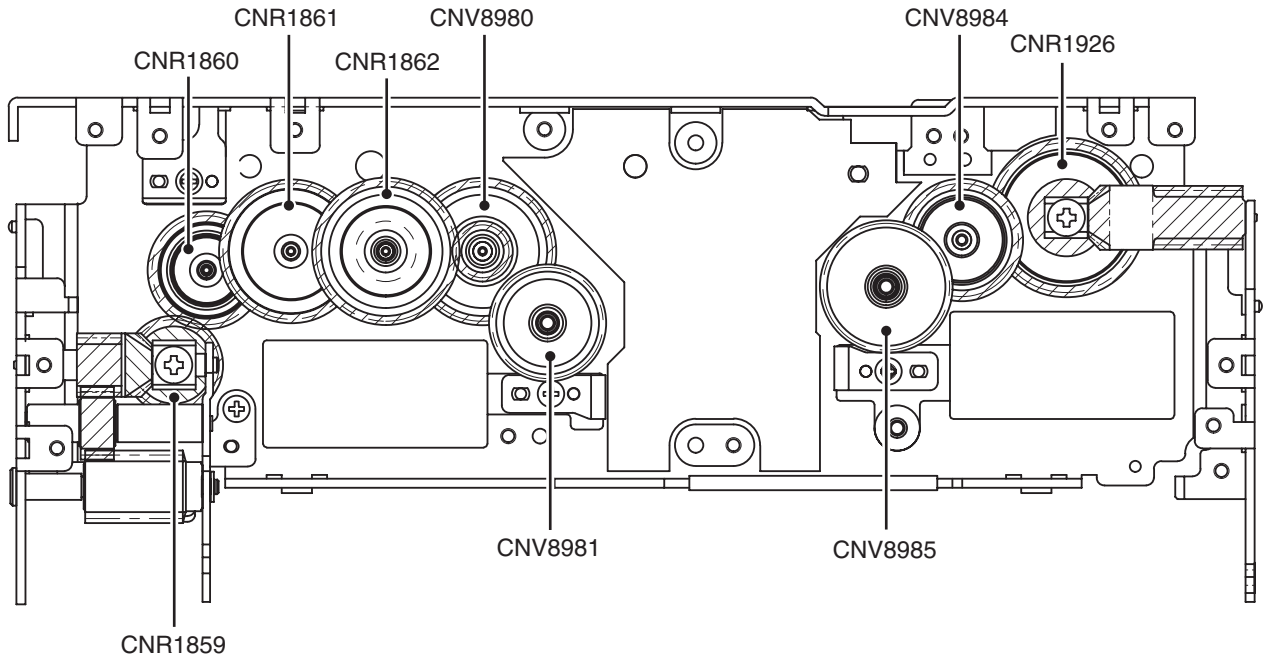
9.4 EXTERIOR(2)



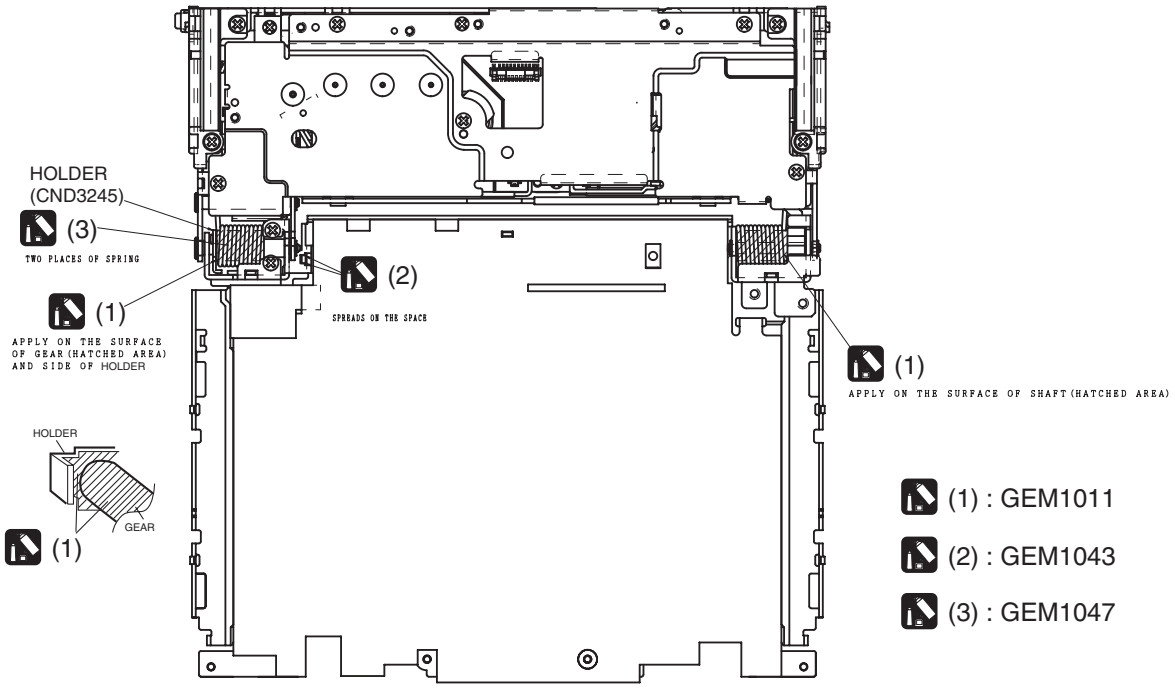
EXTERIOR(2) SECTION PARTS LIST

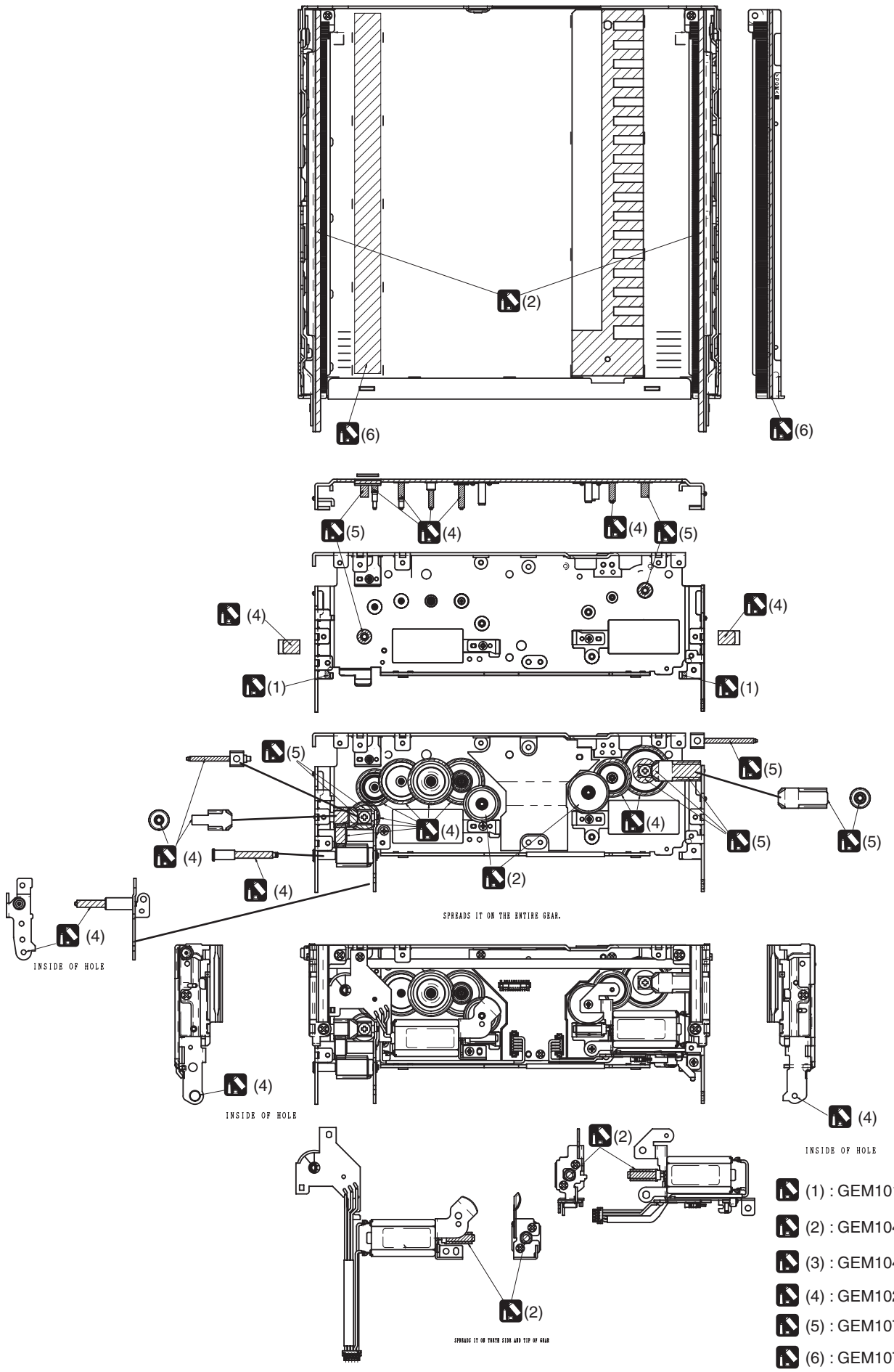
Mark	No.	Description	Part No.
	1	Screw(M2 x 3)	CBA1797
	2	Spring	CBL1766
	3	Holder	CND3271
	4	Flexible PCB	CNQ1001
	5	Cover	CNV9643
	6	Arm	CNV9644
	7	Screw(M2 x 2)	CBA2101
	8	Drive Unit	CXC7637
	9	Screw(M2 x 2)	CBA1608
	10	Screw(M2 x 2.5)	CBA1615
	11	Screw(M2 x 2)	CBA1872
	12	Screw(M2 x 3)	CBA1877
	13	Screw(M2.3 x 6)	CBA2027
	14	Washer	CBF1037
	15	Washer	CBF1039
	16	Washer	CBF1064
	17	Spring	CBH2906
	18	Spring	CBH2907
	19	Spring	CBH2908
	20	Spring	CBH2909
	21	Spring	CBL1723
	22	Spring	CBL1734
	23	Cord	CDE8127
	24	Cord	CDE8128
	25	Shaft	CLA4651
	26	Shaft	CLA4661
	27	Shaft	CLA4662
	28	Shaft	CLA4663
	29	Shaft	CLA4664
	30	Shaft	CLA4665
	31	Shaft	CLA4666
	32	Holder	CND3245
	33	Cover	CND3252
	34	Sheet	CNN1055
	35	Sheet	CNN1056
	36	Insulator	CNN1058
	37	Sheet	CNN1065
	38	Insulator	CNN1068
	39	Gear	CNR1855
	40	Gear	CNR1856
	41	Gear	CNR1857
	42	Gear	CNR1859
	43	Gear	CNR1860
	44	Gear	CNR1861
	45	Gear	CNR1862
	46	Gear	CNR1864
	47	Gear	CNR1925
	48	Gear	CNR1926
	49	Gear	CNV8980
	50	Gear	CNV8981
	51	Gear	CNV8983
	52	Gear	CNV8984
	53	Gear	CNV8985
	54	Gear	CNV8987
	55	Rack	CNV8995
	56	Rack	CNV8996
	57	Guide	CNV8999
	58	Lever	CNV9000
	59	Arm	CNV9001
	60	Guide	CNV9003
	61	Guide	CNV9004
	62	Frame Unit	CXC6143
	63	Holder Unit	CXC6145
	64	Motor Unit	CXC6638
*	65	Guide	CNV9534
	66	Motor Unit	CXC6639
*	67	Guide	CNV9535
	68	Main PCB Unit(Service)	CXX2316
	69	Sheet	CNN1349
*	70	Connector(CN102)	CKS4734
*	71	Connector(CN103)	CKS4735
	72	Connector(CN101)	CKS5572
	73	Screw	JFZ17P025FTC
	74	Washer	YE15FTC
	75	Cover Unit	CXC7882
*	76	Chassis Unit	CXC7638
	77	Lever	CND4077
	78	Spring	CBH2750
	79	Bracket Unit	CXC7978
*	80	Spacer	CNN2051
*	81	Case Unit	CXC7640
*	82	Insulator	CNN1583
	83	Label	CRL2936
	84	Screw(M2 x 1.4)	CBA2106
	85	Insulator	CNN1938

The gear assembly figure of the Drive Unit

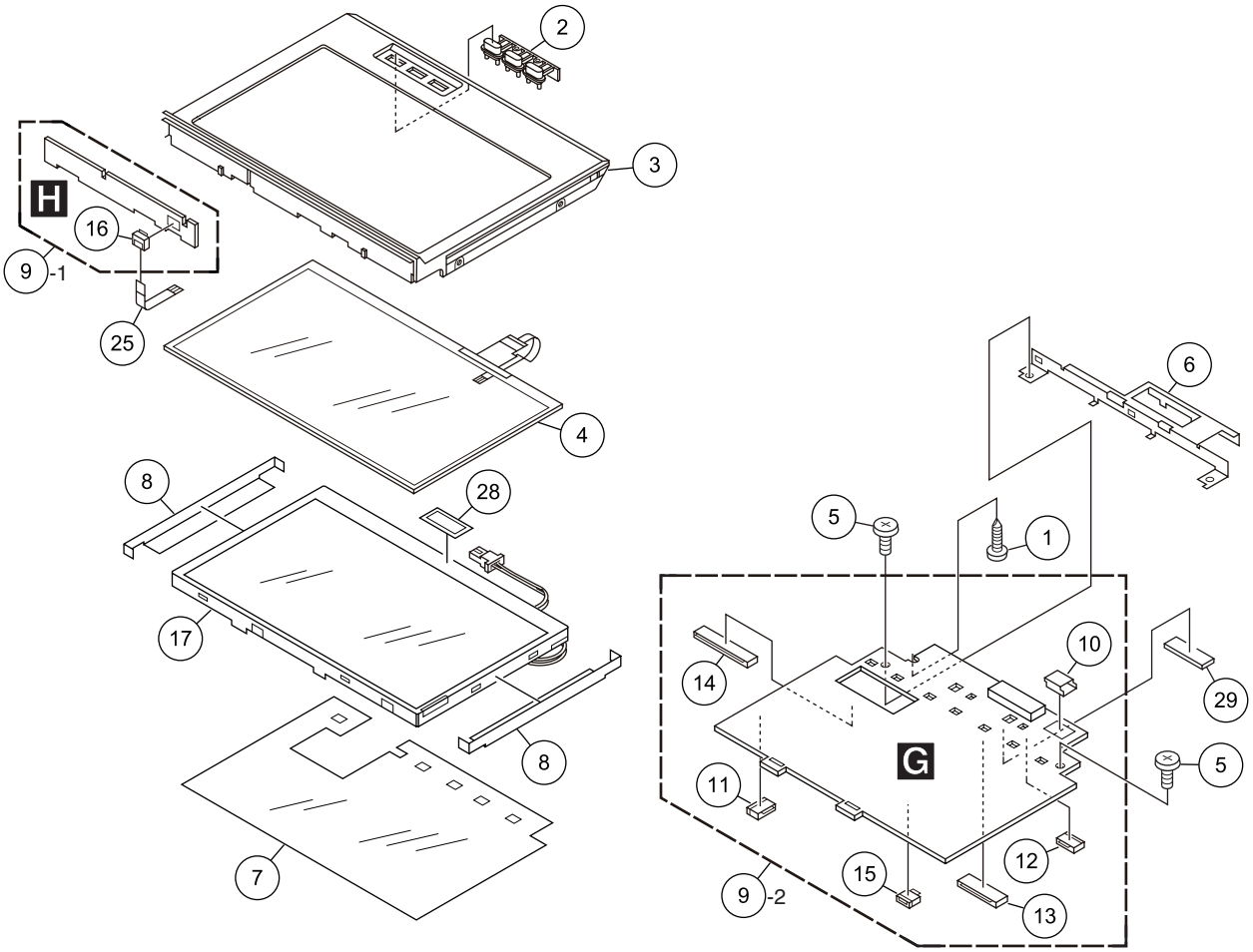


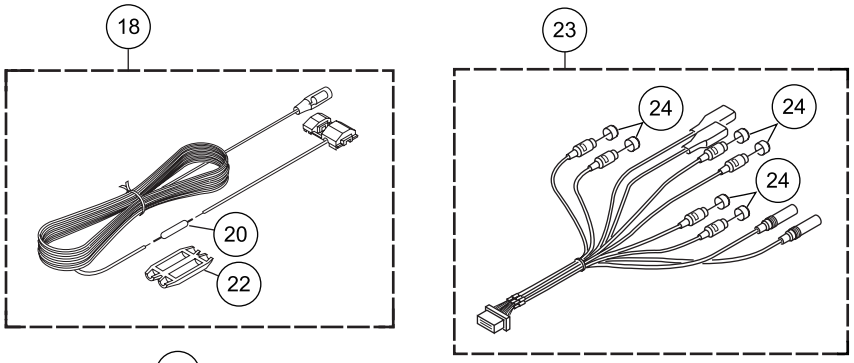
Grease

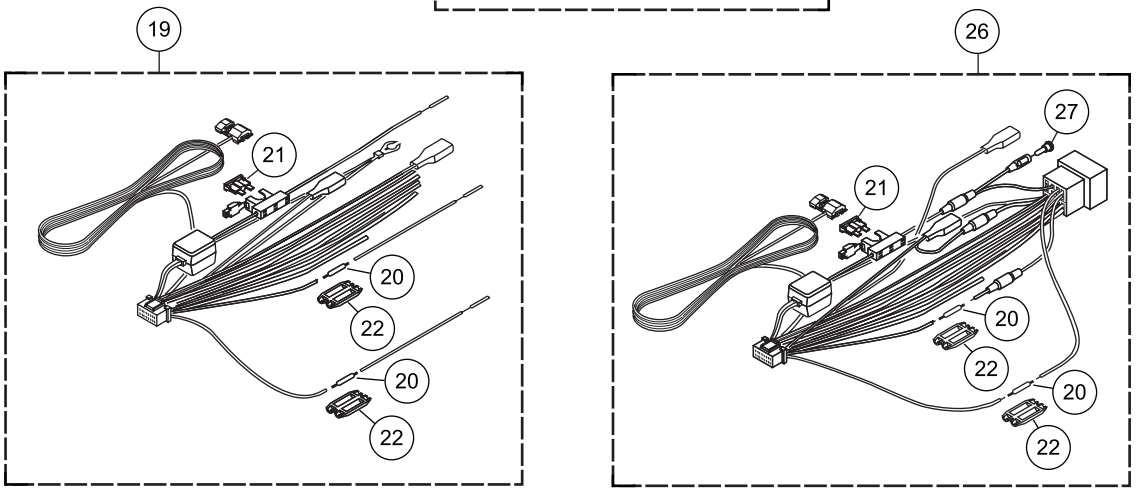



(2)
(6)
(6)
(5)
(4)
(4)
(5)
(4)
(4)
(1)
(1)
(4)
(5)
(5)
(4)
(4)
(5)
(5)
(4)
(4)
(2)
SPREADS IT ON THE ENTIRE GEAR.
(4)
INSIDE OF HOLE
(4)
INSIDE OF HOLE
(4)
INSIDE OF HOLE
(2)
(2)
SPREADS IT ON TOOTH SIDE AND TIP OF GEAR
(1) : GEM1011
(2) : GEM1043
(3) : GEM1047
(4) : GEM1024
(5) : GEM1072
(6) : GEM1071

9.5 EXTERIOR(3)



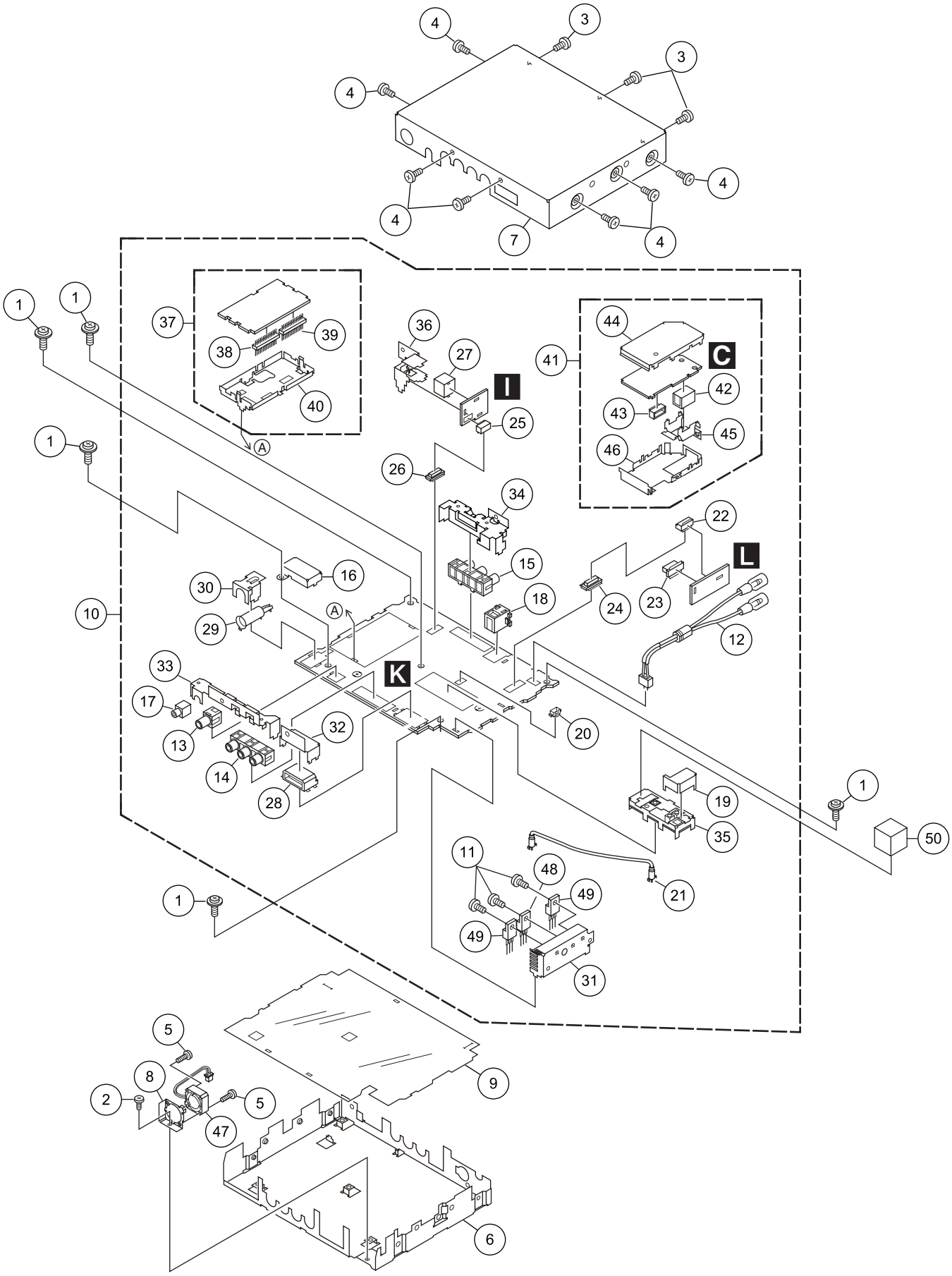




EXTERIOR(3) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BPZ20P060FTC
	2	Button(AV, MAP, MENU)	CAI1235
	3	Grille(UC model)	CNS9020
		Grille(EW5 model)	CNS9019
	4	Touch Panel	CSX1115
	5	Screw(M2 x 2)	CBA1872
	6	Holder	CND4041
	7	Insulator	CNN1667
	8	Sheet	CNN1754
	9	Monitor Unit	CWN2304
	10	Connector(CN5201)	CKS4428
	11	Connector(CN5801)	CKS5037
	12	Connector(CN5001)	CKS5105
	13	Connector(CN5003)	CKS5698
	14	Connector(CN5501)	CKS5773
	15	Connector(CN5002)	CKS5811
	16	Connector(CN5901)	CKS5811
	17	LCD Module	CWX3264
	18	Cord	CDE6825
	19	Cord Assy(UC model)	CDP1058
	20	Resistor	RS1/2PMF102J
⚠	21	Fuse(10 A)	CEK1136
	22	Cap	CNS1472
	23	Cord Assy	CDP1059
	24	Cap	CNV6727
	25	FFC	CDE8460
	26	Cord Assy(EW5 model)	CDP1057
	27	Terminal Cover(EW5 model)	CKX-003
	28	Insulator	CNN1939
	29	Cushion	CNN1941

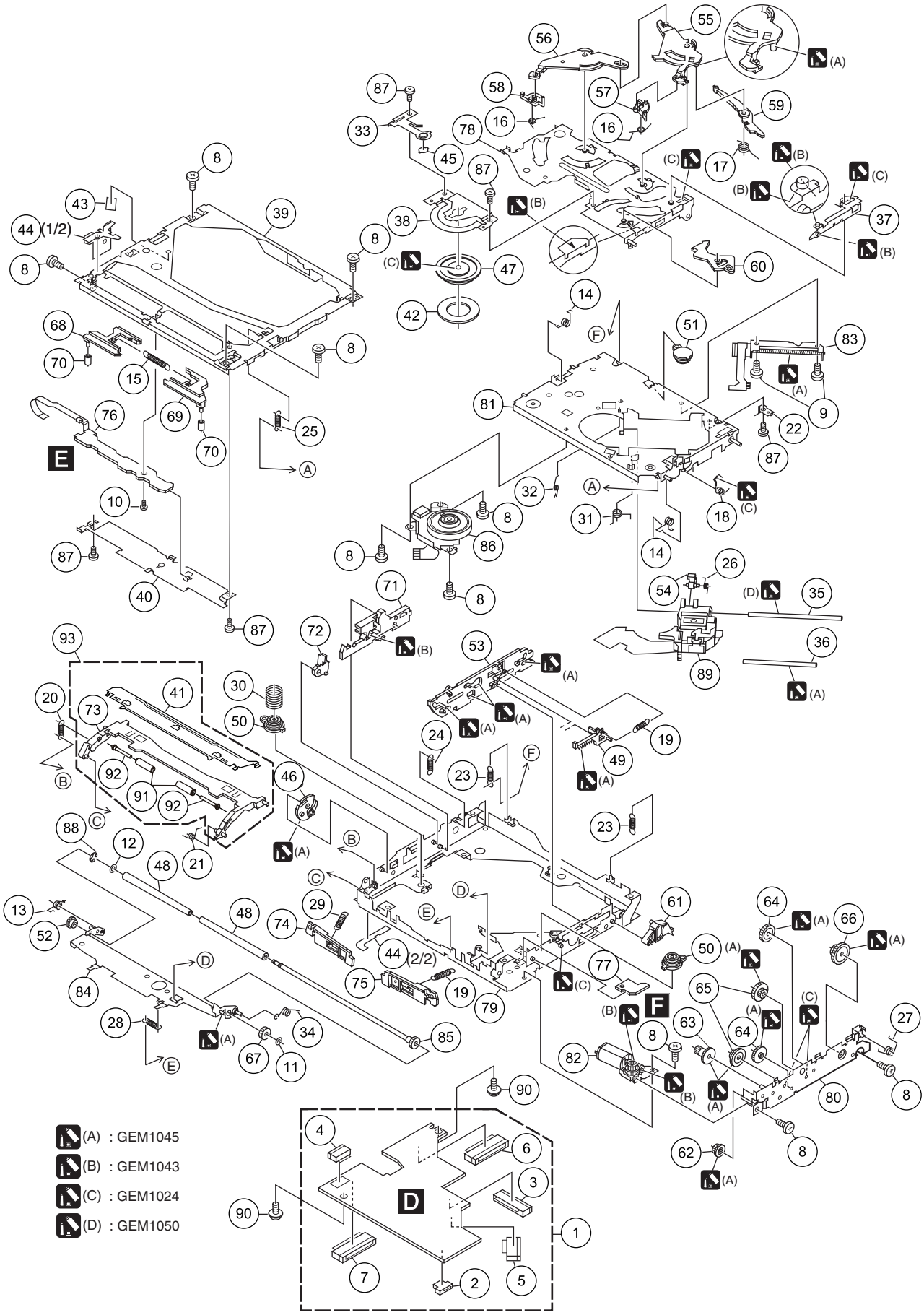
9.6 EXTERIOR(4)



EXTERIOR(4) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	ASZ26P050FTC
	2	Screw	BMZ26P030FTC
	3	Screw	BMZ26P060FTB
	4	Screw	BSZ26P060FTC
	5	Screw(M2.6 x 14)	CBA2103
	6	Chassis	CNA3007
	7	Case(UC model)	CNB3408
		Case(EW5 model)	CNB3409
	8	Holder	CND1905
	9	Insulator	CNN1662
	10	Mother Tuner Unit(UC model)	CWN2310
		Mother Unit(EW5 model)	CWN2311
	11	Screw	BMZ26P060FTC
	12	Cord Assy(CN1951)	CDE8563
	13	Pin Jack(CN1351)	CKB1065
	14	Pin Jack(CN1301)	CKB1071
	15	Pin Jack(CN1701)	CKB1071
	16	Shield(EW5 model)	CND4044
	17	Jack(CN1352)	CKN1046
	18	Connector(CN1101)	CKS3414
	19	Shield(EW5 model)	CND2814
	20	Connector(CN1950)	CKS4822
	21	Cord(EW5 model)	CDH1332
	22	Connector(CN552)	CKS5204
	23	Connector(CN551)	CKS5205
	24	Connector(CN1841)	CKS5205
	25	Connector(CN2002)	CKS5553
	26	Connector(CN1751)	CKS5554
	27	Connector(CN2001)	CKS5683
	28	Connector(CN1001)	CKS5696
	29	Antenna Jack(CN1402)	CKX1056
	30	Holder	CND1900
	31	Holder	CND1903
	32	Holder	CND1904
	33	Holder	CND3993
	34	Holder	CND3994
	35	Tuner Unit(Y1801)(EW5 model)	CWE1674
	36	Holder	CND4043
	37	FM/AM Tuner Unit(Y1401)(UC model)	CWE2046
		FM/AM Tuner Unit(Y1401)(EW5 model)	CWE2045
	38	Connector(CN101)	CKS4653
	39	Connector(CN102)	CKS4653
	40	Holder	CND1432
	41	GPS Unit(UC model)	CWX3533
		GPS Unit(EW5 model)	CWX3534
	42	Connector(CN504)	CKS4432
	43	Connector(CN461)	CKS5204
	44	Shield	CNC9192
	45	Holder	CNC9252
	46	Shield	CND1161
	47	Fan Motor	CXM1343
	48	Transistor(Q1907)	2SB1185
	49	Transistor(Q1908,1909)	2SD2375
	50	Gasket(EW5 model)	CNN1804

9.7 DVD MECHANISM MODULE



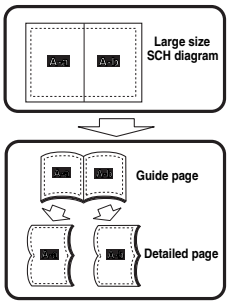
DVD MECHANISM MODULE SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	DVD Core Unit	CWX3401
	2	Connector(CN1852)	CKS4817
	3	Connector(CN1101)	CKS4841
	4	Connector(CN1301)	CKS5017
	5	Connector(CN1201)	CKS5043
	6	Connector(CN1901)	CKS5054
	7	Connector(CN2001)	CKS5054
	8	Screw	BMZ20P020FTC
	9	Screw	BMZ20P025FNI
	10	Screw	CBA1787
	11	Washer	CBF1038
	12	Washer	CBF1064
	13	Spring	CBH2586
	14	Spring	CBH2588
	15	Spring	CBH2589
	16	Spring	CBH2590
	17	Spring	CBH2591
	18	Spring	CBH2592
	19	Spring	CBH2593
	20	Spring	CBH2596
	21	Spring	CBH2597
	22	Spring	CBL1726
	23	Spring	CBH2599
	24	Spring	CBH2600
	25	Spring	CBH2601
	26	Spring	CBH2926
	27	Spring	CBH2604
	28	Spring	CBH2605
	29	Spring	CBH2710
	30	Spring	CBH2711
	31	Spring	CBH2935
	32	Spring	CBH2890
	33	Spring	CBL1689
	34	Spring	CBH2898
	35	Shaft	CLA4206
	36	Shaft	CLA4701
	37	Lever	CNC9933
	38	Holder	CND2643
	39	Frame	CND2250
	40	Holder	CND2251
	41	Holder	CND3936
	42	Sheet	CNM6883
	43	Sheet	CNM8697
	44	Sheet	CNM9658
	45	Sheet	CNM9407
	46	Cam	CNV7156
	47	Clamper	CNV7158
	48	Roller	CNV7165
	49	Rack	CNV7175
	50	Damper	CNV9061
	51	Damper	CNV9062
	52	Collar	CNV8845
	53	Lever	CNV8865
	54	Rack	CNV9063
	55	Arm	CNV8867
	56	Arm	CNV8868
	57	Arm	CNV9577
	58	Arm	CNV8870
	59	Arm	CNV8871
	60	Arm	CNV8872
	61	Arm	CNV8873
	62	Gear	CNV8874
	63	Gear	CNV8875
	64	Gear	CNV8876
	65	Gear	CNV8877
	66	Gear	CNV8878
	67	Gear	CNV8879
	68	Lever	CNV8903
	69	Lever	CNV8904
	70	Roller	CNV8905
	71	Lever	CNV8908
	72	Arm	CNV8909
	73	Guide	CNV9569
	74	Arm	CNV9116
	75	Arm	CNV9117
	76	Compound(A) Unit	CWX3154
	77	Compound(B) Unit	CWX3394
	78	Arm Unit	CXC7872
	79	Frame Unit	CXC6442
	80	Bracket Unit	CXB8685
	81	Chassis Unit	CXC6443
	82	Motor Unit(LOAD)(M1)	CXC4912
	83	Motor(STEPPING)(M2)	CXM1364
	84	Arm Unit	CXC5486
	85	Roller Unit	CXC5708
	86	Motor(SPDL)(M3)	CXM1362
	87	Screw	JFZ20P018FTC
	88	Washer	YE20FTC
	89	Pickup Unit(Service)	CXX2118
	90	Screw	IMS20P030FTC
	91	Collar	CNV9570
	92	Shaft	CLA4771
	93	Guide Unit	CXC8572

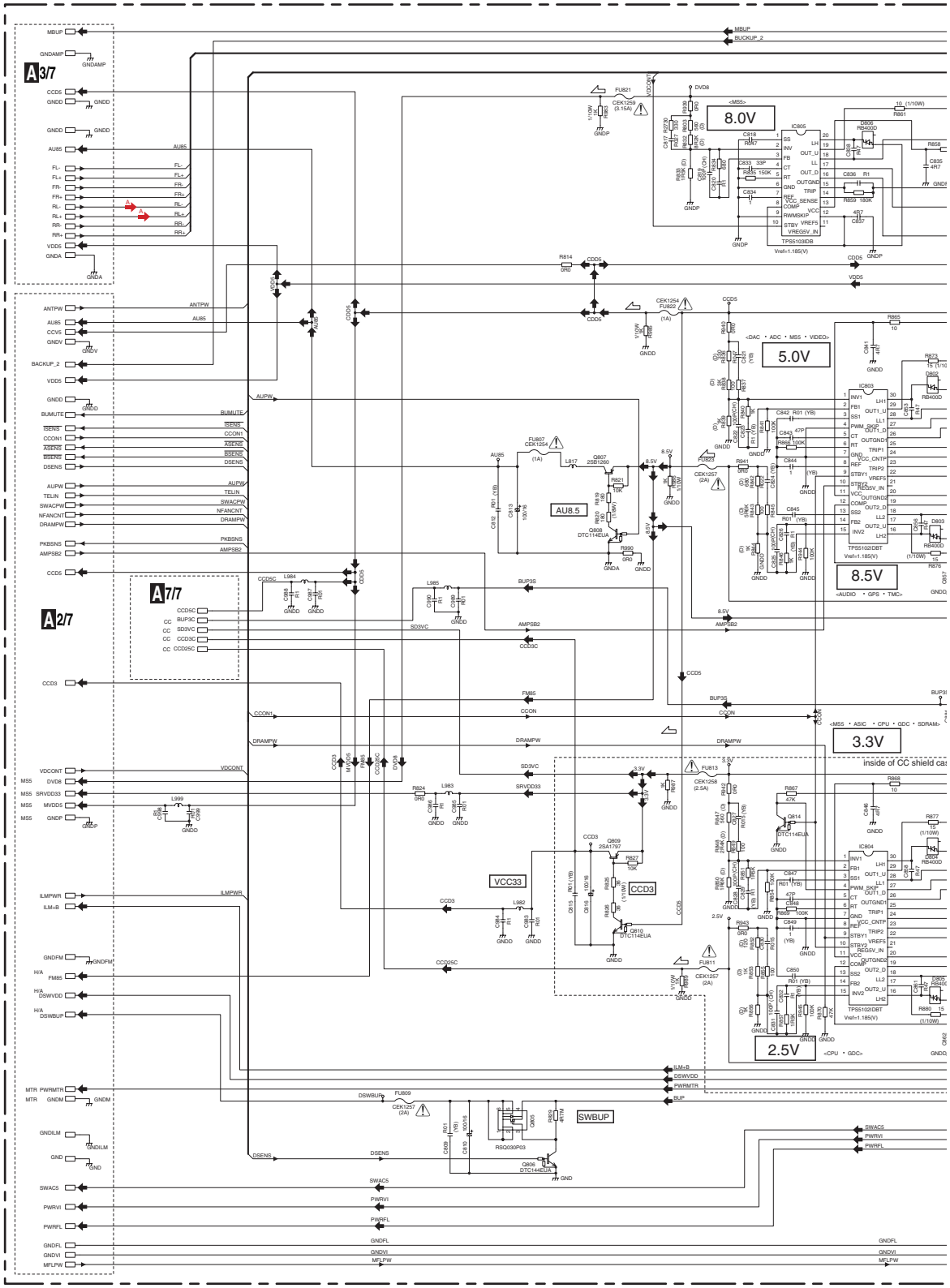
10. SCHEMATIC DIAGRAM

10.1 CC UNIT(P/S)(GUIDE PAGE)

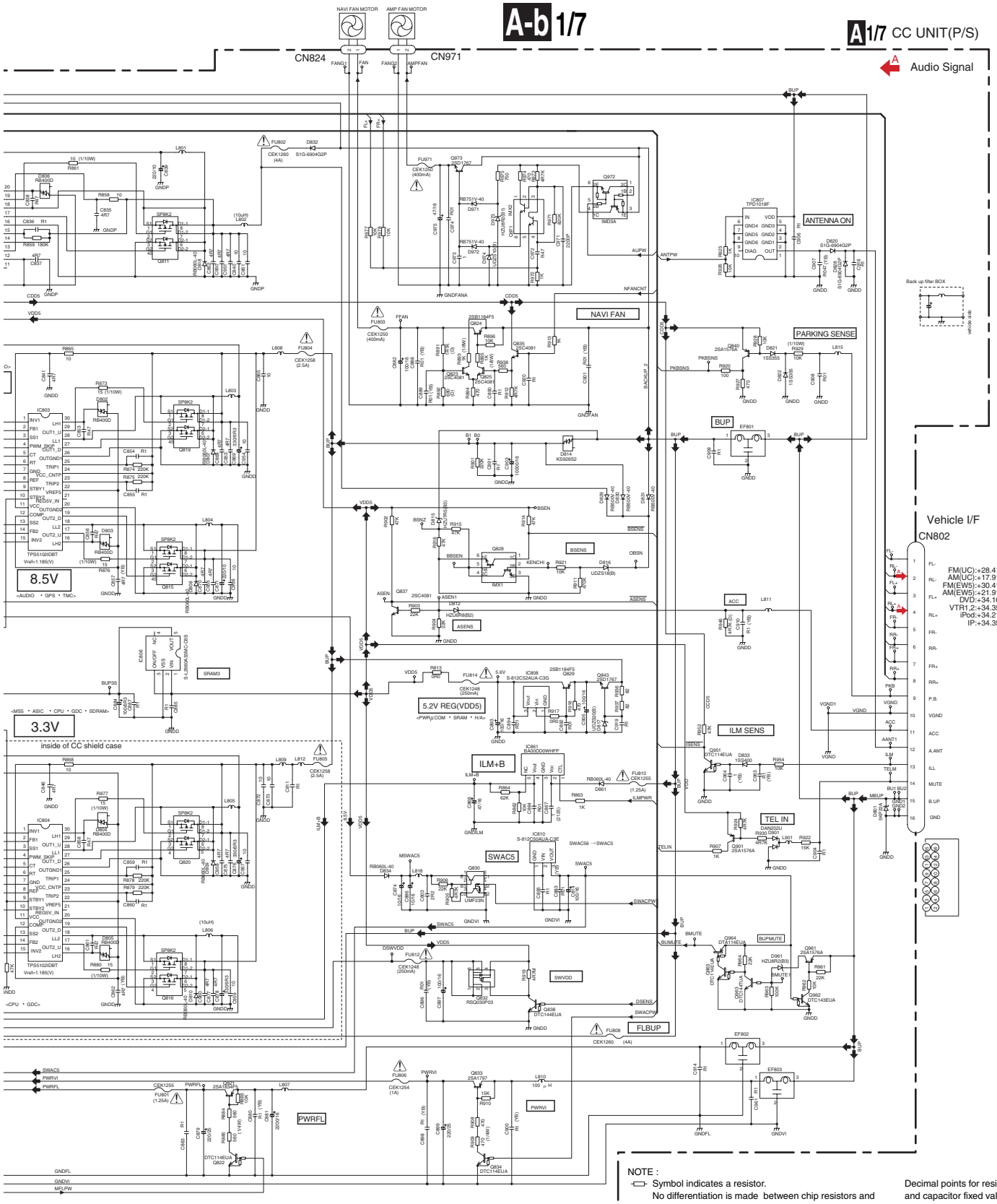
Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-a 1/7



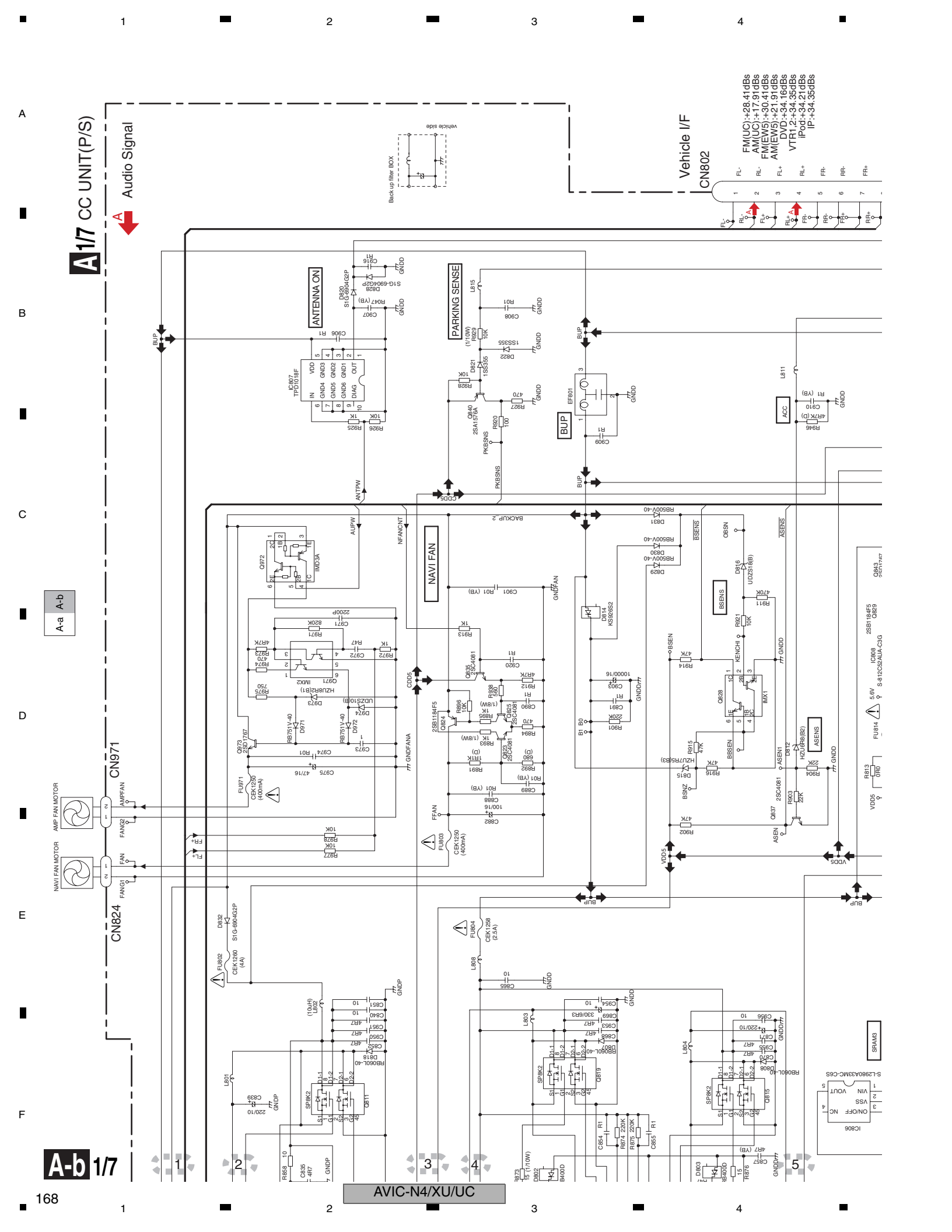
A1/7

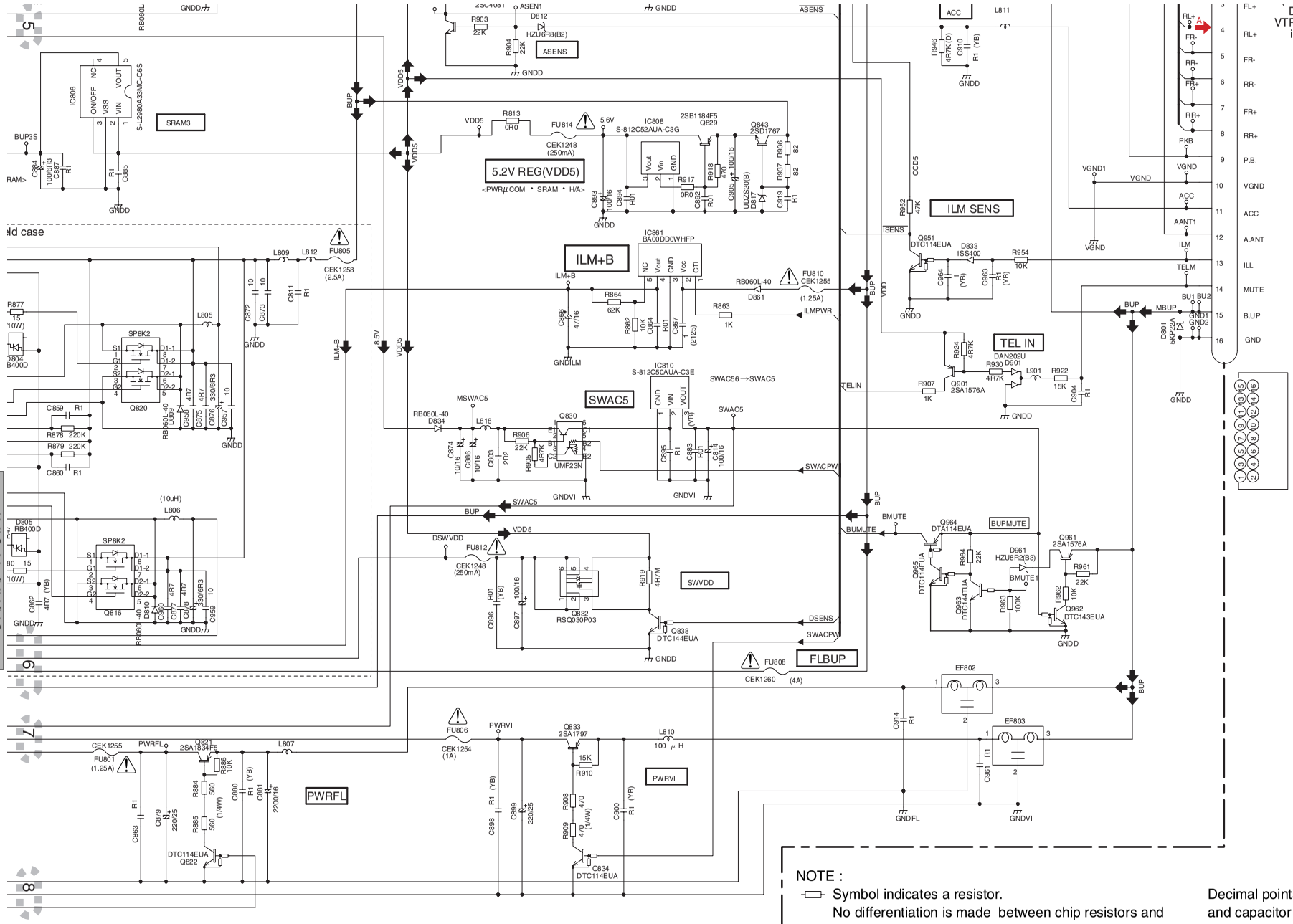


NOTE :
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2 → 2R2
0.022 → R022

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.

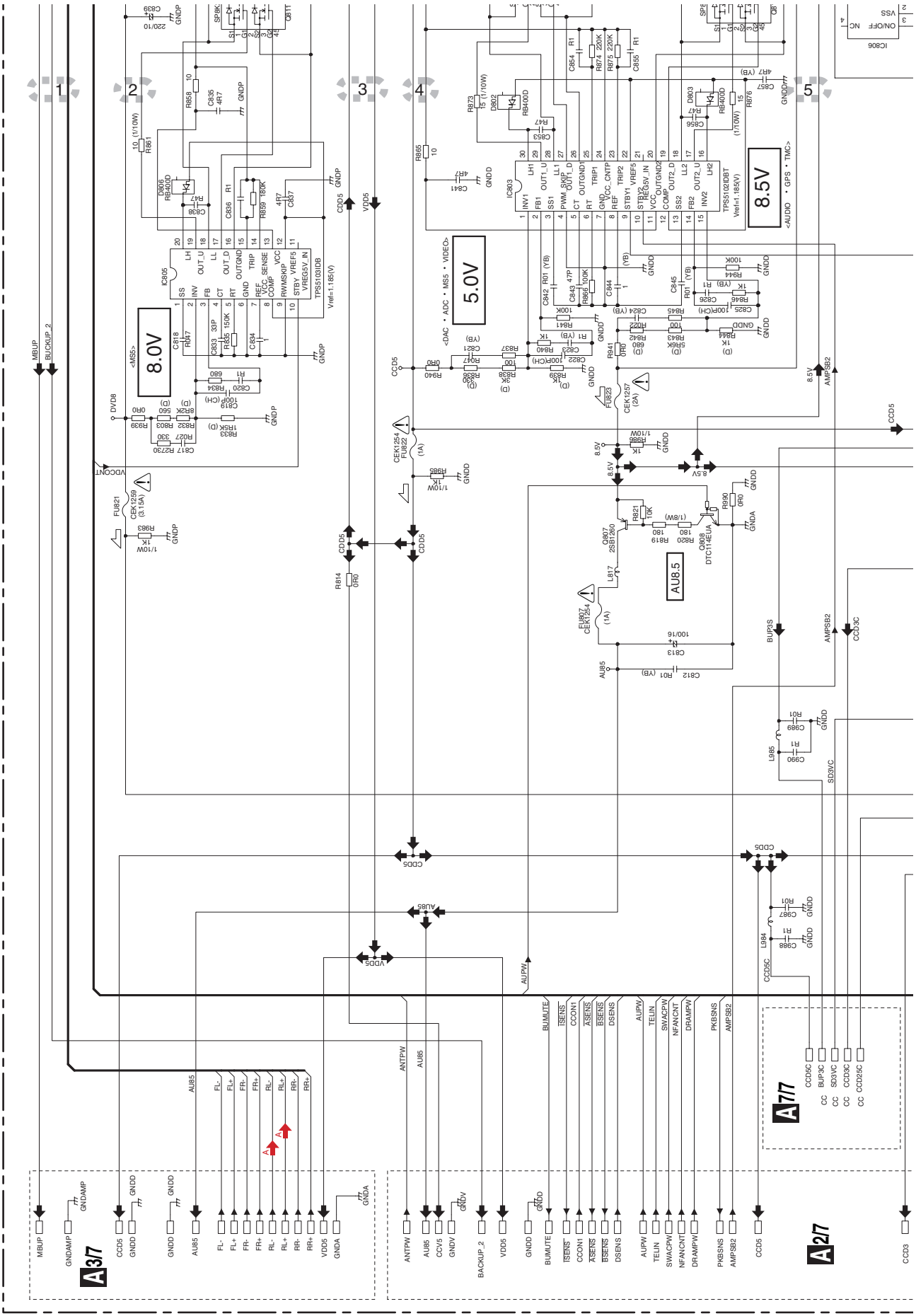

A1/7 CC UNIT(P/S)
Audio Signal
Vehicle I/F
CN802
FM(UC):+28.41dBs
AM(UC):+17.91dBs
FM(EW5):+30.41dBs
AM(EW5):+21.91dBs
DVD:+34.16dBs
VTR1,2:+34.35dBs
iPod:+34.21dBs
IP:+34.35dBs
Back up filter BOX
vehicle side
ANTENNA ON
PARKING SENSE
NAVI FAN
BUP
ACC
BSENS
ASENS
CN971
CN824
AMP FAN MOTOR
NAVI FAN MOTOR
A-b 1/7
A-a
A-b
168
AVIC-N4/XU/UC

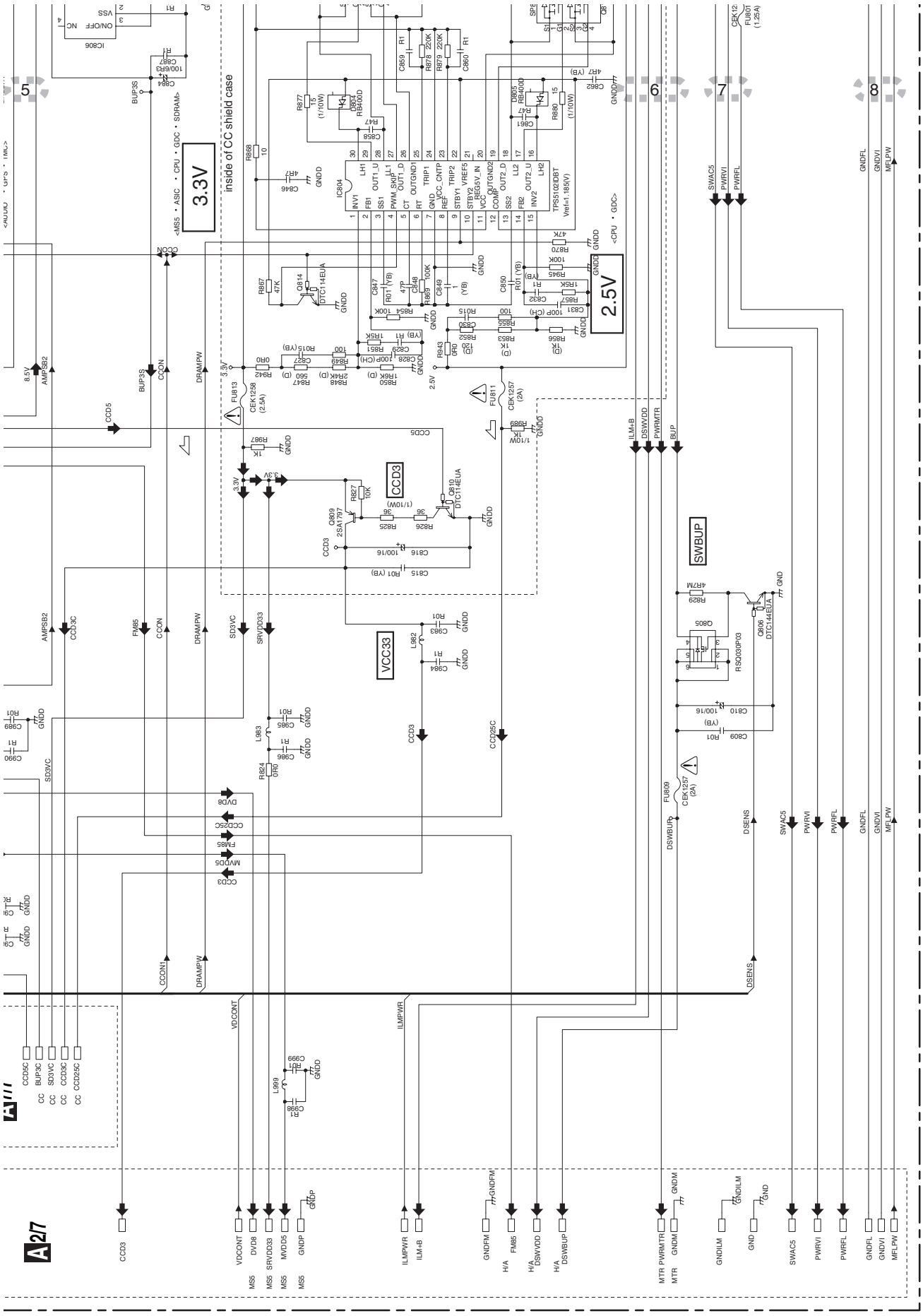


AVIC-N4/XU/UC

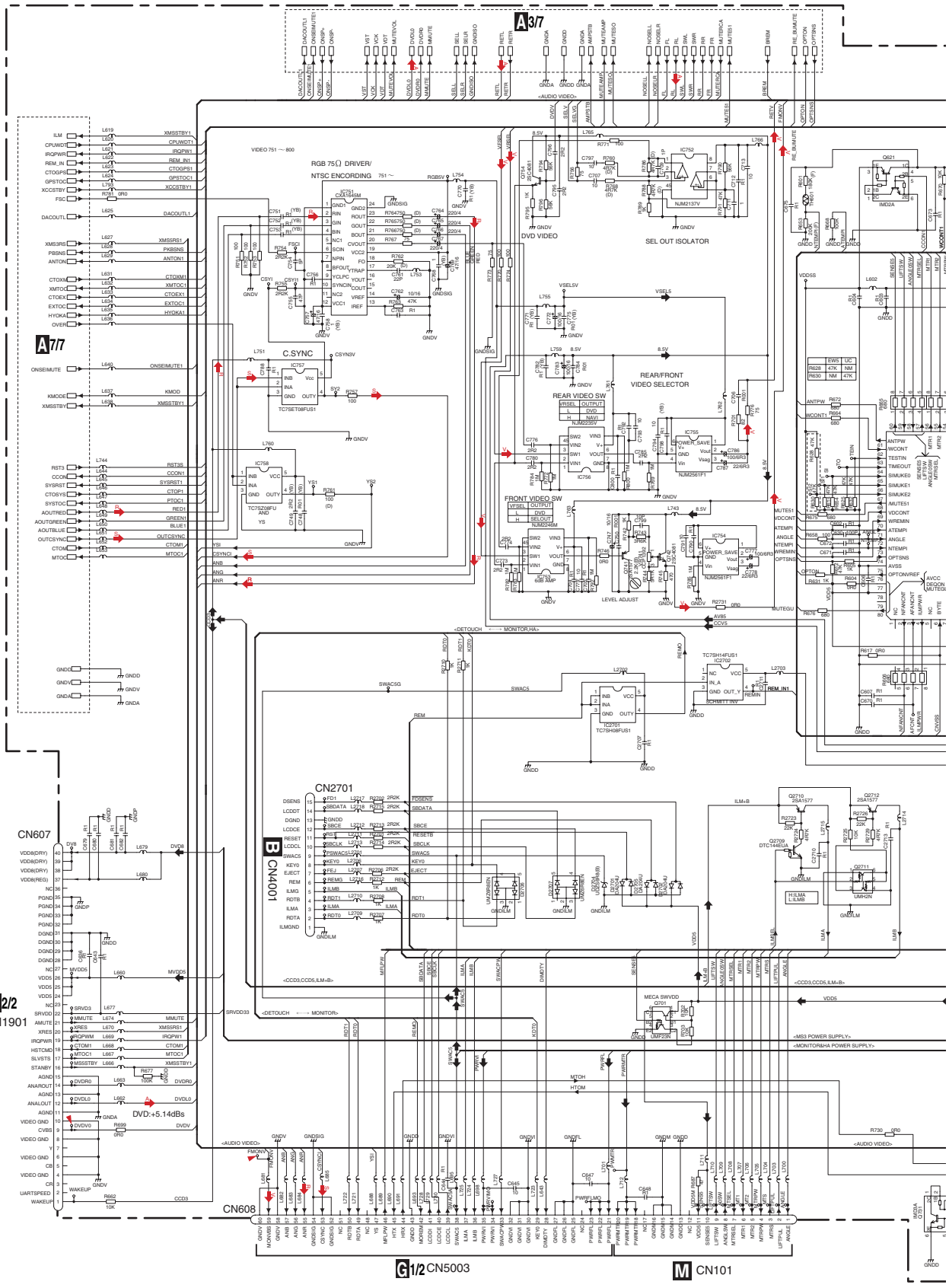
A-b 1/7

A-a A-b

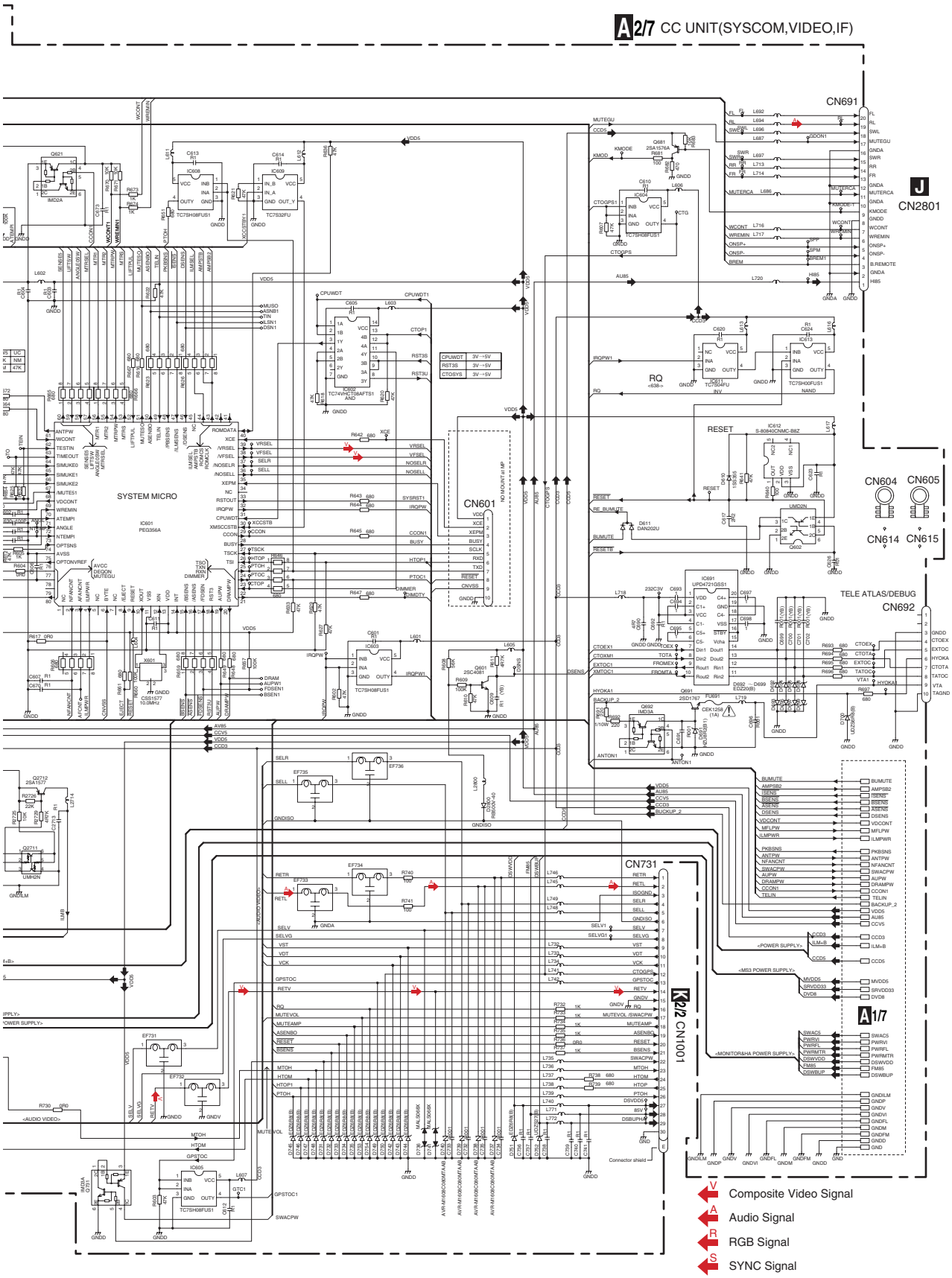

8.0V
5.0V
8.5V
AU8.5
A3/7
A7/7
A2/7
MBUP
BUCKUP_2
VDCONT
DVD8
CCD5
VDD5
AUPW
AU85
ANTPW
BACKUP_2
BUMUTE
ISENS
CCON1
ASENS
BSENS
DSENS
TELIN
SWACPW
NFANCNT
DRAMPW
PKBSNS
AMPSB2
CCD3
CCD5C
BUP3C
SD3VC
CCD3C
CCD25C
GNDAMP
GNDD
GNDA
GNDV
CCV5
FL-
FL+
FR-
FR+
RL-
RL+
RR-
RR+
IC805
IC803
IC806
Q807
Q808
L817
L985
L984
<DAC • ADC • MS5 • VIDEO>
<AUDIO • GPS • TMC>
<MS5>
AVIC-N4/XU/UC


A-b 1/7
A-a 1/7
A-b
A-a
A2/7
3.3V
2.5V
inside of CC shield case
SWBUP
VCC33
CCD3
IC804
TPS51021DBT
IC806
RSQ030P03
Q805
DTC144EUA
Q806
DTC144EUA
Q809
2SA1797
Q810
DTC114EUA
Q814
DTC114EUA
FU809
CEK157 (2A)
FU811
CEK1257 (2A)
FU813
CEK1258 (2.5A)
FU801
CEK12 (1.25A)
CCD5
BUP3C
SD3VC
CCD3C
CCD25C
VDCONT
DV08
SRVD033
MVDD5
GNDP
ILMPWR
ILM+B
GNDFM
FM85
H/A
DSWVDD
DSWBUP
MTR
PWRMTR
GNDM
GNDILM
GND
SWAC5
PWRVI
PWRFL
GNDFL
GNDVI
MFLPW
DSENS
CCON
DRAMPW
AMPSB2
BUP3S
M55
S5
H/A

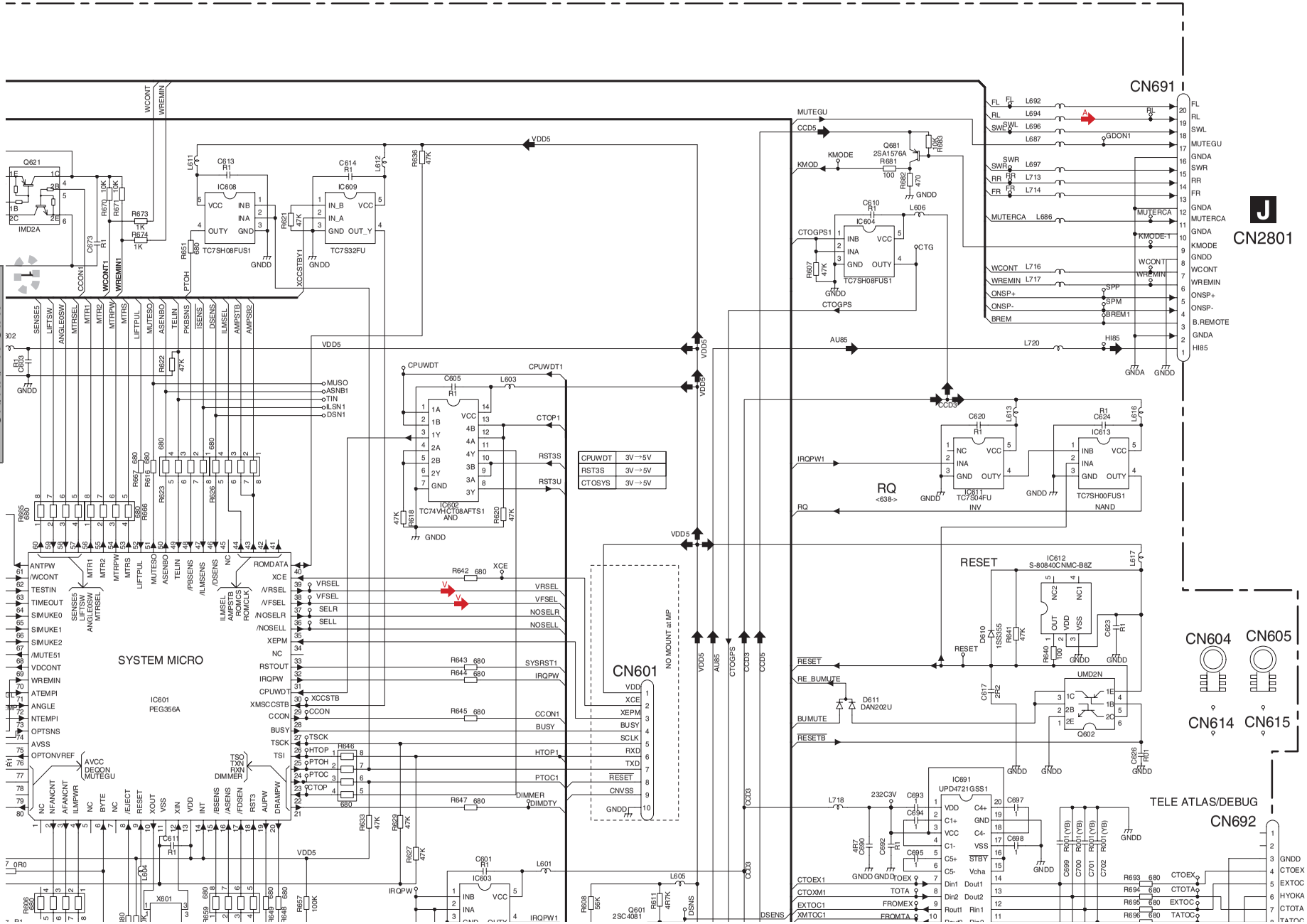
10.2 CC UNIT(SYSCOM,VIDEO,IF)(GUIDE PAGE)



A2/7 CC UNIT(SYSCOM,VIDEO,IF)



A2/7 CC UNIT(SYSCOM,VIDEO,IF)



TELE ATLAS/DEBUG CN692

K2/2 CN1001

CN731

A1/7

Composite Video Signal

Audio Signal

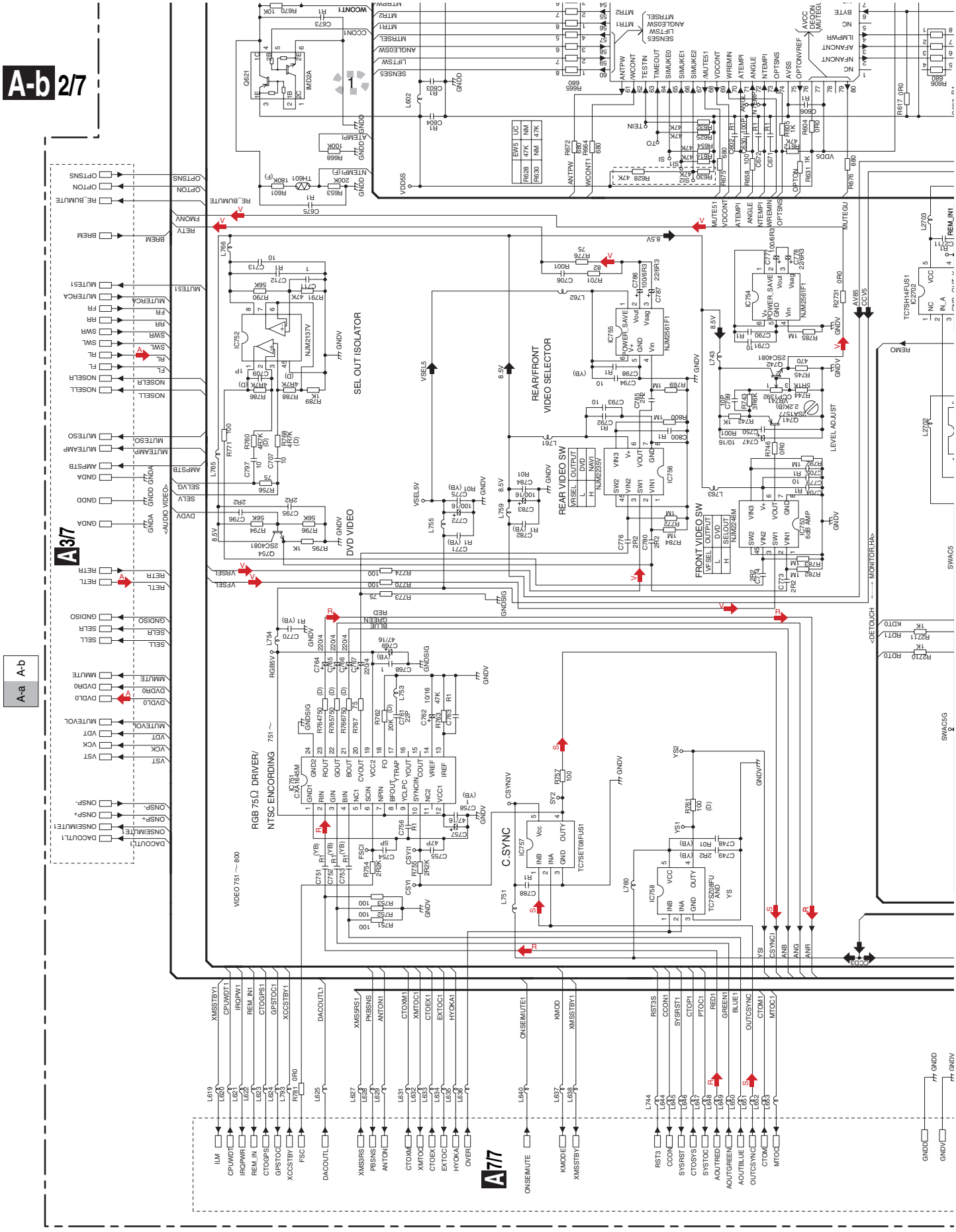
RGB Signal

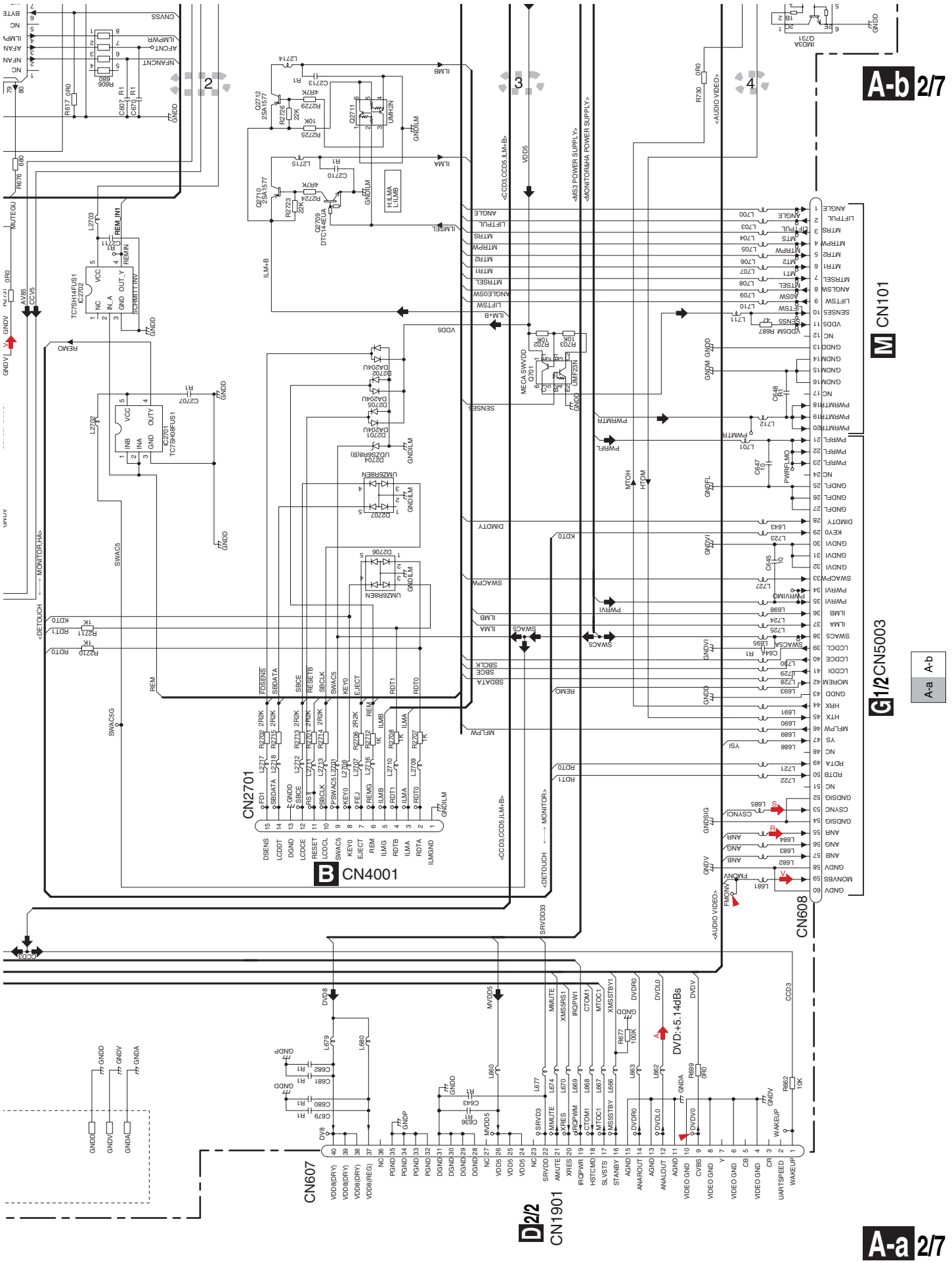
SYNC Signal

A-b 2/7

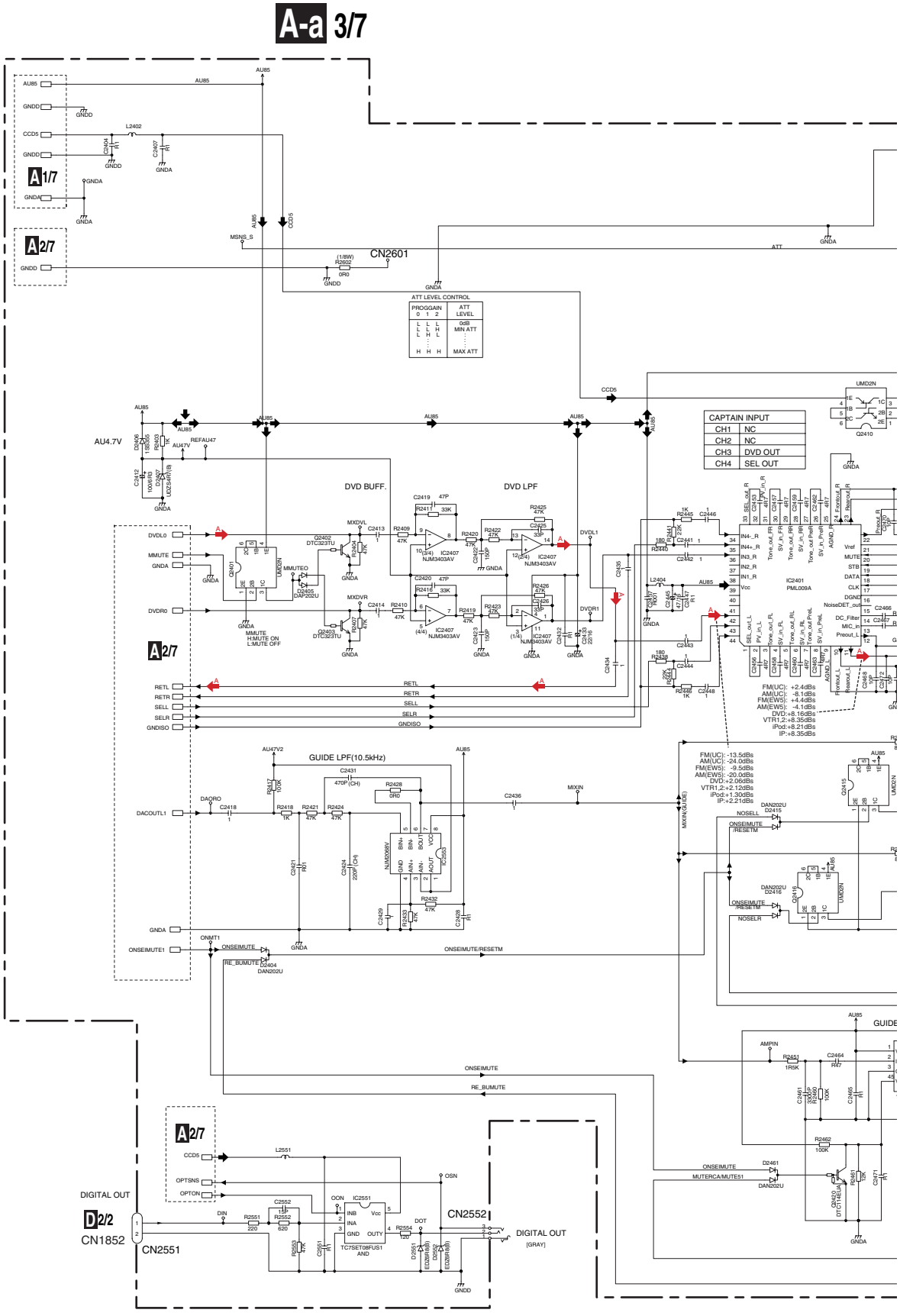
A-b

A-a

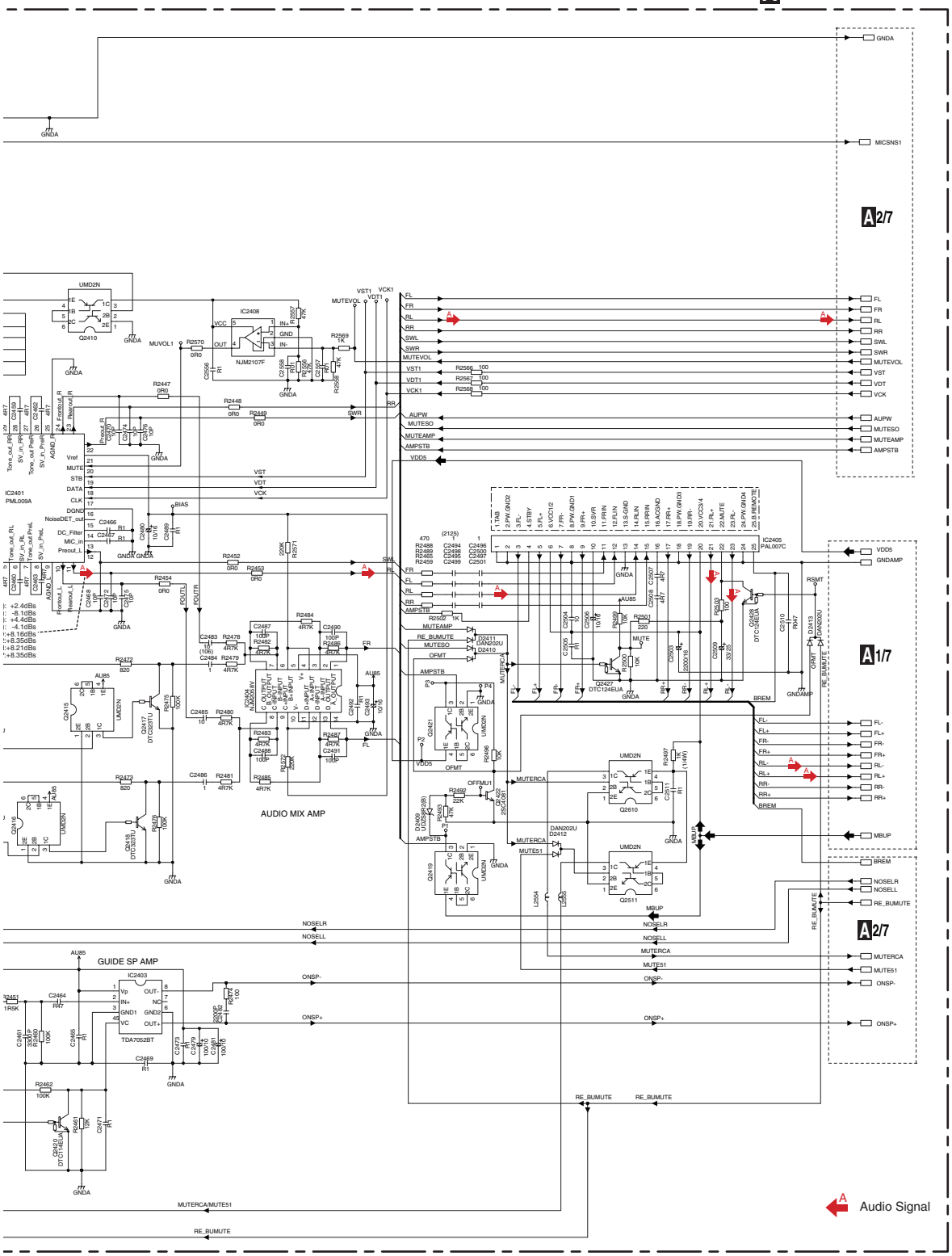

A3/7
A7/7
SEL OUT ISOLATOR
REAR/FRONT VIDEO SELECTOR
REAR VIDEO SW
FRONT VIDEO SW
DVD VIDEO
LEVEL ADJUST
RGB 75Ω DRIVER/ NTSC ENCORDING
C.SYNC
VIDEO 751 ~ 800
<AUDIO VIDEO>
<MONITOR HA>
<DETOUCH
A-a
A-b


A-b 2/7
A-a 2/7
CN101
CN5003
CN608
CN4001
CN2701
CN607
CN1901
DVD:+5.14dBs
<MONITOR.HA>
<DETOUCH
<CCD3.CCD5.ILM+B>
<MONITOR>
<AUDIO VIDEO>
<MS3 POWER SUPPLY>
<MONITOR&HA POWER SUPPLY>
AVIC-N4/XU/UC
177

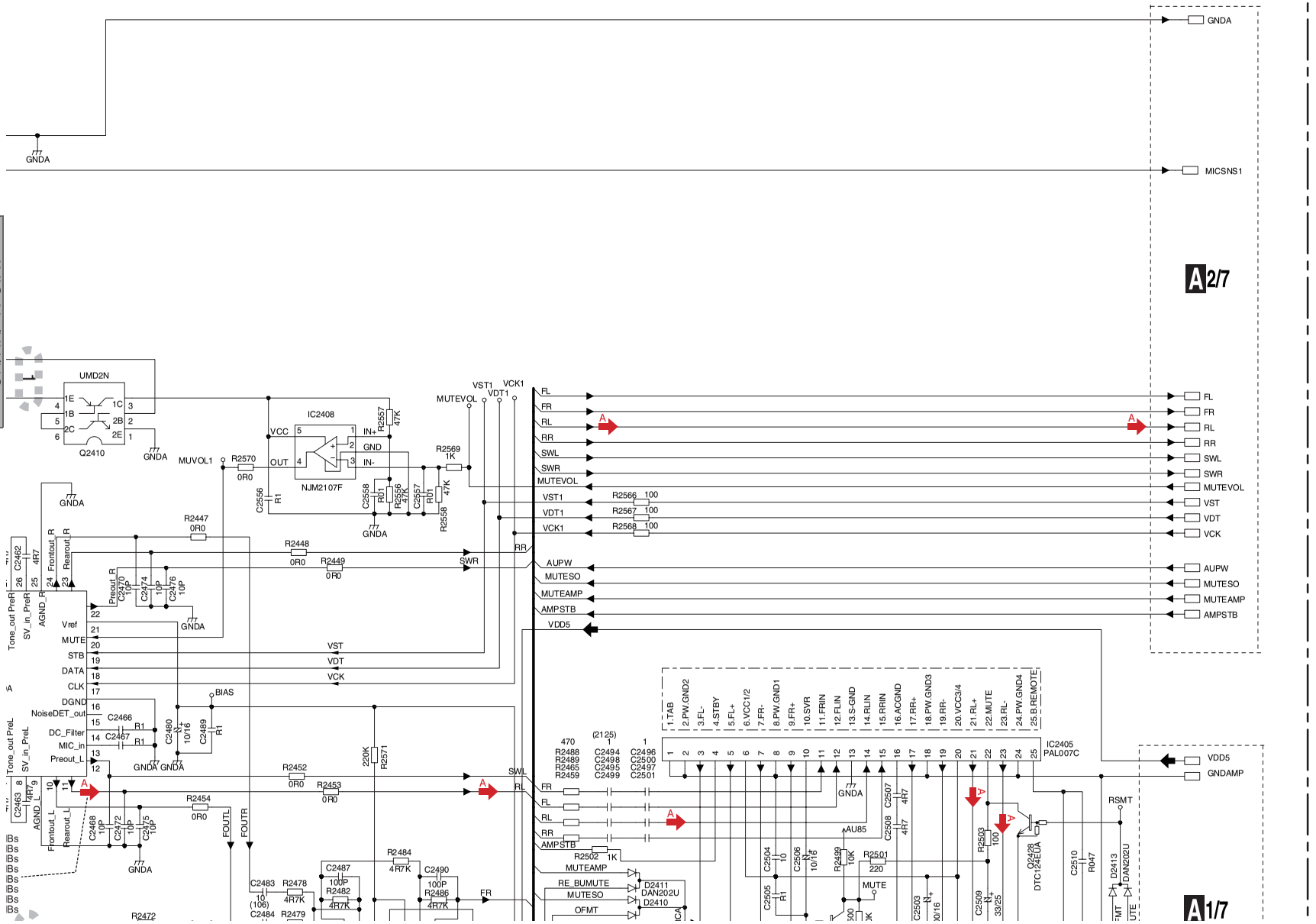
10.3 CC UNIT(AUDIO)(GUIDE PAGE)

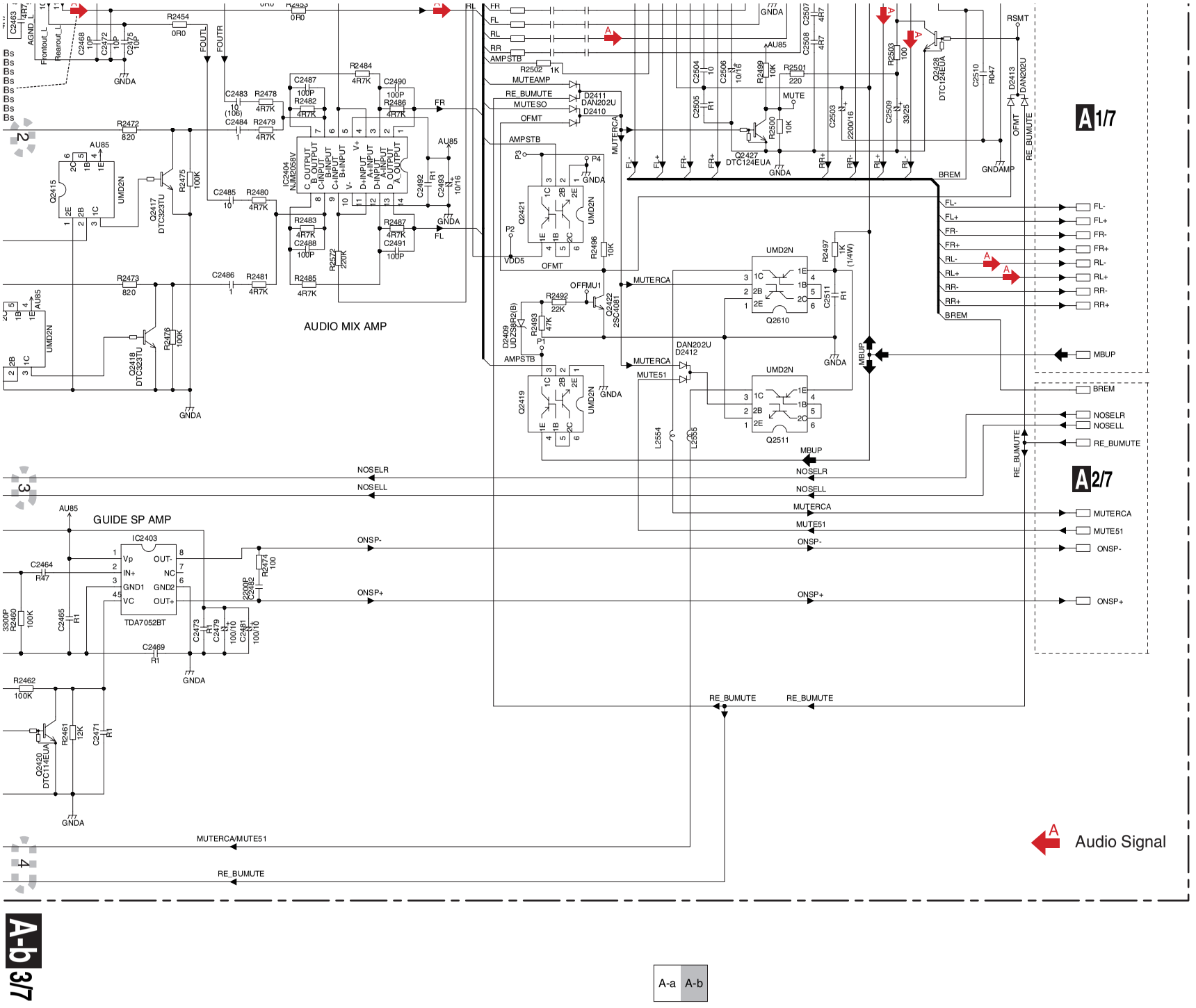


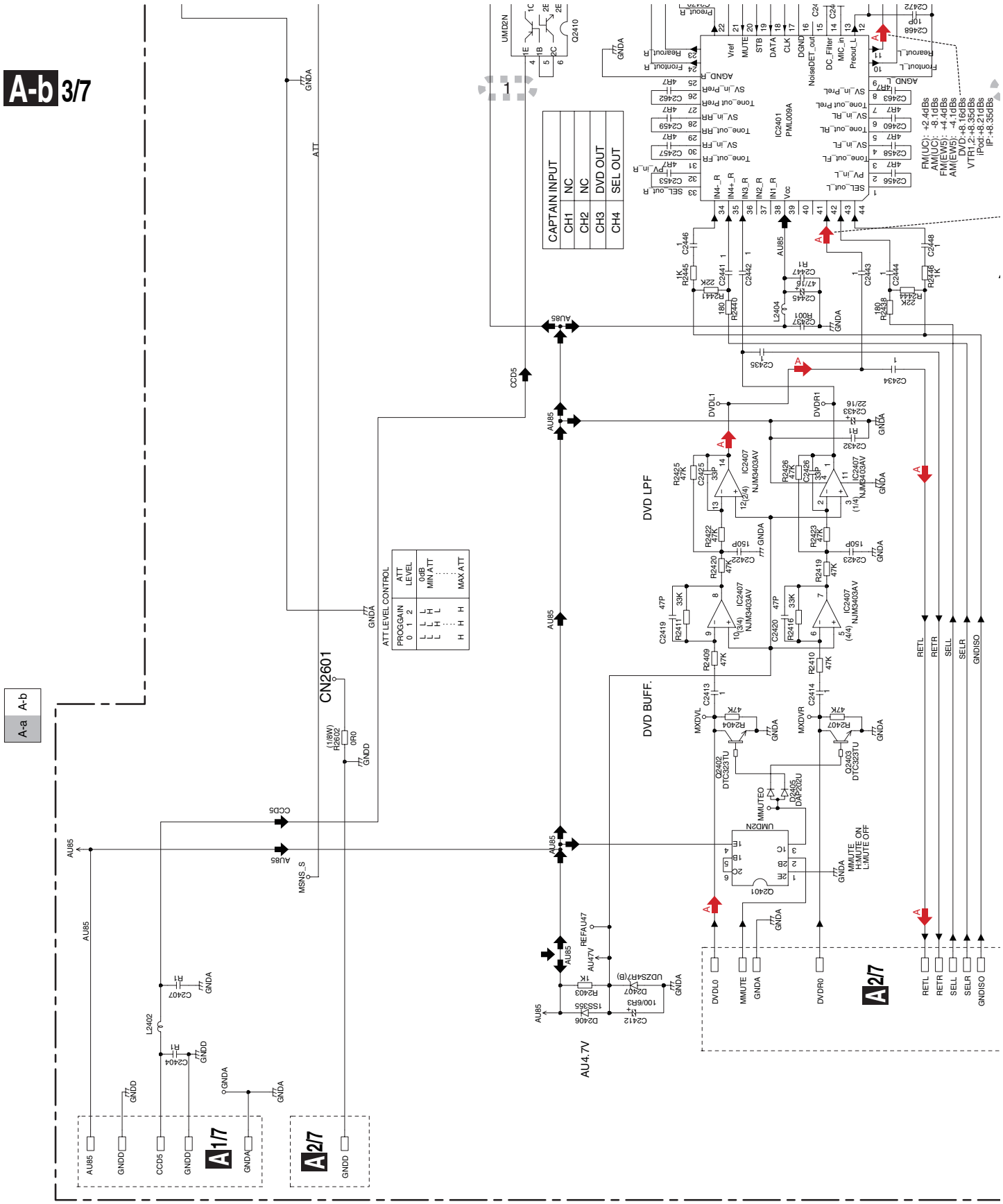
A3/7 CC UNIT(AUDIO)

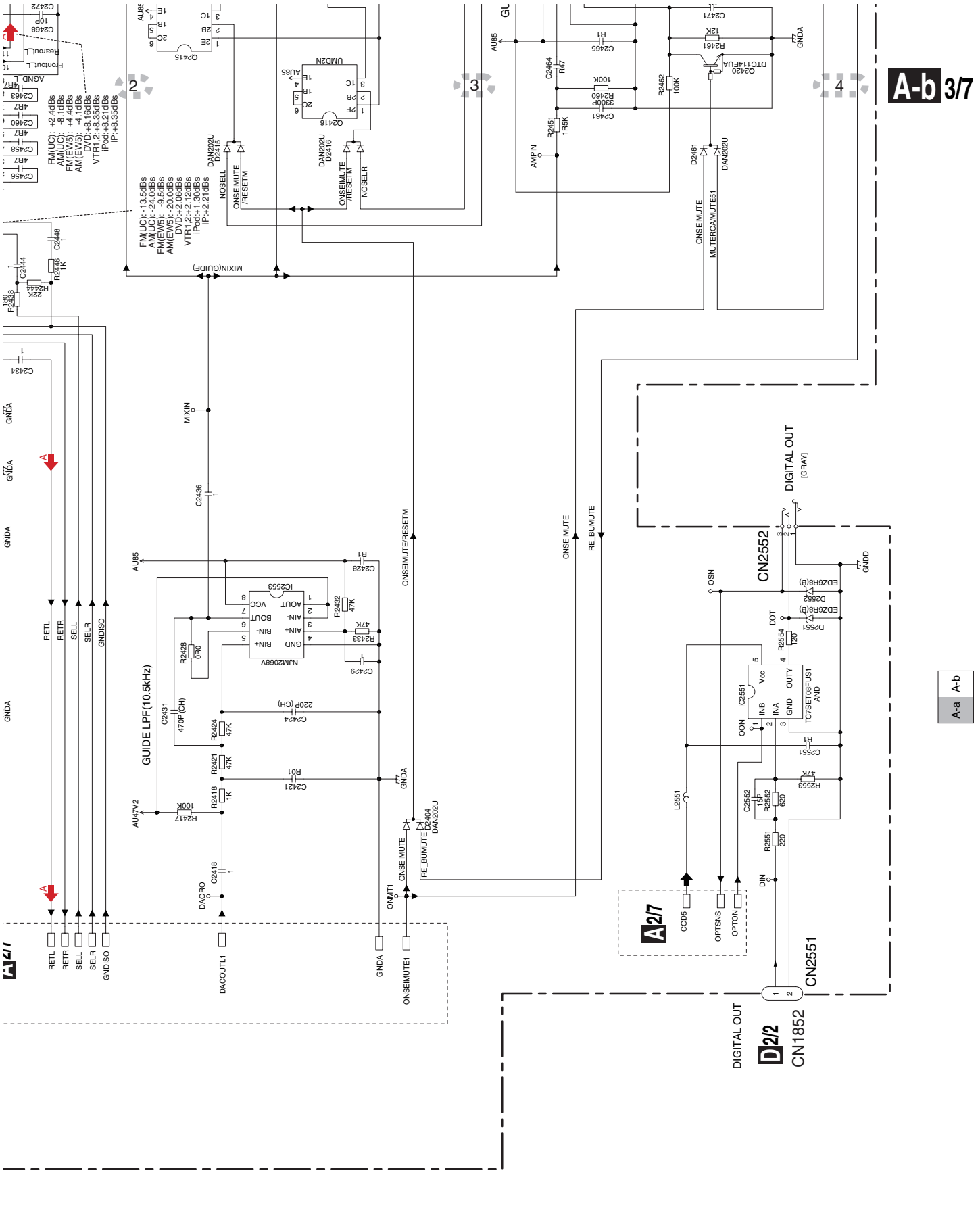


A3/7 CC UNIT(AUDIO)

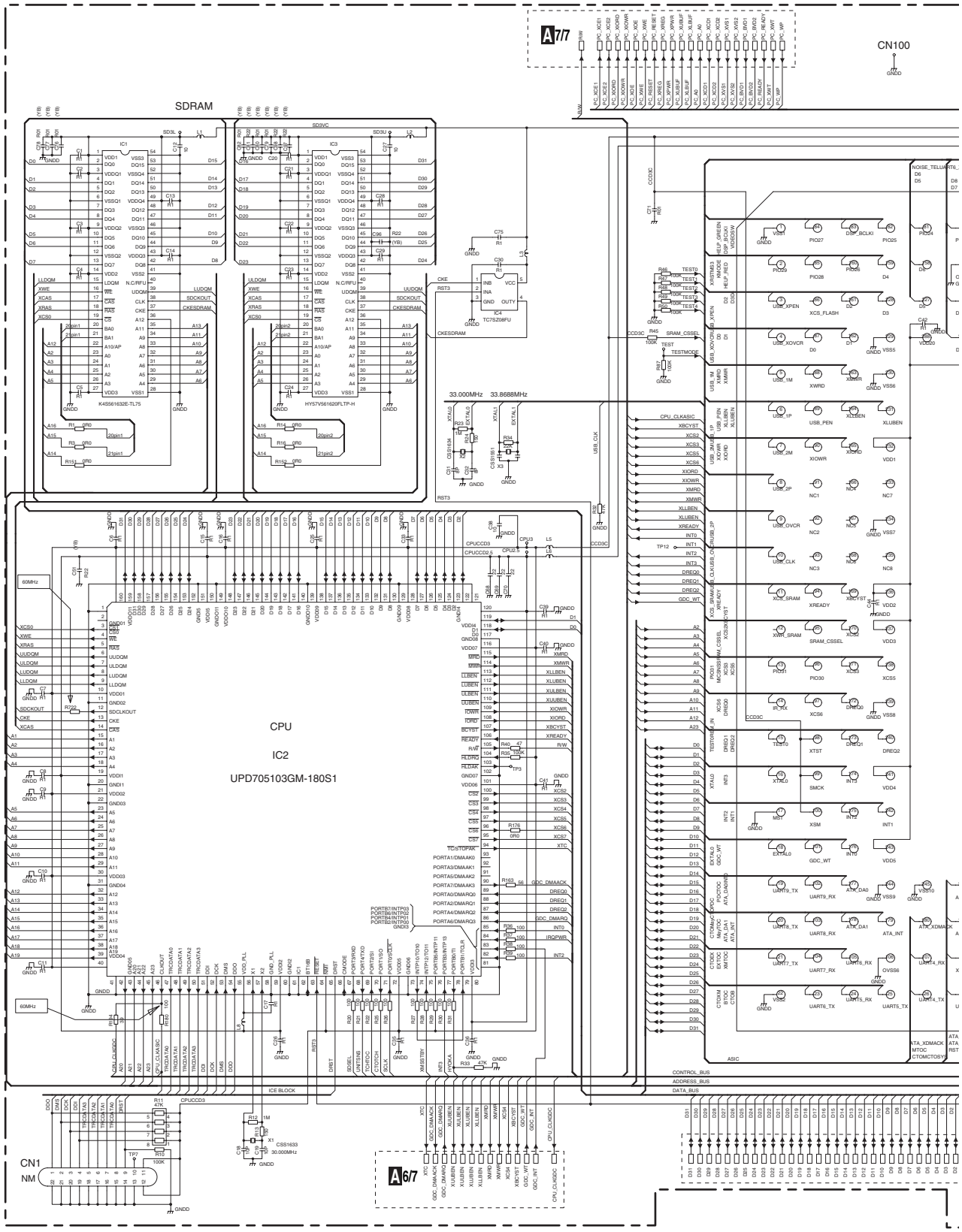



AUDIO MIX AMP
GUIDE SP AMP
AVIC-N4/XU/UC
A-b 3/7
A1/7
A2/7
Audio Signal
A-a
A-b
TDA7052BT
IC2403
Q2610
Q2511
Q2427
DTC124EUA
MUTE
MUTERCA
MUTE51
MUTESO
RE_BUMUTE
MBUP
BREM
NOSELR
NOSELL
ONSP-
ONSP+
FL-
FL+
FR-
FR+
RL-
RL+
RR-
RR+
AMPSTB
MUTEAMP
OFMT
GNDA
GNDAMP
RSMT
MUTERCA/MUTE51

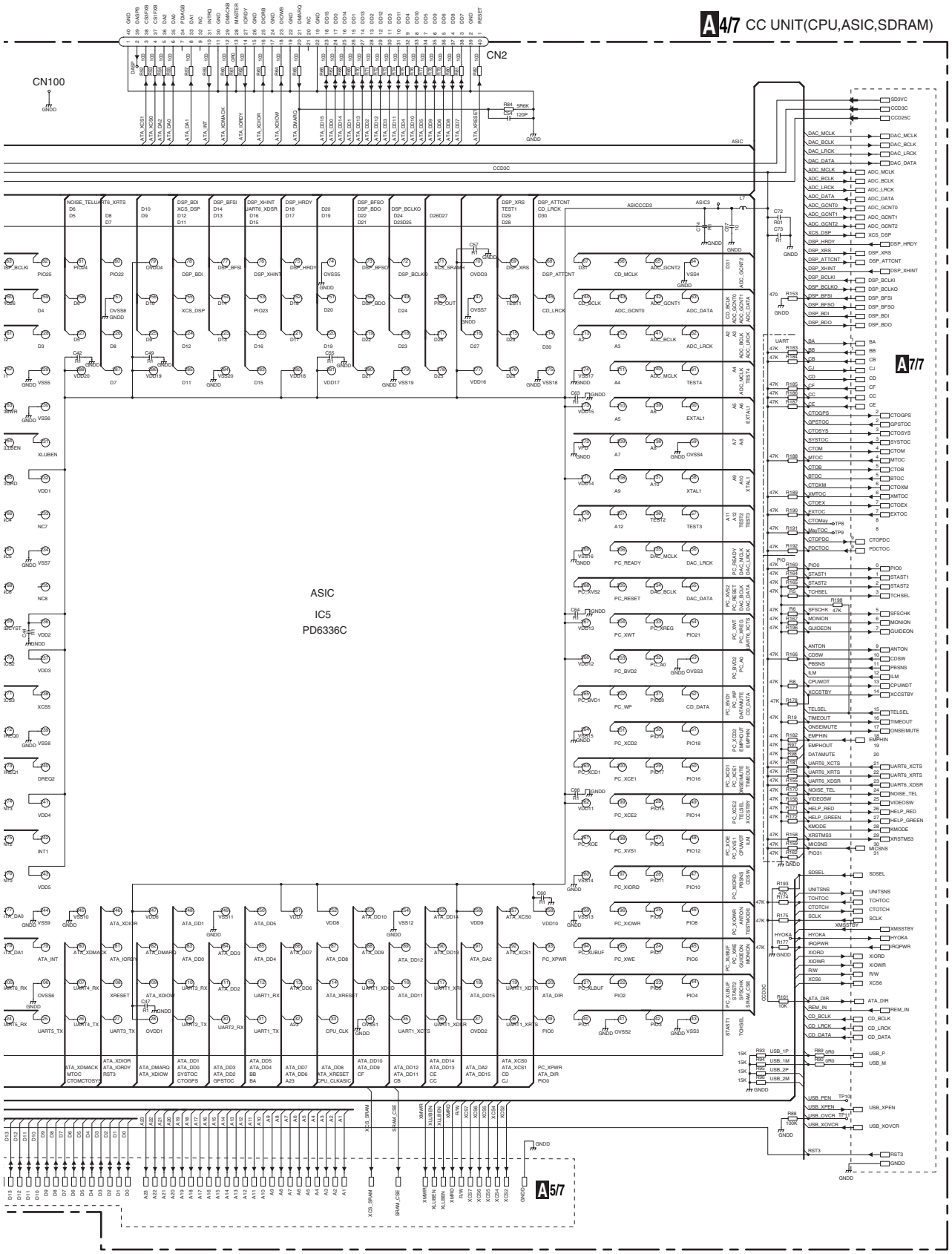

A-b 3/7
A-a 3/7
A-b
A-a
CAPTAIN INPUT
CH1 NC
CH2 NC
CH3 DVD OUT
CH4 SEL OUT
ATT LEVEL CONTROL
PROGGAIN 0 1 2
ATT LEVEL 0dB MIN ATT MAX ATT
CN2601
IC2401 PML009A
IC2407 NJM3403AV
DVD LPF
DVD BUFF.
MMUTE ON H:MUTE OFF L:MUTE
FM(UC): +2.4dBs
AM(UC): -8.1dBs
FM(EW5): +4.4dBs
AM(EW5): -4.1dBs
DVD:-8.16dBs
VTR1:-8.35dBs
VTR2:-8.71dBs
IP:+8.35dBs
A1/7
A2/7
AU4.7V


A-b 3/7
A-a 3/7
A-b
A-a
GUIDE LPF(10.5kHz)
MIXIN(GUIDE)
DIGITAL OUT
[GRAY]
CN2552
CN2551
CN1852
DIGITAL OUT
A2/7
D2/2
ONSEIMUTE/RESETM
RE_BUMUTE
ONSEIMUTE
MUTERCAMUTE51
NOSELL
ONSEIMUTE /RESETM
NOSELR
DAN202U
NJM2068V
IC2553
IC2551
TC7SET08FUS1 AND
DTC114EUA
RETL
RETR
SELL
SELR
GNDISO
DACOUTL1
ONSEIMUTE1
CCD5
OPTSNS
OPTON
DIN
OSN
DOT
OON
MIXIN
GNDA
GNDD
AU85
AU47V2
ONMT1
AMPIN
FM(UC): +2.4dBs
AM(UC): -8.1dBs
FM(EW5): +4.4dBs
AM(EW5): -4.1dBs
DVD:+8.16dBs
VTR1,2:+8.35dBs
iPod:+8.21dBs
IP:+8.35dBs
FM(UC): -13.5dBs
AM(UC): -24.0dBs
FM(EW5): -9.5dBs
AM(EW5): -20.0dBs
DVD:+2.06dBs
VTR1,2:+2.12dBs
iPod:+1.30dBs
IP:+2.21dBs

10.4 CC UNIT(CPU,ASIC,SDRAM)(GUIDE PAGE)



A4/7

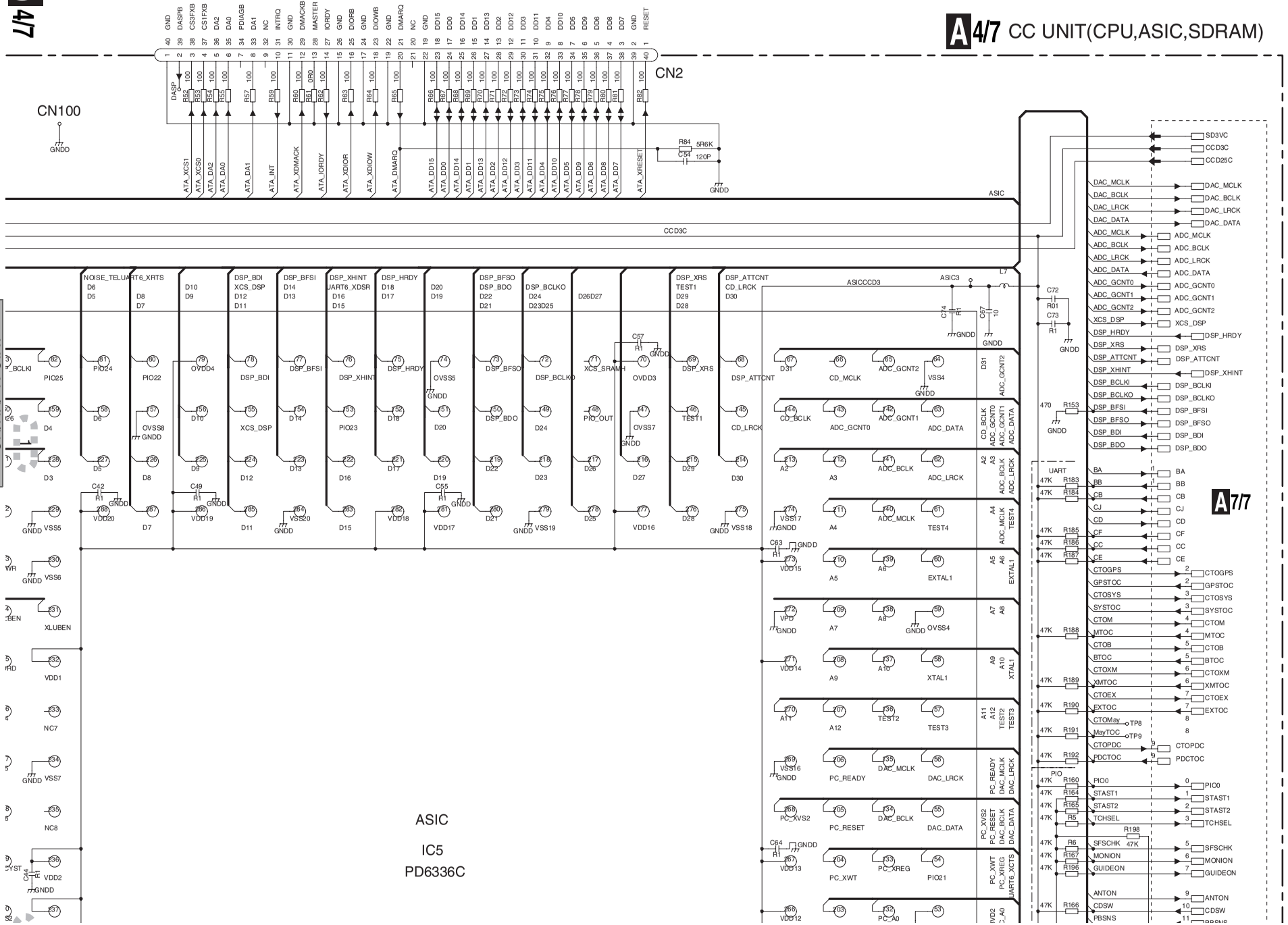

D 2/2 CN2001
CN2
CN100
A 4/7 CC UNIT(CPU,ASIC,SDRAM)
ASIC
IC5
PD6336C
A 5/7
A 7/7
A 4/7

A-b 4/7

D2/2 CN2001

A-a A-b

A4/7 CC UNIT(CPU,ASIC,SDRAM)



AVIC-N4/XU/UC

ASIC

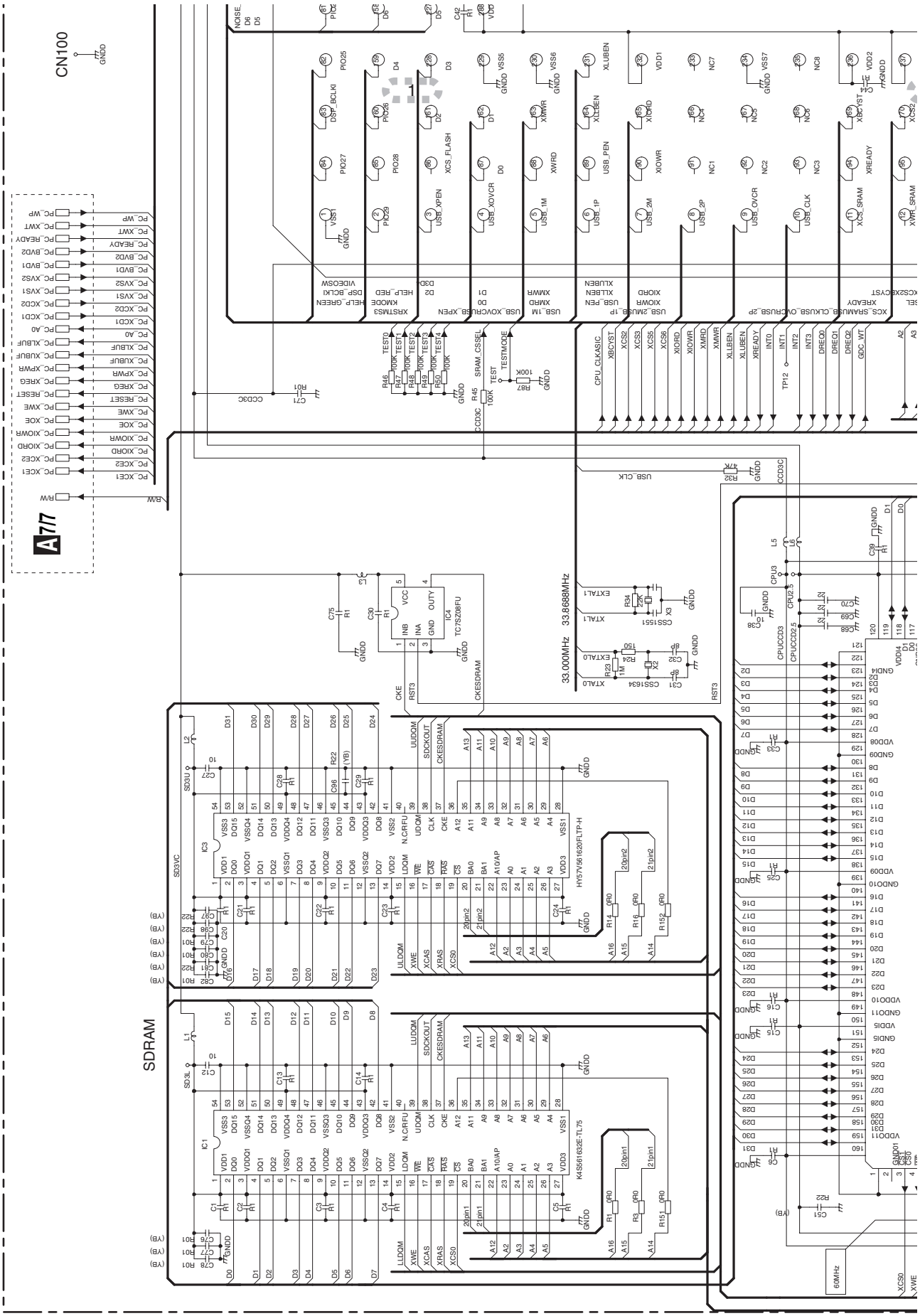
IC5

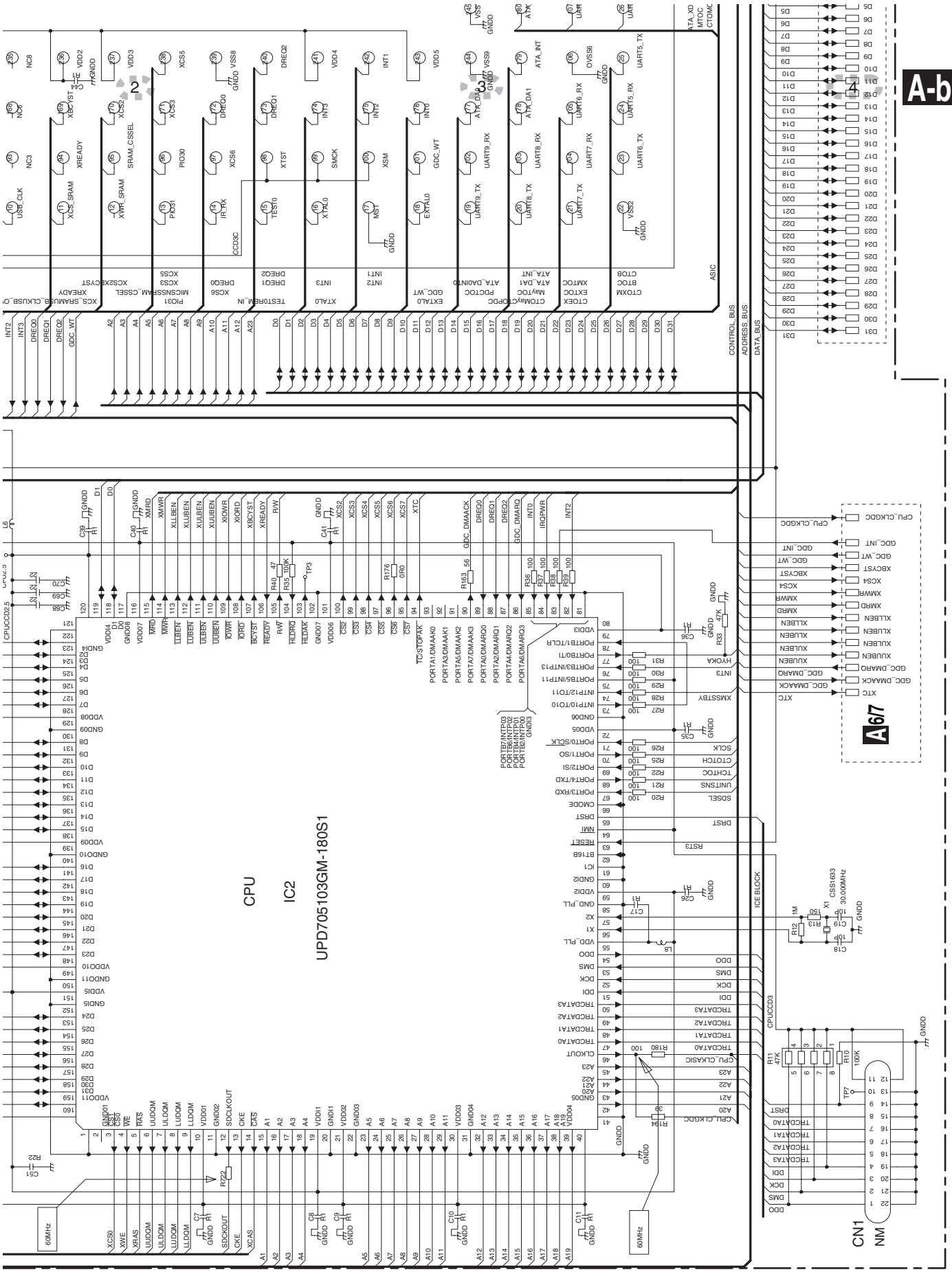
PD6336C

A5/7

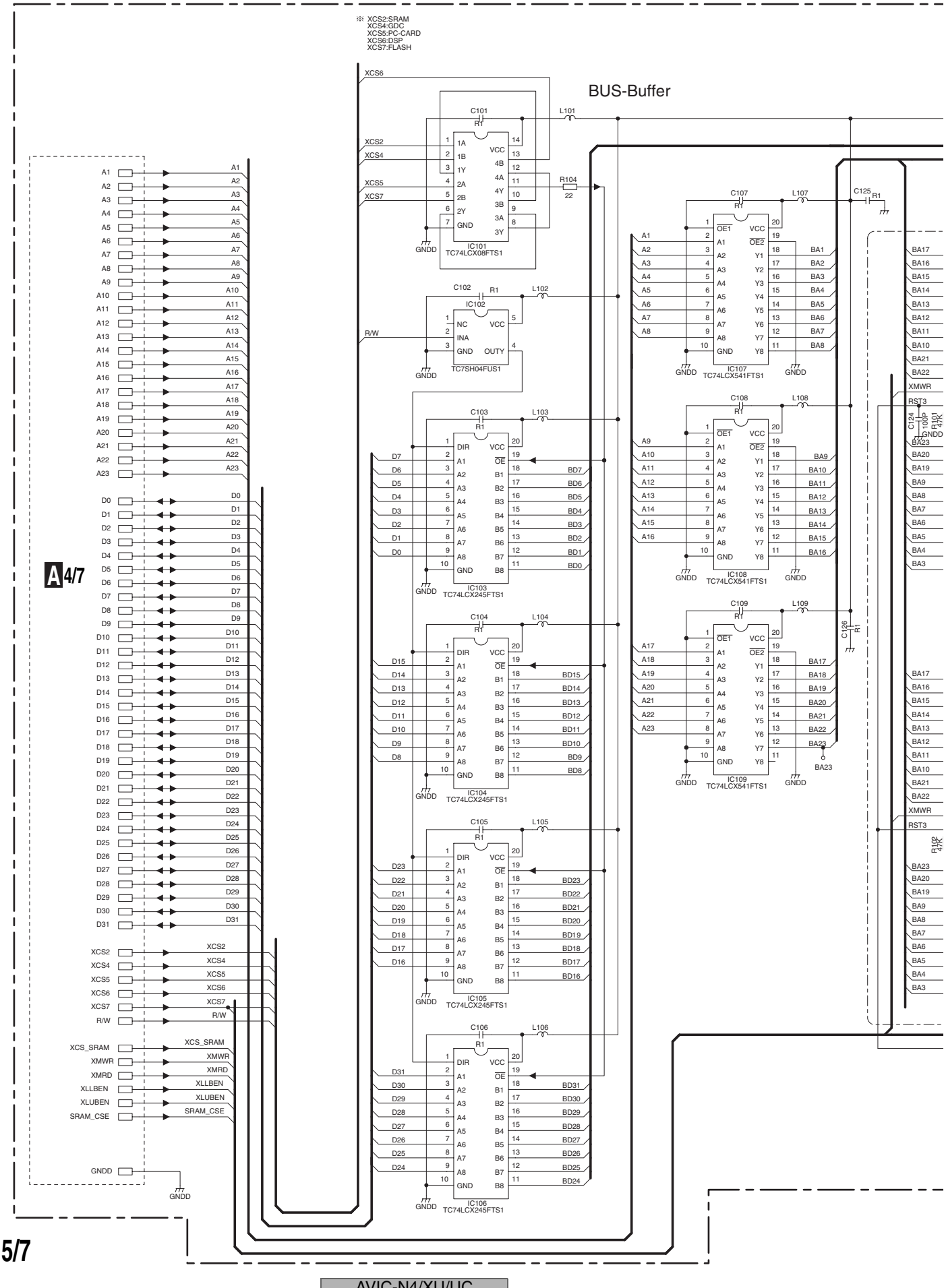
A-b
A-a

A-b 4/7

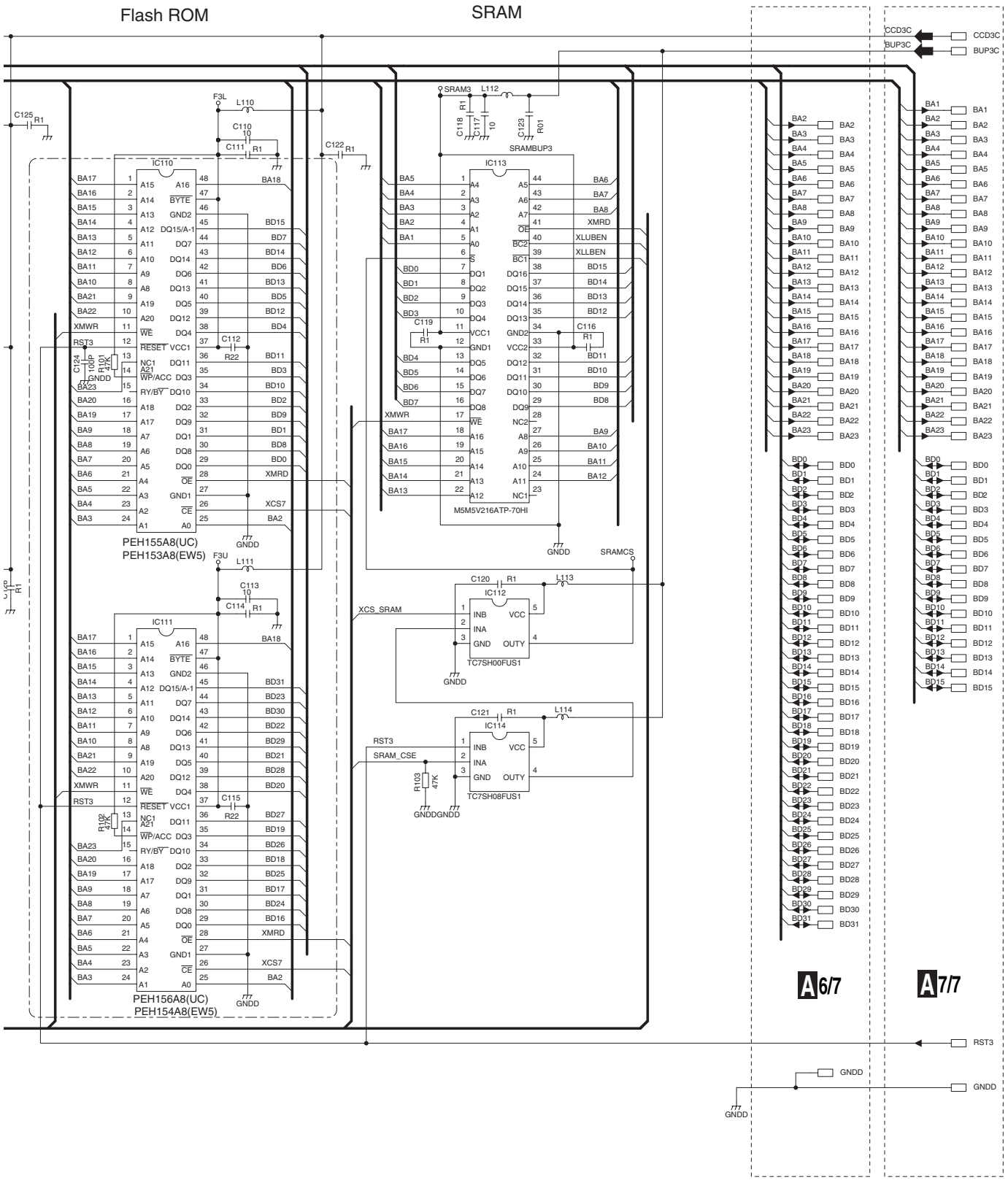

CN100
A7/7
SDRAM
IC1
IC3
K4S561632E-TL75
HY57V561620FLTP-H
IC4
TC7SZ08FU
CSS1551
CSS1634
33.8688MHz
33.000MHz
CKESDRAM
SD3L
SD3U
SD3VC
60MHz
CPU_CLKASIC
USB_CLK
SRAM_CSSEL
TESTMODE
CCD3C
CPUCCD23
CPUCCD2.5
VDDH4
GNDD
VDD


A-b 4/7
A6/7
A-a 4/7
CPU
IC2
UPD705103GM-180S1
ICE BLOCK
CN1
NM
ASIC
CONTROL_BUS
ADDRESS_BUS
DATA_BUS
A-b
A-a

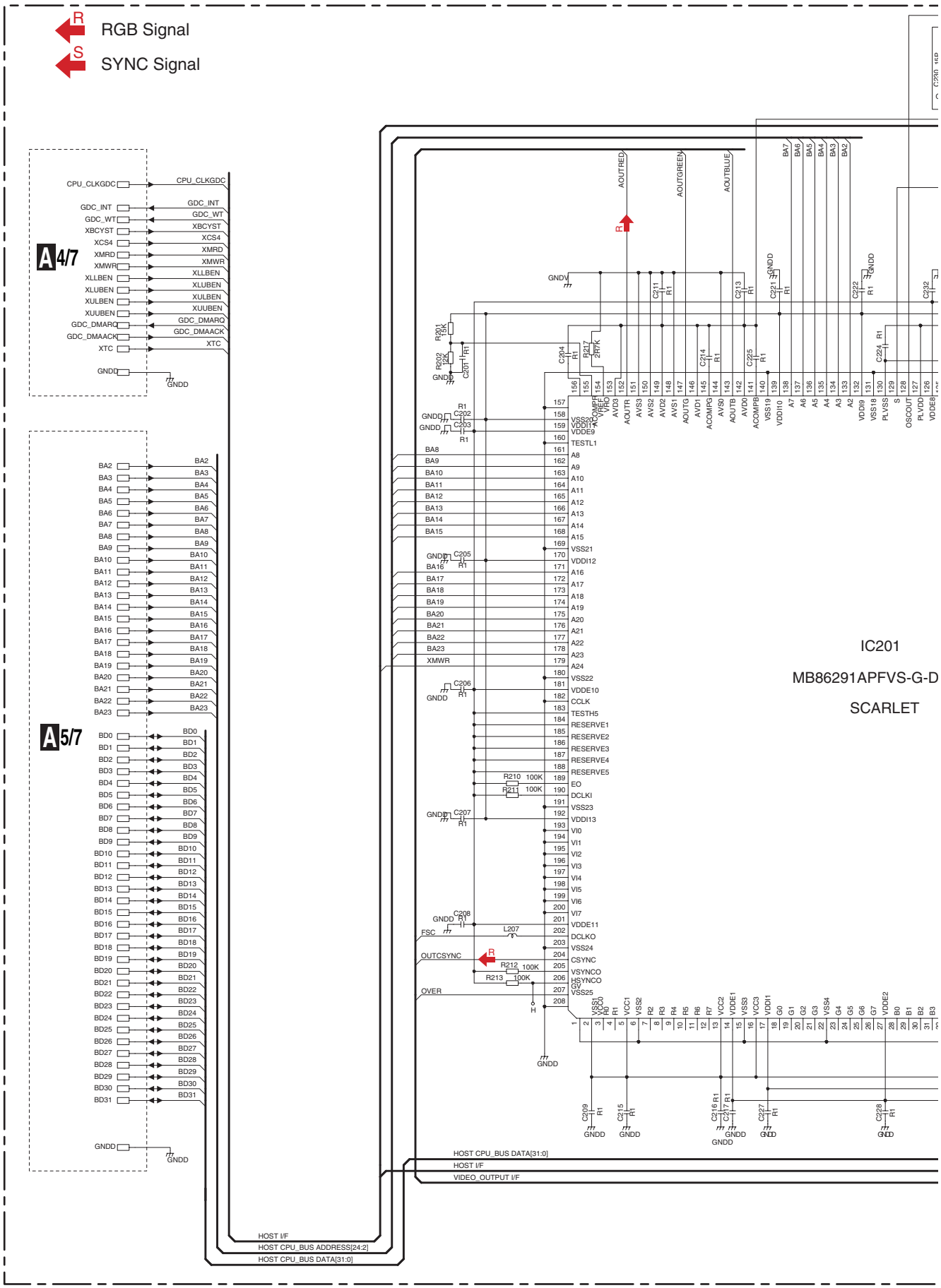
10.5 CC UNIT(ROM,SRAM,BUS-BUFFER)

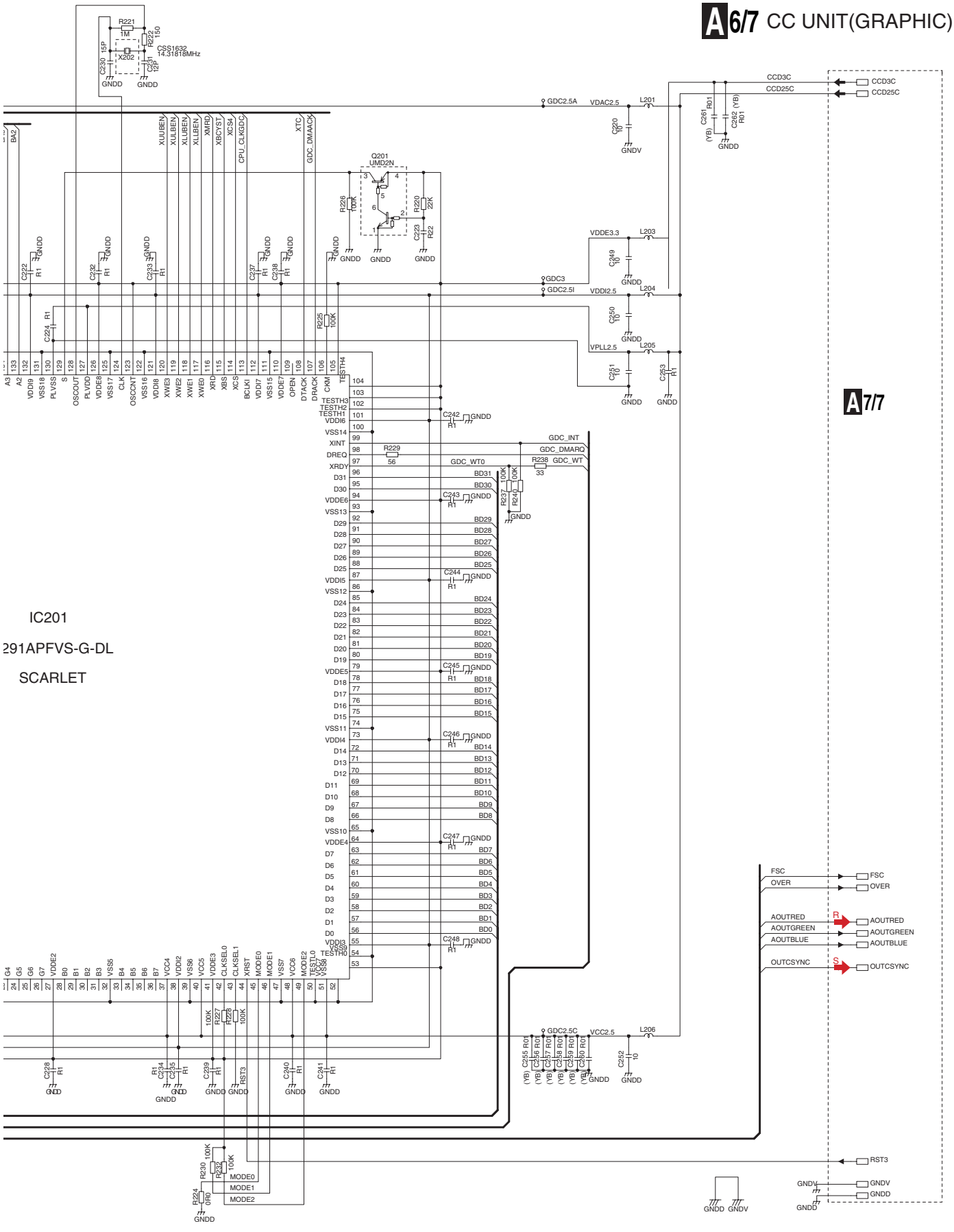


A5/7 CC UNIT(ROM,SRAM,BUS-BUFFER)

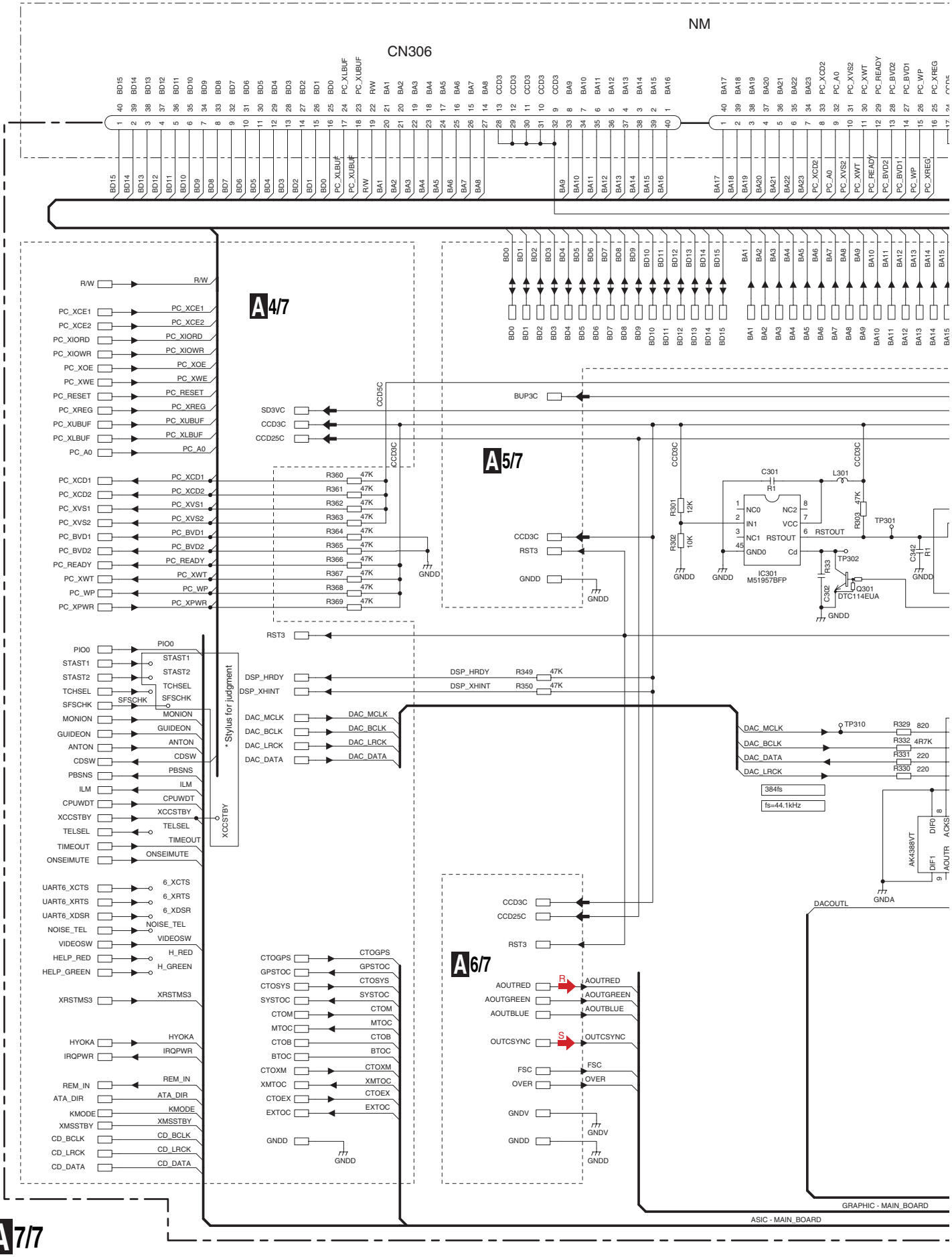


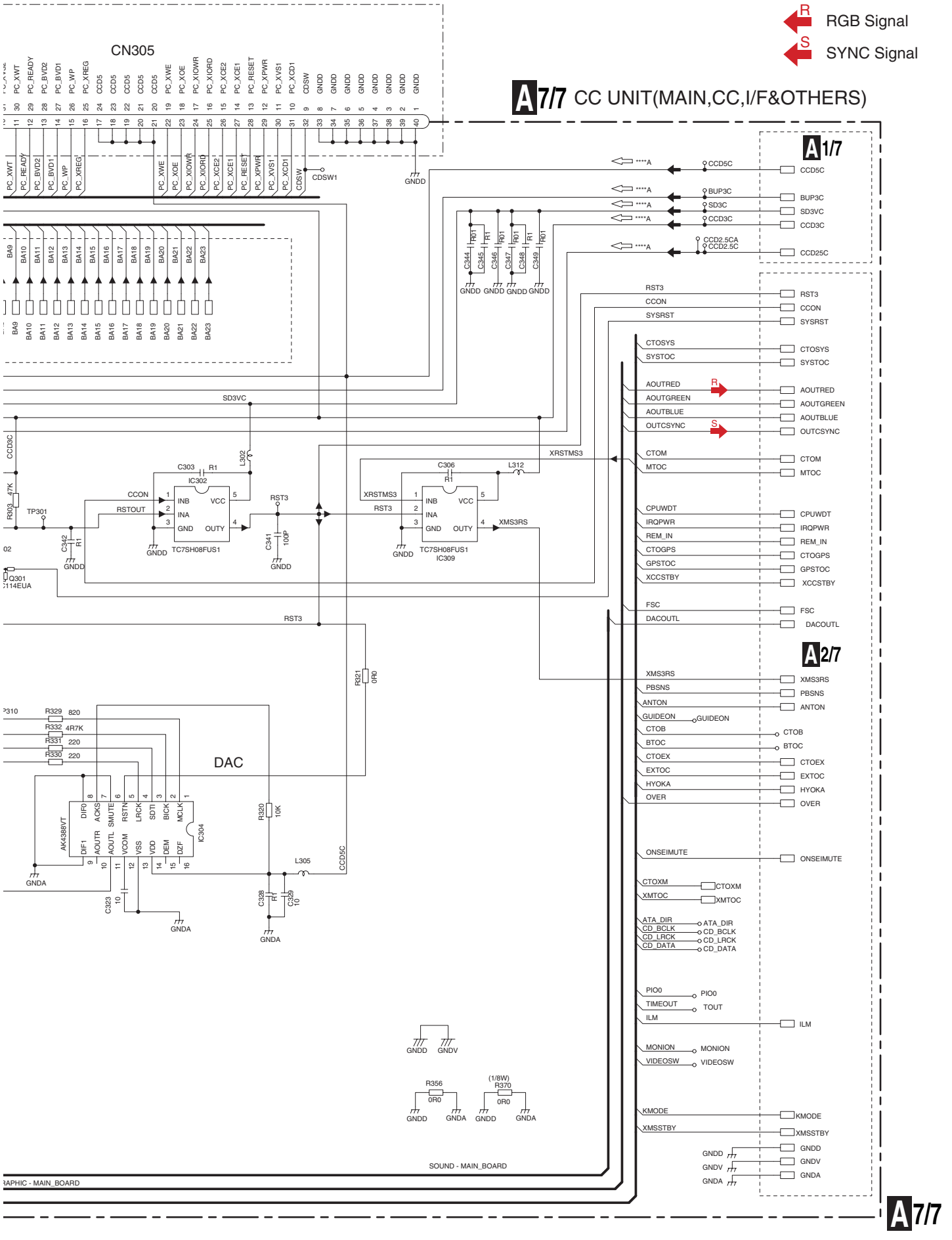
10.6 CC UNIT(GRAPHIC)



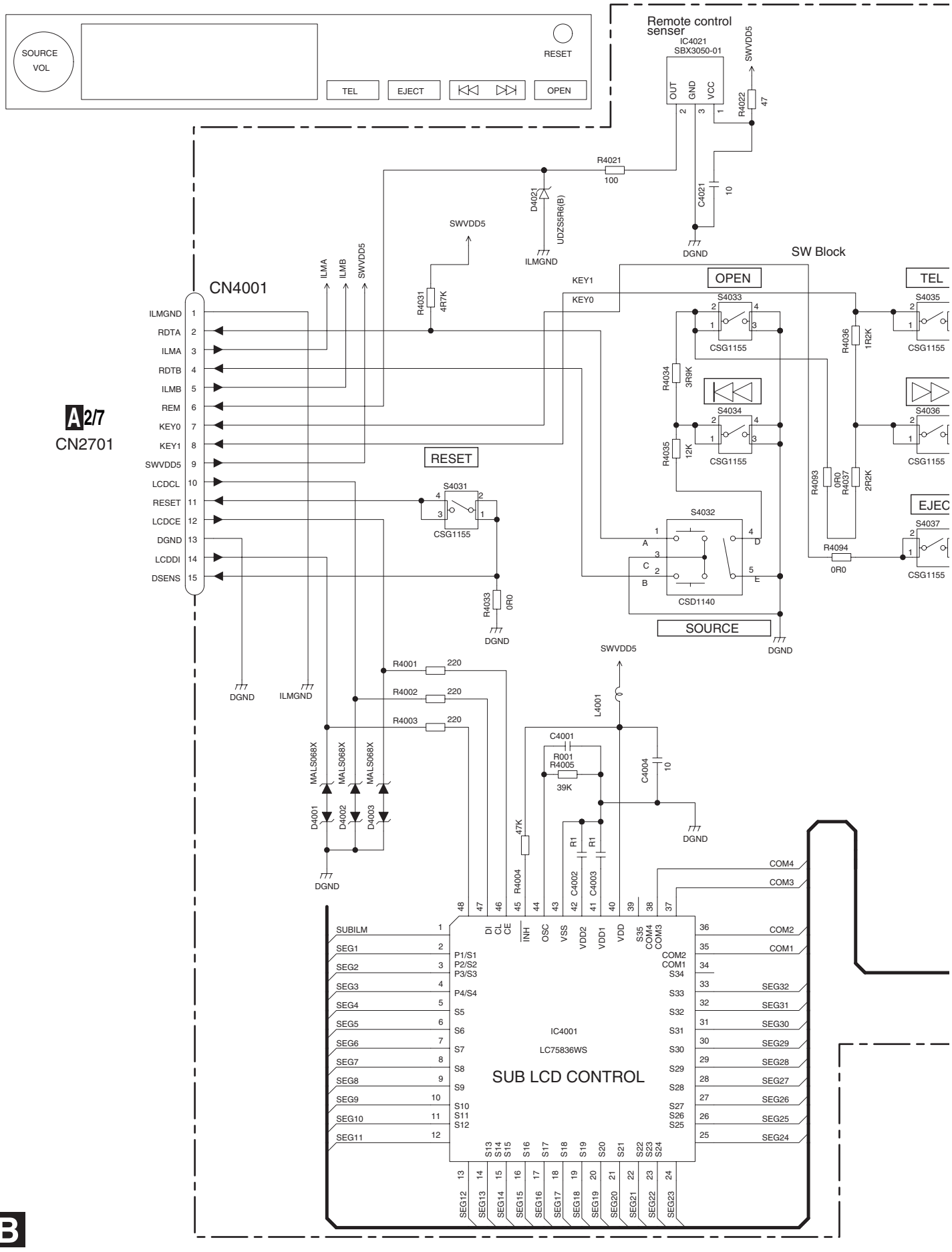

IC201
291APFVS-G-DL
SCARLET
A7/7
CCD3C
CCD25C
GDC2.5A
VDAC2.5
L201
GDC3
GDC2.5I
VDDE3.3
VDDI2.5
L203
L204
VPLL2.5
L205
GDC_INT
GDC_DMARQ
GDC_WT
GDC_WT0
FSC
OVER
AOUTRED
AOUTGREEN
AOUTBLUE
OUTCSYNC
GDC2.5C
VCC2.5
L206
RST3
MODE0
MODE1
MODE2
GNDD
GNDV

10.7 CC UNIT(MAIN,CC,I/F&OTHERS)

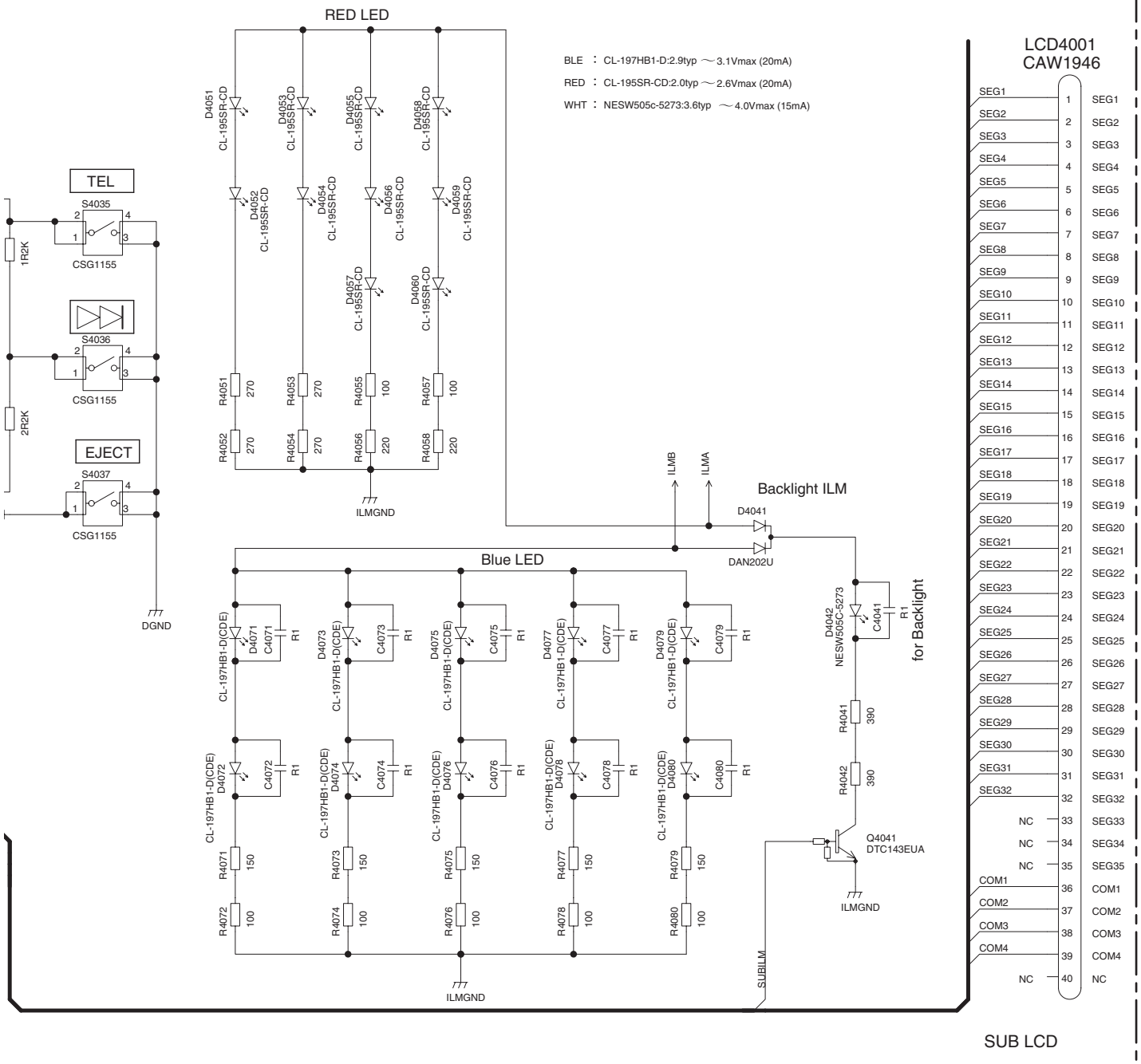



R RGB Signal
S SYNC Signal
A7/7 CC UNIT(MAIN,CC,I/F&OTHERS)
CN305
A1/7
A2/7
DAC
IC302
TC7SH08FUS1
IC309
AK4388VT
IC304
SOUND - MAIN_BOARD
AVIC-N4/XU/UC
195

10.8 KEYBOARD UNIT

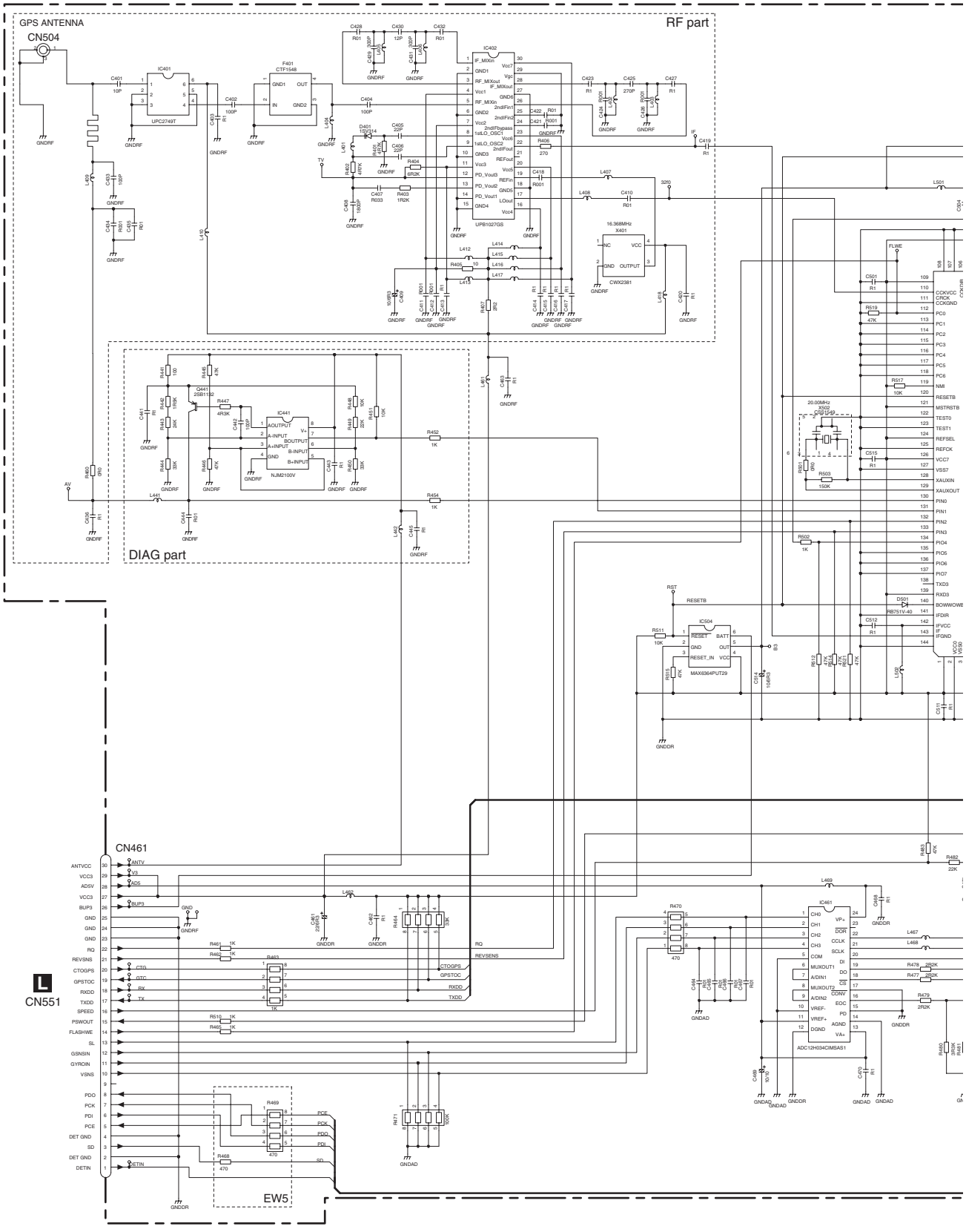


B KEYBOARD UNIT

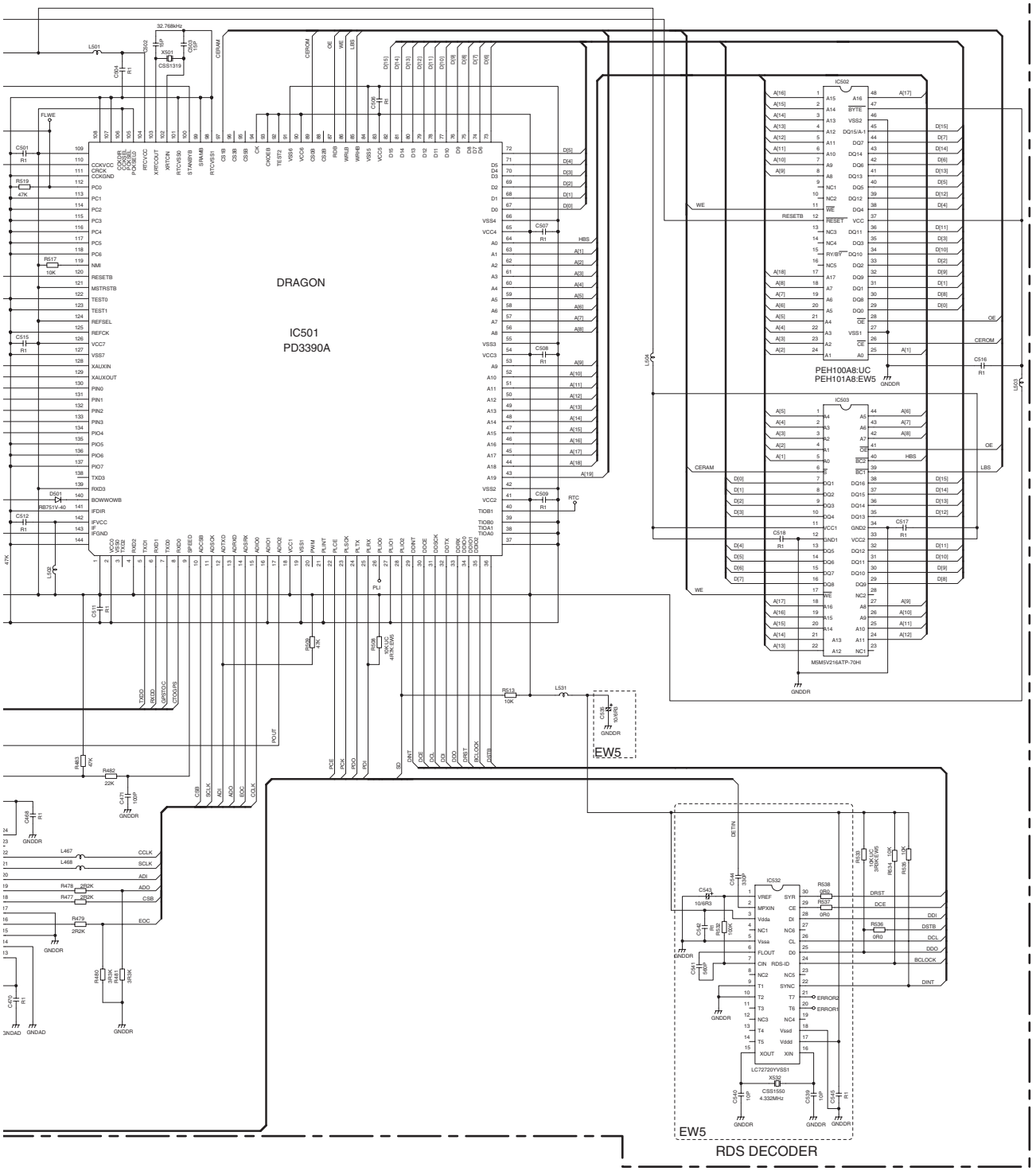


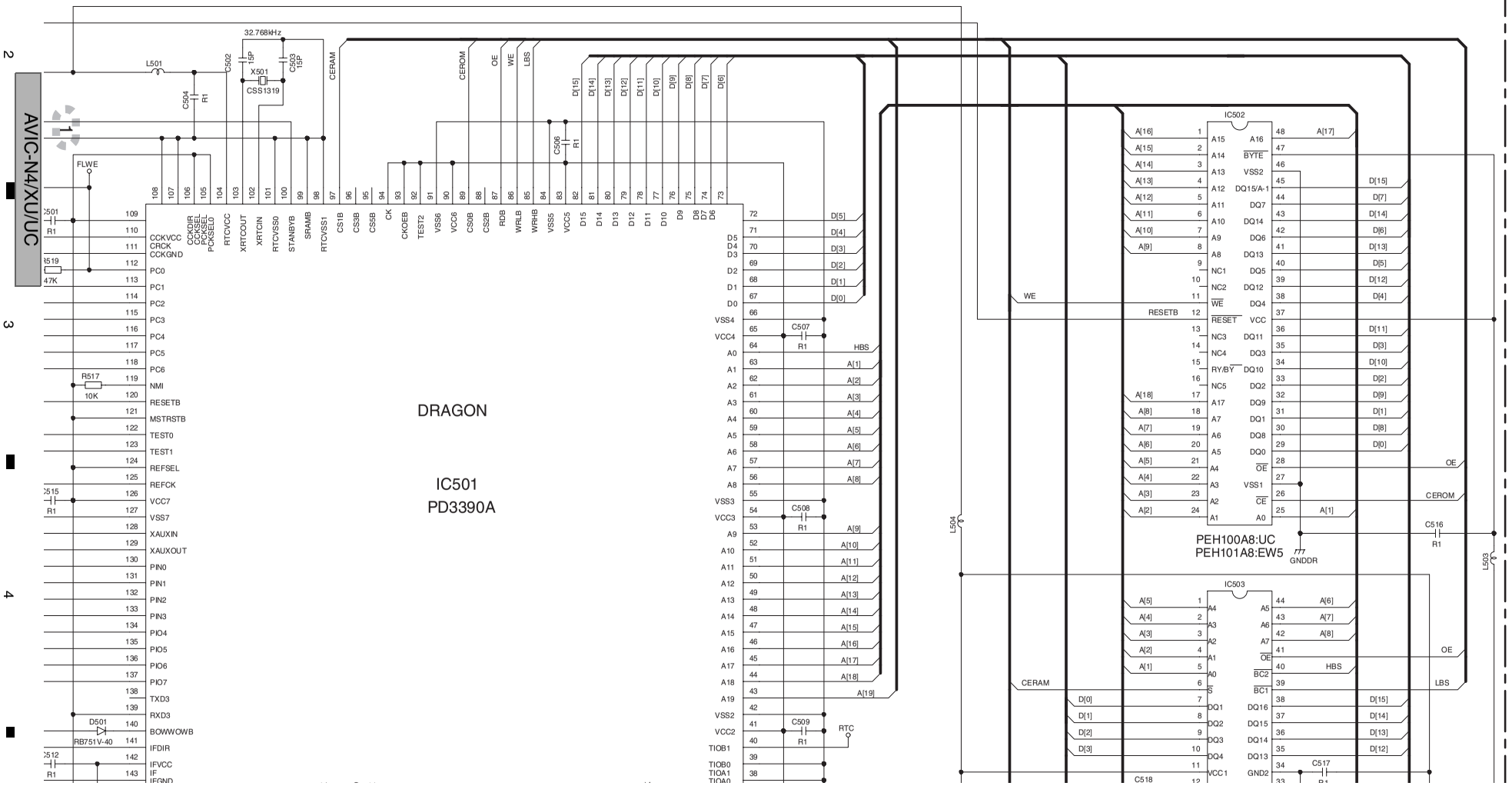
10.9 GPS UNIT(GUIDE PAGE)

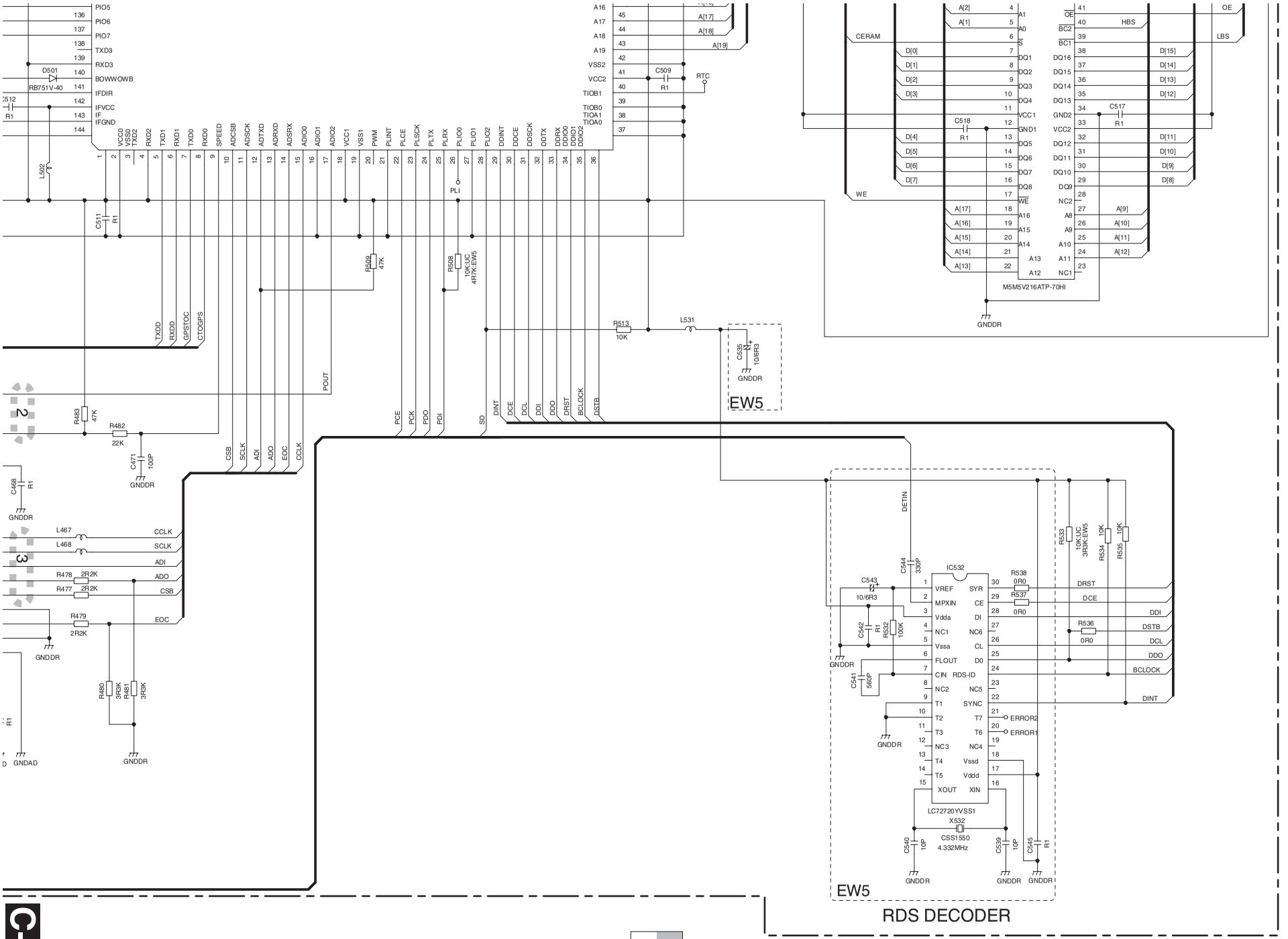
C-a

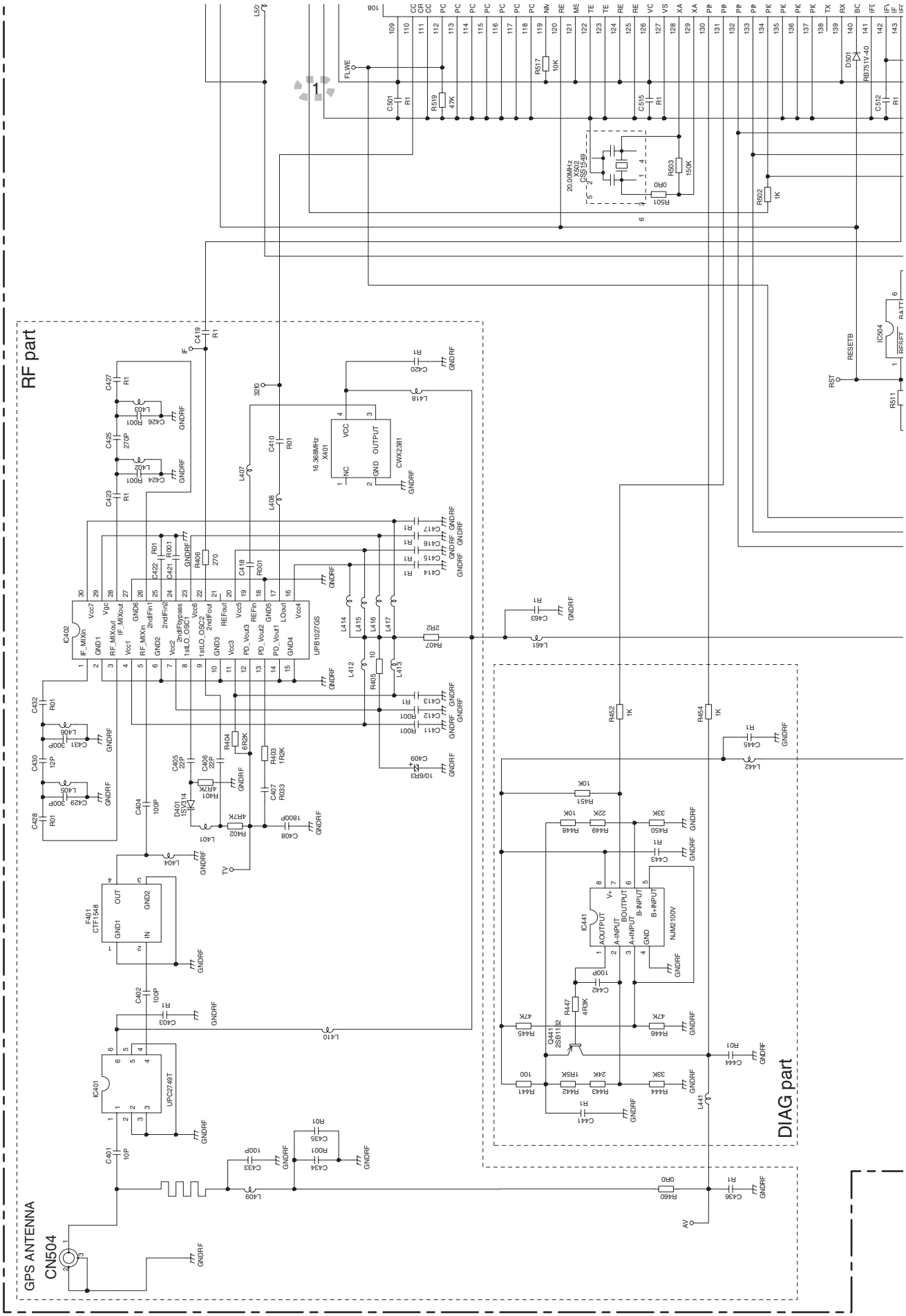


C GPS UNIT

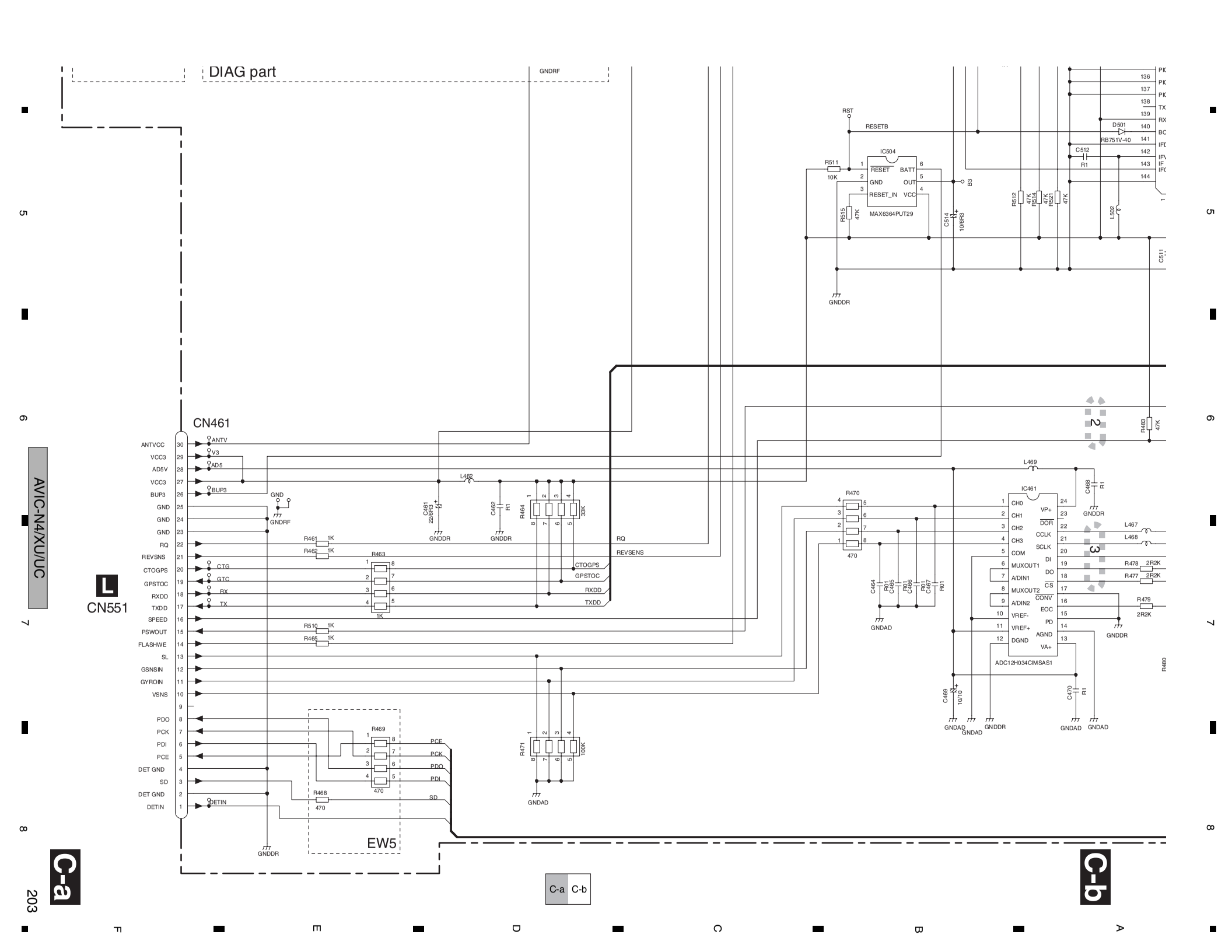

DRAGON
IC501
PD3390A
IC502
PEH100A8:UC
PEH101A8:EW5
IC503
MSM5V216ATP-70HI
EW5
RDS DECODER
IC532
LC72720YVSS1
X503
CSS1550
4.332MHz


AVIC-N4/XU/UC
DRAGON
IC501
PD3390A
32.768kHz
X501
CSS1319
L501
C502
C503
C504
C506
C507
C508
C509
C515
C516
C517
C518
R517
10K
D501
RB751V-40
FLWE
CERAM
CEROM
OE
WE
LBS
HBS
RTC
IC502
IC503
PEH100A8:UC
PEH101A8:EW5
GNDDR
L504
L505


AVIC-N4/XU/UC
C-b
C-a C-b
RDS DECODER
EW5
EW5
M5M5V216ATP-70HI
LC72720YVSS1
IC532
X532
CSS1550
4.332MHz
RTC
PLI
CERAM
WE
GNDDR
GNDAD
TXDD
RXDD
GPSTOC
CTOGPS
POUT
CSB
SCLK
ADI
ADO
EOC
CCLK
PCE
PCK
PDO
PDI
SD
DINT
DCE
DCL
DDI
DDO
DRST
BCLOCK
DSTB
DETIN
ERROR2
ERROR1
PIO5
PIO6
PIO7
TXD3
RXD3
BOWWOWB
IFDIR
IFVCC
IF
IFGND
D501
RB751V-40
L502
L467
L468
L531
R513
10K
R509
47K
R508
10K:UC
4R7K:EW5
R533
10K:UC
3R3K:EW5
R534
10K
R535
10K
R536
0R0
R537
0R0
R538
0R0
R532
100K
R483
47K
R482
22K
R478
2R2K
R477
2R2K
R479
2R2K
R480
3R3K
R481
3R3K
C511
C512
C509
C517
C518
C535
C543
C544
C542
C541
C540
C539
C545
C471
C468
10/6R3
330P
560P
10P
100P
R1
A16
A17
A18
A19
VSS2
VCC2
TIOB1
TIOB0
TIOA1
TIOA0
A[17]
A[18]
A[19]
A[2]
A[1]
A[0]
A[9]
A[10]
A[11]
A[12]
D[0]
D[1]
D[2]
D[3]
D[4]
D[5]
D[6]
D[7]
D[8]
D[9]
D[10]
D[11]
D[12]
D[13]
D[14]
D[15]
OE
HBS
LBS
BC2
BC1
A[16]
A[15]
A[14]
A[13]
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
DQ16
VCC1
GND1
GND2
VCC2
NC1
NC2
A8
A9
A10
A11
A12
A13
VREF
MPXIN
Vdda
NC1
Vssa
FLOUT
CIN
NC2
T1
T2
T3
NC3
T4
T5
XOUT
XIN
SYR
CE
DI
NC6
CL
D0
RDS-ID
NC5
SYNC
T7
T6
NC4
Vssd
Vddd

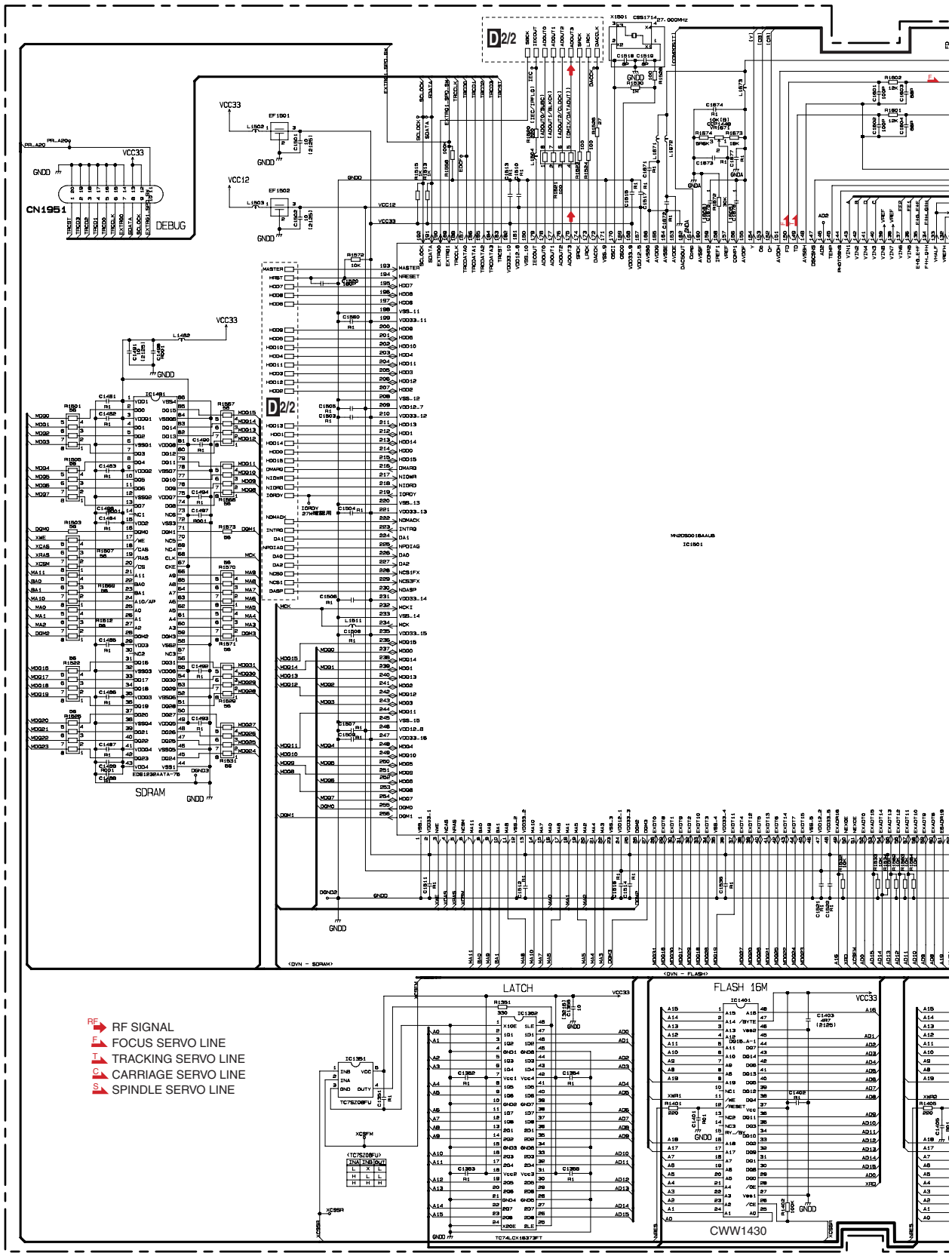

RF part
DIAG part
GPS ANTENNA
CN504
IC402
UPB1027GS
IC401
UPC2749T
F401
CTF1548
IC441
NJM2100V
Q441
2SB1132
X401
16.368MHz
CWX2381
X402
20.00MHz
CSS199
D401
1SV314
D501
RB751V-40
FLWE
RESETB
RST
AV
TV
GNDRF

C-a C-b

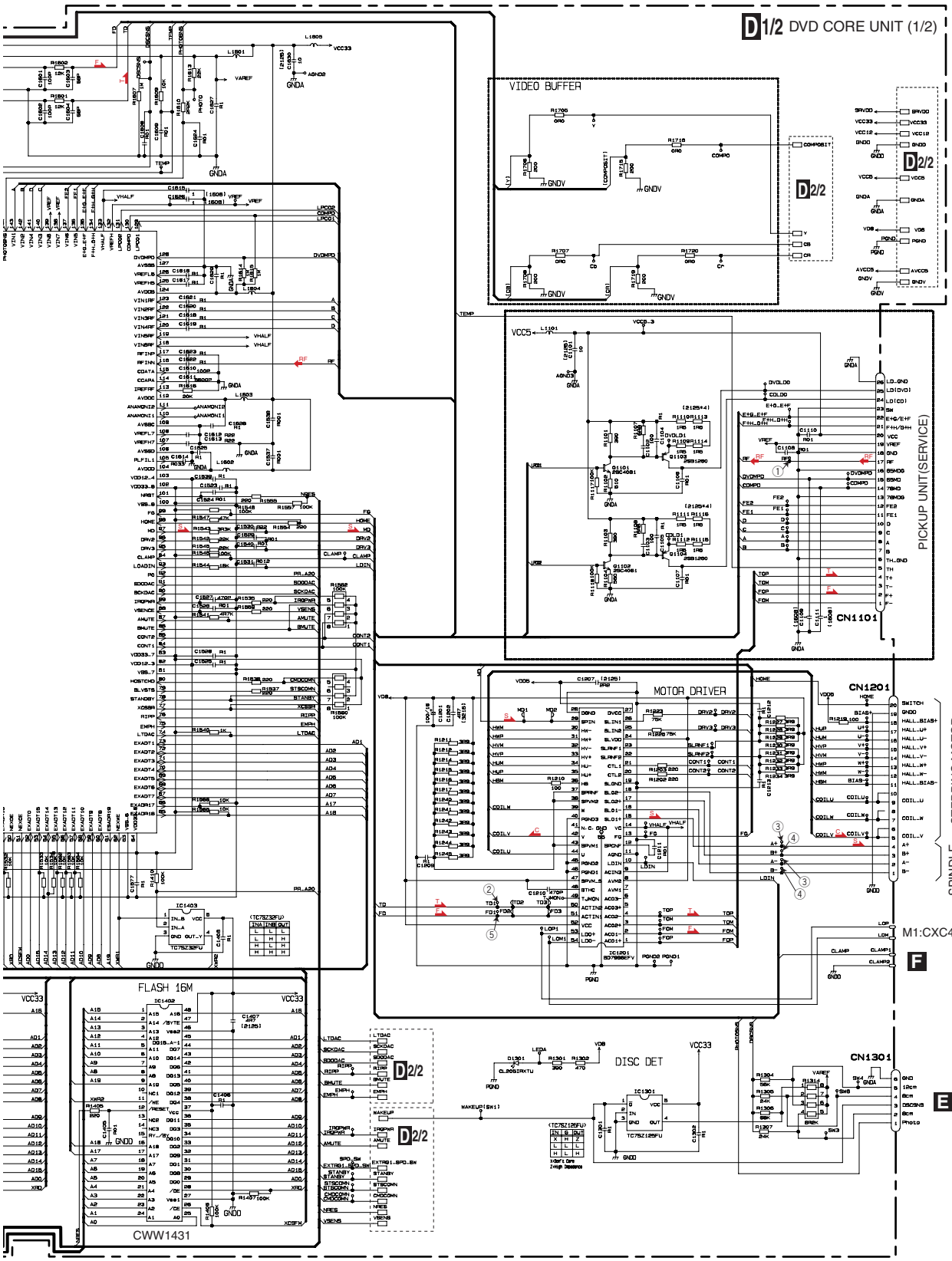

DIAG part
GNDRF
CN461
ANTVCC 30
VCC3 29
AD5V 28
VCC3 27
BUP3 26
GND 25
GND 24
GND 23
RQ 22
REVSNS 21
CTOGPS 20
GPSTOC 19
RXDD 18
TXDD 17
SPEED 16
PSWOUT 15
FLASHWE 14
SL 13
GSNSIN 12
GYROIN 11
VSNS 10
PDO 8
PCK 7
PDI 6
PCE 5
DET GND 4
SD 3
DET GND 2
DETIN 1
ANTV
V3
AD5
BUP3
GND
CTG
GTC
RX
TX
DETIN
L462
C461 22/6R3
C462 R1
R464 33K
R461 1K
R462 1K
R463 1K
R510 1K
R465 1K
R468 470
R469 470
R471 100K
RQ
REVSNS
CTOGPS
GPSTOC
RXDD
TXDD
PCE
PCK
PDO
PDI
SD
EW5
GNDDR
GNDAD
RST
RESETB
IC504
RESET
GND
RESET_IN
BATT
OUT
VCC
MAX6364PUT29
R511 10K
R515 47K
C514 10/6R3
B3
D501 RB751V-40
C512 R1
R512 47K
R514 47K
R521 47K
R483 47K
L502
C511
IC461
CH0
CH1
CH2
CH3
COM
MUXOUT1
A/DIN1
MUXOUT2
A/DIN2
VREF-
VREF+
DGND
VP+
DOR
CCLK
SCLK
DI
DO
CS
CONV
EOC
PD
AGND
VA+
ADC12H034CIMSAS1
L469
C468 R1
L467
L468
R478 2R2K
R477 2R2K
R479 2R2K
R470 470
C464 R01
C465
C466 R1
C467 R01
C469 10/10
C470 R1
R480
2
3
C-a
C-b
L
CN551
AVIC-N4/XU/UC
203

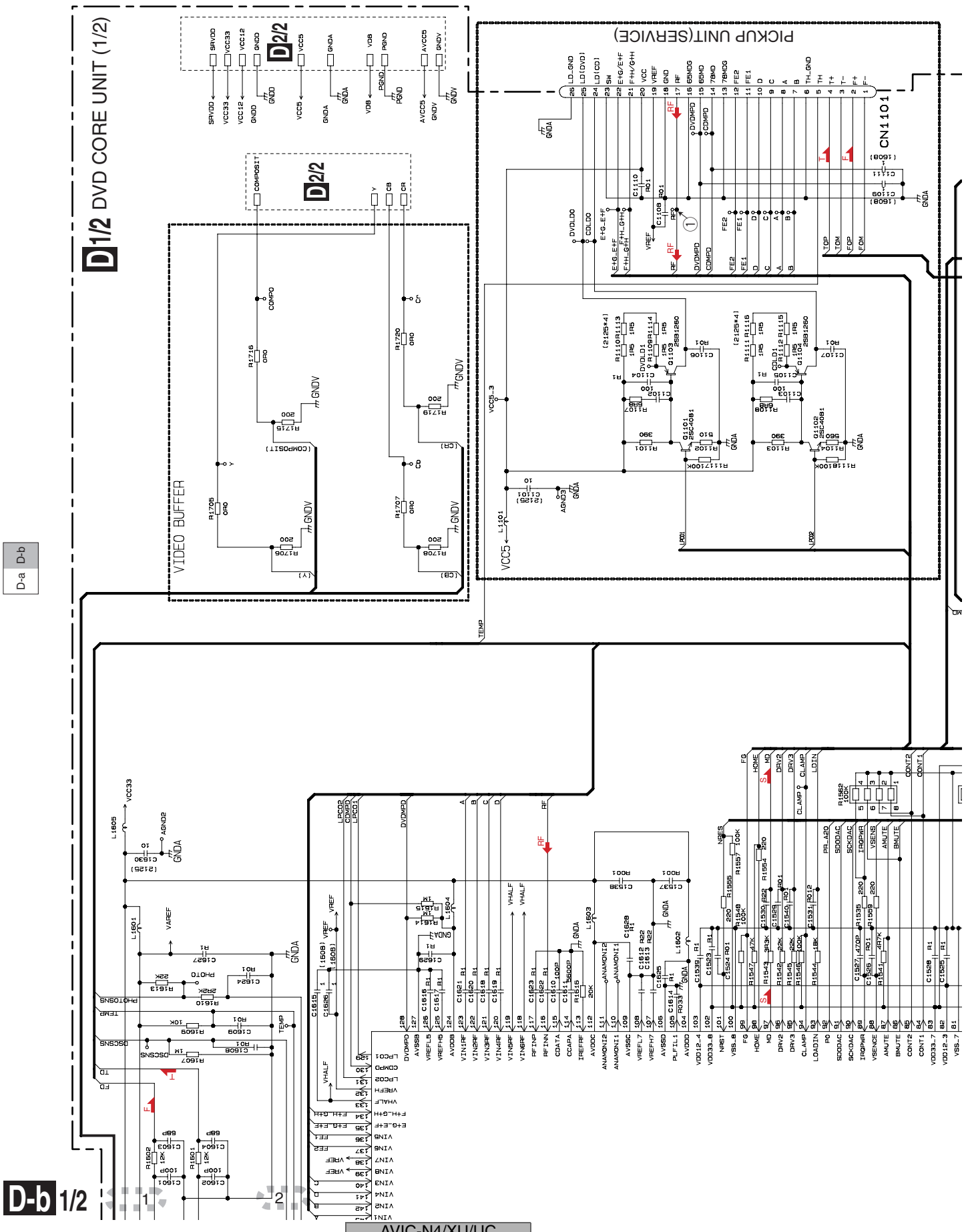
10.10 DVD CORE UNIT(1/2)(GUIDE PAGE)

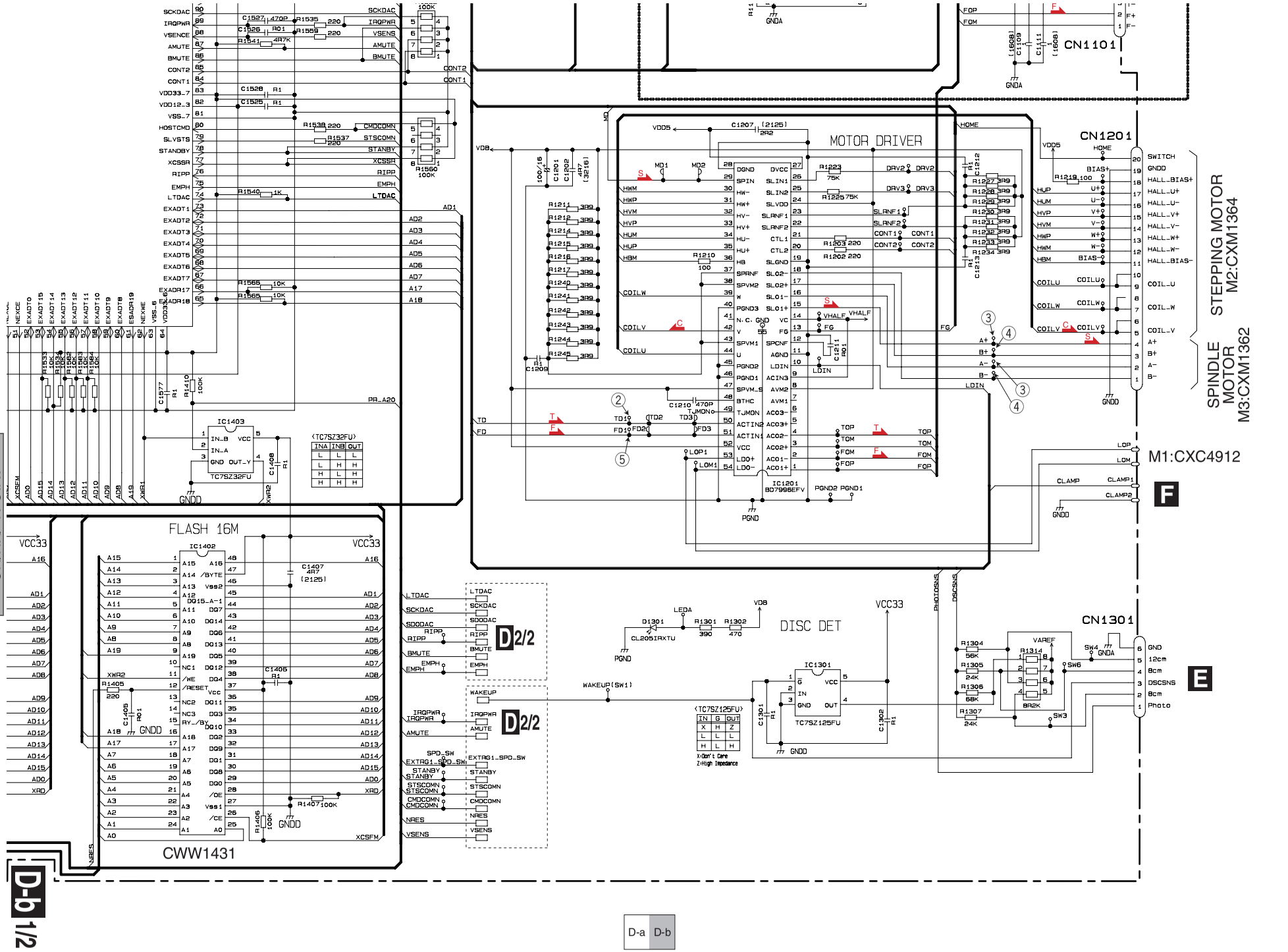
D-a 1/2

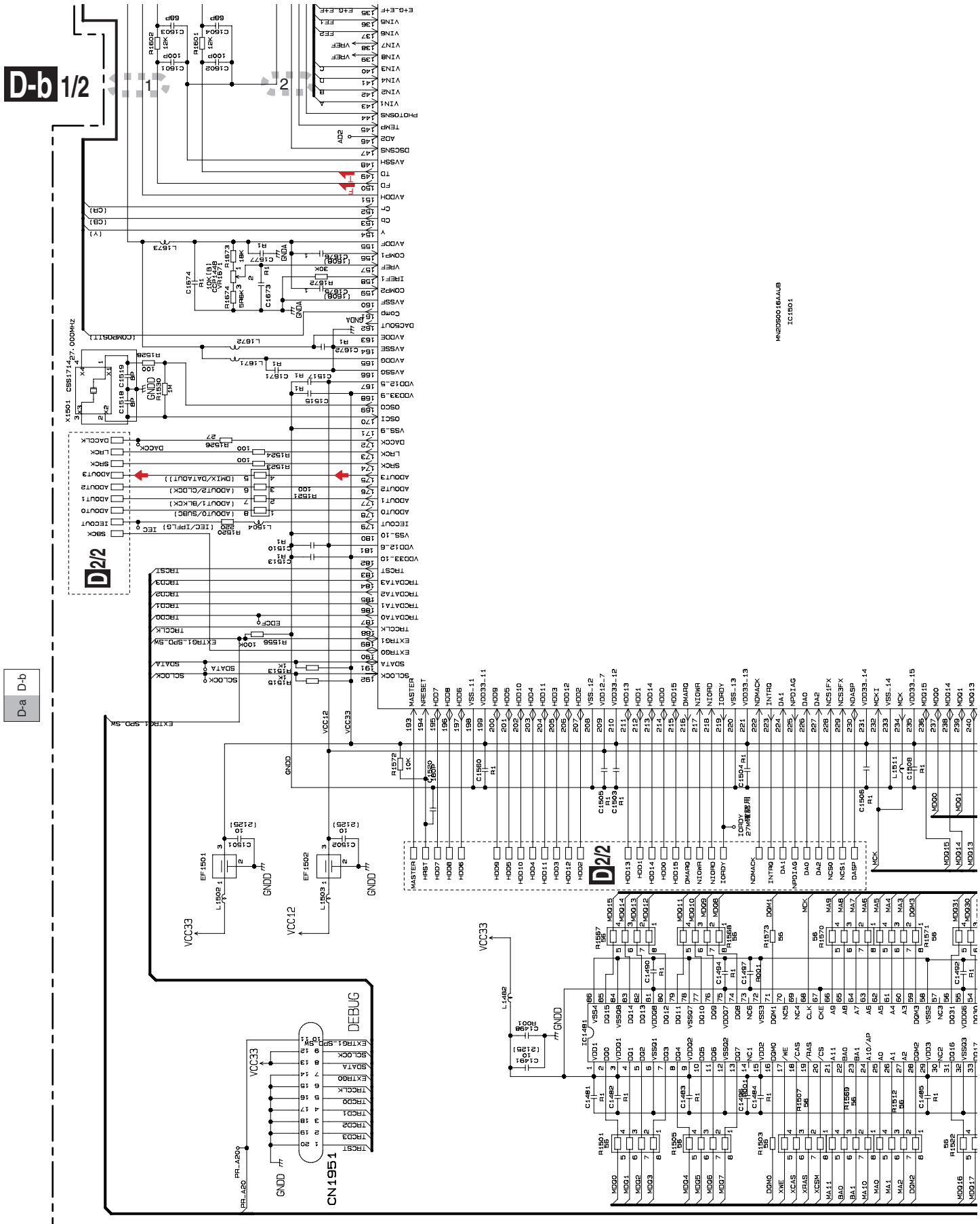


D 1/2


D1/2 DVD CORE UNIT (1/2)
VIDEO BUFFER
PICKUP UNIT(SERVICE)
CN1101
MOTOR DRIVER
CN1201
STEPPING MOTOR
M2:CXM1364
SPINDLE
MOTOR
M3:CXM1362
M1:CXC4912
CN1301
DISC DET
FLASH 16M
CWW1431
D2/2
D1/2


D1/2 DVD CORE UNIT (1/2)
D2/2
PICKUP UNIT(SERVICE)
CN1101
VIDEO BUFFER
D-b 1/2
D-a D-b

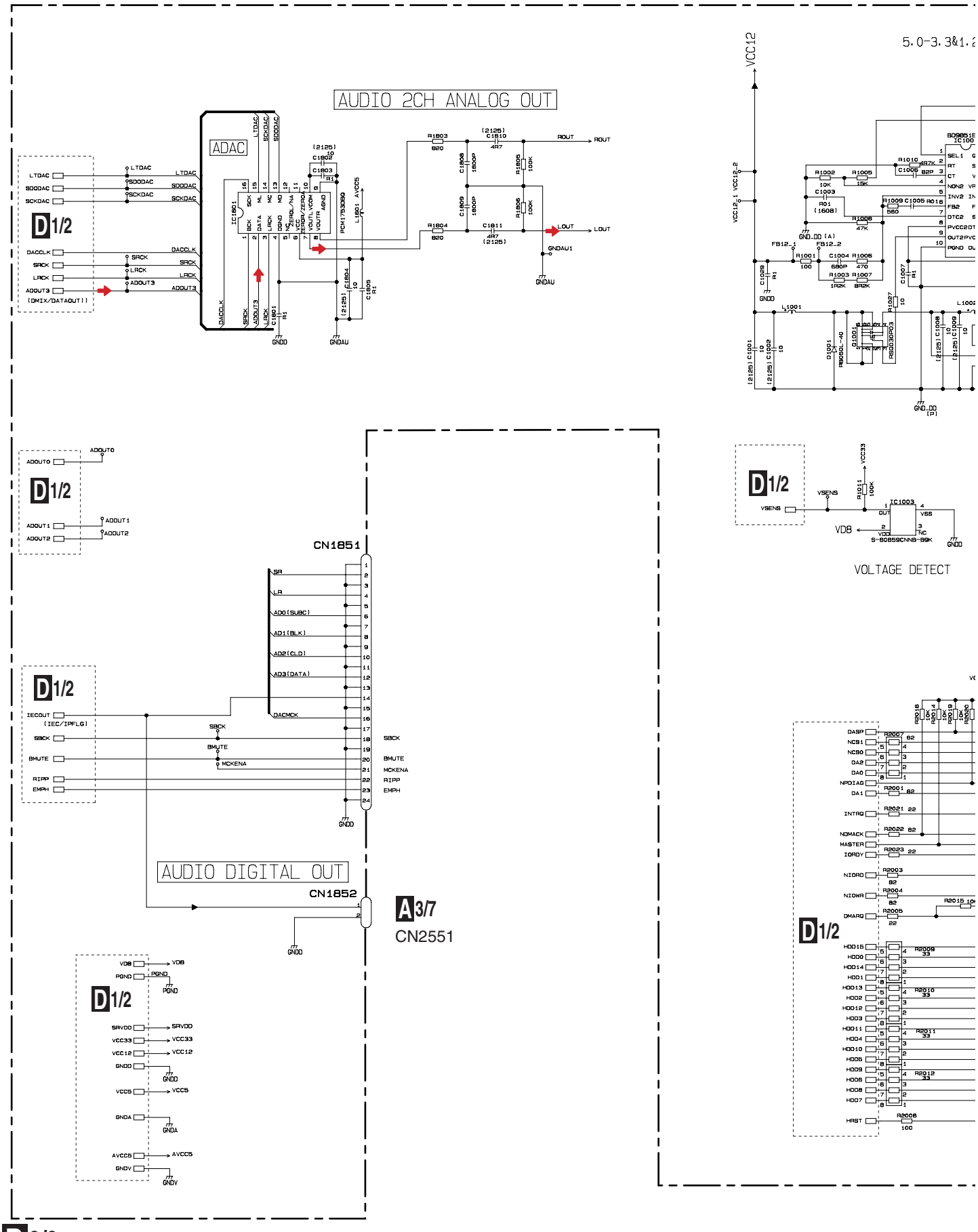

AVIC-N4/XU/UC
MOTOR DRIVER
DISC DET
FLASH 16M
CWW1431
CN1101
CN1201
CN1301
STEPPING MOTOR
M2:CXM1364
SPINDLE
MOTOR
M3:CXM1362
M1:CXC4912
IC1201
BD7998EFV
IC1402
IC1403
IC1301
TC7SZ32FU
TC7SZ125FU
D2/2
D2/2
D-b 1/2
D-a D-b
207


D-b 1/2
D-a 1/2
D2/2
CN1951
DEBUG
IC1501
MN2DS0016AUB
X1501
CSS1714
27.000MHz
EF1501
EF1502
L1502
L1503
VCC33
VCC12
GNDD
D-a D-b

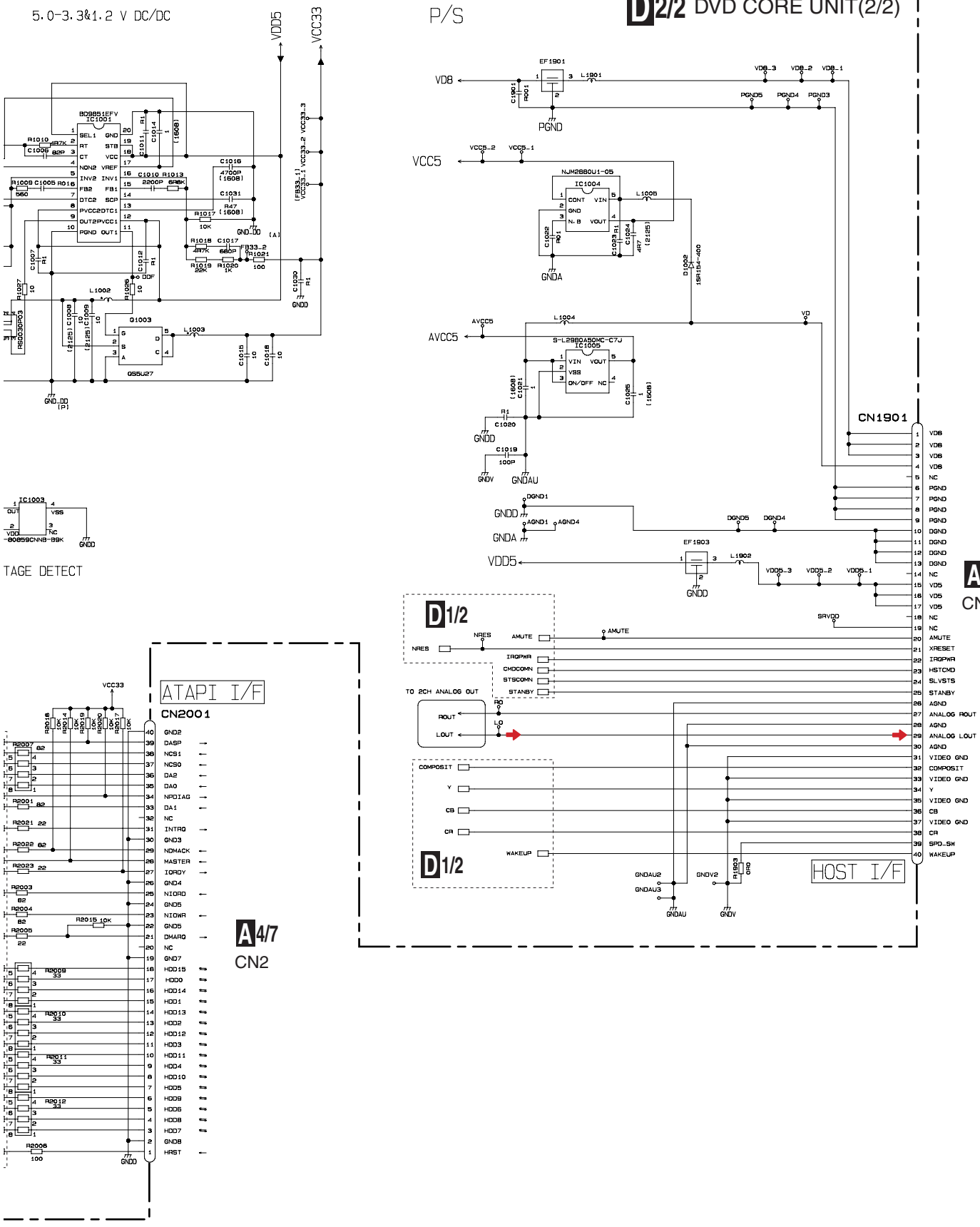
D-b 1/2
CWW1430
FLASH 16M
LATCH
SDRAM
RF SIGNAL
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE
D-a 1/2

D-a D-b

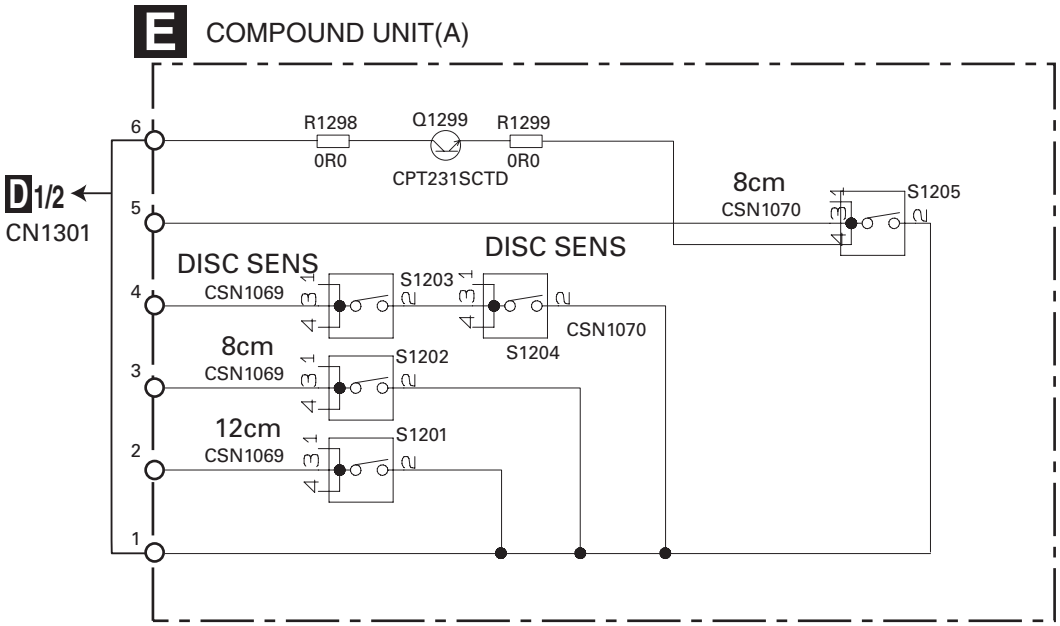
10.11 DVD CORE UNIT(2/2)

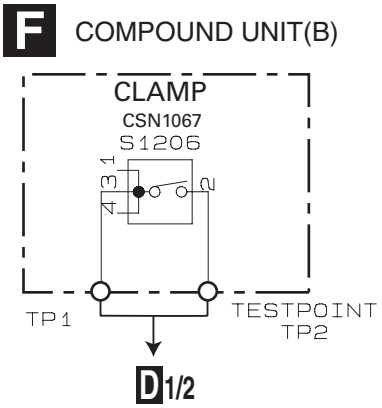


D 2/2 DVD CORE UNIT(2/2)



10.12 COMPOUND UNIT(A) AND COMPOUND UNIT(B)





E F

A

B

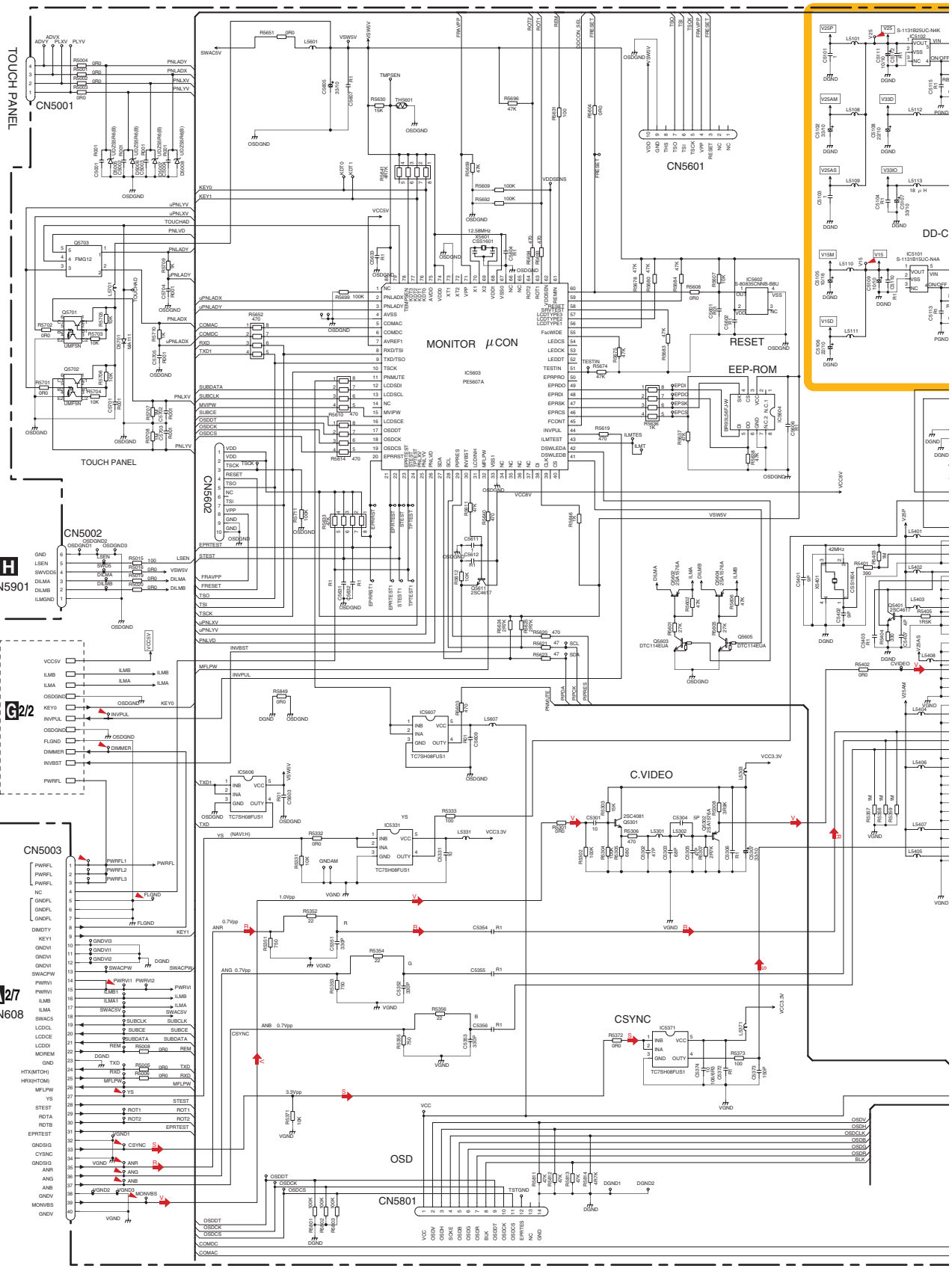
C

D

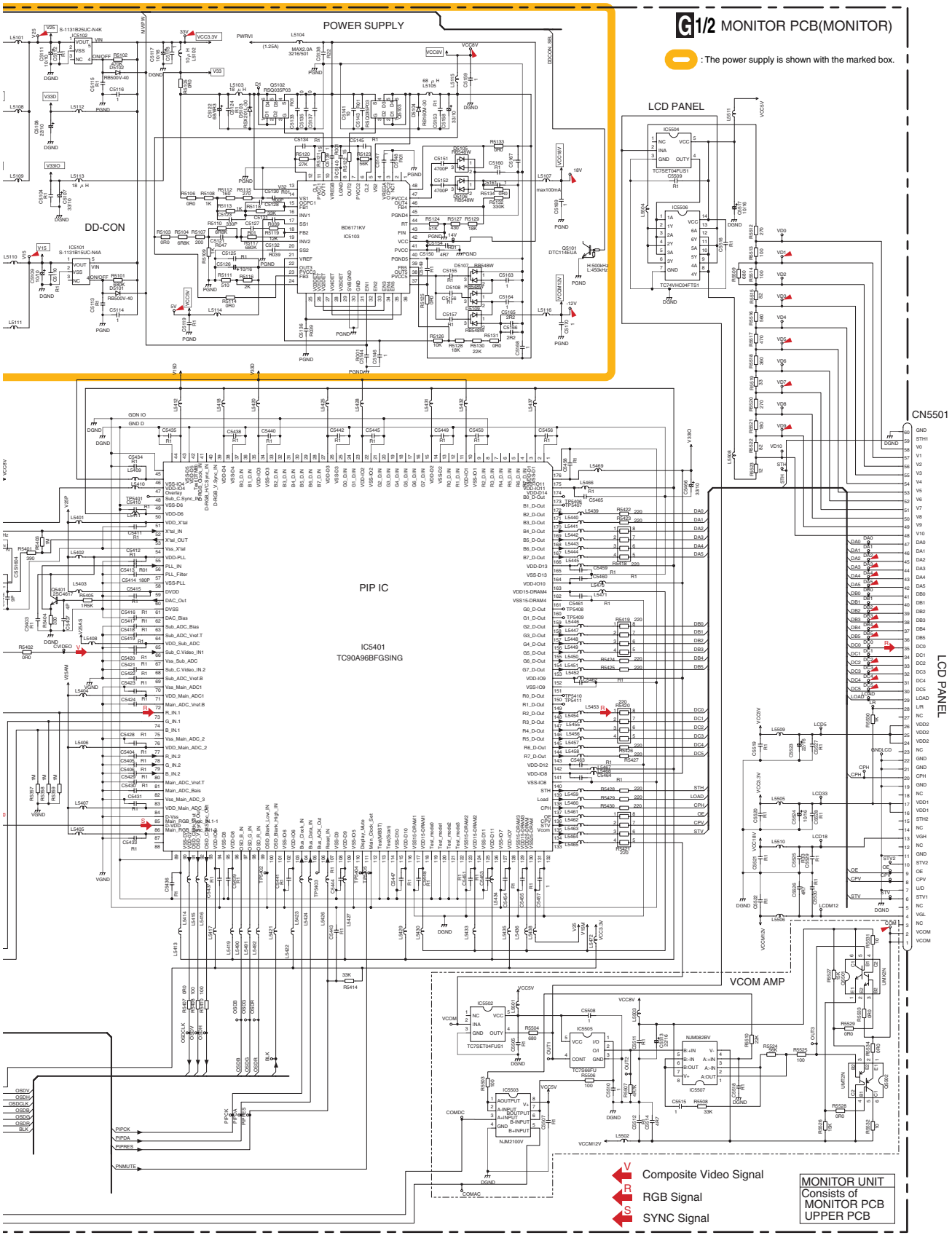
E

F

10.13 MONITOR PCB(MONITOR)(GUIDE PAGE)



G-b 1/2


G1/2 MONITOR PCB(MONITOR)
: The power supply is shown with the marked box.
POWER SUPPLY
DD-CON
LCD PANEL
PIP IC
IC5401
TC90A96BFGSING
VCOM AMP
CN5501
LCD PANEL
Composite Video Signal
RGB Signal
SYNC Signal
MONITOR UNIT
Consists of
MONITOR PCB
UPPER PCB

G 1/2 MONITOR PCB(MONITOR)

: The power supply is shown with the marked box.

POWER SUPPLY

DD-CON

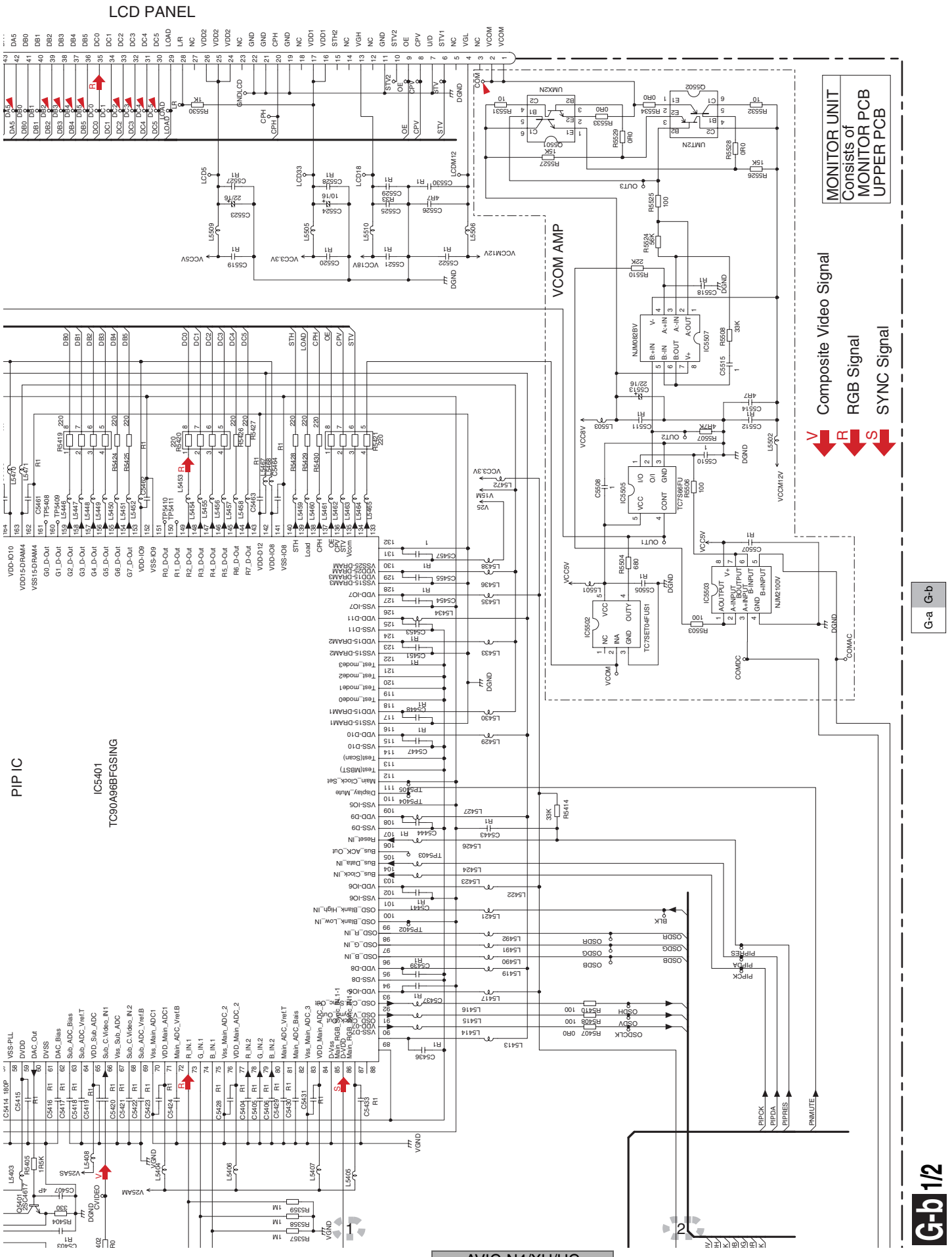
LCD PANEL

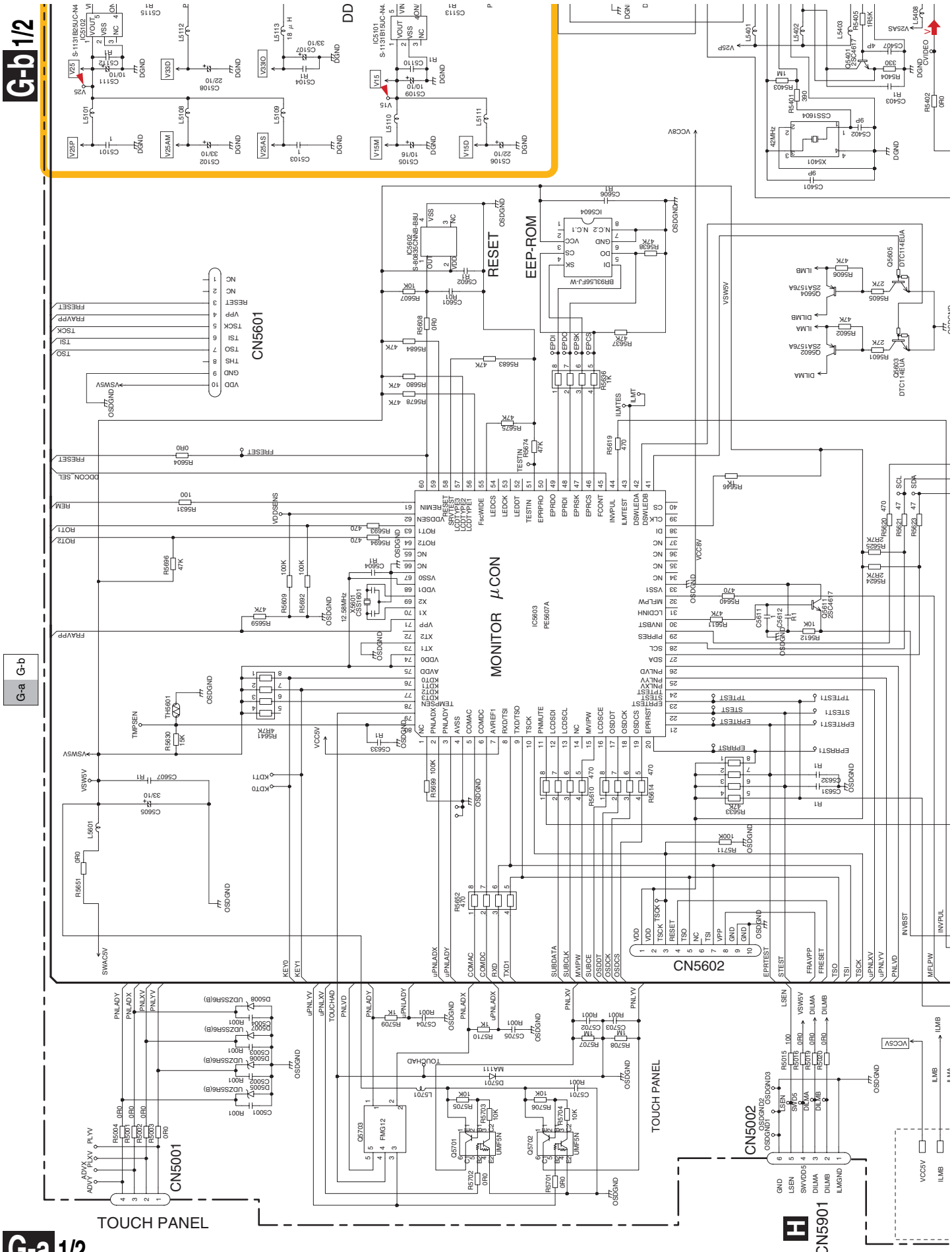
PIP IC

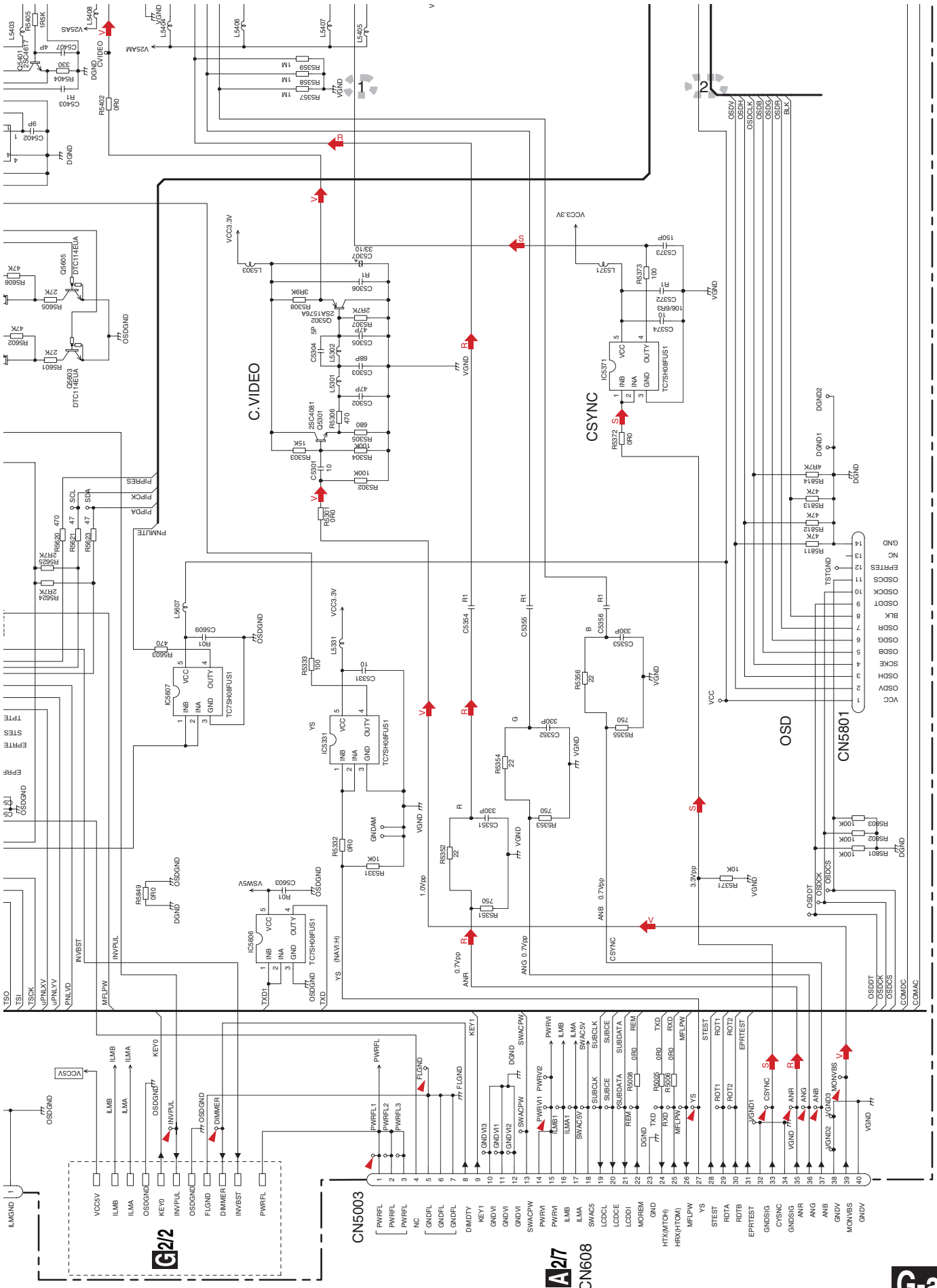
IC5401
TC90A96BFGSING

IC5103
BD6171KV

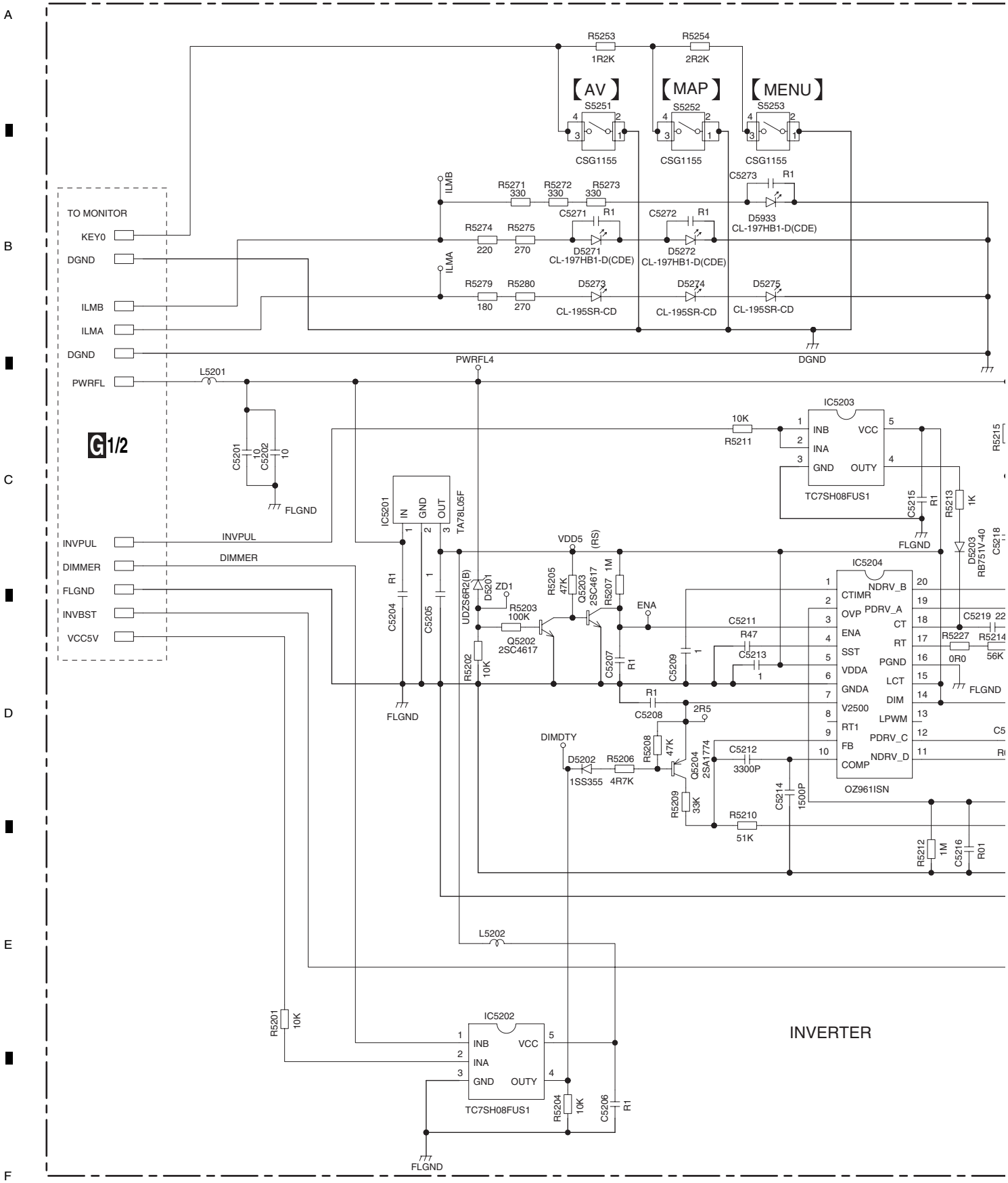
CN5501


LCD PANEL
MONITOR UNIT
Consists of
MONITOR PCB
UPPER PCB
VCOM AMP
Composite Video Signal
RGB Signal
SYNC Signal
PIP IC
IC5401
TC90A96BFGSING
G-a G-b
G-b 1/2

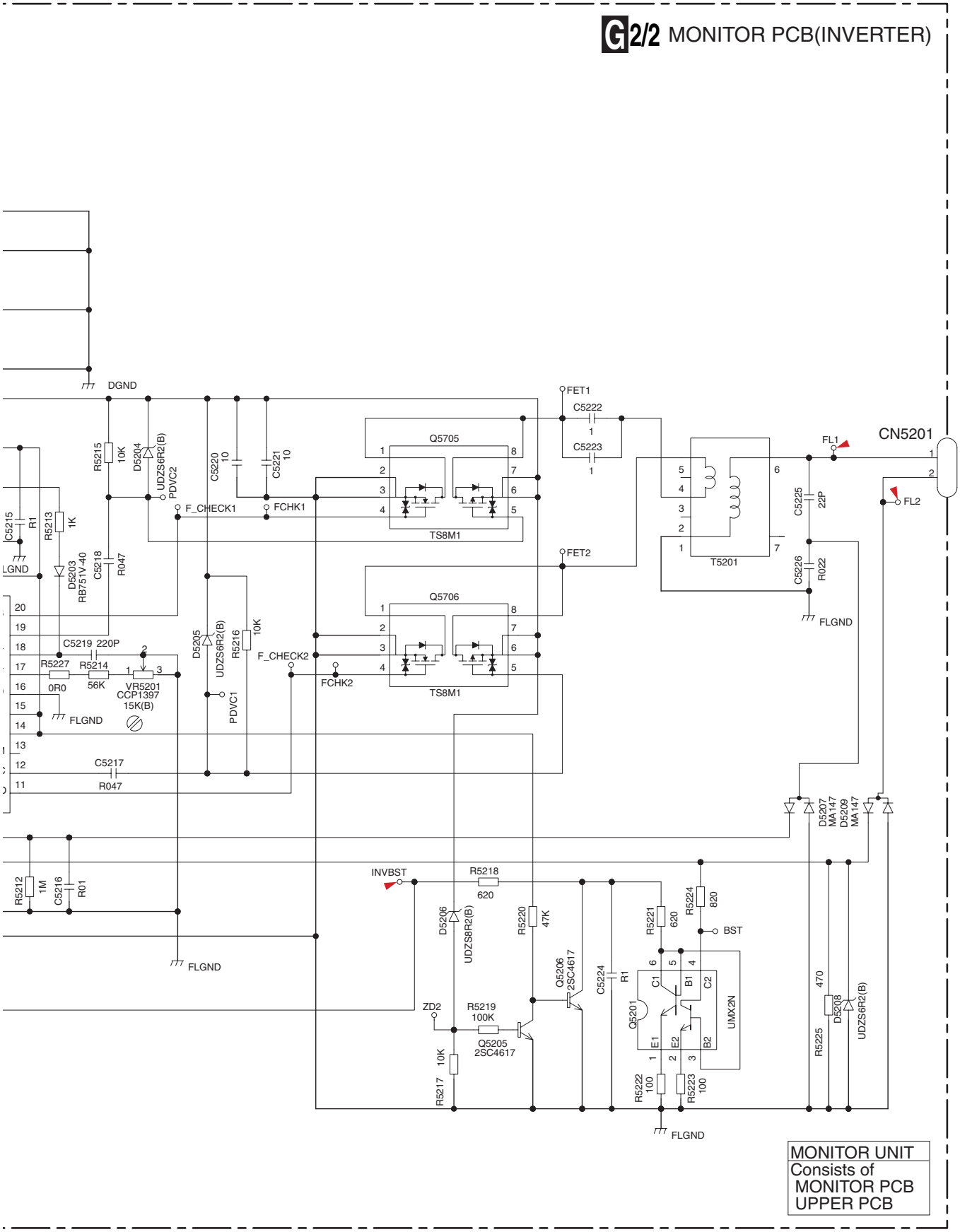

G-b 1/2
G-a 1/2
G-b
G-a
MONITOR μCON
IC5603
PE5607A
RESET
EEP-ROM
CN5601
CN5602
CN5001
CN5002
CN5901
TOUCH PANEL
TOUCH PANEL
DD
H


G-b 1/2
C.VIDEO
CSYNC
OSD
CN5801
CN5003
CN608
A2/7
G2/2
G-a 1/2
G-a
G-b

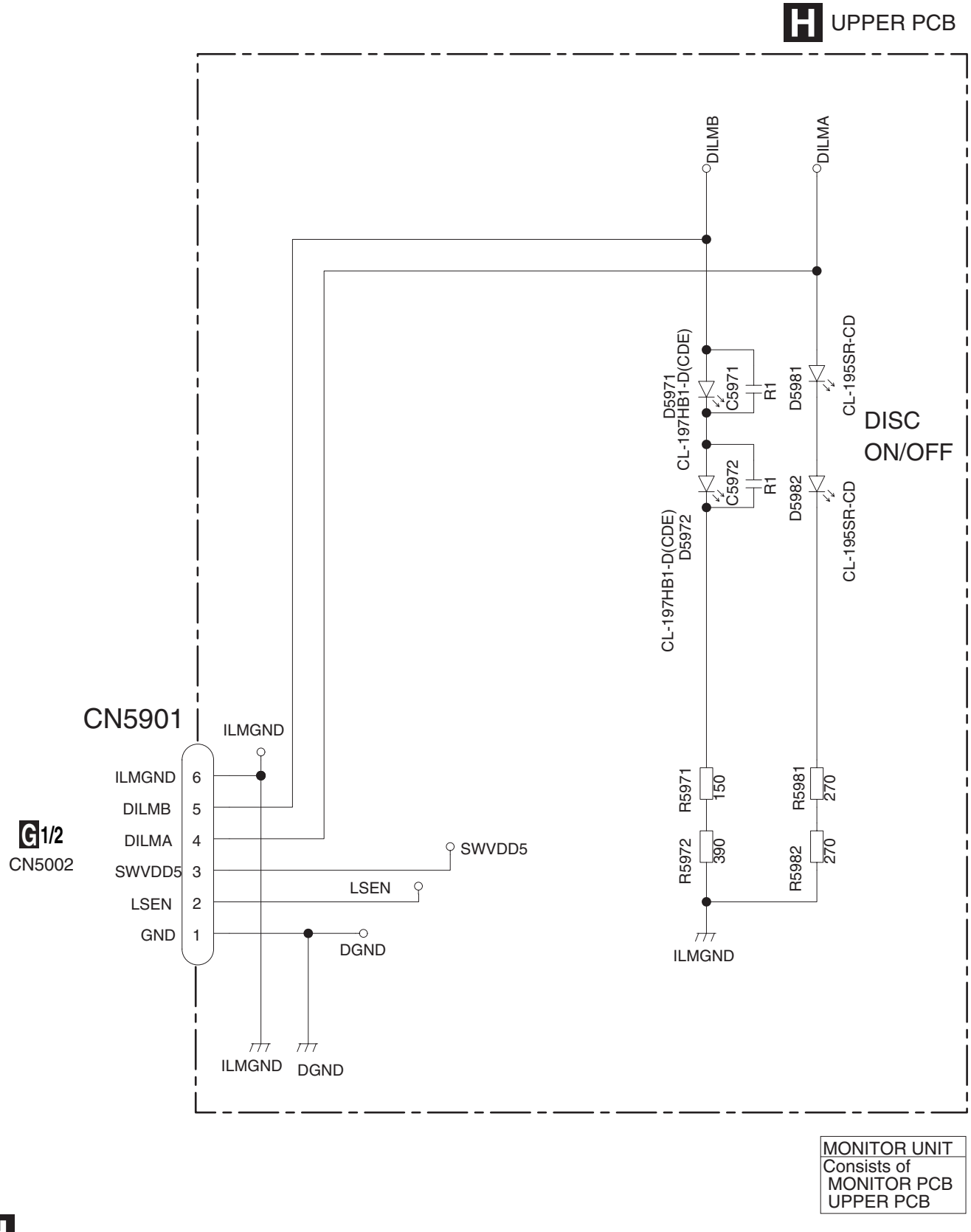
10.14 MONITOR PCB(INVERTER)



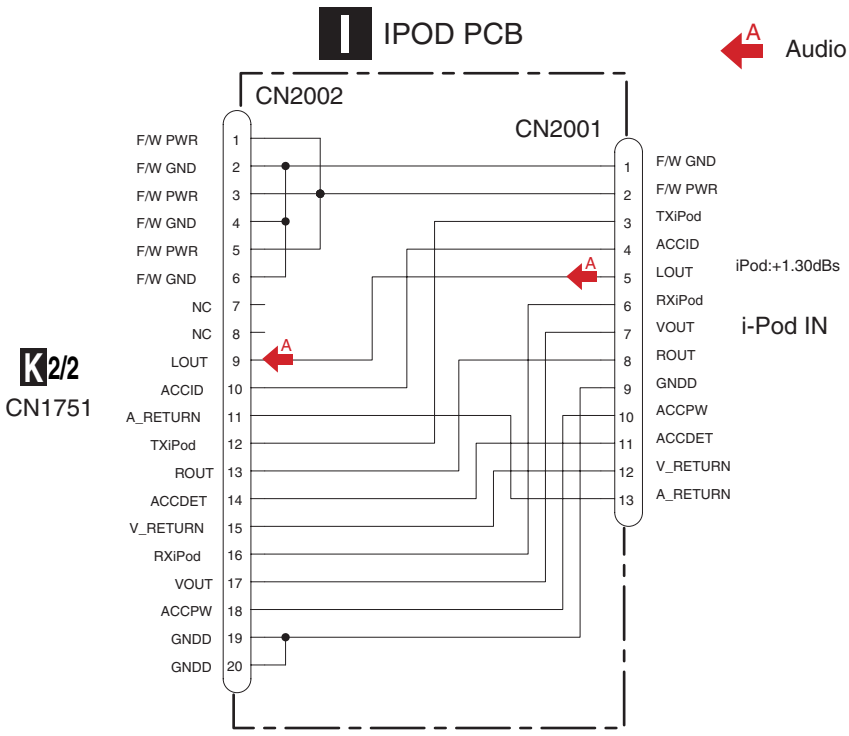
G2/2 MONITOR PCB(INVERTER)

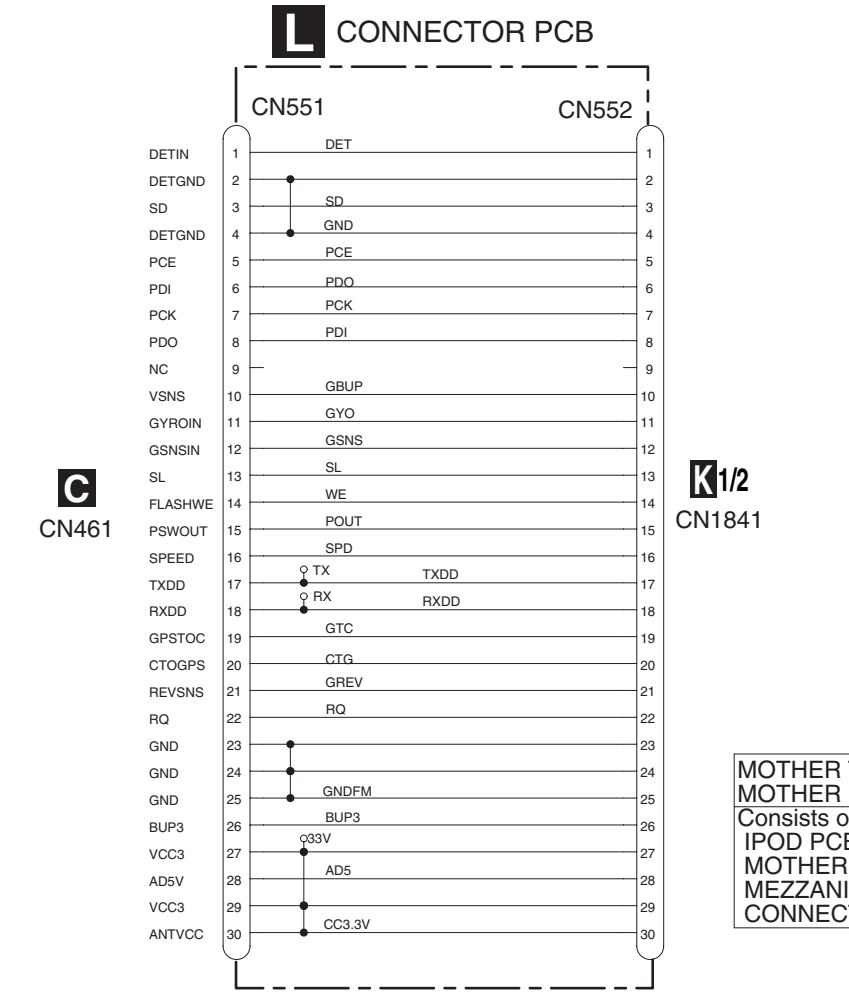


10.15 UPPER PCB



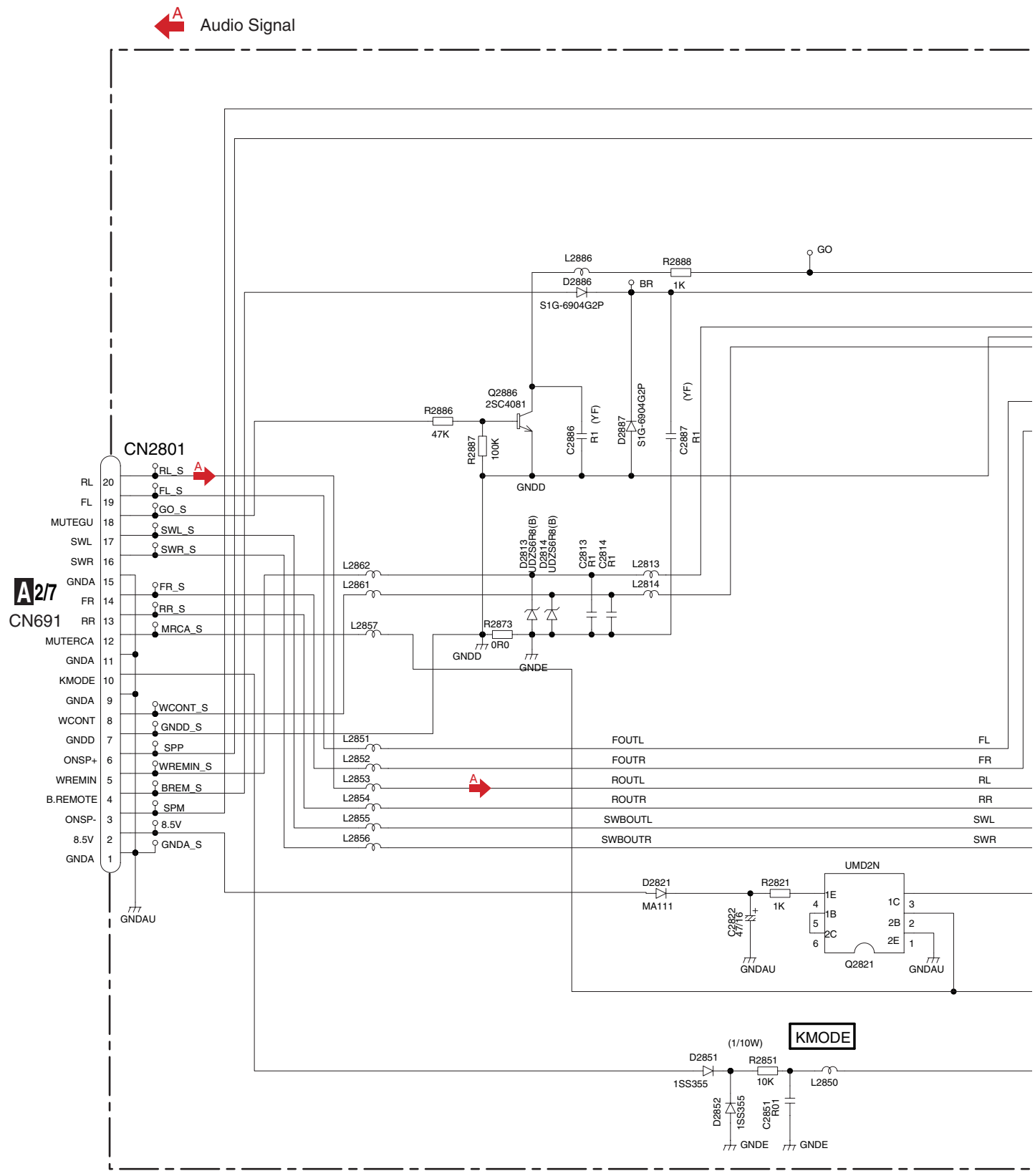
10.16 IPOD PCB AND CONNECTOR PCB



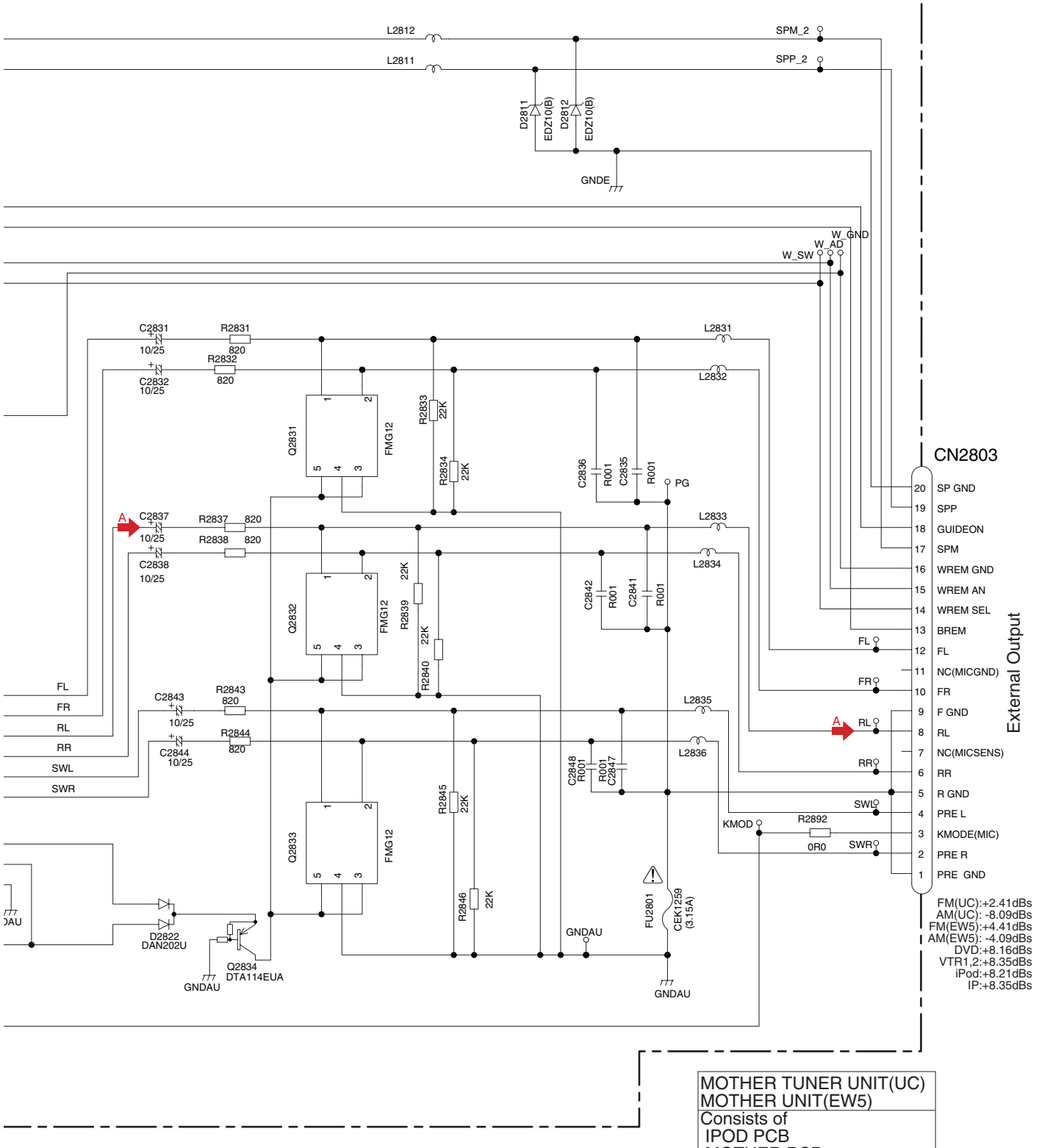


MOTHER TUNER UNIT(UC) MOTHER UNIT(EW5)
Consists of IPOD PCB MOTHER PCB MEZZANINE PCB CONNECTOR PCB

I L


A
Audio Signal
CN2801
RL_S
FL_S
GO_S
SWL_S
SWR_S
FR_S
RR_S
MRCA_S
WCONT_S
GNDD_S
SPP
WREMIN_S
BREM_S
SPM
8.5V
GNDA_S
RL 20
FL 19
MUTEGU 18
SWL 17
SWR 16
GNDA 15
FR 14
RR 13
MUTERCA 12
GNDA 11
KMODE 10
GNDA 9
WCONT 8
GNDD 7
ONSP+ 6
WREMIN 5
B.REMOTE 4
ONSP- 3
8.5V 2
GNDA 1
A2/7
CN691
GNDAU
L2886
R2888
1K
D2886
S1G-6904G2P
BR
GO
Q2886
2SC4081
R2886
47K
R2887
100K
C2886
R1 (YF)
D2887
S1G-6904G2P
C2887
R1 (YF)
GNDD
D2813
UDZS6R8(B)
D2814
UDZS6R8(B)
C2813
R1
C2814
R1
L2862
L2861
L2857
L2813
L2814
R2873
0R0
GNDE
L2851
L2852
L2853
L2854
L2855
L2856
FOUTL
FOUTR
ROUTL
ROUTR
SWBOUTL
SWBOUTR
FL
FR
RL
RR
SWL
SWR
D2821
MA111
R2821
1K
C2822
47/16
UMD2N
Q2821
1E
1B
2C
1C
2B
2E
GNDAU
GNDAU
KMODE
(1/10W)
D2851
1SS355
R2851
10K
L2850
D2852
1SS355
C2851
R01
GNDE
GNDE

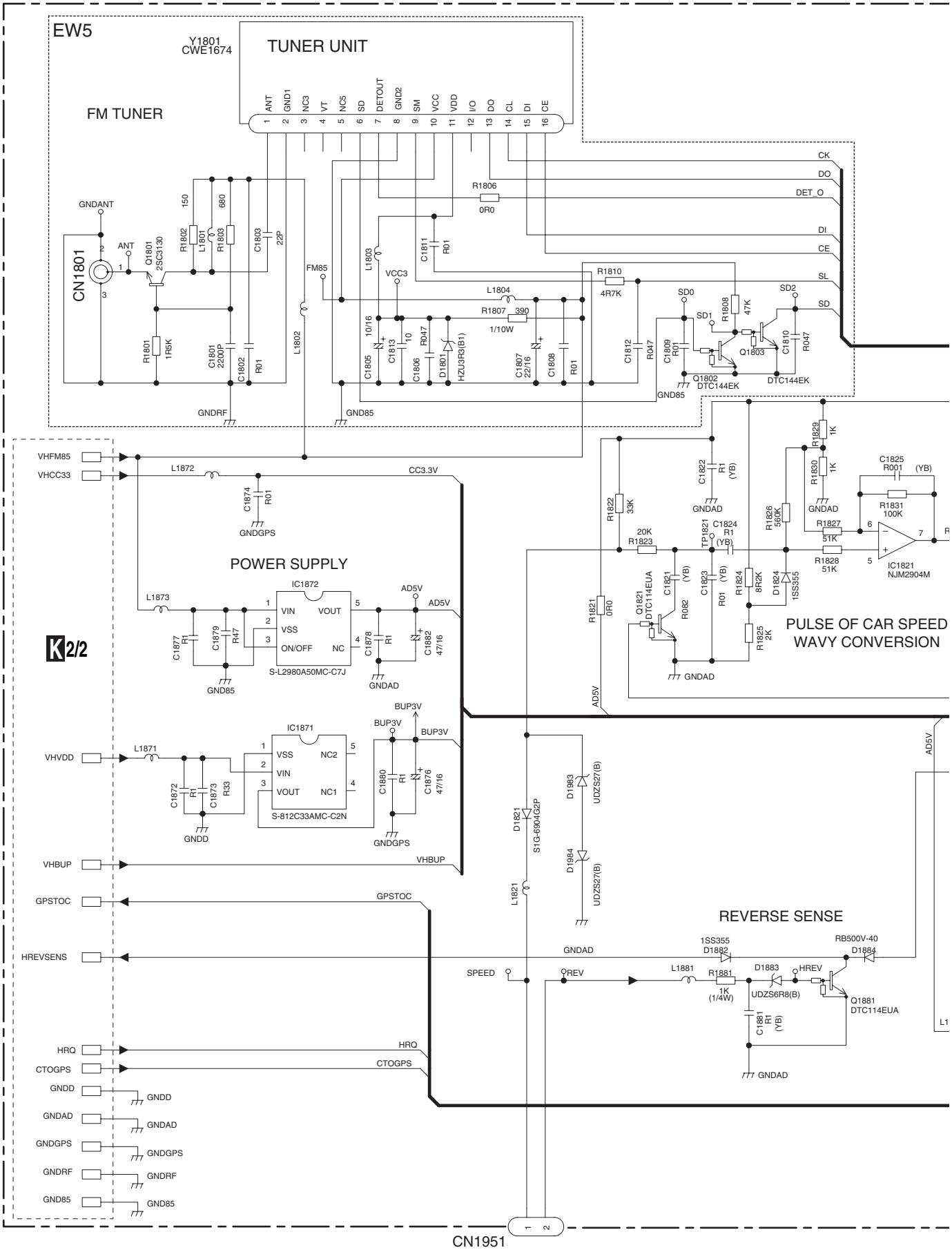
J MEZZANINE PCB



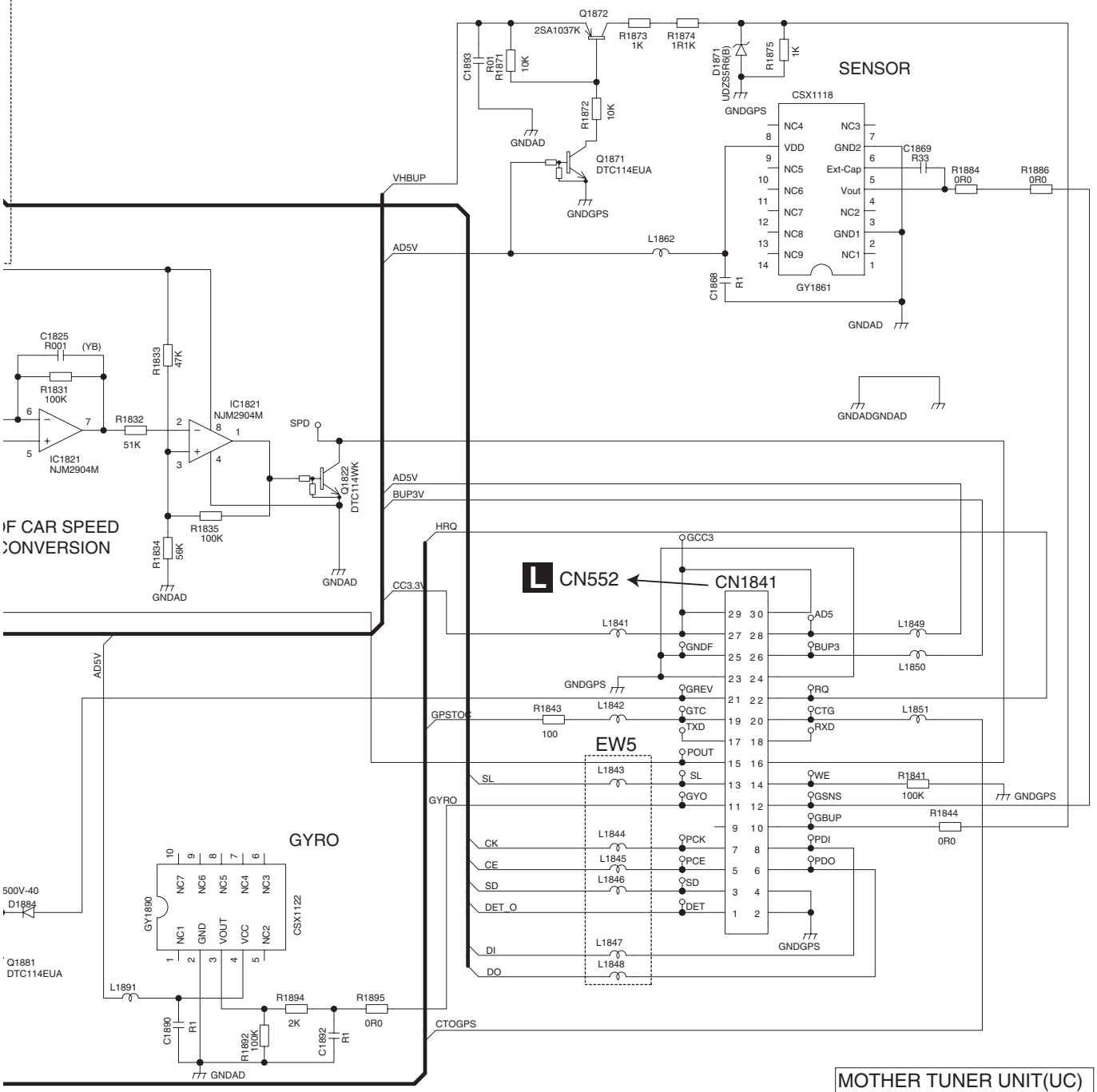
MOTHER TUNER UNIT(UC) MOTHER UNIT(EW5)
Consists of IPOD PCB MOTHER PCB MEZZANINE PCB CONNECTOR PCB

J

10.18 MOTHER PCB(GPS,TMC&OTHERS)

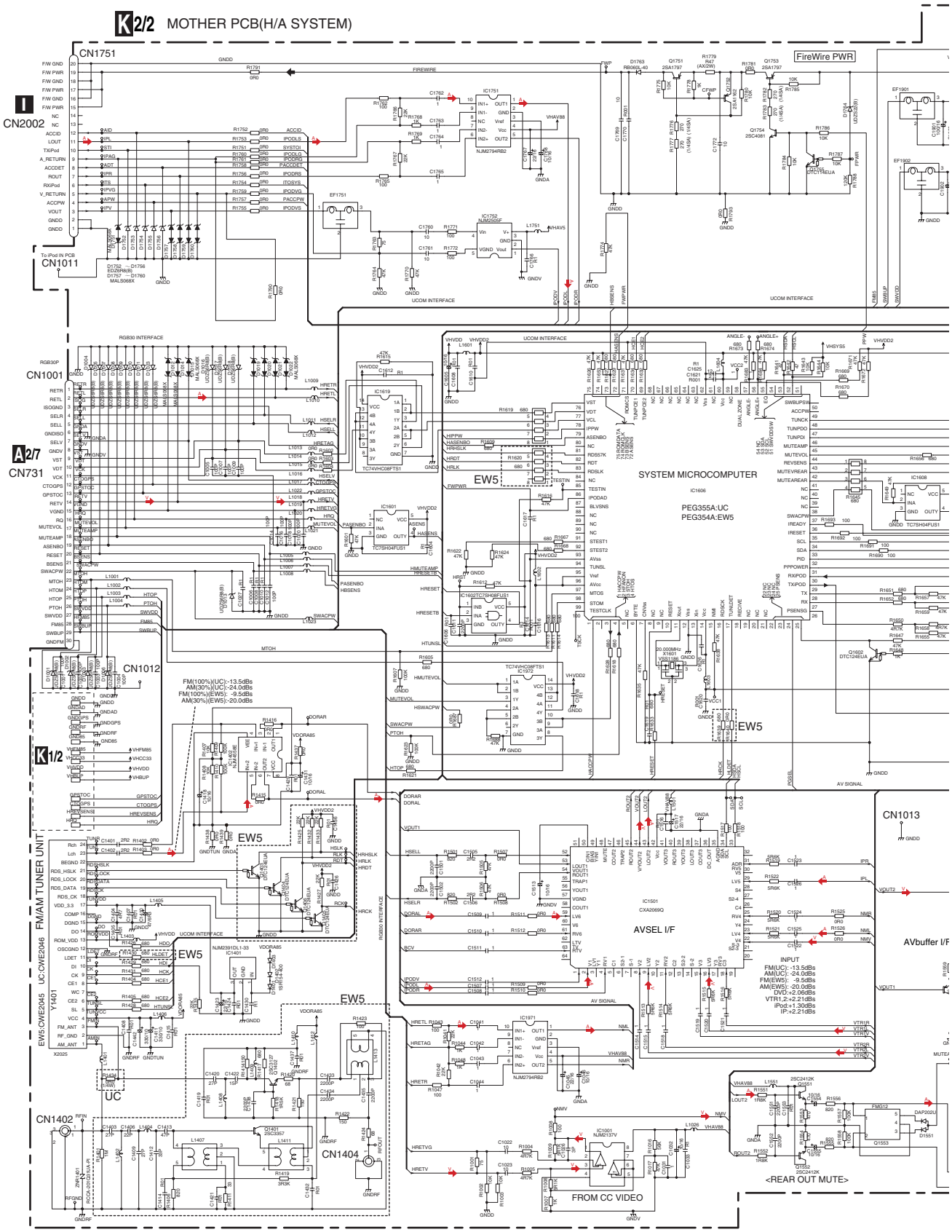


K1/2 MOTHER PCB(GPS,TMC&OTHERS)



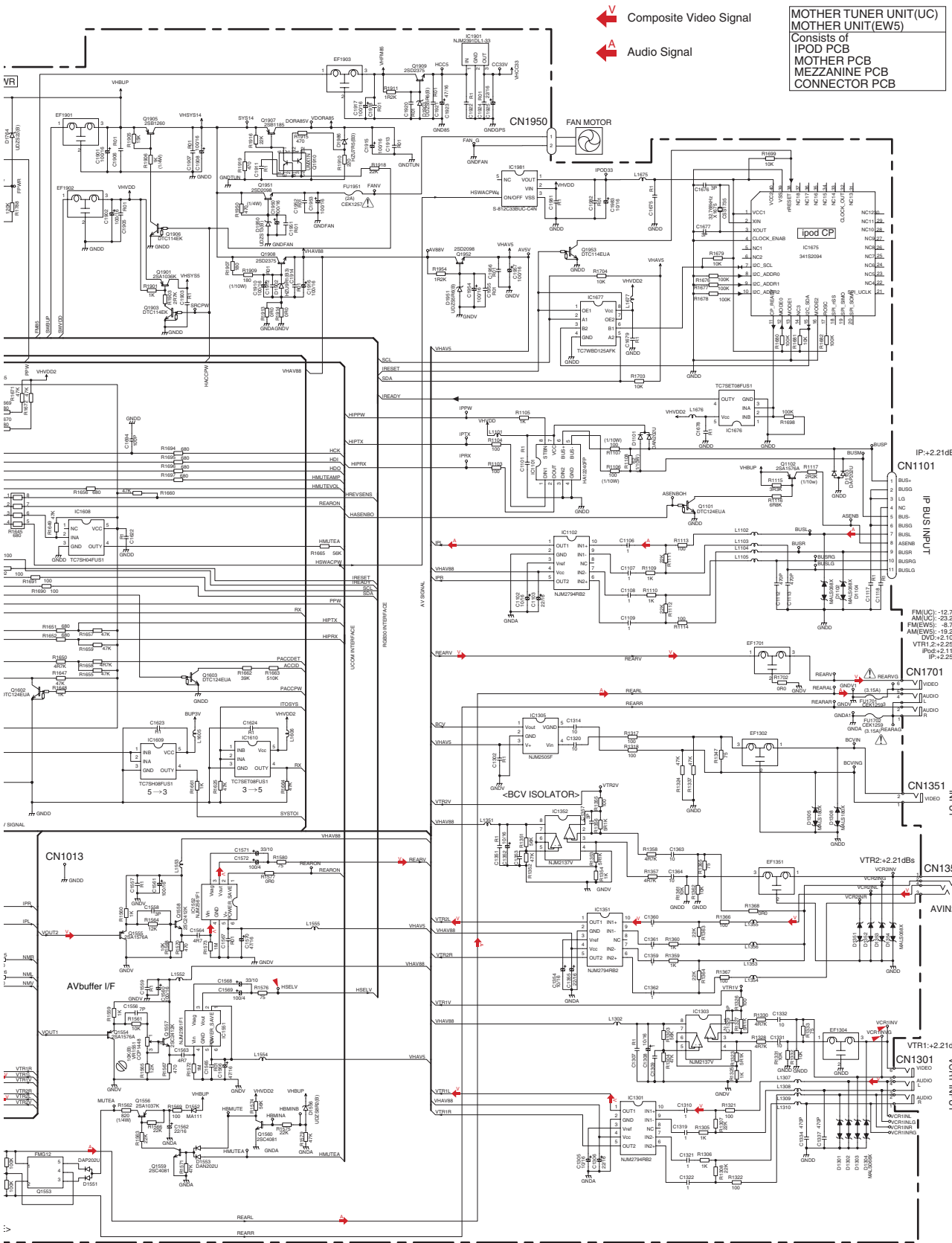
10.19 MOTHER PCB(H/A SYSTEM)(GUIDE PAGE)

K-a 2/2

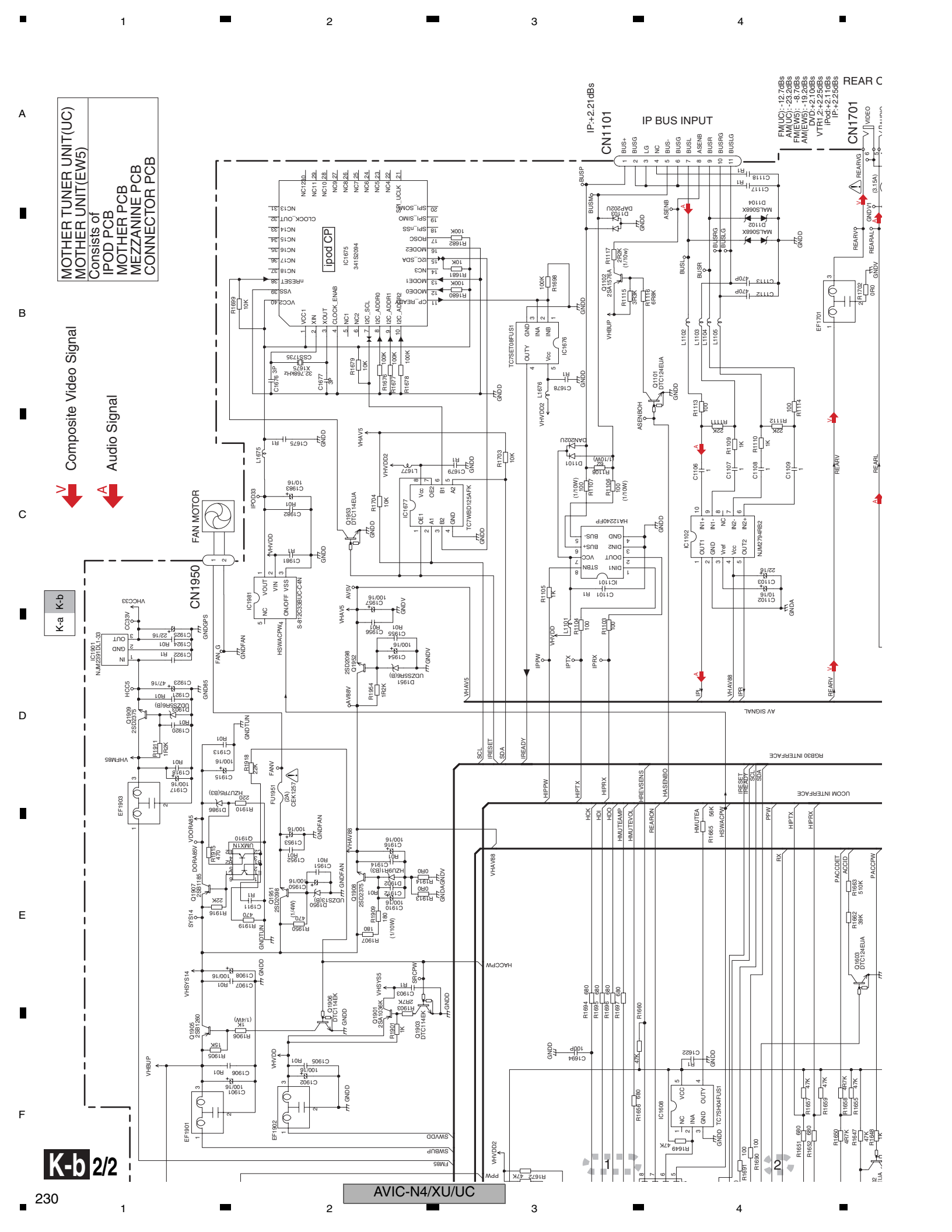


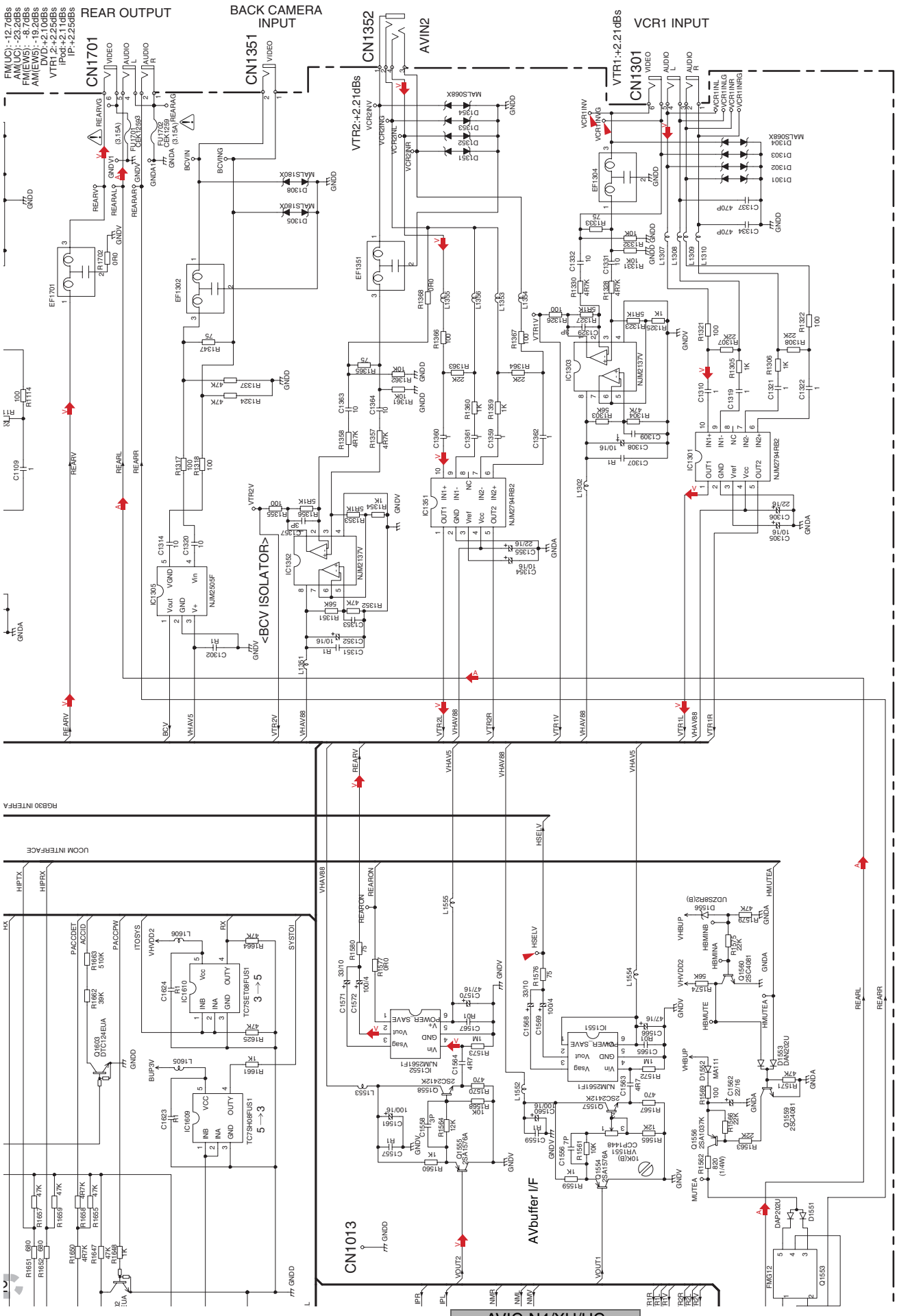
K2/2

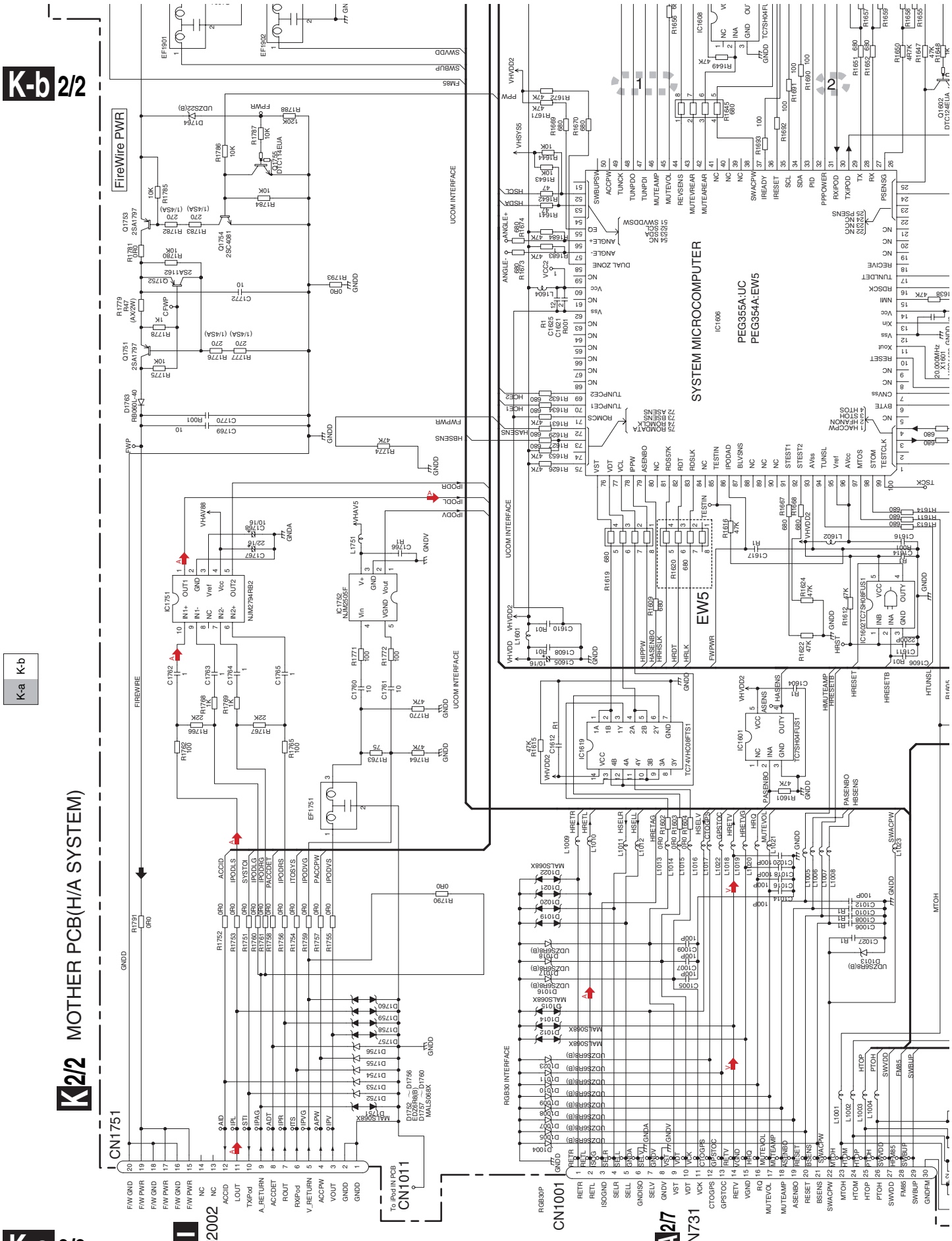
K-b 2/2

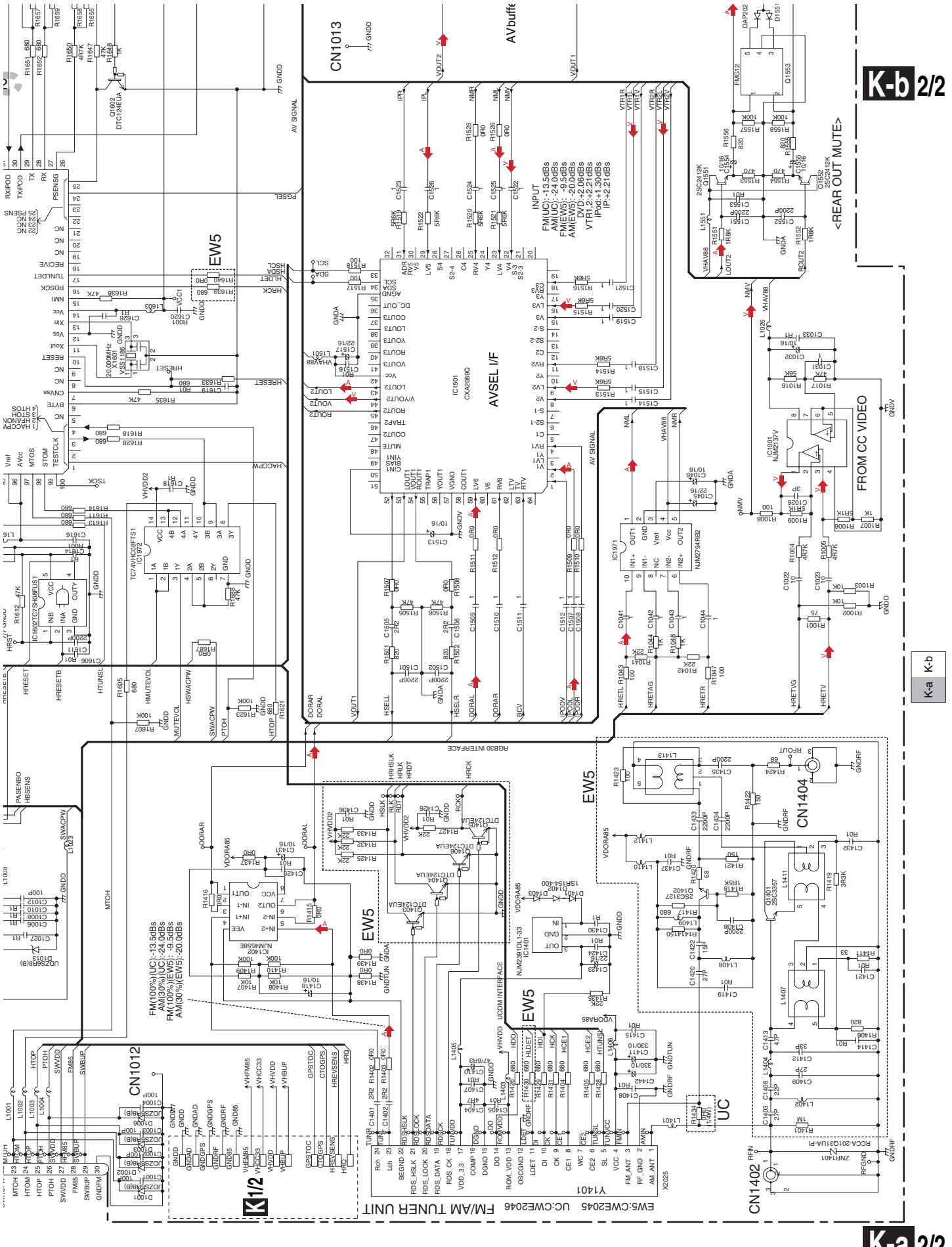

Composite Video Signal
Audio Signal
MOTHER TUNER UNIT(UC)
MOTHER UNIT(EW5)
Consists of
IPOD PCB
MOTHER PCB
MEZZANINE PCB
CONNECTOR PCB
CN1950
FAN MOTOR
ipod CP
CN1101
IP BUS INPUT
IP:+2.21dBs
CN1701
REAR OUTPUT
CN1351
BACK CAMERA INPUT
CN1352
AVIN2
VTR2:+2.21dBs
CN1301
VCR1 INPUT
VTR1:+2.21dBs
CN1013
AVbuffer I/F
<BCV ISOLATOR>
FM(UC): -12.7dBs
AM(UC): -23.2dBs
FM(EW5): -8.7dBs
AM(EW5): -19.2dBs
DVD:+2.10dBs
VTR1:+2.25dBs
iPod:+2.11dBs
IP:+2.25dBs

K2/2

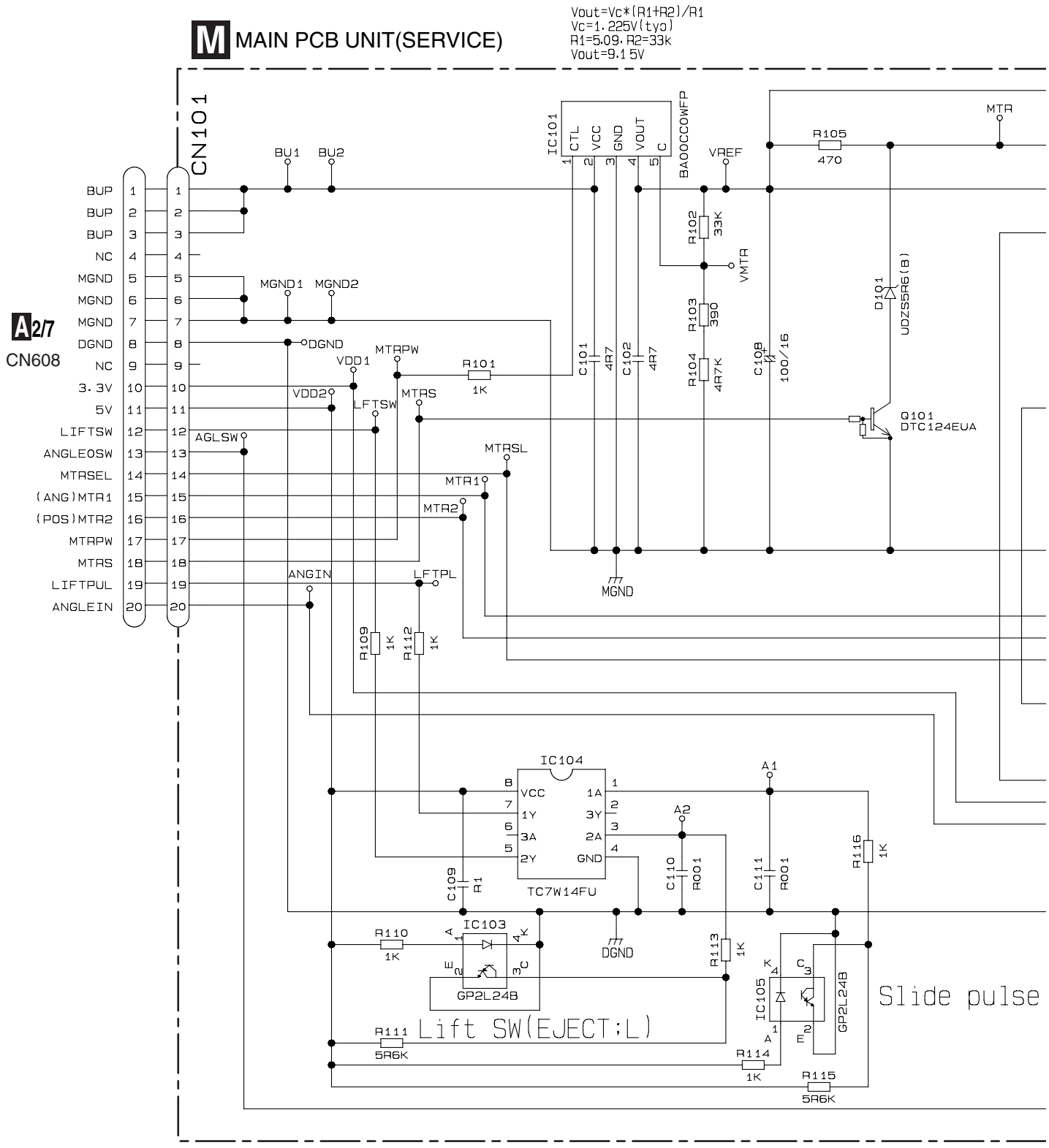

MOTHER TUNER UNIT(UC)
MOTHER UNIT(EW5)
Consists of
IPOD PCB
MOTHER PCB
MEZZANINE PCB
CONNECTOR PCB
Composite Video Signal
Audio Signal
K-a K-b
CN1950
FAN MOTOR
ipod CP
IC1675
CN1101
IP BUS INPUT
IP:+2.21dBs
CN1701
REAR C
FM(UC): -12.7dBs
AM(UC): -23.2dBs
FM(EW5): -8.7dBs
AM(EW5): -19.2dBs
DVD:+2.10dBs
VTR1,2:+2.25dBs
iPod:+2.11dBs
IP:+2.25dBs
AV SIGNAL
RGB30 INTERFACE
UCOM INTERFACE
K-b 2/2
AVIC-N4/XU/UC
230

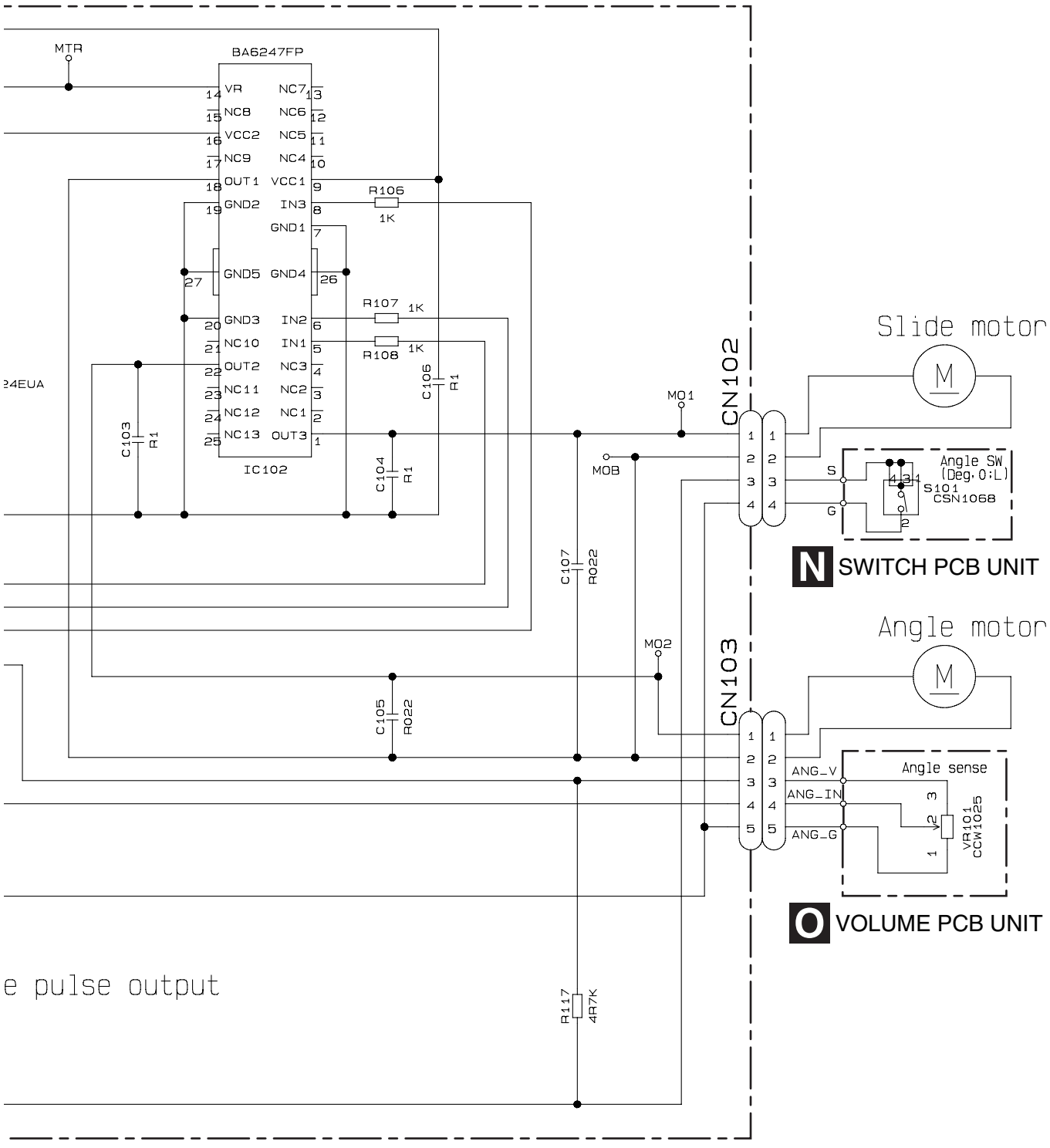

REAR OUTPUT
BACK CAMERA INPUT
VCR1 INPUT
CN1701
CN1351
CN1352
CN1301
AVIN2
FM(UC): -12.7dBs
AM(UC): -23.2dBs
FM(EWS): -8.7dBs
AM(EWS): -19.2dBs
DVD:+2.10dBs
VTR1,2:+2.25dBs
IPod:+2.11dBs
IP:+2.25dBs
VTR2:+2.21dBs
VTR1:+2.21dBs
<BCV ISOLATOR>
AVbuffer I/F
CN1013
UCOM INTERFACE
RGB30 INTERFACE
K-a
K-b
K-b 2/2
AVIC-N4/XU/UC
231


K-b 2/2
K2/2 MOTHER PCB(H/A SYSTEM)
K-a 2/2
K-a
K-b
FireWire PWR
SYSTEM MICROCOMPUTER
PEG355A:UC
PEG354A:EW5
IC1606
EW5
UCOM INTERFACE
FIREWIRE
RGB30 INTERFACE
CN1751
CN2002
CN1001
CN731
CN1011
To iPod IN PCB
A2/7


K-b 2/2
K-a 2/2
K1/2
CN1013
AVbuffe
AV SIGNAL
AVSEL I/F
IC1501
CXA2069Q
INPUT
FM(UC): -13.5dBs
AM(UC): -24.0dBs
FM(EWS): -9.5dBs
AM(EWS): -20.0dBs
VTR1 P: +2.21dBs
iPod:+1.30dBs
IP:+2.21dBs
<REAR OUT MUTE>
FROM CC VIDEO
RGB30 INTERFACE
CN1012
CN1404
CN1402
EW5
UC
FM/AM TUNER UNIT
EWS:CWE2045
UC:CWE2046
FM(100%)/(UC):-13.5dBs
AM(30%)/(UC):-24.0dBs
FM(100%)/(EW5): -9.5dBs
AM(30%)/(EW5):-20.0dBs
K-b
K-a
AVIC-N4/XU/UC
233

10.20 MAIN PCB UNIT(SERVICE), SWITCH PCB UNIT AND VOLUME PCB UNIT




MTR
BA6247FP
VR
NC8
VCC2
NC9
OUT1
GND2
GND1
GND5
GND4
GND3
NC10
OUT2
NC11
NC12
NC13
NC7
NC6
NC5
NC4
VCC1
IN3
IN2
IN1
NC3
NC2
NC1
OUT3
IC102
R106
1K
R107
1K
R108
1K
C103
R1
C104
R1
C106
R1
MO1
MO2
MOB
CN102
CN103
Slide motor
Angle motor
Angle SW
(Deg.0:L)
S101
CSN1068
S
G
Angle sense
ANG_V
ANG_IN
ANG_G
VR101
CCW1025
C107
R022
C105
R022
R117
4R7K
e pulse output
N SWITCH PCB UNIT
O VOLUME PCB UNIT

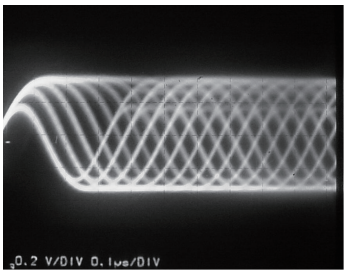
10.21 WAVEFORMS

● DVD CORE UNIT

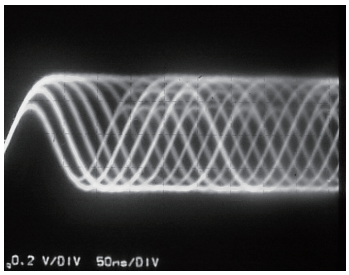
Note:1. The encircled number denote measuring points in the circuit diagram.
2. Reference voltage: 1.65 V(TD1,FD1)(=VHALF)
2.2 V(RF)(=VREF)

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

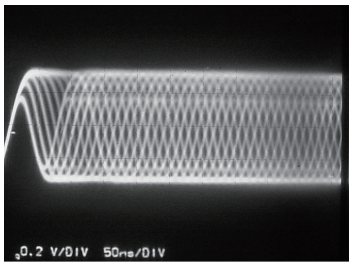
①RF 0.2 V/div(AC) 0.1 μs/div
CDRF(x 4 CLV)



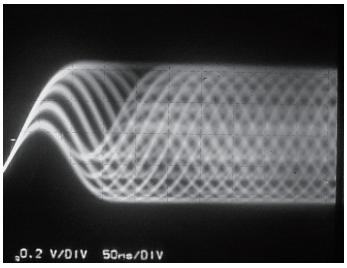
①RF 0.2 V/div(AC) 50 ns/div
CDRF(x 20 CAV Inner peripheral)



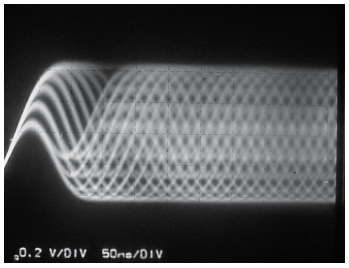
①RF 0.2 V/div(AC) 50 ns/div
CDRF(x 20 CAV Peripheral)



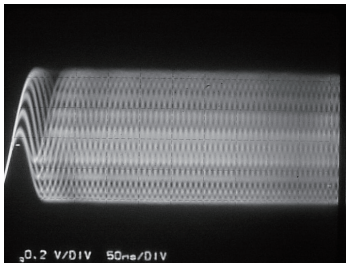
①RF 0.2 V/div(AC) 50 ns/div
DVDRF(x 1.3 ZCAV)



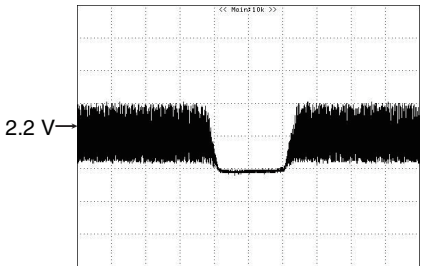
①RF 0.2 V/div(AC) 50 ns/div
DVDRF(x 5 CAV Inner peripheral)



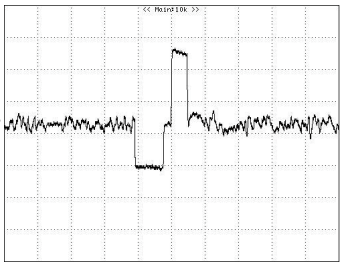
①RF 0.2 V/div(AC) 50 ns/div
DVDRF(x 5 CAV Peripheral)



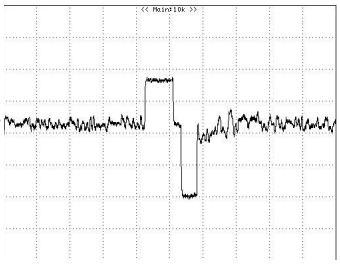
①RF 0.5 V/div 100 μs/div
DVDRF(BD1 mm)



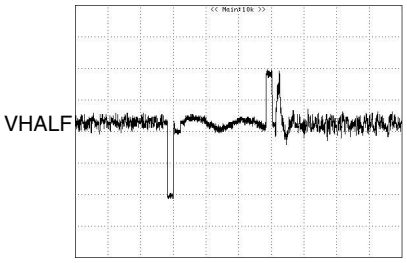
②TD1 0.1 V/div 100 μs/div
Interval FWD



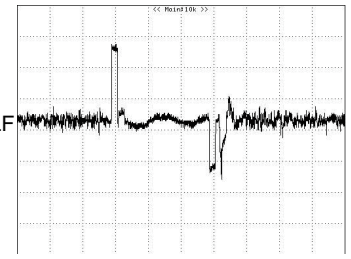
②TD1 0.1 V/div 100 μs/div
Interval REV



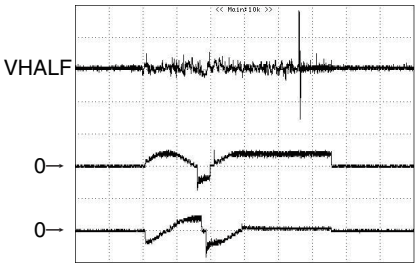
②TD1 0.1 V/div 500 μs/div
Multi 32 FWD



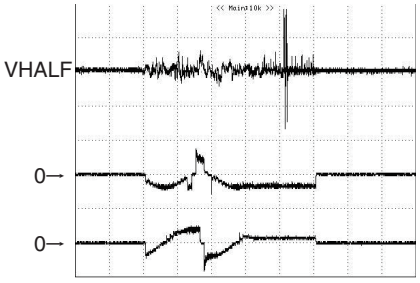
②TD1 0.1 V/div 500 μs/div
Multi 32 REV



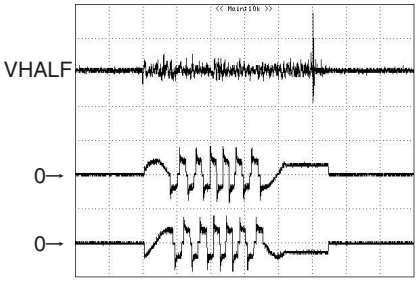
②CH1 : TD1 0.5 V/div 10 ms/div
③CH2 : A^+-A^- 10.0 V/div 10 ms/div
(LPF of the oscilloscope is set to 10 kHz)
④CH3 : B^+-B^- 10.0 V/div 10 ms/div
(LPF of the oscilloscope is set to 10 kHz)
Traverse 900 FWD(Short)



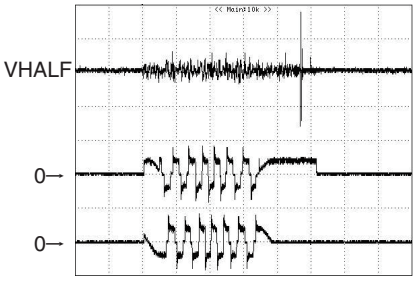
②CH1 : TD1 0.5 V/div 10 ms/div
③CH2 : A^+-A^- 10.0 V/div 10 ms/div
(LPF of the oscilloscope is set to 10 kHz)
④CH3 : B^+-B^- 10.0 V/div 10 ms/div
(LPF of the oscilloscope is set to 10 kHz)
Traverse 900 REV(Short)



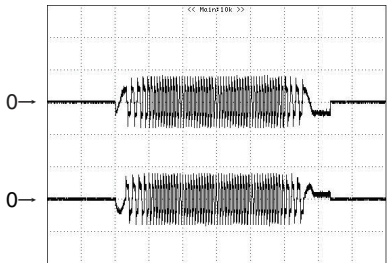
②CH1 : TD1 0.5 V/div 20 ms/div
③CH2 : A^+-A^- 10.0 V/div 20 ms/div
(LPF of the oscilloscope is set to 10 kHz)
④CH3 : B^+-B^- 10.0 V/div 20 ms/div
(LPF of the oscilloscope is set to 10 kHz)
Traverse 5 000 FWD(Long)



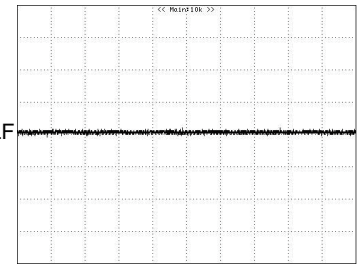
②CH1 : TD1 0.5 V/div 20 ms/div
③CH2 : A^+-A^- 10.0 V/div 20 ms/div
(LPF of the oscilloscope is set to 10 kHz)
④CH3 : B^+-B^- 10.0 V/div 20 ms/div
(LPF of the oscilloscope is set to 10 kHz)
Traverse 5 000 REV(Long)



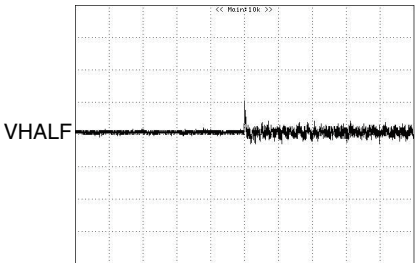
③CH : A^+-A^- 10 V/div 50 ms/div
④CH2 : B^+-B^-
ID search Inside → Outside



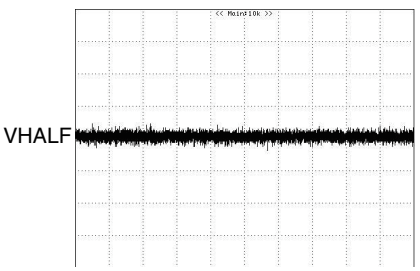
②TD1 0.5 Vdiv 20 ms/div
Play TD



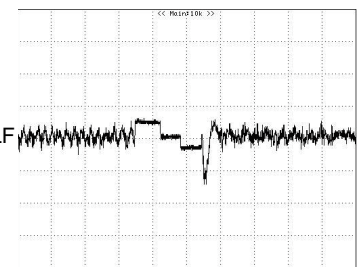
⑤FD1 0.5 V/div 1 ms/div
Focus Close



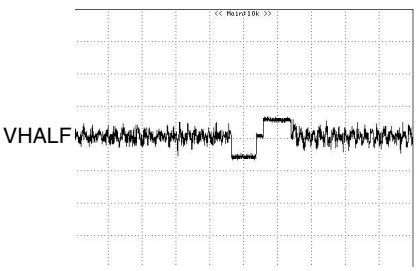
⑤FD1 0.5 V/div 20 ms/div
Play FD



⑤FD1 0.5 V/div 500 μs/div
Focus Jump L0→L1



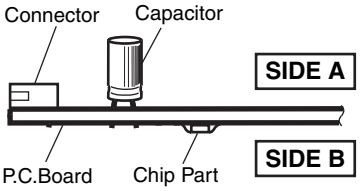
⑤FD1 0.5 V/div 500 μs/div
Focus Jump L1→L0



11. PCB CONNECTION DIAGRAM
11.1 CC UNIT

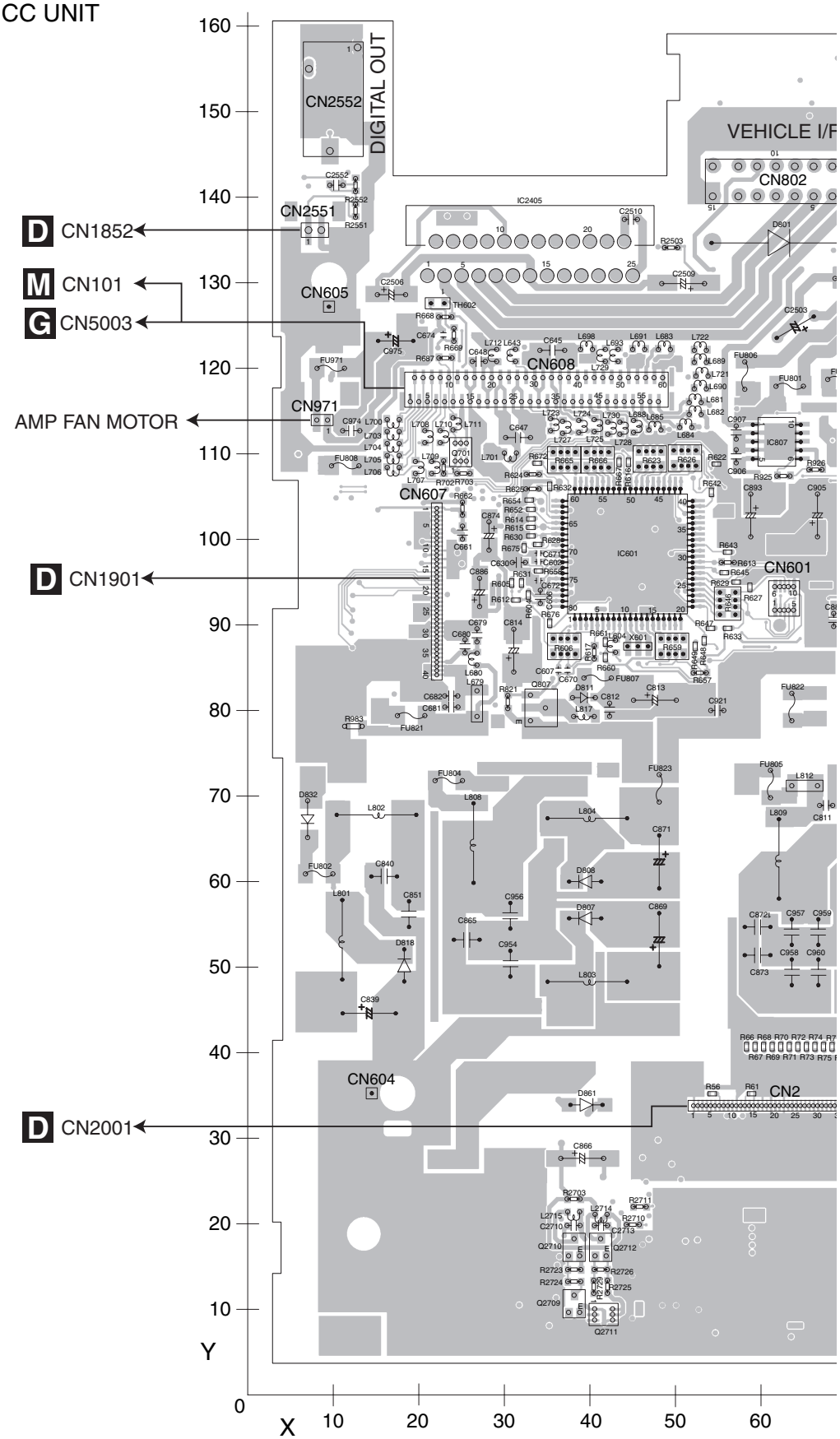
NOTE FOR PCB DIAGRAMS

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

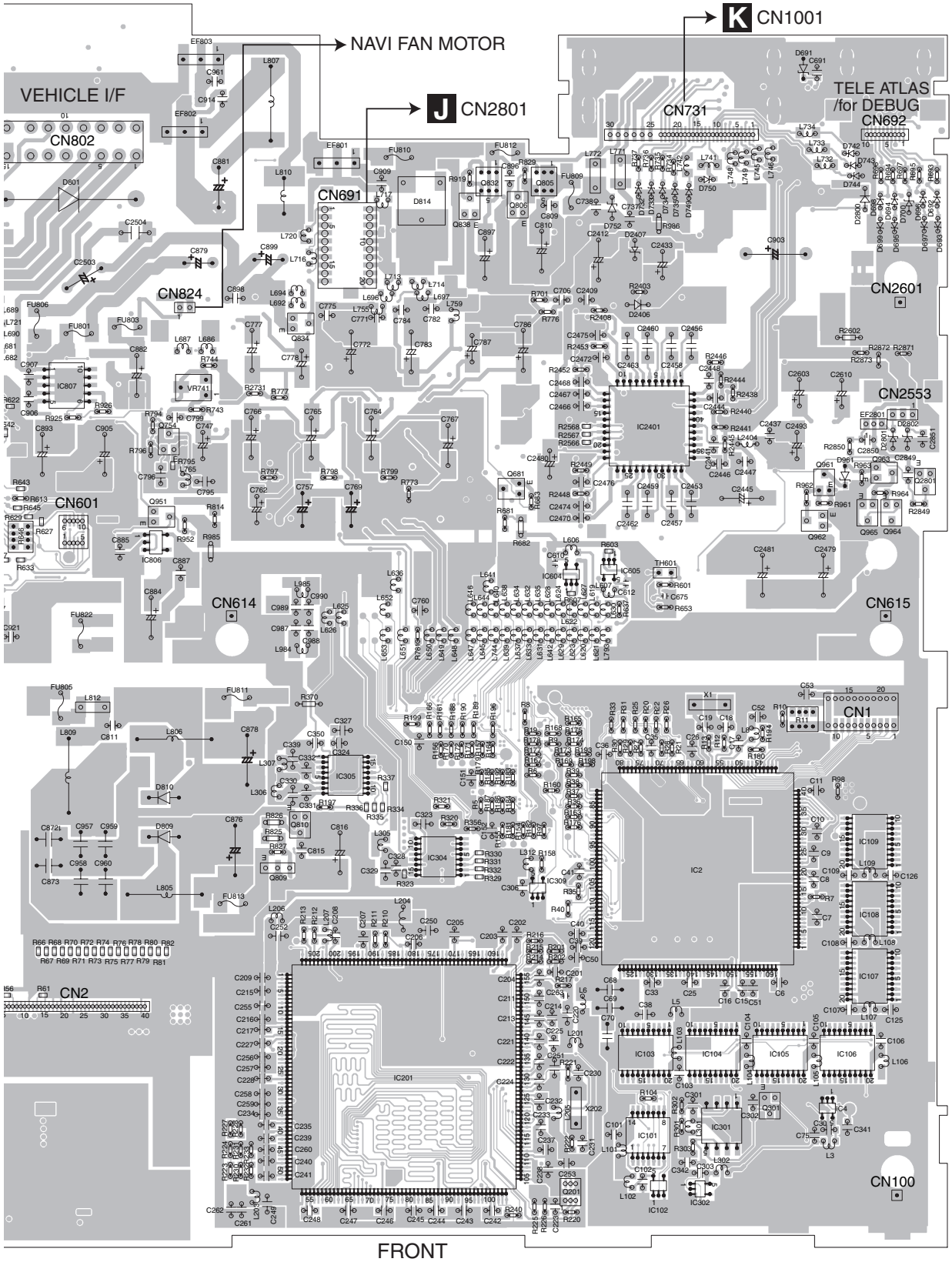


⚠FU 801	(A,63,118) Fuse 1.25 A	CEK1255
⚠FU 802	(A,8,61) Fuse 4 A	CEK1260
⚠FU 803	(A,69,119) Fuse 400 mA	CEK1250
⚠FU 804	(A,24,72) Fuse 2.5 A	CEK1258
⚠FU 805	(A,61,71) Fuse 2.5 A	CEK1258
⚠FU 806	(A,58,119) Fuse 1 A	CEK1254
⚠FU 807	(A,41,84) Fuse 1 A	CEK1254
⚠FU 808	(A,11,109) Fuse 4 A	CEK1260
⚠FU 809	(A,125,135) Fuse 2 A	CEK1257
⚠FU 810	(A,103,140) Fuse 1.25 A	CEK1255
⚠FU 811	(A,83,72) Fuse 2 A	CEK1257
⚠FU 812	(A,117,141) Fuse 250 mA	CEK1248
⚠FU 813	(A,83,47) Fuse 2.5 A	CEK1258
⚠FU 821	(A,19,79) Fuse 3.15 A	CEK1259
⚠FU 822	(A,64,80) Fuse 1 A	CEK1254
⚠FU 823	(A,48,71) Fuse 2 A	CEK1257
⚠FU 971	(A,10,120) Fuse 400 mA	CEK1250

A CC UNIT

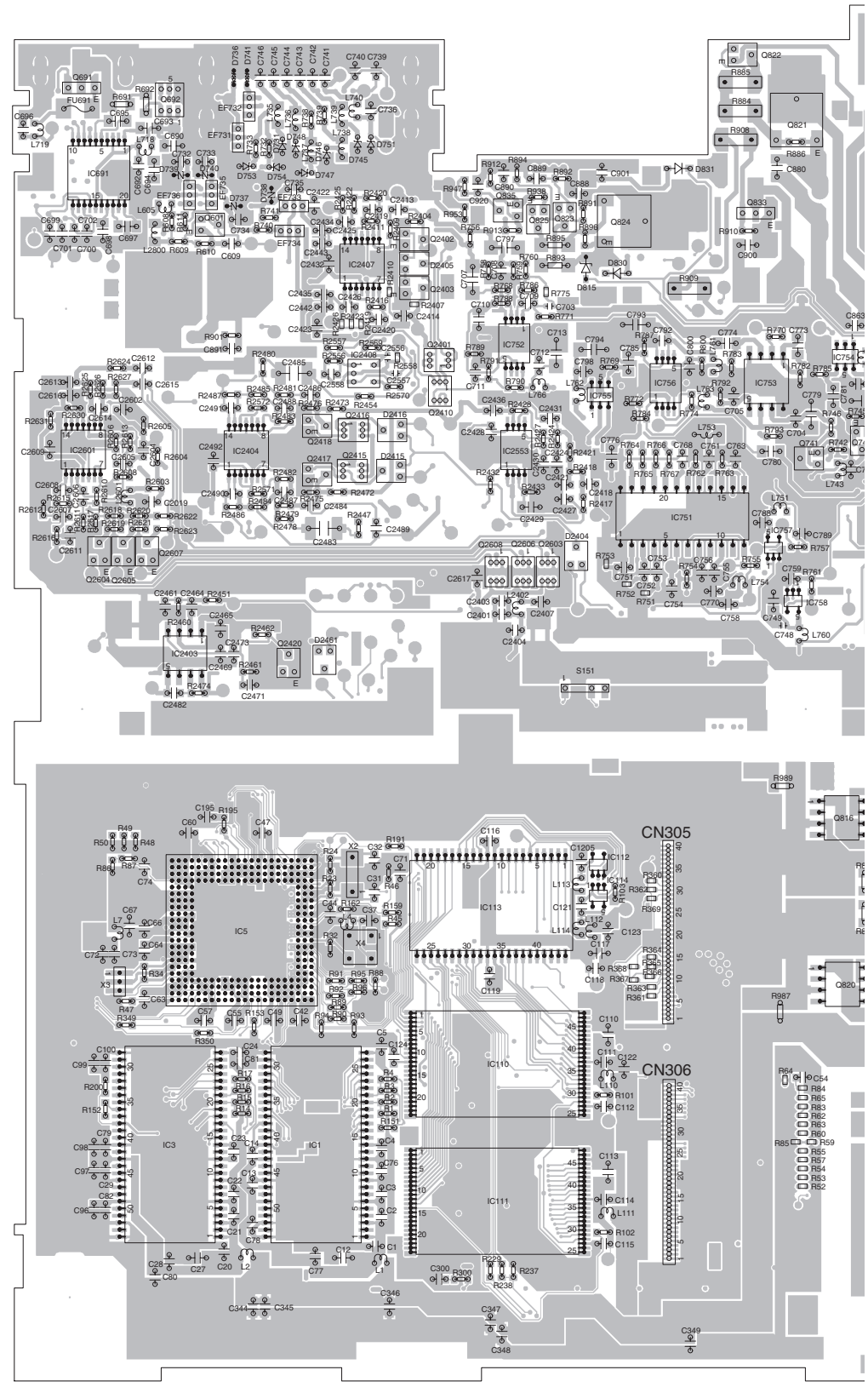


SIDE A


K CN1001
NAVI FAN MOTOR
J CN2801
VEHICLE I/F
CN802
CN731
TELE ATLAS
/for DEBUG
CN692
CN691
CN824
CN2601
CN2553
CN601
CN614
CN615
CN1
CN2
CN100
FRONT
60 70 80 90 100 110 120 130 140 150 160 170

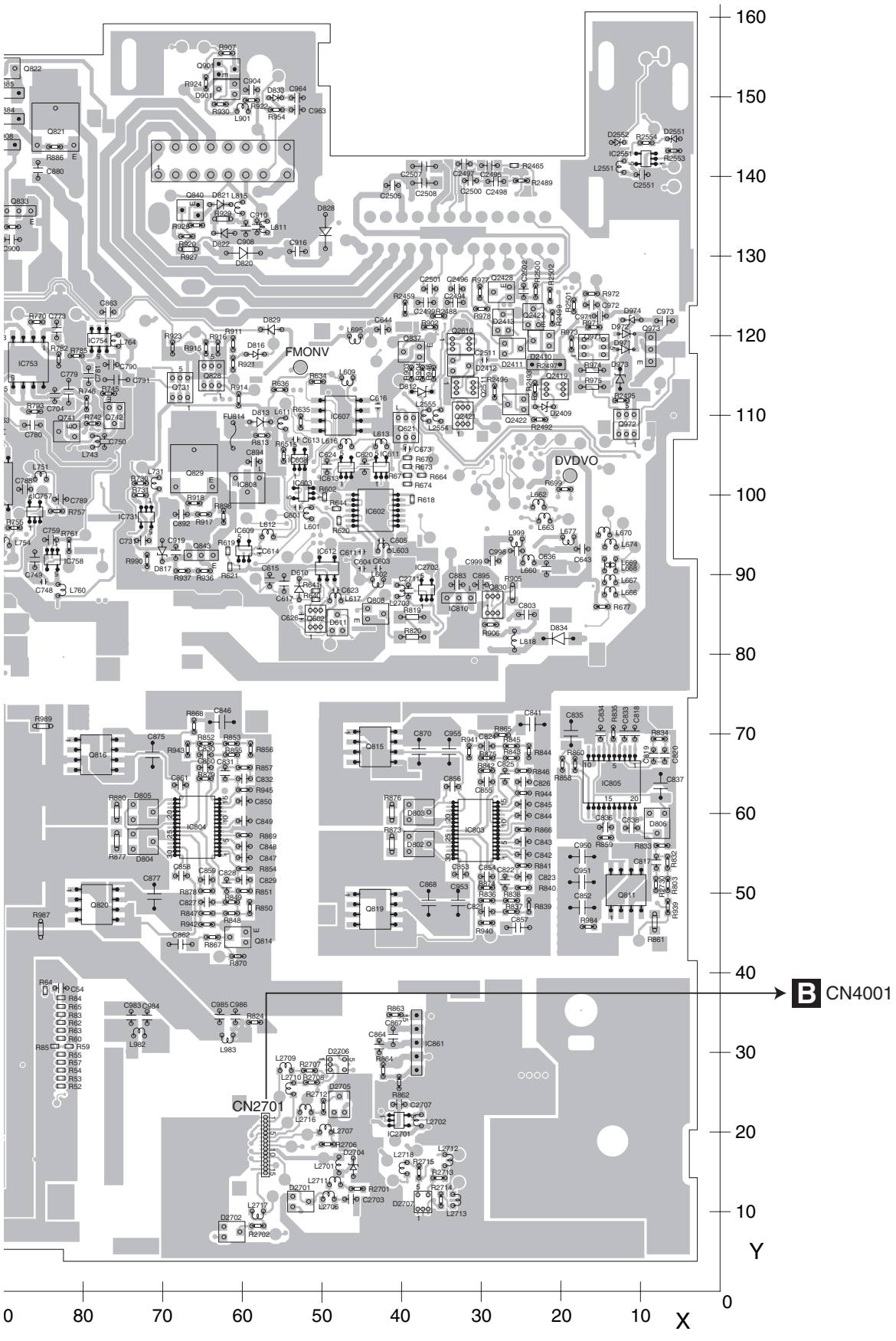
A CC UNIT

⚠FU 691 (B,165,147) Fuse 1 A CEK1254
⚠FU 814 (B,61,107) Fuse 250 mA CEK1248



AVIC-N4/XU/UC

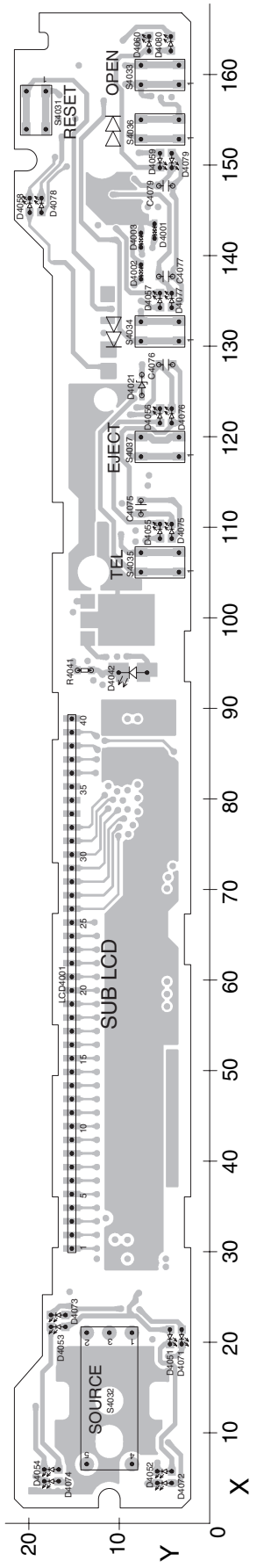
SIDE B


FMONV
DVDVO
CN2701
B CN4001
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Y
0
80
70
60
50
40
30
20
10
X

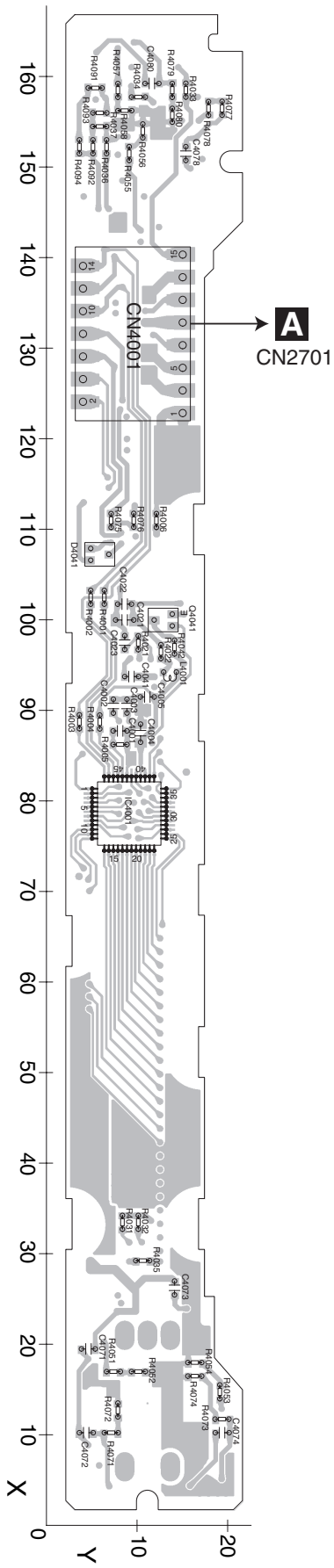
A

11.2 KEYBOARD UNIT

B KEYBOARD UNIT **SIDE A**



B KEYBOARD UNIT **SIDE B**

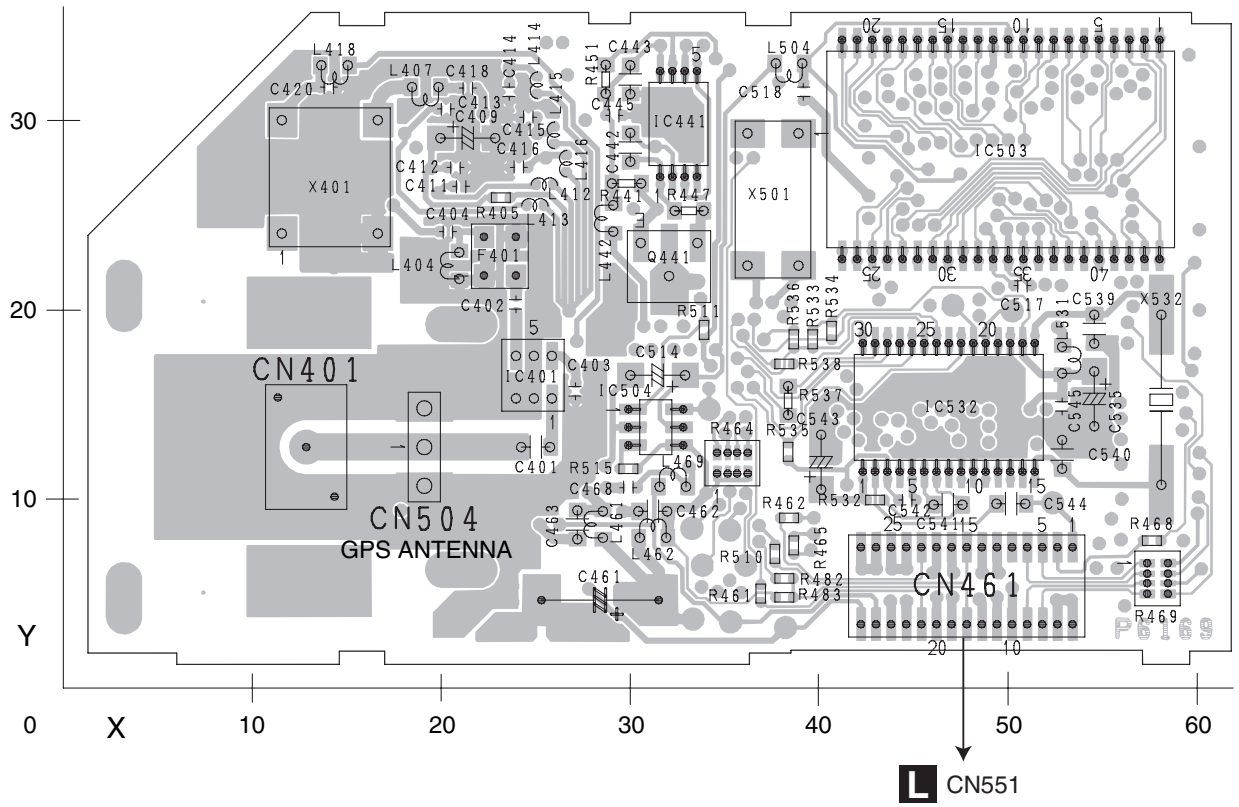


B

11.3 GPS UNIT

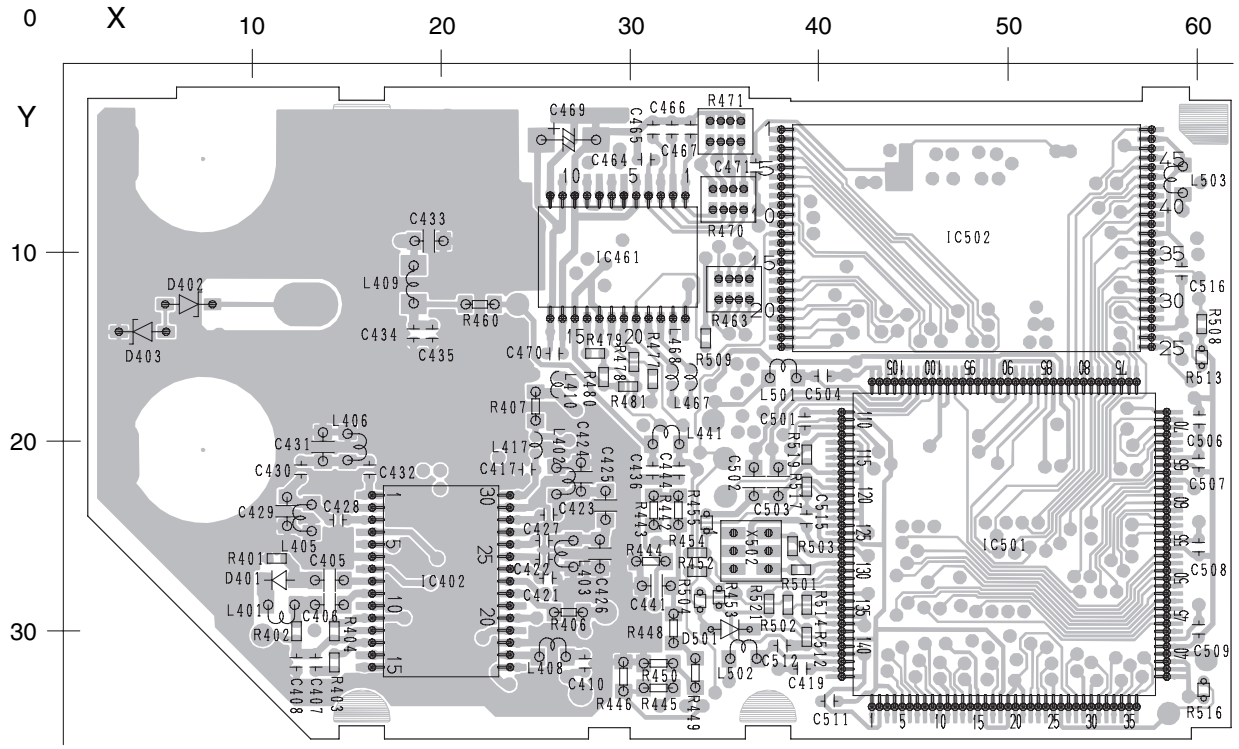
C GPS UNIT

SIDE A



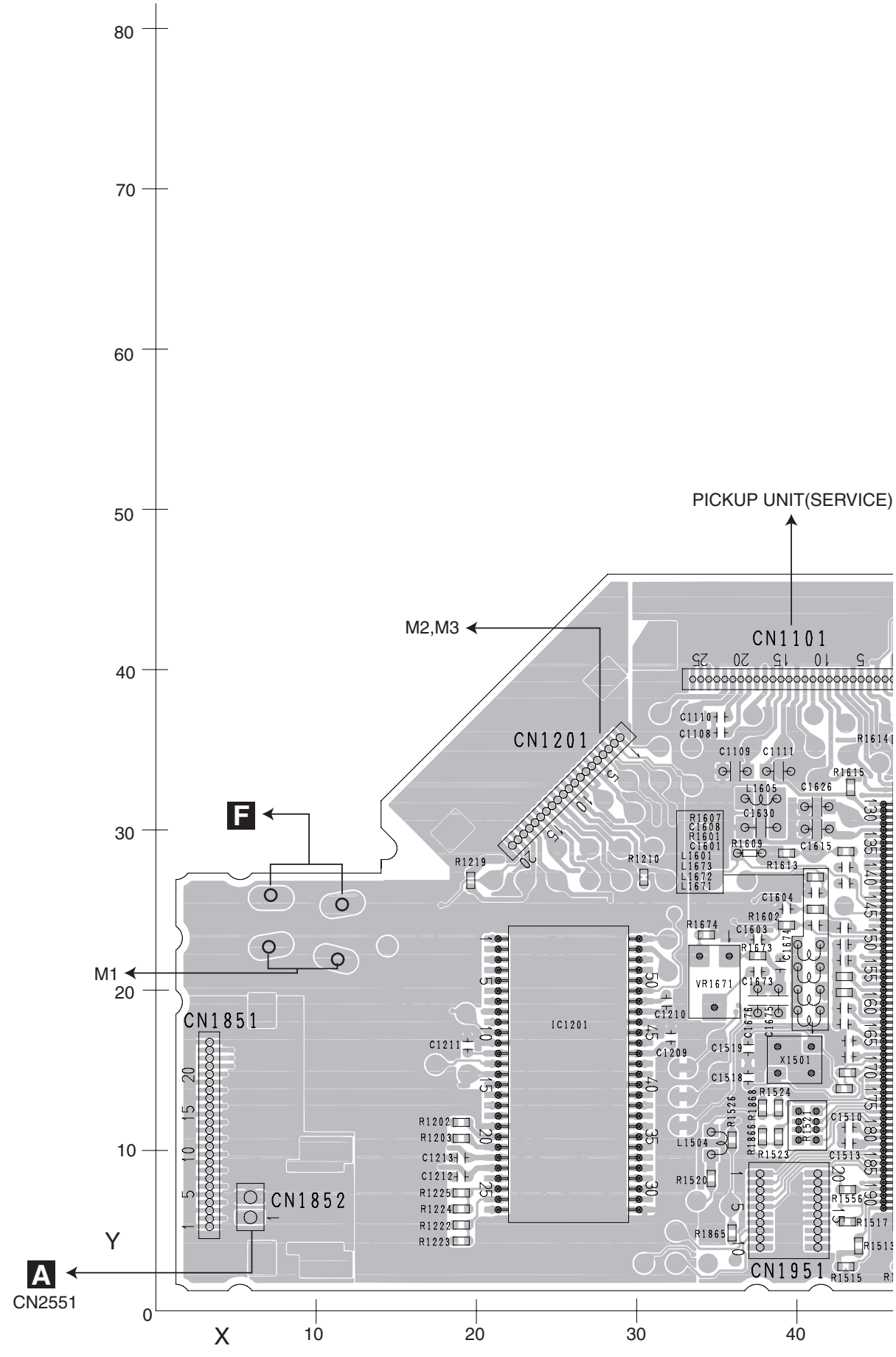
C GPS UNIT

SIDE B

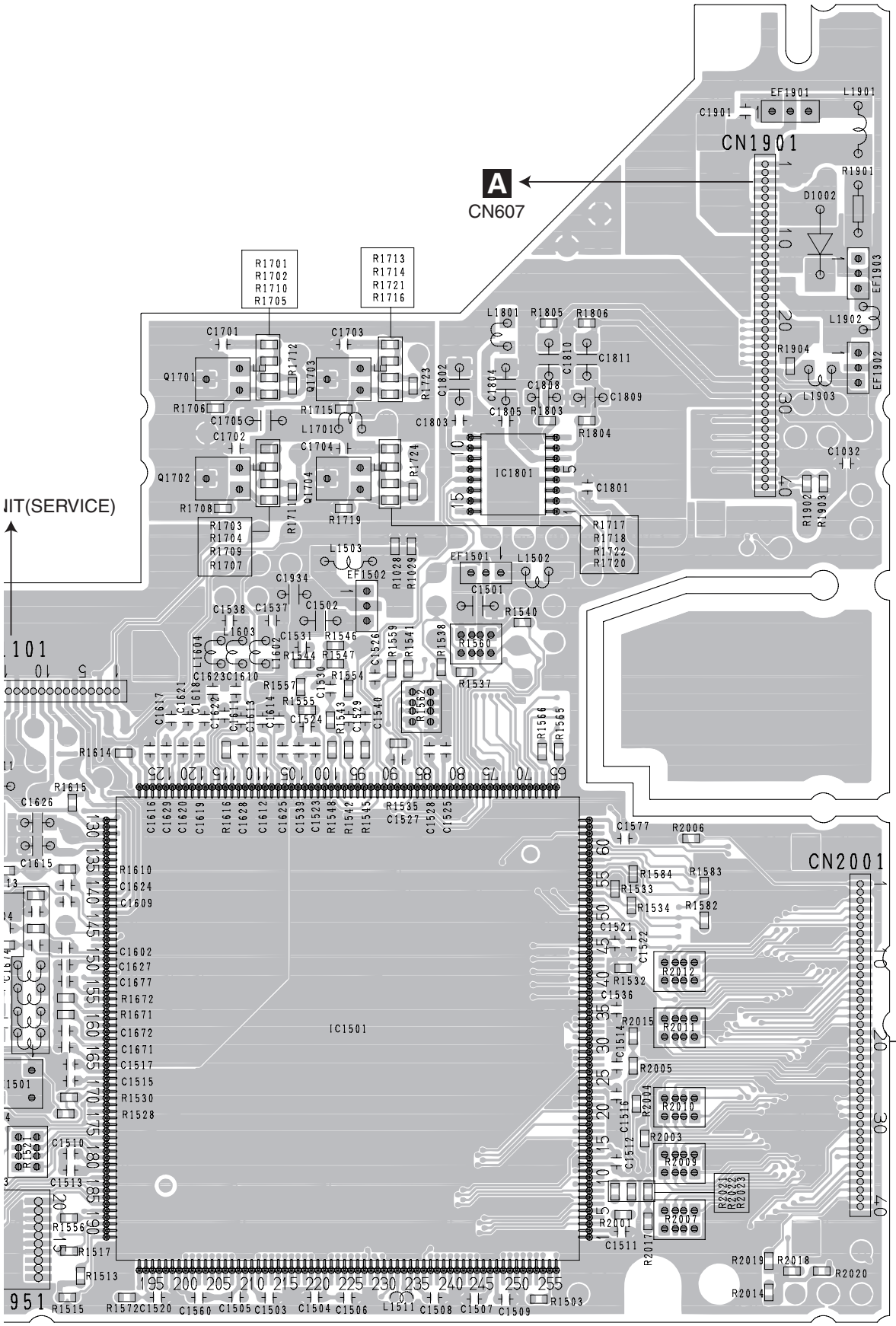


11.4 DVD CORE UNIT

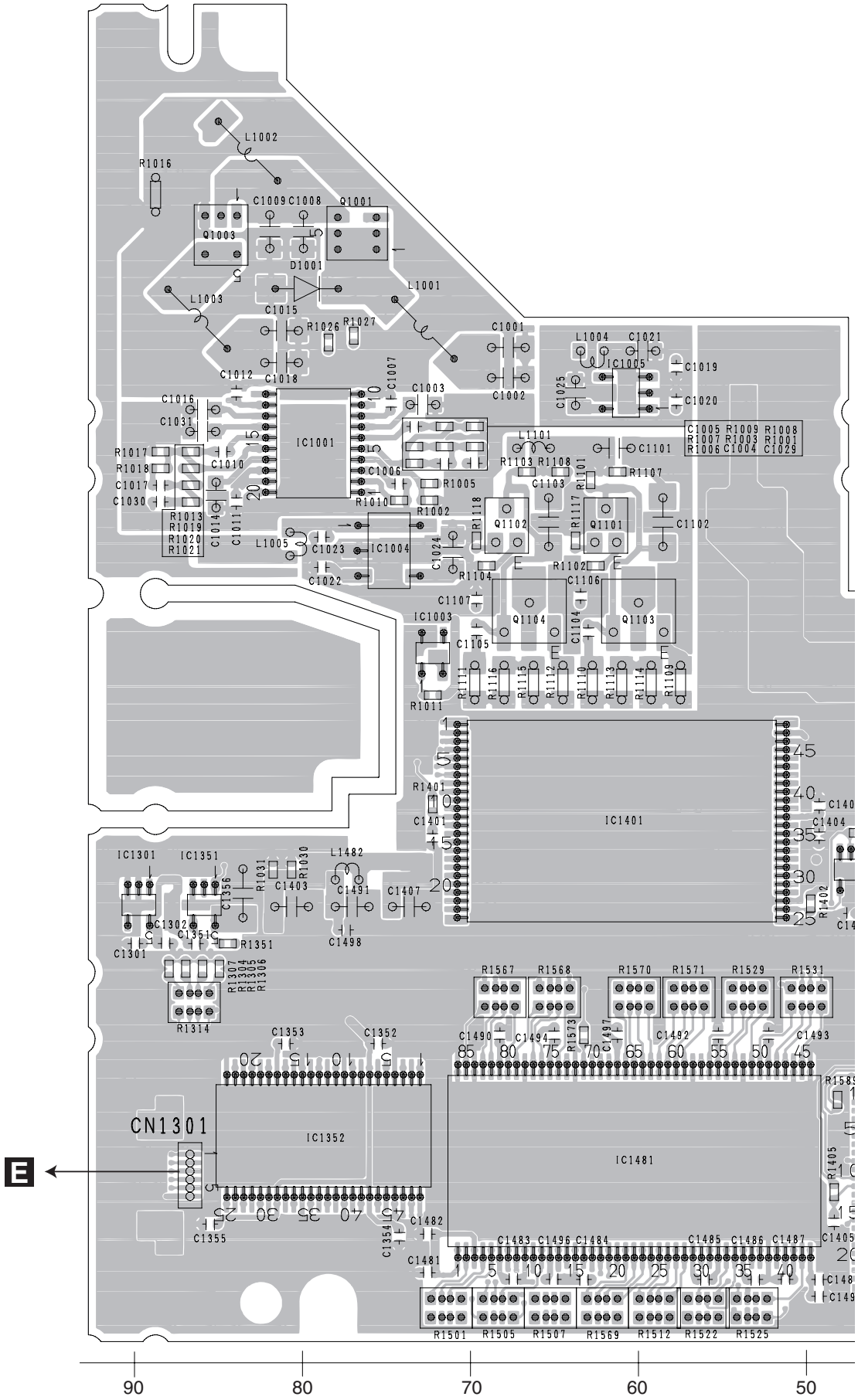
D DVD CORE UNIT



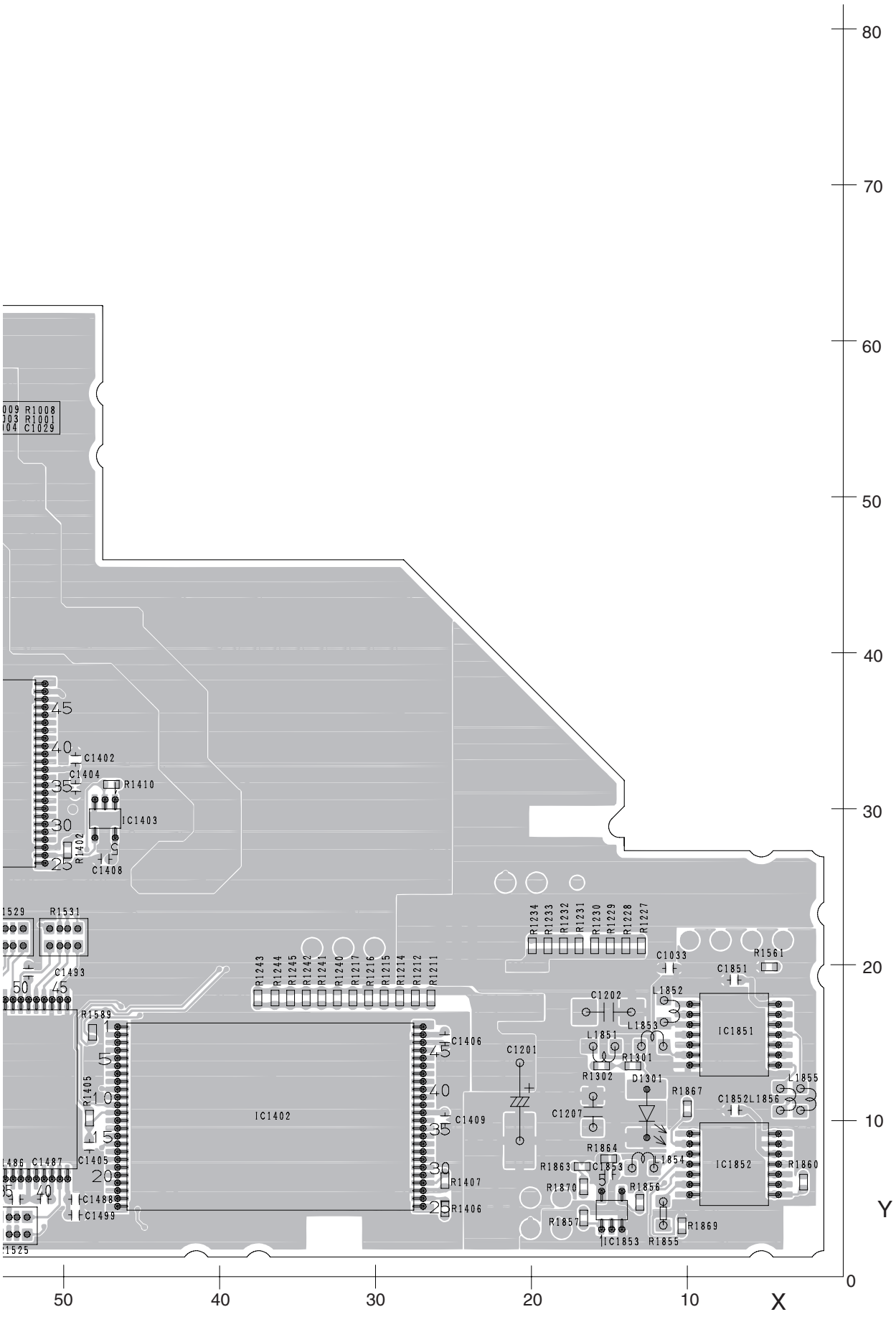
D


A
CN607
CN1901
CN2001
A
CN2
IIT(SERVICE)
IC1501
IC1801

D DVD CORE UNIT



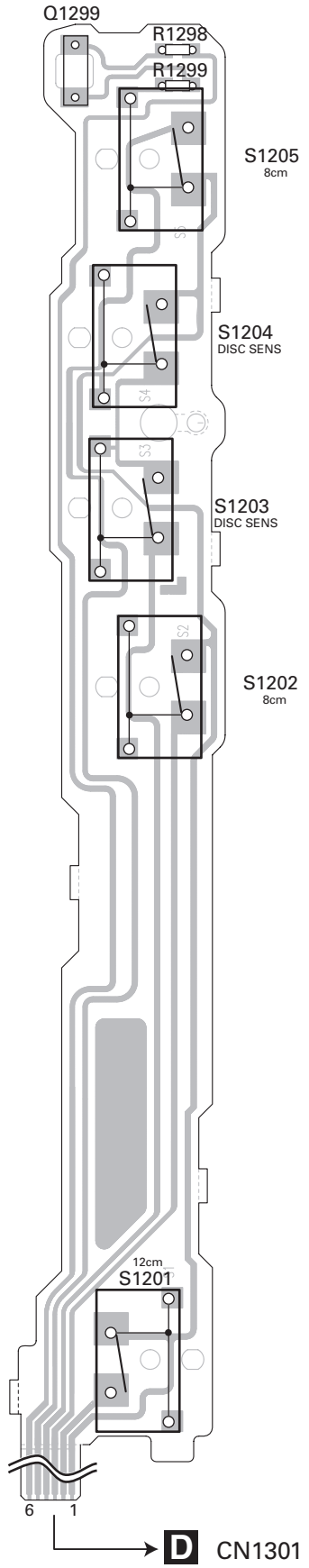
SIDE B


009 R1008
003 R1001
004 C1029
C1402
C1404
R1410
IC1403
R1402
C1408
1529
R1531
C1493
R1589
R1405
C1405
C1486 C1487
C1488
C1499
1525
IC1402
R1243 R1244 R1245 R1242 R1241 R1240 R1217 R1216 R1215 R1214 R1212 R1211
C1406
C1409
R1407
R1406
C1201
R1234 R1233 R1232 R1231 R1230 R1229 R1228 R1227
C1033
C1851
R1561
C1202
L1852
L1853
L1851
R1301
R1302
D1301
IC1851
L1855
R1867
C1852
L1856
C1207
R1864
R1863
C1853
L1854
IC1852
R1860
R1870
R1856
R1857
R1869
IC1853
R1855
80 70 60 50 40 30 20 10 0
Y
50 40 30 20 10
X

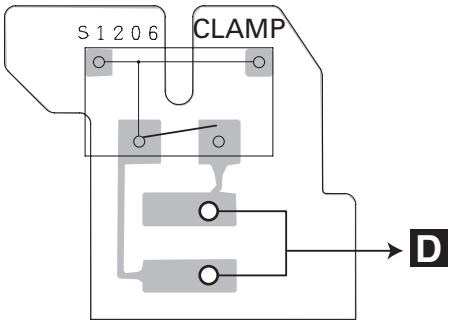
D

11.5 COMPOUND UNIT(A) AND COMPOUND UNIT(B)

E COMPOUND UNIT(A)



F COMPOUND UNIT(B)



E F

A

B

C

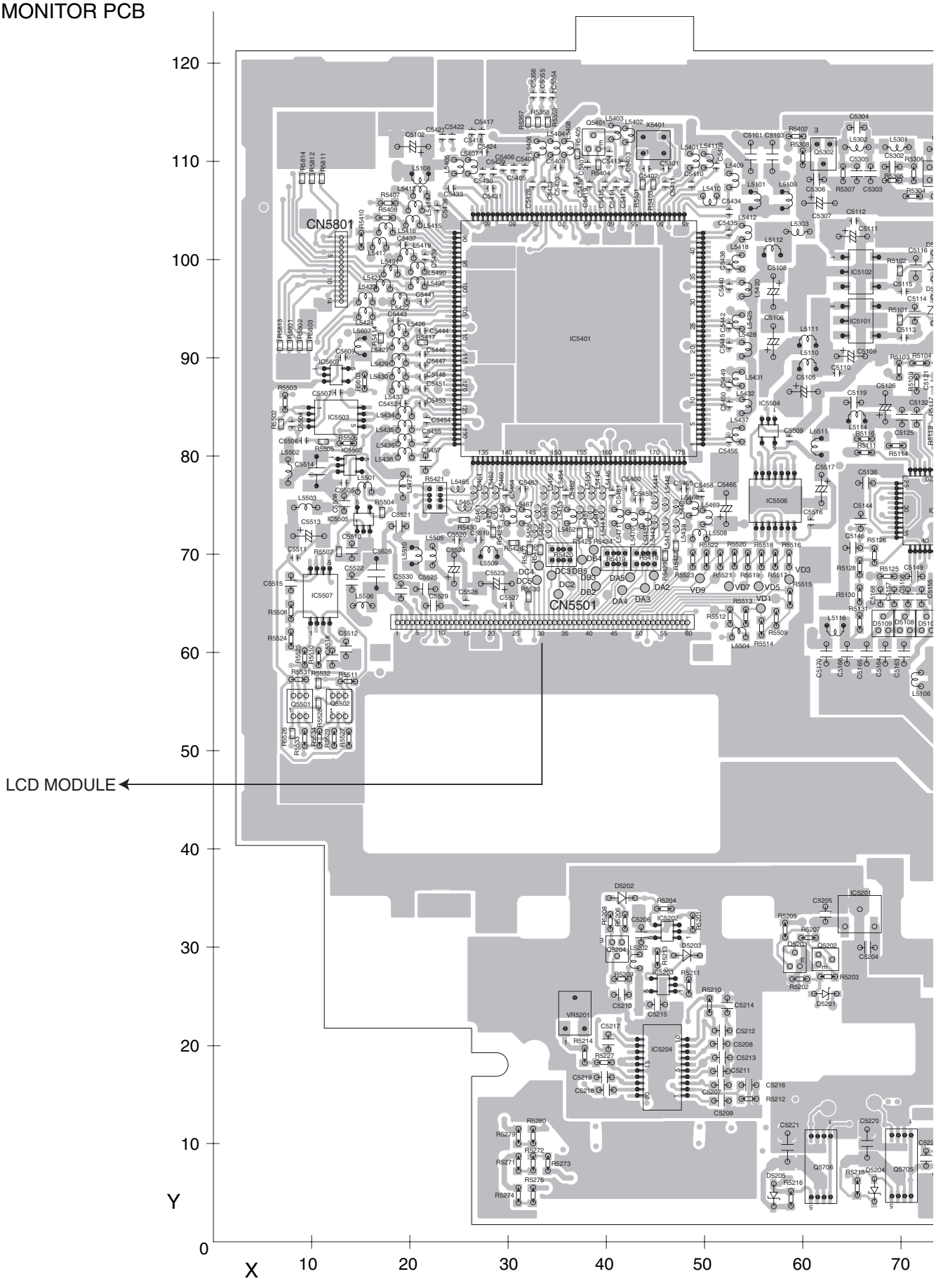
D

E

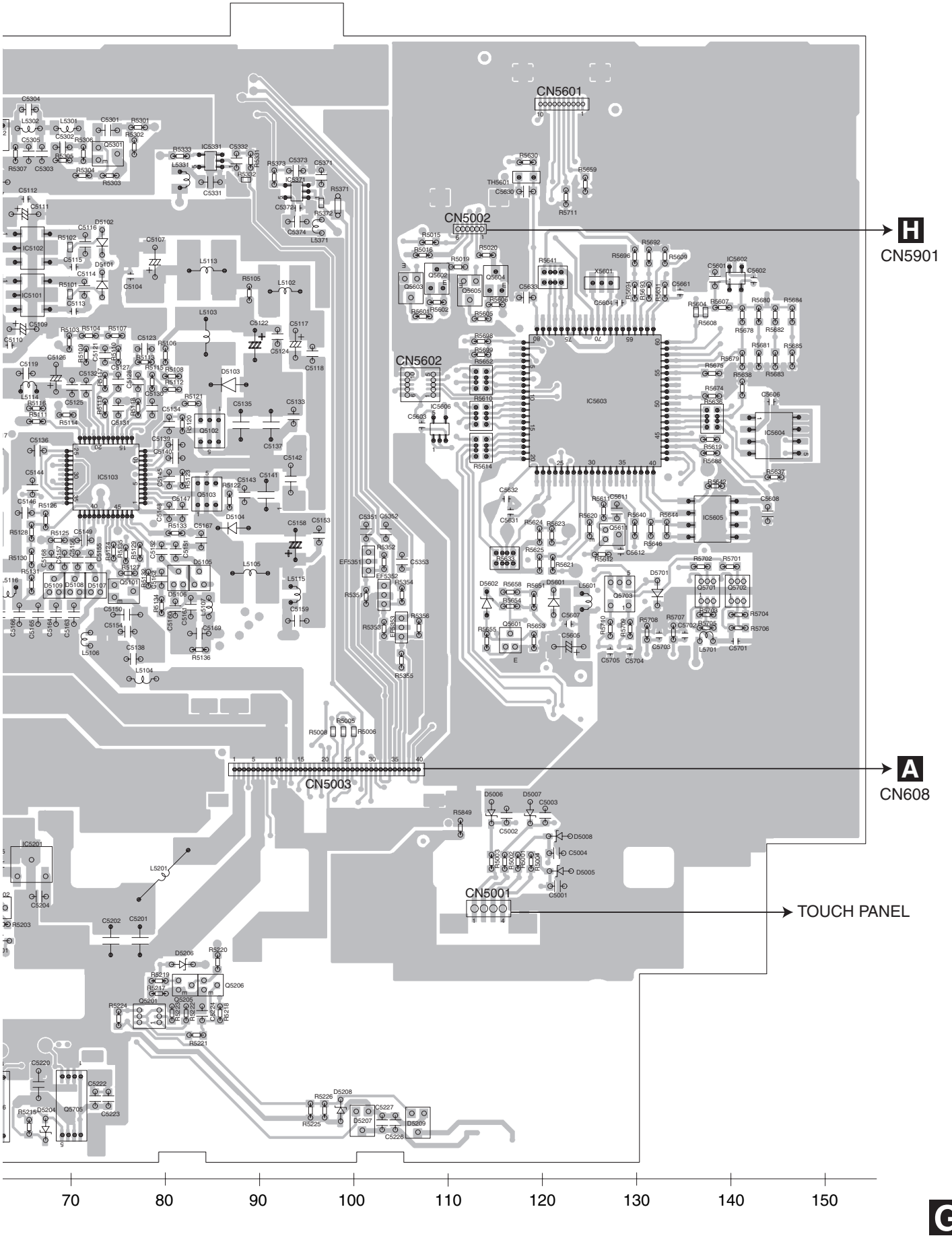
F

11.6 MONITOR PCB

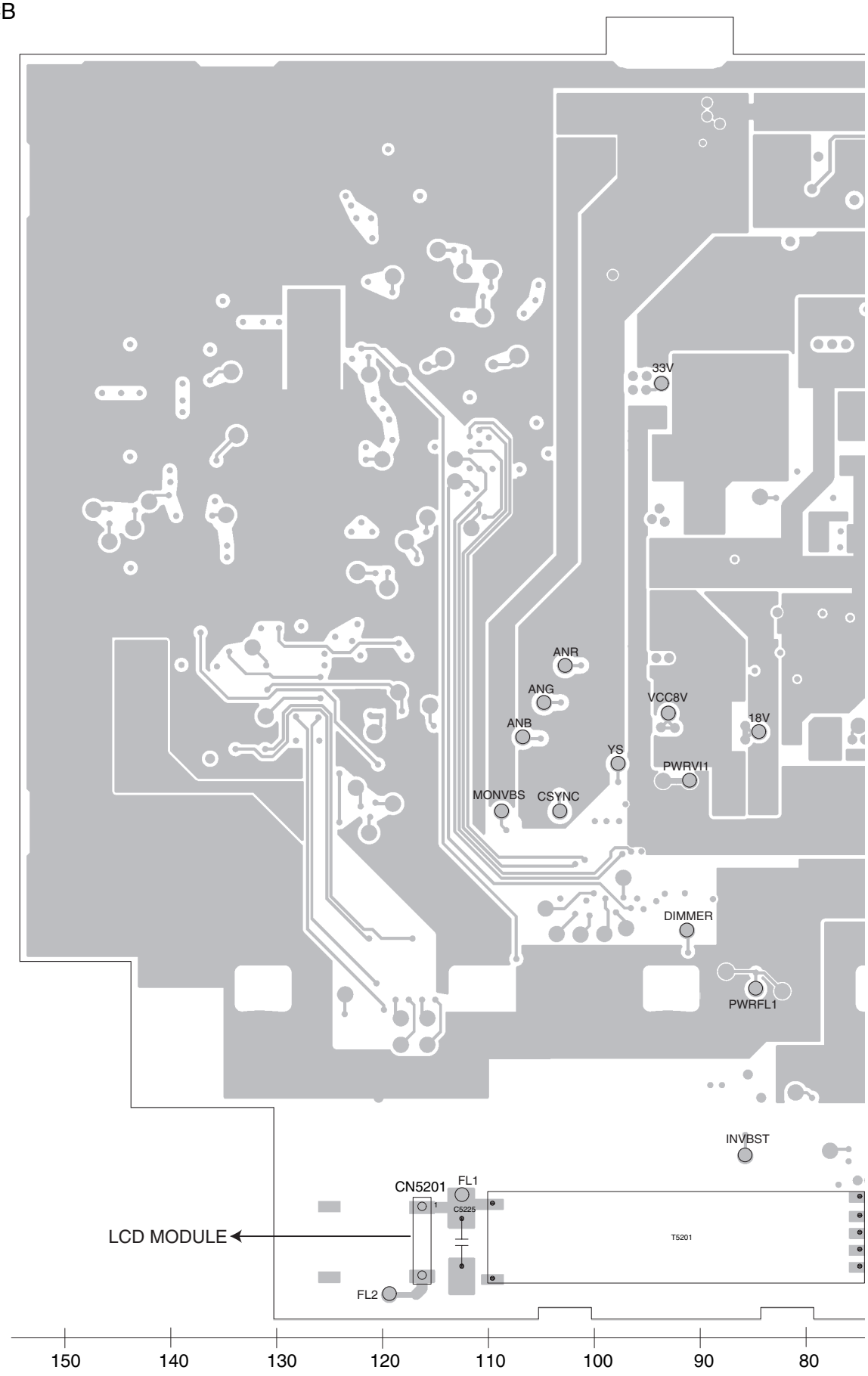
G MONITOR PCB



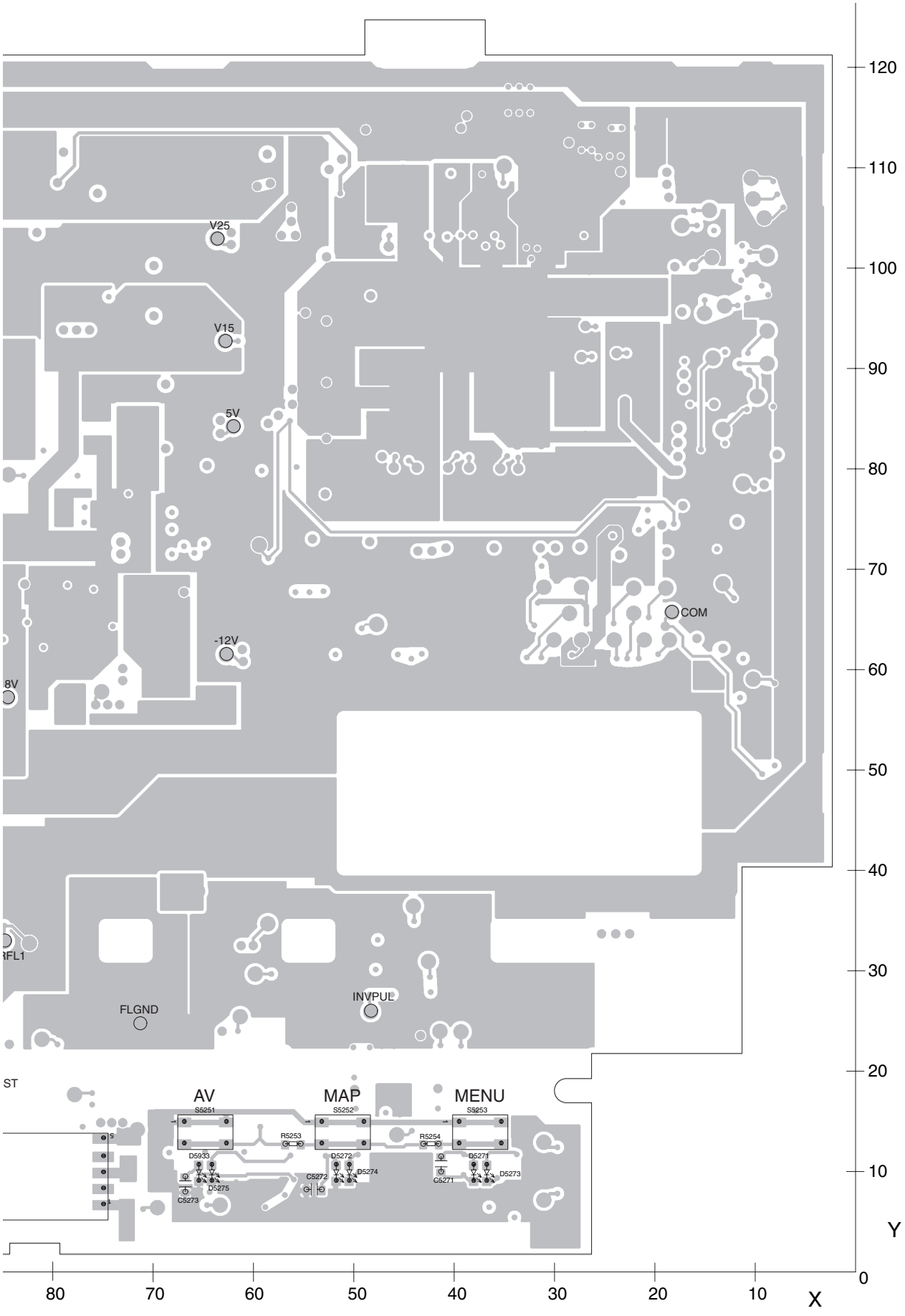
SIDE A


CN5601
CN5002
H
CN5901
CN5602
IC5603
CN5003
A
CN608
CN5001
TOUCH PANEL
70 80 90 100 110 120 130 140 150
G

G MONITOR PCB



SIDE B



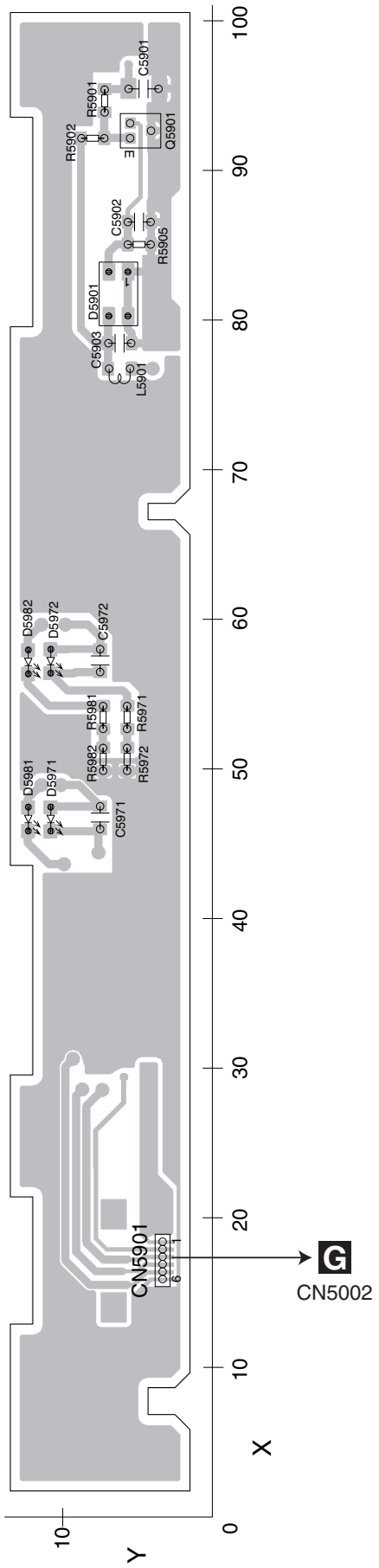
A B C D E F

G

11.7 UPPER PCB

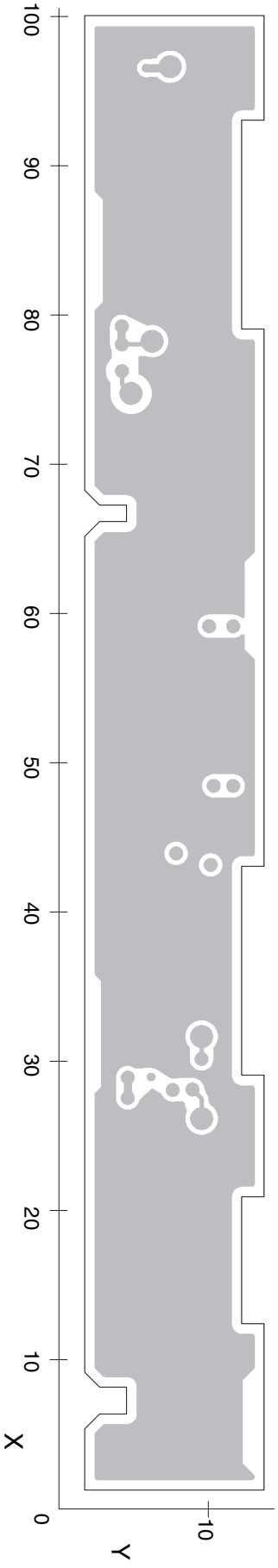
H UPPER PCB

SIDE A



H UPPER PCB

SIDE B

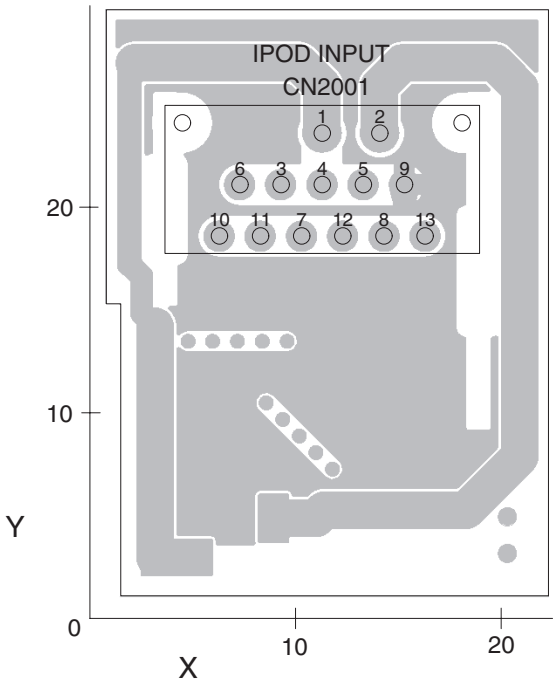


H

11.8 IPOD PCB

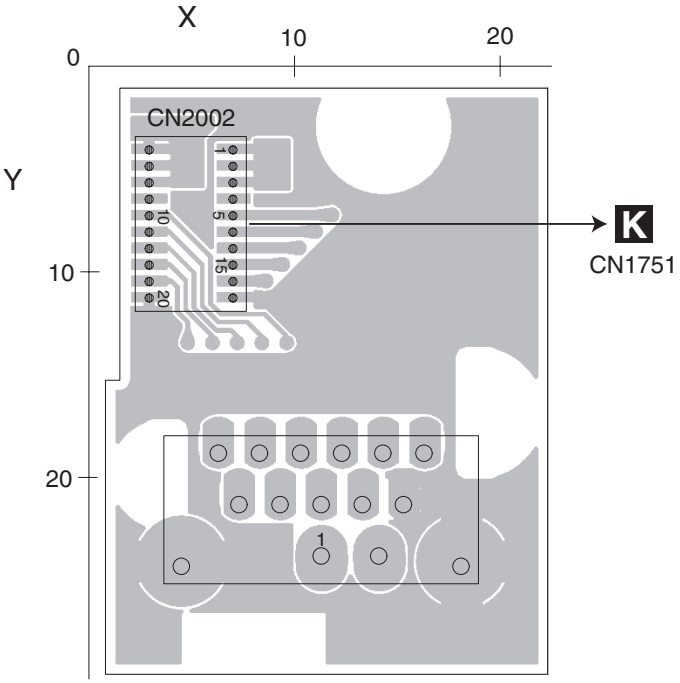
I IPOD PCB

SIDE A



I IPOD PCB

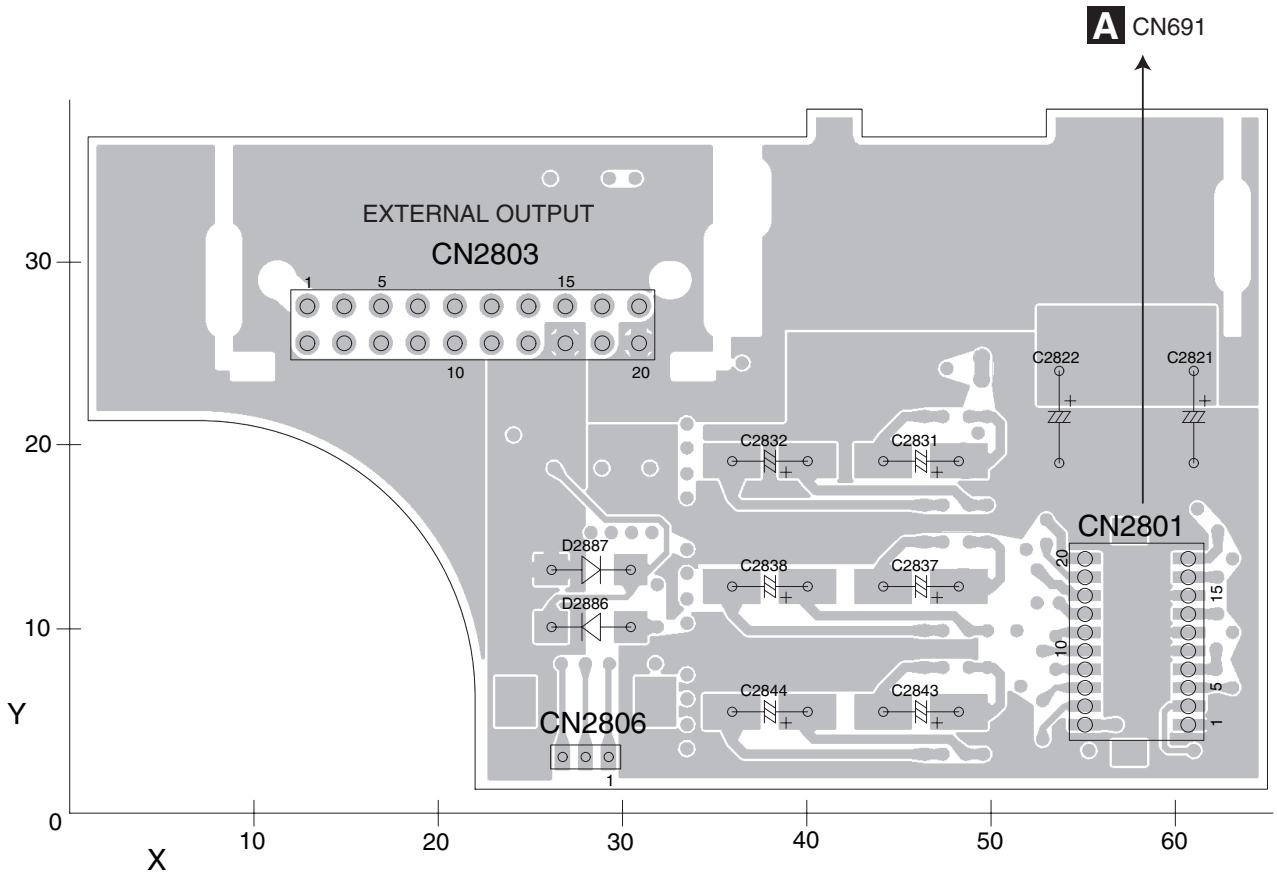
SIDE B



11.9 MEZZANINE PCB

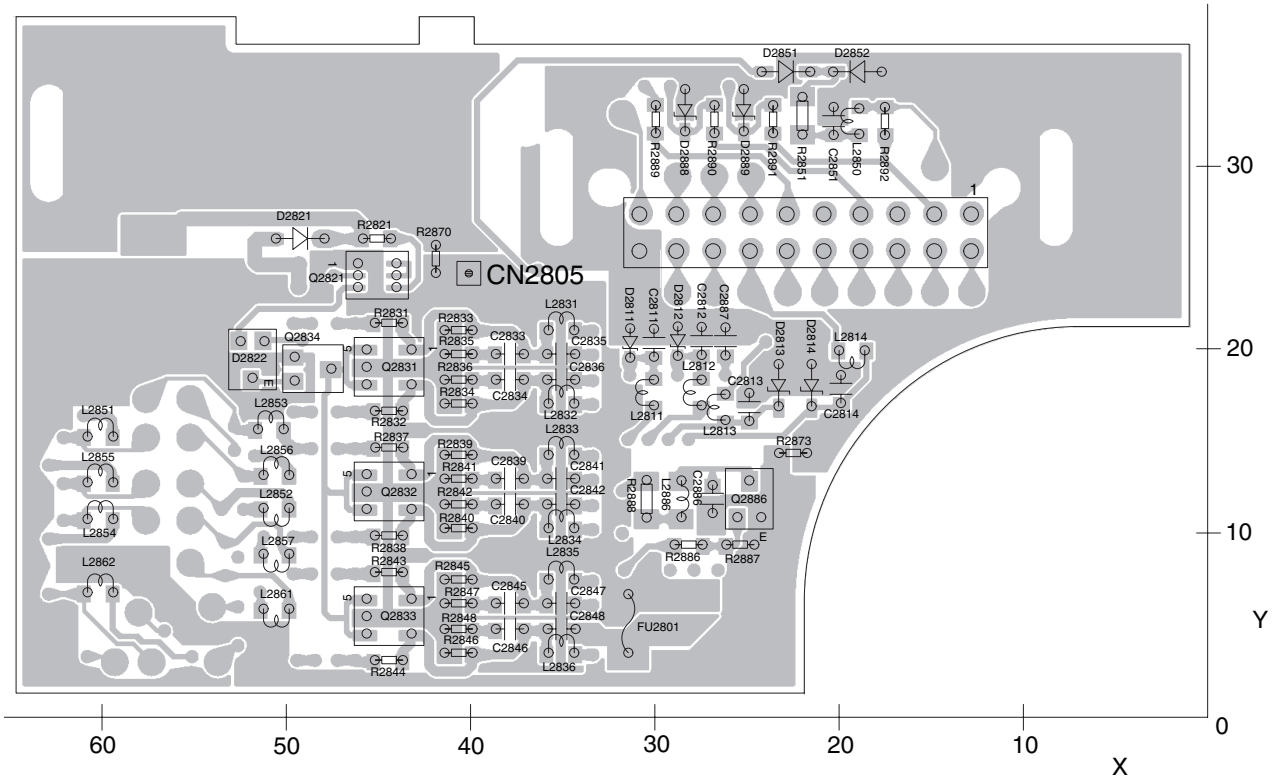
J MEZZANINE PCB

SIDE A



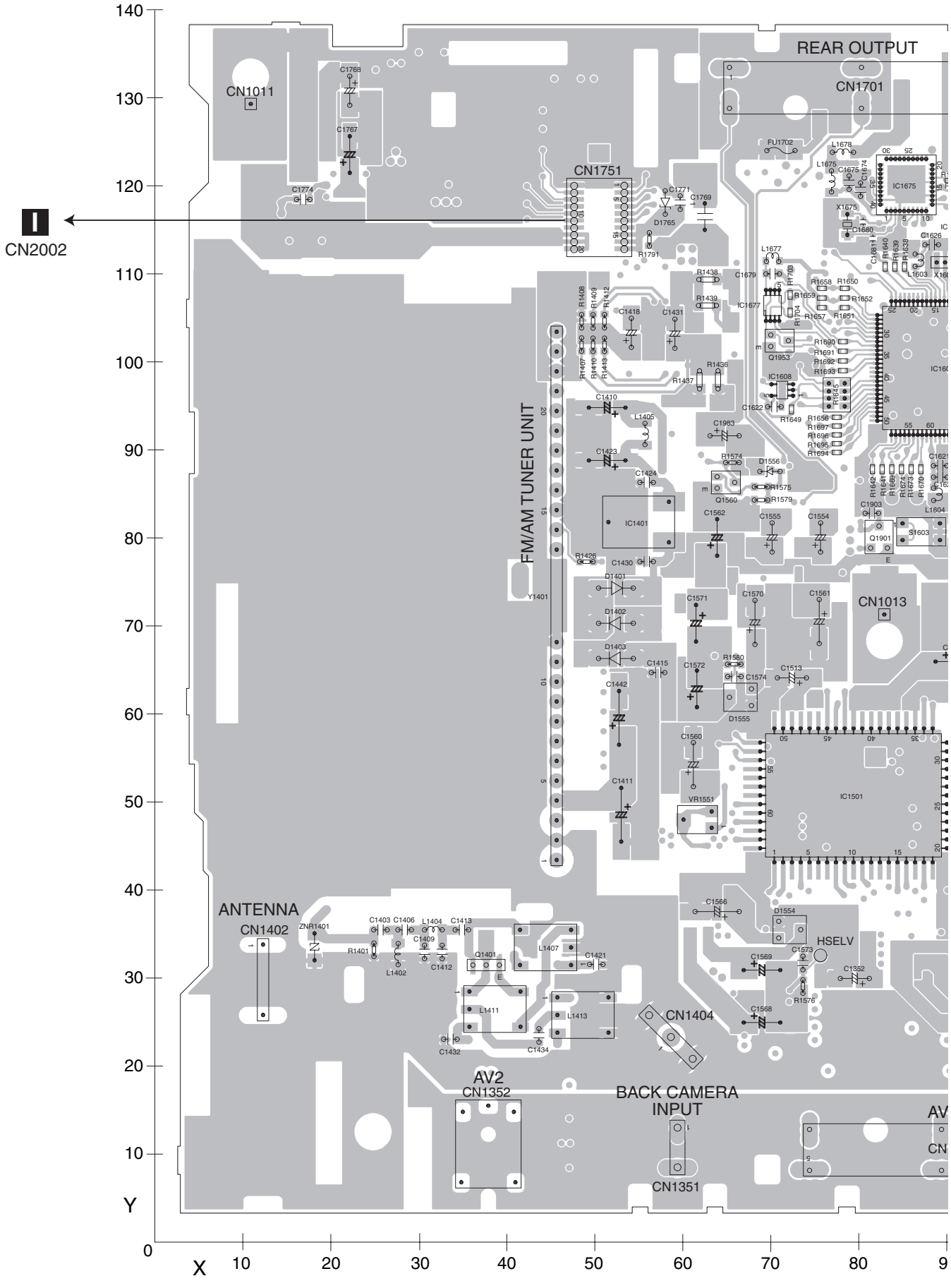
J MEZZANINE PCB

SIDE B



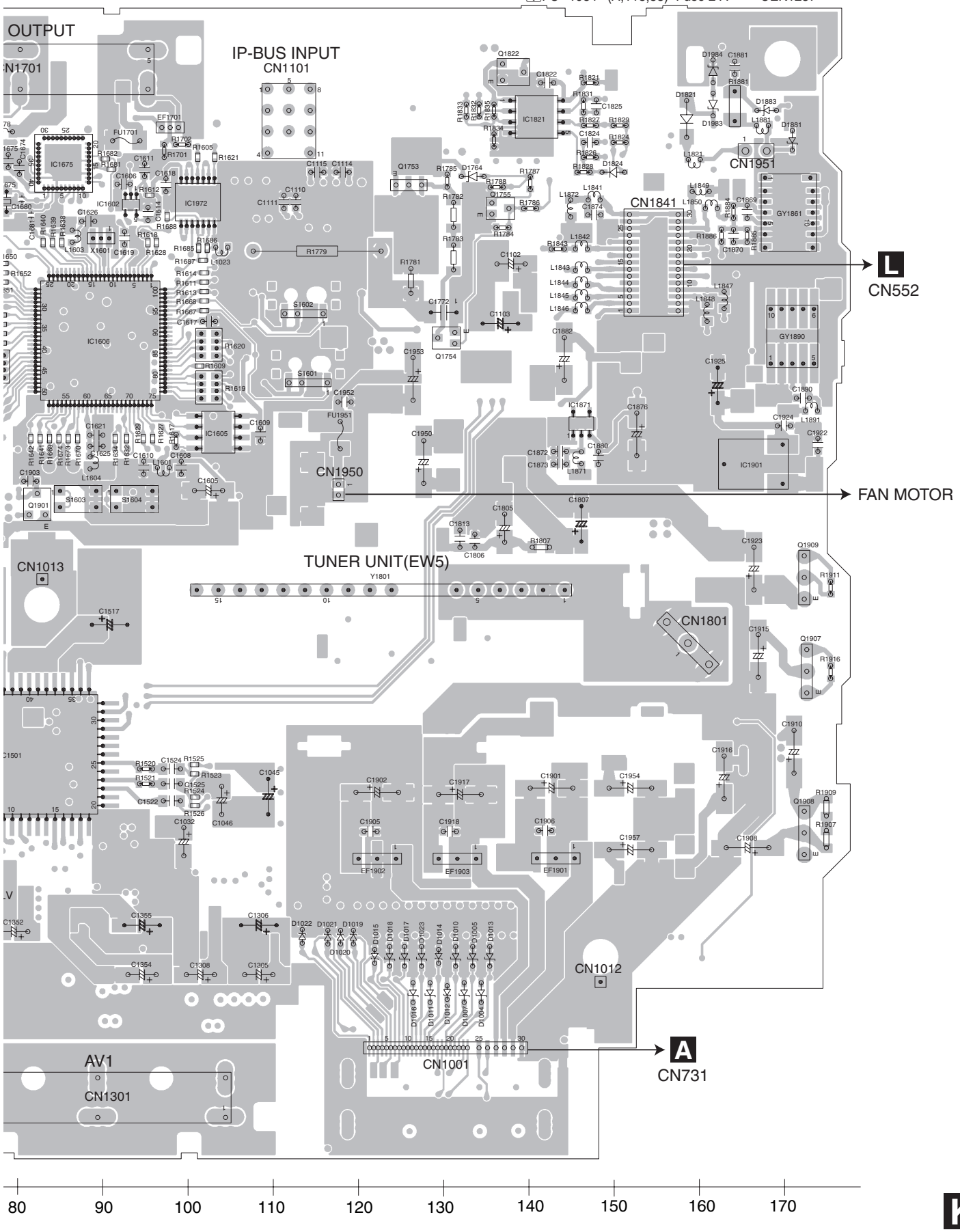
11.10 MOTHER PCB

K MOTHER PCB

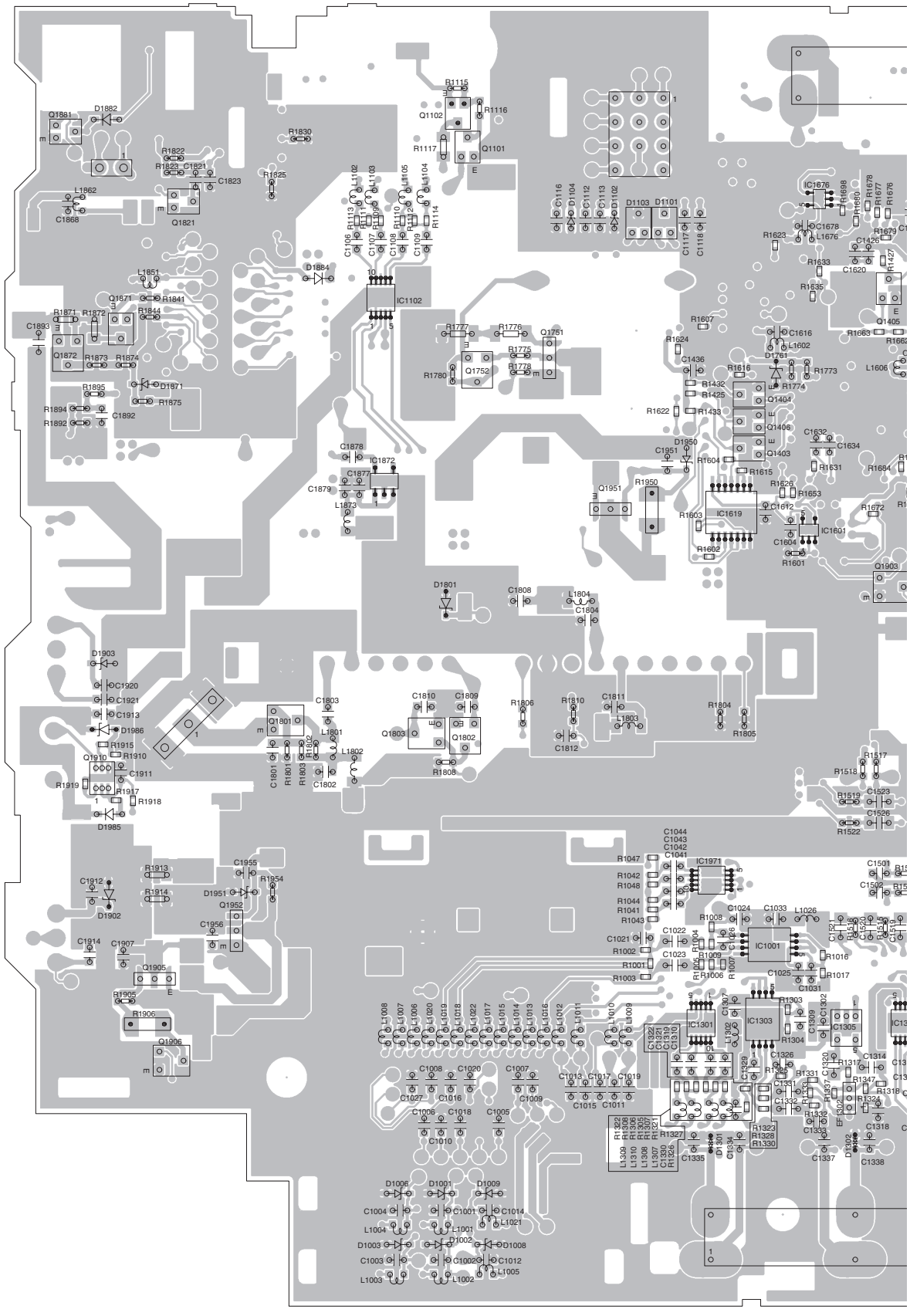


SIDE A

⚠FU 1701 (A,93,123) Fuse 3.15 A CEK1259
⚠FU 1702 (A,71,124) Fuse 3.15 A CEK1259
⚠FU 1951 (A,118,88) Fuse 2 A CEK1257

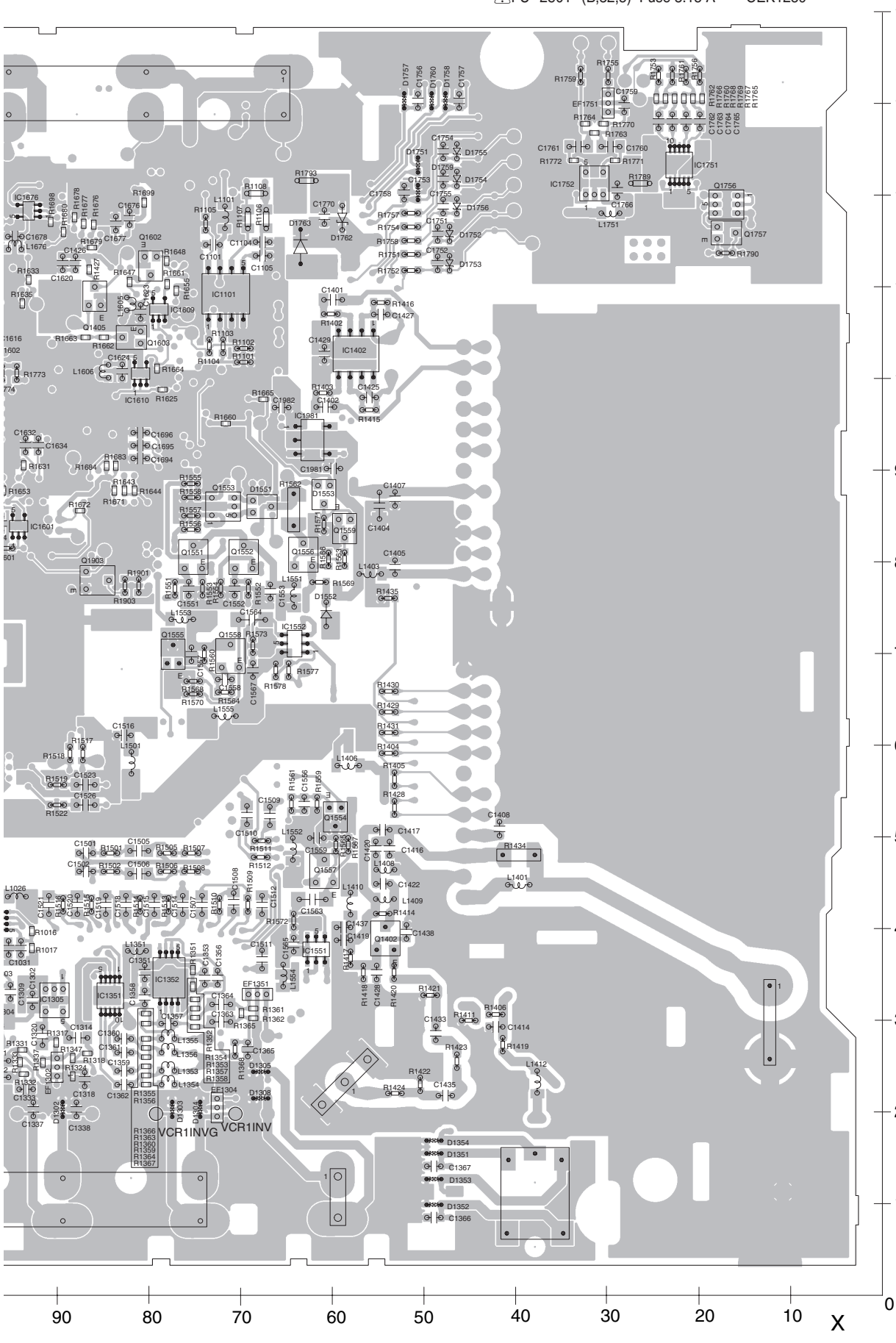


K



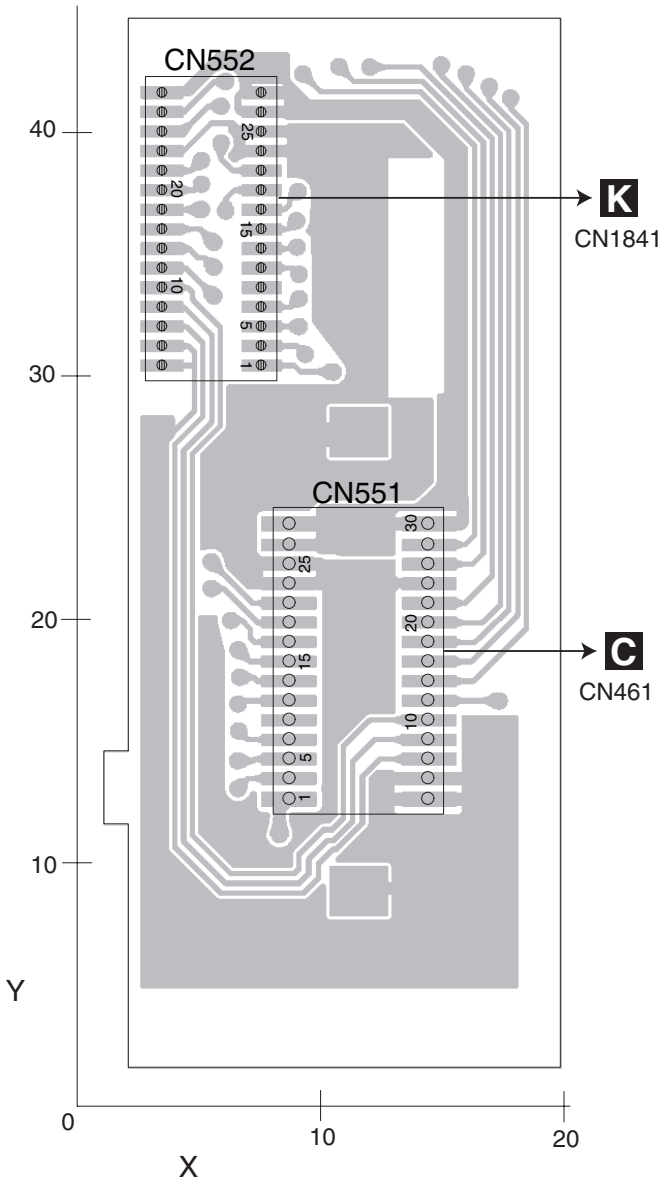
SIDE B

⚠FU 2801 (B,32,5) Fuse 3.15 A CEK1259

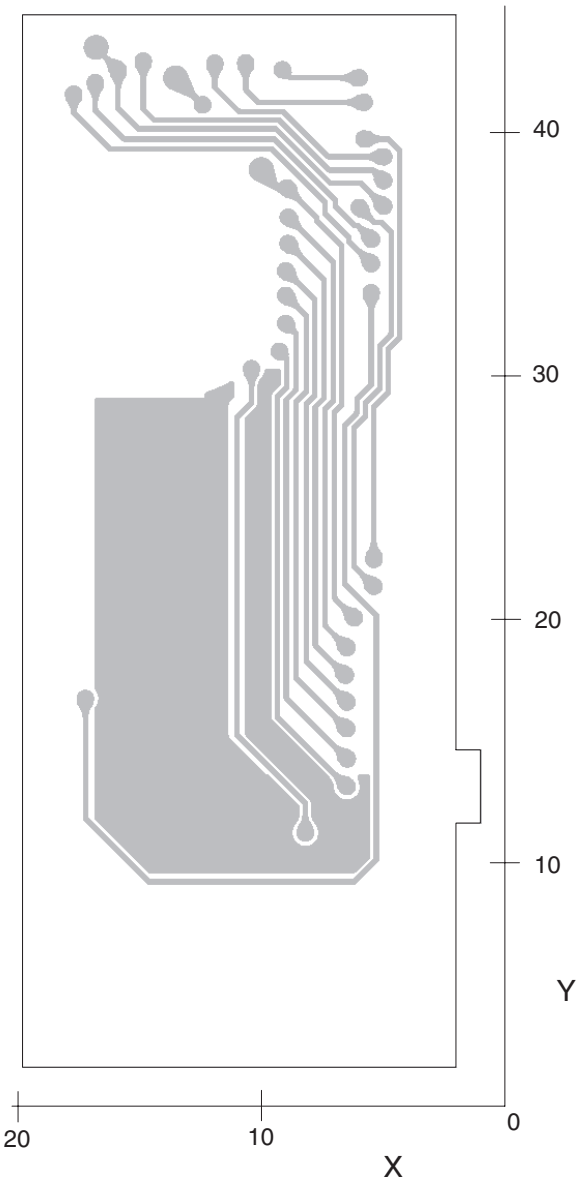


11.11 CONNECTOR PCB

L CONNECTOR PCB **SIDE A**



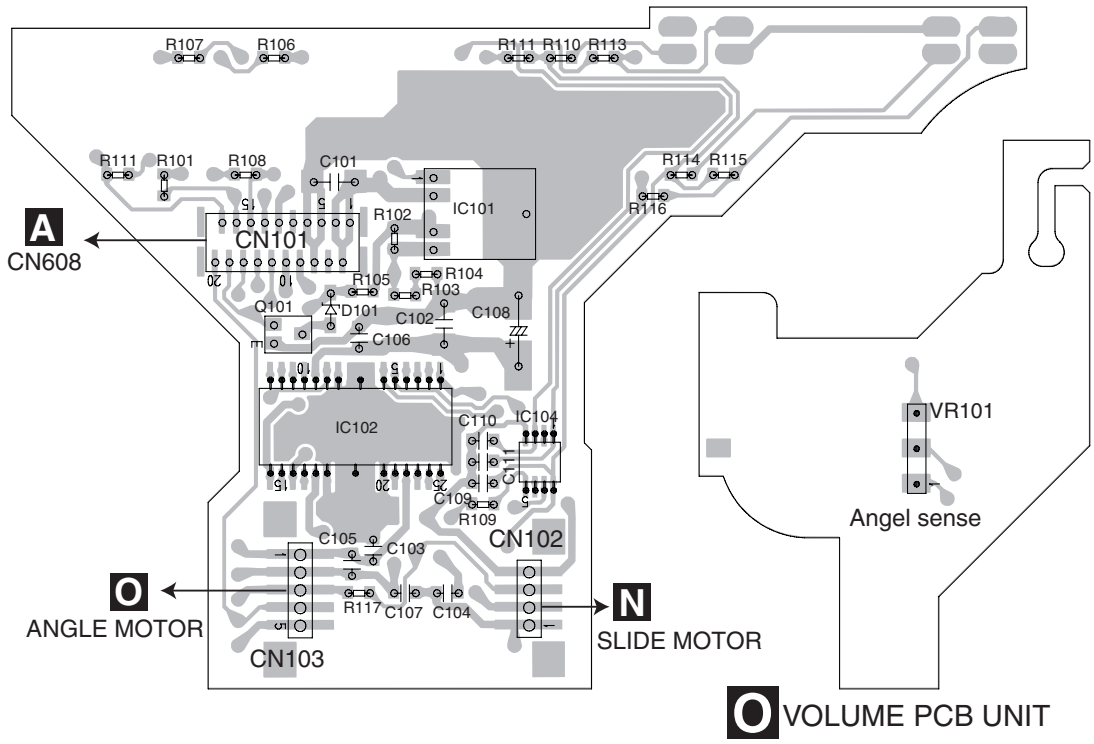
L CONNECTOR PCB **SIDE B**

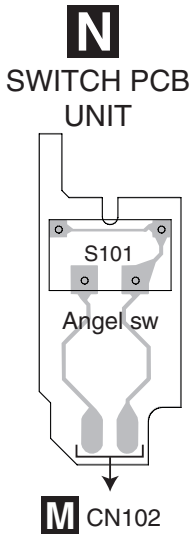


11.12 MAIN PCB UNIT(SERVICE), SWITCH PCB UNIT AND VOLUME PCB UNIT

M MAIN PCB UNIT(SERVICE)

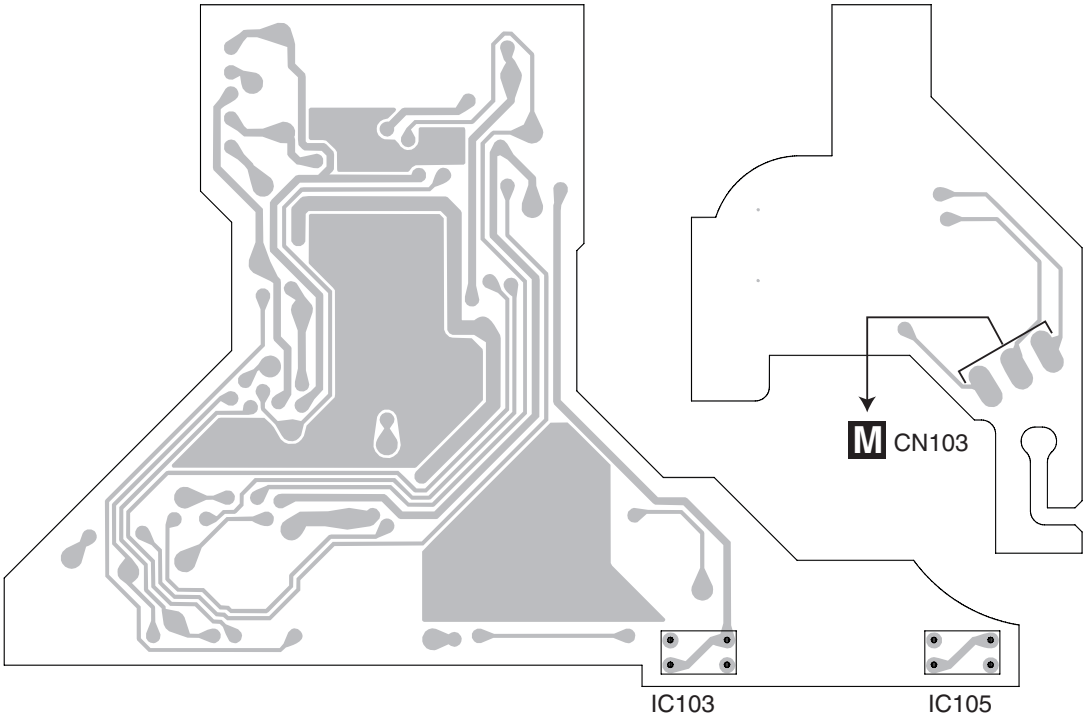
SIDE A





SIDE B

M MAIN PCB UNIT(SERVICE)



O VOLUME PCB UNIT

M N O

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

Circuit Symbol and No. **Part No.**

Unit Number : CWN2308(UC)
Unit Number : CWN2309(EW5)
Unit Name : CC Unit
Unit Number :
Unit Name : Keyboard Unit
Unit Number : CWX3533(UC)
Unit Number : CWX3534(EW5)
Unit Name : GPS Unit
Unit Number : CWN2304
Unit Name : Monitor Unit
Unit Number : CWN2310(UC)
Unit Name : Mother Tuner Unit(UC)
Unit Number : CWN2311(EW5)
Unit Name : Mother Unit(EW5)
Unit Number : CXX2316
Unit Name : Main PCB Unit(SERVICE)
Unit Number : CZW5029
Unit Name : Switch PCB Unit
Unit Number : CZW5028
Unit Name : Volume PCB Unit
Unit Number : CWX3401
Unit Name : DVD Core Unit
Unit Number : CWX3154
Unit Name : Compound Unit(A)
Unit Number : CWX3394
Unit Name : Compound Unit(B)

Circuit Symbol and No. **Part No.**

A

Unit Number : CWN2308(UC)
Unit Number : CWN2309(EW5)
Unit Name : CC Unit

MISCELLANEOUS

IC 1	(B,138,30)	IC	K4S561632E-TL75
IC 2	(A,141,51)	IC	UPD705103GM-180S1
IC 3	(B,154,30)	IC	HY57V561620FLTP-H
IC 4	(A,157,21)	IC	TC7SZ08FU
IC 5	(B,146,55)	IC	PD6336C
IC 101	(A,135,18)	IC	TC74LCX08FTS1
IC 102	(A,136,11)	IC	TC7SH04FUS1
IC 103	(A,134,28)	IC	TC74LCX245FTS1
IC 104	(A,143,28)	IC	TC74LCX245FTS1
IC 105	(A,151,28)	IC	TC74LCX245FTS1
IC 106	(A,159,28)	IC	TC74LCX245FTS1
IC 107	(A,162,38)	IC	TC74LCX541FTS1
IC 108	(A,162,46)	IC	TC74LCX541FTS1
IC 109	(A,162,54)	IC	TC74LCX541FTS1
IC 110	(B,117,40)	IC(UC)	PEH155A8
	(B,117,40)	IC(EW5)	PEH153A8
IC 111	(B,117,24)	IC(UC)	PEH156A8
	(B,117,24)	IC(EW5)	PEH154A8
IC 112	(B,106,62)	IC	TC7SH00FUS1
IC 113	(B,118,57)	IC	M5M5V216ATP-70HI
IC 114	(B,106,59)	IC	TC7SH08FUS1
IC 201	(A,104,25)	IC	MB86291APFVS-G-DL
IC 301	(A,144,19)	IC	M51957BFP
IC 302	(A,141,11)	IC	TC7SH08FUS1
IC 304	(A,108,53)	IC	AK4388VT
IC 309	(A,121,49)	IC	TC7SH08FUS1
IC 601	(A,44,98)	IC	PEG356A
IC 602	(B,43,98)	IC	TC74VHCT08AFTS1
IC 603	(B,52,100)	IC	TC7SH08FUS1
IC 604	(A,125,88)	IC	TC7SH08FUS1
IC 605	(A,130,88)	IC	TC7SH08FUS1
IC 608	(B,53,104)	IC	TC7SH08FUS1
IC 609	(B,60,93)	IC	TC7S32FU
IC 611	(B,43,103)	IC	TC7S04FU

Circuit Symbol and No.		Part No.
IC 612	(B,49,91) IC	S-80840CNMC-B8Z
IC 613	(B,47,103) IC	TC7SH00FUS1
IC 691	(B,162,140) IC	UPD4721GSS1
IC 751	(B,96,101) IC	CXA1645M
IC 752	(B,115,121) IC	NJM2137V
IC 753	(B,87,117) IC	NJM2246M
IC 754	(B,78,119) IC	NJM2561F1
IC 755	(B,106,115) IC	NJM2561F1
IC 756	(B,98,116) IC	NJM2235V
IC 757	(B,86,98) L-MOS And Gate	TC7SET08FUS1
IC 758	(B,84,92) IC	TC7SZ08FU
IC 803	(B,31,58) IC	TPS5102IDBT
IC 804	(B,66,58) IC	TPS5102IDBT
IC 805	(B,14,64) IC	TPS5103IDB
IC 806	(A,73,92) IC	S-L2980A33MC-C6S
IC 807	(A,62,111) IC	TPD1018F
IC 808	(B,59,100) IC	S-812C52AUA-C3G
IC 810	(B,33,85) IC	S-812C50AUA-C3E
IC 861	(B,33,31) IC	BA00DD0WHFP
IC 2401	(A,135,106) IC	PML009A
IC 2403	(B,153,86) IC	TDA7052BT
IC 2404	(B,146,109) IC	NJM2058V
IC 2405	(A,33,137) IC	PAL007C
IC 2407	(B,133,130) IC	NJM3403AV
IC 2408	(B,132,118) IC	NJM2107F
IC 2551	(B,9,142) L-MOS And Gate	TC7SET08FUS1
IC 2553	(B,115,109) IC	NJM2068V
IC 2701	(B,40,21) IC	TC7SH08FUS1
IC 2702	(B,37,88) IC	TC7SH14FUS1
Q 201	(A,125,11) Transistor	UMD2N
Q 301	(A,150,21) Chip Transistor	DTC114EUA
Q 601	(B,150,134) Transistor	2SC4081
Q 602	(B,51,84) Transistor	UMD2N
Q 621	(B,40,108) Transistor	IMD2A
Q 681	(A,117,99) Transistor	2SA1576A
Q 691	(B,164,152) Transistor	2SD1767
Q 692	(B,154,148) Transistor	IMD3A
Q 701	(A,25,110) Transistor	UMF23N
Q 731	(B,68,113) Transistor	IMD3A
Q 741	(B,82,108) Transistor	2SA1577
Q 742	(B,76,110) Transistor	2SC4081
Q 754	(A,75,104) Transistor	2SC4081
Q 805	(A,122,137) FET	RSQ030P03
Q 806	(A,118,134) Digital Transistor	DTC144EUA
Q 807	(A,35,80) Transistor	2SB1260
Q 808	(B,43,85) Chip Transistor	DTC114EUA
Q 809	(A,88,50) Transistor	2SA1797
Q 810	(A,91,57) Chip Transistor	DTC114EUA
Q 811	(B,12,50) FET	SP8K2
Q 814	(B,61,44) Chip Transistor	DTC114EUA
Q 815	(B,43,68) FET	SP8K2
Q 816	(B,78,67) FET	SP8K2
Q 819	(B,43,48) FET	SP8K2
Q 820	(B,78,49) FET	SP8K2
Q 821	(B,84,149) Transistor	2SA1834F5
Q 822	(B,90,154) Chip Transistor	DTC114EUA
Q 823	(B,110,135) Transistor	2SC4081
Q 824	(B,101,135) Transistor	2SB1184F5
Q 825	(B,113,135) Transistor	2SC4081
Q 828	(B,64,115) Transistor	IMX1

Circuit Symbol and No.		Part No.
Q 829	(B,66,106) Transistor	2SB1184F5
Q 830	(B,29,86) Transistor	UMF23N
Q 832	(A,115,137) FET	RSQ030P03
Q 833	(B,88,137) Transistor	2SA1797
Q 834	(A,91,119) Chip Transistor	DTC114EUA
Q 835	(B,116,136) Transistor	2SC4081
Q 837	(B,39,118) Transistor	2SC4081
Q 838	(A,112,134) Digital Transistor	DTC144EUA
Q 840	(B,67,136) Transistor	2SA1576A
Q 843	(B,65,94) Transistor	2SD1767
Q 901	(B,62,153) Transistor	2SA1576A
Q 951	(A,74,95) Chip Transistor	DTC114EUA
Q 961	(A,157,99) Transistor	2SA1576A
Q 962	(A,155,95) Digital Transistor	DTC143EUA
Q 963	(A,164,101) Transistor	DTC144TUA
Q 964	(A,165,96) Chip Transistor	DTA114EUA
Q 965	(A,162,96) Chip Transistor	DTC114EUA
Q 971	(B,16,119) Transistor	IMX2
Q 972	(B,12,109) Transistor	IMD3A
Q 973	(B,7,118) Transistor	2SD1767
Q 2401	(B,124,119) Transistor	UMD2N
Q 2402	(B,127,133) Transistor	DTC323TU
Q 2403	(B,127,127) Transistor	DTC323TU
Q 2410	(B,124,116) Transistor	UMD2N
Q 2415	(B,134,107) Transistor	UMD2N
Q 2416	(B,134,111) Transistor	UMD2N
Q 2417	(B,138,106) Transistor	DTC323TU
Q 2418	(B,138,112) Transistor	DTC323TU
Q 2419	(B,21,113) Transistor	UMD2N
Q 2420	(B,141,85) Chip Transistor	DTC114EUA
Q 2421	(B,32,110) Transistor	UMD2N
Q 2422	(B,26,111) Transistor	2SC4081
Q 2427	(B,24,122) Chip Transistor	DTC124EUA
Q 2428	(B,28,125) Chip Transistor	DTC124EUA
Q 2511	(B,32,113) Transistor	UMD2N
Q 2610	(B,33,119) Transistor	UMD2N
Q 2709	(A,38,11) Digital Transistor	DTC144EUA
Q 2710	(A,38,17) Transistor	2SA1577
Q 2711	(A,42,9) Transistor	UMH2N
Q 2712	(A,41,17) Transistor	2SA1577
D 610	(B,53,88) Diode	1SS355
D 611	(B,48,84) Diode	DAN202U
D 691	(A,154,151) Diode	HZU8R2(B1)
D 692	(A,171,135) Diode	EDZ20(B)
D 693	(A,171,132) Diode	EDZ20(B)
D 694	(A,165,134) Diode	EDZ20(B)
D 695	(A,165,131) Diode	EDZ20(B)
D 696	(A,169,135) Diode	EDZ20(B)
D 697	(A,169,132) Diode	EDZ20(B)
D 698	(A,164,134) Diode	EDZ20(B)
D 699	(A,164,131) Diode	EDZ20(B)
D 700	(A,167,134) Diode	UDZS6R8(B)
D 731	(B,142,143) Diode	EDZ6R8(B)
D 732	(A,133,136) Diode	EDZ6R8(B)
D 733	(A,135,136) Diode	EDZ6R8(B)
D 734	(A,136,136) Diode	EDZ6R8(B)
D 735	(A,138,136) Diode	EDZ6R8(B)
D 736	(B,147,151) Diode	MALS068X
D 737	(B,147,136) Diode	AVR-M1608C080MTAAB
D 738	(B,143,138) Diode	AVR-M1608C080MTAAB

Circuit Symbol and No.		Part No.
D 739	(B,153,140) Diode	AVR-M1608C080MTAAB
D 740	(B,150,140) Diode	AVR-M1608C080MTAAB
D 741	(B,146,151) Diode	MALS068X
D 742	(A,160,140) Diode	EDZ6R8(B)
D 743	(A,160,139) Diode	EDZ6R8(B)
D 744	(A,161,138) Diode	EDZ6R8(B)
D 745	(B,133,143) Diode	EDZ6R8(B)
D 746	(B,137,142) Diode	EDZ6R8(B)
D 747	(B,139,140) Diode	EDZ6R8(B)
D 748	(B,140,143) Diode	EDZ6R8(B)
D 749	(A,140,136) Diode	EDZ6R8(B)
D 750	(A,142,137) Diode	EDZ6R8(B)
D 751	(B,132,143) Diode	EDZ6R8(B)
D 752	(A,130,134) Diode	UDZS27(B)
D 753	(B,146,141) Diode	EDZ6R8(B)
D 754	(B,142,141) Diode	EDZ6R8(B)
D 801	(A,62,135) Diode	5KP22A
D 802	(B,38,56) Diode	RB400D
D 803	(B,38,60) Diode	RB400D
D 804	(B,73,56) Diode	RB400D
D 805	(B,73,60) Diode	RB400D
D 806	(B,8,59) Diode	RB400D
D 807	(A,39,56) Diode	RB060L-40
D 808	(A,39,60) Diode	RB060L-40
D 809	(A,74,55) Diode	RB060L-40
D 810	(A,74,60) Diode	RB060L-40
D 812	(B,38,113) Diode	HZU6R8(B2)
D 814	(A,106,132) Diode	KS926S2
D 815	(B,107,129) Diode	HZU7R5(B3)
D 816	(B,58,118) Diode	UDZS18(B)
D 817	(B,70,93) Diode	UDZS20(B)
D 818	(A,18,50) Diode	RB060L-40
D 820	(B,60,130) Diode	S1G-6904G2P
D 821	(B,63,136) Diode	1SS355
D 822	(B,62,133) Diode	1SS355
D 828	(B,50,133) Diode	S1G-6904G2P
D 829	(B,56,121) Diode	RB500V-40
D 830	(B,104,129) Diode	RB500V-40
D 831	(B,97,141) Diode	RB500V-40
D 832	(A,7,67) Diode	S1G-6904G2P
D 833	(B,56,150) Diode	1SS400
D 834	(B,20,82) Diode	RB060L-40
D 861	(A,40,34) Diode	RB060L-40
D 901	(B,62,151) Diode	DAN202U
D 961	(A,159,100) Diode	HZU8R2(B3)
D 971	(B,12,118) Diode	RB751V-40
D 972	(B,12,120) Diode	RB751V-40
D 973	(B,13,115) Diode	HZU8R2(B1)
D 974	(B,11,122) Diode	UDZS10(B)
D 2404	(B,108,97) Diode	DAN202U
D 2405	(B,127,130) Diode	DAP202U
D 2406	(A,133,122) Diode	1SS355
D 2407	(A,133,128) Diode	UDZS4R7(B)
D 2409	(B,22,111) Diode	UDZS8R2(B)
D 2410	(B,23,119) Diode	DAN202U
D 2411	(B,26,118) Diode	DAN202U
D 2412	(B,33,116) Diode	DAN202U
D 2413	(B,27,122) Diode	DAN202U
D 2415	(B,129,107) Diode	DAN202U
D 2416	(B,129,111) Diode	DAN202U

Circuit Symbol and No.		Part No.
D 2461	(B,137,85) Diode	DAN202U
D 2551	(B,6,145) Diode	EDZ6R8(B)
D 2552	(B,13,144) Diode	EDZ6R8(B)
D 2701	(B,53,11) Diode Network	DA204U
D 2702	(B,61,7) Diode Network	DA204U
D 2704	(B,46,16) Diode	UDZS6R8(B)
D 2705	(B,48,23) Diode Network	DA204U
D 2706	(B,48,28) Diode	UMZ6R8EN
D 2707	(B,37,11) Diode	UMZ6R8EN
D 2800	(A,162,135) Diode	RB500V-40
L 1	(B,131,17) Inductor	CTF1558
L 2	(B,146,18) Inductor	CTF1558
L 3	(A,157,17) Inductor	CTF1410
L 5	(A,138,33) Inductor	CTF1556
L 6	(A,126,34) Inductor	CTF1295
L 7	(B,161,54) Inductor	CTF1558
L 8	(A,147,68) Inductor	CTF1556
L 101	(A,131,16) Chip Ferrite Bead	CTF1557
L 102	(A,133,12) Chip Ferrite Bead	CTF1557
L 103	(A,138,28) Chip Ferrite Bead	CTF1557
L 104	(A,147,27) Chip Ferrite Bead	CTF1557
L 105	(A,155,27) Chip Ferrite Bead	CTF1557
L 106	(A,164,27) Chip Ferrite Bead	CTF1557
L 107	(A,162,33) Chip Ferrite Bead	CTF1557
L 108	(A,162,42) Chip Ferrite Bead	CTF1557
L 109	(A,162,50) Chip Ferrite Bead	CTF1557
L 110	(B,105,38) Inductor	CTF1556
L 111	(B,105,22) Inductor	CTF1556
L 112	(B,106,55) Inductor	CTF1556
L 113	(B,108,60) Chip Ferrite Bead	CTF1557
L 114	(B,108,55) Chip Ferrite Bead	CTF1557
L 201	(A,125,29) Inductor	CTF1556
L 203	(A,85,10) Inductor	CTF1556
L 204	(A,104,45) Inductor	CTF1488
L 205	(A,123,21) Inductor	CTF1556
L 206	(A,88,45) Inductor	CTF1556
L 207	(A,94,43) Inductor	CTF1379
L 301	(A,140,19) Chip Ferrite Bead	CTF1557
L 302	(A,144,13) Chip Ferrite Bead	CTF1557
L 305	(A,102,54) Inductor	CTF1556
L 312	(A,120,52) Inductor	CTF1410
L 601	(B,51,98) Inductor	CTF1334
L 602	(B,43,89) Inductor	CTF1334
L 603	(B,42,93) Inductor	CTF1334
L 604	(A,43,88) Inductor	CTF1334
L 605	(B,155,137) Inductor	CTF1334
L 606	(A,125,91) Inductor	CTF1334
L 607	(A,130,86) Inductor	CTF1334
L 611	(B,55,109) Inductor	CTF1334
L 612	(B,57,95) Inductor	CTF1334
L 613	(B,43,106) Inductor	CTF1334
L 616	(B,47,106) Inductor	CTF1334
L 617	(B,48,87) Inductor	CTF1334
L 619	(A,128,83) Inductor	CTF1306
L 620	(A,127,80) Inductor	CTF1306
L 621	(A,128,80) Inductor	CTF1306
L 622	(A,125,83) Inductor	CTF1384
L 623	(A,125,80) Inductor	CTF1387
L 624	(A,124,83) Inductor	CTF1334
L 625	(A,97,82) Inductor	CTF1306

Circuit Symbol and No.		Part No.
L 627	(A,127,83) Inductor	CTF1306
L 628	(A,123,83) Inductor	CTF1306
L 629	(A,124,80) Inductor	CTF1306
L 631	(A,121,80) Inductor	CTF1334
L 632	(A,120,83) Inductor	CTF1334
L 633	(A,120,80) Inductor	CTF1334
L 634	(A,118,83) Inductor	CTF1334
L 635	(A,121,83) Inductor	CTF1306
L 636	(A,103,87) Inductor	CTF1334
L 637	(A,118,80) Inductor	CTF1306
L 638	(A,117,83) Inductor	CTF1334
L 640	(A,116,83) Inductor	CTF1306
L 643	(A,31,122) Inductor	CTF1306
L 644	(A,114,83) Inductor	CTF1306
L 645	(A,114,80) Inductor	CTF1306
L 646	(A,113,83) Inductor	CTF1334
L 647	(A,113,80) Inductor	CTF1334
L 648	(A,111,80) Inductor	CTF1378
L 649	(A,109,80) Inductor	CTF1378
L 650	(A,108,80) Inductor	CTF1378
L 651	(A,104,80) Inductor	CTF1378
L 652	(A,102,83) Inductor	CTF1334
L 653	(A,102,80) Inductor	CTF1467
L 660	(B,24,91) Inductor	CTF1464
L 662	(B,23,98) Inductor	CTF1306
L 663	(B,22,97) Inductor	CTF1306
L 666	(B,14,87) Inductor	CTF1306
L 667	(B,14,89) Inductor	CTF1306
L 668	(B,14,90) Inductor	CTF1306
L 669	(B,14,92) Inductor	CTF1306
L 670	(B,15,95) Inductor	CTF1306
L 674	(B,14,93) Inductor	CTF1306
L 677	(B,19,95) Inductor	CTF1473
L 679	(A,27,81) Inductor	CTF1453
L 680	(A,27,86) Inductor	CTF1473
L 681	(A,52,116) Inductor	CTF1306
L 682	(A,52,115) Inductor	CTF1386
L 683	(A,49,122) Inductor	CTF1386
L 684	(A,51,113) Inductor	CTF1386
L 685	(A,48,113) Inductor	CTF1386
L 686	(A,79,116) Inductor	CTF1306
L 687	(A,76,116) Inductor	CTF1334
L 688	(A,45,113) Inductor	CTF1386
L 689	(A,53,121) Inductor	CTF1306
L 690	(A,53,118) Inductor	CTF1334
L 691	(A,46,122) Inductor	CTF1334
L 692	(A,91,121) Inductor	CTF1334
L 693	(A,43,122) Inductor	CTF1384
L 694	(A,91,123) Inductor	CTF1334
L 695	(B,46,120) Inductor	CTF1463
L 696	(A,102,123) Inductor	CTF1334
L 697	(A,106,123) Inductor	CTF1334
L 698	(A,40,122) Inductor	CTF1629
L 700	(A,17,114) Inductor	CTF1306
L 701	(A,31,110) Inductor	CTF1629
L 703	(A,17,113) Inductor	CTF1306
L 704	(A,17,111) Inductor	CTF1306
L 705	(A,17,110) Inductor	CTF1306
L 706	(A,17,108) Inductor	CTF1306
L 707	(A,20,108) Inductor	CTF1306

Circuit Symbol and No.		Part No.
L 708	(A,21,112) Inductor	CTF1306
L 709	(A,22,108) Inductor	CTF1306
L 710	(A,23,112) Inductor	CTF1306
L 711	(A,24,114) Inductor	CTF1306
L 712	(A,29,122) Inductor	CTF1629
L 713	(A,103,124) Inductor	CTF1334
L 714	(A,106,124) Inductor	CTF1334
L 716	(A,92,127) Inductor	CTF1306
L 717	(A,101,135) Inductor	CTF1306
L 718	(B,157,143) Inductor	CTF1410
L 719	(B,170,145) Inductor	CTF1334
L 720	(A,92,130) Inductor	CTF1629
L 721	(A,53,119) Inductor	CTF1306
L 722	(A,53,122) Inductor	CTF1306
L 723	(A,35,113) Inductor	CTF1306
L 724	(A,39,113) Inductor	CTF1306
L 725	(A,41,113) Inductor	CTF1306
L 727	(A,37,113) Inductor	CTF1306
L 728	(A,44,113) Inductor	CTF1306
L 729	(A,42,122) Inductor	CTF1306
L 730	(A,42,113) Inductor	CTF1306
L 732	(A,157,139) Inductor	CTF1295
L 733	(A,156,141) Inductor	CTF1295
L 734	(A,154,143) Inductor	CTF1295
L 735	(B,142,147) Inductor	CTF1295
L 736	(B,140,146) Inductor	CTF1295
L 737	(B,138,143) Inductor	CTF1295
L 738	(B,135,143) Inductor	CTF1295
L 739	(B,135,147) Inductor	CTF1295
L 740	(B,133,147) Inductor	CTF1410
L 741	(A,142,139) Inductor	CTF1295
L 742	(A,139,139) Inductor	CTF1295
L 743	(B,79,107) Inductor	CTF1410
L 744	(A,116,80) Inductor	CTF1334
L 745	(A,148,140) Inductor	CTF1334
L 746	(A,150,140) Inductor	CTF1334
L 748	(A,145,140) Inductor	CTF1334
L 749	(A,147,140) Inductor	CTF1334
L 751	(B,85,102) Inductor	CTF1334
L 753	(B,94,111) Inductor	LCTAW680J3225
L 754	(B,90,94) Inductor	CTF1334
L 755	(A,101,121) Inductor	CTF1334
L 759	(A,110,120) Inductor	CTF1334
L 760	(B,83,88) Inductor	CTF1334
L 761	(B,93,118) Inductor	LCYC2R2K1608
L 762	(B,108,115) Inductor	LCYC2R2K1608
L 763	(B,94,114) Inductor	LCYC2R2K1608
L 765	(A,76,100) Inductor	LCYC2R2K1608
L 766	(B,113,116) Inductor	LCYC2R2K1608
L 771	(A,131,138) Inductor	CTF1453
L 772	(A,128,138) Inductor	CTF1453
L 793	(A,130,80) Inductor	CTF1334
L 801	(A,11,53) Inductor	CTH1254
L 802	(A,15,68) Inductor	CTH1257
L 803	(A,40,48) Inductor	CTH1254
L 804	(A,40,67) Inductor	CTH1255
L 805	(A,74,48) Inductor	CTH1257
L 806	(A,75,67) Inductor	CTH1257
L 807	(A,87,147) Inductor	CTH1262
L 808	(A,26,65) Inductor	CTH1253

Circuit Symbol and No.		Part No.
L 809	(A,62,63) Inductor	CTH1253
L 810	(A,89,135) Choke Coil 100 µH	CTH1315
L 811	(B,57,134) Inductor	CTF1556
L 812	(A,65,71) Inductor	CTF1453
L 815	(B,60,136) Inductor	CTF1556
L 817	(A,39,79) Inductor	LCKAW1R0J2520
L 818	(B,26,82) Inductor	LCYA220J2520
L 901	(B,60,148) Inductor	LCTC2R2K1608
L 982	(B,73,32) Inductor	CTF1463
L 983	(B,62,32) Inductor	CTF1463
L 984	(A,91,79) Inductor	CTF1463
L 985	(A,91,86) Inductor	CTF1463
L 999	(B,26,94) Inductor	CTF1463
L 2402	(B,115,91) Inductor	CTF1306
L 2404	(A,147,104) Inductor	LCTAW2R2J2520
L 2551	(B,12,141) Inductor	CTF1379
L 2554	(B,35,110) Inductor	CTF1334
L 2555	(B,37,110) Inductor	CTF1334
L 2701	(B,48,16) Chip Ferrite Bead	CTF1399
L 2702	(B,38,21) Inductor	CTF1334
L 2703	(B,41,88) Inductor	CTF1334
L 2706	(B,49,12) Inductor	CTF1306
L 2707	(B,50,20) Inductor	CTF1306
L 2709	(B,55,28) Inductor	CTF1306
L 2710	(B,54,25) Inductor	CTF1306
L 2711	(B,48,13) Inductor	CTF1306
L 2712	(B,35,16) Inductor	CTF1306
L 2713	(B,34,11) Inductor	CTF1306
L 2714	(A,41,21) Inductor	CTF1334
L 2715	(A,38,21) Inductor	CTF1334
L 2716	(B,52,22) Inductor	CTF1334
L 2717	(B,58,10) Inductor	CTF1306
L 2718	(B,39,15) Inductor	CTF1306
L 2800	(B,156,133) Inductor	CTF1305
TH601	(A,137,88) Thermistor	CCX1056
X 1	(A,142,72) Radiator 30.000 MHz	CSS1633
X 2	(B,134,61) Radiator 33.000 MHz	CSS1634
X 3	(B,160,49) Radiator 33.868 8 MHz	CSS1551
X 202	(A,126,21) Radiator 14.318 18 MHz	CSS1632
X 601	(A,46,88) Radiator 10.0 MHz	CSS1577
VR741	(A,78,111) Semi-fixed 2.2 kohm(B)	CCP1392
⚠FU691	(B,165,147) Fuse 1 A	CEK1254
⚠FU801	(A,63,118) Fuse 1.25 A	CEK1255
⚠FU802	(A,8,61) Fuse 4 A	CEK1260
⚠FU803	(A,69,119) Fuse 400 mA	CEK1250
⚠FU804	(A,24,72) Fuse 2.5 A	CEK1258
⚠FU805	(A,61,71) Fuse 2.5 A	CEK1258
⚠FU806	(A,58,119) Fuse 1 A	CEK1254
⚠FU807	(A,41,84) Fuse 1 A	CEK1254
⚠FU808	(A,11,109) Fuse 4 A	CEK1260
⚠FU809	(A,125,135) Fuse 2 A	CEK1257
⚠FU810	(A,103,140) Fuse 1.25 A	CEK1255
⚠FU811	(A,83,72) Fuse 2 A	CEK1257
⚠FU812	(A,117,141) Fuse 250 mA	CEK1248
⚠FU813	(A,83,47) Fuse 2.5 A	CEK1258
⚠FU814	(B,61,107) Fuse 250 mA	CEK1248
⚠FU821	(A,19,79) Fuse 3.15 A	CEK1259
⚠FU822	(A,64,80) Fuse 1 A	CEK1254
⚠FU823	(A,48,71) Fuse 2 A	CEK1257
⚠FU971	(A,10,120) Fuse 400 mA	CEK1250

Circuit Symbol and No.		Part No.
EF731	(B,147,144) EMI Filter	CCG1082
EF732	(B,145,148) EMI Filter	CCG1082
EF733	(B,140,136) EMI Filter	CCG1067
EF734	(B,141,134) EMI Filter	CCG1067
EF735	(B,150,138) EMI Filter	CCG1067
EF736	(B,152,138) EMI Filter	CCG1067
EF801	(A,96,139) EMI Filter	CCG1172
EF802	(A,77,143) EMI Filter	CCG1172
EF803	(A,79,152) EMI Filter	CCG1172

RESISTORS

R 1	(B,130,34)	RS1/16S0R0J
R 3	(B,130,37)	RS1/16S0R0J
R 5	(A,114,59)	RS1/16S473J
R 6	(A,120,63)	RS1/16S473J
R 7	(A,156,48)	RS1/16S220J
R 8	(A,119,70)	RS1/16S473J
R 10	(A,151,70)	RS1/16S104J
R 11	(A,154,70)	RAB4C473J
R 12	(A,144,67)	RS1/16S105J
R 13	(A,142,67)	RS1/16S151J
R 14	(B,146,34)	RS1/16S0R0J
R 16	(B,146,37)	RS1/16S0R0J
R 19	(A,120,68)	RS1/16S473J
R 20	(A,134,69)	RS1/16S101J
R 21	(A,138,66)	RS1/16S101J
R 22	(A,136,69)	RS1/16S101J
R 23	(B,136,59)	RS1/16S105J
R 24	(B,136,62)	RS1/16S151J
R 25	(A,133,69)	RS1/16S101J
R 26	(A,137,69)	RS1/16S101J
R 27	(A,134,66)	RS1/16S101J
R 28	(A,136,66)	RS1/16S101J
R 29	(A,132,66)	RS1/16S101J
R 30	(A,131,66)	RS1/16S101J
R 31	(A,131,69)	RS1/16S101J
R 32	(B,136,53)	RS1/16S473J
R 33	(A,130,69)	RS1/16S473J
R 34	(B,157,50)	RS1/16S223J
R 35	(A,126,48)	RS1/16S104J
R 36	(A,125,59)	RS1/16S101J
R 37	(A,125,60)	RS1/16S101J
R 38	(A,125,61)	RS1/16S101J
R 39	(A,125,63)	RS1/16S101J
R 40	(A,125,46)	RS1/16S470J
R 45	(B,129,55)	RS1/16S104J
R 46	(B,130,61)	RS1/16S104J
R 47	(B,159,47)	RS1/16S104J
R 48	(B,158,65)	RS1/16S104J
R 49	(B,160,65)	RS1/16S104J
R 50	(B,161,65)	RS1/16S104J
R 52	(B,83,26)	RS1/16SS101J
R 53	(B,83,27)	RS1/16SS101J
R 54	(B,83,28)	RS1/16SS101J
R 55	(B,83,30)	RS1/16SS101J
R 57	(B,83,29)	RS1/16SS101J
R 59	(B,82,31)	RS1/16SS101J
R 60	(B,83,32)	RS1/16SS101J
R 61	(A,59,35)	RS1/16SS0R0J

Circuit Symbol and No.		Part No.
R 62	(B,83,34)	RS1/16SS101J
R 63	(B,83,33)	RS1/16SS101J
R 64	(B,85,38)	RS1/16SS101J
R 65	(B,83,36)	RS1/16SS101J
R 66	(A,58,41)	RS1/16SS101J
R 67	(A,59,41)	RS1/16SS101J
R 68	(A,60,41)	RS1/16SS101J
R 69	(A,61,41)	RS1/16SS101J
R 70	(A,62,41)	RS1/16SS101J
R 71	(A,63,41)	RS1/16SS101J
R 72	(A,64,41)	RS1/16SS101J
R 73	(A,65,41)	RS1/16SS101J
R 74	(A,66,41)	RS1/16SS101J
R 75	(A,67,41)	RS1/16SS101J
R 76	(A,68,41)	RS1/16SS101J
R 77	(A,69,41)	RS1/16SS101J
R 78	(A,70,41)	RS1/16SS101J
R 79	(A,71,41)	RS1/16SS101J
R 80	(A,72,41)	RS1/16SS101J
R 81	(A,73,41)	RS1/16SS101J
R 82	(A,74,41)	RS1/16SS101J
R 84	(B,83,37)	RS1/16SS562J
R 85	(B,84,31)	RS1/16SS103J
R 87	(B,159,63)	RS1/16S104J
R 88	(B,131,48)	RS1/16S104J
R 89	(B,135,46)	RS1/16S0R0J
R 90	(B,135,45)	RS1/16S0R0J
R 93	(B,134,44)	RS1/16S153J
R 94	(B,137,44)	RS1/16S153J
R 95	(B,133,49)	RS1/16S153J
R 96	(B,133,48)	RS1/16S153J
R 97	(A,122,56)	RS1/16S473J
R 98	(A,158,61)	RS1/16S473J
R 101	(B,105,36)	RS1/16S473J
R 102	(B,105,21)	RS1/16S473J
R 103	(B,104,59)	RS1/16S473J
R 104	(A,135,22)	RS1/16S220J
R 151	(B,130,32)	RS1/16S0R0J
R 152	(B,162,34)	RS1/16S0R0J
R 153	(B,145,44)	RS1/16S471J
R 154	(A,119,56)	RS1/16S473J
R 155	(A,116,56)	RS1/16S473J
R 156	(A,109,66)	RS1/16S473J
R 158	(A,121,52)	RS1/16S473J
R 159	(B,129,57)	RS1/16S473J
R 160	(A,122,61)	RS1/16S473J
R 161	(A,109,68)	RS1/16S103J
R 162	(B,134,57)	RS1/16S473J
R 163	(A,125,58)	RS1/16S560J
R 164	(A,115,66)	RS1/16S473J
R 165	(A,125,69)	RS1/16S473J
R 166	(A,107,68)	RS1/16S473J
R 167	(A,120,64)	RS1/16S473J
R 170	(A,110,66)	RS1/16S473J
R 171	(A,113,66)	RS1/16S473J
R 172	(A,111,66)	RS1/16S473J
R 174	(A,125,67)	RS1/16S473J
R 175	(A,125,68)	RS1/16S473J
R 176	(A,125,56)	RS1/16S0R0J
R 177	(A,120,65)	RS1/16S473J

Circuit Symbol and No.		Part No.
R 178	(A,120,67)	RS1/16S473J
R 180	(A,148,66)	RS1/16S101J
R 181	(A,118,56)	RS1/16S473J
R 182	(A,120,56)	RS1/16S473J
R 183	(A,118,62)	RS1/16S473J
R 184	(A,118,59)	RS1/16S473J
R 185	(A,115,62)	RS1/16S473J
R 186	(A,116,59)	RS1/16S473J
R 187	(A,115,59)	RS1/16S473J
R 188	(A,110,68)	RS1/16S473J
R 189	(A,113,68)	RS1/16S473J
R 190	(A,111,68)	RS1/16S473J
R 191	(B,129,64)	RS1/16S473J
R 192	(A,116,62)	RS1/16S473J
R 193	(A,126,65)	RS1/16S473J
R 194	(A,149,68)	RS1/16S390J
R 196	(A,115,68)	RS1/16S473J
R 198	(A,127,64)	RS1/16S473J
R 201	(A,123,41)	RN1/16SE1502D
R 202	(A,123,39)	RN1/16SE1202D
R 210	(A,102,42)	RS1/16S104J
R 211	(A,100,42)	RS1/16S104J
R 212	(A,93,43)	RS1/16S104J
R 213	(A,92,43)	RS1/16S104J
R 217	(A,124,36)	RS1/16S272J
R 220	(A,125,8)	RS1/16S223J
R 221	(A,125,26)	RS1/16S105J
R 222	(A,125,17)	RS1/16S151J
R 224	(A,82,16)	RS1/16S0R0J
R 225	(A,120,9)	RS1/16S104J
R 226	(A,122,9)	RS1/16S104J
R 227	(A,82,19)	RS1/16S104J
R 228	(A,84,19)	RS1/16S104J
R 229	(B,118,16)	RS1/16S560J
R 230	(A,84,13)	RS1/16S104J
R 232	(A,85,13)	RS1/16S104J
R 237	(B,116,16)	RS1/16S104J
R 238	(B,117,16)	RS1/16S330J
R 240	(A,118,8)	RS1/16S104J
R 301	(A,139,19)	RS1/16S123J
R 302	(A,139,21)	RS1/16S103J
R 303	(A,140,16)	RS1/16S473J
R 320	(A,110,57)	RS1/16S103J
R 321	(A,109,59)	RS1/16S0R0J
R 329	(A,113,50)	RS1/16SS821J
R 330	(A,113,53)	RS1/16SS221J
R 331	(A,113,52)	RS1/16SS221J
R 332	(A,113,51)	RS1/16SS472J
R 349	(B,159,44)	RS1/16S473J
R 350	(B,151,43)	RS1/16S473J
R 356	(A,113,56)	RS1/16S0R0J
R 360	(B,100,60)	RS1/16SS473J
R 361	(B,100,47)	RS1/16SS473J
R 362	(B,100,59)	RS1/16SS473J
R 363	(B,100,48)	RS1/16SS473J
R 364	(B,100,52)	RS1/16SS473J
R 365	(B,100,51)	RS1/16SS473J
R 366	(B,100,49)	RS1/16SS473J
R 367	(B,102,49)	RS1/16SS473J
R 368	(B,102,51)	RS1/16SS473J

Circuit Symbol and No.		Part No.
R 369	(B,100,58)	RS1/16SS473J
R 370	(A,92,72)	RS1/8S0R0J
R 601	(A,137,87)	RS1/16S1803D
R 602	(B,50,100)	RS1/16SS473J
R 603	(A,130,91)	RS1/16SS473J
R 604	(A,33,94)	RS1/16SS0R0J
R 605	(A,31,95)	RS1/16SS102J
R 606	(A,37,88)	RAB4C681J
R 607	(A,125,85)	RS1/16SS473J
R 608	(B,154,135)	RS1/16S563J
R 609	(B,153,132)	RS1/16S104J
R 610	(B,150,132)	RS1/16S473J
R 611	(B,153,135)	RS1/16S472J
R 612	(A,31,93)	RS1/16SS473J
R 614	(A,33,102)	RS1/16SS473J
R 616	(A,45,109)	RS1/16SS681J
R 617	(A,41,87)	RS1/16S0R0J
R 618	(B,39,99)	RS1/16SS473J
R 620	(B,48,97)	RS1/16SS473J
R 621	(B,62,91)	RS1/16SS473J
R 622	(A,55,109)	RS1/16SS473J
R 623	(A,47,109)	RAB4C681J
R 625	(A,33,106)	RS1/16S473J
R 626	(A,51,110)	RAB4C681J
R 627	(A,59,94)	RS1/16SS473J
R 628	(A,34,99) (EW5)	RS1/16SS473J
R 629	(A,57,95)	RS1/16SS473J
R 630	(A,33,100) (UC)	RS1/16SS473J
R 631	(A,32,95)	RS1/16SS102J
R 632	(A,35,106)	RS1/16SS473J
R 633	(A,56,90)	RS1/16SS473J
R 636	(B,55,113)	RS1/16S473J
R 640	(B,51,87)	RS1/16SS101J
R 641	(B,51,88)	RS1/16SS473J
R 642	(A,54,106)	RS1/16SS681J
R 643	(A,56,99)	RS1/16SS681J
R 644	(B,48,98)	RS1/16SS681J
R 645	(A,56,96)	RS1/16SS681J
R 646	(A,56,93)	RAB4C681J
R 647	(A,54,90)	RS1/16SS681J
R 648	(A,53,88)	RS1/16SS681J
R 649	(A,52,88)	RS1/16SS681J
R 651	(B,55,105)	RS1/16S681J
R 653	(A,137,84)	RS1/16S2003F
R 654	(A,33,105)	RS1/16SS473J
R 657	(A,53,84)	RS1/16S104J
R 658	(A,34,96)	RS1/16SS101J
R 659	(A,50,88)	RAB4C681J
R 660	(A,42,86)	RS1/16SS104J
R 661	(A,42,88)	RS1/16SS681J
R 662	(A,25,104)	RS1/16S103J
R 664	(B,38,102)	RS1/16SS681J
R 665	(A,37,109)	RAB4C681J
R 666	(A,41,109)	RAB4C681J
R 667	(A,43,109)	RS1/16SS681J
R 668	(A,23,126)	RS1/16S104J
R 670	(B,39,105)	RS1/16SS103J
R 671	(B,39,102)	RS1/16SS103J
R 672	(A,34,109)	RS1/16SS681J
R 673	(B,39,104)	RS1/16SS102J
R 674	(B,39,101)	RS1/16SS102J
R 675	(A,32,99)	RS1/16SS681J
R 676	(A,35,90)	RS1/16SS681J
R 677	(B,15,86)	RS1/16S104J
R 681	(A,117,94)	RS1/16S101J
R 682	(A,119,94)	RS1/10S471J
R 683	(A,120,97)	RS1/16S103J
R 687	(A,23,121)	RS1/16S470J
R 691	(B,160,148)	RS1/10S221J
R 692	(B,157,148)	RS1/10S221J
R 693	(A,171,138)	RS1/16S681J
R 694	(A,165,138)	RS1/16S681J
R 695	(A,168,138)	RS1/16S681J
R 696	(A,164,138)	RS1/16S681J
R 697	(A,167,138)	RS1/16S681J
R 699	(B,20,101)	RS1/16S0R0J
R 701	(A,121,122)	RS1/16S820J
R 702	(A,23,108)	RS1/16S103J
R 703	(A,25,108)	RS1/16S103J
R 730	(B,73,101)	RS1/16S0R0J
R 732	(B,143,143)	RS1/16S102J
R 733	(B,145,143)	RS1/16S102J
R 734	(A,138,139)	RS1/16S102J
R 735	(A,136,139)	RS1/16S102J
R 736	(A,135,139)	RS1/16S0R0J
R 737	(A,133,139)	RS1/16S102J
R 738	(B,138,146)	RS1/16S681J
R 739	(B,137,147)	RS1/16S681J
R 740	(B,144,134)	RS1/16S101J
R 741	(B,143,135)	RS1/16S101J
R 742	(B,79,109)	RS1/16S102J
R 743	(A,78,108)	RS1/16S362J
R 744	(A,80,114)	RS1/16S512J
R 745	(B,77,113)	RS1/16S471J
R 746	(B,80,111)	RS1/16S0R0J
R 751	(B,101,93)	RS1/16SS101J
R 752	(B,103,94)	RS1/16SS101J
R 753	(B,105,96)	RS1/16SS101J
R 754	(B,96,94)	RS1/16S222J
R 755	(B,89,96)	RS1/16S222J
R 756	(B,120,133)	RS1/16S750J
R 757	(B,83,98)	RS1/16S101J
R 760	(B,114,129)	RS1/16S4701D
R 761	(B,82,94)	RS1/16S1000D
R 762	(B,95,108)	RN1/16SE2002D
R 763	(B,92,108)	RS1/16S473J
R 764	(B,102,108)	RS1/16S75R0D
R 765	(B,101,108)	RS1/16S75R0D
R 766	(B,99,108)	RS1/16S75R0D
R 767	(B,98,108)	RS1/16S750J
R 768	(B,117,127)	RS1/16S4701D
R 769	(B,105,118)	RS1/16S105J
R 770	(B,86,122)	RS1/16S101J
R 771	(B,112,124)	RS1/16S101J
R 772	(B,102,114)	RS1/16S105J
R 773	(A,105,98)	RS1/16S750J
R 774	(B,95,114)	RS1/16S101J
R 776	(A,122,121)	RS1/16S750J
R 781	(A,106,80)	RS1/16S0R0J
R 782	(B,83,117)	RS1/16S105J

Circuit Symbol and No.		Part No.
R 783	(B,91,118)	RS1/16S105J
R 784	(B,101,112)	RS1/16S105J
R 785	(B,81,117)	RS1/16S105J
R 786	(B,114,127)	RS1/16S4701D
R 788	(B,117,125)	RS1/16S4701D
R 789	(B,120,120)	RS1/16S102J
R 790	(B,115,116)	RS1/16S563J
R 791	(B,118,118)	RS1/16S473J
R 792	(B,92,115)	RS1/16S105J
R 794	(A,73,106)	RS1/16S563J
R 795	(A,75,101)	RS1/16SS102J
R 796	(A,72,103)	RS1/16S563J
R 800	(B,94,118)	RS1/16S105J
R 803	(B,7,51)	RS1/16S5600D
R 813	(B,58,107)	RS1/16S0R0J
R 814	(A,80,95)	RS1/16S0R0J
R 819	(B,39,85)	RS1/8S181J
R 820	(B,39,82)	RS1/8S181J
R 821	(A,30,81)	RS1/16S103J
R 824	(B,59,34)	RS1/16S0R0J
R 825	(A,88,55)	RS1/10S360J
R 826	(A,88,57)	RS1/10S360J
R 827	(A,88,53)	RS1/16S103J
R 829	(A,119,138)	RS1/16S475J
R 832	(B,7,54)	RS1/16S8201D
R 833	(B,7,56)	RS1/16S1501D
R 834	(B,8,69)	RS1/16S681J
R 835	(B,13,70)	RS1/16S154J
R 836	(B,29,49)	RS1/16S3300D
R 837	(B,26,48)	RS1/16S101J
R 838	(B,26,49)	RS1/16S3001D
R 839	(B,24,48)	RS1/16S1001D
R 840	(B,25,51)	RS1/16S102J
R 841	(B,25,53)	RS1/16S104J
R 842	(B,29,67)	RS1/16S6800D
R 843	(B,26,67)	RS1/16S5601D
R 844	(B,24,68)	RS1/16S1001D
R 845	(B,26,68)	RS1/16S101J
R 846	(B,25,65)	RS1/16S102J
R 847	(B,65,47)	RS1/16S5600D
R 848	(B,61,47)	RS1/16S2401D
R 849	(B,61,49)	RS1/16S101J
R 850	(B,59,48)	RS1/16S1601D
R 851	(B,60,50)	RS1/16S152J
R 852	(B,65,69)	RS1/16S1200D
R 853	(B,61,69)	RS1/16S1001D
R 854	(B,60,53)	RS1/16S104J
R 855	(B,61,67)	RS1/16S101J
R 856	(B,59,68)	RS1/16S1001D
R 857	(B,60,66)	RS1/16S152J
R 858	(B,20,66)	RS1/16S100J
R 859	(B,14,57)	RS1/16S184J
R 861	(B,8,46)	RS1/10S100J
R 862	(B,40,26)	RS1/16S1002D
R 863	(B,41,35)	RS1/16S102J
R 864	(B,42,28)	RS1/16S6202D
R 865	(B,27,70)	RS1/16S100J
R 866	(B,25,58)	RS1/16S1003D
R 867	(B,64,44)	RS1/16S473J
R 868	(B,66,71)	RS1/16S100J

Circuit Symbol and No.		Part No.
R 869	(B,60,57)	RS1/16S1003D
R 870	(B,61,42)	RS1/16S473J
R 873	(B,41,56)	RS1/10S150J
R 874	(B,29,51)	RS1/16S224J
R 875	(B,29,65)	RS1/16S224J
R 876	(B,41,60)	RS1/10S150J
R 877	(B,76,57)	RS1/10S150J
R 878	(B,65,50)	RS1/16S224J
R 879	(B,65,64)	RS1/16S224J
R 880	(B,76,60)	RS1/10S150J
R 884	(B,90,147)	RS1/4S561J
R 885	(B,90,150)	RS1/4S561J
R 886	(B,84,144)	RS1/16S103J
R 891	(B,108,136)	RS1/16S1101D
R 892	(B,110,140)	RS1/16S6800D
R 893	(B,111,130)	RS1/8S102J
R 894	(B,115,140)	RS1/16S471J
R 895	(B,111,132)	RS1/8S102J
R 896	(B,107,133)	RS1/16S103J
R 901	(B,147,122)	RS1/16S224J
R 902	(B,37,121)	RS1/16S473J
R 903	(B,39,115)	RS1/16S223J
R 904	(B,37,115)	RS1/16S223J
R 905	(B,26,88)	RS1/10S472J
R 906	(B,29,84)	RS1/16S223J
R 907	(B,62,155)	RS1/16S102J
R 908	(B,90,144)	RS1/4S471J
R 909	(B,96,127)	RS1/4S471J
R 910	(B,89,134)	RS1/16S153J
R 911	(B,61,119)	RS1/16S474J
R 912	(B,118,140)	RS1/16S472J
R 913	(B,116,134)	RS1/16S102J
R 914	(B,61,112)	RS1/16S473J
R 915	(B,65,118)	RS1/16S473J
R 916	(B,63,118)	RS1/16S473J
R 917	(B,65,98)	RS1/16S0R0J
R 918	(B,66,99)	RS1/16S471J
R 919	(A,112,137)	RS1/16S475J
R 920	(B,67,132)	RS1/16S101J
R 921	(B,61,116)	RS1/16S103J
R 922	(B,59,150)	RS1/16S153J
R 924	(B,65,152)	RS1/16S472J
R 925	(A,63,107)	RS1/16S102J
R 926	(A,66,108)	RS1/16S103J
R 927	(B,67,131)	RS1/10S471J
R 928	(B,66,134)	RS1/16S103J
R 929	(B,63,135)	RS1/10S103J
R 930	(B,63,149)	RS1/16S472J
R 936	(B,65,90)	RS1/16S820J
R 937	(B,68,90)	RS1/16S820J
R 938	(B,113,137)	RS1/16S561J
R 939	(B,7,48)	RS1/16S0R0J
R 940	(B,29,46)	RS1/16S0R0J
R 941	(B,32,68)	RS1/16S0R0J
R 942	(B,65,46)	RS1/16S0R0J
R 943	(B,67,68)	RS1/16S0R0J
R 944	(B,25,63)	RS1/16S104J
R 945	(B,60,63)	RS1/16S104J
R 946	(B,36,115)	RS1/16S4701D
R 952	(A,77,94)	RS1/16S473J

Circuit Symbol and No.		Part No.
R 954	(B,56,148)	RS1/16S103J
R 961	(A,157,97)	RS1/16S223J
R 962	(A,154,97)	RS1/16S103J
R 963	(A,161,100)	RS1/16S104J
R 964	(A,164,98)	RS1/16S223J
R 971	(B,16,121)	RS1/16S824J
R 972	(B,16,125)	RS1/16S102J
R 973	(B,19,119)	RS1/16S472J
R 974	(B,16,116)	RS1/8S471J
R 975	(B,16,114)	RS1/8S751J
R 977	(B,30,125)	RS1/16S103J
R 978	(B,30,123)	RS1/16S103J
R 983	(A,12,78)	RS1/10S102J
R 985	(A,80,91)	RS1/10S102J
R 986	(A,136,132)	RS1/10S102J
R 987	(B,85,45)	RS1/10S102J
R 989	(B,85,71)	RS1/10S102J
R 990	(B,72,92)	RS1/16S0R0J
R 2403	(A,133,123)	RS1/16S102J
R 2404	(B,127,135)	RS1/16S473J
R 2407	(B,127,125)	RS1/16SS473J
R 2409	(B,129,134)	RS1/16S473J
R 2410	(B,130,127)	RS1/16SS473J
R 2411	(B,132,135)	RS1/16S333J
R 2416	(B,131,125)	RS1/16S333J
R 2417	(B,108,103)	RS1/16S104J
R 2418	(B,108,106)	RS1/16S102J
R 2419	(B,133,123)	RS1/16SS473J
R 2420	(B,131,137)	RS1/16S473J
R 2421	(B,109,109)	RS1/16S473J
R 2422	(B,134,137)	RS1/16S473J
R 2423	(B,134,123)	RS1/16SS473J
R 2424	(B,111,110)	RS1/16S473J
R 2425	(B,135,137)	RS1/16S473J
R 2426	(B,135,123)	RS1/16SS473J
R 2428	(B,115,113)	RS1/16S0R0J
R 2432	(B,118,105)	RS1/16S473J
R 2433	(B,114,104)	RS1/16S473J
R 2438	(A,145,111)	RS1/16S181J
R 2440	(A,143,108)	RS1/16S181J
R 2441	(A,144,106)	RS1/16S223J
R 2444	(A,144,112)	RS1/16S223J
R 2445	(A,144,104)	RS1/16S102J
R 2446	(A,143,114)	RS1/16S102J
R 2447	(B,133,100)	RS1/16S0R0J
R 2448	(A,126,98)	RS1/16S0R0J
R 2449	(A,126,101)	RS1/16S0R0J
R 2451	(B,150,92)	RS1/16S152J
R 2452	(A,126,113)	RS1/16S0R0J
R 2453	(A,128,116)	RS1/16S0R0J
R 2454	(B,132,115)	RS1/16S0R0J
R 2459	(B,40,123)	RS1/16S471J
R 2460	(B,153,91)	RS1/16S104J
R 2461	(B,145,84)	RS1/16S1202D
R 2462	(B,144,88)	RS1/16S1003D
R 2465	(B,26,141)	RS1/16SS471J
R 2472	(B,135,104)	RS1/16S821J
R 2473	(B,136,114)	RS1/16S821J
R 2474	(B,151,81)	RS1/16S101J
R 2475	(B,138,104)	RS1/16S104J
R 2476	(B,138,114)	RS1/16S104J
R 2478	(B,141,101)	RS1/16S472J
R 2479	(B,141,103)	RS1/16S472J
R 2480	(B,144,118)	RS1/16S472J
R 2481	(B,141,115)	RS1/16S472J
R 2482	(B,141,106)	RS1/16S472J
R 2483	(B,141,112)	RS1/16S472J
R 2484	(B,144,102)	RS1/16S472J
R 2485	(B,144,115)	RS1/16S472J
R 2486	(B,147,102)	RS1/16S472J
R 2487	(B,147,115)	RS1/16S472J
R 2488	(B,35,122)	RS1/16S471J
R 2489	(B,25,139)	RS1/16S471J
R 2492	(B,23,109)	RS1/16S223J
R 2493	(B,23,113)	RS1/16S473J
R 2496	(B,28,113)	RS1/16S103J
R 2497	(B,22,116)	RS1/4S102J
R 2499	(B,21,122)	RS1/16S103J
R 2500	(B,23,126)	RS1/16S103J
R 2501	(B,18,124)	RS1/16S221J
R 2502	(B,21,125)	RS1/16S102J
R 2503	(A,50,134)	RS1/16S101J
R 2551	(A,13,138)	RS1/16S221J
R 2552	(A,13,141)	RS1/16S621J
R 2553	(B,6,143)	RS1/16S473J
R 2554	(B,9,144)	RS1/16S121J
R 2556	(B,136,119)	RS1/16S473J
R 2557	(B,136,120)	RS1/16S473J
R 2558	(B,129,119)	RS1/16SS473J
R 2566	(A,127,104)	RS1/16SS101J
R 2567	(A,127,105)	RS1/16SS101J
R 2568	(A,127,106)	RS1/16SS101J
R 2569	(B,132,120)	RS1/16S102J
R 2570	(B,129,116)	RS1/16S0R0J
R 2571	(B,144,104)	RS1/16S224J
R 2572	(B,144,114)	RS1/16S224J
R 2602	(A,160,117)	RS1/8S0R0J
R 2701	(B,46,13)	RS1/16S222J
R 2702	(B,58,8)	RS1/16S222J
R 2706	(B,49,18)	RS1/16S222J
R 2707	(B,52,28)	RS1/16S102J
R 2708	(B,51,26)	RS1/16S102J
R 2710	(A,45,20)	RS1/16S102J
R 2711	(A,46,22)	RS1/16S102J
R 2712	(B,50,23)	RS1/16S102J
R 2713	(B,35,14)	RS1/16S222J
R 2714	(B,35,11)	RS1/16S222J
R 2715	(B,38,15)	RS1/16S222J
R 2723	(A,38,15)	RS1/16S223J
R 2724	(A,38,13)	RS1/16S472J
R 2725	(A,42,13)	RS1/16S103J
R 2726	(A,41,15)	RS1/16S223J
R 2729	(A,40,13)	RS1/16S472J
R 2730	(B,8,51)	RS1/16S331J
R 2731	(A,85,110)	RS1/16S0R0J

CAPACITORS

C 1	(B,131,19)	CKSRYB104K50
C 2	(B,130,22)	CKSRYB104K50

Circuit Symbol and No.			Part No.
C 3	(B,130,25)		CKSRYB104K50
C 4	(B,130,30)		CKSRYB104K50
C 5	(B,130,42)		CKSRYB104K50
C 6	(A,151,37)		CKSRYB104K50
C 7	(A,156,45)		CKSRYB104K50
C 8	(A,155,50)		CKSRYB104K50
C 9	(A,155,53)		CKSRYB104K50
C 10	(A,156,56)		CKSRYB104K50
C 11	(A,156,61)		CKSRYB104K50
C 12	(B,135,18)	10 µF	CCG1171
C 13	(B,145,26)		CKSRYB104K50
C 14	(B,145,29)		CKSRYB104K50
C 15	(A,146,36)		CKSRYB104K50
C 16	(A,144,36)		CKSRYB104K50
C 17	(A,146,67)		CKSRYB104K50
C 18	(A,144,69)		CCSRCH100D50
C 19	(A,142,69)		CCSRCH100D50
C 20	(B,148,18)		CKSRYB104K50
C 21	(B,147,22)		CKSRYB104K50
C 22	(B,147,25)		CKSRYB104K50
C 23	(B,147,30)		CKSRYB104K50
C 24	(B,146,41)		CKSRYB104K50
C 25	(A,140,37)		CKSRYB104K50
C 26	(A,140,66)		CKSRYB104K50
C 27	(B,151,18)	10 µF	CCG1171
C 28	(B,156,15)		CKSRYB104K50
C 29	(B,162,28)		CKSRYB104K50
C 30	(A,157,18)		CKSRYF104Z25
C 31	(B,131,59)		CCSRCH8R0D50
C 32	(B,131,63)		CCSRCH8R0D50
C 33	(A,135,37)		CKSRYB104K50
C 35	(A,135,66)		CKSRYB104K50
C 36	(A,129,65)		CKSRYB104K50
C 38	(A,134,33)	10 µF	CCG1171
C 39	(A,126,41)		CKSRYB104K50
C 40	(A,126,43)		CKSRYB104K50
C 41	(A,126,51)		CKSRYB104K50
C 42	(B,140,44)		CKSRYB104K50
C 44	(B,136,56)		CKSRYB104K50
C 47	(B,144,66)		CKSRYB104K50
C 49	(B,143,44)		CKSRYB104K50
C 51	(A,148,36)		CKSRYB224K10
C 54	(B,83,38)		CCSRCH121J50
C 55	(B,147,44)		CKSRYB104K50
C 57	(B,151,44)		CKSRYB104K50
C 60	(B,152,66)		CKSRYB104K50
C 63	(B,157,47)		CKSRYB104K50
C 64	(B,157,52)		CKSRYB104K50
C 66	(B,157,55)		CKSRYB104K50
C 67	(B,159,55)	10 µF	CCG1171
C 68	(A,130,36)	22 µF	CCG1178
C 69	(A,130,34)	22 µF	CCG1178
C 70	(A,129,30)	22 µF	CCG1178
C 71	(B,128,61)		CKSRYF103Z50
C 72	(B,162,52)		CKSRYF103Z50
C 73	(B,161,52)		CKSRYF104Z25
C 74	(B,157,62)		CKSRYF104Z25
C 75	(A,155,18)		CKSRYF104Z25
C 76	(B,130,27)		CKSRYB103K50
C 77	(B,138,18)		CKSRYB103K50
C 78	(B,145,21)		CKSRYB103K50
C 79	(B,162,30)		CKSRYB103K50
C 80	(B,154,17)		CKSRYB103K50
C 81	(B,146,40)		CKSRYB224K10
C 82	(B,162,23)		CKSRYB103K50
C 96	(B,163,23)		CKSRYB224K10
C 97	(B,163,28)		CKSRYB224K10
C 98	(B,163,30)		CKSRYB224K10
C 101	(A,130,18)		CKSRYB104K50
C 102	(A,134,12)		CKSRYB104K50
C 103	(A,138,26)		CKSRYB104K50
C 104	(A,147,30)		CKSRYB104K50
C 105	(A,155,30)		CKSRYB104K50
C 106	(A,164,30)		CKSRYB104K50
C 107	(A,160,33)		CKSRYB104K50
C 108	(A,160,42)		CKSRYB104K50
C 109	(A,160,50)		CKSRYB104K50
C 110	(B,105,43)	10 µF	CCG1171
C 111	(B,105,40)		CKSRYB104K50
C 112	(B,105,35)		CKSRYF224Z16
C 113	(B,105,27)	10 µF	CCG1171
C 114	(B,105,24)		CKSRYB104K50
C 115	(B,105,19)		CKSRYF224Z16
C 116	(B,118,65)		CKSRYF104Z25
C 117	(B,106,52)	10 µF	CCG1171
C 118	(B,106,50)		CKSRYB104K50
C 119	(B,118,49)		CKSRYF104Z25
C 120	(B,108,62)		CKSRYF104Z25
C 121	(B,108,57)		CKSRYF104Z25
C 122	(B,103,39)		CKSRYF104Z25
C 123	(B,105,55)		CKSRYF103Z50
C 124	(B,129,40)		CCSRCH101J50
C 125	(A,165,33)		CKSRYF104Z25
C 126	(A,165,50)		CKSRYF104Z25
C 201	(A,123,38)		CKSRYB104K50
C 202	(A,118,43)		CKSRYB104K50
C 203	(A,116,43)		CKSRYB104K50
C 204	(A,121,37)		CKSRYB104K50
C 205	(A,110,43)		CKSRYB104K50
C 206	(A,105,42)		CKSRYB104K50
C 207	(A,99,42)		CKSRYB104K50
C 208	(A,95,43)		CKSRYB104K50
C 209	(A,86,37)		CKSRYB104K50
C 211	(A,121,35)		CKSRYB104K50
C 213	(A,121,32)		CKSRYB104K50
C 214	(A,123,32)		CKSRYB104K50
C 215	(A,86,36)		CKSRYB104K50
C 216	(A,86,32)		CKSRYB104K50
C 217	(A,86,31)		CKSRYB104K50
C 220	(A,124,33)	10 µF	CCG1171
C 221	(A,121,29)		CKSRYB104K50
C 222	(A,121,27)		CKSRYB104K50
C 223	(A,123,9)		CKSRYB224K10
C 224	(A,121,24)		CKSRYB104K50
C 225	(A,123,29)		CKSRYB104K50
C 227	(A,86,29)		CKSRYB104K50
C 228	(A,86,25)		CKSRYB104K50
C 230	(A,126,26)		CCSRCH150J50
C 231	(A,126,17)		CCSRCH120J50
C 232	(A,121,22)		CKSRYB104K50

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
C 233	(A,121,19)	CKSRYB104K50	C 626	(B,53,85)	CKSSYB103K16
C 234	(A,86,20)	CKSRYB104K50	C 630	(A,32,97)	CCSRCH101J50
C 235	(A,87,19)	CKSRYB104K50	C 636	(B,22,91)	CKSRYF104Z25
C 237	(A,122,16)	CKSRYB104K50	C 643	(B,17,93)	CKSRYF104Z25
C 238	(A,122,13)	CKSRYB104K50	C 644	(B,42,121)	CKSRYF104Z25
C 239	(A,87,17)	CKSRYB104K50	C 645	(A,36,122) 10 µF	CCG1236
C 240	(A,87,15)	CKSRYB104K50	C 647	(A,32,112) 10 µF	CCG1236
C 241	(A,87,13)	CKSRYB104K50	C 648	(A,27,121)	CKSRYF104Z25
C 242	(A,115,8)	CKSRYB104K50	C 670	(A,37,85)	CKSSYB104K10
C 243	(A,112,8)	CKSRYB104K50	C 671	(A,34,98)	CKSSYB104K10
C 244	(A,108,8)	CKSRYB104K50	C 672	(A,34,95)	CKSSYB104K10
C 245	(A,105,8)	CKSRYB104K50	C 673	(B,39,106)	CKSSYB104K10
C 246	(A,102,8)	CKSRYB104K50	C 675	(A,137,85)	CKSSYB104K10
C 247	(A,97,8)	CKSRYB104K50	C 679	(A,27,89)	CKSRYF104Z25
C 248	(A,92,8)	CKSRYB104K50	C 680	(A,25,88)	CKSRYB104K50
C 249	(A,87,9) 10 µF	CCG1171	C 681	(A,24,80)	CKSRYF104Z25
C 250	(A,107,43) 10 µF	CCG1171	C 682	(A,24,82)	CKSRYB104K50
C 251	(A,123,26) 10 µF	CCG1171	C 690	(B,154,143)	CKSQYB475K6R3
C 252	(A,88,43) 10 µF	CCG1171	C 691	(A,156,151)	CKSRYB102K50
C 253	(A,124,14)	CKSRYF104Z25	C 692	(B,158,141)	CKSRYB104K50
C 255	(A,86,34)	CKSRYB103K50	C 693	(B,157,145)	CKSQYB105K16
C 256	(A,86,28)	CKSRYB103K50	C 694	(B,156,141)	CKSQYB105K16
C 257	(A,86,26)	CKSRYB103K50	C 695	(B,160,146)	CKSQYB105K16
C 258	(A,86,23)	CKSRYB103K50	C 696	(B,171,145)	CKSRYB102K50
C 259	(A,86,22)	CKSRYB103K50	C 697	(B,159,134)	CKSQYB105K16
C 260	(A,87,16)	CKSRYB103K50	C 698	(B,162,134)	CKSQYB105K16
C 261	(A,84,8)	CKSRYB103K50	C 699	(B,168,133)	CKSRYB102K50
C 262	(A,82,8)	CKSRYB103K50	C 700	(B,165,133)	CKSRYB102K50
C 301	(A,140,21)	CKSRYF104Z25	C 701	(B,167,133)	CKSRYB102K50
C 302	(A,148,22)	CKSRYB334K10	C 702	(B,164,133)	CKSRYB102K50
C 303	(A,141,13)	CKSRYF104Z25	C 704	(B,84,112)	CKSRYB104K50
C 306	(A,119,49)	CKSRYF104Z25	C 705	(B,91,115)	CKSRYB104K50
C 323	(A,106,57) 10 µF	CCG1171	C 706	(A,124,122)	CCSRCH102J50
C 328	(A,103,51)	CKSRYB104K50	C 707	(B,120,128)	CKSYB106K6R3
C 329	(A,102,51) 10 µF	CCG1171	C 709	(B,114,125)	CCSRCK1R0C50
C 341	(A,159,19)	CCSRCH101J50	C 711	(B,120,118)	CKSRYB105K10
C 342	(A,139,14)	CKSRYF104Z25	C 712	(B,113,118)	CKSRYB104K50
C 344	(B,145,12)	CKSRYF103Z50	C 713	(B,111,120)	CKSYF106Z10
C 345	(B,144,12)	CKSRYF104Z25	C 732	(B,153,141)	CKSRYB102K50
C 346	(B,130,12)	CKSRYF103Z50	C 733	(B,150,141)	CKSRYB102K50
C 347	(B,118,10)	CKSRYF103Z50	C 734	(B,147,135)	CKSRYB102K50
C 348	(B,117,9)	CKSRYF104Z25	C 735	(B,140,138)	CKSRYB102K50
C 349	(B,96,8)	CKSRYF103Z50	C 736	(B,132,147)	CKSRYF104Z25
C 601	(B,53,98)	CKSSYB104K10	C 737	(A,132,132)	CKSRYF104Z25
C 602	(A,34,97)	CKSSYB104K10	C 738	(A,128,134)	CKSRYF104Z25
C 603	(B,43,91)	CKSSYB104K10	C 739	(B,131,152)	CKSRYF104Z25
C 604	(B,45,91)	CKSSYB104K10	C 740	(B,133,152)	CKSRYF104Z25
C 605	(B,43,94)	CKSSYB104K10	C 741	(B,137,151)	CKSRYF104Z25
C 606	(A,34,93)	CKSRYB104K50	C 747	(A,79,104)	CEVW100M16
C 607	(A,36,85)	CKSSYB104K10	C 748	(B,85,89)	CKSSYB103K16
C 609	(B,147,132)	CKSRYB104K50	C 749	(B,86,92)	CKSQYB225K10
C 610	(A,123,89)	CKSSYB104K10	C 750	(B,77,107)	CKSRYB102K50
C 611	(B,45,93)	CKSSYB104K10	C 751	(B,103,96)	CKSRYB104K50
C 612	(A,132,87)	CKSSYB104K10	C 752	(B,101,95)	CKSRYB104K50
C 613	(B,53,107)	CKSSYB104K10	C 753	(B,99,95)	CKSRYB104K50
C 614	(B,58,93)	CKSSYB104K10	C 754	(B,98,93)	CCSRCH5R0C50
C 617	(B,55,89)	CKSQYB225K10	C 755	(B,93,95)	CCSRCH470J50
C 620	(B,45,104)	CKSRYF104Z25	C 756	(B,94,95)	CKSRYF104Z25
C 623	(B,48,88)	CKSSYB104K10	C 757	(A,91,96)	CEVQW470M16
C 624	(B,49,104)	CKSRYF104Z25	C 758	(B,91,91)	CKSRYB105K6R3

Circuit Symbol and No.		Part No.
C 761	(B,93,108)	CCSRCH220J50
C 762	(A,86,96)	CEVW100M16
C 763	(B,90,108)	CKSRYF104Z25
C 764	(A,100,105)	CEVW221M4
C 765	(A,92,105)	CEVW221M4
C 766	(A,85,105)	CEVW221M4
C 767	(A,110,104)	CEVW221M4
C 768	(B,96,108)	CKSRYB105K6R3
C 769	(A,97,96)	CEVQW470M16
C 770	(B,93,93)	CKSRYB104K50
C 771	(A,101,120)	CKSRYB104K50
C 772	(A,97,116)	CEVW101M16
C 773	(B,83,121)	CKSQYB225K10
C 774	(B,91,121)	CKSQYB225K10
C 775	(A,94,120)	CKSRYB103K50
C 776	(B,104,108)	CKSQYB225K10
C 777	(A,85,116)	CEVW101M6R3
C 778	(A,91,114)	CEVW220M6R3
C 779	(B,82,113)	CKSYF106Z10
C 780	(B,86,109)	CKSQYB225K10
C 782	(A,107,121)	CKSRYB104K50
C 783	(A,105,116)	CEVW101M16
C 784	(A,104,121)	CKSRYB103K50
C 785	(B,103,119)	CKSQYB225K10
C 786	(A,119,116)	CEVW101M6R3
C 787	(A,113,116)	CEVW220M6R3
C 788	(B,87,101)	CKSRYB104K50
C 790	(B,77,116)	CKSRYB104K50
C 791	(B,76,114)	CKSYF106Z10
C 792	(B,99,121)	CKSRYB104K50
C 793	(B,102,123)	CKSYF106Z10
C 794	(B,106,120)	CKSYF106Z10
C 795	(A,79,99)	CKSQYB225K10
C 796	(A,74,100)	CKSQYB225K10
C 797	(B,117,132)	CKSYB106K6R3
C 798	(B,108,118)	CKSRYB104K50
C 799	(A,75,107)	CCSRCH100D50
C 800	(B,96,118)	CKSRYB104K50
C 803	(B,24,85)	CKSQYB225K10
C 809	(A,122,134)	CKSRYB103K50
C 810	(A,121,128)	CEVW101M16
C 811	(A,68,69)	CKSRYB104K50
C 812	(A,42,80)	CKSRYB103K50
C 813	(A,48,81)	CEVW101M16
C 814	(A,31,87)	CEVW101M16
C 815	(A,91,53)	CKSRYB103K50
C 816	(A,96,53)	CEVW101M16
C 817	(B,8,54)	CKSRYB273K25
C 818	(B,11,70)	CKSRYB473K50
C 819	(B,8,67)	CCSRCH101J50
C 820	(B,7,67)	CKSRYB104K50
C 821	(B,29,48)	CKSRYB473K50
C 822	(B,27,51)	CCSRCH101J50
C 823	(B,25,52)	CKSRYB104K50
C 824	(B,29,68)	CKSRYB223K50
C 825	(B,27,65)	CCSRCH101J50
C 826	(B,25,64)	CKSRYB104K50
C 827	(B,65,49)	CKSRYB153K50
C 828	(B,62,51)	CCSRCH101J50
C 829	(B,60,52)	CKSRYB104K50

Circuit Symbol and No.		Part No.
C 830	(B,65,67)	CKSRYB153K50
C 831	(B,62,65)	CCSRCH101J50
C 832	(B,60,64)	CKSRYB104K50
C 833	(B,12,70)	CCSRCH330J50
C 834	(B,15,70)	CKSRYB105K10
C 835	(B,19,70) 4.7 µF	CCG1111
C 836	(B,14,58)	CKSRYF104Z25
C 837	(B,8,63) 4.7 µF	CCG1111
C 838	(B,11,58)	CKSRYF474Z16
C 839	(A,14,45) 220 µF/10 V	CCH1409
C 840	(A,16,61) 10 µF	CCG1223
C 841	(B,24,71) 4.7 µF	CCG1111
C 842	(B,25,55)	CKSRYB103K50
C 843	(B,25,56) 47 pF	CCG1231
C 844	(B,25,60)	CKSRYB105K10
C 845	(B,25,61)	CKSRYB103K50
C 846	(B,63,71) 4.7 µF	CCG1111
C 847	(B,60,54)	CKSRYB103K50
C 848	(B,60,56) 47 pF	CCG1231
C 849	(B,60,59)	CKSRYB105K10
C 850	(B,60,62)	CKSRYB103K50
C 851	(A,19,56) 10 µF	CCG1223
C 852	(B,17,48) 4.7 µF	CCG1111
C 853	(B,33,52)	CKSRYF474Z16
C 854	(B,29,52)	CKSRYF104Z25
C 855	(B,29,64)	CKSRYF104Z25
C 856	(B,34,63)	CKSRYF474Z16
C 857	(B,25,46)	CKSYB475K16
C 858	(B,68,52)	CKSRYF474Z16
C 859	(B,65,52)	CKSRYF104Z25
C 860	(B,65,66)	CKSRYF104Z25
C 861	(B,68,64)	CKSRYF474Z16
C 862	(B,68,44)	CKSYB475K16
C 863	(B,77,123)	CKSRYF104Z25
C 864	(B,43,31)	CKSRYB103K50
C 865	(A,26,53) 10 µF	CCG1223
C 866	(A,39,28)	CEVLW470M16
C 867	(B,41,32)	CKSQYB105K16
C 868	(B,37,49) 4.7 µF	CCG1111
C 869	(A,48,53) 330 µF/6.3 V	CCH1366
C 870	(B,38,68) 4.7 µF	CCG1111
C 871	(A,48,62) 220 µF/10 V	CCH1409
C 872	(A,60,55) 10 µF	CCG1223
C 873	(A,60,51) 10 µF	CCG1223
C 874	(A,28,100)	CEVW100M16
C 875	(B,71,67) 4.7 µF	CCG1111
C 876	(A,83,53) 330 µF/6.3 V	CCH1366
C 877	(B,71,50) 4.7 µF	CCG1111
C 878	(A,84,65) 330 µF/6.3 V	CCH1366
C 879	(A,78,127) 220 µF/25 V	CCH1356(P30)
C 880	(B,86,141)	CKSQYB104K16
C 881	(A,81,136) 2 200 µF/16 V	CCH1405(P30)
C 882	(A,71,113)	CEVW101M16
C 883	(B,33,89)	CKSRYB103K50
C 884	(A,72,82)	CEVW101M6R3
C 885	(A,69,91)	CKSRYF104Z25
C 886	(A,27,94)	CEVW100M16
C 887	(A,76,88)	CKSRYF104Z25
C 888	(B,108,138)	CKSRYB103K50
C 889	(B,113,140)	CKSRYB103K50

Circuit Symbol and No.		Part No.
C 890	(B,117,140)	CKSRYF104Z25
C 891	(B,147,120)	CKSRYB104K50
C 892	(B,68,98)	CKSRYB103K50
C 893	(A,59,103)	CEVW101M16
C 894	(B,59,104)	CKSRYB103K50
C 895	(B,30,89)	CKSRYB104K50
C 896	(A,117,137)	CKSRYB103K50
C 897	(A,114,127)	CEVW101M16
C 898	(A,83,122)	CKSQYB104K16
C 899	(A,87,127) 220 µF/25 V	CCH1356(P30)
C 900	(B,89,132)	CKSQYB104K16
C 901	(B,106,140)	CKSRYB103K50
C 903	(A,150,128) 10 000 µF/16 V	CCH1664(P30)
C 904	(B,59,151)	CKSRYB104K50
C 905	(A,67,103)	CEVW101M16
C 906	(A,57,110)	CKSRYF104Z25
C 907	(A,57,113)	CKSRYB473K50
C 908	(B,60,133)	CKSRYF103Z50
C 909	(A,101,137)	CKSRYF104Z25
C 910	(B,58,134)	CKSRYB104K50
C 914	(A,81,147)	CKSRYF104Z25
C 916	(B,53,131)	CKSQYF104Z25
C 919	(B,68,93)	CKSRYB104K50
C 920	(B,120,139)	CKSRYF104Z25
C 950	(B,17,55) 4.7 µF	CCG1111
C 951	(B,17,51) 4.7 µF	CCG1111
C 953	(B,33,49) 4.7 µF	CCG1111
C 954	(A,31,50) 10 µF	CCG1223
C 955	(B,34,68) 4.7 µF	CCG1111
C 956	(A,31,56) 10 µF	CCG1223
C 957	(A,64,54) 10 µF	CCG1223
C 958	(A,64,49) 4.7 µF	CCG1111
C 959	(A,67,54) 10 µF	CCG1223
C 960	(A,67,49) 4.7 µF	CCG1111
C 961	(A,80,149)	CKSRYF104Z25
C 963	(B,53,148)	CKSRYB104K50
C 964	(B,53,150)	CKSRYB105K10
C 971	(B,15,122)	CKSRYB222K50
C 972	(B,16,124)	CKSRYB474K10
C 973	(B,7,122)	CKSQYB105K16
C 974	(A,12,113)	CKSQYB103K50
C 975	(A,17,123)	CEVQW470M16
C 983	(B,74,34)	CKSRYB103K50
C 984	(B,72,34)	CKSRYF104Z25
C 985	(B,63,34)	CKSRYB103K50
C 986	(B,61,34)	CKSRYF104Z25
C 987	(A,91,81)	CKSRYB103K50
C 988	(A,92,81)	CKSRYF104Z25
C 989	(A,91,84)	CKSRYB103K50
C 990	(A,92,84)	CKSRYF104Z25
C 998	(B,26,93)	CKSRYF104Z25
C 999	(B,29,92)	CKSRYB103K50
C 2404	(B,115,89)	CKSRYB104K50
C 2407	(B,112,92)	CKSRYB104K50
C 2412	(A,128,127)	CEVW101M6R3
C 2413	(B,129,136)	CKSRYB105K10
C 2414	(B,128,124)	CKSRYB105K10
C 2418	(B,107,105)	CKSRYB105K6R3
C 2419	(B,131,136)	CCSRCH470J50
C 2420	(B,131,124)	CCSRCH470J50

Circuit Symbol and No.		Part No.
C 2421	(B,110,105)	CKSRYB103K50
C 2422	(B,138,137)	CCSRCH151J50
C 2423	(B,138,123)	CCSRCH151J50
C 2424	(B,111,107)	CCSRCH221J50
C 2425	(B,135,135)	CCSRCH330J50
C 2426	(B,134,125)	CCSRCH330J50
C 2428	(B,118,111)	CKSRYF104Z25
C 2429	(B,114,102)	CKSQYB105K16
C 2431	(B,111,112)	CCSRCH471J50
C 2432	(B,136,130)	CKSRYF104Z25
C 2433	(A,136,127)	CEVQW220M16
C 2434	(B,137,134)	CKSRYB105K6R3
C 2435	(B,137,126)	CKSRYB105K6R3
C 2436	(B,118,113)	CKSRYB105K6R3
C 2437	(A,150,105)	CKSRYB102K50
C 2441	(A,143,104)	CKSRYB105K6R3
C 2442	(B,137,125)	CKSRYB105K6R3
C 2443	(B,137,132)	CKSRYB105K6R3
C 2444	(A,143,110)	CKSRYB105K6R3
C 2445	(A,146,97)	CEVW470M16
C 2446	(A,143,102)	CKSRYB105K6R3
C 2447	(A,147,102)	CKSRYB104K50
C 2448	(A,142,112)	CKSRYB105K6R3
C 2453	(A,140,97)	CKSYB475K16
C 2456	(A,140,116)	CKSYB475K16
C 2457	(A,137,97)	CKSYB475K16
C 2458	(A,137,116)	CKSYB475K16
C 2459	(A,134,97)	CKSYB475K16
C 2460	(A,134,116)	CKSYB475K16
C 2461	(B,155,91)	CKSRYB332K50
C 2462	(A,132,97)	CKSYB475K16
C 2463	(A,132,116)	CKSYB475K16
C 2464	(B,152,91)	CKSRYB474K10
C 2465	(B,149,89)	CKSRYB104K50
C 2466	(A,126,109)	CKSRYB104K50
C 2467	(A,126,110)	CKSRYB104K50
C 2468	(A,126,112)	CCSRCH100D50
C 2469	(B,149,86)	CKSRYB104K50
C 2470	(A,126,95)	CCSRCH100D50
C 2471	(B,145,82)	CKSRYB104K50
C 2472	(A,129,115)	CCSRCH100D50
C 2473	(B,147,86)	CKSRYB104K50
C 2474	(A,126,96)	CCSRCH100D50
C 2475	(A,128,118)	CCSRCH100D50
C 2476	(A,126,99)	CCSRCH100D50
C 2479	(A,156,88)	CEVW101M10
C 2480	(A,122,102)	CEVW100M16
C 2481	(A,149,88)	CEVW101M10
C 2482	(B,154,81)	CKSRYB222K50
C 2483	(B,137,100) 10 µF	CCG1138
C 2484	(B,138,103)	CKSRYB105K6R3
C 2485	(B,140,118) 10 µF	CCG1138
C 2486	(B,138,115)	CKSRYB105K6R3
C 2487	(B,141,104)	CCSRCH101J50
C 2488	(B,141,114)	CCSRCH101J50
C 2489	(B,131,100)	CKSRYB104K50
C 2490	(B,147,104)	CCSRCH101J50
C 2491	(B,147,114)	CCSRCH101J50
C 2492	(B,149,108)	CKSRYB104K50
C 2493	(A,153,104)	CEVW100M16

Circuit Symbol and No.		Part No.
C 2494	(B,33,124)	CKSQYB105K16
C 2495	(B,29,141)	CKSQYB105K16
C 2496	(B,33,126)	CKSRYB105K10
C 2497	(B,32,142)	CKSRYB105K10
C 2498	(B,28,139)	CKSQYB105K16
C 2499	(B,37,124)	CKSQYB105K16
C 2500	(B,31,139)	CKSRYB105K10
C 2501	(B,37,126)	CKSRYB105K10
C 2503	(A,64,125) 2 200 µF/16 V	CCH1405(P30)
C 2504	(A,70,131) 10 µF	CCG1138
C 2505	(B,41,139)	CKSRYB104K50
C 2506	(A,17,129)	CEVW100M16
C 2507	(B,37,141)	CKSYB475K16
C 2508	(B,37,139)	CKSYB475K16
C 2509	(A,51,130)	CEVW330M25
C 2510	(A,45,137)	CKSRYB473K50
C 2511	(B,30,117)	CKSSYF104Z16
C 2551	(B,10,140)	CKSRYB104K50
C 2552	(A,10,141)	CCSRCH150J50
C 2556	(B,130,119)	CKSSYB104K10
C 2557	(B,129,118)	CKSSYB103K16
C 2558	(B,136,117)	CKSRYB103K50
C 2707	(B,40,23)	CKSRYF104Z25
C 2710	(A,38,20)	CKSRYB104K50
C 2711	(B,39,88)	CKSRYF104Z25
C 2713	(A,41,20)	CKSRYB104K50

B

Unit Number :
Unit Name : Keyboard Unit

MISCELLANEOUS

IC 4001	(B,79,9) IC	LC75836WS
IC 4021	(A,100,10) IC	SBX3050-01
Q 4041	(B,100,13) Digital Transistor	DTC143EUA
D 4001	(A,143,6) Diode	MALS068X
D 4002	(A,138,8) Diode	MALS068X
D 4003	(A,142,8) Diode	MALS068X
D 4021	(A,126,8) Diode	UDZS5R6(B)
D 4041	(B,107,6) Diode	DAN202U
D 4042	(A,94,9) White LED	NESW505C-5273
D 4051	(A,21,4) LED	CL-195SR-CD
D 4052	(A,6,5) LED	CL-195SR-CD
D 4053	(A,22,17) LED	CL-195SR-CD
D 4054	(A,6,18) LED	CL-195SR-CD
D 4055	(A,110,6) LED	CL-195SR-CD
D 4056	(A,122,6) LED	CL-195SR-CD
D 4057	(A,135,6) LED	CL-195SR-CD
D 4058	(A,146,20) LED	CL-195SR-CD
D 4059	(A,151,6) LED	CL-195SR-CD
D 4060	(A,163,7) LED	CL-195SR-CD
D 4071	(A,21,3) LED	CL-197HB1-D(CDE)
D 4072	(A,4,5) LED	CL-197HB1-D(CDE)
D 4073	(A,23,17) LED	CL-197HB1-D(CDE)
D 4074	(A,5,18) LED	CL-197HB1-D(CDE)
D 4075	(A,110,4) LED	CL-197HB1-D(CDE)
D 4076	(A,122,4) LED	CL-197HB1-D(CDE)
D 4077	(A,135,4) LED	CL-197HB1-D(CDE)
D 4078	(A,146,19) LED	CL-197HB1-D(CDE)
D 4079	(A,151,4) LED	CL-197HB1-D(CDE)
D 4080	(A,163,4) LED	CL-197HB1-D(CDE)
L 4001	(B,94,14) Inductor	CTF1473
S 4031	(A,156,19) Push Switch	CSG1155
S 4032	(A,14,11) Encoder	CSD1140
S 4033	(A,160,6) Push Switch	CSG1155
S 4034	(A,132,6) Push Switch	CSG1155
S 4035	(A,106,6) Push Switch	CSG1155
S 4036	(A,154,6) Push Switch	CSG1155
S 4037	(A,119,6) Push Switch	CSG1155
LCD4001	(A,30,15) LCD	CAW1950

RESISTORS

R 4001	(B,102,6)	RS1/16S221J
R 4002	(B,102,5)	RS1/16S221J
R 4003	(B,89,4)	RS1/16S221J
R 4004	(B,89,6)	RS1/16S473J
R 4005	(B,86,8)	RS1/16S393J
R 4021	(B,97,10)	RS1/16S101J
R 4022	(B,96,13)	RS1/16S470J
R 4031	(B,33,8)	RS1/16S472J
R 4033	(B,158,15)	RS1/16S0R0J
R 4034	(B,158,10)	RS1/16S392J
R 4035	(B,29,11)	RS1/16S123J
R 4036	(B,152,7)	RS1/16S122J
R 4037	(B,154,6)	RS1/16S222J
R 4041	(A,94,14)	RS1/16S391J
R 4042	(B,97,14)	RS1/16S391J
R 4051	(B,17,7)	RS1/16S271J
R 4052	(B,17,10)	RS1/16S271J
R 4053	(B,15,19)	RS1/16S271J
R 4054	(B,18,16)	RS1/16S271J
R 4055	(B,151,9)	RS1/16S101J
R 4056	(B,154,11)	RS1/16S221J
R 4057	(B,158,8)	RS1/16S101J
R 4058	(B,156,9)	RS1/16S221J
R 4071	(B,10,7)	RS1/16S151J
R 4072	(B,13,8)	RS1/16S101J
R 4073	(B,12,19)	RS1/16S151J
R 4074	(B,16,16)	RS1/16S101J
R 4075	(B,111,7)	RS1/16S151J
R 4076	(B,111,10)	RS1/16S101J
R 4077	(B,156,19)	RS1/16S151J
R 4078	(B,156,18)	RS1/16S101J
R 4079	(B,158,14)	RS1/16S151J
R 4080	(B,156,14)	RS1/16S101J
R 4093	(B,156,6)	RS1/16S0R0J
R 4094	(B,152,4)	RS1/16S0R0J

CAPACITORS

C 4001	(B,88,8)	CCSRCH102J25
C 4002	(B,90,7)	CKSRYB104K50
C 4003	(B,90,9)	CKSRYB104K50
C 4004	(B,87,10) 10 µF	CCG1171
C 4021	(B,100,9) 10 µF	CCG1171
C 4041	(B,94,9)	CKSRYB104K50
C 4071	(B,19,5)	CKSRYB104K50
C 4072	(B,10,4)	CKSRYB104K50
C 4073	(B,26,14)	CKSRYB104K50
C 4074	(B,10,19)	CKSRYB104K50

Circuit Symbol and No.		Part No.
C 4075	(A,112,8)	CKSRYB104K50
C 4076	(A,128,5)	CKSRYB104K50
C 4077	(A,138,5)	CKSRYB104K50
C 4078	(B,151,15)	CKSRYB104K50
C 4079	(A,148,5)	CKSRYB104K50
C 4080	(B,159,12)	CKSRYB104K50

C

Unit Number : CWX3533(UC)
Unit Number : CWX3534(EW5)
Unit Name : GPS Unit

MISCELLANEOUS

IC 401	(A,25,16)	IC	UPC2749T
IC 402	(B,20,27)	IC	UPB1027GS
IC 441	(A,33,30)	IC	NJM2100V
IC 461	(B,29,10)	IC	ADC12H034CIMSAS1
IC 501	(B,50,25)	IC	PD3390A
IC 502	(B,48,9)	IC(UC)	PEH100A8
	(B,48,9)	IC(EW5)	PEH101A8
IC 503	(A,50,29)	IC	M5M5V216ATP-70HI
IC 504	(A,31,14)	IC	MAX6364PUT29
IC 532	(A,47,15)	IC(EW5)	LC72720YVSS1
Q 441	(A,32,22)	Transistor	2SB1132
D 401	(B,11,27)	Diode	1SV314
D 501	(B,35,30)	Diode	RB751V-40
L 401	(B,12,29)	Inductor	CTF1549
L 402	(B,26,22)	Inductor	LCYC1R2K1608
L 403	(B,27,26)	Inductor	LCYC1R2K1608
L 404	(A,21,22)	Inductor	LCSA3N3R1608
L 405	(B,13,24)	Inductor	LCYB22NJ1608
L 406	(B,15,20)	Inductor	LCYB22NJ1608
L 407	(A,19,32)	Inductor	CTF1410
L 408	(B,26,31)	Inductor(UC)	CTF1556
	(B,26,31)	Inductor(EW5)	CTF1410
L 409	(B,19,12)	Inductor	LCYC1R0K2125
L 410	(B,26,17)	Inductor	CTF1547
L 412	(A,25,27)	Inductor	CTF1547
L 413	(A,25,26)	Inductor	CTF1547
L 414	(A,25,32)	Inductor	CTF1547
L 415	(A,26,29)	Inductor	CTF1547
L 416	(A,27,28)	Inductor	CTF1547
L 417	(B,25,20)	Inductor	CTF1547
L 418	(A,14,33)	Inductor	CTF1410
L 441	(B,32,20)	Inductor	CTF1410
L 442	(A,29,25)	Inductor	CTF1410
L 461	(A,29,9)	Inductor	CTF1410
L 462	(A,31,8)	Inductor	CTF1410
L 467	(B,33,17)	Inductor	CTF1547
L 468	(B,32,17)	Inductor	CTF1547
L 469	(A,32,11)	Inductor	CTF1410
L 501	(B,38,17)	Inductor	CTF1410
L 502	(B,36,32)	Inductor	CTF1410
L 503	(B,59,6)	Inductor	CTF1410
L 504	(A,38,33)	Inductor	CTF1410
L 531	(A,53,17)	Inductor	CTF1410
X 401	(A,14,27)	TCXO 16.368 MHz	CWX2381
X 501	(A,38,26)	Radiator 32.768 kHz	CSS1319
X 502	(B,36,26)	Radiator 20.00 MHz	CSS1549
X 532	(A,58,15)	Radiator 4.332 MHz(EW5)	CSS1550
F 401	(A,23,23)	Filter	CTF1548

RESISTORS

R 401	(B,11,26)	RS1/16SS472J
R 402	(B,12,30)	RS1/16SS472J
R 403	(B,14,32)	RS1/16SS122J
R 404	(B,14,30)	RS1/16SS622J
R 405	(A,23,26)	RS1/16SS100J
R 406	(B,27,29)	RS1/16S271J
R 407	(B,25,18)	RS1/16S2R2J
R 441	(A,30,27)	RN1/16SC10R0D
R 442	(B,33,24)	RN1/16SE1501D
R 443	(B,31,24)	RN1/16SE2402D
R 444	(B,31,26)	RN1/16SE3302D
R 445	(B,32,33)	RN1/16SE4702D
R 446	(B,30,32)	RN1/16SE4702D
R 447	(A,33,25)	RS1/16S432J
R 448	(B,32,30)	RN1/16SE1002D
R 449	(B,33,32)	RN1/16SE2202D
R 450	(B,32,32)	RN1/16SE3302D
R 451	(A,29,32)	RS1/16S103J
R 452	(B,34,27)	RS1/16SS102J
R 454	(B,34,26)	RS1/16SS102J
R 460	(B,22,13)	RS1/16S0R0J
R 461	(A,37,5)	RS1/16SS102J
R 462	(A,38,9)	RS1/16SS102J
R 463	(B,36,12)	RAB4CQ102J
R 464	(A,35,12)	RAB4CQ333J
R 465	(A,39,8)	RS1/16SS102J
R 468	(A,58,8) (EW5)	RS1/16SS471J
R 469	(A,58,6) (EW5)	RAB4CQ471J
R 470	(B,35,7)	RAB4CQ471J
R 471	(B,35,4)	RAB4CQ104J
R 477	(B,31,17)	RS1/16SS222J
R 478	(B,30,16)	RS1/16SS222J
R 479	(B,28,15)	RS1/16SS222J
R 480	(B,29,17)	RS1/16SS332J
R 481	(B,30,17)	RS1/16SS332J
R 482	(A,38,6)	RS1/16SS223J
R 483	(A,38,5)	RS1/16SS473J
R 501	(B,39,27)	RS1/16SS0R0J
R 502	(B,38,29)	RS1/16SS102J
R 503	(B,39,26)	RS1/16SS154J
R 508	(B,60,14) (UC)	RS1/16SS103J
	(B,60,14) (EW5)	RS1/16SS472J
R 509	(B,34,15)	RS1/16SS473J
R 510	(A,38,7)	RS1/16SS102J
R 511	(A,34,19)	RS1/16SS103J
R 512	(B,39,30)	RS1/16SS473J
R 513	(B,60,16)	RS1/16SS103J
R 514	(B,39,29)	RS1/16SS473J
R 515	(A,30,12)	RS1/16SS473J
R 517	(B,39,22)	RS1/16SS103J
R 519	(B,39,21)	RS1/16SS473J
R 521	(B,37,29)	RS1/16SS473J
R 532	(A,43,10) (EW5)	RS1/16SS104J
R 533	(A,40,18) (UC)	RS1/16SS103J

Circuit Symbol and No.			Part No.
	(A,40,18)	(EW5)	RS1/16SS332J
R 534	(A,41,19)		RS1/16SS103J
R 535	(A,38,13)		RS1/16SS103J
R 536	(A,39,18)		RS1/16SS0R0J
R 537	(A,38,15)	(EW5)	RS1/16S0R0J
R 538	(A,38,17)	(EW5)	RS1/16SS0R0J

CAPACITORS

C 401	(A,25,13)		CCSRCH100D50
C 402	(A,24,20)		CCSSCH101J50
C 403	(A,27,16)		CKSSYB104K10
C 404	(A,20,24)		CCSSCH101J50
C 405	(B,14,27)		CCSRUJ220J50
C 406	(B,14,29)		CCSRUJ220J50
C 407	(B,13,32)		CKSSYB333K16
C 408	(B,12,32)		CKSSYB182K50
C 409	(A,21,29)		CSZS100M6R3
C 410	(B,28,32)		CKSSYB103K16
C 411	(A,21,27)		CKSSYB102K50
C 412	(A,21,28)		CKSSYB102K50
C 413	(A,20,31)		CKSSYB104K10
C 414	(A,24,32)		CKSSYB104K10
C 415	(A,25,30)		CKSSYB104K10
C 416	(A,24,28)		CKSSYB104K10
C 417	(B,25,22)		CKSSYB104K10
C 418	(A,21,32)		CKSSYB102K50
C 419	(B,39,32)		CKSSYB104K10
C 420	(A,14,32)		CKSSYB104K10
C 421	(B,26,27)		CKSSYB102K50
C 422	(B,25,26)		CKSSYB103K16
C 423	(B,26,24)		CKSSYB104K10
C 424	(B,27,22)		CCSRCH102J50
C 425	(B,29,23)		CCSRCH271J50
C 426	(B,28,26)		CCSRCH102J50
C 427	(B,25,25)		CKSSYB104K10
C 428	(B,15,24)		CKSSYB103K16
C 429	(B,12,24)		CCSRCH301J50
C 430	(B,13,22)		CCSSCH120J50
C 431	(B,14,20)		CCSRCH301J50
C 432	(B,16,22)		CKSSYB103K16
C 433	(B,19,9)		CCSRCH101J50
C 434	(B,19,14)		CKSSYB102K50
C 435	(B,20,14)		CKSSYB103K16
C 436	(B,31,22)		CKSSYB104K10
C 441	(B,31,28)		CKSRYB104K16
C 442	(A,30,29)		CCSRCH101J50
C 443	(A,30,32)		CKSRYB104K16
C 444	(B,33,22)		CKSSYB103K16
C 445	(A,29,30)		CKSSYB104K10
C 461	(A,28,5)	22 µF/6.3 V	CCH1408
C 462	(A,31,9)		CKSRYB104K16
C 463	(A,27,9)		CKSRYB104K16
C 464	(B,31,5)		CKSSYB103K16
C 465	(B,31,4)		CKSSYB103K16
C 466	(B,32,4)		CKSSYB103K16
C 467	(B,33,4)		CKSSYB103K16
C 468	(A,30,11)		CKSSYB104K10
C 469	(B,27,4)		CSZS100M10
C 470	(B,26,15)		CKSSYB104K10

Circuit Symbol and No.			Part No.
C 471	(B,37,6)		CCSSCH101J50
C 501	(B,39,19)		CKSSYB104K10
C 502	(B,37,22)		CCSRCH150J50
C 503	(B,38,22)		CCSRCH150J50
C 504	(B,40,17)		CKSSYB104K10
C 506	(B,60,19)		CKSSYB104K10
C 507	(B,60,21)		CKSSYB104K10
C 508	(B,60,26)		CKSSYB104K10
C 509	(B,60,30)		CKSSYB104K10
C 511	(B,41,34)		CKSSYB104K10
C 512	(B,38,31)		CKSSYB104K10
C 514	(A,31,17)		CSZS100M6R3
C 515	(B,39,24)		CKSSYB104K10
C 516	(B,59,11)		CKSSYB104K10
C 517	(A,51,21)		CKSSYB104K10
C 518	(A,39,32)		CKSSYB104K10
C 535	(A,55,15)	(EW5)	CSZS100M6R3
C 539	(A,55,19)	(EW5)	CCSRCH100D50
C 540	(A,53,12)	(EW5)	CCSRCH100D50
C 541	(A,47,10)	(EW5)	CCSRCH561J50
C 542	(A,45,10)	(EW5)	CKSSYB104K10
C 543	(A,40,12)	(EW5)	CSZS100M6R3
C 544	(A,50,10)	(EW5)	CCSRCH331J50
C 545	(A,53,15)	(EW5)	CKSSYB104K10

GH

Monitor Unit
Consists of
Monitor PCB
Upper PCB

Unit Number : CWN2304
Unit Name : Monitor Unit

MISCELLANEOUS

IC 5101	(A,66,94)	IC	S-1131B15UC-N4A
IC 5102	(A,66,99)	IC	S-1131B25UC-N4K
IC 5103	(A,74,75)	IC	BD6171KV
IC 5201	(A,66,34)	IC	TA78L05F
IC 5202	(A,46,32)	IC	TC7SH08FUS1
IC 5203	(A,46,27)	IC	TC7SH08FUS1
IC 5204	(A,46,18)	IC	OZ961ISN
IC 5331	(A,85,109)	IC	TC7SH08FUS1
IC 5371	(A,94,105)	IC	TC7SH08FUS1
IC 5401	(A,37,93)	IC	TC90A96BFGSING
IC 5502	(A,14,80)	IC	TC7SET04FUS1
IC 5503	(A,12,85)	IC	NJM2100V
IC 5504	(A,56,83)	IC	TC7SET04FUS1
IC 5505	(A,15,74)	IC	TC7S66FU
IC 5506	(A,57,76)	IC	TC74VHC04FTS1
IC 5507	(A,11,66)	IC	NJM082BV
IC 5602	(A,140,96)	IC	S-80835CNNB-B8U
IC 5603	(A,125,83)	IC	PE5607A
IC 5604	(A,144,79)	IC	BR93L56FJ-W
IC 5606	(A,109,80)	IC	TC7SH08FUS1
IC 5607	(A,12,89)	IC	TC7SH08FUS1
Q 5101	(A,75,63)	Chip Transistor	DTC114EUA
Q 5102	(A,85,80)	FET	RSQ035P03
Q 5103	(A,84,73)	FET	RSQ035P03

Circuit Symbol and No.		Part No.
Q 5201	(A,78,18) Transistor	UMX2N
Q 5202	(A,62,29) Transistor	2SC4617
Q 5203	(A,59,29) Transistor	2SC4617
Q 5204	(A,41,30) Transistor	2SA1774
Q 5205	(A,82,21) Transistor	2SC4617
Q 5206	(A,85,21) Transistor	2SC4617
Q 5301	(A,74,109) Transistor	2SC4081
Q 5302	(A,62,111) Transistor	2SA1576A
Q 5401	(A,39,113) Transistor	2SC4617
Q 5501	(A,9,55) Transistor	UMX2N
Q 5502	(A,13,55) Transistor	UMT2N
Q 5602	(A,109,96) Transistor	2SA1576A
Q 5603	(A,106,95) Chip Transistor	DTC114EUA
Q 5604	(A,115,96) Transistor	2SA1576A
Q 5605	(A,112,95) Chip Transistor	DTC114EUA
Q 5611	(A,127,69) Transistor	2SC4617
Q 5701	(A,137,63) Transistor	UMF5N
Q 5702	(A,141,63) Transistor	UMF5N
Q 5703	(A,128,63) Transistor	FMG12
Q 5705	(A,70,8) FET	TS8M1
Q 5706	(A,62,8) FET	TS8M1
D 5005	(A,122,33) Diode	UDZS5R6(B)
D 5006	(A,114,39) Diode	UDZS5R6(B)
D 5007	(A,119,39) Diode	UDZS5R6(B)
D 5008	(A,122,37) Diode	UDZS5R6(B)
D 5101	(A,73,95) Diode	RB500V-40
D 5102	(A,73,100) Diode	RB500V-40
D 5103	(A,87,85) Diode	RSX201L-30
D 5104	(A,87,70) Diode	RB160M-30
D 5105	(A,83,64) Diode	RB548W
D 5106	(A,81,64) Diode	RB548W
D 5107	(A,72,64) Diode	RB548W
D 5108	(A,70,64) Diode	RB548W
D 5109	(A,68,64) Diode	RB548W
D 5201	(A,62,26) Diode	UDZS6R2(B)
D 5202	(A,41,36) Diode	1SS355
D 5203	(A,48,30) Diode	RB751V-40
D 5204	(A,67,6) Diode	UDZS6R2(B)
D 5205	(A,57,5) Diode	UDZS6R2(B)
D 5206	(A,82,23) Diode	UDZS8R2(B)
D 5207	(A,101,7) Diode	MA147
D 5208	(A,98,8) Diode	UDZS6R2(B)
D 5209	(A,107,7) Diode	MA147
D 5271	(B,38,10) LED	CL-197HB1-D(CDE)
D 5272	(B,52,10) LED	CL-197HB1-D(CDE)
D 5273	(B,37,10) LED	CL-195SR-CD
D 5274	(B,50,10) LED	CL-195SR-CD
D 5275	(B,64,10) LED	CL-195SR-CD
D 5701	(A,132,63) Diode	MA111
D 5933	(B,65,10) LED	CL-197HB1-D(CDE)
D 5971	(A,46,11) LED	CL-197HB1-D(CDE)
D 5972	(A,57,11) LED	CL-197HB1-D(CDE)
D 5981	(A,46,13) LED	CL-195SR-CD
D 5982	(A,57,13) LED	CL-195SR-CD
L 5101	(A,55,107) Inductor	CTF1635
L 5102	(A,93,95) Choke Coil 10 µH	CTH1249
L 5103	(A,84,90) Choke Coil 18 µH	CTH1250
L 5104	(A,77,54) Inductor	CTF1488
L 5105	(A,89,65) Choke Coil 68 µH	CTH1318
L 5107	(A,84,61) Inductor	DTL1096

Circuit Symbol and No.		Part No.
L 5108	(A,21,109) Inductor	CTF1635
L 5109	(A,58,107) Inductor	CTF1635
L 5110	(A,60,89) Inductor	CTF1635
L 5111	(A,60,92) Inductor	CTF1635
L 5112	(A,57,101) Inductor	CTF1635
L 5113	(A,84,97) Choke Coil 18 µH	CTH1250
L 5114	(A,65,84) Inductor	CTF1635
L 5115	(A,93,63) Inductor	CTF1635
L 5116	(A,63,63) Inductor	CTF1635
L 5201	(A,80,33) Coil	CTH1338
L 5202	(A,43,29) Inductor	CTF1306
L 5301	(A,69,112) Inductor	LCKAW220J2520
L 5302	(A,65,112) Inductor	LCKAW270J2520
L 5303	(A,59,103) Inductor	LCKAW101J2520
L 5331	(A,81,107) Inductor	CTF1635
L 5371	(A,96,102) Inductor	CTF1306
L 5401	(A,48,111) Inductor	CTF1306
L 5402	(A,42,113) Inductor	CTF1306
L 5403	(A,40,114) Inductor	CTF1306
L 5404	(A,34,112) Inductor	CTF1306
L 5405	(A,24,110) Inductor	CTF1306
L 5406	(A,33,112) Inductor	CTF1306
L 5407	(A,26,110) Inductor	CTF1306
L 5408	(A,36,112) Inductor	CTF1306
L 5409	(A,52,109) Inductor	CTF1306
L 5410	(A,50,107) Inductor	CTF1306
L 5411	(A,50,111) Inductor	CTF1306
L 5412	(A,54,103) Inductor	CTF1306
L 5413	(A,21,107) Inductor	CTF1306
L 5414	(A,20,106) Inductor	CTF1306
L 5415	(A,20,104) Inductor	CTF1306
L 5416	(A,17,103) Inductor	CTF1306
L 5417	(A,17,102) Inductor	CTF1306
L 5418	(A,54,100) Inductor	CTF1306
L 5419	(A,20,101) Inductor	CTF1306
L 5420	(A,54,98) Inductor	CTF1306
L 5421	(A,17,98) Inductor	CTF1306
L 5422	(A,19,96) Inductor	CTF1306
L 5423	(A,15,96) Inductor	CTF1306
L 5424	(A,15,95) Inductor	CTF1306
L 5425	(A,54,94) Inductor	CTF1306
L 5426	(A,19,93) Inductor	CTF1306
L 5427	(A,19,92) Inductor	CTF1306
L 5428	(A,54,91) Inductor	CTF1306
L 5429	(A,19,90) Inductor	CTF1306
L 5430	(A,19,89) Inductor	CTF1306
L 5431	(A,54,88) Inductor	CTF1306
L 5432	(A,54,86) Inductor	CTF1306
L 5433	(A,19,87) Inductor	CTF1306
L 5434	(A,19,85) Inductor	CTF1306
L 5435	(A,19,83) Inductor	CTF1306
L 5436	(A,19,82) Inductor	CTF1306
L 5437	(A,54,83) Inductor	CTF1306
L 5438	(A,19,80) Inductor	CTF1306
L 5439	(A,47,73) Ferrite Bead	CTF1528
L 5440	(A,47,75) Ferrite Bead	CTF1528
L 5441	(A,46,74) Ferrite Bead	CTF1528
L 5442	(A,46,76) Ferrite Bead	CTF1528
L 5443	(A,45,74) Ferrite Bead	CTF1528
L 5444	(A,45,76) Ferrite Bead	CTF1528

Circuit Symbol and No.		Part No.
L 5445	(A,43,74) Inductor	CTF1306
L 5446	(A,39,77) Ferrite Bead	CTF1528
L 5447	(A,39,75) Ferrite Bead	CTF1528
L 5448	(A,38,77) Ferrite Bead	CTF1528
L 5449	(A,38,75) Ferrite Bead	CTF1528
L 5450	(A,37,77) Ferrite Bead	CTF1528
L 5451	(A,37,75) Ferrite Bead	CTF1528
L 5452	(A,36,74) Inductor	CTF1306
L 5453	(A,35,75) Ferrite Bead	CTF1528
L 5454	(A,35,77) Ferrite Bead	CTF1528
L 5455	(A,34,73) Ferrite Bead	CTF1528
L 5456	(A,33,77) Ferrite Bead	CTF1528
L 5457	(A,33,75) Ferrite Bead	CTF1528
L 5458	(A,33,73) Ferrite Bead	CTF1528
L 5459	(A,28,75) Ferrite Bead	CTF1528
L 5460	(A,29,77) Ferrite Bead	CTF1528
L 5461	(A,27,75) Ferrite Bead	CTF1528
L 5462	(A,27,77) Ferrite Bead	CTF1528
L 5463	(A,25,75) Ferrite Bead	CTF1528
L 5464	(A,26,77) Ferrite Bead	CTF1528
L 5465	(A,25,77) Ferrite Bead	CTF1528
L 5466	(A,48,75) Inductor	CTF1306
L 5467	(A,31,74) Inductor	CTF1306
L 5468	(A,30,74) Inductor	CTF1306
L 5469	(A,50,74) Inductor	CTF1306
L 5470	(A,42,74) Inductor	CTF1306
L 5471	(A,41,74) Inductor	CTF1306
L 5472	(A,19,78) Inductor	LCKAW101J2520
L 5490	(A,21,99) Inductor	CTF1306
L 5491	(A,18,99) Inductor	CTF1306
L 5492	(A,21,98) Inductor	CTF1306
L 5501	(A,15,77) Inductor	CTF1306
L 5502	(A,7,79) Inductor	LCKAW101J2520
L 5503	(A,9,75) Inductor	LCKAW101J2520
L 5504	(A,53,62) Inductor	CTF1306
L 5505	(A,22,70) Inductor	DTL1096
L 5506	(A,15,65) Inductor	DTL1096
L 5508	(A,49,72) Inductor	CTF1306
L 5509	(A,28,70) Inductor	CTF1635
L 5510	(A,20,70) Inductor	CTF1635
L 5511	(A,62,82) Inductor	CTF1635
L 5601	(A,124,62) Inductor	CTF1635
L 5607	(A,15,92) Inductor	CTF1635
L 5701	(A,137,58) Inductor	CTF1379
T 5201	(B,92,10) Transformer	CTT1130
TH5601	(A,118,107) Thermistor	CCX1051
X 5401	(A,45,112) Crystal Resonator 42 MHz	CSS1604
X 5601	(A,126,96) Radiator 12.58 MHz	CSS1601
S 5251	(B,65,14) Push Switch	CSG1155
S 5252	(B,51,14) Push Switch	CSG1155
S 5253	(B,37,14) Push Switch	CSG1155
VR5201	(A,37,24) Semi-fixed 15 kohm(B)	CCP1397

RESISTORS

R 5001	(A,117,34)	RS1/16S0R0J
R 5002	(A,116,34)	RS1/16S0R0J
R 5003	(A,114,34)	RS1/16S0R0J
R 5004	(A,119,34)	RS1/16S0R0J
R 5005	(A,99,48)	RS1/16SS0R0J
R 5006	(A,100,48)	RS1/16SS0R0J
R 5008	(A,98,48)	RS1/16SS0R0J
R 5015	(A,108,100)	RS1/16S101J
R 5016	(A,107,99)	RS1/16S0R0J
R 5019	(A,111,97)	RS1/16S0R0J
R 5020	(A,114,99)	RS1/16S0R0J
R 5101	(A,70,94)	RS1/16SS684J
R 5102	(A,70,99)	RS1/16SS474J
R 5103	(A,70,89)	RS1/16S0R0J
R 5104	(A,72,90)	RS1/16S6801F
R 5105	(A,89,95)	RS1/16S0R0J
R 5106	(A,80,88)	RS1/16S0R0J
R 5107	(A,75,90)	RS1/16S201J
R 5108	(A,81,86)	RS1/16S1001D
R 5109	(A,71,88)	RS1/16S1001D
R 5110	(A,75,88)	RS1/16S682J
R 5111	(A,66,81)	RS1/16S5100F
R 5112	(A,81,84)	RS1/16S1600D
R 5113	(A,78,87)	RS1/16S102J
R 5114	(A,69,82)	RS1/16S0R0J
R 5115	(A,78,85)	RS1/16S2700D
R 5116	(A,66,82)	RS1/16S2001F
R 5117	(A,73,85)	RS1/16S684J
R 5118	(A,77,82)	RS1/16S333J
R 5119	(A,73,82)	RS1/16S123J
R 5120	(A,82,81)	RS1/16S273J
R 5121	(A,83,83)	RS1/16S150J
R 5122	(A,87,73)	RS1/16S150J
R 5123	(A,82,75)	RS1/16S563J
R 5124	(A,74,67)	RS1/16S5102D
R 5125	(A,68,68)	RS1/16S0R0J
R 5126	(A,67,70)	RS1/16S1002F
R 5127	(A,76,65)	RS1/16S4300D
R 5128	(A,66,69)	RS1/16S1802F
R 5129	(A,77,67)	RS1/16S1802D
R 5130	(A,66,66)	RS1/16S2202F
R 5131	(A,66,64)	RS1/16S0R0J
R 5132	(A,78,64)	RS1/16S3303D
R 5133	(A,81,69)	RS1/16S0R0J
R 5134	(A,79,61)	RS1/16S0R0J
R 5201	(A,49,33)	RS1/16S103J
R 5202	(A,60,27)	RS1/16S103J
R 5203	(A,62,28)	RS1/16S104J
R 5204	(A,46,34)	RS1/16S103J
R 5205	(A,58,32)	RS1/16S473J
R 5206	(A,42,33)	RS1/16S472J
R 5207	(A,60,32)	RS1/16S105J
R 5208	(A,40,33)	RS1/16S473J
R 5209	(A,41,27)	RS1/16S333J
R 5210	(A,50,25)	RS1/16S513J
R 5211	(A,48,27)	RS1/16S103J
R 5212	(A,54,15)	RS1/16S105J
R 5213	(A,45,29)	RS1/16S102J
R 5214	(A,38,20)	RS1/16S5602D
R 5215	(A,65,6)	RS1/16S103J
R 5216	(A,59,5)	RS1/16S103J
R 5217	(A,79,20)	RS1/16S103J
R 5218	(A,86,18)	RS1/16S621J
R 5219	(A,79,22)	RS1/16S104J
R 5220	(A,85,24)	RS1/16S473J

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
R 5221	(A,83,16)	RS1/16S621J	R 5503	(A,7,86)	RS1/16S101J
R 5222	(A,82,18)	RS1/16S101J	R 5504	(A,17,75)	RS1/16SS681J
R 5223	(A,81,18)	RS1/16S101J	R 5506	(A,13,82)	RS1/16S101J
R 5224	(A,75,18)	RS1/16S821J	R 5507	(A,13,71)	RS1/16SS472J
R 5225	(A,95,8)	RS1/16S471J	R 5508	(A,8,65)	RS1/16S3302F
R 5227	(A,40,19)	RS1/16S0R0J	R 5509	(A,57,64)	RS1/16S6800D
R 5253	(B,56,13)	RS1/16S122J	R 5510	(A,11,60)	RS1/16S223J
R 5254	(B,42,13)	RS1/16S222J	R 5512	(A,52,64)	RS1/16S27R0D
R 5271	(A,31,9)	RS1/16S331J	R 5513	(A,54,64)	RS1/16S10R0D
R 5272	(A,32,9)	RS1/16S331J	R 5514	(A,56,63)	RS1/16S1000D
R 5273	(A,34,9)	RS1/16S331J	R 5515	(A,59,66)	RS1/16S82R0F
R 5274	(A,31,5)	RS1/16S221J	R 5516	(A,58,70)	RS1/16S56R0D
R 5275	(A,32,5)	RS1/16S271J	R 5517	(A,57,70)	RS1/16S47R0D
R 5279	(A,31,11)	RS1/16S181J	R 5518	(A,56,70)	RS1/16S36R0D
R 5280	(A,32,11)	RS1/16S271J	R 5519	(A,54,70)	RS1/16S33R0F
R 5301	(A,77,112)	RS1/16S0R0J	R 5520	(A,53,70)	RS1/16S27R0D
R 5302	(A,77,110)	RS1/16S104J	R 5521	(A,51,70)	RS1/16S1800D
R 5303	(A,74,107)	RS1/16S153J	R 5522	(A,50,70)	RS1/16S82R0F
R 5304	(A,71,107)	RS1/16S104J	R 5523	(A,49,70)	RS1/16S12R0F
R 5305	(A,69,109)	RS1/16S681J	R 5524	(A,8,62)	RS1/16S5602F
R 5306	(A,71,109)	RS1/16S471J	R 5525	(A,9,60)	RS1/16S101J
R 5307	(A,64,109)	RS1/16S272J	R 5526	(A,8,52)	RS1/16SS153J
R 5308	(A,60,111)	RS1/16S392J	R 5527	(A,14,52)	RS1/16S153J
R 5331	(A,89,109)	RS1/16S103J	R 5528	(A,11,55)	RS1/16SS0R0J
R 5332	(A,88,107)	RS1/16SS0R0J	R 5529	(A,12,52)	RS1/16S0R0J
R 5333	(A,81,109)	RS1/16S101J	R 5530	(A,32,66)	RS1/16SS102J
R 5351	(A,101,62)	RS1/16S75R0D	R 5531	(A,9,58)	RS1/16S100J
R 5352	(A,103,66)	RS1/16S220J	R 5532	(A,11,57)	RS1/16SS100J
R 5353	(A,103,59)	RS1/16S75R0D	R 5533	(A,9,52)	RS1/16S0R0J
R 5354	(A,105,63)	RS1/16S220J	R 5534	(A,11,52)	RS1/16S0R0J
R 5355	(A,105,56)	RS1/16S75R0D	R 5601	(A,107,92)	RS1/16S273J
R 5356	(A,107,59)	RS1/16S220J	R 5602	(A,109,94)	RS1/16S473J
R 5357	(A,32,115)	RS1/16SS105J	R 5603	(A,15,88)	RS1/16S471J
R 5358	(A,33,115)	RS1/16SS105J	R 5604	(A,136,93)	RS1/16SS0R0J
R 5359	(A,34,115)	RS1/16SS105J	R 5605	(A,113,92)	RS1/16S273J
R 5371	(A,98,104)	RS1/10S103J	R 5606	(A,115,93)	RS1/16S473J
R 5372	(A,96,104)	RS1/16SS0R0J	R 5607	(A,139,93)	RS1/16S103J
R 5373	(A,91,107)	RS1/16S101J	R 5608	(A,137,93)	RS1/16SS0R0J
R 5401	(A,44,108)	RS1/16SS391J	R 5609	(A,133,98)	RS1/16S104J
R 5402	(A,59,113)	RS1/16S0R0J	R 5610	(A,113,82)	RAB4CQ471J
R 5403	(A,45,108)	RS1/16SS105J	R 5611	(A,126,71)	RS1/16S473J
R 5404	(A,39,110)	RS1/16SS331J	R 5612	(A,126,67)	RS1/16S103J
R 5405	(A,37,111)	RS1/16SS152J	R 5614	(A,113,78)	RAB4CQ471J
R 5407	(A,18,106)	RS1/16S0R0J	R 5619	(A,138,79)	RS1/16S471J
R 5408	(A,17,105)	RS1/16S101J	R 5620	(A,125,70)	RS1/16S471J
R 5410	(A,15,103)	RS1/16S101J	R 5621	(A,121,66)	RS1/16S470J
R 5414	(A,17,93)	RS1/16SS333J	R 5623	(A,121,69)	RS1/16S470J
R 5418	(A,44,70)	RAB4CQ221J	R 5624	(A,120,69)	RS1/16S272J
R 5419	(A,41,70)	RAB4CQ221J	R 5625	(A,120,66)	RS1/16S272J
R 5420	(A,35,71)	RAB4CQ221J	R 5630	(A,118,108)	RS1/16S153J
R 5421	(A,22,76)	RAB4CQ221J	R 5631	(A,133,95)	RS1/16S101J
R 5422	(A,47,71)	RS1/16SS221J	R 5633	(A,116,66)	RAB4CQ473J
R 5423	(A,46,70)	RS1/16SS221J	R 5636	(A,138,81)	RAB4CQ102J
R 5424	(A,38,73)	RS1/16SS221J	R 5637	(A,144,75)	RS1/16S473J
R 5425	(A,37,73)	RS1/16SS221J	R 5638	(A,141,84)	RS1/16S473J
R 5426	(A,33,71)	RS1/16SS221J	R 5640	(A,130,70)	RS1/16S471J
R 5427	(A,32,71)	RS1/16SS221J	R 5641	(A,121,96)	RAB4CQ472J
R 5428	(A,30,72)	RS1/16SS221J	R 5646	(A,131,70)	RS1/16S102J
R 5429	(A,28,73)	RS1/16SS221J	R 5651	(A,119,62)	RS1/16S0R0J
R 5430	(A,25,74)	RS1/16SS221J	R 5652	(A,113,85)	RAB4CQ471J

Circuit Symbol and No.		Part No.
R 5659	(A,124,106)	RS1/16S473J
R 5674	(A,138,84)	RS1/16S473J
R 5675	(A,138,86)	RS1/16S473J
R 5678	(A,141,92)	RS1/16S473J
R 5680	(A,143,92)	RS1/16S473J
R 5683	(A,145,87)	RS1/16S473J
R 5684	(A,146,92)	RS1/16S473J
R 5692	(A,131,98)	RS1/16S104J
R 5693	(A,131,95)	RS1/16S471J
R 5694	(A,130,95)	RS1/16S471J
R 5696	(A,130,98)	RS1/16S473J
R 5699	(A,113,88)	RS1/16S104J
R 5701	(A,140,66)	RS1/16S0R0J
R 5702	(A,137,66)	RS1/16S0R0J
R 5703	(A,137,60)	RS1/16S103J
R 5704	(A,141,60)	RS1/16S103J
R 5705	(A,137,59)	RS1/16S103J
R 5706	(A,141,59)	RS1/16S103J
R 5707	(A,134,59)	RS1/16S105J
R 5708	(A,131,59)	RS1/16S105J
R 5709	(A,129,59)	RS1/16S102J
R 5710	(A,127,59)	RS1/16S102J
R 5711	(A,122,105)	RS1/16S104J
R 5801	(A,8,92)	RS1/16SS104J
R 5802	(A,9,92)	RS1/16SS104J
R 5803	(A,10,92)	RS1/16SS104J
R 5811	(A,11,109)	RS1/16SS473J
R 5812	(A,10,109)	RS1/16SS473J
R 5813	(A,7,92)	RS1/16SS473J
R 5814	(A,9,109)	RS1/16SS472J
R 5849	(A,111,38)	RS1/16S0R0J
R 5971	(A,53,6)	RS1/16S151J
R 5972	(A,50,6)	RS1/16S391J
R 5981	(A,53,8)	RS1/16S271J
R 5982	(A,50,8)	RS1/16S271J

CAPACITORS

C 5001	(A,121,32)	CKSRYB102K50
C 5002	(A,116,39)	CKSRYB102K50
C 5003	(A,120,39)	CKSRYB102K50
C 5004	(A,121,35)	CKSRYB102K50
C 5101	(A,55,111)	CKSYB105K16
C 5102	(A,20,112)	CSZSR330M10
C 5103	(A,57,111)	CKSYB105K16
C 5104	(A,76,96)	CKSSYB104K10
C 5105	(A,60,87)	CSZS100M16
C 5106	(A,57,92)	CSZSR220M10
C 5107	(A,79,98)	CSZSR330M10
C 5108	(A,57,97)	CSZSR220M10
C 5109	(A,65,91)	CSZS100M10
C 5110	(A,63,89)	CKSSYB104K10
C 5111	(A,65,103)	CSZS100M10
C 5112	(A,65,105)	CKSSYB104K10
C 5113	(A,70,93)	CKSSYB104K10
C 5114	(A,71,95)	CKSRYB105K10
C 5115	(A,70,97)	CKSSYB104K10
C 5116	(A,71,100)	CKSQYF105Z25
C 5117	(A,94,89)	CSZS100M16
C 5118	(A,95,88)	CKSRYB105K10

Circuit Symbol and No.			Part No.
C 5119	(A,65,86)		CKSRYB104K50
C 5121	(A,73,88)		CKSRYB473K50
C 5122	(A,89,89)	68 µF/6.3 V	CCH1440
C 5123	(A,78,89)		CCSRCH331J50
C 5124	(A,92,90)		CKSRYB104K50
C 5125	(A,70,85)		CKSRYB104K50
C 5126	(A,68,86)		CSZS100M16
C 5127	(A,75,85)		CKSRYB103K50
C 5128	(A,77,85)		CCSRCH101J50
C 5130	(A,78,82)		CKSRYB103K50
C 5131	(A,75,82)		CKSRYB393K16
C 5132	(A,71,85)		CKSRYB393K16
C 5133	(A,93,81)		CKSRYB103K50
C 5134	(A,80,81)		CKSRYB104K50
C 5135	(A,88,81)	10 µF	CCG1223
C 5136	(A,66,78)		CKSRYB393K16
C 5137	(A,91,81)	10 µF	CCG1223
C 5138	(A,76,56)		CKSRYB224K16
C 5139	(A,81,78)		CKSRYB105K10
C 5140	(A,81,77)		CKSRYB102K50
C 5141	(A,91,73)	10 µF	CCG1223
C 5143	(A,88,73)		CKSRYB103K50
C 5144	(A,66,74)		CKSRYB102K50
C 5145	(A,80,75)		CKSRYB104K50
C 5146	(A,65,71)		CKSRYB105K10
C 5147	(A,82,71)		CKSRYB105K10
C 5148	(A,80,71)		CKSRYB103K50
C 5149	(A,71,68)		CKSRYB104K50
C 5150	(A,76,60)		CKSYB475K16
C 5151	(A,81,67)		CKSRYB472K50
C 5152	(A,79,67)		CKSRYB472K50
C 5153	(A,96,69)		CKSRYB104K50
C 5154	(A,76,59)		CKSRYB103K50
C 5155	(A,72,66)		CKSRYB104K50
C 5156	(A,71,66)		CKSRYB104K50
C 5157	(A,69,66)		CKSRYB104K50
C 5158	(A,94,68)	33 µF/10 V	CCH1586
C 5159	(A,94,60)		CKSQYF105Z25
C 5160	(A,81,61)		CKSRYB104K50
C 5161	(A,83,61)		CKSQYF105Z25
C 5163	(A,70,60)		CKSQYF105Z25
C 5164	(A,68,60)		CKSQYF105Z25
C 5165	(A,66,60)		CKSQYF225Z16
C 5166	(A,64,60)		CKSQYF225Z16
C 5167	(A,84,68)		CKSRYB105K10
C 5168	(A,68,66)		CKSRYB105K10
C 5169	(A,83,58)		CKSQYF105Z25
C 5170	(A,62,60)		CKSQYF105Z25
C 5201	(A,77,26)	10 µF	CCG1223
C 5202	(A,74,26)	10 µF	CCG1223
C 5204	(A,66,31)		CKSRYB104K50
C 5205	(A,62,34)		CKSRYB105K10
C 5206	(A,43,32)		CKSRYB104K50
C 5207	(A,52,17)		CKSRYB104K50
C 5208	(A,51,21)		CKSRYB104K50
C 5209	(A,52,15)		CKSRYB105K10
C 5211	(A,51,18)		CKSRYB474K10
C 5212	(A,52,22)		CKSRYB332K50
C 5213	(A,52,19)		CKSRYB105K10
C 5214	(A,52,25)		CKSRYB152K50

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
C 5215	(A,45,25)	CKSRYB104K50	C 5435	(A,52,103)	CKSSYB104K10
C 5216	(A,54,17)	CKSRYB103K50	C 5436	(A,23,106)	CKSSYB104K10
C 5217	(A,40,21)	CKSRYB473K50	C 5437	(A,19,102)	CKSSYB104K10
C 5218	(A,40,16)	CKSRYB473K50	C 5438	(A,52,100)	CKSSYB104K10
C 5219	(A,40,17)	CKSRYB221K50	C 5439	(A,21,101)	CKSSYB104K10
C 5220	(A,66,11) 10 µF	CCG1236	C 5440	(A,52,98)	CKSSYB104K10
C 5221	(A,58,10) 10 µF	CCG1236	C 5441	(A,21,96)	CKSSYB104K10
C 5222	(A,72,9)	CKSRYB105K10	C 5442	(A,52,94)	CKSSYB104K10
C 5223	(A,74,9)	CKSRYB105K10	C 5443	(A,18,94)	CKSSYB104K10
C 5224	(A,84,18)	CKSRYB104K50	C 5444	(A,21,93)	CKSSYB104K10
C 5225	(B,112,10) 22 pF	CCG1214	C 5445	(A,52,92)	CKSSYB104K10
C 5226	(A,104,7)	CKSRYB223K50	C 5447	(A,21,90)	CKSSYB104K10
C 5271	(B,41,11)	CKSRYB104K50	C 5448	(A,21,89)	CKSSYB104K10
C 5272	(B,54,9)	CKSRYB104K50	C 5449	(A,52,88)	CKSSYB104K10
C 5273	(B,67,9)	CKSRYB104K50	C 5450	(A,52,86)	CKSSYB104K10
C 5301	(A,74,112)	CKSQYB106K6R3	C 5451	(A,21,87)	CKSSYB104K10
C 5302	(A,69,110)	CCSRCH470J50	C 5453	(A,21,86)	CKSSYB104K10
C 5303	(A,67,109)	CCSRCH680J50	C 5454	(A,22,84)	CKSSYB104K10
C 5304	(A,65,114)	CCSRCH5R0C50	C 5455	(A,22,82)	CKSSYB104K10
C 5305	(A,65,109)	CCSRCH470J50	C 5456	(A,52,82)	CKSSYB104K10
C 5306	(A,61,109)	CKSRYB104K50	C 5457	(A,21,80)	CKSRYB105K10
C 5307	(A,62,106)	CSZSR330M10	C 5458	(A,50,77)	CKSSYB104K10
C 5331	(A,85,106)	CKSQYB106K6R3	C 5459	(A,43,76)	CKSSYB104K10
C 5351	(A,101,69)	CCSRCH331J50	C 5460	(A,42,77)	CKSSYB104K10
C 5352	(A,103,69)	CCSRCH331J50	C 5461	(A,40,77)	CKSSYB104K10
C 5353	(A,105,66)	CCSRCH331J50	C 5462	(A,36,77)	CKSSYB104K10
C 5354	(A,34,117)	CKSSYB104K16	C 5463	(A,31,77)	CKSSYB104K10
C 5355	(A,33,117)	CKSSYB104K16	C 5464	(A,30,77)	CKSSYB104K10
C 5356	(A,32,117)	CKSSYB104K16	C 5465	(A,48,77)	CKSSYB104K10
C 5372	(A,94,104)	CKSSYF104Z16	C 5466	(A,52,75)	CSZSR330M10
C 5373	(A,94,108)	CCSRCH151J50	C 5505	(A,13,78)	CKSSYB104K10
C 5374	(A,94,102) 10 µF	CCG1171	C 5507	(A,13,87)	CKSSYB104K10
C 5401	(A,46,110)	CCSSCH9R0D50	C 5508	(A,13,76)	CKSRYB105K10
C 5402	(A,44,110)	CCSSCH9R0D50	C 5509	(A,58,82)	CKSSYB104K10
C 5403	(A,41,110)	CKSSYB104K10	C 5510	(A,14,71)	CKSRYB105K10
C 5404	(A,32,110)	CKSSYB104K10	C 5511	(A,8,70)	CKSSYB104K10
C 5405	(A,30,110)	CKSSYB104K10	C 5512	(A,13,61)	CKSRYB104K50
C 5406	(A,29,110)	CKSSYB104K10	C 5513	(A,10,72)	CSZSR220M16
C 5407	(A,38,110)	CCSSCH4R0C50	C 5514	(A,10,79) 4.7 µF	CCG1111
C 5410	(A,49,108)	CKSSYB104K10	C 5515	(A,8,68)	CKSRYB105K10
C 5411	(A,46,108)	CKSSYB104K10	C 5516	(A,61,74)	CKSSYB104K10
C 5412	(A,42,108)	CKSSYB104K10	C 5517	(A,62,77)	CSZS100M16
C 5413	(A,40,111)	CKSSYB103K16	C 5518	(A,12,60)	CKSRYB104K50
C 5414	(A,41,108)	CCSSCH181J25	C 5519	(A,27,72)	CKSSYB104K10
C 5415	(A,40,108)	CKSSYB104K10	C 5520	(A,25,72)	CKSSYB104K10
C 5416	(A,38,108)	CKSSYB104K10	C 5521	(A,19,73)	CKSRYB104K50
C 5417	(A,27,114)	CKSSYB104K10	C 5522	(A,14,68)	CKSRYB104K50
C 5418	(A,26,114)	CKSSYB104K10	C 5523	(A,29,68)	CSZSR220M16
C 5419	(A,37,109)	CKSSYB104K10	C 5524	(A,24,69)	CSZS100M16
C 5420	(A,36,108)	CKSSYB104K10	C 5525	(A,21,67)	CKSQYF334Z25
C 5421	(A,23,113)	CKSSYB104K10	C 5526	(A,16,69) 4.7 µF	CCG1111
C 5422	(A,24,113)	CKSSYB104K10	C 5527	(A,30,65)	CKSSYB104K10
C 5423	(A,34,108)	CKSSYB104K10	C 5528	(A,26,66)	CKSSYB104K10
C 5424	(A,27,112)	CKSSYB104K10	C 5529	(A,22,65)	CKSRYB104K50
C 5428	(A,32,108)	CKSSYB104K10	C 5530	(A,19,67)	CKSRYB104K50
C 5429	(A,28,110)	CKSSYB104K10	C 5601	(A,138,96)	CKSRYB103K50
C 5430	(A,27,110)	CKSSYB104K10	C 5602	(A,142,96)	CKSSYF104Z16
C 5431	(A,28,108)	CKSSYB104K10	C 5603	(A,107,81)	CKSSYB103K25
C 5433	(A,24,108)	CKSSYB104K10	C 5604	(A,128,94)	CKSSYF104Z16
C 5434	(A,52,105)	CKSSYB104K10	C 5605	(A,123,57)	CSZSR330M10

Circuit Symbol and No.		Part No.
C 5606	(A,144,83)	CKSSYF104Z16
C 5607	(A,123,59)	CKSSYF104Z16
C 5609	(A,13,91)	CKSSYB103K25
C 5611	(A,128,71)	CKSRYB105K10
C 5612	(A,128,67)	CKSSYF104Z16
C 5631	(A,116,71)	CKSSYF104Z16
C 5632	(A,116,73)	CKSSYF104Z16
C 5633	(A,118,94)	CKSRYB104K50
C 5701	(A,140,58)	CKSSYB102K50
C 5702	(A,135,58)	CKSSYB102K50
C 5703	(A,132,58)	CKSSYB102K50
C 5704	(A,129,57)	CKSSYB102K50
C 5705	(A,127,57)	CKSSYB102K50
C 5971	(A,46,8)	CKSRYB104K50
C 5972	(A,57,8)	CKSRYB104K50

I J K L

Mother Tuner Unit(Mother Unit)
Consists of
Ipod PCB
Mezzanine PCB
Mother PCB
Connector PCB

Unit Number : CWN2310(UC)
Unit Name : Mother Tuner Unit(UC)
Unit Number : CWN2311(EW5)
Unit Name : Mother Unit(EW5)

MISCELLANEOUS

IC 1001	(B,98,41) IC	NJM2137V
IC 1101	(B,72,109) IC	HA12240FP
IC 1102	(B,139,108) IC	NJM2794RB2
IC 1301	(B,105,33) IC	NJM2794RB2
IC 1303	(B,99,33) IC	NJM2137V
IC 1305	(B,90,32) IC	NJM2505F
IC 1351	(B,84,33) IC	NJM2794RB2
IC 1352	(B,78,35) IC	NJM2137V
IC 1401	(A,54,82) IC	NJM2391DL1-33
IC 1402	(B,57,103) IC	NJM4558E
IC 1501	(A,79,51) IC	CXA2069Q
IC 1551	(B,62,38) IC	NJM2561F1
IC 1552	(B,64,71) IC	NJM2561F1
IC 1601	(B,94,84) IC	TC7SH04FUS1
IC 1602	(A,93,115) IC	TC7SH08FUS1
IC 1606	(A,90,99) IC(UC)	PEG355A
	(A,90,99) IC(EW5)	PEG354A
IC 1608	(A,71,97) IC	TC7SH04FUS1
IC 1609	(B,79,108) IC	TC7SH08FUS1
IC 1610	(B,81,101) L-MOS And Gate	TC7SET08FUS1
IC 1619	(B,102,86) IC	TC74VHC08FTS1
IC 1675	(A,85,120) IC	341S2094
IC 1676	(B,93,118) L-MOS And Gate	TC7SET08FUS1
IC 1677	(A,70,106) IC	TC7WBD125AFK
IC 1751	(B,22,123) IC	NJM2794RB2
IC 1752	(B,31,121) IC	NJM2505F
IC 1821	(A,141,126) IC	NJM2904M

Circuit Symbol and No.		Part No.
IC 1871	(A,146,90) IC	S-812C33AMC-C2N
IC 1872	(B,138,89) IC	S-L2980A50MC-C7J
IC 1901	(A,166,85) IC	NJM2391DL1-33
IC 1971	(B,104,48) IC	NJM2794RB2
IC 1972	(A,101,116) IC	TC74VHC08FTS1
IC 1981	(B,62,93) IC	S-812C33BUC-C4N
Q 1101	(B,130,124) Chip Transistor	DTC124EUA
Q 1102	(B,131,127) Transistor	2SA1576A
Q 1401	(A,38,33) Transistor(EW5)	2SC3357
Q 1402	(B,54,39) Transistor(EW5)	2SC3127
Q 1403	(B,100,92) Chip Transistor(EW5)	DTC124EUA
Q 1404	(B,100,98) Chip Transistor(EW5)	DTC124EUA
Q 1405	(B,86,109) Chip Transistor(EW5)	DTC124EUA
Q 1406	(B,100,95) Chip Transistor(EW5)	DTC124EUA
Q 1551	(B,75,81) Transistor	2SC2412K
Q 1552	(B,70,81) Transistor	2SC2412K
Q 1553	(B,72,86) Transistor	FMG12
Q 1554	(B,60,52) Transistor	2SA1576A
Q 1555	(B,77,70) Transistor	2SA1576A
Q 1556	(B,63,81) Transistor	2SA1037K
Q 1557	(B,61,46) Transistor	2SC2412K
Q 1558	(B,71,70) Transistor	2SC2412K
Q 1559	(B,59,84) Transistor	2SC4081
Q 1560	(A,65,86) Transistor	2SC4081
Q 1602	(B,80,112) Chip Transistor	DTC124EUA
Q 1603	(B,82,105) Chip Transistor	DTC124EUA
Q 1751	(B,120,102) Transistor	2SA1797
Q 1752	(B,129,101) Transistor	2SA1162
Q 1753	(A,126,116) Transistor	2SA1797
Q 1754	(A,130,100) Transistor	2SC4081
Q 1755	(A,137,115) Chip Transistor	DTC114EUA
Q 1801	(B,149,64) Transistor(EW5)	2SC3130
Q 1802	(B,130,63) Transistor(EW5)	DTC144EK
Q 1803	(B,134,63) Transistor(EW5)	DTC144EK
Q 1821	(B,159,118) Chip Transistor	DTC114EUA
Q 1822	(A,138,131) Transistor	DTC114WK
Q 1871	(B,166,105) Chip Transistor	DTC114EUA
Q 1872	(B,171,102) Transistor	2SA1037K
Q 1881	(B,171,125) Chip Transistor	DTC114EUA
Q 1901	(A,82,80) Transistor	2SA1036K
Q 1903	(B,86,78) Transistor	DTC114EK
Q 1905	(B,162,39) Transistor	2SB1260
Q 1906	(B,160,29) Transistor	DTC114EK
Q 1907	(A,173,61) Transistor	2SB1185
Q 1908	(A,172,42) Transistor	2SD2375
Q 1909	(A,172,72) Transistor	2SD2375
Q 1910	(B,168,58) Transistor	UMX1N
Q 1951	(B,115,85) Transistor	2SD2098
Q 1952	(B,152,42) Transistor	2SD2098
Q 1953	(A,71,102) Chip Transistor	DTC114EUA
Q 2821	(B,45,24) Transistor	UMD2N
Q 2831	(B,45,19) Transistor	FMG12
Q 2832	(B,45,12) Transistor	FMG12
Q 2833	(B,45,6) Transistor	FMG12
Q 2834	(B,49,19) Chip Transistor	DTA114EUA
Q 2886	(B,25,12) Transistor	2SC4081
D 1001	(B,132,15) Diode	UDZS6R8(B)
D 1002	(B,133,10) Diode	UDZS6R8(B)
D 1003	(B,137,10) Diode	UDZS6R8(B)
D 1004	(A,134,23) Diode	UDZS6R8(B)

Circuit Symbol and No.		Part No.
D 1005	(A,133,27) Diode	UDZS6R8(B)
D 1006	(B,137,15) Diode	UDZS6R8(B)
D 1007	(A,132,23) Diode	UDZS6R8(B)
D 1008	(B,128,10) Diode	UDZS6R8(B)
D 1009	(B,127,15) Diode	UDZS6R8(B)
D 1010	(A,131,27) Diode	UDZS6R8(B)
D 1011	(A,128,23) Diode	UDZS6R8(B)
D 1012	(A,130,23) Diode	MALS068X
D 1013	(A,135,27) Diode	UDZS6R8(B)
D 1014	(A,129,27) Diode	MALS068X
D 1015	(A,122,27) Diode	MALS068X
D 1016	(A,126,23) Diode	UDZS6R8(B)
D 1017	(A,125,27) Diode	UDZS6R8(B)
D 1018	(A,124,27) Diode	UDZS6R8(B)
D 1019	(A,119,29) Diode	MALS068X
D 1020	(A,118,29) Diode	MALS068X
D 1021	(A,116,29) Diode	MALS068X
D 1022	(A,113,29) Diode	MALS068X
D 1023	(A,127,27) Diode	UDZS6R8(B)
D 1101	(B,109,116) Diode	DAN202U
D 1102	(B,114,116) Diode	MALS068X
D 1103	(B,112,116) Diode	DAP202U
D 1104	(B,119,116) Diode	MALS068X
D 1301	(B,104,20) Diode	MALS068X
D 1302	(B,89,20) Diode	MALS068X
D 1303	(B,77,20) Diode	MALS068X
D 1304	(B,74,20) Diode	MALS068X
D 1305	(B,68,24) Diode	MALS180X
D 1308	(B,68,22) Diode	MALS180X
D 1351	(B,49,16) Diode	MALS068X
D 1352	(B,49,10) Diode	MALS068X
D 1353	(B,49,13) Diode	MALS068X
D 1354	(B,49,17) Diode	MALS068X
D 1401	(A,52,74) Diode	1SR154-400
D 1402	(A,52,70) Diode	1SR154-400
D 1403	(A,52,66) Diode	1SR154-400
D 1551	(B,68,86) Diode	DAP202U
D 1552	(B,61,74) Diode	MA111
D 1553	(B,61,87) Diode	DAN202U
D 1556	(A,70,88) Diode	UDZS8R2(B)
D 1751	(B,51,123) Diode	MALS068X
D 1752	(B,47,116) Diode	EDZ6R8(B)
D 1753	(B,47,113) Diode	EDZ6R8(B)
D 1754	(B,46,122) Diode	EDZ6R8(B)
D 1755	(B,46,125) Diode	EDZ6R8(B)
D 1756	(B,46,119) Diode	EDZ6R8(B)
D 1757	(B,52,130) Diode	MALS068X
D 1758	(B,48,130) Diode	MALS068X
D 1759	(B,51,120) Diode	MALS068X
D 1760	(B,49,130) Diode	MALS068X
D 1763	(B,63,114) Diode	RB060L-40
D 1764	(A,133,119) Diode	UDZS22(B)
D 1801	(B,132,76) Diode(EW5)	HZU3R3(B1)
D 1821	(A,159,125) Diode	S1G-6904G2P
D 1824	(A,150,119) Diode	1SS355
D 1871	(B,163,99) Diode	UDZS5R6(B)
D 1882	(B,167,127) Diode	1SS355
D 1883	(A,168,126) Diode	UDZS6R8(B)
D 1884	(B,145,110) Diode	RB500V-40
D 1902	(B,167,46) Diode	HZU9R1(B3)

Circuit Symbol and No.		Part No.
D 1903	(B,167,70) Diode	UDZS5R6(B)
D 1950	(B,107,91) Diode	UDZS13(B)
D 1951	(B,153,46) Diode	UDZS5R6(B)
D 1983	(A,162,127) Diode	UDZS27(B)
D 1984	(A,162,131) Diode	UDZS27(B)
D 1986	(B,167,63) Diode	HZU7R5(B3)
D 2811	(B,32,20) Diode	EDZ10(B)
D 2812	(B,29,21) Diode	EDZ10(B)
D 2813	(B,23,18) Diode	UDZS6R8(B)
D 2814	(B,22,18) Diode	UDZS6R8(B)
D 2821	(B,50,26) Diode	MA111
D 2822	(B,52,20) Diode	DAN202U
D 2851	(B,23,35) Diode	1SS355
D 2852	(B,19,35) Diode	1SS355
D 2886	(A,28,10) Diode	S1G-6904G2P
D 2887	(A,28,13) Diode	S1G-6904G2P
ZNR1401	(A,18,34) Surge Protector	RCCA-201Q31UA-PI
L 1001	(B,132,12) Inductor	CTF1334
L 1002	(B,132,7) Inductor	CTF1334
L 1003	(B,137,7) Inductor	CTF1334
L 1004	(B,137,12) Inductor	CTF1334
L 1005	(B,128,7) Inductor	CTF1306
L 1006	(B,135,31) Inductor	CTF1306
L 1007	(B,136,31) Inductor	CTF1306
L 1008	(B,138,31) Inductor	CTF1306
L 1009	(B,113,31) Inductor	CTF1306
L 1010	(B,114,31) Inductor	CTF1306
L 1011	(B,118,31) Inductor	CTF1306
L 1012	(B,120,31) Inductor	CTF1306
L 1013	(B,123,31) Inductor	CTF1334
L 1014	(B,124,31) Inductor	CTF1334
L 1015	(B,126,31) Inductor	CTF1334
L 1016	(B,121,31) Inductor	CTF1382
L 1017	(B,127,31) Inductor	CTF1334
L 1018	(B,130,31) Inductor	CTF1382
L 1019	(B,132,31) Inductor	CTF1382
L 1020	(B,133,31) Inductor	CTF1334
L 1021	(B,127,12) Inductor	CTF1334
L 1022	(B,129,31) Inductor	CTF1334
L 1023	(A,104,110) Inductor	CTF1334
L 1026	(B,94,44) Chip Ferrite Bead	CTF1399
L 1101	(B,72,118) Inductor	LCTAW2R2J2520
L 1102	(B,141,119) Inductor	CTF1334
L 1103	(B,139,119) Inductor	CTF1334
L 1104	(B,134,119) Inductor	CTF1334
L 1105	(B,136,119) Inductor	CTF1334
L 1302	(B,102,32) Chip Ferrite Bead	CTF1399
L 1307	(B,103,24) Inductor	CTF1334
L 1308	(B,105,24) Inductor	CTF1334
L 1309	(B,108,24) Inductor	CTF1334
L 1310	(B,106,24) Inductor	CTF1334
L 1351	(B,81,38) Chip Ferrite Bead	CTF1399
L 1353	(B,78,25) Inductor	CTF1334
L 1354	(B,78,23) Inductor	CTF1334
L 1355	(B,78,28) Inductor	CTF1334
L 1356	(B,78,27) Inductor	CTF1334
L 1401	(B,40,45) Chip Coil	LCTAW4R7J2520
L 1402	(A,28,33) Inductor(EW5)	LCTAWR12J2520
L 1403	(B,56,79) Chip Coil	LCTAW1R0J2520
L 1404	(A,32,35) Inductor(EW5)	LCTCR10K2125

Circuit Symbol and No.		Part No.
L 1405	(A,56,92) Chip Coil	LCTAW1R0J2520
L 1406	(B,58,58) Chip Coil	LCTAW1R0J2520
L 1407	(A,44,33) Coil(EW5)	CTC1194
L 1408	(B,54,46) Inductor(EW5)	LCTCR10K2125
L 1409	(B,54,43) Inductor(EW5)	LCTCR18K2125
L 1410	(B,58,43) Inductor(EW5)	LCTAW101J2520
L 1411	(A,39,26) Coil(EW5)	CTC1193
L 1412	(B,38,23) Inductor(EW5)	LCTAW101J2520
L 1413	(A,49,26) Coil(EW5)	CTC1192
L 1501	(B,82,58) Chip Coil	LCTAW100J2520
L 1551	(B,64,76) Inductor	LCTAW101J2520
L 1552	(B,64,49) Chip Coil	LCTAW100J2520
L 1553	(B,76,74) Chip Coil	LCTAW100J2520
L 1554	(B,65,35) Chip Coil	LCTAW100J2520
L 1555	(B,72,63) Chip Coil	LCTAW100J2520
L 1601	(A,97,84) Inductor	CTF1379
L 1602	(B,98,103) Inductor	CTF1379
L 1603	(A,86,112) Inductor	CTF1379
L 1604	(A,89,85) Inductor	CTF1379
L 1605	(B,82,108) Inductor	CTF1410
L 1606	(B,84,101) Inductor	CTF1410
L 1675	(A,77,121) Chip Coil	LCTAW100J2520
L 1676	(B,95,114) Inductor	CTF1410
L 1677	(A,70,111) Inductor	CTF1410
L 1751	(B,30,118) Chip Ferrite Bead	CTF1399
L 1801	(B,144,61) Inductor(EW5)	LCTCR15K2125
L 1802	(B,141,59) Chip Coil(EW5)	LCTAW1R0J2520
L 1803	(B,113,64) Inductor(EW5)	LCTAW2R2J2520
L 1804	(B,118,77) Chip Coil(EW5)	LCTAW1R0J2520
L 1821	(A,159,121) Inductor	CTF1306
L 1841	(A,148,116) Inductor	CTF1334
L 1842	(A,146,110) Inductor	CTF1334
L 1843	(A,146,108) Inductor(EW5)	CTF1334
L 1844	(A,146,106) Inductor(EW5)	CTF1334
L 1845	(A,146,104) Inductor(EW5)	CTF1334
L 1846	(A,146,103) Inductor(EW5)	CTF1334
L 1847	(A,163,104) Inductor(EW5)	CTF1393
L 1848	(A,161,103) Inductor(EW5)	CTF1393
L 1849	(A,160,117) Inductor	CTF1393
L 1850	(A,161,115) Inductor	CTF1334
L 1851	(B,163,110) Inductor	CTF1334
L 1862	(B,170,118) Inductor	CTF1334
L 1871	(A,146,86) Inductor	CTF1334
L 1872	(A,145,115) Inductor	CTF1393
L 1873	(B,142,85) Inductor	CTF1393
L 1881	(A,167,125) Inductor	CTF1306
L 1891	(A,173,91) Inductor	CTF1334
L 2811	(B,30,18) Chip Ferrite Bead	CTF1557
L 2812	(B,28,18) Chip Ferrite Bead	CTF1557
L 2813	(B,26,17) Inductor	CTF1334
L 2814	(B,19,20) Inductor	CTF1334
L 2831	(B,35,21) Inductor	CTF1306
L 2832	(B,35,17) Inductor	CTF1306
L 2833	(B,35,14) Inductor	CTF1306
L 2834	(B,35,10) Inductor	CTF1306
L 2835	(B,35,8) Inductor	CTF1306
L 2836	(B,35,4) Inductor	CTF1306
L 2850	(B,19,33) Inductor	CTF1556
L 2851	(B,60,15) Inductor	CTF1334
L 2852	(B,51,11) Inductor	CTF1334
L 2853	(B,51,16) Inductor	CTF1334
L 2854	(B,60,11) Inductor	CTF1334
L 2855	(B,60,13) Inductor	CTF1334
L 2856	(B,51,13) Inductor	CTF1334
L 2857	(B,51,9) Inductor	CTF1306
L 2861	(B,51,6) Inductor	CTF1306
L 2862	(B,60,7) Inductor	CTF1306
L 2886	(B,29,12) Inductor	CTF1295
X 1601	(A,90,111) Oscillator 20.000 MHz	VSS1186
X 1675	(A,79,116) Oscillator 32.768 kHz	CSS1735
VR1551	(A,62,48) Semi-fixed 10 kohm(B)	CCP1448
⚠FU1701	(A,93,123) Fuse 3.15 A	CEK1259
⚠FU1702	(A,71,124) Fuse 3.15 A	CEK1259
⚠FU1951	(A,118,88) Fuse 2 A	CEK1257
⚠FU2801	(B,32,5) Fuse 3.15 A	CEK1259
GY1861	(A,171,114) Sensor	CSX1118
GY1890	(A,171,100) Sensor	CSX1122
Y 1401	(A,46,43) FM/AM Tuner Unit(UC)	CWE2046
	(A,46,43) FM/AM Tuner Unit(EW5)	CWE2045
Y 1801	(A,124,70) Tuner Unit(EW5)	CWE1674
EF1302	(B,90,25) EMI Filter	CCG1067
EF1304	(B,73,21) EMI Filter	CCG1067
EF1351	(B,68,33) EMI Filter	CCG1067
EF1701	(A,98,124) EMI Filter	CCG1067
EF1751	(B,30,130) EMI Filter	CCG1067
EF1901	(A,143,39) EMI Filter	CCG1172
EF1902	(A,122,39) EMI Filter	CCG1172
EF1903	(A,132,39) EMI Filter	CCG1172

RESISTORS

R 1001	(B,111,39)	RS1/16SS750J
R 1002	(B,111,40)	RS1/16SS103J
R 1003	(B,111,38)	RS1/16SS103J
R 1004	(B,105,41)	RS1/16SS472J
R 1005	(B,105,39)	RS1/16SS472J
R 1006	(B,104,39)	RS1/16SS512J
R 1007	(B,103,39)	RS1/16SS102J
R 1008	(B,104,43)	RS1/16SS101J
R 1009	(B,104,41)	RS1/16SS512J
R 1016	(B,93,40)	RS1/16SS563J
R 1017	(B,93,38)	RS1/16SS473J
R 1041	(B,110,45)	RS1/16SS223J
R 1042	(B,110,48)	RS1/16SS223J
R 1043	(B,110,44)	RS1/16SS101J
R 1044	(B,110,46)	RS1/16SS102J
R 1047	(B,110,50)	RS1/16SS101J
R 1048	(B,110,47)	RS1/16SS102J
R 1103	(B,72,104)	RS1/16S101J
R 1104	(B,73,104)	RS1/16S101J
R 1105	(B,74,117)	RS1/16S102J
R 1106	(B,67,117)	RS1/10S101J
R 1107	(B,69,117)	RS1/10S101J
R 1108	(B,68,120)	RS1/10S620J
R 1109	(B,139,116)	RS1/16SS102J
R 1110	(B,136,116)	RS1/16SS102J
R 1111	(B,140,116)	RS1/16SS223J
R 1112	(B,135,116)	RS1/16SS223J
R 1113	(B,141,116)	RS1/16SS101J
R 1114	(B,134,116)	RS1/16SS101J
R 1115	(B,131,130)	RS1/16S332J

Circuit Symbol and No.		Part No.
R 1116	(B,128,128)	RS1/16S682J
R 1117	(B,132,124)	RS1/10S222J
R 1303	(B,96,34)	RS1/16SS563J
R 1304	(B,96,32)	RS1/16SS473J
R 1305	(B,105,26)	RS1/16SS102J
R 1306	(B,106,26)	RS1/16SS102J
R 1307	(B,104,26)	RS1/16SS223J
R 1308	(B,107,26)	RS1/16SS223J
R 1317	(B,90,28)	RS1/16SS101J
R 1318	(B,87,26)	RS1/16SS101J
R 1321	(B,103,26)	RS1/16SS101J
R 1322	(B,108,26)	RS1/16SS101J
R 1323	(B,99,26)	RS1/16SS512J
R 1324	(B,88,24)	RS1/16SS473J
R 1325	(B,97,27)	RS1/16SS102J
R 1326	(B,101,24)	RS1/16SS101J
R 1327	(B,101,26)	RS1/16SS512J
R 1328	(B,99,25)	RS1/16SS472J
R 1330	(B,99,24)	RS1/16SS472J
R 1331	(B,94,27)	RS1/16SS103J
R 1332	(B,94,24)	RS1/16SS103J
R 1333	(B,94,25)	RS1/16SS750J
R 1337	(B,92,25)	RS1/16SS473J
R 1347	(B,88,26)	RS1/16SS750J
R 1351	(B,75,36)	RS1/16SS563J
R 1352	(B,75,34)	RS1/16SS473J
R 1353	(B,75,31)	RS1/16SS512J
R 1354	(B,75,32)	RS1/16SS102J
R 1355	(B,80,31)	RS1/16SS101J
R 1356	(B,80,30)	RS1/16SS512J
R 1357	(B,75,30)	RS1/16SS472J
R 1358	(B,75,29)	RS1/16SS472J
R 1359	(B,80,25)	RS1/16SS102J
R 1360	(B,80,26)	RS1/16SS102J
R 1361	(B,69,31)	RS1/16SS103J
R 1362	(B,69,30)	RS1/16SS103J
R 1363	(B,80,27)	RS1/16SS223J
R 1364	(B,80,24)	RS1/16SS223J
R 1365	(B,70,31)	RS1/16SS750J
R 1366	(B,80,28)	RS1/16SS101J
R 1367	(B,80,23)	RS1/16SS101J
R 1368	(B,71,27)	RS1/16S0R0J
R 1401	(A,25,33) (EW5)	RS1/16S105J
R 1402	(B,60,107)	RS1/16S0R0J
R 1403	(B,61,98)	RS1/16S0R0J
R 1404	(B,54,59)	RS1/16S681J
R 1405	(B,53,56)	RS1/16S681J
R 1406	(B,42,31) (EW5)	RS1/16S821J
R 1407	(A,49,102)	RS1/16S103J
R 1408	(A,49,105)	RS1/16S103J
R 1409	(A,50,105)	RS1/16S104J
R 1410	(A,50,102)	RS1/16S104J
R 1411	(B,45,30) (EW5)	RS1/16S330J
R 1414	(B,55,42) (EW5)	RS1/16S151J
R 1415	(B,56,97)	RS1/16S0R0J
R 1416	(B,55,108)	RS1/16S0R0J
R 1417	(B,58,37) (EW5)	RS1/16S681J
R 1418	(B,57,35) (EW5)	RS1/16S152J
R 1419	(B,41,27) (EW5)	RS1/16S332J
R 1420	(B,53,35) (EW5)	RS1/16S680J

Circuit Symbol and No.		Part No.
R 1421	(B,49,33) (EW5)	RS1/16S151J
R 1422	(B,50,23) (EW5)	RS1/16S151J
R 1423	(B,46,26) (EW5)	RS1/16S101J
R 1424	(B,53,22) (EW5)	RS1/16S680J
R 1425	(B,107,98) (EW5)	RS1/16SS223J
R 1426	(A,49,77)	RS1/16S681J
R 1427	(B,87,112) (EW5)	RS1/16SS223J
R 1428	(B,53,53)	RS1/16S681J
R 1429	(B,54,64)	RS1/16S681J
R 1430	(B,54,66) (EW5)	RS1/16S681J
R 1431	(B,54,61)	RS1/16S681J
R 1432	(B,107,99) (EW5)	RS1/16SS223J
R 1433	(B,107,96) (EW5)	RS1/16SS223J
R 1434	(B,40,48) (UC)	RS1/4S0R0J
R 1435	(B,54,76)	RS1/16S223J
R 1437	(A,62,98)	RS1/10S0R0J
R 1438	(A,63,109)	RS1/10S0R0J
R 1439	(A,63,106)	RS1/10S0R0J
R 1501	(B,84,48)	RS1/16S821J
R 1502	(B,84,46)	RS1/16S821J
R 1505	(B,78,48)	RS1/16S473J
R 1506	(B,78,46)	RS1/16S473J
R 1507	(B,75,48)	RS1/16S0R0J
R 1508	(B,75,46)	RS1/16S0R0J
R 1509	(B,69,43)	RS1/16S0R0J
R 1510	(B,72,43)	RS1/16S0R0J
R 1511	(B,68,50)	RS1/16S0R0J
R 1512	(B,68,48)	RS1/16S0R0J
R 1513	(B,78,43)	RS1/16S562J
R 1514	(B,81,43)	RS1/16S562J
R 1515	(B,86,43)	RS1/16S562J
R 1516	(B,89,43)	RS1/16S562J
R 1517	(B,87,59)	RS1/16S101J
R 1518	(B,89,59)	RS1/16S101J
R 1519	(B,90,56)	RS1/16S562J
R 1520	(A,95,49)	RS1/16S562J
R 1521	(A,95,47)	RS1/16S562J
R 1522	(B,90,54)	RS1/16S562J
R 1525	(A,101,50)	RS1/16SS0R0J
R 1526	(A,101,45)	RS1/16SS0R0J
R 1551	(B,77,77)	RS1/16S182J
R 1552	(B,69,77)	RS1/16S182J
R 1553	(B,74,77)	RS1/16S471J
R 1554	(B,72,77)	RS1/16S471J
R 1555	(B,75,89)	RS1/16S821J
R 1556	(B,75,84)	RS1/16S821J
R 1557	(B,75,85)	RS1/16S104J
R 1558	(B,75,87)	RS1/16S104J
R 1559	(B,62,54)	RS1/16S102J
R 1560	(B,74,70)	RS1/16S102J
R 1561	(B,64,54)	RS1/16S103J
R 1562	(B,64,86)	RS1/4S821J
R 1563	(B,59,80)	RS1/16S223J
R 1564	(B,72,66)	RS1/16S123J
R 1565	(B,60,49)	RS1/16S123J
R 1566	(B,60,80)	RS1/16S223J
R 1567	(B,58,49)	RS1/16S471J
R 1568	(B,75,67)	RS1/16S103J
R 1569	(B,61,78)	RS1/16S101J
R 1570	(B,75,66)	RS1/16S471J

Circuit Symbol and No.		Part No.
R 1571	(B,61,84)	RS1/16S473J
R 1572	(B,64,41)	RS1/16S105J
R 1573	(B,69,71)	RS1/16S105J
R 1574	(A,66,89)	RS1/16S563J
R 1575	(A,69,86)	RS1/16S223J
R 1576	(A,74,29)	RS1/16S750J
R 1577	(B,65,68)	RS1/16S0R0J
R 1579	(A,69,84)	RS1/16S473J
R 1580	(A,66,66)	RS1/16S750J
R 1601	(B,96,82)	RS1/16S473J
R 1602	(B,105,81)	RS1/16SS0R0J
R 1603	(B,106,84)	RS1/16SS0R0J
R 1604	(B,103,91)	RS1/16SS0R0J
R 1605	(A,101,121)	RS1/16SS681J
R 1607	(B,105,105)	RS1/16SS104J
R 1609	(A,101,96)	RS1/16SS681J
R 1611	(A,102,106)	RS1/16SS681J
R 1612	(A,96,116)	RS1/16SS473J
R 1613	(A,102,105)	RS1/16SS681J
R 1614	(A,102,107)	RS1/16SS681J
R 1615	(B,101,90)	RS1/16SS473J
R 1616	(B,101,100)	RS1/16SS473J
R 1618	(A,95,111)	RS1/16SS681J
R 1619	(A,102,94)	RAB4C681J
R 1620	(A,102,99) (EW5)	RAB4C681J
R 1621	(A,103,121)	RS1/16SS681J
R 1622	(B,108,96)	RS1/16SS473J
R 1623	(B,98,114)	RS1/16SS104J
R 1624	(B,108,103)	RS1/16SS473J
R 1625	(B,79,99)	RS1/16SS473J
R 1626	(B,97,88)	RS1/16SS473J
R 1627	(A,96,88)	RS1/16SS681J
R 1628	(A,96,111)	RS1/16SS681J
R 1629	(A,95,88)	RS1/16SS681J
R 1631	(B,94,91)	RS1/16SS473J
R 1632	(A,93,88)	RS1/16SS681J
R 1633	(B,93,111)	RS1/16SS681J
R 1634	(A,91,88)	RS1/16SS681J
R 1635	(B,94,108)	RS1/16SS473J
R 1638	(A,85,111)	RS1/16SS473J
R 1639	(A,84,111) (EW5)	RS1/16SS681J
R 1640	(A,83,111) (EW5)	RS1/16SS0R0J
R 1641	(A,83,88)	RS1/16SS470J
R 1642	(A,82,88)	RS1/16SS470J
R 1643	(B,83,88)	RS1/16SS103J
R 1644	(B,82,88)	RS1/16SS103J
R 1645	(A,78,96)	RAB4C681J
R 1647	(B,82,111)	RS1/16SS473J
R 1648	(B,78,113)	RS1/16SS102J
R 1649	(A,72,95)	RS1/16SS473J
R 1650	(A,78,108)	RS1/16SS472J
R 1651	(A,78,106)	RS1/16SS681J
R 1652	(A,78,107)	RS1/16SS681J
R 1653	(B,96,88)	RS1/16SS473J
R 1655	(B,77,110)	RS1/16SS473J
R 1656	(A,78,94)	RS1/16SS681J
R 1657	(A,76,106)	RS1/16SS473J
R 1658	(A,76,108)	RS1/16SS472J
R 1659	(A,76,107)	RS1/16SS473J
R 1660	(B,72,95)	RS1/16SS473J

Circuit Symbol and No.		Part No.
R 1661	(B,78,110)	RS1/16SS102J
R 1662	(B,85,105)	RS1/16SS393J
R 1663	(B,87,105)	RS1/16SS514J
R 1664	(B,79,101)	RS1/16SS473J
R 1665	(B,68,98)	RS1/16SS563J
R 1667	(A,102,103)	RS1/16SS681J
R 1668	(A,102,104)	RS1/16SS681J
R 1669	(A,84,88)	RS1/16SS681J
R 1670	(A,87,88)	RS1/16SS681J
R 1671	(B,84,88)	RS1/16SS473J
R 1672	(B,88,86)	RS1/16SS473J
R 1673	(A,86,88)	RS1/16SS681J
R 1674	(A,85,88)	RS1/16SS681J
R 1676	(B,86,117)	RS1/16SS104J
R 1677	(B,87,117)	RS1/16SS104J
R 1678	(B,88,118)	RS1/16SS104J
R 1679	(B,86,114)	RS1/16SS103J
R 1680	(B,89,116)	RS1/16SS104J
R 1681	(A,91,119)	RS1/16SS103J
R 1682	(A,90,121)	RS1/16SS1003D
R 1683	(B,84,91)	RS1/16SS473J
R 1684	(B,85,91)	RS1/16SS473J
R 1687	(A,102,109)	RS1/16SS0R0J
R 1688	(A,98,114)	RS1/16SS473J
R 1690	(A,78,102)	RS1/16SS101J
R 1691	(A,78,101)	RS1/16SS101J
R 1692	(A,78,100)	RS1/16SS101J
R 1693	(A,78,99)	RS1/16SS101J
R 1694	(A,78,90)	RS1/16SS681J
R 1695	(A,78,91)	RS1/16SS681J
R 1696	(A,78,92)	RS1/16SS681J
R 1697	(A,78,93)	RS1/16SS681J
R 1698	(B,91,117)	RS1/16SS104J
R 1699	(B,81,119)	RS1/16SS103J
R 1702	(A,99,122)	RS1/16S0R0J
R 1703	(A,72,108)	RS1/16SS103J
R 1704	(A,72,106)	RS1/16SS103J
R 1751	(B,51,114)	RS1/16S0R0J
R 1752	(B,51,112)	RS1/16S0R0J
R 1753	(B,24,133)	RS1/16S0R0J
R 1754	(B,51,117)	RS1/16S0R0J
R 1755	(B,30,133)	RS1/16S0R0J
R 1756	(B,20,133)	RS1/16S0R0J
R 1757	(B,51,118)	RS1/16S0R0J
R 1758	(B,51,115)	RS1/16S0R0J
R 1759	(B,33,133)	RS1/16S0R0J
R 1760	(B,23,133)	RS1/16S0R0J
R 1761	(B,21,133)	RS1/16S0R0J
R 1762	(B,25,131)	RS1/16SS101J
R 1763	(B,31,127)	RS1/16SS750J
R 1764	(B,32,128)	RS1/16SS473J
R 1765	(B,20,131)	RS1/16SS101J
R 1766	(B,24,131)	RS1/16SS223J
R 1767	(B,21,131)	RS1/16SS223J
R 1768	(B,23,131)	RS1/16SS102J
R 1769	(B,22,131)	RS1/16SS102J
R 1770	(B,30,128)	RS1/16SS473J
R 1771	(B,29,124)	RS1/16SS101J
R 1772	(B,34,124)	RS1/16SS101J
R 1774	(B,96,101)	RS1/16S473J

Circuit Symbol and No.		Part No.
R 1775	(B,124,102)	RS1/16S103J
R 1776	(B,125,104)	RS1/4SA271J
R 1777	(B,131,104)	RS1/4SA271J
R 1778	(B,124,100)	RS1/16S102J
R 1779	(A,115,110)	RS2PMFR47J
R 1780	(B,131,100)	RS1/16S103J
R 1781	(A,126,106)	RS1/8S0R0J
R 1782	(A,131,114)	RS1/4SA271J
R 1783	(A,131,109)	RS1/4SA271J
R 1784	(A,137,113)	RS1/16S103J
R 1785	(A,130,118)	RS1/16S103J
R 1786	(A,140,115)	RS1/16S103J
R 1787	(A,140,118)	RS1/16S103J
R 1788	(A,136,117)	RS1/16S124J
R 1790	(B,17,114)	RS1/16S0R0J
R 1791	(A,56,114)	RS1/16S0R0J
R 1793	(B,63,122)	RS1/10S0R0J
R 1801	(B,148,61) (EW5)	RS1/16S152J
R 1802	(B,145,61) (EW5)	RS1/16S151J
R 1803	(B,147,61) (EW5)	RS1/16S681J
R 1806	(B,124,65) (EW5)	RS1/16S0R0J
R 1807	(A,141,75) (EW5)	RS1/10S391J
R 1808	(B,132,60) (EW5)	RS1/16S473J
R 1810	(B,119,65) (EW5)	RS1/16S472J
R 1821	(A,147,130)	RS1/16S0R0J
R 1822	(B,160,123)	RS1/16S333J
R 1823	(B,160,121)	RS1/16S203J
R 1824	(A,151,123)	RS1/16S822J
R 1825	(B,150,119)	RS1/16S202J
R 1826	(A,147,121)	RS1/16S564J
R 1827	(A,147,125)	RS1/16S513J
R 1828	(A,146,119)	RS1/16S513J
R 1829	(A,151,125)	RS1/16S102J
R 1830	(B,147,125)	RS1/16S102J
R 1831	(A,146,127)	RS1/16S104J
R 1832	(A,134,126)	RS1/16S513J
R 1833	(A,133,126)	RS1/16S473J
R 1834	(A,136,123)	RS1/16S563J
R 1835	(A,136,126)	RS1/16S104J
R 1841	(B,163,108)	RS1/16S104J
R 1843	(A,143,110)	RS1/16S101J
R 1844	(B,163,106)	RS1/16S0R0J
R 1871	(B,171,106)	RS1/10S103J
R 1872	(B,168,105)	RS1/10S103J
R 1873	(B,168,101)	RN1/16SE1001D
R 1874	(B,165,101)	RN1/16SE1101D
R 1875	(B,163,97)	RN1/16SE1001D
R 1881	(A,164,127)	RS1/4S102J
R 1884	(A,164,114)	RS1/16S0R0J
R 1886	(A,163,112)	RS1/16S0R0J
R 1892	(B,170,95)	RS1/16S104J
R 1894	(B,170,97)	RS1/16S202J
R 1895	(B,168,98)	RS1/16S0R0J
R 1901	(B,81,77)	RS1/16S102J
R 1903	(B,83,77)	RS1/16S272J
R 1905	(B,165,35)	RS1/16S153J
R 1906	(B,163,33)	RS1/4S102J
R 1907	(A,175,41)	RS1/10S181J
R 1909	(A,175,45)	RS1/10S181J
R 1910	(B,166,61)	RS1/16SS221J

Circuit Symbol and No.		Part No.
R 1911	(A,175,70)	RS1/16S122J
R 1913	(B,162,48)	RS1/10S0R0J
R 1914	(B,162,46)	RS1/10S0R0J
R 1915	(B,168,62)	RS1/16SS471J
R 1916	(A,175,60)	RS1/16S223J
R 1918	(B,164,56)	RS1/16SS223J
R 1919	(B,169,58)	RS1/16SS471J
R 1950	(B,111,86)	RS1/4S471J
R 1954	(B,150,46)	RS1/16S122J
R 2821	(B,45,26)	RS1/16S102J
R 2831	(B,45,22)	RS1/16S821J
R 2832	(B,45,17)	RS1/16S821J
R 2833	(B,41,21)	RS1/16S223J
R 2834	(B,41,17)	RS1/16S223J
R 2837	(B,45,15)	RS1/16S821J
R 2838	(B,45,10)	RS1/16S821J
R 2839	(B,41,14)	RS1/16S223J
R 2840	(B,41,10)	RS1/16S223J
R 2843	(B,45,8)	RS1/16S821J
R 2844	(B,45,3)	RS1/16S821J
R 2845	(B,41,8)	RS1/16S223J
R 2846	(B,41,4)	RS1/16S223J
R 2851	(B,22,33)	RS1/10S103J
R 2873	(B,23,14)	RS1/16S0R0J
R 2886	(B,28,9)	RS1/16S473J
R 2887	(B,26,9)	RS1/16S104J
R 2888	(B,31,12)	RS1/10S102J
R 2892	(B,18,33)	RS1/16S0R0J

CAPACITORS

C 1001	(B,132,13)	CCSRCH101J50
C 1002	(B,132,8)	CCSRCH101J50
C 1003	(B,137,8)	CCSRCH101J50
C 1004	(B,137,13)	CCSRCH101J50
C 1005	(B,126,22)	CCSRCH101J50
C 1006	(B,134,22)	CKSRYF104Z25
C 1007	(B,124,27)	CCSRCH101J50
C 1008	(B,133,27)	CKSRYF104Z25
C 1009	(B,123,27)	CCSRCH101J50
C 1010	(B,132,22)	CKSRYF104Z25
C 1012	(B,128,8)	CCSRCH101J50
C 1014	(B,127,13)	CCSRCH101J50
C 1016	(B,131,27)	CCSRCH101J50
C 1018	(B,130,22)	CCSRCH101J50
C 1020	(B,129,27)	CCSRCH101J50
C 1022	(B,108,41) 10 µF	CCG1203
C 1023	(B,108,39) 10 µF	CCG1203
C 1026	(B,103,41)	CCSRCJ3R0C50
C 1027	(B,135,27)	CKSRYF104Z25
C 1031	(B,94,38)	CKSRYB105K10
C 1032	(A,100,41)	CEVW100M16
C 1033	(B,98,44)	CKSRYB104K50
C 1041	(B,108,45)	CKSRYB105K10
C 1042	(B,108,46)	CKSRYB105K10
C 1043	(B,108,48)	CKSRYB105K10
C 1044	(B,108,49)	CKSRYB105K10
C 1045	(A,109,46)	CEVW220M16
C 1046	(A,104,45)	CEVW100M16
C 1101	(B,73,115)	CKSRYB104K50

Circuit Symbol and No.		Part No.
C 1102	(A,138,108)	CEVW100M16
C 1103	(A,137,101)	CEVW220M16
C 1106	(B,141,114)	CKSRYB105K10
C 1107	(B,139,114)	CKSRYB105K10
C 1108	(B,136,114)	CKSRYB105K10
C 1109	(B,134,114)	CKSRYB105K10
C 1112	(B,117,116)	CCSRCH471J50
C 1113	(B,116,116)	CCSRCH471J50
C 1117	(B,107,116)	CKSRYB104K50
C 1118	(B,106,116)	CKSRYB104K50
C 1302	(B,93,32)	CKSRYB104K50
C 1305	(A,108,25)	CEVW100M16
C 1306	(A,108,31)	CEVW220M16
C 1307	(B,102,34)	CKSRYB104K50
C 1308	(A,101,25)	CEVW100M16
C 1309	(B,95,33)	CKSRYB105K10
C 1310	(B,103,28)	CKSRYB105K10
C 1314	(B,88,28) 10 µF	CCG1203
C 1319	(B,104,28)	CKSRYB105K10
C 1320	(B,92,28) 10 µF	CCG1203
C 1321	(B,106,28)	CKSRYB105K10
C 1322	(B,108,28)	CKSRYB105K10
C 1329	(B,100,28)	CCSRCJ3R0C50
C 1331	(B,96,26) 10 µF	CCG1203
C 1332	(B,96,24) 10 µF	CCG1203
C 1334	(B,101,20)	CCSRCH471J50
C 1337	(B,93,20)	CCSRCH471J50
C 1351	(B,80,35)	CKSRYB104K50
C 1352	(A,80,30)	CEVW100M16
C 1353	(B,74,35)	CKSRYB105K10
C 1354	(A,95,25)	CEVW100M16
C 1355	(A,95,31)	CEVW220M16
C 1357	(B,78,30)	CCSRCJ3R0C50
C 1359	(B,83,25)	CKSRYB105K10
C 1360	(B,83,28)	CKSRYB105K10
C 1361	(B,83,27)	CKSRYB105K10
C 1362	(B,83,23)	CKSRYB105K10
C 1363	(B,72,30) 10 µF	CCG1203
C 1364	(B,72,32) 10 µF	CCG1203
C 1401	(B,60,109)	CKSQYB225K10
C 1402	(B,61,97)	CKSQYB225K10
C 1403	(A,26,35) (EW5)	CCSRCH270J50
C 1404	(B,55,86)	CKSYB475K16
C 1405	(B,53,79)	CKSRYB103K50
C 1406	(A,28,35) (EW5)	CCSRCH220J50
C 1407	(B,53,87)	CKSRYB103K50
C 1408	(B,42,51)	CKSRYB103K50
C 1409	(A,31,33) (EW5)	CCSRCH270J50
C 1410	(A,51,95)	CEVW470M6R3
C 1411	(A,53,49)	CEVW331M10
C 1412	(A,33,33) (EW5)	CCSRCH330J50
C 1413	(A,35,35) (EW5)	CCSRCH470J50
C 1414	(B,42,29) (EW5)	CKSRYB103K50
C 1415	(A,57,65)	CKSRYB103K50
C 1418	(A,54,103)	CEVW100M16
C 1419	(B,59,39) (EW5)	CKSRYB103K50
C 1420	(B,55,49) (EW5)	CCSRCH270J50
C 1421	(A,50,32) (EW5)	CKSRYB103K50
C 1422	(B,54,45) (EW5)	CCSRCH150J50
C 1423	(A,51,89)	CEVW220M16

Circuit Symbol and No.		Part No.
C 1424	(A,56,86)	CKSRYB103K50
C 1426	(B,88,113) (EW5)	CKSRYB103K50
C 1429	(B,61,103)	CKSRYB103K50
C 1430	(A,56,77)	CKSRYB104K50
C 1431	(A,59,103)	CEVW100M16
C 1432	(A,34,23) (EW5)	CKSRYB103K50
C 1433	(B,49,29) (EW5)	CKSRYB222K50
C 1434	(A,44,24) (EW5)	CKSRYB222K50
C 1435	(B,48,22) (EW5)	CKSRYB222K50
C 1436	(B,106,101) (EW5)	CKSRYB103K50
C 1437	(B,59,40) (EW5)	CKSRYB103K50
C 1438	(B,52,40) (EW5)	CKSRYB222K50
C 1442	(A,53,60)	CEVW331M10
C 1501	(B,87,48)	CKSRYB222K50
C 1502	(B,87,46)	CKSRYB222K50
C 1505	(B,81,49)	CKSQYB225K10
C 1506	(B,81,46)	CKSQYB225K10
C 1507	(B,74,43)	CKSQYB105K16
C 1508	(B,71,43)	CKSQYB105K16
C 1509	(B,67,52)	CKSQYB105K16
C 1510	(B,69,52)	CKSQYB105K16
C 1511	(B,68,37)	CKSQYB105K16
C 1512	(B,68,43)	CKSQYB105K16
C 1513	(A,72,64)	CEVW100M16
C 1514	(B,76,43)	CKSQYB105K16
C 1515	(B,79,43)	CKSQYB105K16
C 1516	(B,83,61)	CKSRYB103K50
C 1517	(A,91,66)	CEVW220M16
C 1518	(B,83,43)	CKSQYB105K16
C 1519	(B,85,43)	CKSQYB105K16
C 1520	(B,88,43)	CKSQYB105K16
C 1521	(B,91,43)	CKSQYB105K16
C 1522	(A,98,45)	CKSQYB105K16
C 1523	(B,87,56)	CKSQYB105K16
C 1524	(A,98,49)	CKSQYB105K16
C 1525	(A,98,47)	CKSQYB105K16
C 1526	(B,87,54)	CKSQYB105K16
C 1551	(B,76,77)	CKSRYB222K50
C 1552	(B,71,77)	CKSRYB222K50
C 1553	(B,67,77)	CKSRYB103K50
C 1554	(A,76,80)	CEVW100M16
C 1555	(A,70,80)	CEVW100M16
C 1556	(B,63,54)	CCSRCH7R0D50
C 1557	(B,75,70)	CKSRYB104K50
C 1558	(B,72,67)	CCSRCJ3R0C50
C 1559	(B,62,50)	CKSRYB104K50
C 1560	(A,61,54)	CEVW101M16
C 1561	(A,76,71)	CEVW101M16
C 1562	(A,64,80)	CEVW220M16
C 1563	(B,62,43)	CKSYB475K16
C 1564	(B,69,74)	CKSYB475K16
C 1565	(B,64,38)	CKSRYB103K50
C 1566	(A,64,38)	CEVW470M16
C 1567	(B,69,68)	CKSRYB103K50
C 1568	(A,69,25)	CEVW330M10
C 1569	(A,69,31)	CEVW101M4
C 1570	(A,68,70)	CEVW470M16
C 1571	(A,62,70)	CEVW330M10
C 1572	(A,62,63)	CEVW101M4
C 1604	(B,96,84)	CKSRYB104K50

Circuit Symbol and No.		Part No.
C 1605	(A,102,82)	CEVW100M16
C 1606	(A,92,118)	CKSRYB103K50
C 1608	(A,99,84)	CKSRYB103K50
C 1610	(A,95,84)	CKSRYB103K50
C 1611	(A,95,119)	CKSRYB222K50
C 1612	(B,99,86)	CKSRYB104K50
C 1614	(A,95,114)	CKSRYB104K50
C 1616	(B,98,105)	CKSRYB102K50
C 1617	(A,102,102)	CKSRYB104K50
C 1618	(A,97,118)	CKSRYB104K50
C 1619	(A,93,111)	CKSRYB103K50
C 1620	(B,89,113)	CKSRYB102K50
C 1621	(A,89,88)	CKSRYB102K50
C 1622	(A,70,95)	CKSRYB104K50
C 1623	(B,81,107)	CKSRYB104K50
C 1624	(B,83,101)	CKSRYB104K50
C 1625	(A,89,87)	CKSRYB104K50
C 1626	(A,88,113)	CKSRYB104K50
C 1675	(A,79,120)	CKSRYB104K50
C 1676	(B,82,118)	CCSRCJ3R0C50
C 1677	(B,84,117)	CCSRCJ3R0C50
C 1678	(B,95,116)	CKSRYB104K50
C 1679	(A,70,110)	CKSRYB104K50
C 1694	(B,81,91)	CCSRCH101J50
C 1760	(B,30,125) 10 µF	CCG1203
C 1761	(B,33,125) 10 µF	CCG1203
C 1762	(B,24,128)	CKSRYB105K10
C 1763	(B,23,128)	CKSRYB105K10
C 1764	(B,21,128)	CKSRYB105K10
C 1765	(B,20,128)	CKSRYB105K10
C 1766	(B,29,121)	CKSRYB104K50
C 1767	(A,22,124)	CEVW220M16
C 1768	(A,22,131)	CEVW100M16
C 1769	(A,63,117) 10 µF	CCG1223
C 1770	(B,61,118)	CKSRYB102K50
C 1772	(A,130,103) 10 µF	CCG1223
C 1801	(B,150,61) (EW5)	CKSRYB222K50
C 1802	(B,144,59) (EW5)	CKSRYB103K50
C 1803	(B,144,65) (EW5)	CCSRCH220J50
C 1805	(A,137,77) (EW5)	CEVW100M16
C 1806	(A,134,76) (EW5)	CKSRYB473K50
C 1807	(A,146,78) (EW5)	CEVW220M16
C 1808	(B,124,77) (EW5)	CKSRYB103K50
C 1809	(B,130,66) (EW5)	CKSRYB103K50
C 1810	(B,134,66) (EW5)	CKSRYB473K50
C 1811	(B,114,66) (EW5)	CKSRYB103K50
C 1812	(B,119,63) (EW5)	CKSRYB473K50
C 1813	(A,132,76) 10 µF(EW5)	CCG1220
C 1821	(B,158,120)	CKSRYB823K16
C 1822	(A,142,130)	CKSRYB104K50
C 1823	(B,156,120)	CKSRYB103K50
C 1824	(A,147,123)	CKSRYB104K50
C 1825	(A,148,127)	CKSRYB102K50
C 1868	(B,171,118)	CKSRYB104K50
C 1869	(A,166,114)	CKSRYB334K10
C 1872	(A,144,86)	CKSRYB104K50
C 1873	(A,144,85)	CKSRYB334K10
C 1874	(A,148,114)	CKSRYF103Z50
C 1876	(A,153,88)	CEVW470M16
C 1877	(B,141,88)	CKSRYB104K50
C 1878	(B,142,92)	CKSRYF104Z25
C 1879	(B,142,88)	CKSRYB474K10
C 1880	(A,148,86)	CKSRYB104K50
C 1881	(A,164,131)	CKSRYB104K50
C 1882	(A,144,97)	CEVW470M16
C 1890	(A,172,93)	CKSRYB104K50
C 1892	(B,168,96)	CKSRYB104K50
C 1893	(B,174,103)	CKSRYB103K50
C 1901	(A,143,47)	CEVW101M16
C 1902	(A,122,46)	CEVW101M16
C 1903	(A,82,83)	CKSRYB104K50
C 1905	(A,121,42)	CKSRYB103K50
C 1906	(A,142,42)	CKSRYB103K50
C 1907	(B,165,40)	CKSRYB103K50
C 1908	(A,166,40)	CEVW101M16
C 1910	(A,171,51)	CEVW101M16
C 1911	(B,166,59)	CKSRYB104K50
C 1912	(B,169,46)	CKSRYB103K50
C 1913	(B,167,65)	CKSRYB103K50
C 1914	(B,169,40)	CKSRYB103K50
C 1915	(A,167,62)	CEVW101M16
C 1916	(A,163,48)	CEVW101M16
C 1917	(A,132,46)	CEVW101M16
C 1918	(A,131,42)	CKSRYB103K50
C 1920	(B,167,68)	CKSRYB103K50
C 1921	(B,167,66)	CKSRYB103K50
C 1922	(A,174,87)	CKSRYB104K50
C 1923	(A,166,73)	CEVW470M16
C 1924	(A,170,89)	CKSRYB103K50
C 1925	(A,162,94)	CEVW220M16
C 1950	(A,128,85)	CEVW101M16
C 1951	(B,109,91)	CKSRYB103K50
C 1952	(A,118,92)	CKSRYB103K50
C 1953	(A,126,95)	CEVW101M16
C 1954	(A,152,47)	CEVW101M16
C 1955	(B,153,48)	CKSRYB103K50
C 1956	(B,156,42)	CKSRYB103K50
C 1957	(A,152,40)	CEVW101M16
C 1981	(B,60,90)	CKSRYB104K50
C 1982	(B,66,97)	CKSRYB103K50
C 1983	(A,65,92)	CEVW100M16
C 2813	(B,25,17)	CKSRYF104Z25
C 2814	(B,20,18)	CKSRYF104Z25
C 2822	(A,54,22)	CEVW470M16
C 2831	(A,46,19)	CEVW100M25
C 2832	(A,38,19)	CEVW100M25
C 2835	(B,35,20)	CKSRYB102K50
C 2836	(B,35,18)	CKSRYB102K50
C 2837	(A,46,12)	CEVW100M25
C 2838	(A,38,12)	CEVW100M25
C 2841	(B,35,13)	CKSRYB102K50
C 2842	(B,35,12)	CKSRYB102K50
C 2843	(A,46,6)	CEVW100M25
C 2844	(A,38,6)	CEVW100M25
C 2847	(B,35,6)	CKSRYB102K50
C 2848	(B,35,5)	CKSRYB102K50
C 2851	(B,20,33)	CKSRYF103Z50
C 2886	(B,27,12)	CKSRYF104Z25
C 2887	(B,26,21)	CKSRYF104Z25

Circuit Symbol and No.		Part No.

M

Unit Number : CXX2316
Unit Name : Main PCB Unit(SERVICE)

MISCELLANEOUS

IC 101	Regulator	BA00CC0WFP
IC 102	IC	BA6247FP
IC 103	Photo-interrupter	GP2L24B
IC 104	IC	TC7W14FU
IC 105	Photo-interrupter	GP2L24B
Q 101	Chip Transistor	DTC124EUA
D 101	Diode	UDZS5R6(B)

RESISTORS

R 101	RS1/16S102J
R 102	RS1/16S3302D
R 103	RS1/16S3900D
R 104	RS1/16S4701D
R 105	RS1/16S471J
R 106	RS1/16S102J
R 107	RS1/16S102J
R 108	RS1/16S102J
R 109	RS1/16S102J
R 110	RS1/16S102J
R 111	RS1/16S562J
R 112	RS1/16S102J
R 113	RS1/16S102J
R 114	RS1/16S102J
R 115	RS1/16S562J
R 116	RS1/16S102J
R 117	RS1/16S472J

CAPACITORS

C 101	CKSYB475K16
C 102	CKSYB475K16
C 103	CKSRYB104K16
C 104	CKSRYB104K16
C 105	CKSRYB223K16
C 106	CKSRYB104K16
C 107	CKSRYB223K16
C 108	CEVW101M16
C 109	CKSRYB104K16
C 110	CCSRCH102J50
C 111	CCSRCH102J50

N

Unit Number : CZW5029
Unit Name : Switch PCB Unit

S 101	Switch(Angle SW)	CSN1068

O

Unit Number : CZW5028
Unit Name : Volume PCB Unit

VR101	Volume(Angle sense)	CCW1025

Circuit Symbol and No.		Part No.

D

Unit Number : CWX3401
Unit Name : DVD Core Unit

MISCELLANEOUS

IC 1001	(B,79,55)	IC	BD9851EFV
IC 1003	(B,72,42)	IC	S-80859CNNB-B9K
IC 1004	(B,75,48)	Regulator IC	NJM2880U1-05
IC 1005	(B,61,58)	IC	S-L2980A50MC-C7J
IC 1201	(A,26,15)	IC	BD7996EFV
IC 1301	(B,90,27)	IC	TC7SZ125FU
IC 1351	(B,86,27)	IC	TC7SZ08FU
IC 1352	(B,79,14)	IC	TC74LCX16373FT
IC 1401	(B,61,32)	Flash ROM Unit	CWW1430
IC 1402	(B,37,10)	Flash ROM Unit	CWW1431
IC 1403	(B,47,29)	IC	TC7SZ32FU
IC 1481	(B,60,12)	IC	EDS1232AATA-75
IC 1501	(A,60,19)	IC	MN2DS0016AAUB
IC 1801	(A,70,53)	D/A Converter	PCM1753DBQ
Q 1001	(B,77,67)	FET	RSQ030P03
Q 1003	(B,85,67)	FET	QS5U27
Q 1101	(B,62,50)	Transistor	2SC4081
Q 1102	(B,68,50)	Transistor	2SC4081
Q 1103	(B,60,45)	Transistor	2SB1260
Q 1104	(B,67,45)	Transistor	2SB1260
D 1001	(B,80,64)	Chip Diode	RB050L-40
D 1002	(A,89,67)	Diode	1SR154-400
D 1301	(B,13,10)	Chip LED	CL205IRXTU
L 1001	(B,73,62)	Inductor	CTF1678
L 1002	(B,83,72)	Inductor	CTF1677
L 1003	(B,86,62)	Inductor	CTF1681
L 1004	(B,63,60)	Inductor	CTF1558
L 1005	(B,81,49)	Inductor	CTF1558
L 1101	(B,66,54)	Inductor	CTF1305
L 1482	(B,77,29)	Inductor	CTF1473
L 1502	(A,71,47)	Inductor	CTF1378
L 1503	(A,60,47)	Inductor	CTF1487
L 1504	(A,35,10)	Inductor	CTF1387
L 1511	(A,63,3)	Inductor	CTF1680
L 1601	(A,41,23)	Inductor	CTF1473
L 1602	(A,55,42)	Inductor	CTF1473
L 1603	(A,54,42)	Inductor	CTF1473
L 1604	(A,52,42)	Inductor	CTF1473
L 1605	(A,38,32)	Inductor	CTF1395
L 1671	(A,41,19)	Inductor	CTF1473
L 1672	(A,41,20)	Inductor	CTF1473
L 1673	(A,41,21)	Inductor	CTF1473
L 1801	(A,70,61)	Inductor	CTF1473
L 1901	(A,91,73)	Inductor	CTF1487
L 1902	(A,91,62)	Inductor	CTF1558
X 1501	(A,40,16)	Clystal 27.000 MHz	CSS1714
VR1671	(A,35,20)	Semi-fixed 10 kohm(B)	CCP1448
EF1501	(A,68,47)	Chip EMI Filter	DTL1106
EF1502	(A,61,45)	Chip EMI Filter	DTL1106
EF1901	(A,87,74)	Chip EMI Filter	DTF1106
EF1903	(A,91,65)	Chip EMI Filter	DTL1106

RESISTORS

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
R 1001	(B,70,55)	RS1/16SS101J	R 1301	(B,14,14)	RS1/16SS391J
R 1002	(B,72,51)	RS1/16SS103J	R 1302	(B,16,14)	RS1/16SS471J
R 1003	(B,72,55)	RS1/16SS122J	R 1304	(B,87,23)	RS1/16SS563J
R 1005	(B,72,52)	RS1/16SS153J	R 1305	(B,86,23)	RS1/16SS243J
R 1006	(B,73,54)	RS1/16SS471J	R 1306	(B,85,23)	RS1/16SS683J
R 1007	(B,73,55)	RS1/16SS8201D	R 1307	(B,88,23)	RS1/16SS243J
R 1008	(B,70,56)	RS1/16SS4702D	R 1314	(B,86,21)	RAB4CQ822J
R 1009	(B,72,56)	RS1/16SS561J	R 1351	(B,84,25)	RS1/16SS331J
R 1010	(B,74,51)	RS1/16SS472J	R 1401	(B,72,33)	RS1/16SS221J
R 1011	(B,72,40)	RS1/16SS104J	R 1402	(B,50,27)	RS1/16SS104J
R 1013	(B,87,54)	RS1/16SS682J	R 1405	(B,48,10)	RS1/16SS221J
R 1017	(B,88,54)	RS1/16SS1002D	R 1406	(B,26,4)	RS1/16SS104J
R 1018	(B,88,53)	RS1/16SS472J	R 1407	(B,26,6)	RS1/16SS104J
R 1019	(B,87,53)	RS1/16SS2202D	R 1410	(B,47,32)	RS1/16SS104J
R 1020	(B,87,52)	RS1/16SS102J	R 1501	(B,71,3)	RAB4CQ560J
R 1021	(B,87,51)	RS1/16SS101J	R 1503	(A,72,3)	RS1/16SS560J
R 1026	(B,78,61)	RS1/16SS100J	R 1505	(B,68,3)	RAB4CQ560J
R 1027	(B,77,61)	RS1/16SS100J	R 1507	(B,65,3)	RAB4CQ560J
R 1101	(B,63,53)	RS1/16SS391J	R 1512	(B,59,3)	RAB4CQ560J
R 1102	(B,63,47)	RS1/16SS511J	R 1513	(A,44,4)	RS1/16SS102J
R 1103	(B,67,53)	RS1/16SS391J	R 1515	(A,43,3)	RS1/16SS102J
R 1104	(B,69,47)	RS1/16SS561J	R 1520	(A,35,8)	RS1/16SS221J
R 1107	(B,61,53)	RS1/16SS6R8J	R 1521	(A,41,12)	RAB4CQ101J
R 1108	(B,65,53)	RS1/16SS6R8J	R 1522	(B,56,3)	RAB4CQ560J
R 1109	(B,58,41)	RS1/10S1R5J	R 1523	(A,39,11)	RS1/16SS101J
R 1110	(B,63,41)	RS1/10S1R5J	R 1524	(A,39,13)	RS1/16SS101J
R 1111	(B,70,41)	RS1/10S1R5J	R 1525	(B,53,3)	RAB4CQ560J
R 1112	(B,65,41)	RS1/10S1R5J	R 1526	(A,36,11)	RS1/16SS270J
R 1113	(B,61,41)	RS1/10S1R5J	R 1528	(A,43,14)	RS1/16SS101J
R 1114	(B,59,41)	RS1/10S1R5J	R 1529	(B,54,22)	RAB4CQ560J
R 1115	(B,66,41)	RS1/10S1R5J	R 1530	(A,43,15)	RS1/16SS105J
R 1116	(B,68,41)	RS1/10S1R5J	R 1531	(B,50,22)	RAB4CQ560J
R 1117	(B,64,49)	RS1/16SS104J	R 1532	(A,77,23)	RS1/16SS103J
R 1118	(B,70,49)	RS1/16SS104J	R 1533	(A,76,27)	RS1/16SS103J
R 1202	(A,19,12)	RS1/16SS221J	R 1534	(A,77,26)	RS1/16SS103J
R 1203	(A,19,11)	RS1/16SS221J	R 1535	(A,63,36)	RS1/16SS221J
R 1210	(A,30,27)	RS1/16SS101J	R 1537	(A,67,41)	RS1/16SS221J
R 1211	(B,26,18)	RS1/16SS3R9J	R 1538	(A,66,41)	RS1/16SS221J
R 1212	(B,27,18)	RS1/16SS3R9J	R 1540	(A,71,44)	RS1/16SS102J
R 1214	(B,28,18)	RS1/16SS3R9J	R 1541	(A,64,41)	RS1/16SS472J
R 1215	(B,29,18)	RS1/16SS3R9J	R 1542	(A,60,36)	RS1/16SS223J
R 1216	(B,30,18)	RS1/16SS3R9J	R 1543	(A,59,38)	RS1/16SS332J
R 1217	(B,31,18)	RS1/16SS3R9J	R 1544	(A,57,41)	RS1/16SS183J
R 1219	(A,20,27)	RS1/16SS101J	R 1545	(A,61,36)	RS1/16SS223J
R 1223	(A,19,4)	RS1/16SS753J	R 1546	(A,59,42)	RS1/16SS104J
R 1225	(A,19,7)	RS1/16SS753J	R 1547	(A,59,41)	RS1/16SS473J
R 1227	(B,13,21)	RS1/16SS3R9J	R 1548	(A,59,36)	RS1/16SS104J
R 1228	(B,14,21)	RS1/16SS3R9J	R 1554	(A,60,40)	RS1/16SS221J
R 1229	(B,15,21)	RS1/16SS3R9J	R 1555	(A,58,38)	RS1/16SS221J
R 1230	(B,16,21)	RS1/16SS3R9J	R 1556	(A,43,8)	RS1/16SS104J
R 1231	(B,17,21)	RS1/16SS3R9J	R 1557	(A,57,40)	RS1/16SS104J
R 1232	(B,18,21)	RS1/16SS3R9J	R 1559	(A,63,41)	RS1/16SS221J
R 1233	(B,19,21)	RS1/16SS3R9J	R 1560	(A,68,42)	RAB4CQ104J
R 1234	(B,20,21)	RS1/16SS3R9J	R 1562	(A,64,38)	RAB4CQ104J
R 1240	(B,32,18)	RS1/16SS3R9J	R 1565	(A,73,36)	RS1/16SS103J
R 1241	(B,33,18)	RS1/16SS3R9J	R 1566	(A,72,36)	RS1/16SS103J
R 1242	(B,34,18)	RS1/16SS3R9J	R 1567	(B,68,22)	RAB4CQ560J
R 1243	(B,38,18)	RS1/16SS3R9J	R 1568	(B,65,22)	RAB4CQ560J
R 1244	(B,36,18)	RS1/16SS3R9J	R 1569	(B,62,3)	RAB4CQ560J
R 1245	(B,35,18)	RS1/16SS3R9J	R 1570	(B,60,22)	RAB4CQ560J

Circuit Symbol and No.			Part No.
R 1571	(B,57,22)		RAB4CQ560J
R 1572	(A,47,3)		RS1/16SS103J
R 1573	(B,63,20)		RS1/16SS560J
R 1582	(A,82,26)		RS1/16SS103J
R 1583	(A,82,28)		RS1/16SS103J
R 1584	(A,77,28)		RS1/16SS103J
R 1601	(A,41,25)		RS1/16SS123J
R 1602	(A,39,24)		RS1/16SS123J
R 1607	(A,41,27)		RS1/16SS105J
R 1609	(A,37,29)		RN1/16SE1002D
R 1610	(A,43,29)		RS1/16SS222J
R 1613	(A,39,29)		RS1/16SS223J
R 1614	(A,46,36)		RS1/16SS105J
R 1615	(A,43,33)		RS1/16SS105J
R 1616	(A,53,36)		RS1/16SS2002D
R 1672	(A,43,21)		RS1/16SS303J
R 1673	(A,38,22)		RS1/16SS183J
R 1674	(A,34,23)		RS1/16SS562J
R 1705	(A,55,57)		RS1/16SS0R0J
R 1706	(A,52,57)		RS1/16SS201J
R 1707	(A,55,51)		RS1/16SS0R0J
R 1708	(A,52,50)		RS1/16SS201J
R 1715	(A,60,56)		RS1/16SS201J
R 1716	(A,63,57)		RS1/16SS0R0J
R 1719	(A,60,50)		RS1/16SS201J
R 1720	(A,63,51)		RS1/16SS0R0J
R 1803	(A,72,56)		RS1/16SS821J
R 1804	(A,74,56)		RS1/16SS821J
R 1805	(A,72,62)		RS1/16SS104J
R 1806	(A,74,62)		RS1/16SS104J
R 1903	(A,89,52)		RS1/16SS0R0J
R 2001	(A,77,8)		RS1/16SS820J
R 2003	(A,78,12)		RS1/16SS820J
R 2004	(A,77,14)		RS1/16SS820J
R 2005	(A,77,17)		RS1/16SS220J
R 2006	(A,81,31)		RS1/16SS101J
R 2007	(A,80,7)		RAB4CQ820J
R 2009	(A,80,11)		RAB4CQ330J
R 2010	(A,80,14)		RAB4CQ330J
R 2011	(A,80,19)		RAB4CQ330J
R 2012	(A,80,22)		RAB4CQ330J
R 2014	(A,85,3)		RS1/16SS103J
R 2015	(A,77,19)		RS1/16SS103J
R 2017	(A,78,7)		RS1/16SS103J
R 2018	(A,87,4)		RS1/16SS103J
R 2019	(A,85,5)		RS1/16SS103J
R 2020	(A,89,4)		RS1/16SS103J
R 2021	(A,76,9)		RS1/16SS220J
R 2022	(A,77,9)		RS1/16SS820J
R 2023	(A,78,9)		RS1/16SS220J

CAPACITORS

C 1001	(B,68,60)	10 µF	CCG1171
C 1002	(B,68,59)	10 µF	CCG1171
C 1003	(B,73,57)		CKSRYB103K50
C 1004	(B,72,54)		CKSSYB681K50
C 1005	(B,73,56)		CKSSYB103K16
C 1006	(B,74,52)		CCSSCH820J50
C 1007	(B,75,57)		CKSSYB104K10
C 1008	(B,80,67)	10 µF	CCG1192
C 1009	(B,82,67)	10 µF	CCG1192
C 1010	(B,85,54)		CKSSYB222K50
C 1011	(B,84,51)		CKSSYB104K10
C 1012	(B,84,58)		CKSSYB104K10
C 1014	(B,85,52)		CKSRYB105K10
C 1015	(B,81,61)	10 µF	CCG1171
C 1016	(B,86,57)		CKSRYB472K50
C 1017	(B,88,52)		CKSSYB681K50
C 1018	(B,81,60)	10 µF	CCG1171
C 1019	(B,58,59)		CCSSCH101J50
C 1020	(B,58,57)		CKSSYB104K10
C 1021	(B,60,60)		CKSRYB105K10
C 1022	(B,79,47)		CKSSYB103K16
C 1023	(B,79,49)		CKSSYB104K10
C 1024	(B,71,48)		CKSQYB475K10
C 1025	(B,64,58)		CKSRYB105K10
C 1029	(B,70,54)		CKSSYB104K10
C 1030	(B,88,51)		CKSSYB104K10
C 1031	(B,86,55)		CKSRYB474K10
C 1101	(B,61,54)	10 µF	CCG1192
C 1102	(B,59,50)	100 µF	CCG1232
C 1103	(B,65,50)	100 µF	CCG1232
C 1104	(B,63,44)		CKSSYB104K10
C 1105	(B,70,44)		CKSSYB104K10
C 1106	(B,63,46)		CKSSYB103K16
C 1107	(B,70,45)		CKSSYB103K16
C 1108	(A,35,36)		CKSSYB103K16
C 1109	(A,36,34)		CKSRYB105K10
C 1110	(A,35,37)		CKSSYB103K16
C 1111	(A,39,34)		CKSRYB105K10
C 1201	(B,21,11)		CEVW101M16
C 1202	(B,15,17)		CKSYB475K16
C 1207	(B,16,11)		CKSQYB225K10
C 1209	(A,32,17)		CKSSYB104K10
C 1210	(A,32,19)		CKSSYB471K50
C 1211	(A,19,17)		CKSSYB103K16
C 1212	(A,19,8)		CKSSYB104K10
C 1213	(A,19,10)		CKSSYB104K10
C 1301	(B,90,25)		CKSSYB104K10
C 1302	(B,88,25)		CKSSYB104K10
C 1351	(B,86,25)		CKSSYB104K10
C 1352	(B,76,19)		CKSSYB104K10
C 1353	(B,81,19)		CKSSYB104K10
C 1354	(B,74,8)		CKSSYB104K10
C 1355	(B,86,8)		CKSSYB104K10
C 1356	(B,84,28)		CKSYB106K6R3
C 1401	(B,72,31)		CKSSYB103K16
C 1402	(B,49,33)		CKSSYB104K10
C 1403	(B,81,27)		CKSQYB475K6R3
C 1405	(B,48,8)		CKSSYB103K16
C 1406	(B,26,15)		CKSSYB104K10
C 1407	(B,74,27)		CKSQYB475K6R3
C 1408	(B,47,27)		CKSSYB104K10
C 1481	(B,73,5)		CKSSYB104K10
C 1482	(B,73,8)		CKSSYB104K10
C 1483	(B,67,5)		CKSSYB104K10
C 1484	(B,63,5)		CKSSYB104K10
C 1485	(B,56,5)		CKSSYB104K10
C 1486	(B,53,5)		CKSSYB104K10
C 1487	(B,51,5)		CKSSYB104K10

Circuit Symbol and No.		Part No.
C 1488	(B,49,5)	CKSSYB104K10
C 1490	(B,68,20)	CKSSYB104K10
C 1491	(B,77,27)	CKSQYB106K6R3
C 1492	(B,55,20)	CKSSYB104K10
C 1493	(B,52,20)	CKSSYB104K10
C 1494	(B,65,20)	CKSSYB104K10
C 1496	(B,65,5)	CKSSYB102K50
C 1497	(B,61,20)	CKSSYB102K50
C 1498	(B,77,26)	CKSSYB102K50
C 1499	(B,49,4)	CKSSYB102K50
C 1501	(A,68,45)	CKSQYB106K6R3
C 1502	(A,58,44)	CKSQYB106K6R3
C 1503	(A,55,3)	CKSSYB104K10
C 1504	(A,58,3)	CKSSYB104K10
C 1505	(A,53,3)	CKSSYB104K10
C 1506	(A,60,3)	CKSSYB104K10
C 1507	(A,68,3)	CKSSYB104K10
C 1508	(A,65,3)	CKSSYB104K10
C 1509	(A,70,3)	CKSSYB104K10
C 1510	(A,43,11)	CKSSYB104K10
C 1511	(A,77,7)	CKSSYB104K10
C 1512	(A,76,11)	CKSSYB104K10
C 1513	(A,43,10)	CKSSYB104K10
C 1514	(A,76,17)	CKSSYB104K10
C 1515	(A,43,16)	CKSSYB104K10
C 1516	(A,76,15)	CKSSYB104K10
C 1517	(A,43,17)	CKSSYB104K10
C 1518	(A,37,15)	CCSSCH8R0D50
C 1519	(A,37,16)	CCSSCH8R0D50
C 1520	(A,49,3)	CCSSCH181J25
C 1521	(A,76,24)	CKSSYB104K10
C 1522	(A,77,24)	CKSSYB104K10
C 1523	(A,58,36)	CKSSYB104K10
C 1524	(A,58,37)	CKSSYB103K16
C 1525	(A,66,36)	CKSSYB104K10
C 1526	(A,62,40)	CKSSYB103K16
C 1527	(A,63,35)	CKSSYB471K50
C 1528	(A,65,36)	CKSSYB104K10
C 1529	(A,60,38)	CKSSYB103K16
C 1530	(A,59,40)	CKSSYB224K6R3
C 1531	(A,57,42)	CKSSYB123K16
C 1536	(A,76,20)	CKSSYB104K10
C 1537	(A,55,44)	CKSSYB102K50
C 1538	(A,53,44)	CKSSYB102K50
C 1539	(A,57,36)	CKSSYB104K10
C 1540	(A,61,38)	CKSSYB103K16
C 1560	(A,51,3)	CKSSYB104K10
C 1577	(A,77,31)	CKSSYB104K10
C 1601	(A,41,24)	CCSSCH101J50
C 1602	(A,43,24)	CCSSCH101J50
C 1603	(A,38,23)	CCSSCH680J50
C 1604	(A,39,25)	CCSSCH680J50
C 1608	(A,41,26)	CKSSYB103K16
C 1609	(A,43,27)	CKSSYB103K16
C 1610	(A,53,39)	CCSSCH101J50
C 1611	(A,54,38)	CKSSYB562K25
C 1612	(A,55,36)	CKSSYB224K6R3
C 1613	(A,55,38)	CKSSYB224K6R3
C 1614	(A,56,38)	CKSSYB333K16
C 1615	(A,41,30)	CKSRYB105K10

Circuit Symbol and No.		Part No.
C 1616	(A,48,36)	CKSSYB104K10
C 1617	(A,49,38)	CKSSYB104K10
C 1618	(A,51,38)	CKSSYB104K10
C 1619	(A,51,36)	CKSSYB104K10
C 1620	(A,50,36)	CKSSYB104K10
C 1621	(A,50,38)	CKSSYB104K10
C 1622	(A,53,38)	CKSSYB104K10
C 1623	(A,52,39)	CKSSYB104K10
C 1624	(A,43,28)	CKSSYB103K16
C 1625	(A,56,36)	CKSSYB104K10
C 1626	(A,41,31)	CKSRYB105K10
C 1627	(A,43,23)	CKSSYB104K10
C 1628	(A,54,36)	CKSSYB104K10
C 1629	(A,49,36)	CKSSYB104K10
C 1630	(A,38,30)	CKSQYB106K6R3
C 1671	(A,43,18)	CKSSYB104K10
C 1672	(A,43,19)	CKSSYB104K10
C 1673	(A,38,21)	CKSSYB104K10
C 1674	(A,39,22)	CKSSYB104K10
C 1675	(A,39,19)	CKSRYB105K10
C 1676	(A,38,19)	CKSRYB105K10
C 1677	(A,43,22)	CKSSYB104K10
C 1801	(A,75,52)	CKSSYB104K10
C 1802	(A,67,58) 10 µF	CCG1192
C 1803	(A,67,56)	CKSSYB104K10
C 1804	(A,70,58) 10 µF	CCG1192
C 1805	(A,70,56)	CKSSYB104K10
C 1808	(A,72,57)	CCSRCH182J50
C 1809	(A,75,57)	CCSRCH182J50
C 1810	(A,72,59)	CKSQYB475K6R3
C 1811	(A,74,59)	CKSQYB475K6R3
C 1901	(A,84,74)	CKSSYB102K50

E

Unit Number : CWX3154
Unit Name : Compound Unit(A)

Q 1299	Photo-taransistor	CPT231SCTD
S 1201	Spring Switch(12cm)	CSN1069
S 1202	Spring Switch(8cm)	CSN1069
S 1203	Spring Switch(DISC SENS)	CSN1069
S 1204	Spring Switch(DISC SENS)	CSN1070
S 1205	Spring Switch(8cm)	CSN1070
R 1298		RS1/16S0R0J
R 1299		RS1/16S0R0J

F

Unit Number : CWX3394
Unit Name : Compound Unit(B)

S 1206	Switch(CLAMP)	CSN1067

Miscellaneous Parts List

	Pickup Unit(Service)	CXX2118
M 1	Motor Unit(LOADING)	CXC4912
M 2	Motor(STEPPING)	CXM1364
M 3	Motor(SPINDLE)	CXM1362