

HCD-EA20

SERVICE MANUAL

Ver 1.0 2003. 10

AEP Model
UK Model



HCD-EA20 is the amplifier, DVD/CD and tuner section in DAV-EA20.

Model Name Using Similar Mechanism	HCD-SA30
Mechanism Type	CDM77A-DVBU20
Optical Pick-up Name	TDP022W

SPECIFICATIONS

Amplifier section

Stereo mode (rated)	25 W + 25 W (6 ohms at 1 kHz, THD 10 %)
Surround mode (reference)	Front: 25 W + 25 W Center*: 25 W Surround*: 25 W + 25 W (6 ohms at 1 kHz, THD 10 %) Subwoofer*: 50 W (8 ohms at 100 Hz, THD 10 %)
*	Depending on the sound field settings and the source, there may be no sound output.
Inputs	VIDEO: Sensitivity: 150 mV Impedance: 50 kilohms SAT: Sensitivity: 300 mV Impedance: 50 kilohms AUDIO IN: sensitivity: 150 mV Impedance: 50 kilohms
Outputs	VIDEO (AUDIO OUT): Voltage: 1 V Impedance: 1 kilohm Accepts low-and high-impedance headphones.
Phones	

DVD system

Laser	Semiconductor laser (DVD: $\lambda = 650$ nm) (CD: $\lambda = 780$ nm)
Signal format system	NTSC or NTSC/PAL
Frequency response (at 2CH STEREO mode)	DVD (PCM): 2 Hz to 22 kHz (± 1.0 dB) CD: 2 Hz to 20 kHz (± 1.0 dB)
Harmonic distortion	Less than 0.03 %

Tuner section

System	PLL quartz-locked digital synthesizer system
FM tuner section	
Tuning range	87.5 – 108.0 MHz (50 kHz step)
Aerial	FM wire aerial
Aerial terminals	75 ohms, unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	531 – 1,602 kHz (with the interval set at 9 kHz)
Aerial	AM loop aerial
Intermediate frequency	450 kHz

Video section

Inputs	Video: 1 Vp-p 75 ohms
Outputs	Video: 1 Vp-p 75 ohms
General	
Power requirements	230 V AC, 50/60 Hz
Power consumption	130 W (230 V AC) 0.3 W (230 V AC) (at the Power Saving Mode)
Dimensions (approx.)	355 × 80 × 395 mm (w/h/d) incl. projecting parts
Mass (approx.)	6.4 kg
Operating temperature	5°C to 35°C
Operating humidity	5 % to 90 %

Design and specifications are subject to change without notice.

CD/DVD RECEIVER

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)



: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350°C.

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

- Strong viscosity

Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

- Usable with ordinary solder

It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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**SECTION 1
SERVICING NOTE****NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK
OR BASE UNIT**

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

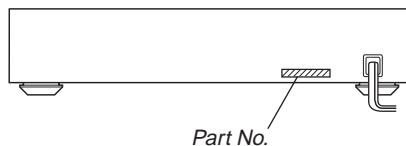
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

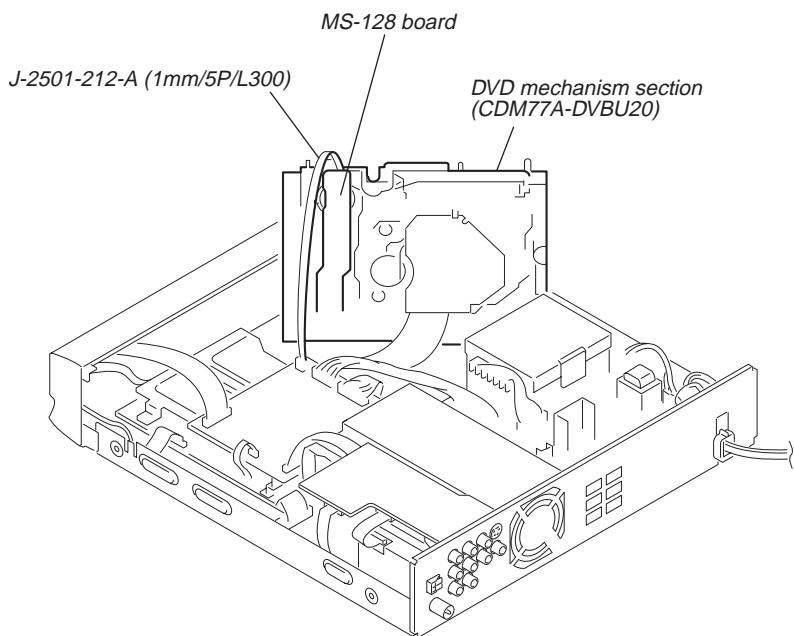
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

JIG ON REPAIRING

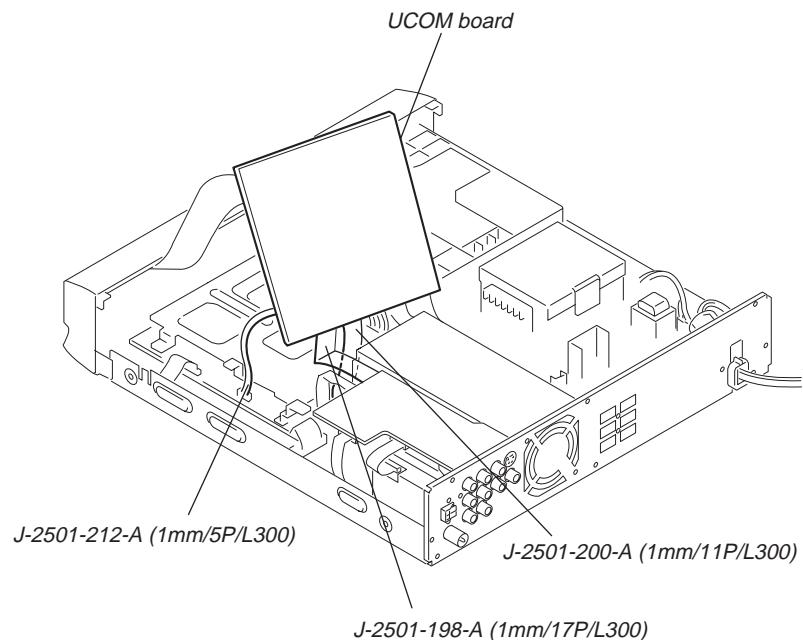
When repairing this set, etc., connect the extension cable as the figure shown below.

• Service position of mechanism block**MODEL IDENTIFICATION
— BACK PANEL —**

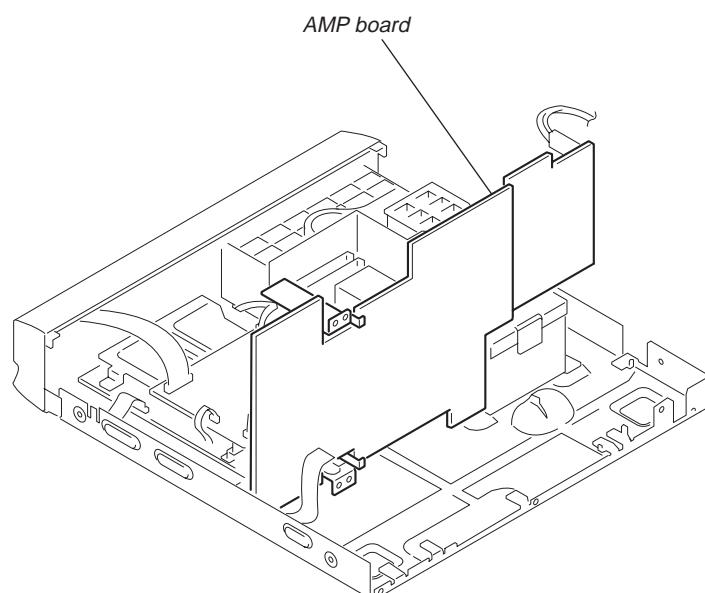
Model	PARTS No.
AEP, UK models	4-249-697-0□
Russian model	4-249-697-1□



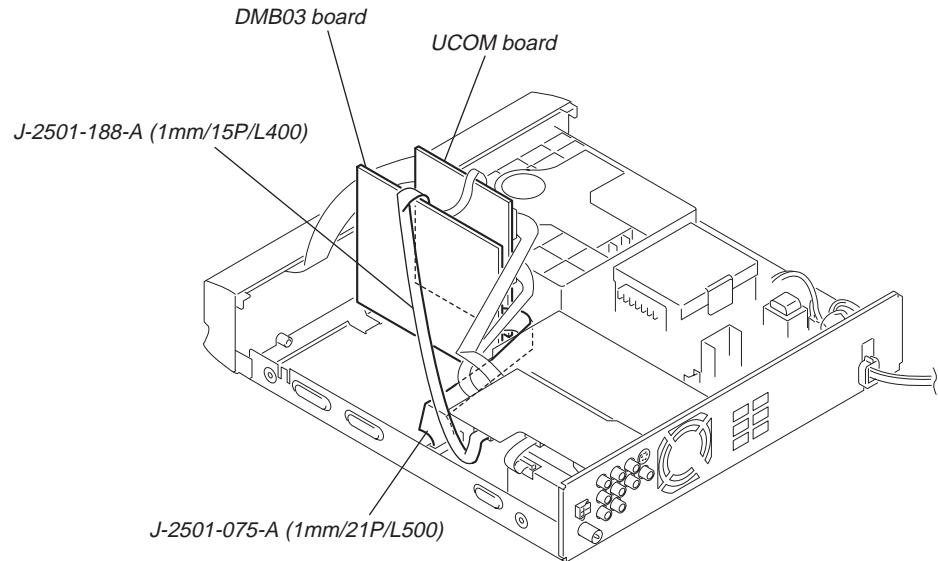
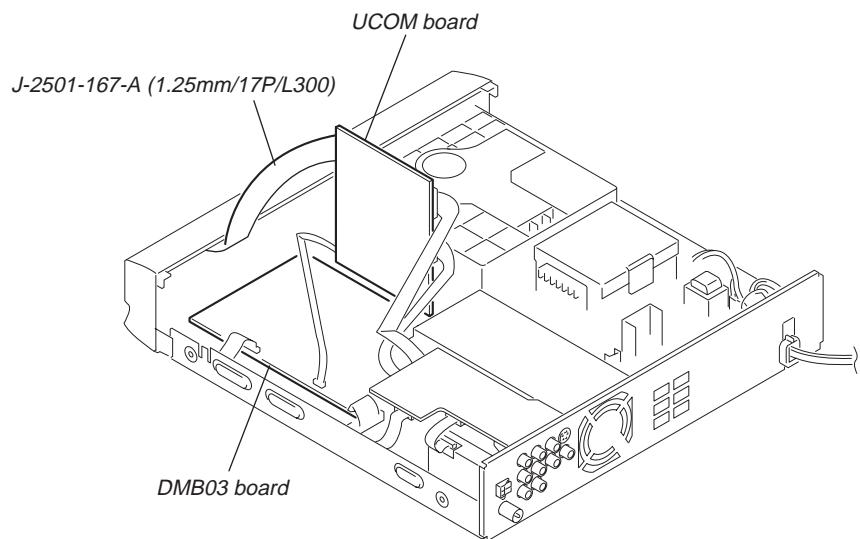
- Service position of UCOM board



- Service position of AMP board



- Service position of DMB03 board

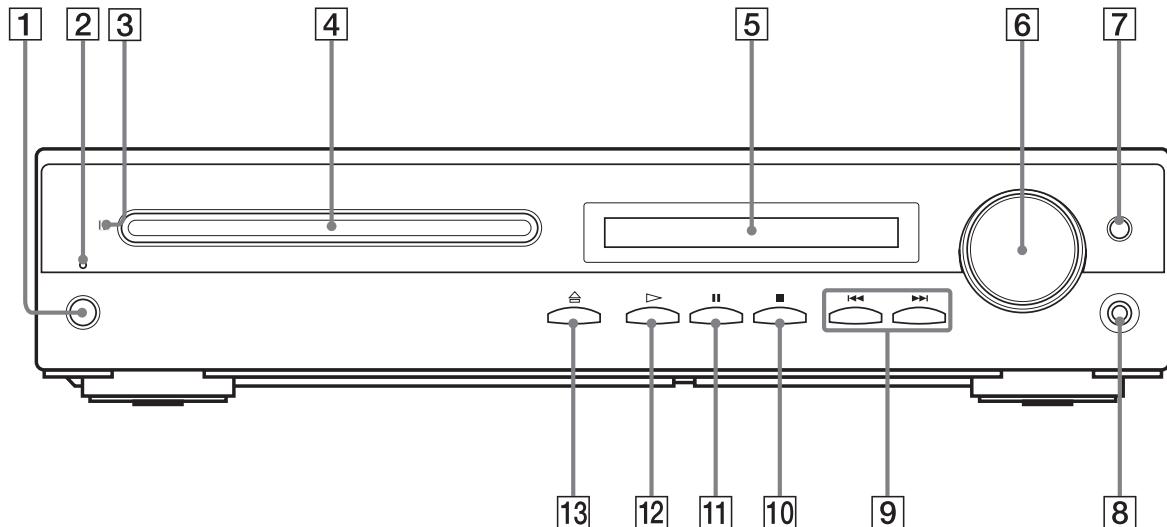


SECTION 2

GENERAL

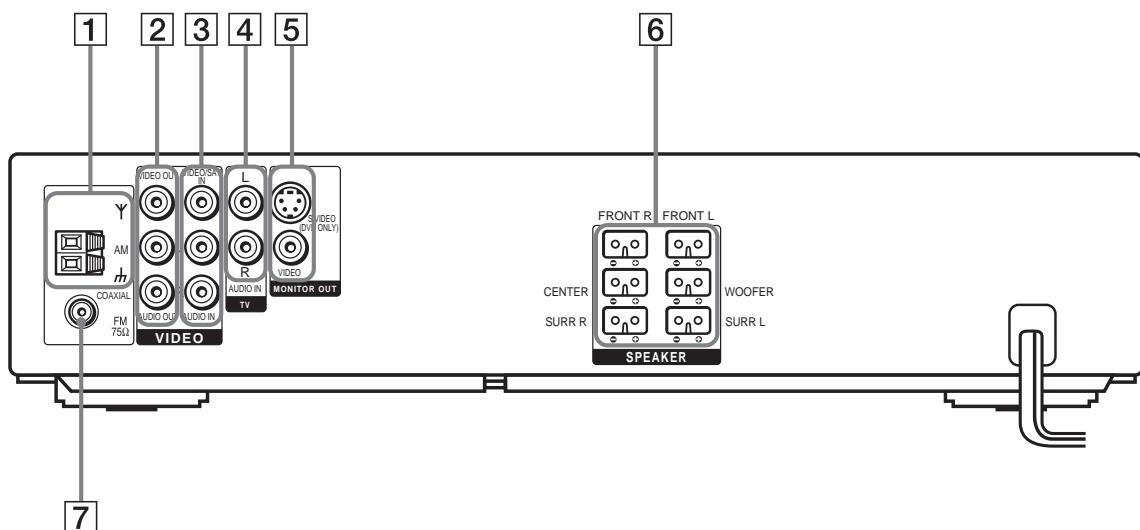
This section is extracted from instruction manual.

Front Panel



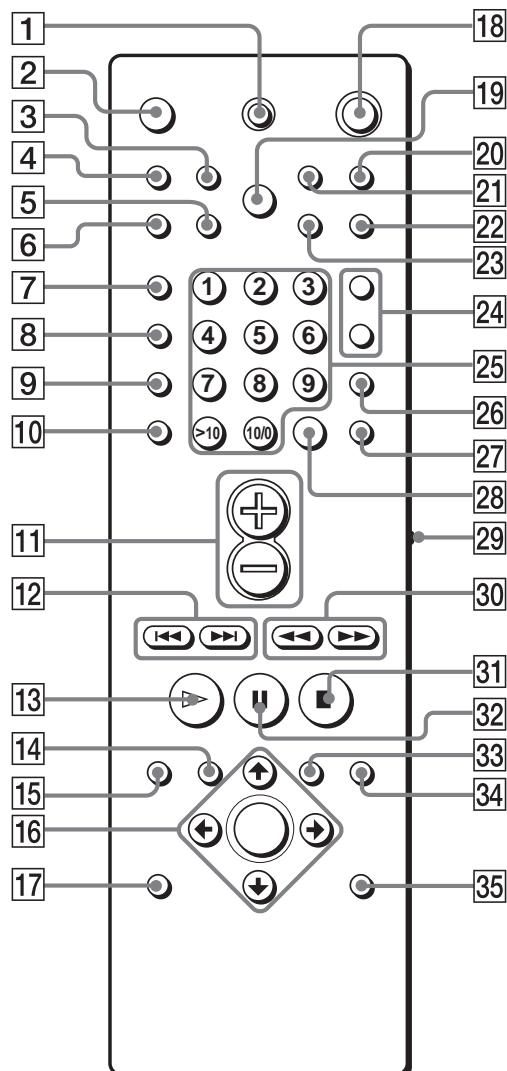
- | | |
|--------------------------------------|--|
| [1] I/O (power) (21) | [8] PHONES jack (21) |
| [2] STANDBY indicator (21) | [9] ◀▶/▶◀, PREV/NEXT, PRESET -/+ (22, 23, 52, 54) |
| [3] ■ (remote sensor) (11) | [10] ■ (stop) (22) |
| [4] Disc tray (21) | [11] ■ (pause) (22) |
| [5] Front panel display (70) | [12] ▷ (play) (21) |
| [6] VOLUME control (21, 62) | [13] △ (open/close) (21) |
| [7] FUNCTION (21, 52, 53, 54) | |

Rear Panel



- | | |
|---|---|
| [1] AM terminals (15) | [5] MONITOR OUT (VIDEO/S VIDEO) jacks (17) |
| [2] VIDEO (ANALOGUE OUT) jacks (17) | [6] SPEAKER jacks (12) |
| [3] VIDEO/SAT (ANALOGUE IN) jacks (17) | |
| [4] TV jacks (17) | [7] FM 75Ω COAXIAL jack (15) |

Remote



Note

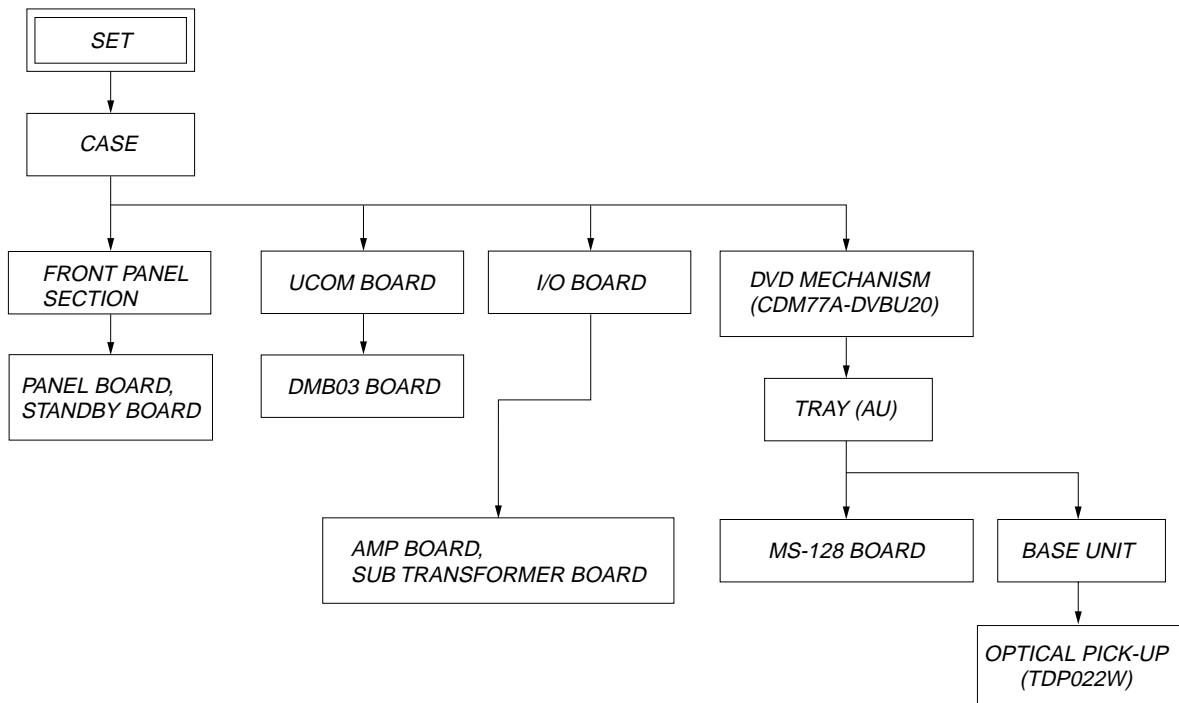
This remote control glows in the dark. However, before glowing, the remote must be exposed to light for a while.

- 1** TV **II** (on/standby) (51)
- 2** SLEEP (56)
- 3** TV/VIDEO (51)
- 4** PLAY MODE (28, 29)
- 5** MENU (52, 54)
- 6** REPEAT/FM MODE (28, 30, 53)
- 7** CLEAR (28, 29, 30, 32)
- 8** AUDIO (39)
- 9** ANGLE (44)
- 10** SUBTITLE (45)
- 11** VOL +/- (51, 53)

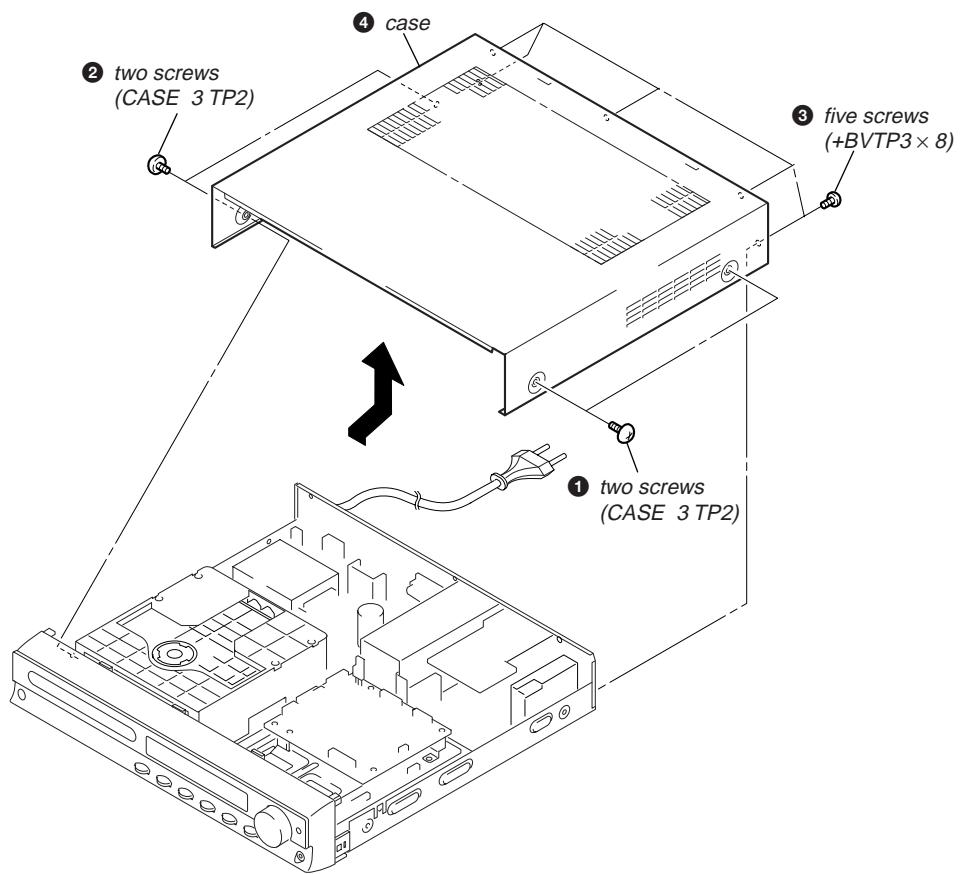
- 12** **◀◀/▶▶I**, PREV/NEXT, TV CH -/+,
PRESET -/+ (22, 23, 51, 52, 53, 54)
- 13** ▶ PLAY/SELECT (21, 23, 28, 29, 30,
47)
- 14** DVD TOP MENU/ALBUM- (23, 25, 26)
- 15** DVD DISPLAY (25, 26, 30, 32, 37, 38, 39,
44, 45)
- 16** **◀/↑/↓/▶/ENTER** (23, 25, 26, 27, 28, 30,
32, 39, 44, 45, 46, 47, 52, 54)
- 17** DVD SETUP (47, 57)
- 18** **II** (standby) (21, 52)
- 19** DISPLAY (34, 37, 53)
- 20** DDSG (43)
- 21** MUTING (22)
- 22** NIGHT MODE (43)
- 23** AUTO FORMAT DIRECT (41)
- 24** SOUND FIELD +/- (41, 42)
- 25** Number buttons (23, 28, 32, 44, 46, 47,
51)
- 26** FUNCTION (21, 52, 53, 54)
- 27** TUNER/BAND (52, 53)
- 28** ENTER (51, 52)
- 29** COMMAND MODE switch (11, 51)
- 30** **◀◀/▶▶/◀◀II/▶▶** SLOW, TUNING -/+ (31,
52)
- 31** ■ STOP (23, 46)
- 32** ■ PAUSE (22)
- 33** DVD MENU/ALBUM+ (23, 25, 26)
- 34** ⏪ RETURN (23, 25, 26, 28, 32, 46, 47)
- 35** DIMMER (56)

SECTION 3 DISASSEMBLY

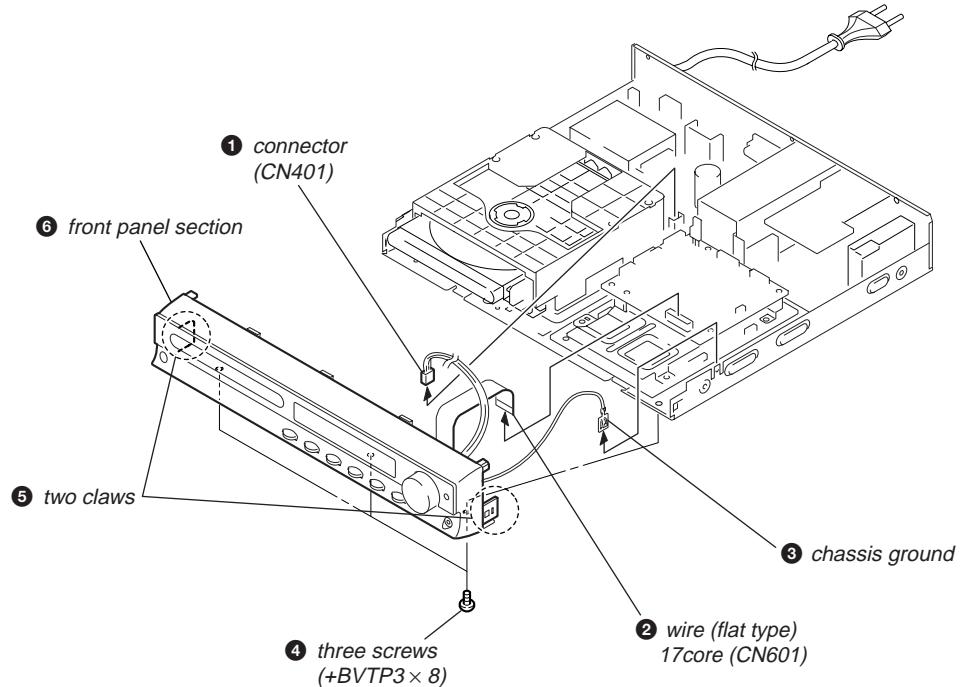
- The equipment can be removed using the following procedure.



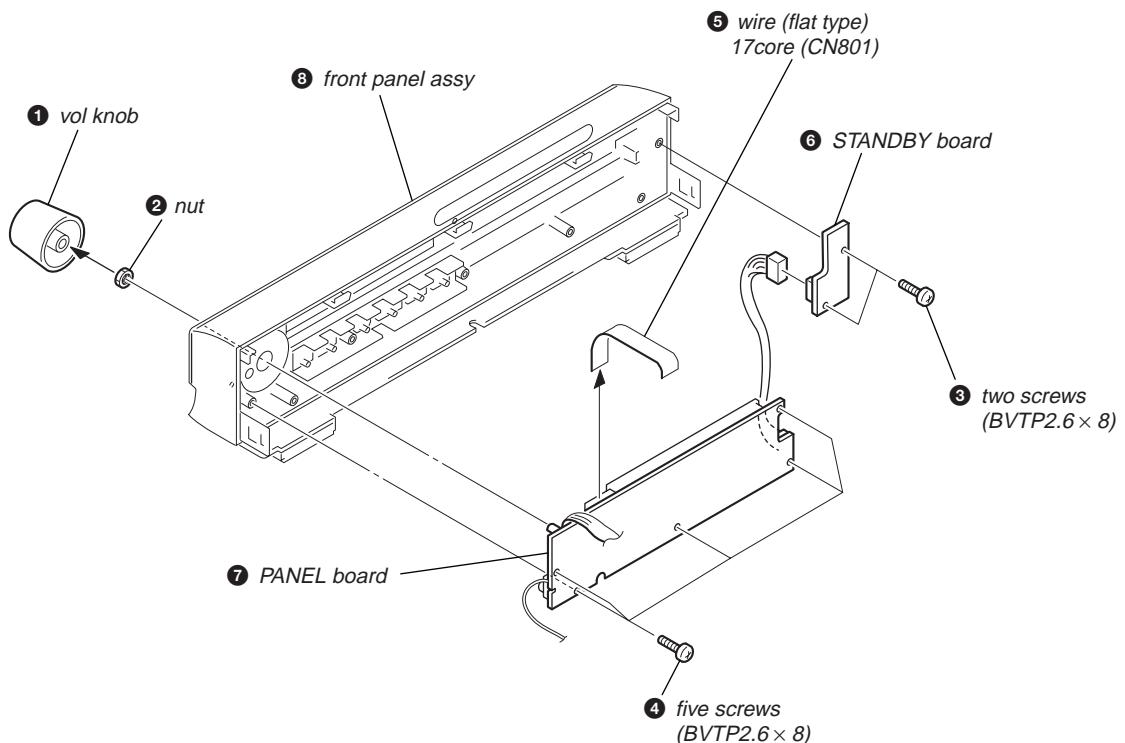
3-1. CASE



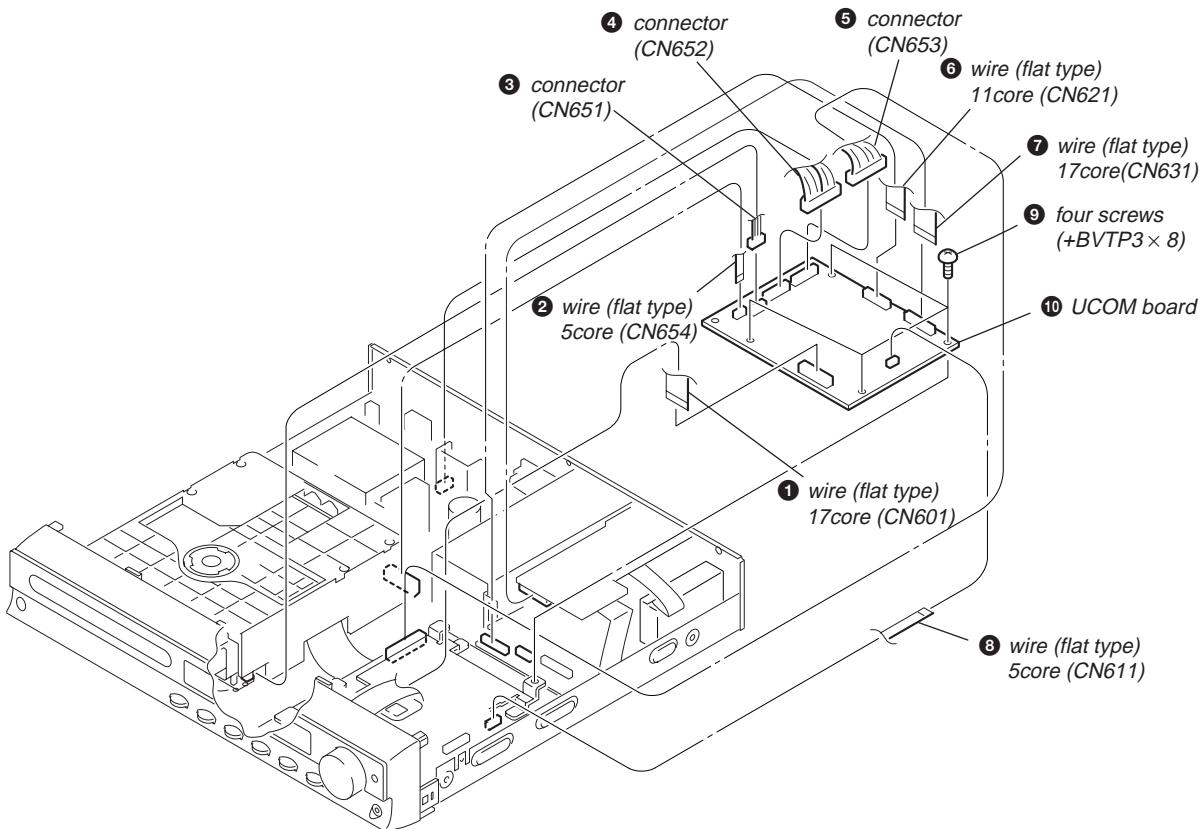
3-2. FRONT PANEL SECTION



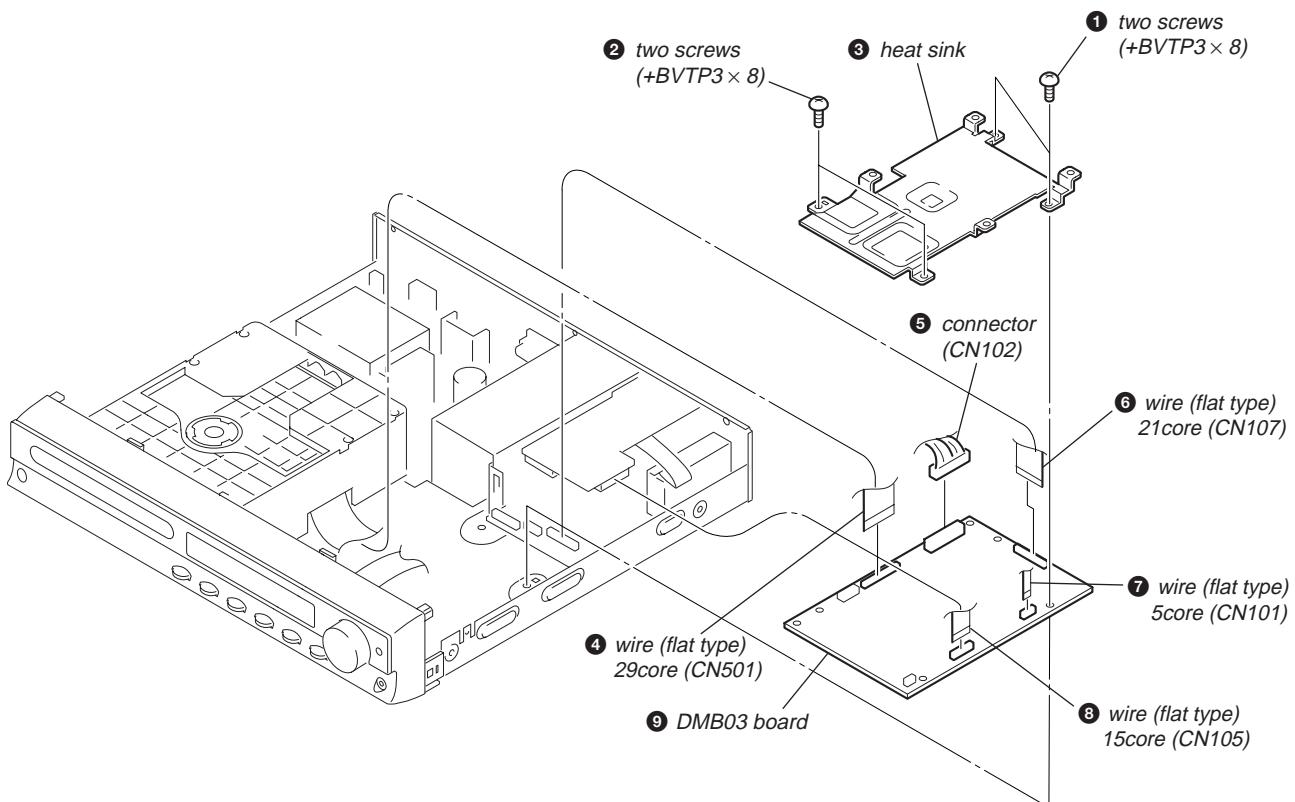
3-3. PANEL BOARD, STANDBY BOARD



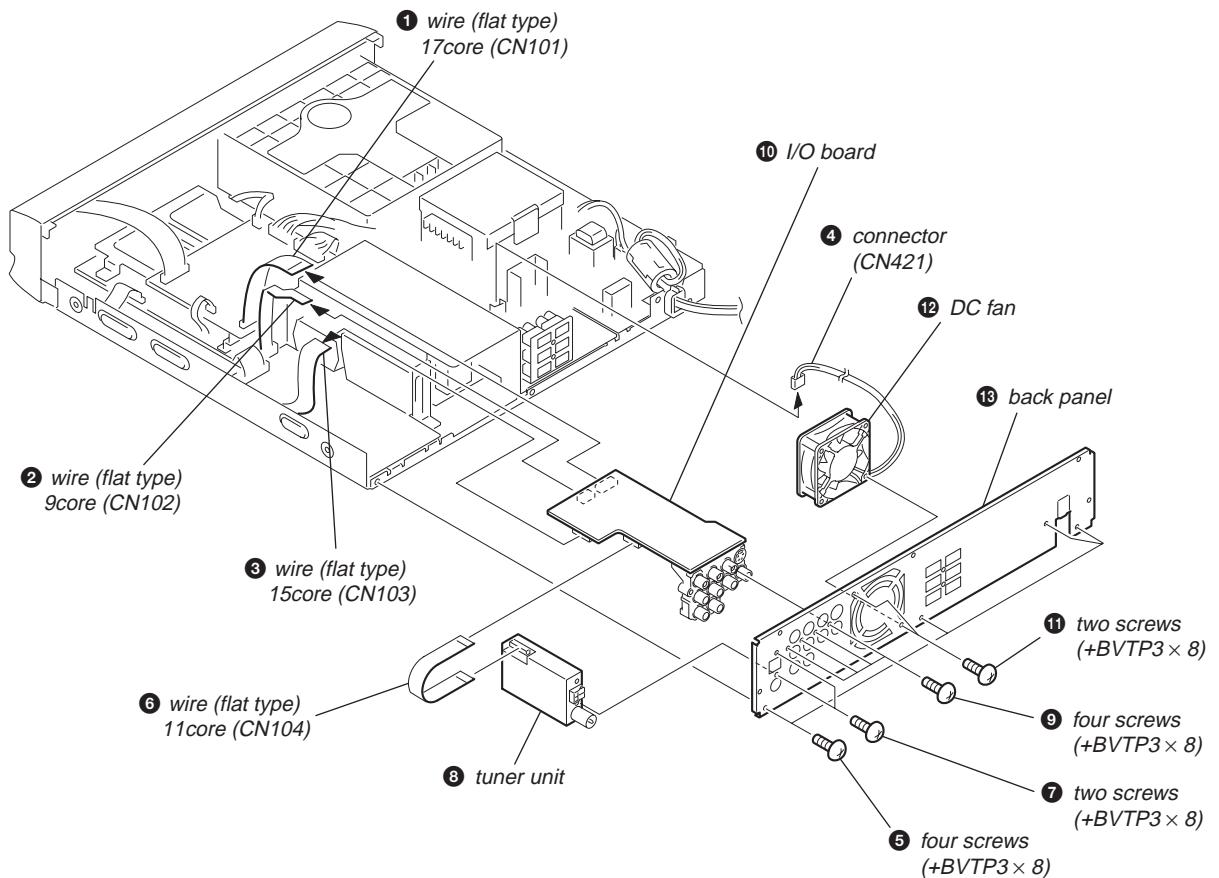
3-4. UCOM BOARD



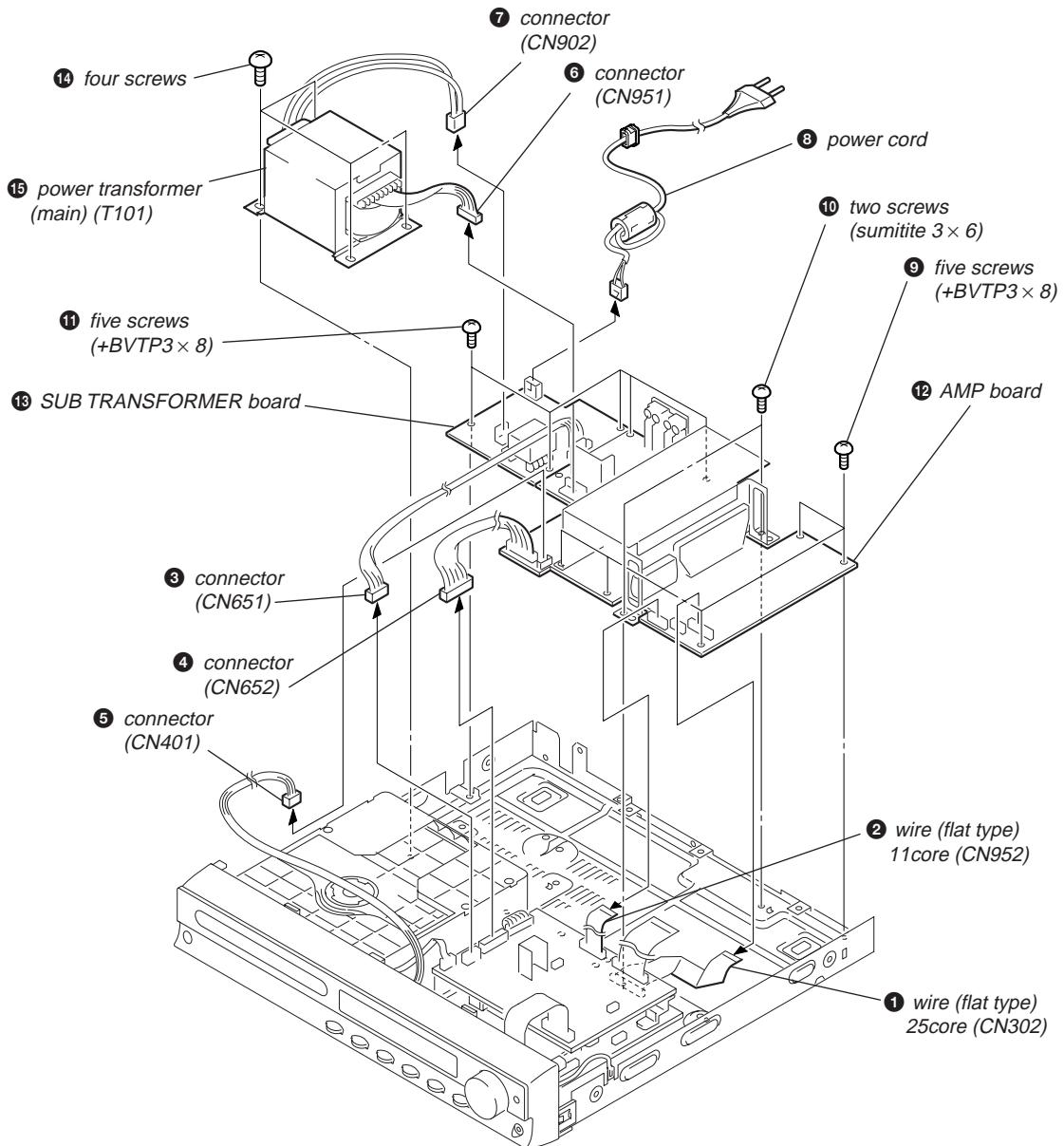
3-5. DMB03 BOARD



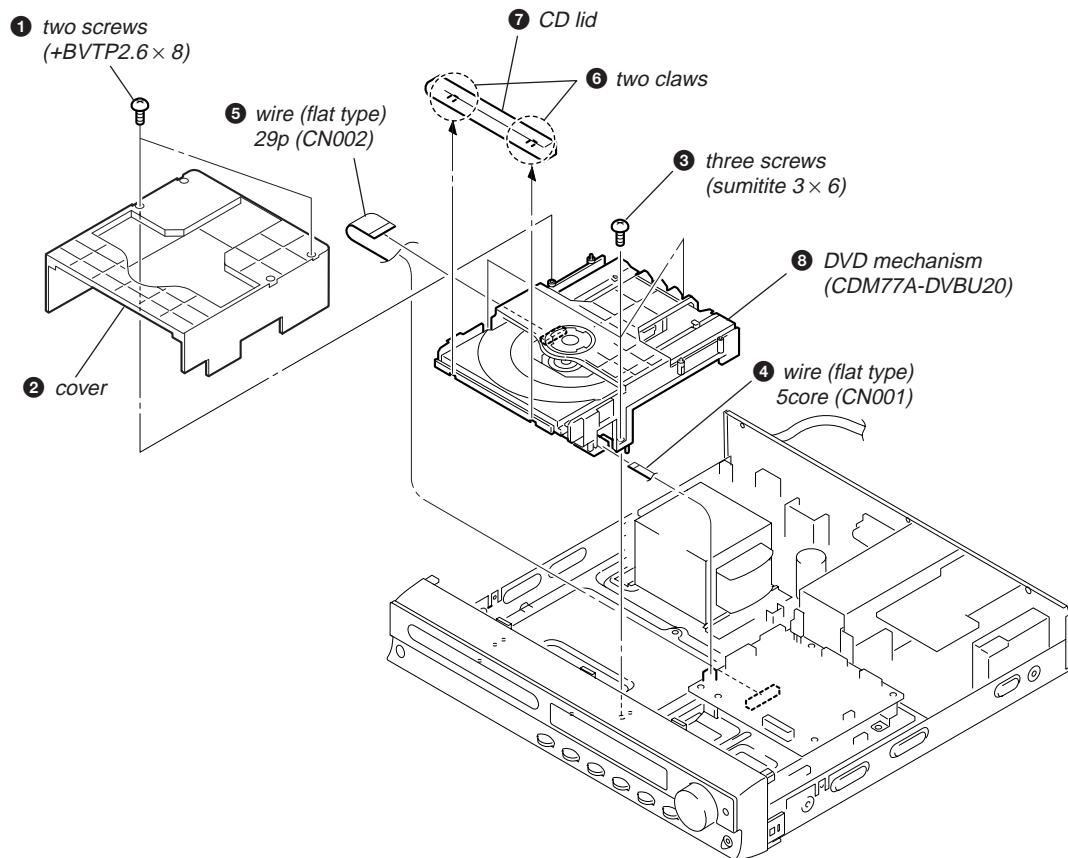
3-6. I/O BOARD



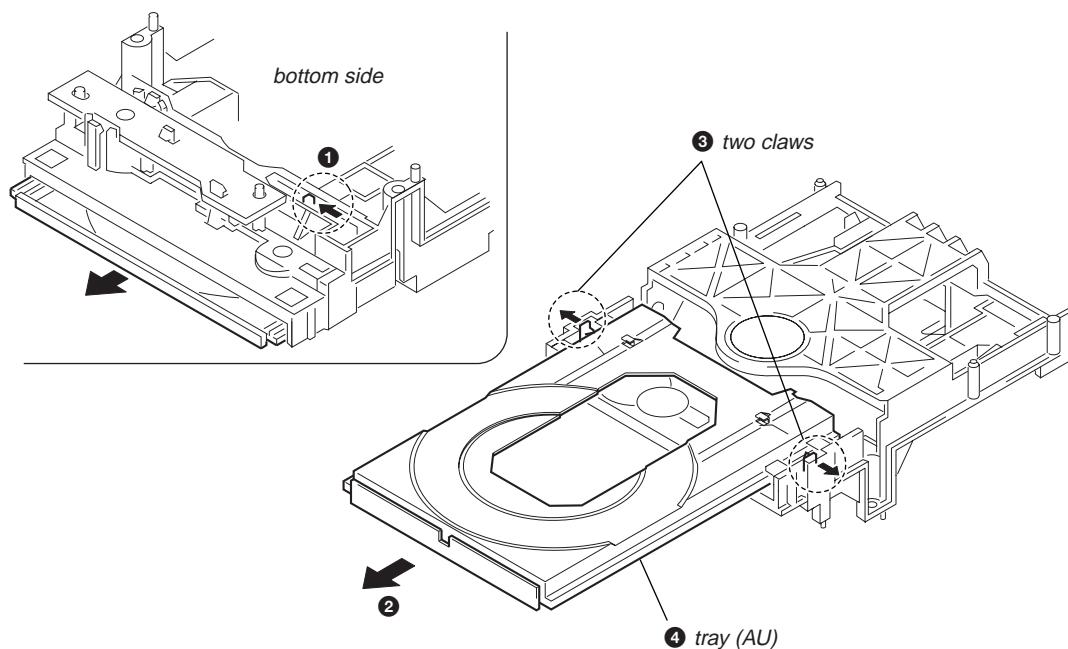
3-7. AMP BOARD, SUB TRANSFORMER BOARD



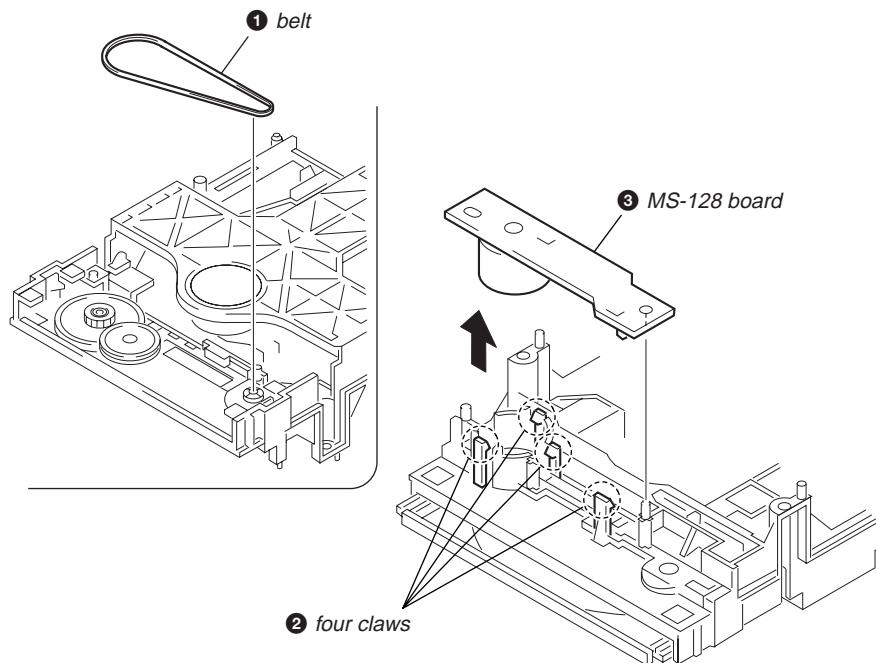
3-8. DVD MECHANISM (CDM77A-DVBU20)



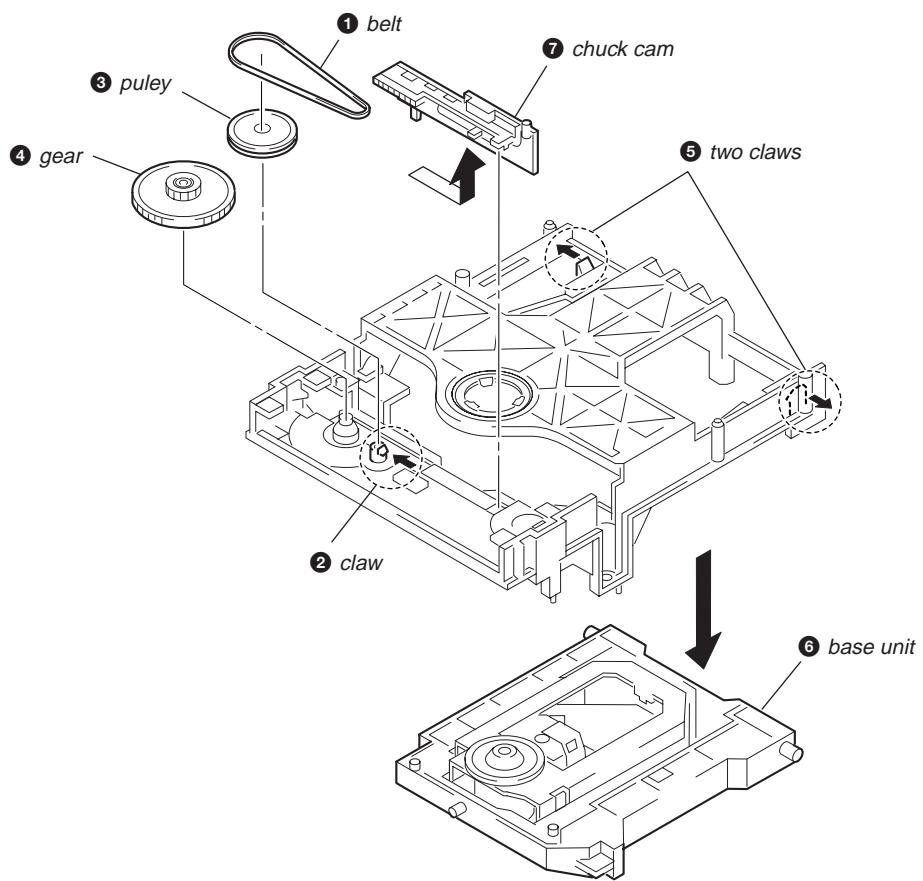
3-9. TRAY (AU)



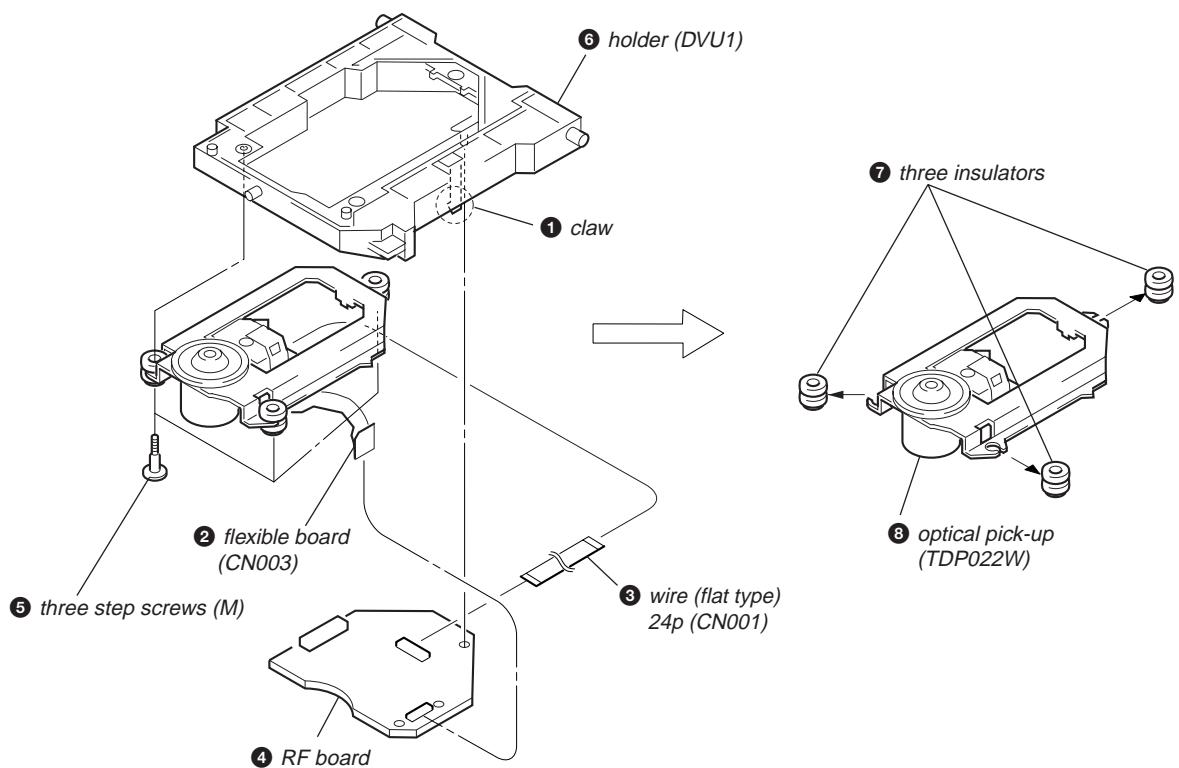
3-10. MS-128 BOARD



3-11. BASE UNIT



3-12. OPTICAL PICK-UP (TDP022W)



SECTION 4 TEST MODE

[KEY TEST]

* Key check and volume check.

Procedure:

1. Press the [POWER] button to turn the set on.
2. To enter the test mode, press three buttons of [■], [□] and [FUNCTION] simultaneously.
3. In the key check mode, the fluorescent indicator displays "KEY00 VOL0". Each time a button is pressed, "KEY**" value increases. However, once a button is pressed, it is no longer taken into account.
4. "VOL**" value increases like 0, 1, 2, 3, ... if rotating the [VOLUME] knob clockwise, or it decreases like 0, 9, 8, 7, ... if rotating counter-clockwise.
5. To exit from this mode, press three buttons [■], [□] and [FUNCTION] simultaneously.

[VERSION DISPLAY MODE]

* The software version is displayed.

Procedure:

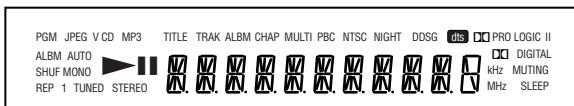
1. Press three buttons of [■], [NEXT ►►] and [FUNCTION] simultaneously.
2. The microcomputer version and destination are displayed.
3. Press the [DISPLAY] button on the remote commander. The STR version is displayed.
4. Press the [DISPLAY] button on the remote commander. The DVD version is displayed.
5. Each time the [DISPLAY] button on the remote commander is pressed, the display changes in the order of microcomputer version/destination, STR and DVD.
6. To exit from this mode, press the [POWER] button.

[DISPLAY TEST MODE]

* Fluorescent segments are tested when this test is activated.

Procedure:

1. Press three buttons of [■], [◀ PREV] and [FUNCTION] simultaneously.
2. All segments are turned on.



3. When the [DISPLAY] button on the remote commander is pressed, all segments are turned off.
4. Press the [DISPLAY] button on the remote commander, the display will light up as follows and confirm the display.



5. Press the [DISPLAY] button on the remote commander, the display will light up as follows and confirm the display.



6. Every pressing of the [DISPLAY] button on the remote commander turns on each segments in the same order.
7. To exit from this mode, press the [POWER] button.

[AMP TEST MODE]

* SOUND FIELD and volume function is tested.

Note: In advance of Amp test mode SOUND FIELD is set except AFD AUTO.

Procedure:

1. Press three buttons of [■], [NEXT ►►] and [►►] simultaneously.
2. Every time the [SOUND FIELD +] or [SOUND FIELD -] button on the remote commander is pressed, the following items changes in the order as shown below.

"SWAP F2S" (Lch/Rch inputs are output to both FRONT Lch/Rch and SURR Lch/Rch.)

"SWAP F2CW" (Lch input is output to CENTER and Rch input is output to WOOFER.)

"SWAP FLL" (Lch or Rch input is output to all speakers.)

"EQ MIN" (Bass and treble equalizers are set to -6dB.)

"EQ MAX" (Bass and treble equalizers are set to +6dB.)

"SRAM CHECK" (Not for service)

3. In the case of headphone inserted, every time the [SOUND FIELD +] or [SOUND FIELD -] button on the remote commander is pressed, the following items changes in the order as shown below.

"HP 2CH"

"HP SURR"

4. Each time the [DDSG] button on the remote commander is pressed, [DDSG] will change to on or off.
5. Each time the [NIGHT MODE] button on the remote commander is pressed, [NIGHT MODE] will change to on or off.
6. When the [VOLUME] knob is turned clockwise or the [VOL +] button on the remote commander is pressed, volume goes from "VOLUME MIN" to "VOLUME 21".
7. When the [VOLUME] knob is turned clockwise or the [VOL +] button on the remote commander is pressed again, volume goes to "VOLUME MAX".
8. When the [VOLUME] knob is turned counter-clockwise or the [VOL -] button on the remote commander is pressed, volume goes to "VOLUME 21".
9. When the [VOLUME] knob is turned counter-clockwise or the [VOL -] button on the remote commander is pressed again, volume goes to "VOLUME MIN".
10. To exit from this mode, press the [POWER] button.

[FORCED RESET MODE]

Procedure:

1. Press three buttons of [■], [FUNCTION] and [□] simultaneously.
2. The set is turned off and microcomputer is reset.

[DVD REPEAT 5 TIMES LIMIT RELEASE MODE]

Procedure:

1. Set the [FUNCTION] to DVD.
2. Press three buttons of [■], [NEXT ►►] and [FUNCTION] simultaneously.
3. DVD repeat 5 times limit is released.

[COLOR SYSTEM SELECTION]

* Color system can be changed to PAL or NTSC.

Procedure:

1. Set the **FUNCTION** to DVD.
2. Turn off the main power.
3. Press two buttons **◀◀ PREV** and **POWER** simultaneously.
4. The color system is changed to PAL or NTSC.

[DISC TRAY LOCK]

The disc tray lock function for the antitheft of an demonstration disc in the store is equipped.

Setting Procedure :

1. Press the **POWER** button to turn the set on.
2. Press two buttons of **█** and **▲** simultaneously for five seconds.
3. The message “LOCKED” is displayed and the tray is locked.

Releasing Procedure :

1. Press two buttons of **█** and **▲** simultaneously for five seconds again.
2. The message “UNLOCKED” is displayed and the tray is unlocked.

Note: When “LOCKED” is displayed, the tray lock is not released by turning power on/off with the **POWER** button.

[DVD SERVICE MODE (OSD)]**Procedure:**

1. Press the **POWER** button on the main unit or the **I/O** button on the remote commander to turn the set on.
2. Set the **FUNCTION** to DVD.
3. While pressing two buttons of **█** and **▲**, turn the **VOLUME** knob clockwise to enter the test mode.
4. The message “SERVICE IN” is displayed on the display. The Test Mode Menu is displayed on the TV screen.
5. To execute each function, select the number on the remote commander.
6. See the following section for explanation in detail.
7. To exit from this mode, press the **POWER** button.

[INTERLACE FORCED SETTING MODE]

* The video signal format is forced to set to interlace.

Procedure:

1. Set the **FUNCTION** to DVD.
2. Press three buttons of **█**, **◀◀ PREV** and **FUNCTION** simultaneously.
3. The video signal format is forced to set to interlace.

[GENERAL DESCRIPTION]

The Test Mode allows you to make diagnosis and adjustment easily using the remote commander and monitor TV. The instructions, diagnostic results, etc. are given on the on-screen display (OSD).

[TEST DISC LIST]

Use the following test disc on test mode.

TDV-520CSO (DVD-SL): PART No. J-2501-236-A

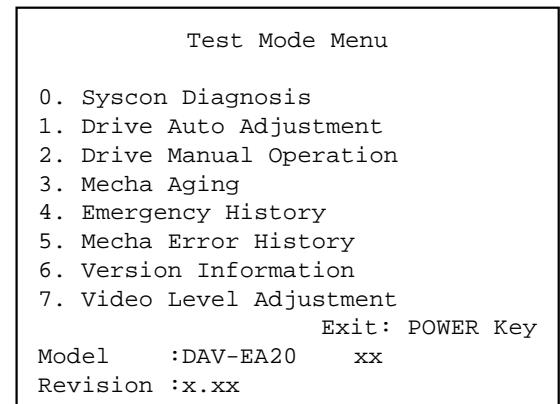
LUV-P01 (CD): PART No. 4-999-032-01

TDV-540C (DVD-DL): PART No. J-2501-235-A

Note: Do not use exiting test disc for DVD.

[STARTING TEST MODE]

1. Press the **POWER** button to turn the power on, and set the function to DVD.
2. While pressing the **█** and **▲** button, turn the **VOLUME** knob clockwise to enter the test mode.
3. It displays “SERVICE IN” on the fluorescent indicator tube, and displays the Test Mode Menu on the monitor screen as follows. (At the bottom of the menu screen, the model name and revision number are displayed)

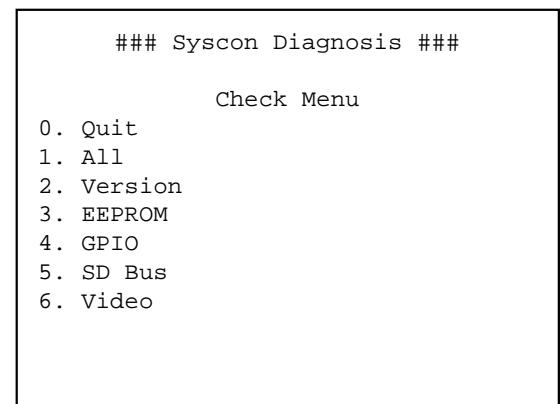


4. To execute each function, select the desired menu and press its number on the remote commander (RM-SS200).
5. To release from test mode, press the **POWER** button and turn the power off.

[OPERATING TEST MODE]**0. SYSCON DIAGNOSIS**

The same contents as board detail check by serial interface can be checked from the remote commander operation.

On the Test Mode Menu screen, press **[10/0]** key on the remote commander, and the following Check Menu will be displayed.

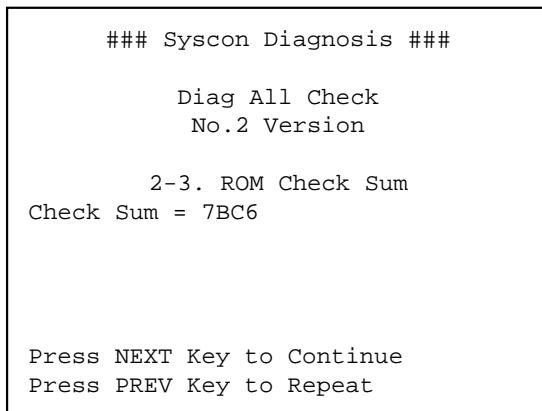
**0-0. Quit**

Quit the Syscon Diagnosis and return to the Test Mode Menu.

0-1. All (All items continuous check)

This menu checks all diagnostic items continuously. Normally, all items are checked successively one after another automatically unless an error is found, but at a certain item that requires judgment through a visual check to the result, the following screen is displayed for the key entry.

- Example display



For the ROM Check, the check sum calculated by the Syscon is output, and therefore you must compare it with the specified value for confirmation.

Following the message, press the [NEXT ►►] button to go to the next item, or press the [◀◀ PREV] button to repeat the same operation again.

To quit the diagnosis and return to Check Menu screen, press the [RETURN] key on the remote commander to display Check Menu.

- Error occurred

If an error occurred, the diagnosis is suspended and error is displayed. Press the [RETURN] key on the remote commander to quit the diagnosis, or press the [◀◀ PREV] button to repeat the same check where an error occurred, or press the [NEXT ►►] button to continue the check from the item next to faulty item.

General Description of Checking Method

Selecting 2 and subsequent items calls the submenu screen of each item. And selecting 2 and subsequent items executes respective menus and outputs the results.

For the contents of each submenu, see "Check Items List" as below.

Check Items List:

- 0-2. Version
 - 0-2-1. All
 - 0-2-2. Revision
 - 0-2-3. ROM Check Sum
 - 0-2-4. Model Type
 - 0-2-5. Region
- 0-3. EEPROM Check
 - 0-3-1. Sampling Check
 - 0-3-2. Detail Check
- 0-4. GP I/O Check
- 0-5. SD Bus Check
- 0-6. Video Check

0-2. Version

0-2-2. Revision

The revision number of ROM (IC206) that the program for the DVD system processor (IC207) is stored.

0-2-3. ROM Check Sum

Check sum is calculated. (4 digits hexadecimal number)

0-2-4. Model Type

Model name is displayed. (DAV-EA20)

0-2-5. Region

Model destination code is displayed. (2 digits number)

0-3. EEPROM Check

0-3-1. Sampling Check

EEPROM check at every 64 words.

It compares read data with write data of each address. When there are discrepancies between two data, it displays error.

0-3-2. Detail Check

EEPROM check at every 1 word.

It compares read data with write data of each address. When there are discrepancies between two data, it displays error.

0-4. GP I/O Check

Pull up/down setting check of the DVD system processor (IC207) pin 150, 151 and 154 (for clock setting port).

0-5. SD Bus Check

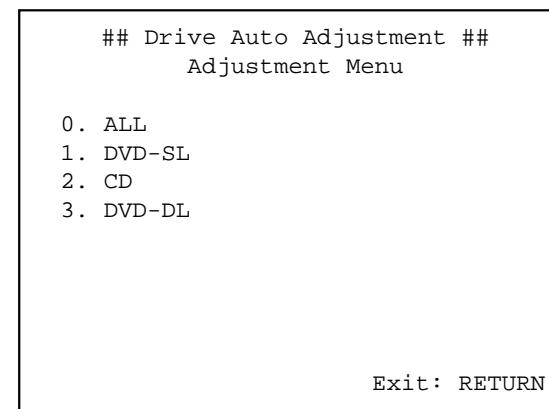
SD bus data check between DVD decoder (IC701) and D-RAM (IC706).

0-6. Video Check

Output the color bars for video level adjustment.

1. DRIVE AUTO ADJUSTMENT

On the Test Mode Menu screen, press the [1] key on the remote commander, and the Adjustment Menu will be displayed.



Normally, [10/0] is selected to adjust DVD (single layer), CD and DVD (dual layer) in this order. But, individual items can be adjusted for the case where adjustment is suspended due to an error. In this mode, the adjustment can be made easily through the operation following the message displayed on the screen.

The disc used for adjustment must be the one specified for adjustment.

1-0. ALL

Press the [10/0] key on the remote commander, and the servo set data in EEPROM will be initialized. Then, 1. DVD-SL disc, 2. CD disc and 3. DVD-DL disc are adjusted in this order.

Each time one disc was adjusted, it is ejected. Replace it with the specified disc following the message. You can finish the adjustment by pressing the [RETURN] button on the remote commander.

Note: During adjustment of each disc, the measurement for disc type judgment is made. As automatic adjustment does not judge the disc type unlike conventional models, take care not to insert wrong type discs. Also, do not give a shock during adjustment.

1-1. DVD-SL (single layer)

Press the [1] key on the remote commander and insert a DVD single layer disc following the message. Then the adjustment will be made through the steps below, then adjusted values will be written to the EEPROM.

DVD Single Layer Disc Adjustment Steps:

1. Sled tilt reset
2. Disc check memory SL
3. Wait 300 msec
4. Set disc type SL
5. LD on
6. Spindle start
7. Wait 1 sec
8. Focus servo on 0
9. Auto track offset adjust
10. CLVA on
11. Wait 500 msec
12. Tracking on
13. Wait 1 sec
14. Sled on
15. Check CLV on
16. Auto LFO adjust
17. Auto focus offset adjust
18. Auto tilt position adjust
19. Auto focus gain adjust
20. Auto focus offset adjust
21. EQ boost adjust
22. Auto loop filter offset adjust
23. Auto track gain adjust
- Search Check
24. 32 track jump forward
25. 32 track jump reverse
26. 500 track jump forward
27. 500 track jump reverse
28. All servo stop
29. EEP copy loop filter offset

1-2. CD

Press the [2] key on the remote commander and insert a CD disc following the message. Then the adjustment will be made through the steps below, then adjusted values will be written to the EEPROM.

CD Adjustment Steps

1. Sled tilt rest
2. Disc check memory CD
3. Wait 500 msec
4. Set disc type CD
5. LD on
6. Spindle start
7. Wait 500 msec
8. Focus servo on 0
9. Auto track offset adjust
10. CLVA on
11. Wait 500 msec
12. Tracking on
13. (TC display start)
14. Wait 1 sec
15. Jitter display start
16. Sled ON
17. Check CLV on
18. Auto loop filter offset adjust
19. Auto focus offset adjust
20. Auto focus gain adjust
21. Auto focus offset adjust
22. EQ boost adjust
23. Auto LFO Adjust

24. Auto track gain adjust**Search Check**

25. 32Tj forward
26. 32Tj reverse
27. 500Tj forward
28. 500Tj reverse

29. All servo stop

1-3. DVD-DL (dual layer)

Press the [3] key on the remote commander and insert a DVD dual layer disc following the message. Then the adjustment will be made through the steps below, then adjusted values will be written to the EEPROM.

DVD Dual Layer Disc Adjustment Steps:

1. Sled tilt reset
2. Disc check memory DL
3. Wait 500 msec
4. Set disc type DL
5. LD on
6. Spindle start
7. Wait 1 sec

Layer 1 Adjust

8. Focus servo on 0
9. Auto track offset adjust
10. CLVA on
11. Wait 500 msec
12. Tracking on
13. Wait 500 msec
14. Sled on
15. Check CLV lock
16. Auto loop filter offset adjust, Auto focus adjust
17. Auto focus gain adjust
18. Auto focus offset adjust
19. EQ boost adjust
20. Auto loop filter offset adjust
21. Auto Track Gain Adjust

Search Check

22. 32 track jump forward
23. 32 track jump reverse
24. 500 track jump forward
25. 500 track jump reverse

Layer 0 Adjust

26. Focus jump (L1 → L0)
27. Auto track offset adjust L0
28. CLVA on
29. Wait 500 msec
30. Tracking on
31. Wait 500 msec
32. Sled on
33. Check CLV lock
34. Auto focus filter offset adjust
35. Auto Focus Adjust
36. Auto focus gain adjust
37. Auto focus offset adjust
38. EQ boost adjust
39. Auto Loop Filter Offset
40. Auto track gain adjust

Search Check

41. 32 track jump forward
42. 32 track jump reverse
43. 500 track jump forward
44. 500 track jump reverse

Layer Jump Check

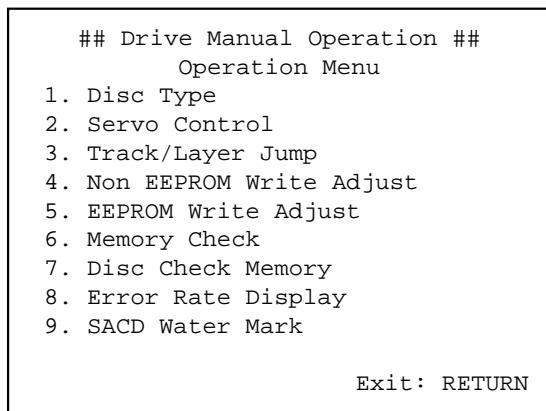
45. Layer jump (L0 → L1)
46. Layer jump (L1 → L0)

47. All servo stop

2. DRIVE MANUAL OPERATION

Note: This mode is used for design, and not used in service fundamentally.

On the Test Mode Menu screen, press the [2] key on the remote commander, and the Operation Menu will be displayed. For the manual operation, each servo on/off control and adjustment can be executed manually.



In using the manual operation menu, take care of the following points. These commands do not provide protection, thus requiring correct operation. The sector address or time code field is displayed when a disc is loaded.

Note:

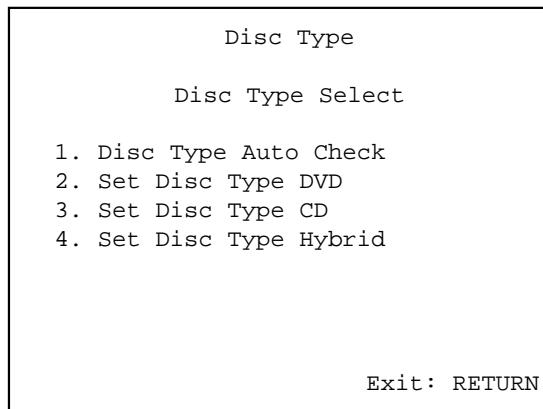
1. Set correctly the disc type to be used on the Disc Type screen.
2. In case of an alarm, immediately press the [■] button to stop the servo operation, and press the [POWER] button to turn the power off.

Basic operation:

(controllable from front panel or remote commander)

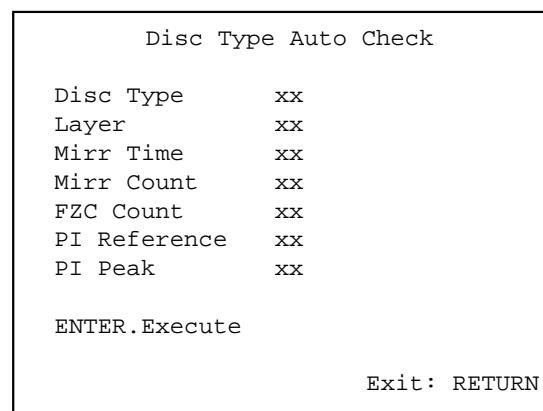
[POWER]/[V/U]	: Power OFF (release the Test Mode)
[■]	: Servo stop
[△]	: Stop and eject/Loading
[RETURN]	: Return to Operation Menu or Test Mode Menu
[◀◀ PREV], [NEXT▶▶]	: Transition between sub modes of menu
[1] to [9], [10/0]	: Selection of menu items
Cursor [▼]/[▲]	: Increase/Decrease in manually adjusted value

2-1. Disc Type



2-1-1. Disc Type Auto Check

- 1) Press the [1] key on the remote commander to display the Disc Type Auto Check screen.
- 2) Insert a disc and press the [ENTER] key on the remote commander.
- 3) It judges the type of inserted disc automatically and displays the disc type and so on as below.



Disc Type	: CD, DVD or Hybrid (SACD)
Layer	: SINGLE, DUAL or HYBRID
Mirr Time	: Mirror time of between disc surface and record surface when disc type judgment. (hexadecimal number)
Mirr Count	: The number of times which mirror counts between disc surface and record surface when disc type judging. (hexadecimal number)
FZC Count	: The number of times which focus zero cross points of each layer when lens down. (hexadecimal number)
PI Reference	: The average of PI reference voltage. (hexadecimal number)
PI Peak	: PI peak level voltage. It performs only when disc type judgment is successful. (hexadecimal number)

2-1-2. Disc Type DVD

It sets up so that it may judge as a disc type of specification of the disc with which the set was inserted.

- [1]: DVD single layer disc (12 cm)
- [2]: DVD dual layer disc (0 layer, 12 cm)
- [3]: DVD dual layer disc (1 layer, 12 cm)
- [4]: DVD-RW disc (12 cm)
- [5]: DVD single layer disc (8 cm)
- [6]: DVD dual layer disc (0 layer, 8 cm)
- [7]: DVD dual layer disc (1 layer, 8 cm)

2-1-3. Disc Type CD

It sets up so that it may judge as a disc type of specification of the disc with which the set was inserted.

- 1: CD disc (normal speed, 12 cm)
- 2: CD disc (double speed, 12 cm)
- 3: CD disc (normal speed, 8 cm)
- 4: CD disc (double speed, 8 cm)
- 5: CD-RW disc (normal speed, 12 cm)
- 6: CD-RW disc (double speed, 12 cm)
- 7: CD-RW disc (normal speed, 8 cm)
- 8: CD-RW disc (double speed, 8 cm)

2-1-4. Disc Type Hybrid

It sets up so that it may judge as a disc type of specification of the disc with which the set was inserted.

- 1: SACD Hybrid disc (SACD layer, 12 cm)
- 2: SACD Hybrid disc (CD layer, normal speed, 12 cm)
- 3: SACD Hybrid disc (CD layer, double speed, 12 cm)
- 4: SACD Hybrid disc (SACD layer, 8 cm)
- 5: SACD Hybrid disc (CD layer, normal speed, 8 cm)
- 6: SACD Hybrid disc (CD layer, double speed, 8 cm)

2-2. Servo Control

Note: Be sure to perform the disc type setup before performing this item.

Servo Control	
1.LD	off R.Sled FWD
2.Focus	off L.Sled REV
3.SPDL	off U.Sled Reset
4.CLVA	off D.Sled Limit
5.Trk.	off
6.Sled	off
7.Fcs.Srch	off
 0.All Servo Off	
Exit: RETURN	

On this screen, the servo on/off control necessary for replay is executed. Normally, turn on each servo from 1 sequentially and when CLVA is turned on, the usual trace mode becomes active. In the trace mode, DVD sector address or CD time code is displayed. This is not displayed where the spindle is not locked.

The spindle could run overriding the control if the spindle system is faulty or RF is not present. In such a case, do not operate CLVA.

- 1 LD : Turn on/off the laser.
- 2 Focus : Search the focus and turn on the focus.
- 3 SPDL : Turn on/off the spindle.
- 4 CLVA : Turn on/off normal servo of spindle servo.
- 5 Trk. : Turn on/off the tracking servo.
- 6 Sled : Turn on/off the sled servo.
- 7 FCS. Srch : Turn on/off the focus search.
- 8 FCS. OppL : Turn on/off the focus search to another layer of designated layer in Disc Type setting. (dual layer disc only)
- 10/0 : All servo off.
- R Sled FWD (right cursor) : Move the sled forward.
- L Sled REV (left cursor) : Move the sled reverse.
- U Sled FWD (up cursor) : Reset the sled.
- D Sled REV (down cursor) : Limit in the sled.

2-3. Track/Layer Jump

Track/Layer Jump	
1.	1Tj FWD R.Lj L0>L1
2.	1Tj REV L.Lj L1>L0
3.	500Tj Fine FWD U.Fj L0>L1
4.	500Tj Fine REV D.Fj L1>L0
5.	10kTj Dirc FWD
6.	10kTj Dirc REV
7.	20kTj Dirc FWD
8.	20kTj Dirc REV
 0. All Servo Off	
Exit: RETURN	

On this screen, track jump, etc. can be performed. Only for the DVD dual layer disc, the focus jump and layer jump are displayed in the right field

- 1 1Tj FWD : 1 track jump forward.
- 2 1Tj REV : 1 track jump reverse.
- 3 500Tj FWD: 500 track jump (fine search)forward.
- 4 500Tj REV : 500 track jump (fine search) reverse.
- 5 10kTj FWD: 10k track jump (direct search) forward.
- 6 10kTj REV : 10k track jump (direct search) reverse.
- 7 20kTj FWD: 20k track jump (direct search) forward.
- 8 20kTj REV : 20k track jump (direct search) reverse.
- 10/0 : All servo off.

2-4. Non EEPROM Write Adjust

Non EEPROM Write Adjust	
1.	Focus Offset
2.	Focus Gain
3.	Trk. Offset Coarse
4.	Trk. Offset Fine
5.	Trk. Gain
6.	EQ Boost
 0.All Servo Off	
Exit: RETURN	

On this screen, each item can be adjusted manually. Select the desired number to 10/0 from the remote commander, and current setting for the selected item will be displayed, then increase or decrease numeric value with the key or key. This value is stored in the EEPROM. If CLV has been applied, the jitter is displayed for reference for the adjustment.

- 1 Focus Offset : Adjusts focus offset.
- 2 Focus Gain : Adjusts focus gain.
- 3 TRK. Offset : Adjusts tracking offset of the RF amp (IC001) side.
- 4 TRK. Offset : Adjusts tracking offset of the DSP (IC401) side.
- 5 TRK. Gain : Adjusts track gain.
- 6 EQ Boost : Adjusts amount of boost of equalizer.
- 10/0 : All servo off.

2-5. EEPROM Write Adjust

EEPROM Write Adjust	
1. Focus Offset	
2. Focus Gain	
3. Trk. Offset Coarse	
4. _____	
5. Trk. Gain	
6. EQ Boost	
0.All Servo Off	
Exit: RETURN	

On this screen, each item can be adjusted automatically. Select the desired number [1] to [10/0] from the remote commander, and selected item is adjusted automatically.

- [1] Focus Offset : Adjusts focus offset.
- [2] Focus Gain : Adjusts focus gain.
- [3] TRK. Offset : Adjusts tracking offset of the RF amp (IC001) side.
- [5] TRK. Gain : Adjusts track gain.
- [6] EQ Boost : Adjusts amount of boost of equalizer.
- [10/0] : All servo off.

2-6. Memory Check

Display images are shown as follows, and all two screens are able to switch by the **↑** key (UP) or **↓** key (DW).

EEPROM Data 1/2		CD	SL	L0	L1
Focus Gain		xx	xx	xx	xx
Trk. Gain		xx	xx	xx	xx
Focus Offset		xx	xx	xx	xx
Trk. Offset		xx	xx	xx	xx
EQ. Boost		xx	xx	xx	xx
PI Level		xx	xx	--	--
Fcs. Balance		--	xx	--	--
Jitter		xx	xx	xx	xx
Mirror Time		xx	xx	xx	--
FE Level		--	xx	--	--
Traverse Lvl.		--	xx	--	--
Next:DW Default:CLR		Exit:RET			

EEPROM Data 2/2		CDRW	DVDRW
Focus Gain		xx	xx
Trk. Gain		xx	xx
Focus Offset		xx	xx
Trk. Offset		xx	xx
EQ. Boost		xx	xx
Prev:UP Default:CLR		Exit:RET	

On this screen, current servo adjusted data stored in the EEPROM are displayed. The adjusted data are initialized by pressing the **CLEAR** key, but be careful that they are not recoverable after initialization.

Before clearing the adjusted data, make a note of the set data. This screen will also appear if [0]-All is selected in the Drive Auto Adjustment. In this case, default setting cannot be made.

2-7. Disc Check Memory

Disc Check Memory	
1. SL Disc check	
2. CD Disc check	
3. DL Disc check	
Exit: RETURN	

On this screen, measure the mirror time of chucked disc, and write to the EEPROM.

2-8. Error Rate Display

Error Rate Display	
UC	CR Address
PI1 Err	Now xx xxxx xxxxxxxx Max xx xxxx xxxxxxxx Avg xx xxxx
PI2 Err	Now xx xxxx xxxxxxxx Max xx xxxx xxxxxxxx Avg xx xxxx
PO Err	Now xx xxxx xxxxxxxx Max xx xxxx xxxxxxxx Avg xx xxxx
Start:ENTER	
Exit: RETURN	

On this screen, measure and display the error rate.

UC : Incorrect value
CR : Correct value

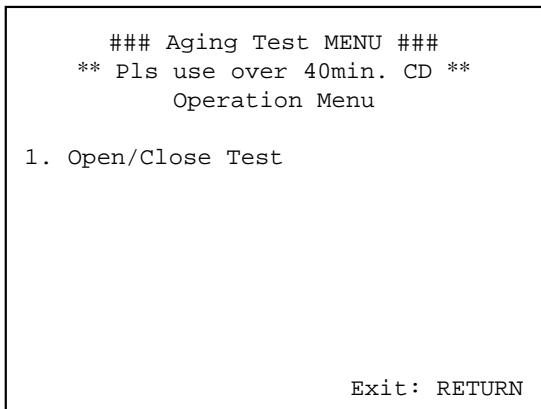
2-9. SACD Water Mark Check (Not used)

SACD Water Mark Check	
PSP AMP	
PSN	
Start: ENTER	Exit: RETURN

On this screen, measure the PSP AMP value and PSN value of SACD water mark.

3. MECHA AGING

On the Test Mode Menu screen, selecting [3] executes the aging of the mechanism deck.

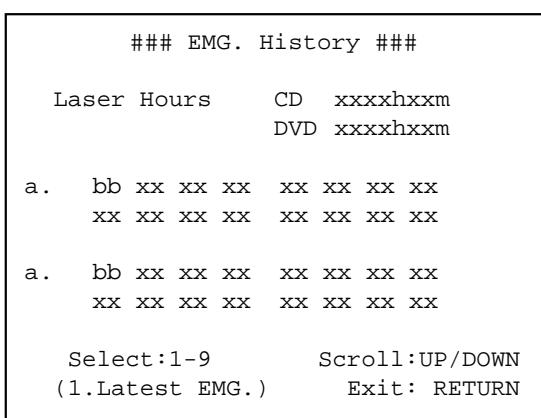


- 1) On the Aging Test MENU screen, press the [1] key on the remote commander to display the Open/Close Test screen.
 - 2) Insert discs and press the [ENTER] key on the remote commander.
 - 3) Starts the aging.
- During aging, the disc number, operating status and repeat cycle are displayed. Aging can be aborted at any time by pressing the [RETURN] key. After the operation is stopped, press the [RETURN] key to return to the Aging Test MENU.

4. EMERGENCY HISTORY

On the Test Mode Menu screen, selecting [4] displays the information such as servo emergency history.

The history information from last 1 up to 10 can be scrolled with the **[↑]** key or **[↓]** key. Also, specific information can be displayed by directly entering that number with ten keys.



xxxxhxxm : The laser on total hours. Data below minutes are omitted.

- a. : Error number.
- bb : Error code.
- xx : Not used.

- Clearing History Information

Clearing laser hours:

Press the [DVD DISPLAY] and [CLEAR] keys in this order.
Then both CD and DVD data are cleared.

Clearing emergency history:

Press the [DVD TOP MENU] and [CLEAR] keys in this order.

Initializing set up data:

Press [DVD MENU] and [CLEAR] keys in this order.

The data have been initialized when "EEPROM Initialize Finished." message is displayed. The EMG. History screen will be restored soon.

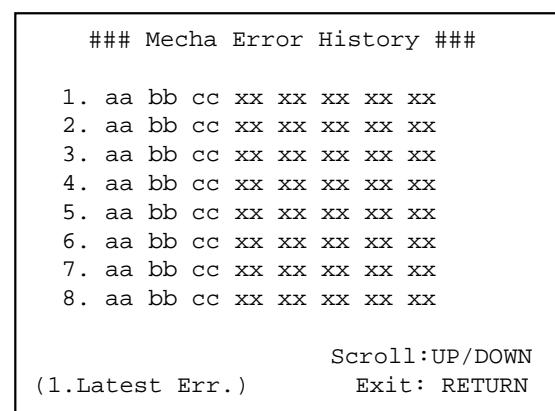
- Code list of Emergency History

- 10: Communication to RF AMP (IC001) failed.
- 11: Each servo for focus, tracking, and spindle is unlocked.
- 12: Check sum error of EEPROM (IC204).
- 14: Communication to servo DSP (IC509) failed, or servo DSP (IC509) is faulty.
- 15: Communication to DVD decoder (IC701) failed, or DVD decoder (IC701) is faulty.
- 16: Communication to DSD decoder failed, or DSD decoder is faulty. (Not used)
- 20: Initialization of sled servo failed. It is not placed in the initial position.
- 23: Sled servo operation error.
- 24: Made a request to move the sled servo to wrong position.
- 30: Tracking balance adjustment error.
- 31: Tracking gain adjustment error.
- 33: Focus bias adjustment error.
- 34: Focus gain adjustment error.
- 35: Equalizer adjustment error.
- 40: Focus servo does not operate.
- 41: With a DVD dual layer disc, focus jump failed.
- 50: CLV (spindle) servo does not operate.
- 51: Spindle does not stop.
- 60: Made a request to seek nonexistent address.
- 61: Seek error of retry more than regulated times.
- 70: Control data could not be read.
- 80: Disc reading failed.

5. MECHA ERROR HISTORY

On the Test Mode Menu screen, selecting [5] displays the information of mechanism deck error history.

The history information from last 1 up to 8 can be scrolled with the **[↑]** key or **[↓]** key.



aa: Initialization is completed or not.

FF : Complete.

other number : Not complete.

bb: Operating status of mechanism deck at an error occurred.

(lod sq jcp)

00 : Initializing.

10 to 15 : Open operating.

16 to 19 : Kicking cause open failed.

1A to 1F : Open operating.

20 to 27 : Complete the open operation.

28 : No disc and complete the open operation.

29 to 2F : Complete the open operation.

30 to 3F : Close requesting.

40 to 4F : Open requesting.

50 to 5F : Close operating.

60 to 6F : Complete the chucking operation.

80 to 8F : Complete the release operation.

(BU is home position)

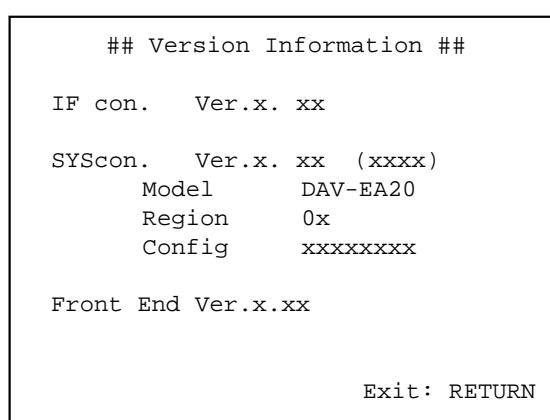
SECTION 5

ELECTRICAL ADJUSTMENT

90 to 9F : BU down operating.
 A0 to AF : Opening/closing the shutter. Or stationary state in open/close the shutter is enablement.
 B0 to BF : BU up requesting.
 C0 to CF : BU down requesting.
 D0 to DF : BU upping.
 E0 to EF : No disc checking in disc loading.
 cc: Operating status of mechanism deck at an error occurred.
 (lod oq jcp)
 00 : Complete the operation.
 10 to 1F : Open operating.
 20 to 2F : Close operating.
 30 to 3F : Release operating.
 60 to 6F : Chucking operating.
 70 to 7F : Kicking operating.
 80 to 8F : Returning the BU to home position. (after kicking)

6. VERSION INFORMATION

On the Test Mode Menu screen, selecting [6] displays the ROM version and region code.
 The parenthesized hexadecimal number in version field is checksum value of ROM.



IF con. : The version of system controller (IC501).
 SYScon. : The version of DVD system processor (IC207).
 Front End: The version of mechanism controller (IC901).

7. VIDEO LEVEL ADJUSTMENT

On the Test Mode Menu screen, selecting [7] displays color bars for video level adjustment. During display of color bars, OSD disappears but the menu screen will be restored if pressing the [RETURN] key.

[TEST DISC LIST]

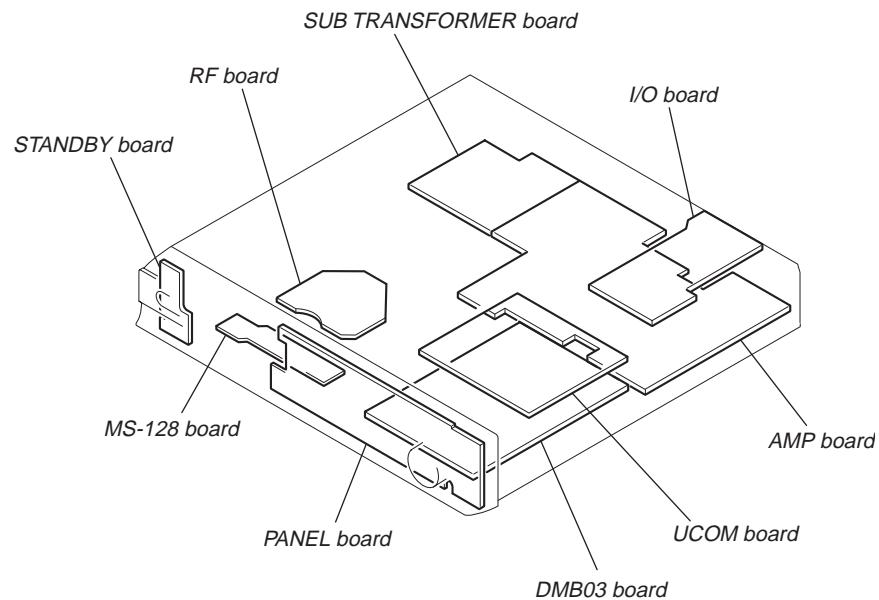
Use the following test disc on test mode.
 TDV-520CSO (DVD-SL): PART No. J-2501-236-A
 LUV-P01 (CD): PART No. 4-999-032-01
 TDV-540C (DVD-DL): PART No. J-2501-235-A
Note: Do not use exiting test disc for DVD.

AUTO SERVO ADJUSTMENT

After parts related to the servo circuit (RF amplifier (IC001), DSP (IC501), motor driver (IC501), EEPROM (IC903) so on) are replaced, re-adjusting the servo circuit is necessary. Select "ALL" at "1. DRIVE AUTO ADJUSTMENT" (Refer to page 28 in TEST MODE) and adjust DVD-SL (single layer), CD and DVD-DL (dual layer).

SECTION 6 DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in μF unless otherwise noted. pF : $\mu\mu\text{F}$ 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4 \text{W}$ or less unless otherwise specified.
- \triangle : internal component.
- $\boxed{\quad}$: panel designation.

Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

For printed wiring boards.

Note:

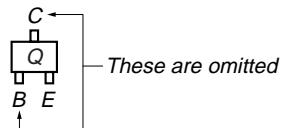
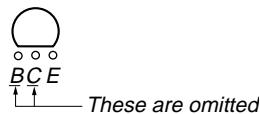
- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Caution:

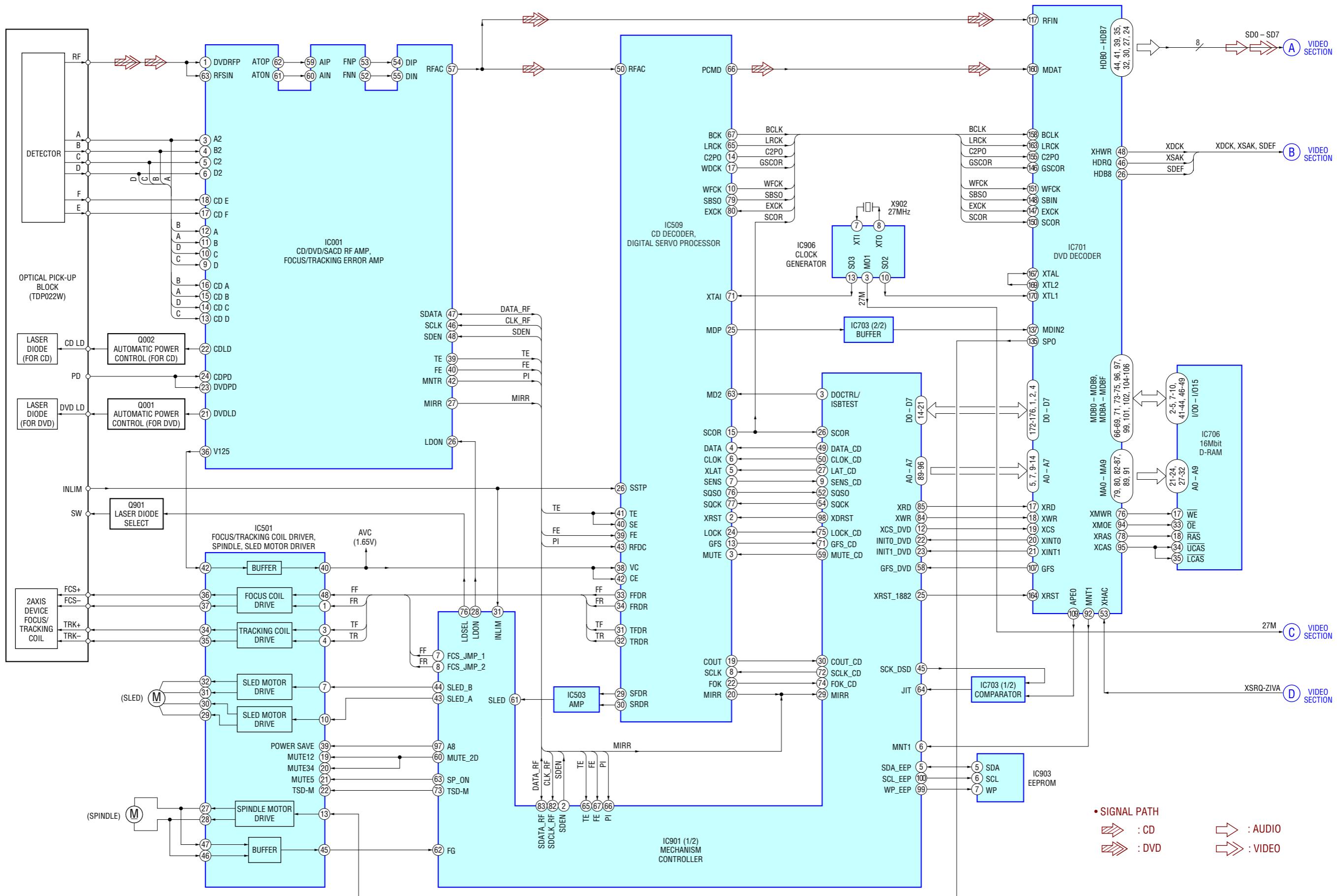
Pattern face side: Parts on the pattern face side seen from (SIDE A)
Parts face side: Parts on the parts face side seen from (SIDE B)

• Indication of transistor

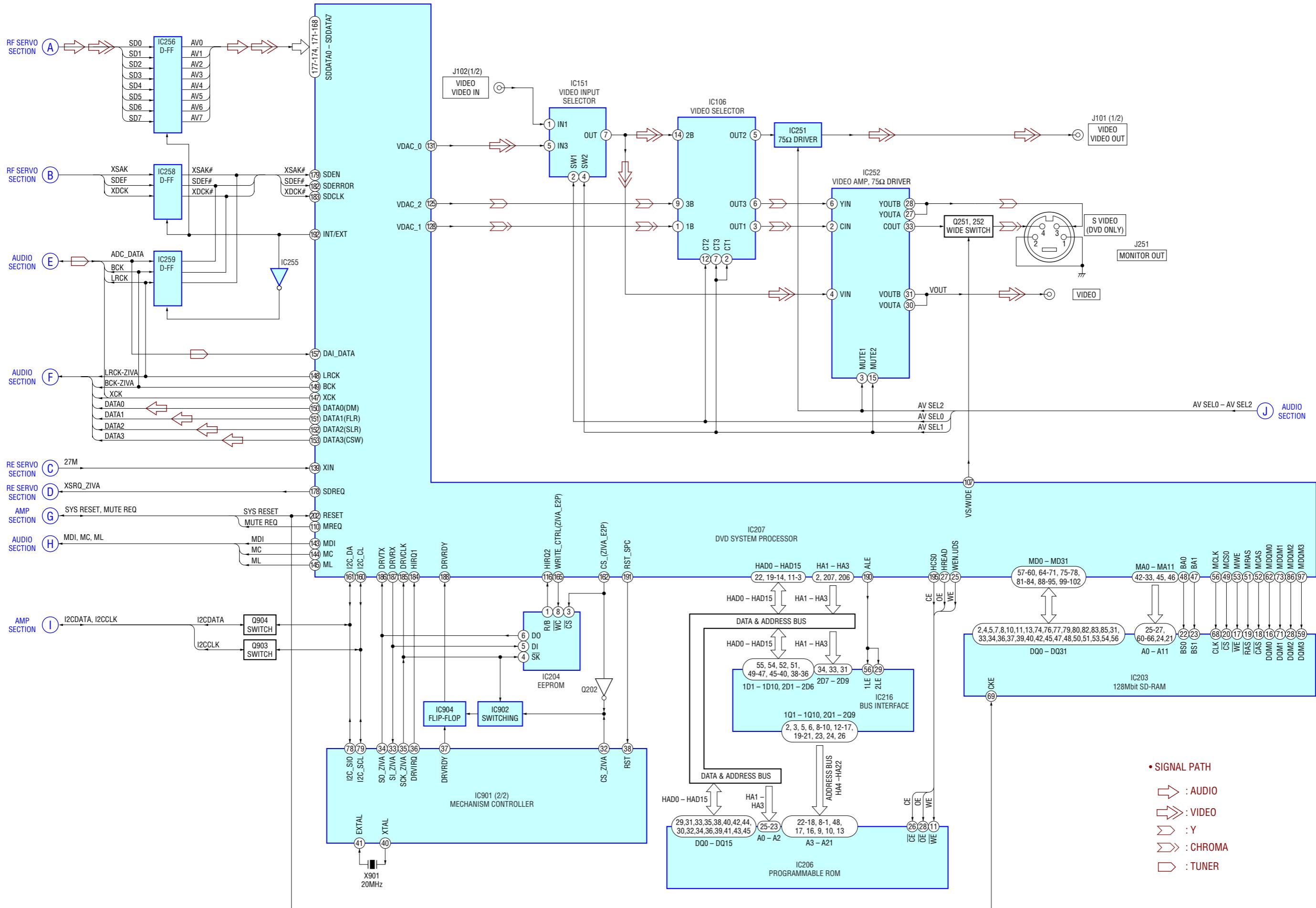
- : B+ Line.
- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages and waveforms are dc with respect to ground in service mode.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
no mark : STOP
- Circled numbers refer to waveforms.
- **Signal path.**
 - : AUDIO
 - : CD PLAY
 - : DVD PLAY
 - : TUNER
 - : VIDEO
 - : CHROMA
 - : Y
 - : AUX IN
- Abbreviation
RU : Russian model



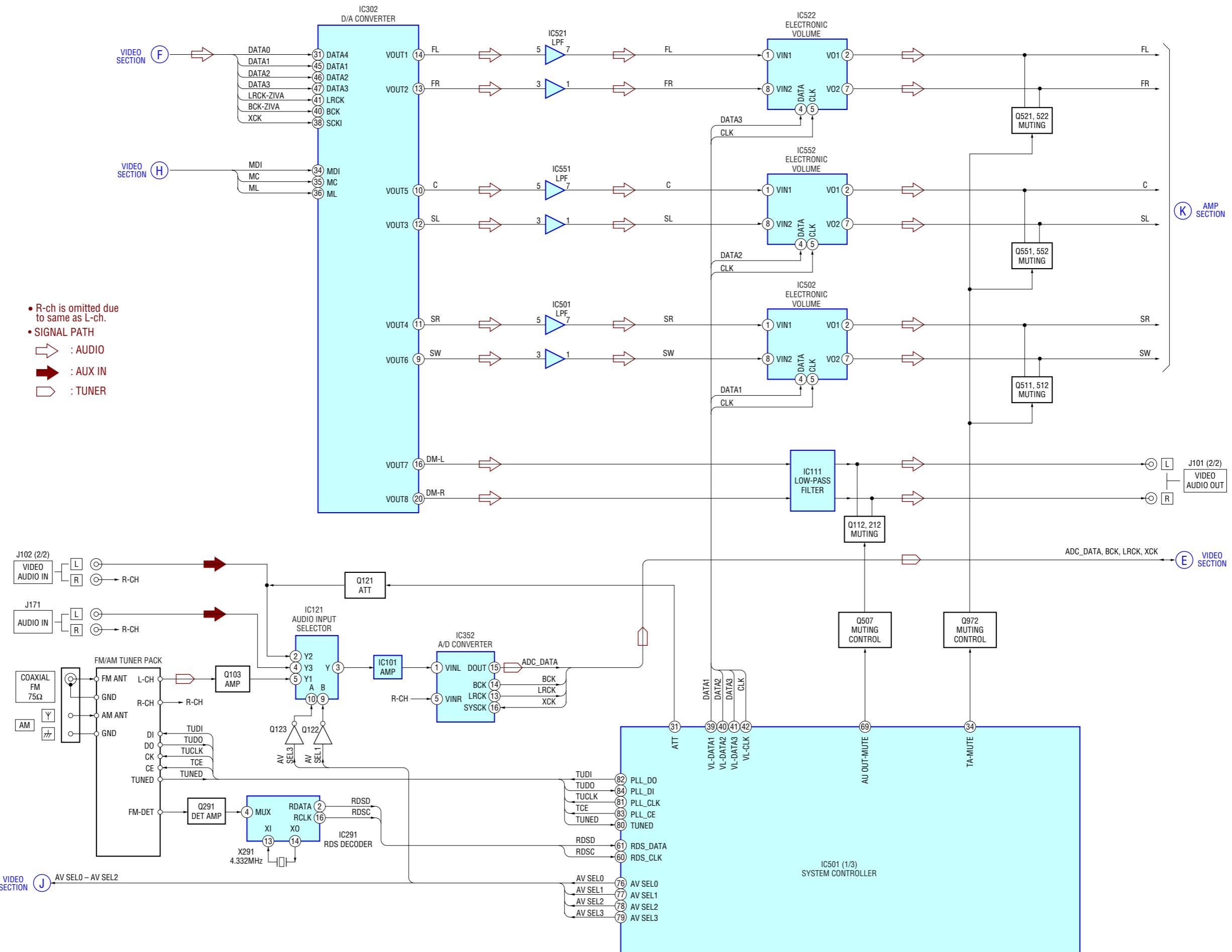
6-2. BLOCK DIAGRAMS – RF/SERVO SECTION –



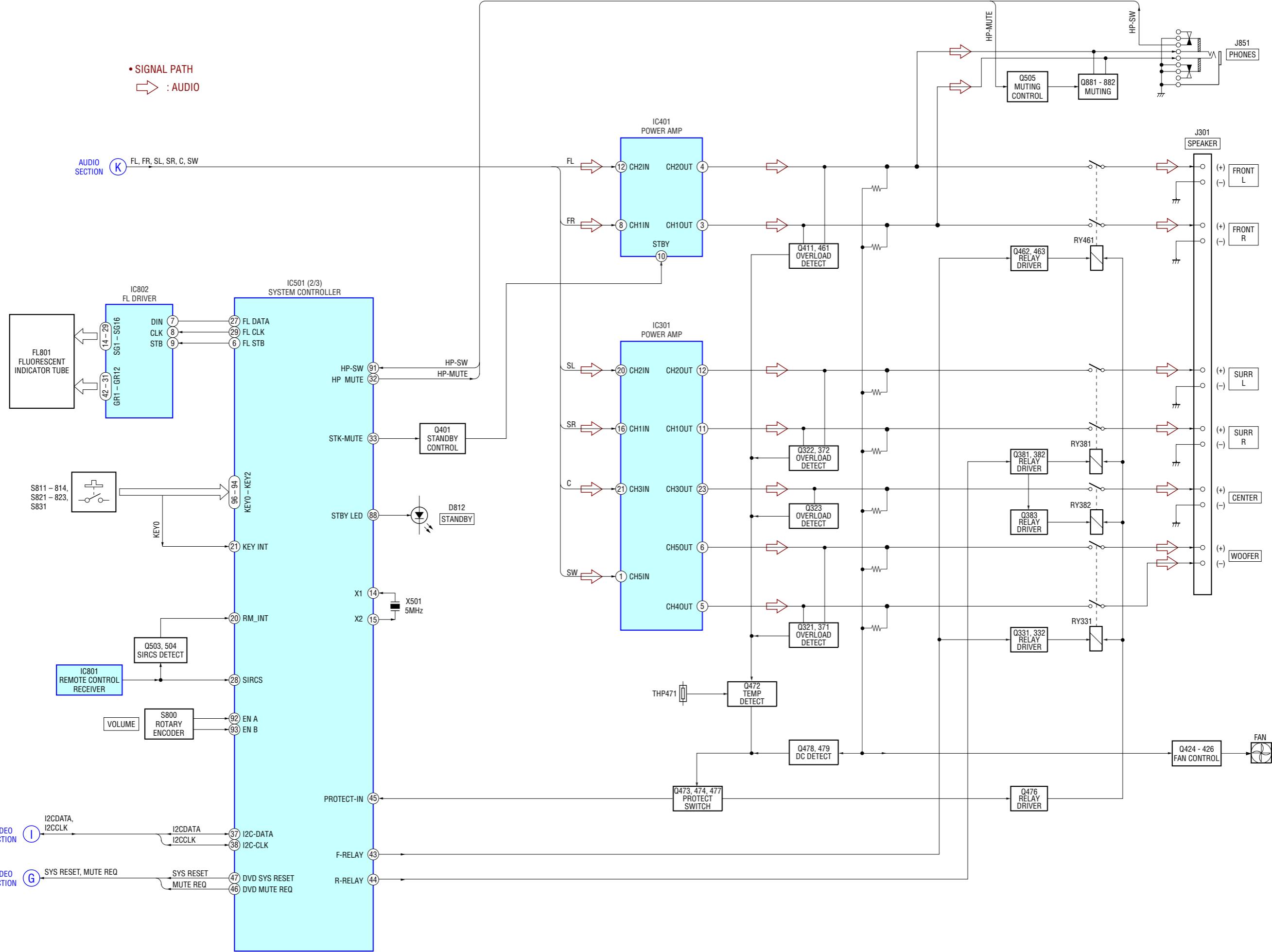
- VIDEO SECTION -



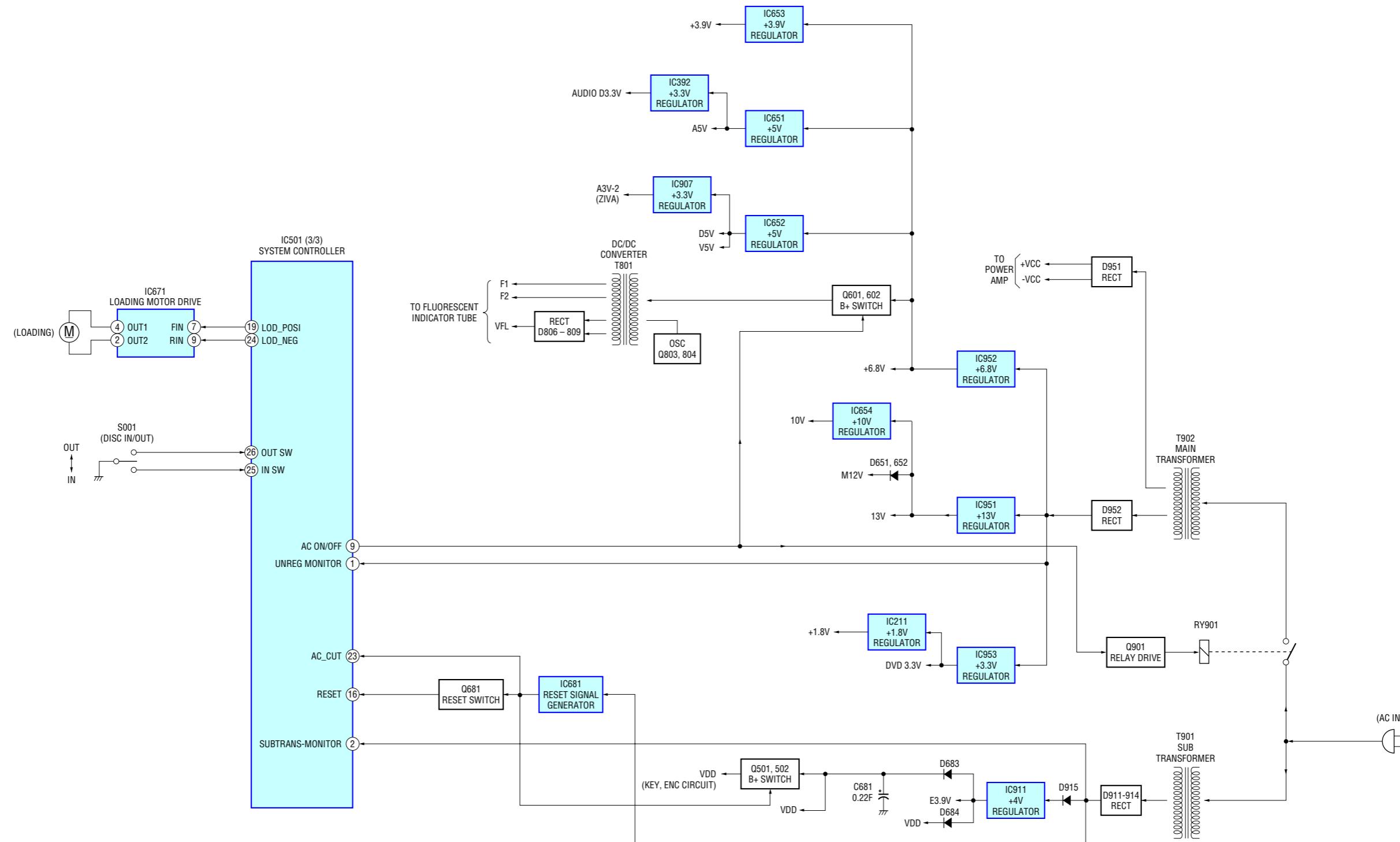
- AUDIO SECTION -



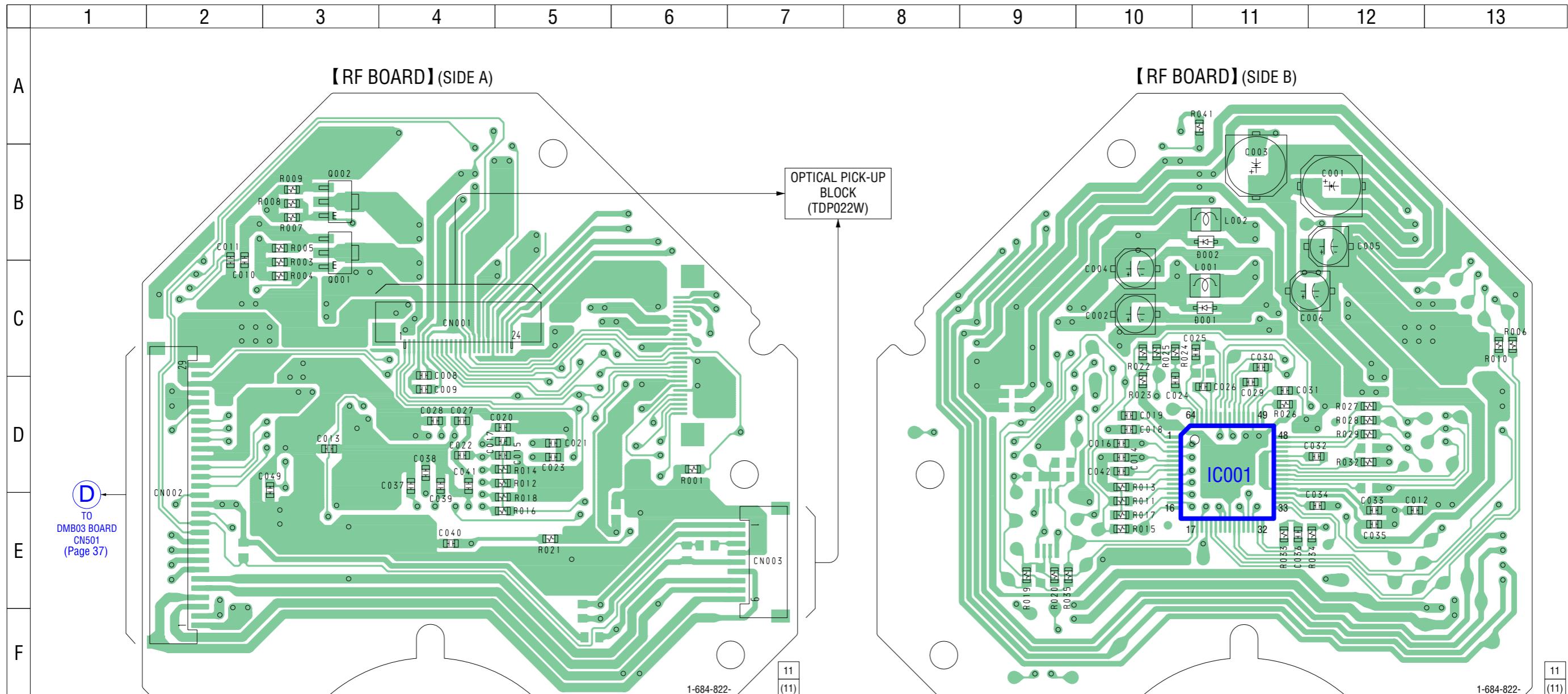
- AMP SECTION -



- POWER SUPPLY SECTION -



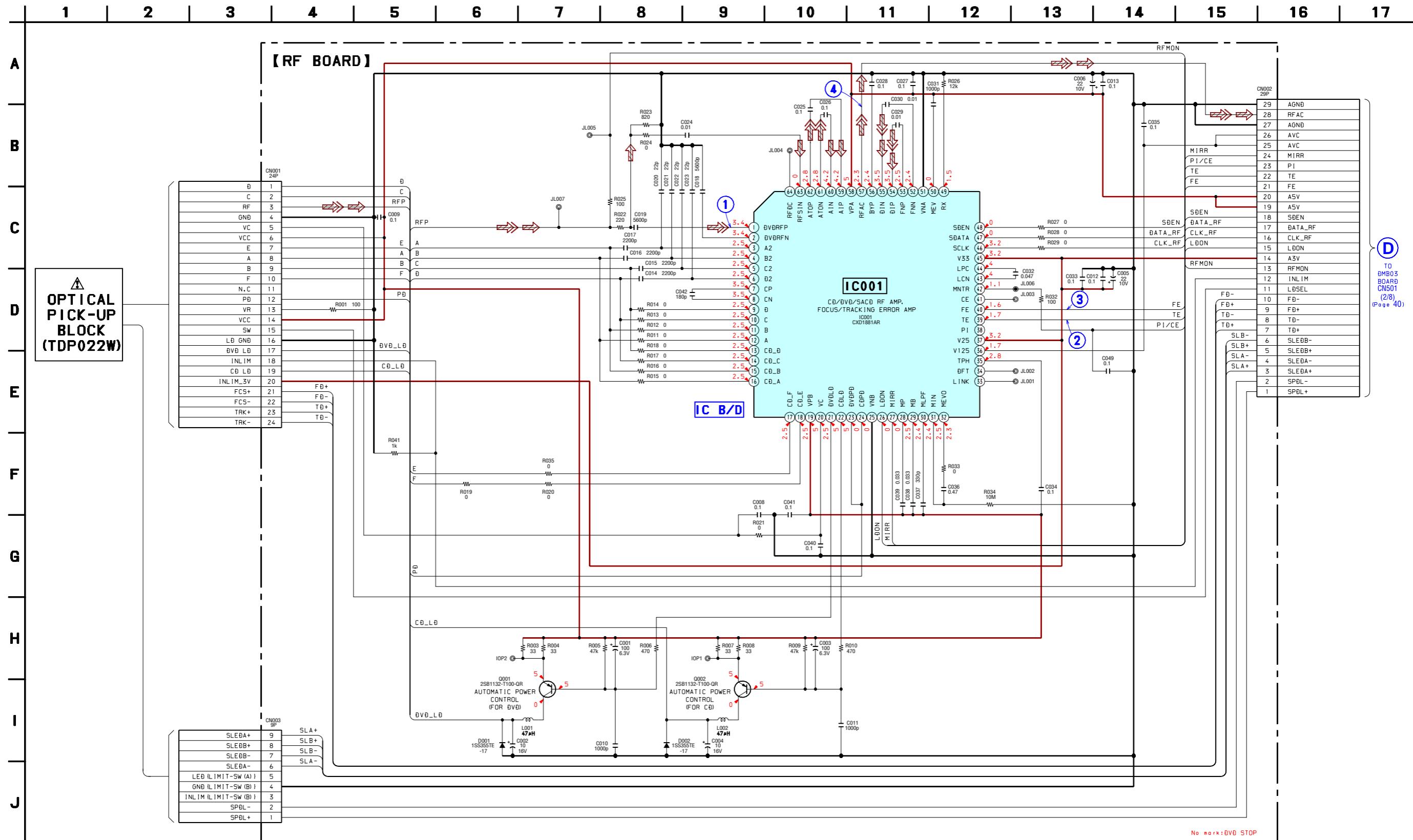
6-3. PRINTED WIRING BOARD – RF SECTION – • See page 27 for Circuit Boards Location. •  : Uses unleaded solder.



• Semiconductor Location

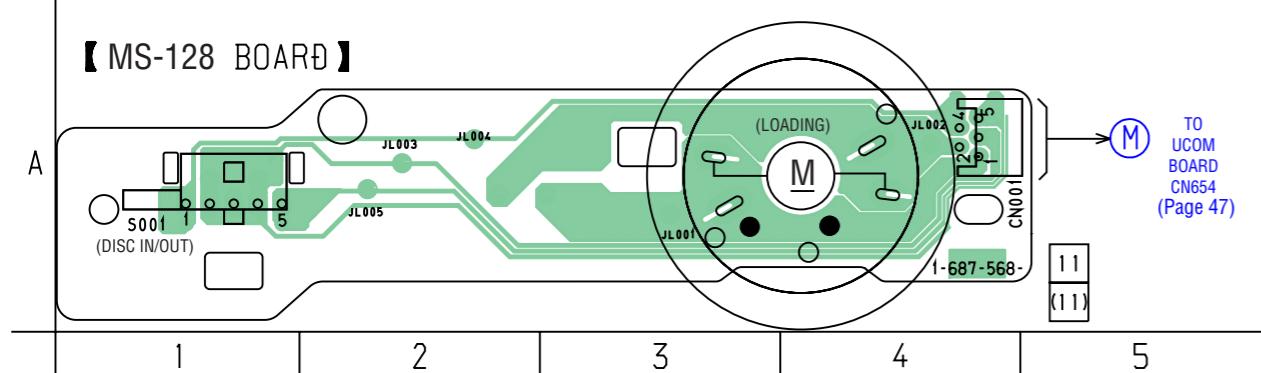
Ref. No.	Location
D001	C-11
D002	B-11
IC001	D-11
Q001	C-3
Q002	B-3

6-4. SCHEMATIC DIAGRAM – RF SECTION –

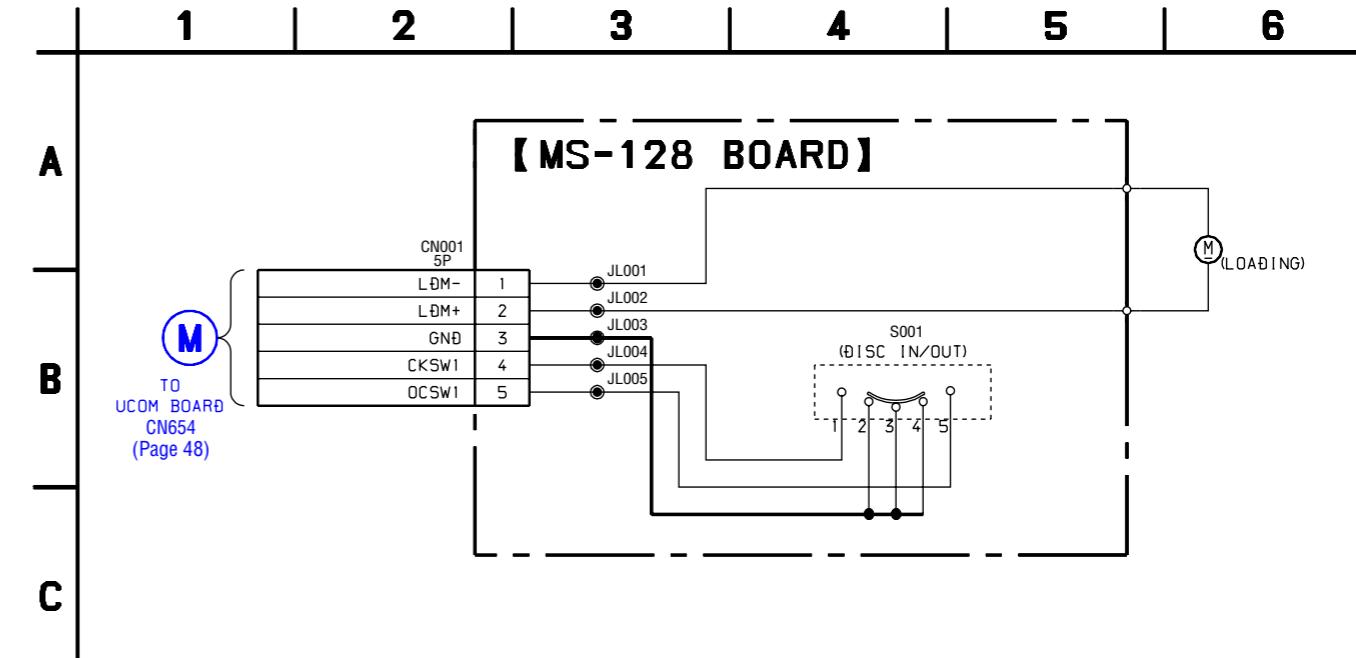


6-5. PRINTED WIRING BOARD – LOADING SECTION – • See page 27 for Circuit Boards Location.

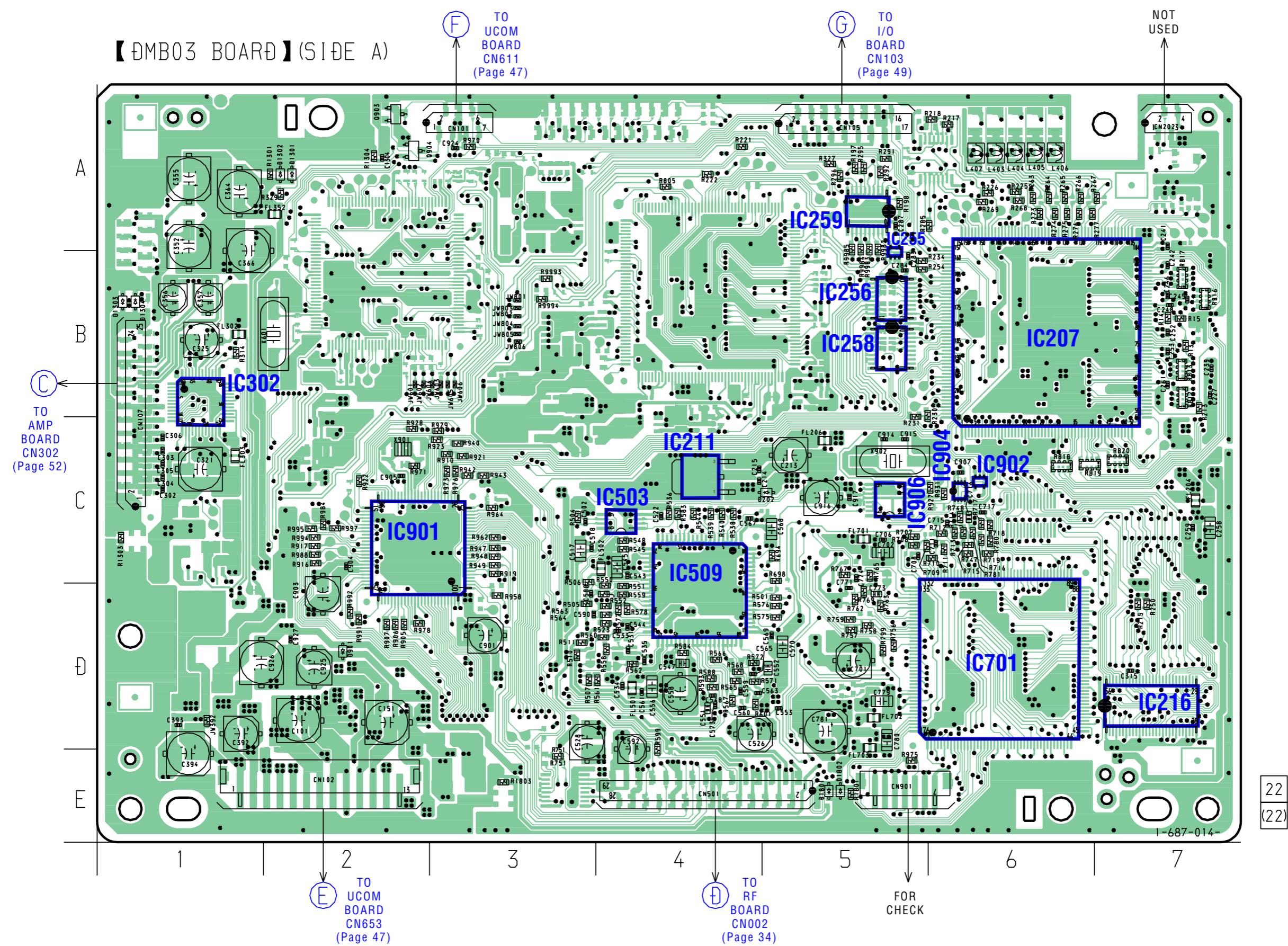
•  : Uses unleaded solder.



6-6. SCHEMATIC DIAGRAM – LOADING SECTION –



6-7. PRINTED WIRING BOARD – DMB SECTION (SIDE A) – • See page 27 for Circuit Boards Location. •  : Uses unleaded solder.

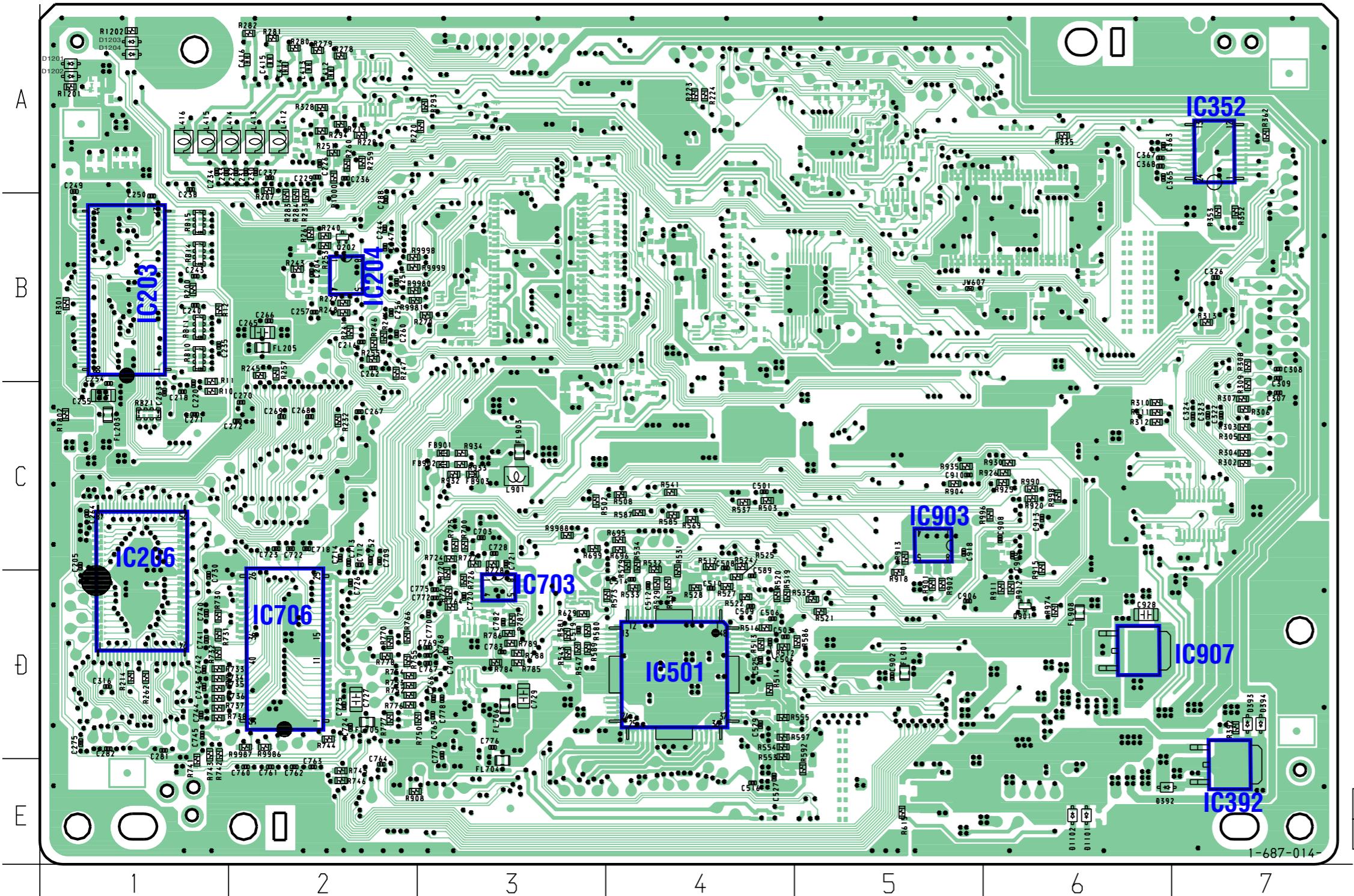


• Semiconductor Location

Ref. No.	Location
D202	C-4
D901	D-2
D1301	A-2
D1302	A-2
D1303	B-1
D1304	B-1
D1801	E-5
D1802	E-5
IC207	B-6
IC211	C-4
IC216	D-7
IC255	A-5
IC256	B-5
IC258	B-5
IC259	A-5
IC302	B-1
IC503	C-4
IC509	D-4
IC701	D-6
IC901	C-2
IC902	C-6
IC904	C-6
IC906	C-5
Q903	A-2
Q904	A-2

22
(22)

[DMB03 BOARD] (SIDE B)

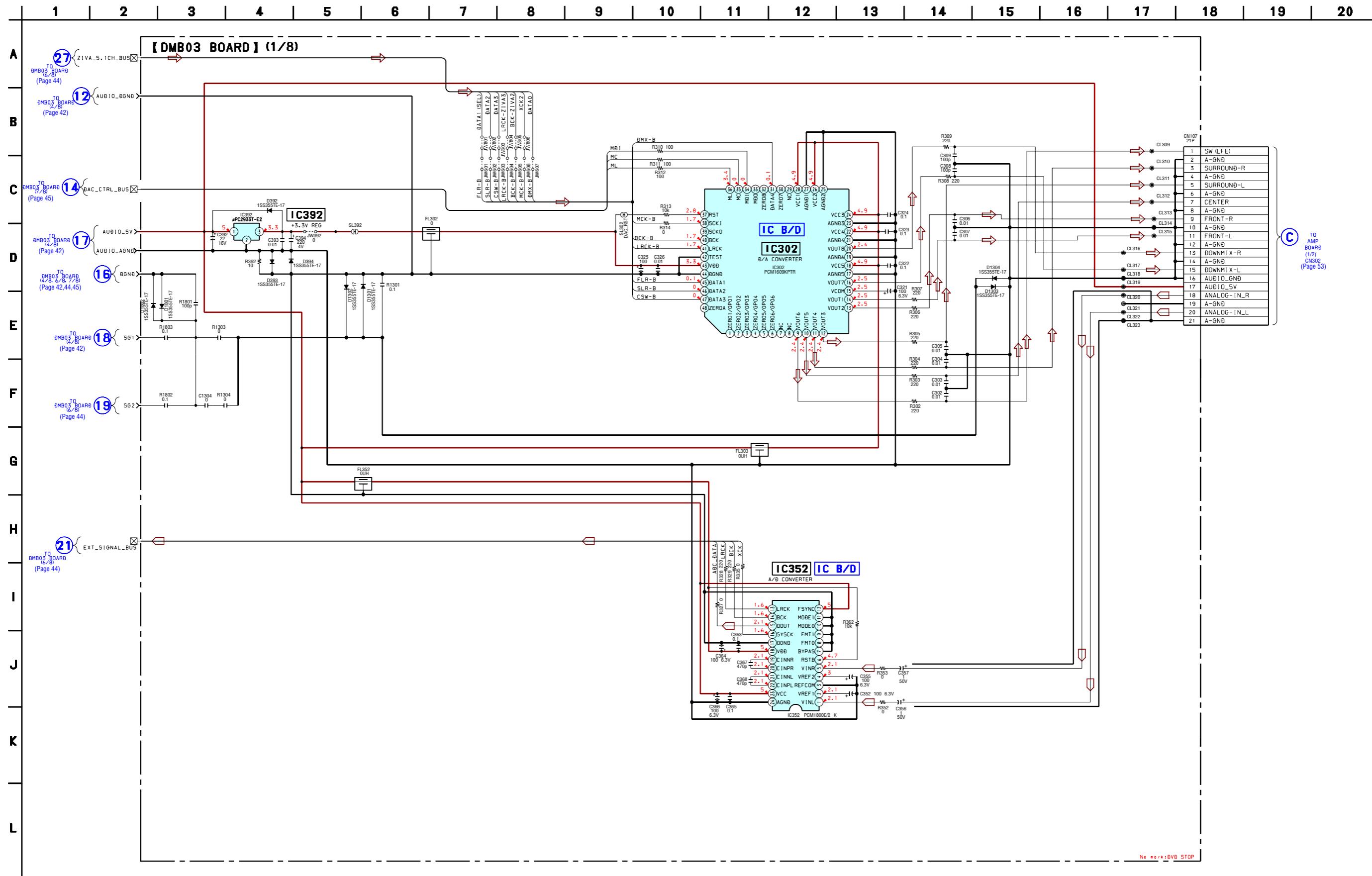


• Semiconductor Location

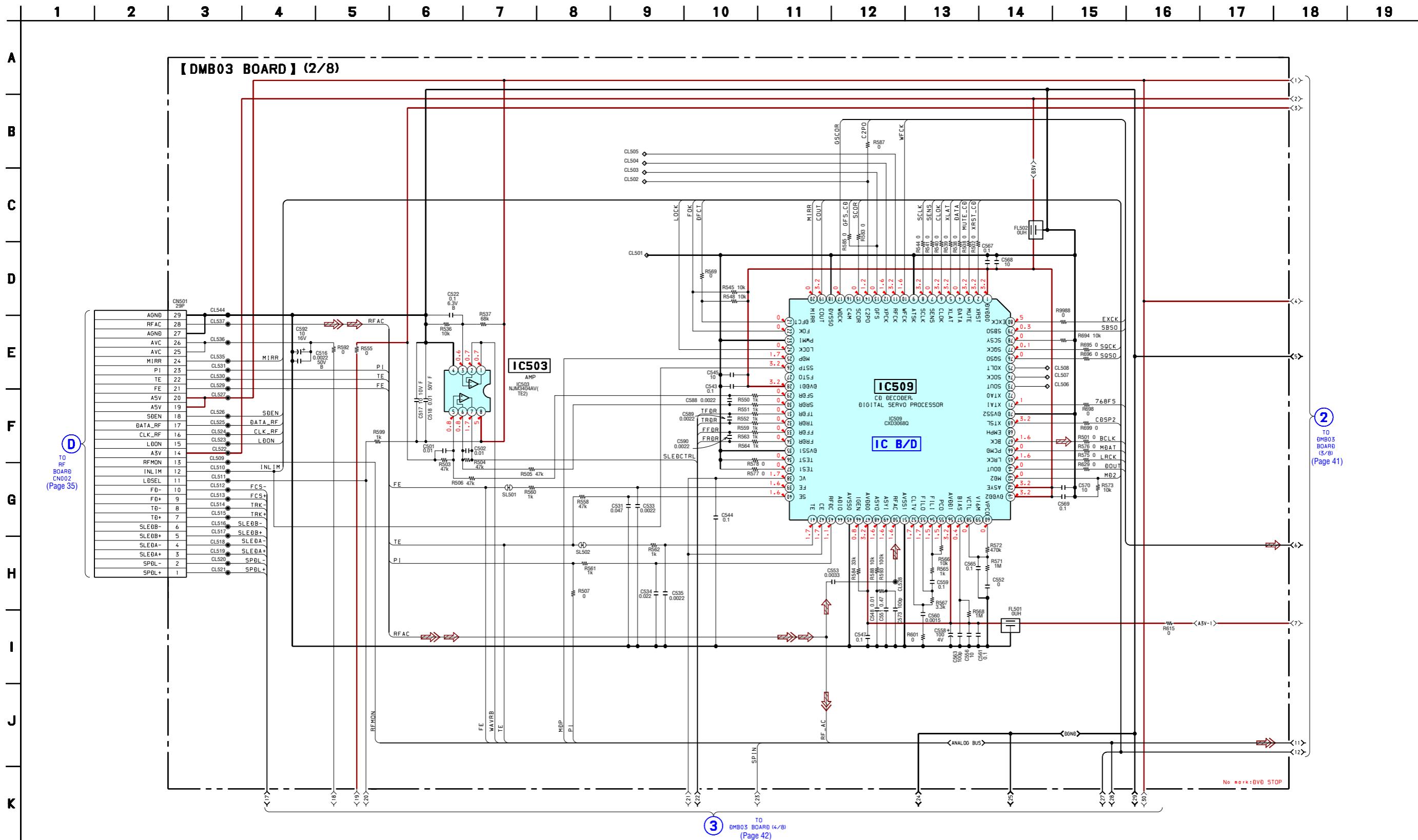
Ref. No.	Location
D392	D-6
D393	D-7
D394	D-7
D1101	E-6
D1102	E-6
D1201	A-1
D1202	A-1
D1203	A-1
D1204	A-1
IC203	B-1
IC204	B-2
IC206	C-1
IC352	A-7
IC392	E-7
IC501	D-4
IC703	D-3
IC706	D-2
IC903	C-5
IC907	D-7
Q202	B-2
Q901	D-6

22
(22)

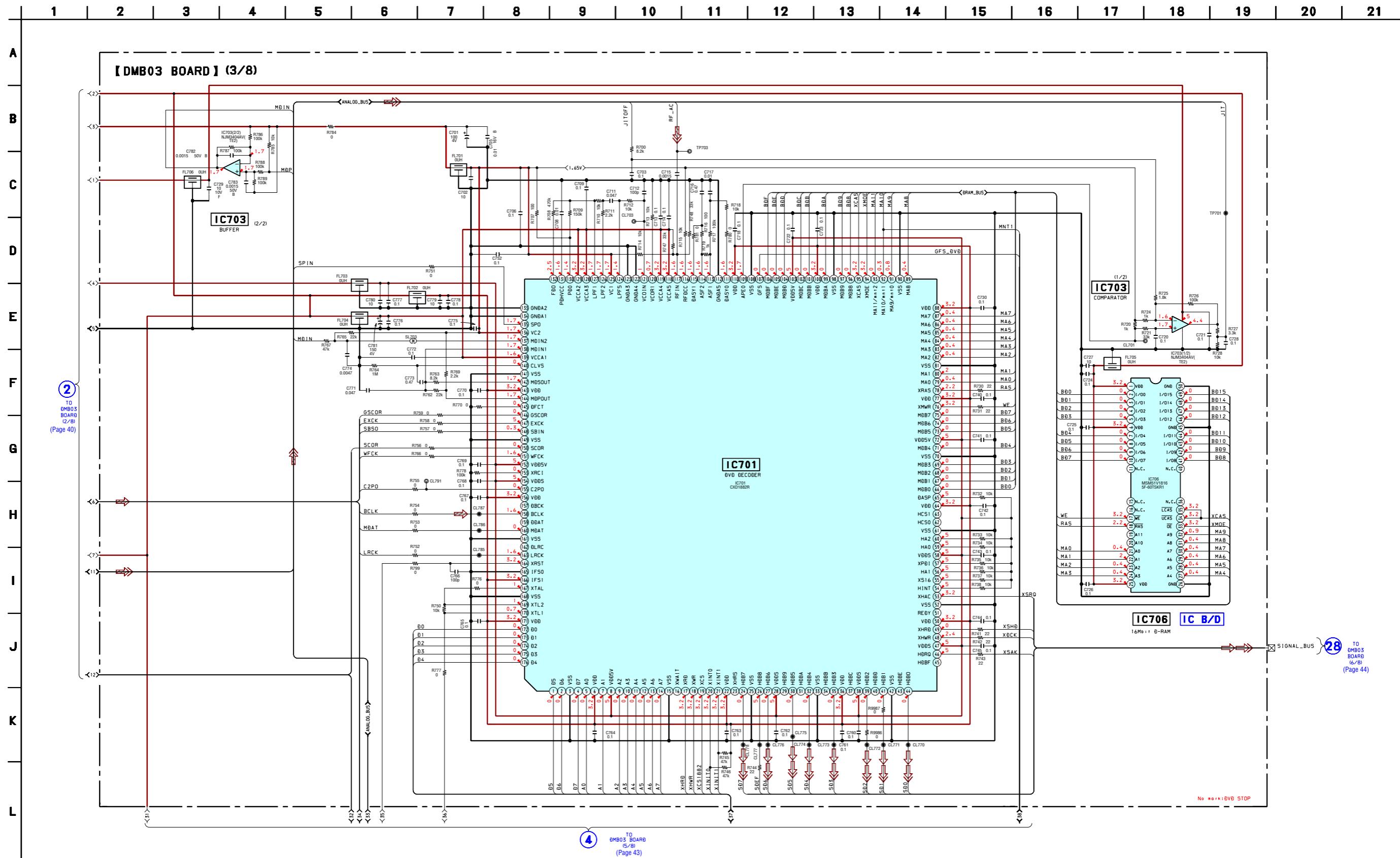
6-9. SCHEMATIC DIAGRAM – DMB SECTION (1/8) –



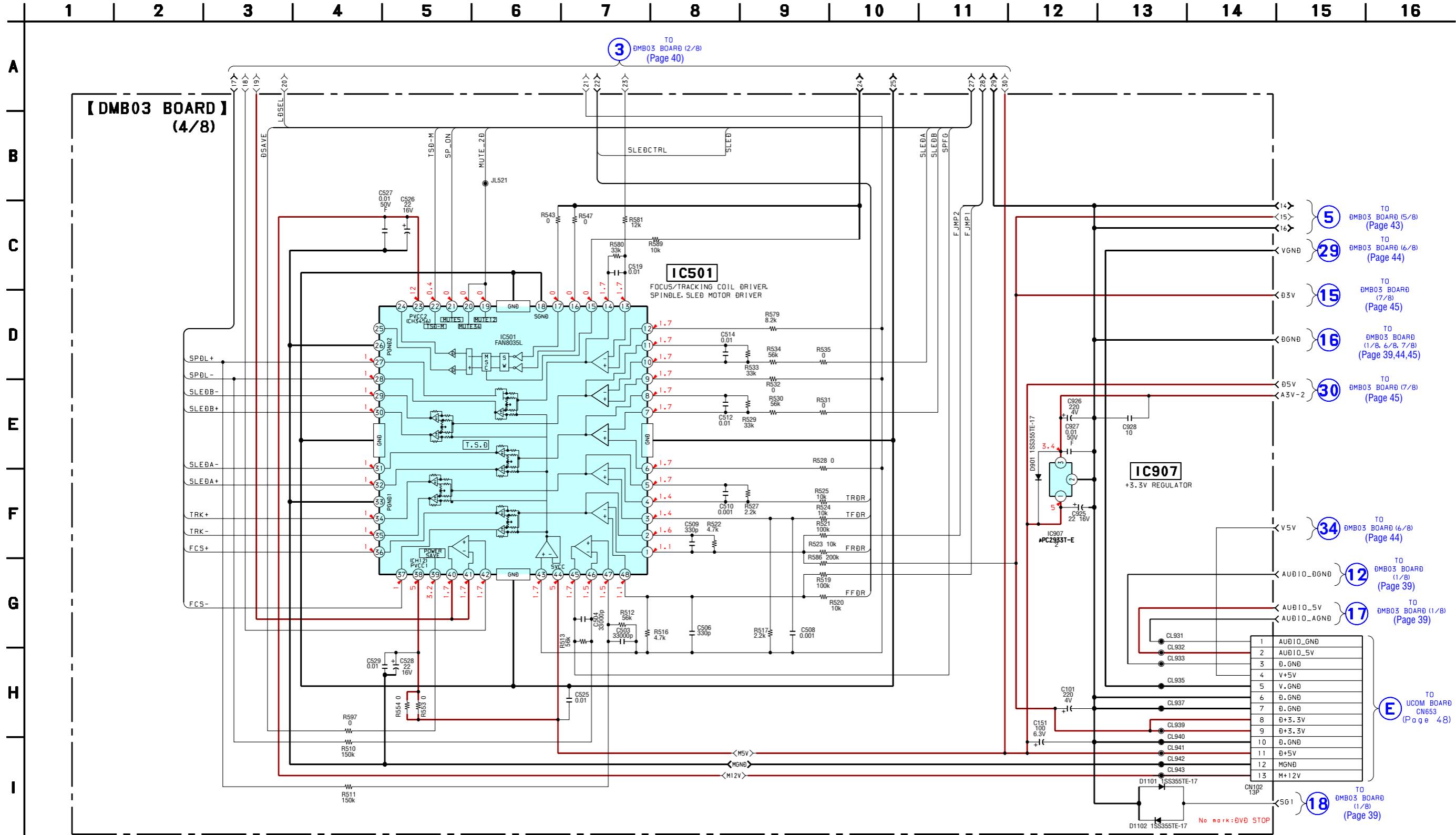
6-10. SCHEMATIC DIAGRAM – DMB SECTION (2/8) –



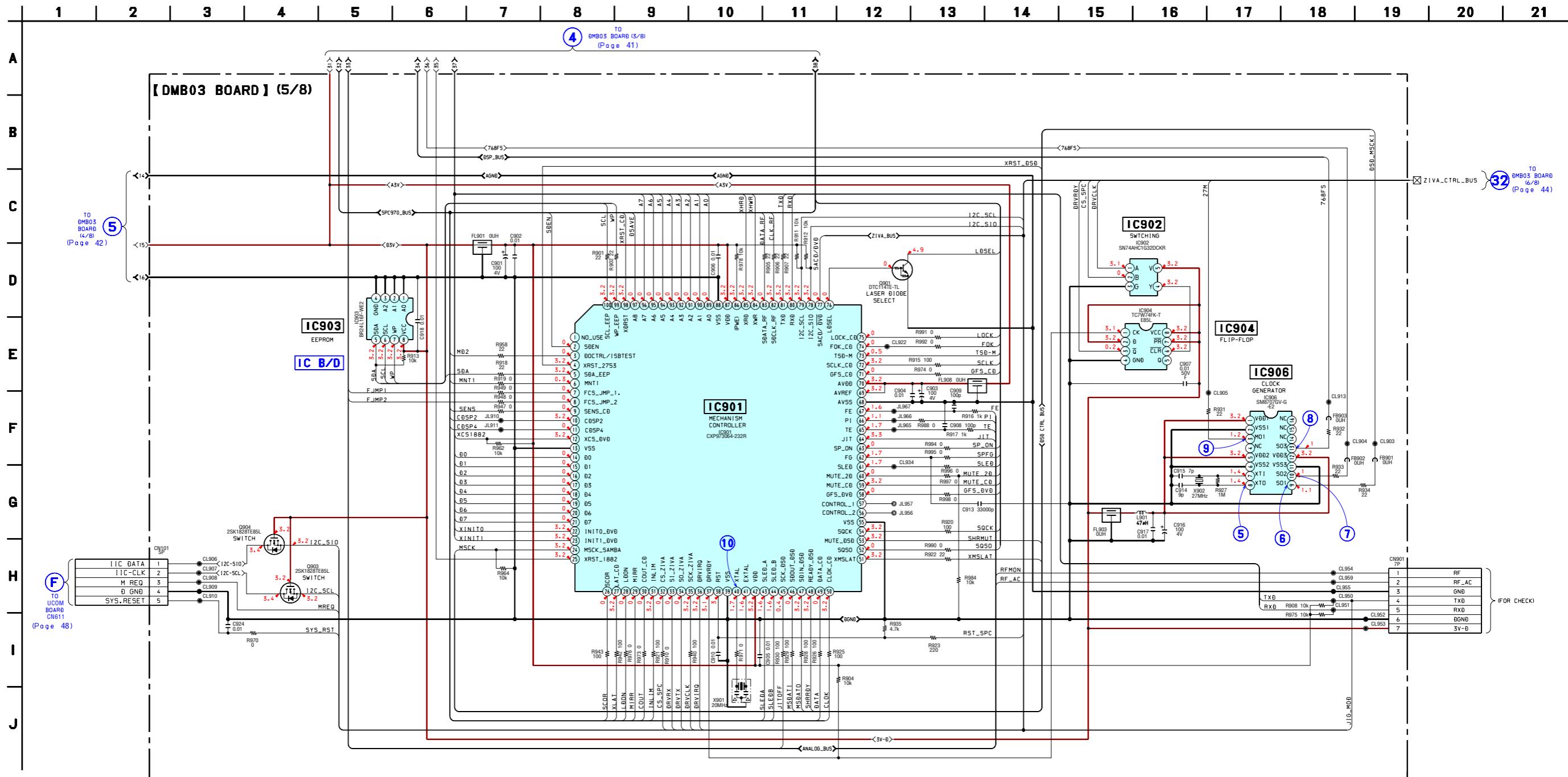
6-11. SCHEMATIC DIAGRAM – DMB SECTION (3/8) – • See page 73 for IC PIN FUNCTION DESCRIPTION.



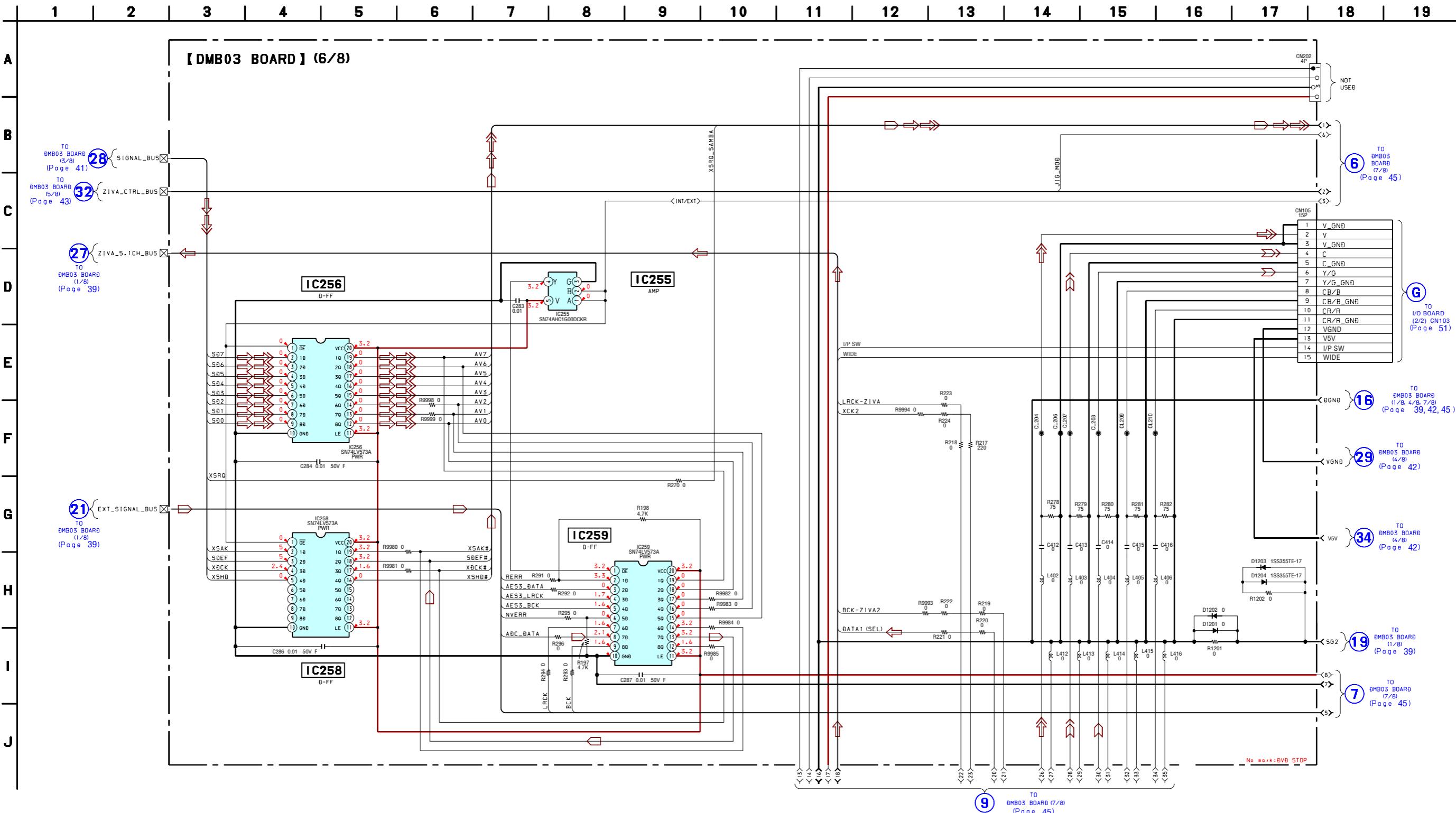
6-12. SCHEMATIC DIAGRAM – DMB SECTION (4/8) –



6-13. SCHEMATIC DIAGRAM – DMB SECTION (5/8) – • See page 76 for IC PIN FUNCTION DESCRIPTION.

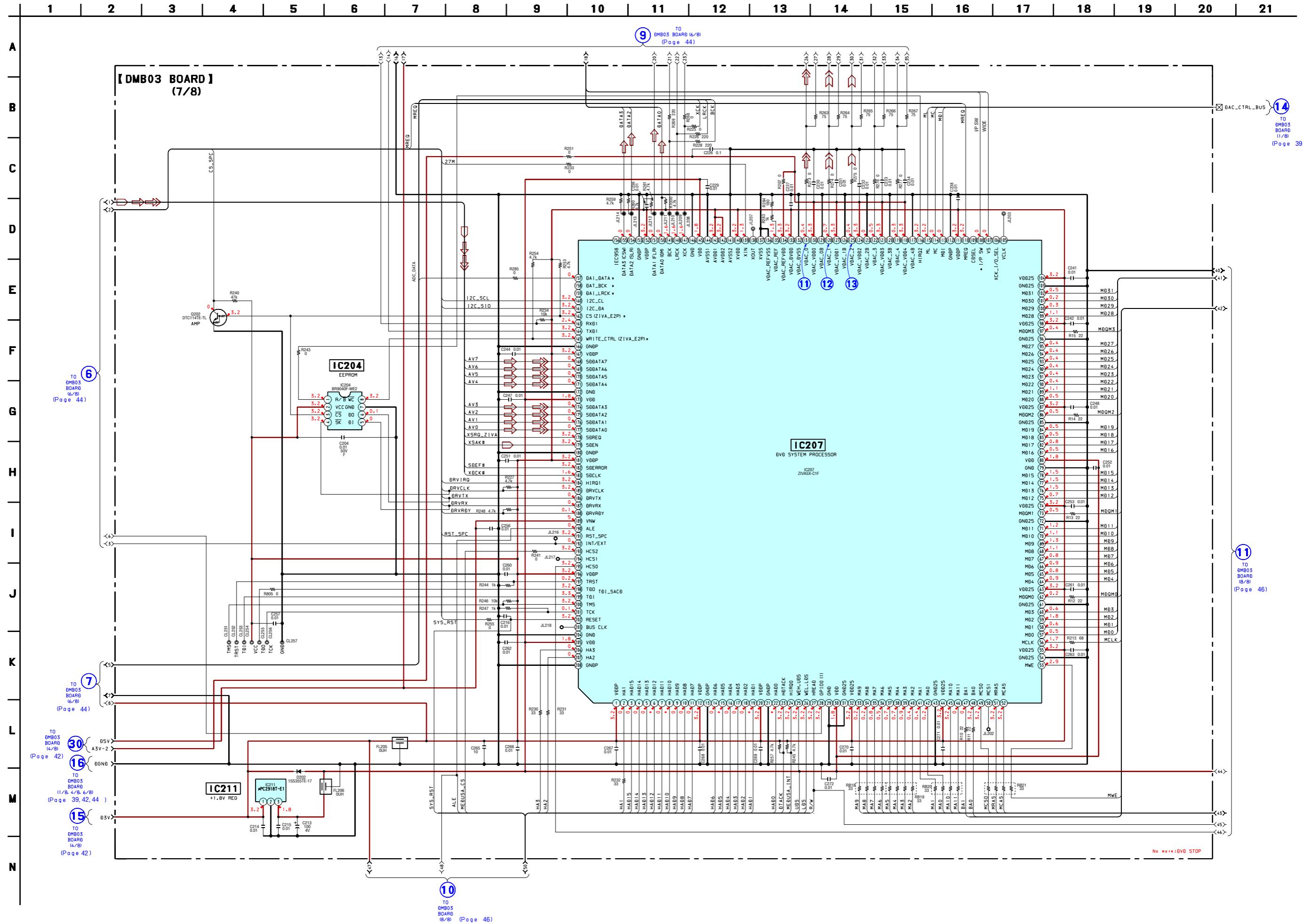


6-14. SCHEMATIC DIAGRAM – DMB SECTION (6/8) –

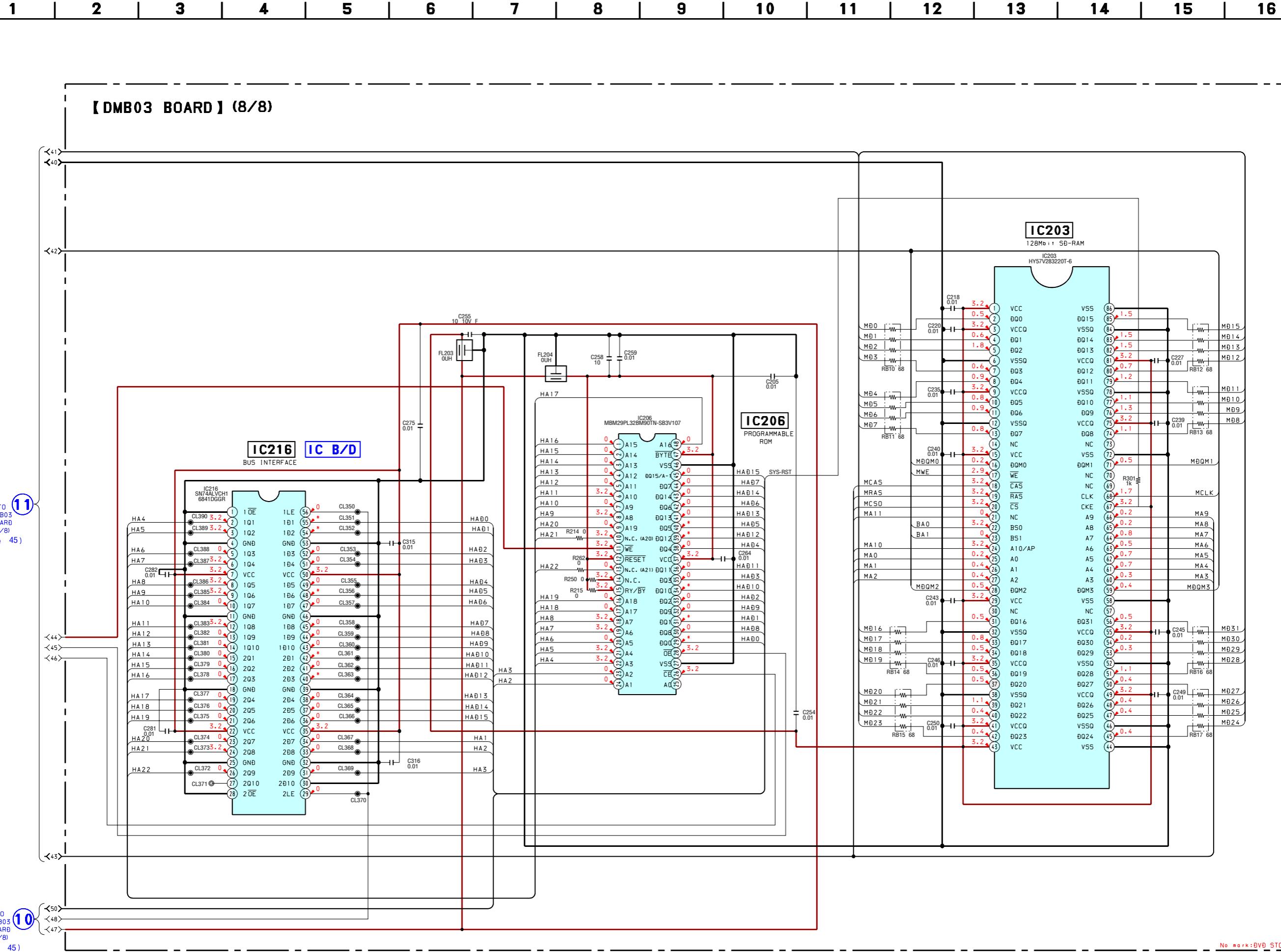


- See page 68 for IC PIN FUNCTION DESCRIPTION

- See page 68 for IC PIN FUNCTION DESCRIPTION



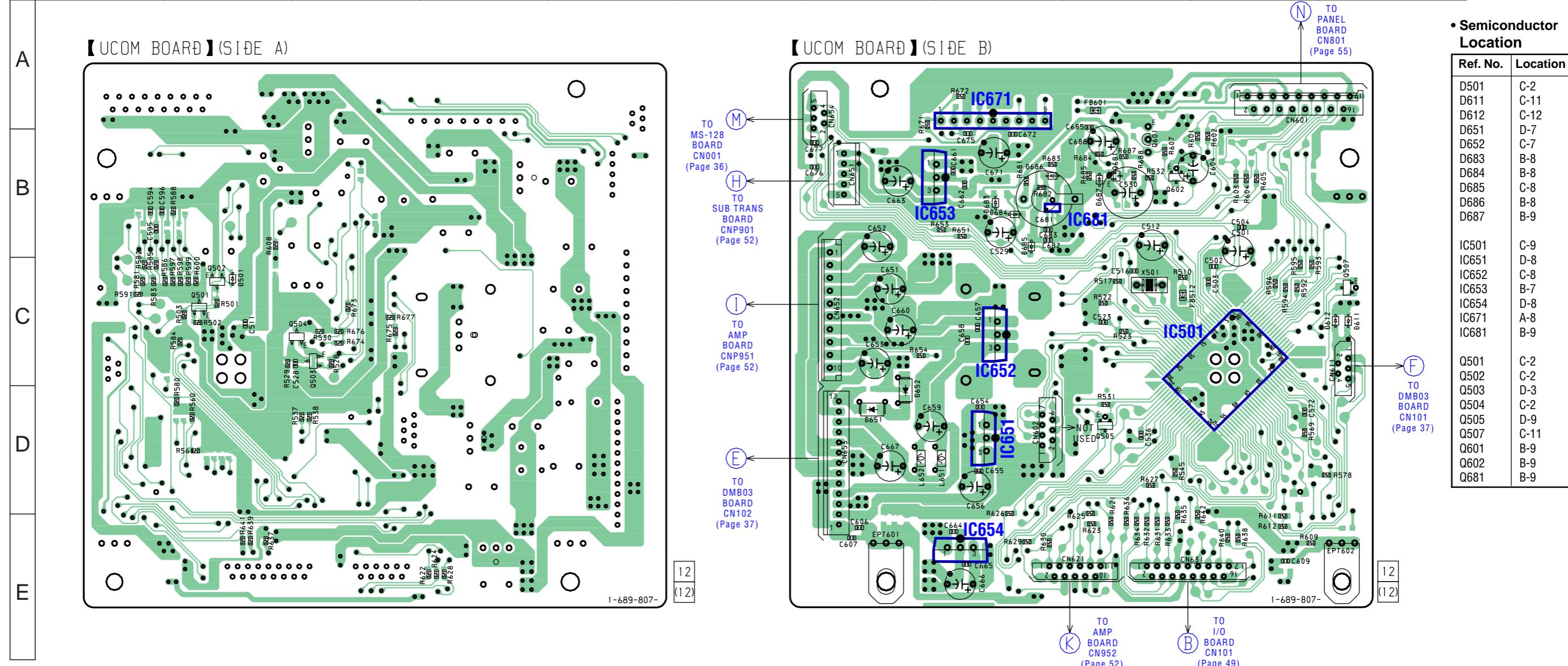
6-16. SCHEMATIC DIAGRAM – DMB SECTION (8/8) –



6-17. PRINTED WIRING BOARD – UCOM SECTION – • See page 27 for Circuit Boards Location.

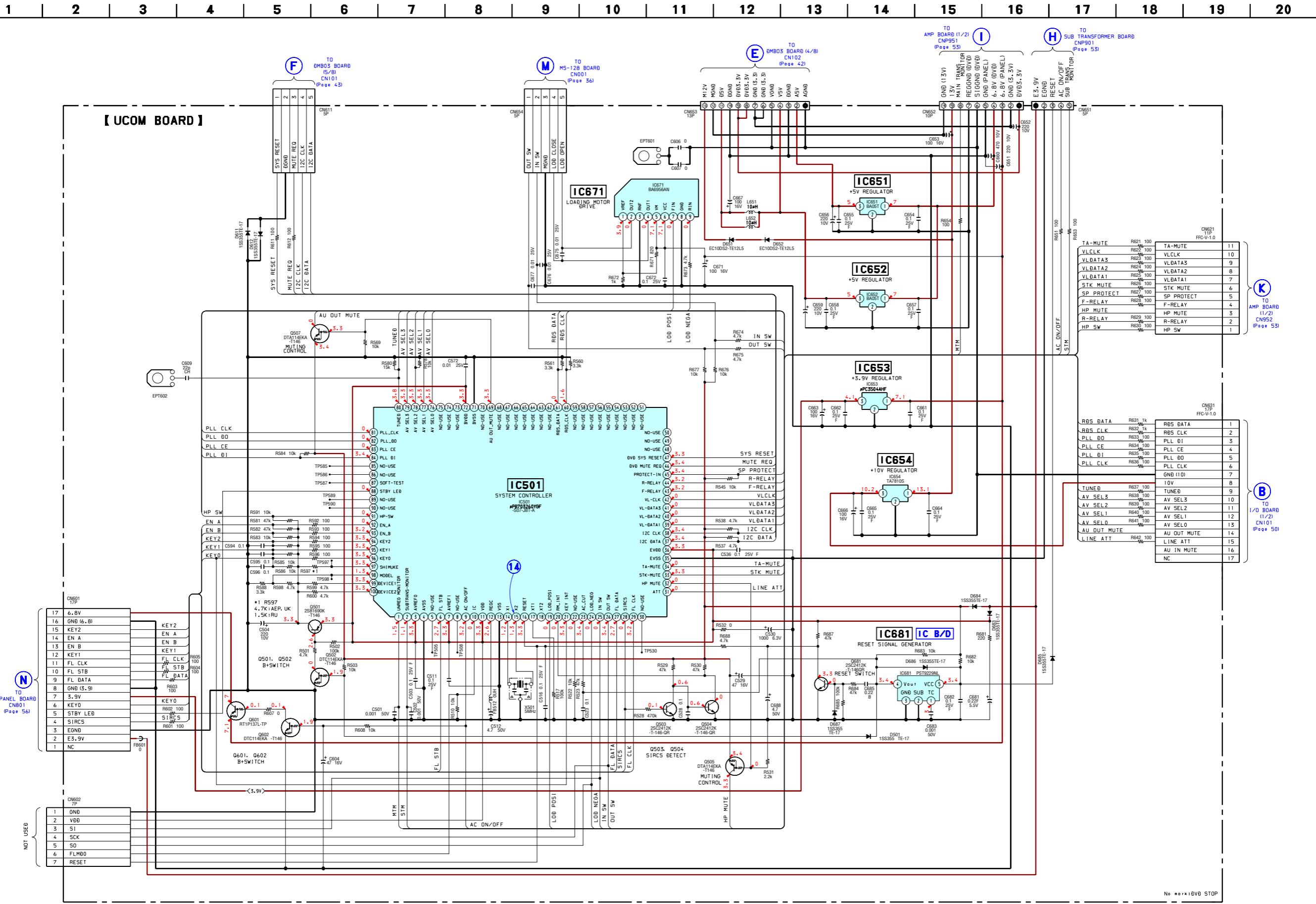
• : Uses unleaded solder.

	1	2	3	4	5	6	7	8	9	10	11
--	---	---	---	---	---	---	---	---	---	----	----

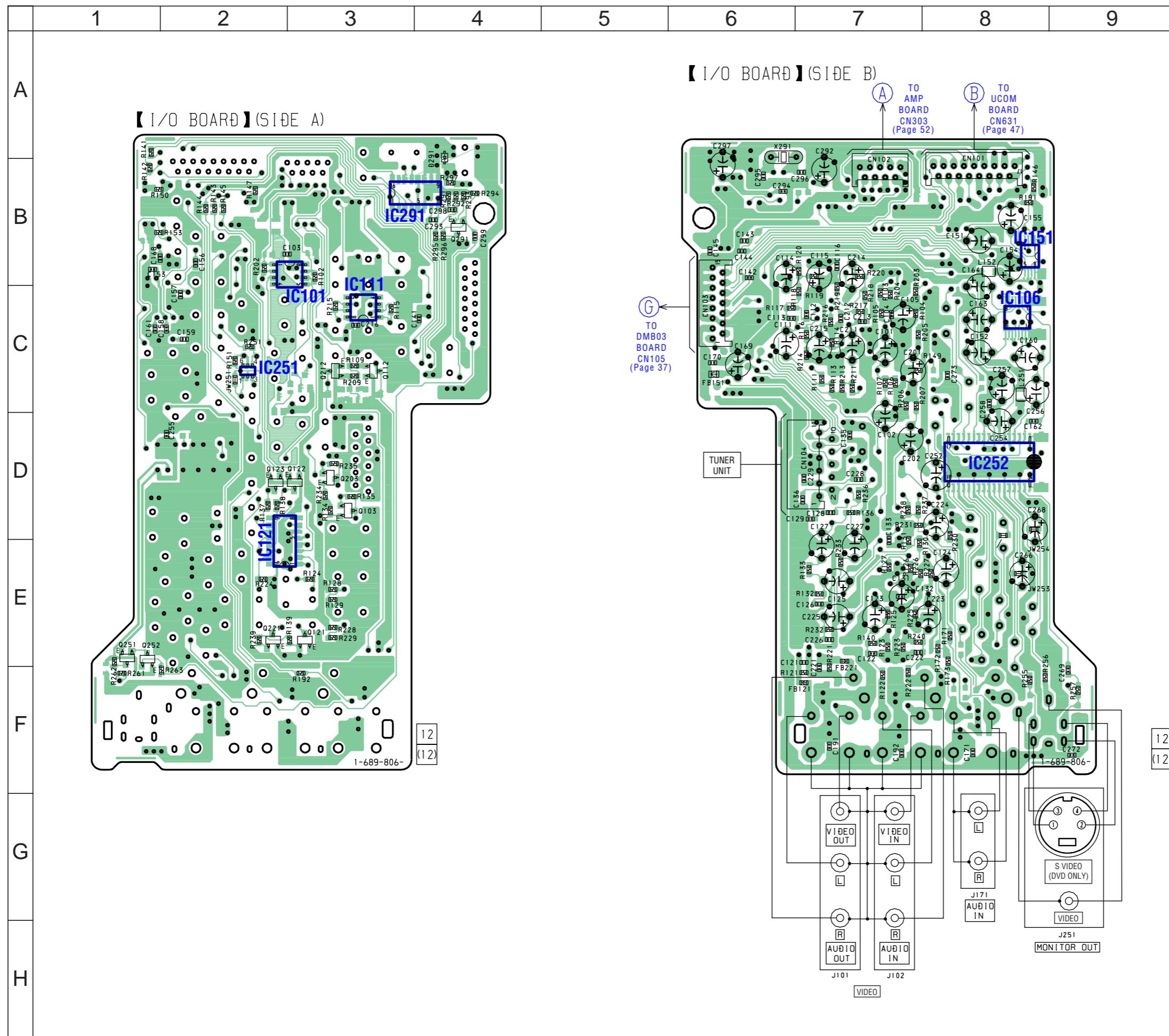


- See page 78 for IC PIN FUNCTION DESCRIPTIONS

- See page 78 for IC PIN FUNCTION DESCRIPTION



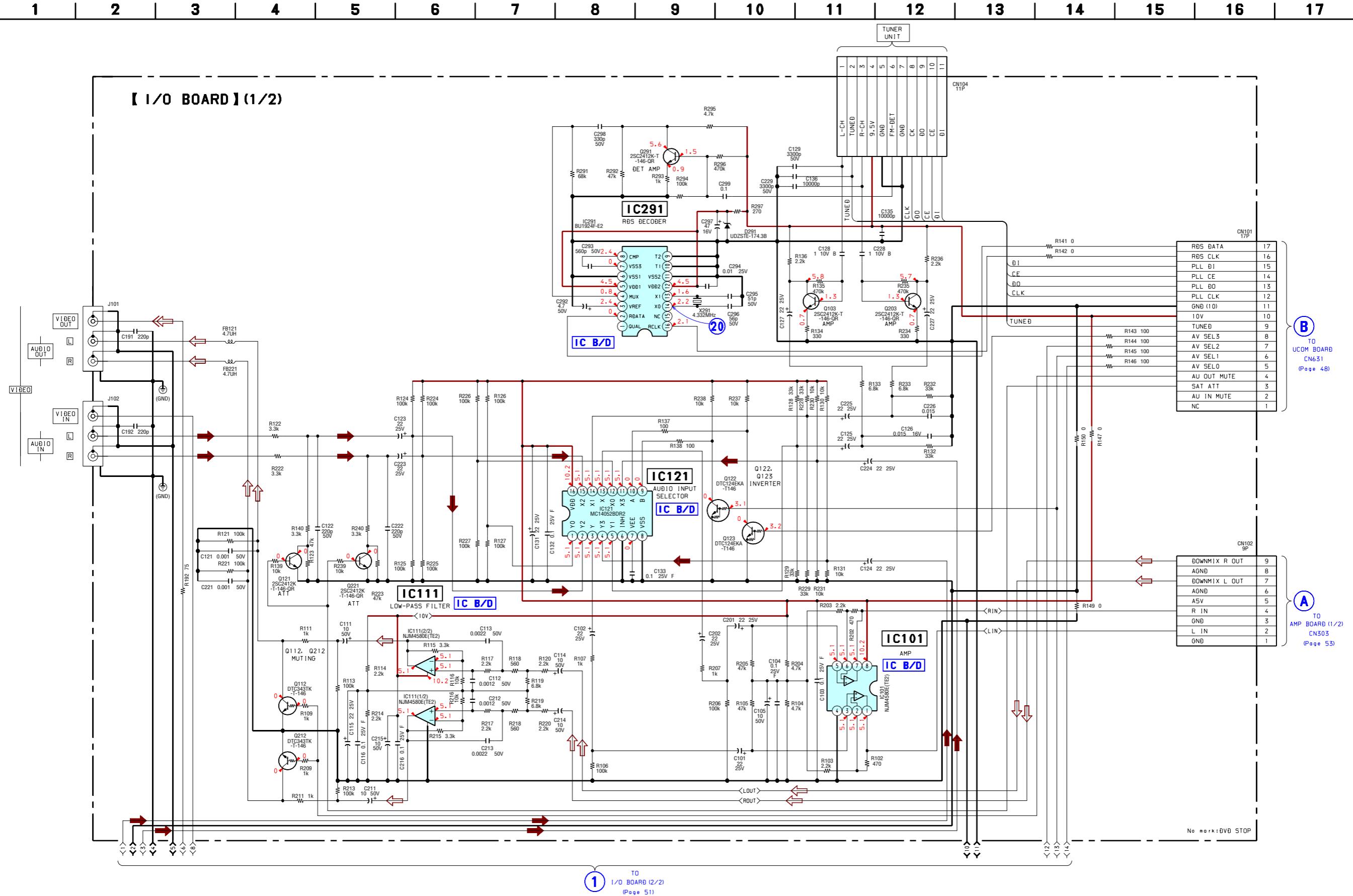
6-19. PRINTED WIRING BOARD - I/O SECTION - • See page 27 for Circuit Boards Location.

•  : Uses unleaded solder.

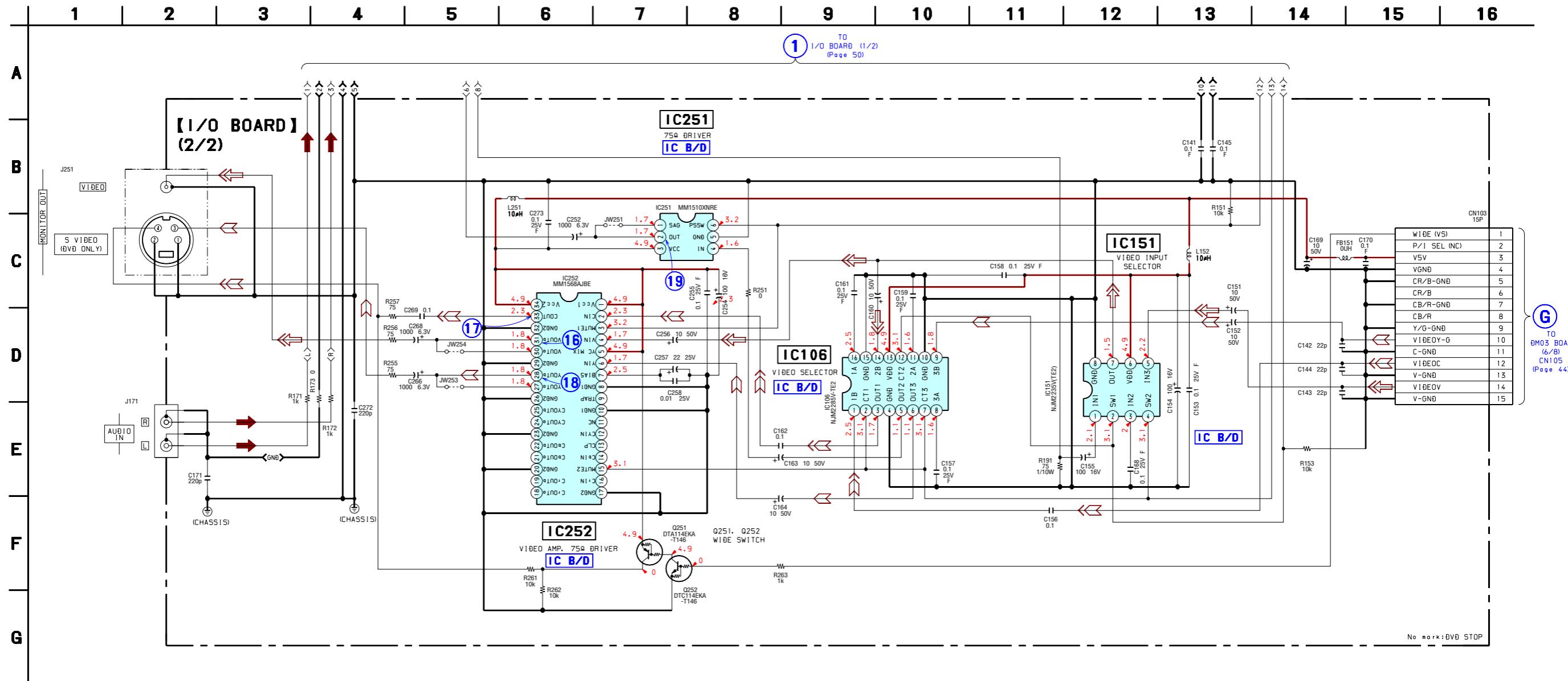
• Semiconductor Location

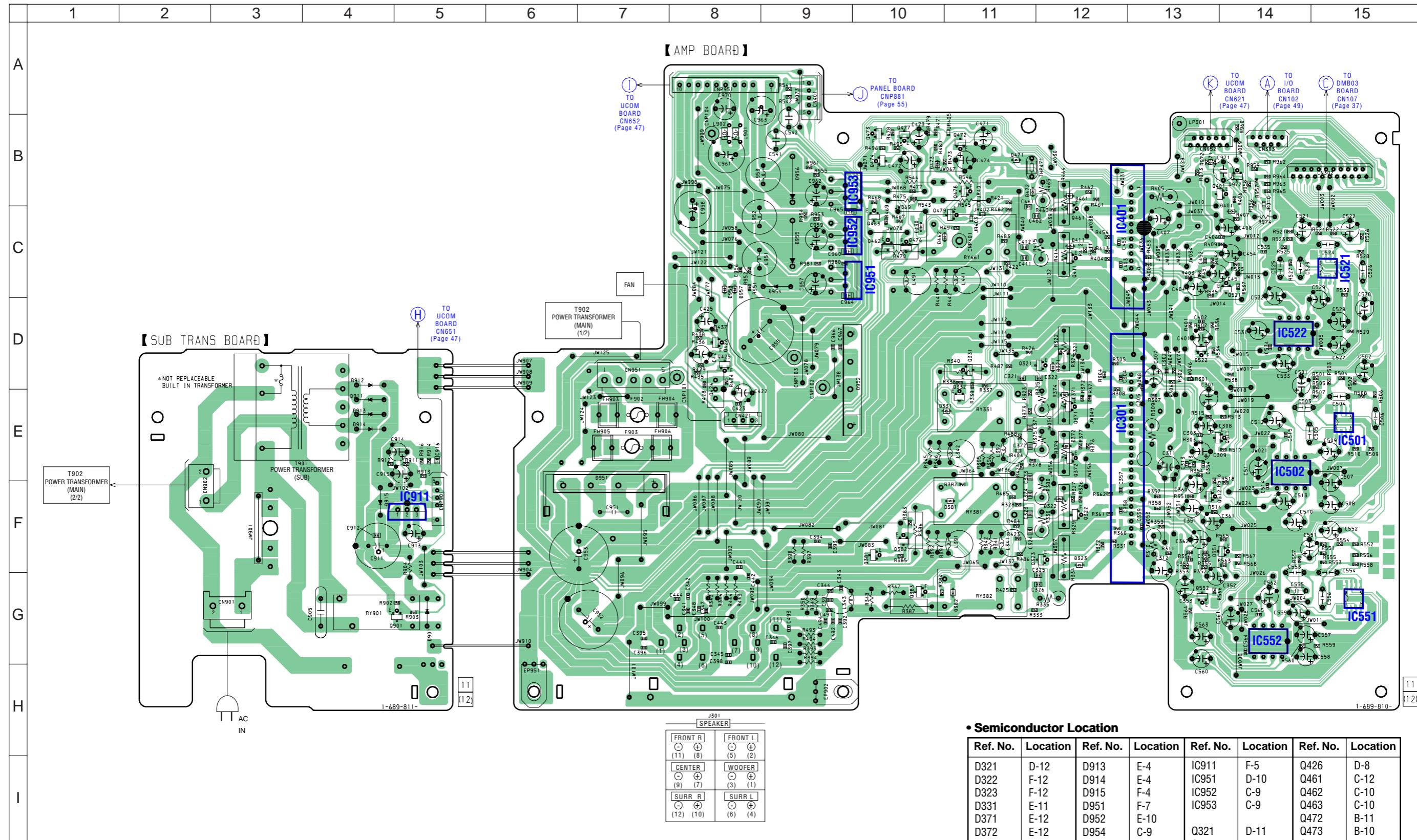
Ref. No.	Location
D291	B-4
IC101	C-3
IC106	C-8
IC111	B-3
IC121	E-2
IC151	B-8
IC251	C-2
IC252	D-8
IC291	B-3
Q103	D-3
Q112	C-3
Q121	E-3
Q122	D-3
Q123	D-2
Q203	D-3
Q212	C-3
Q221	E-2
Q251	E-1
Q252	E-2
Q291	B-4

6-20. SCHEMATIC DIAGRAM – I/O SECTION (1/2) –

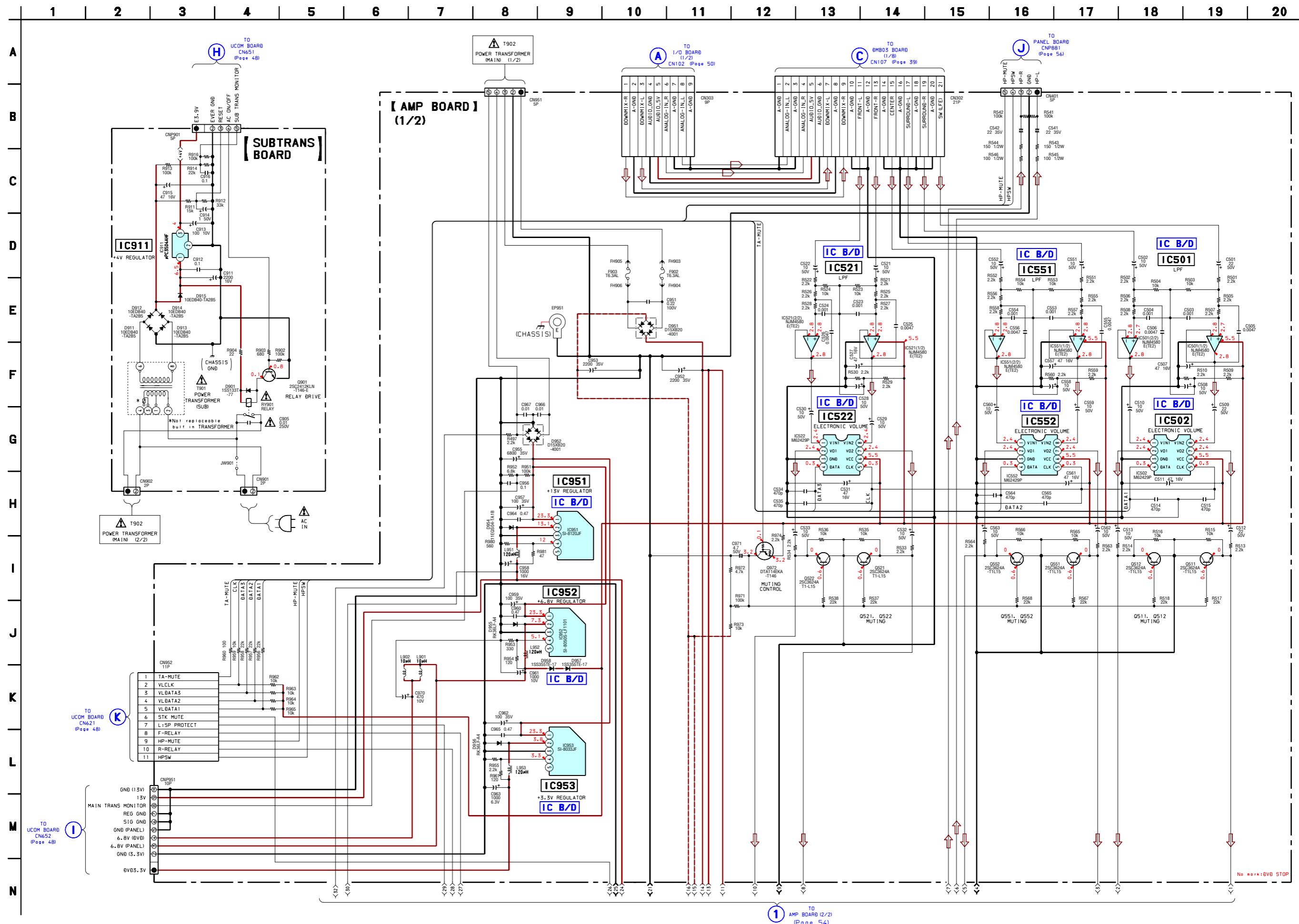


6-21. SCHEMATIC DIAGRAM – I/O SECTION (2/2) –

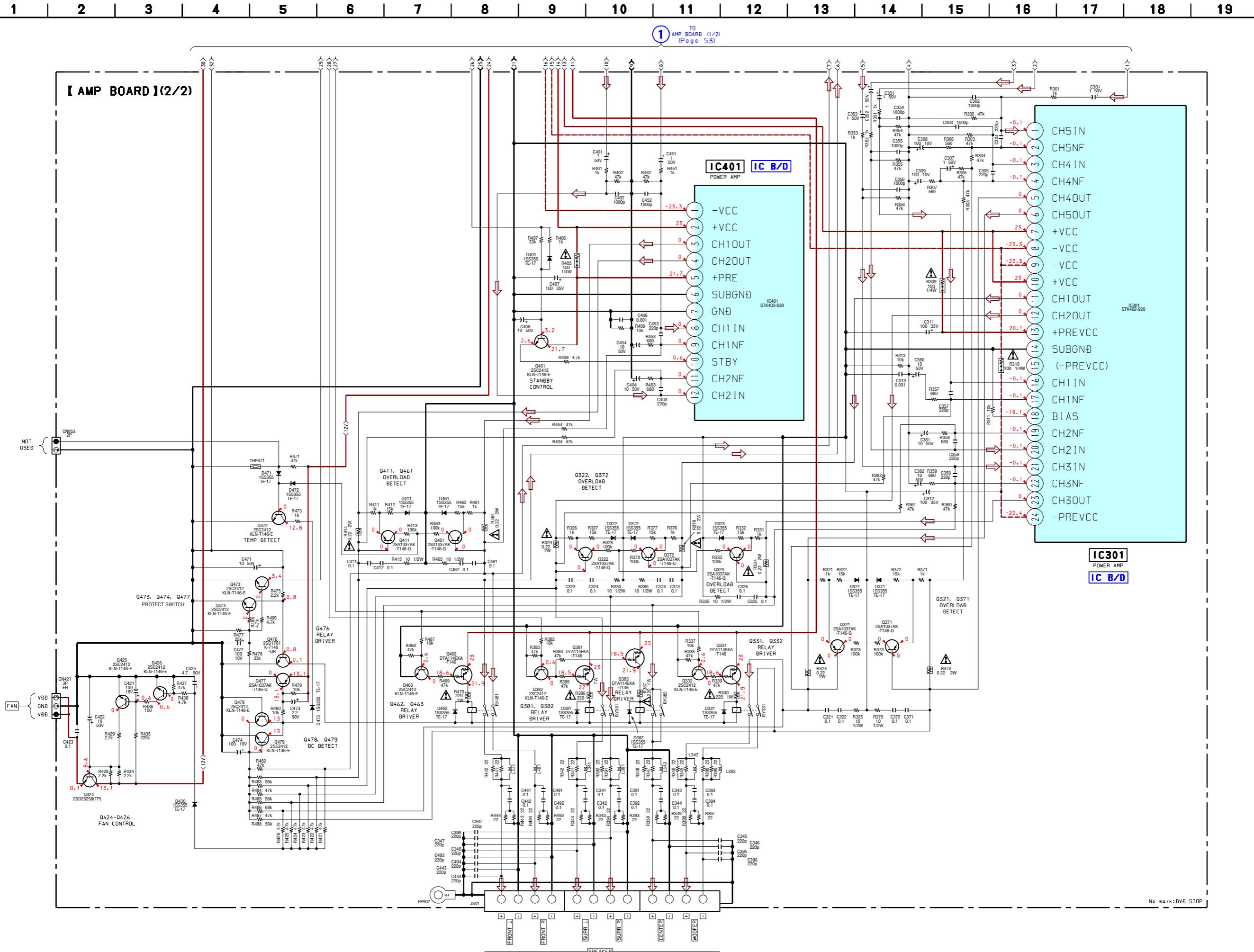


6-22. PRINTED WIRING BOARD – AMP/SUB TRANSFORMER SECTION – • See page 27 for Circuit Boards Location. •  : Uses unleaded solder.

6-23. SCHEMATIC DIAGRAM – AMP/SUB TRANSFORMER SECTION (1/2) –

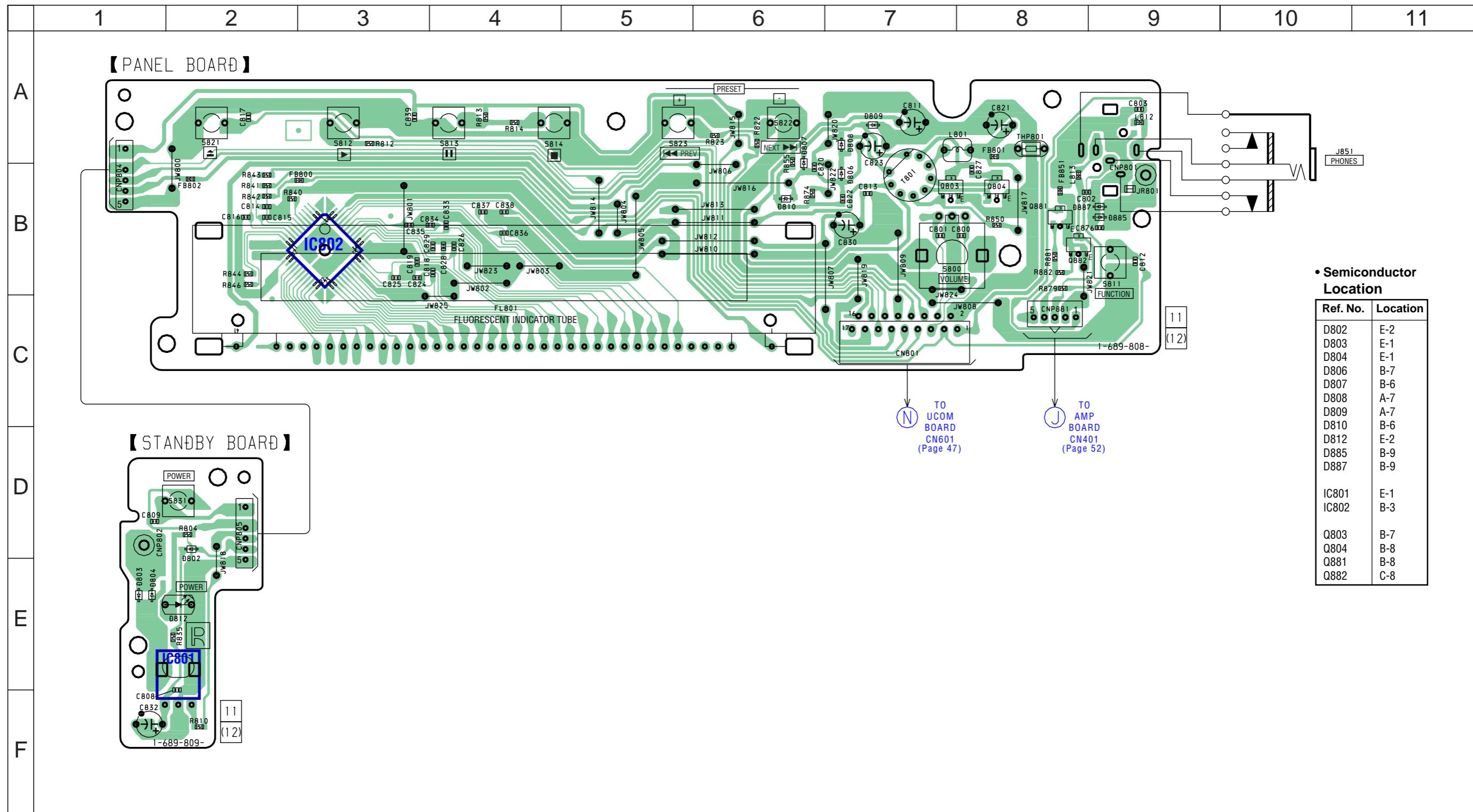


6-24. SCHEMATIC DIAGRAM – AMP/SUB TRANSFORMER SECTION (2/2) –

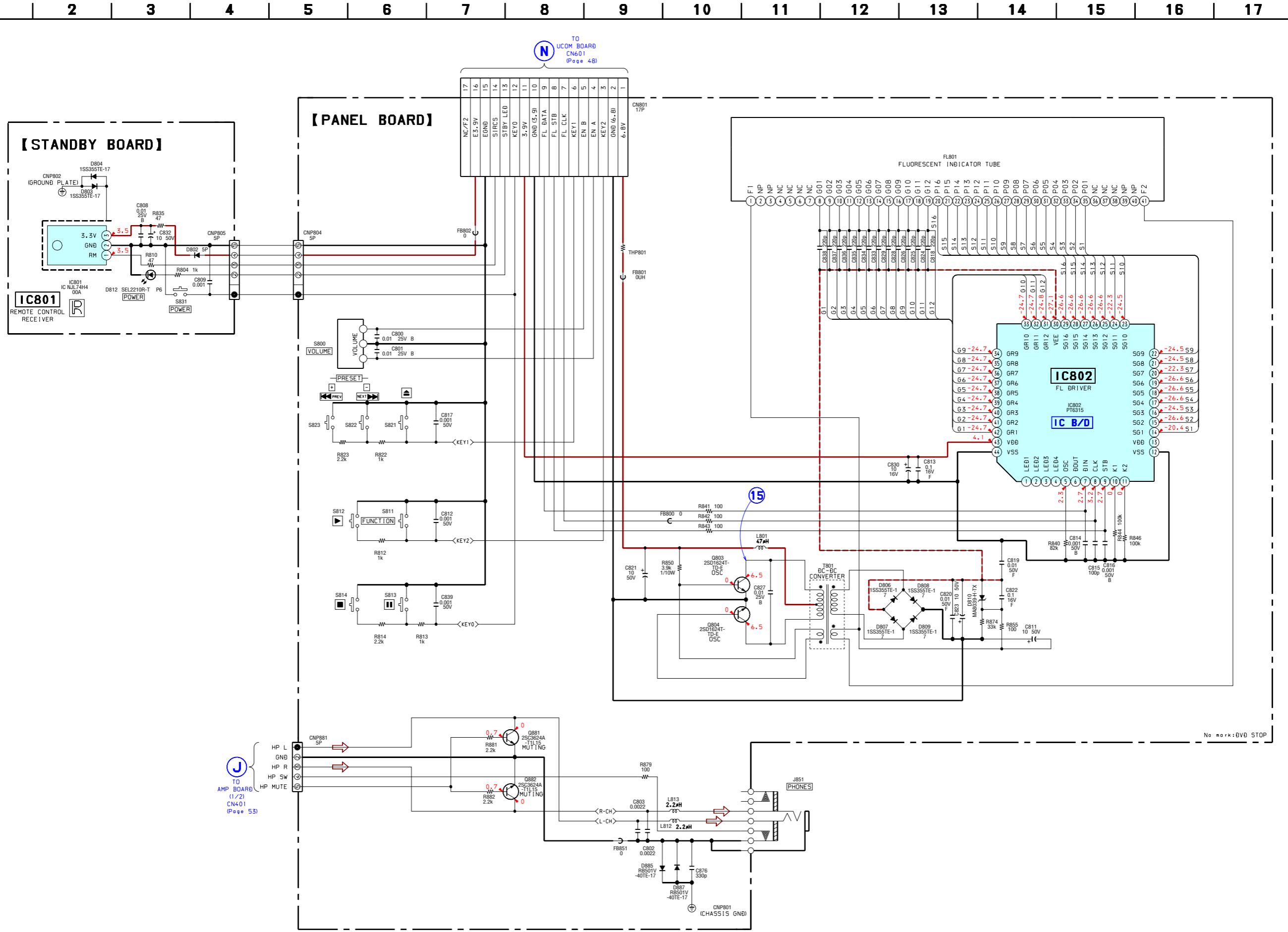


6-25. PRINTED WIRING BOARD - PANEL SECTION - • See page 27 for Circuit Boards Location.

•  : Uses unleaded solder.

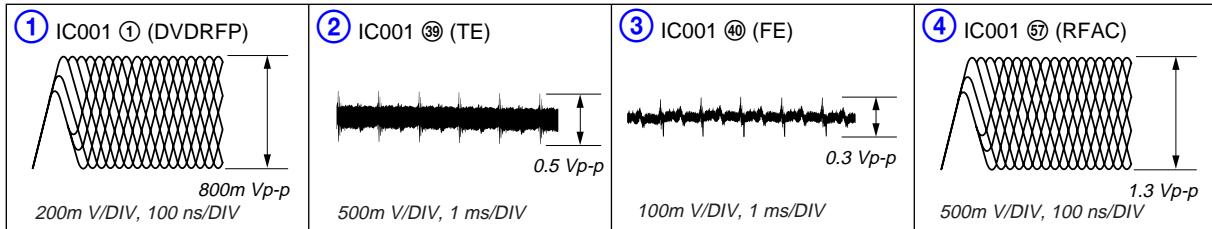


6-26. SCHEMATIC DIAGRAM – PANEL SECTION –



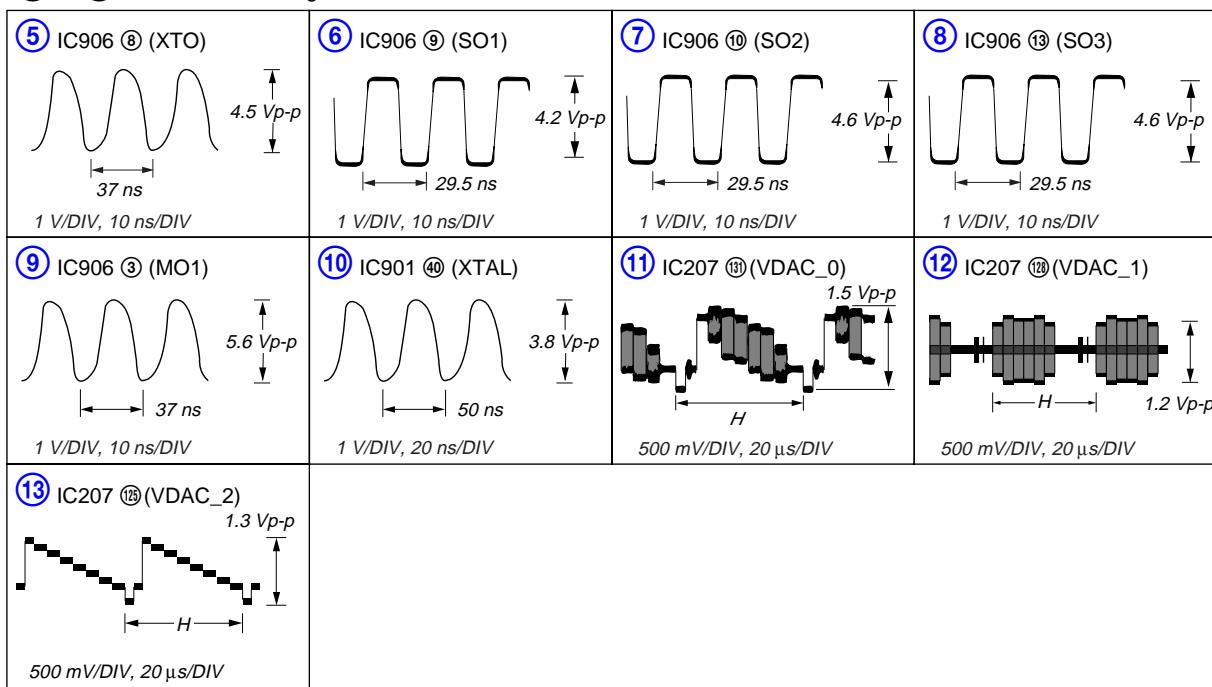
• Waveforms

– RF BOARD –

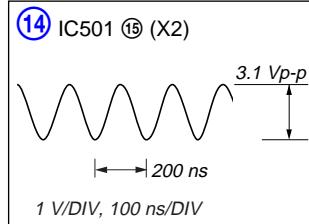


– DMB03 BOARD –

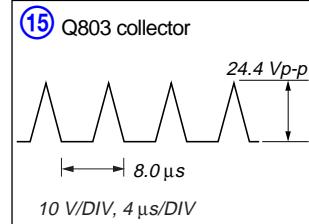
(11) to (13) :Color bars video signal



- UCOM BOARD -

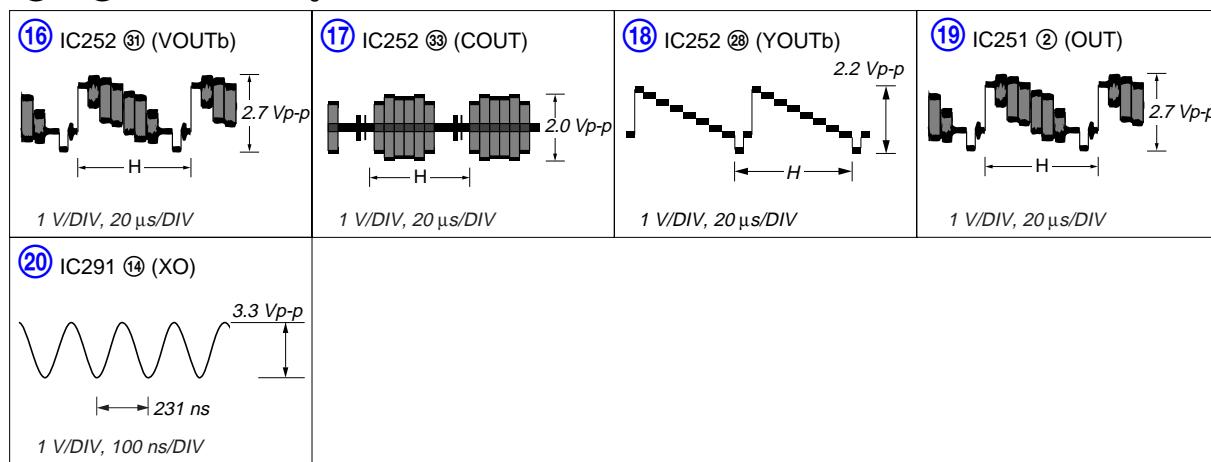


- PANEL BOARD -



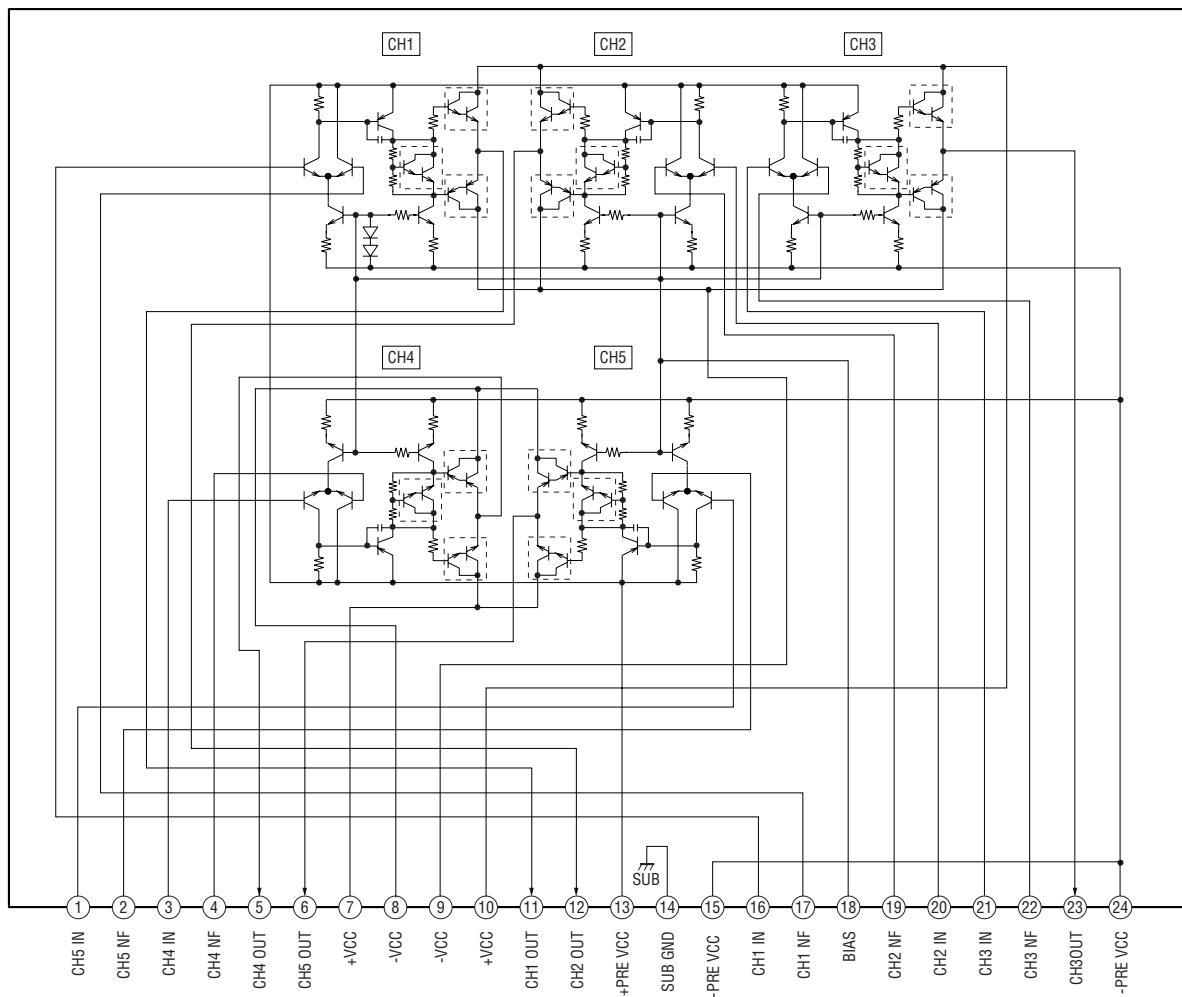
- I/O BOARD -

(16) to (19) :Color bars video signal

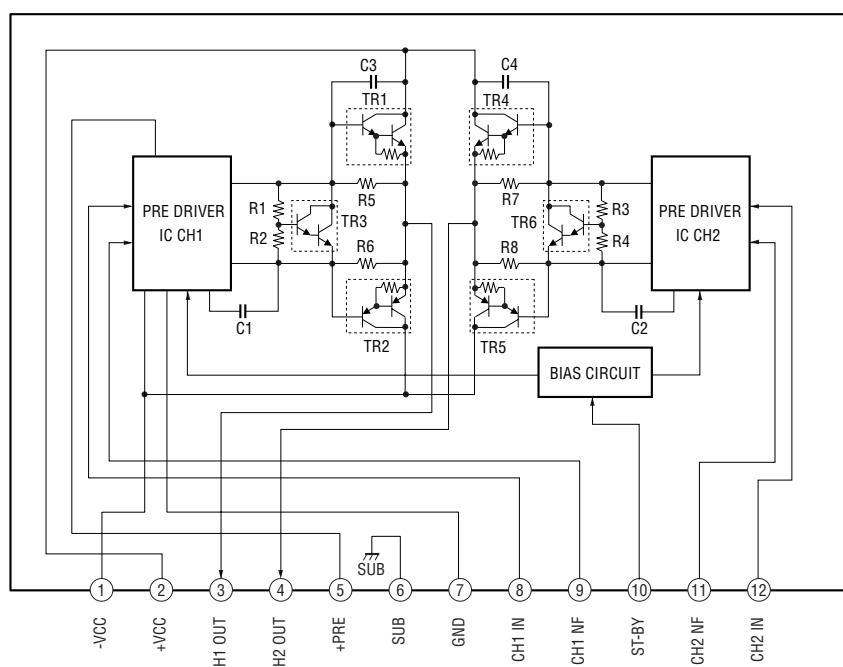


6-27. IC BLOCK DIAGRAMS
- AMP BOARD -

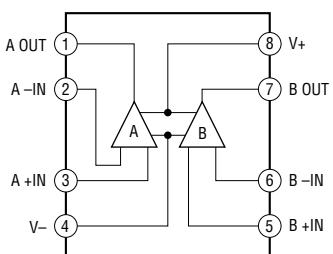
IC301 STK402-920



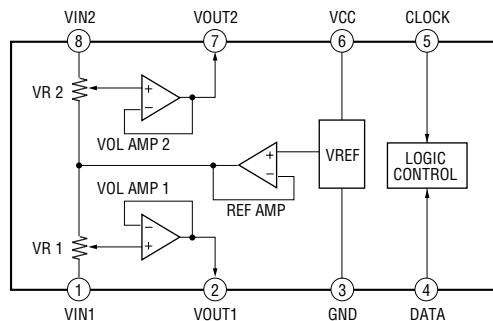
IC401 STK403-030



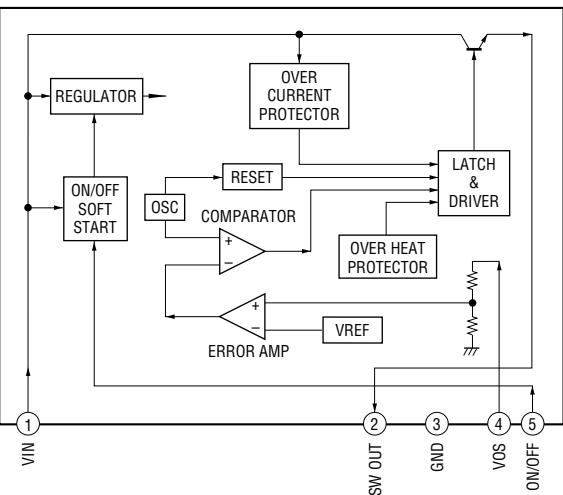
IC501,521,551 NJM4580E(TE2)



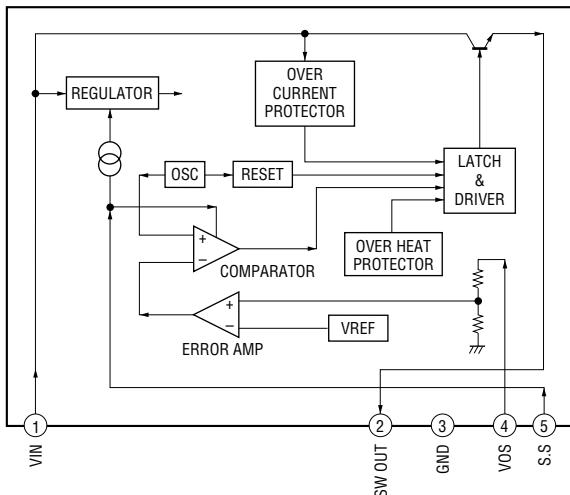
IC502,522,552 M62429P



IC951 SI-8120JF

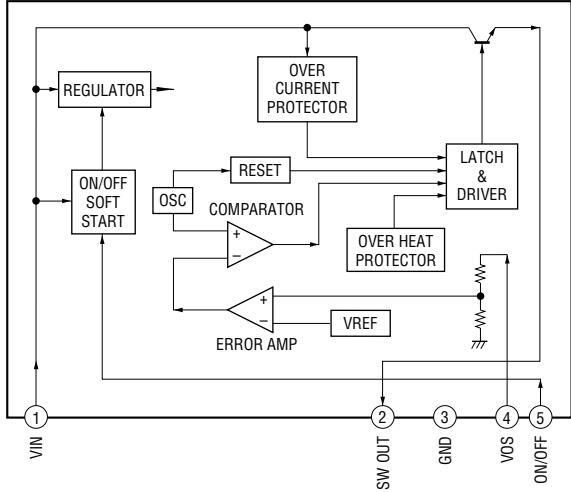


IC952 SI-8050S-LF1101

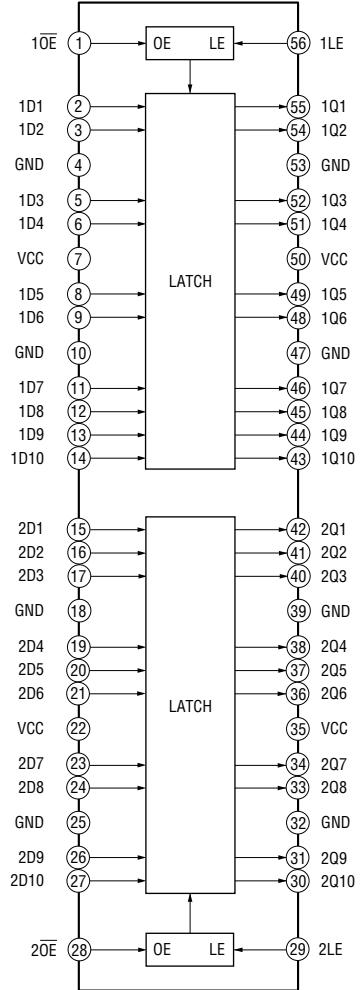


– DMB03 BOARD –

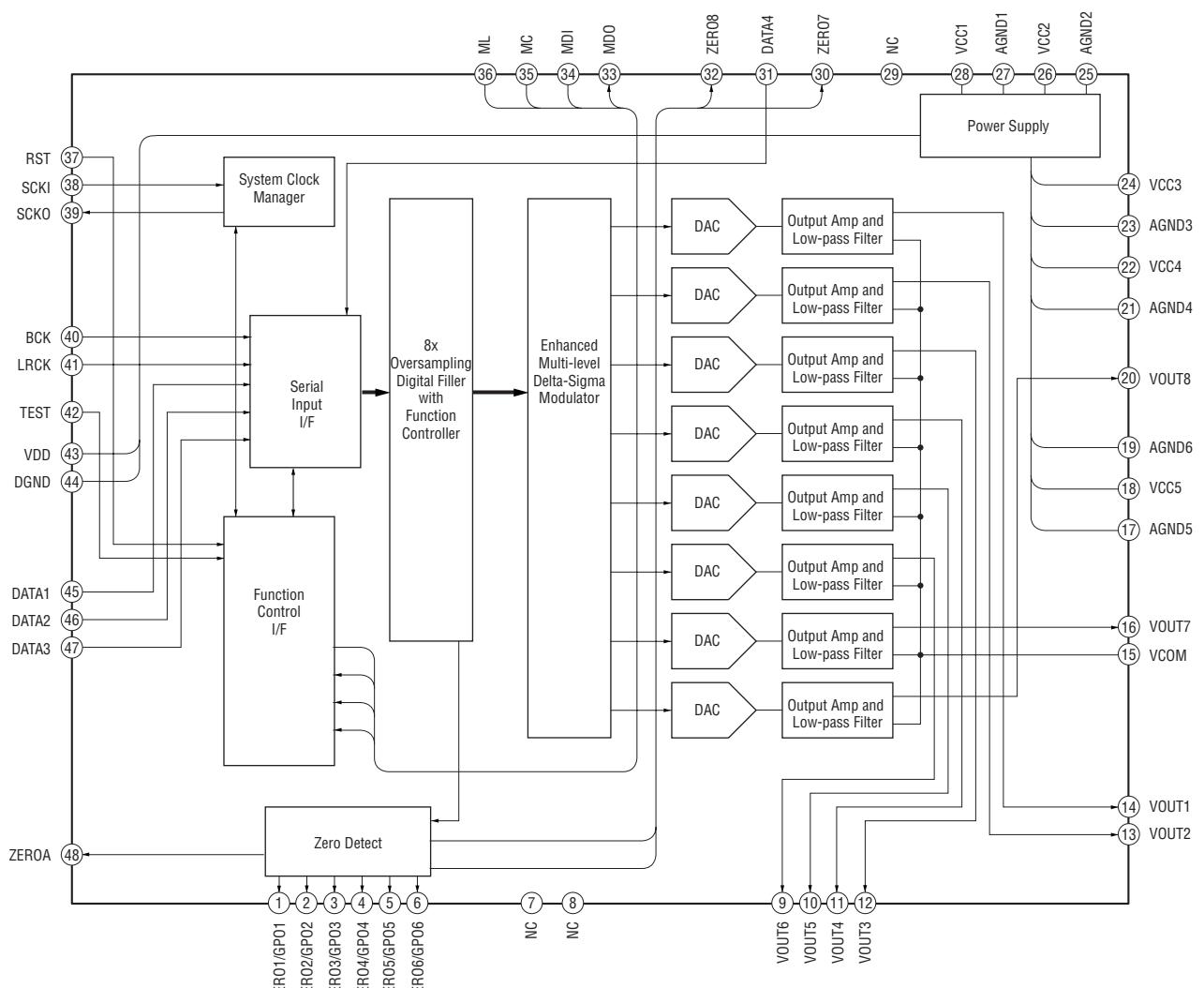
IC953 SI-8033JF



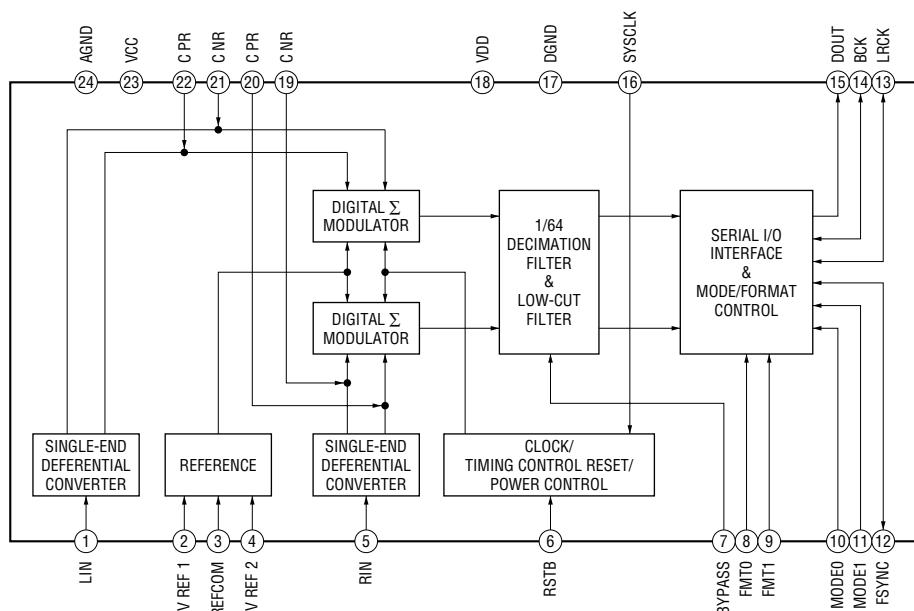
IC216 SN74ALVCH16841DGGR



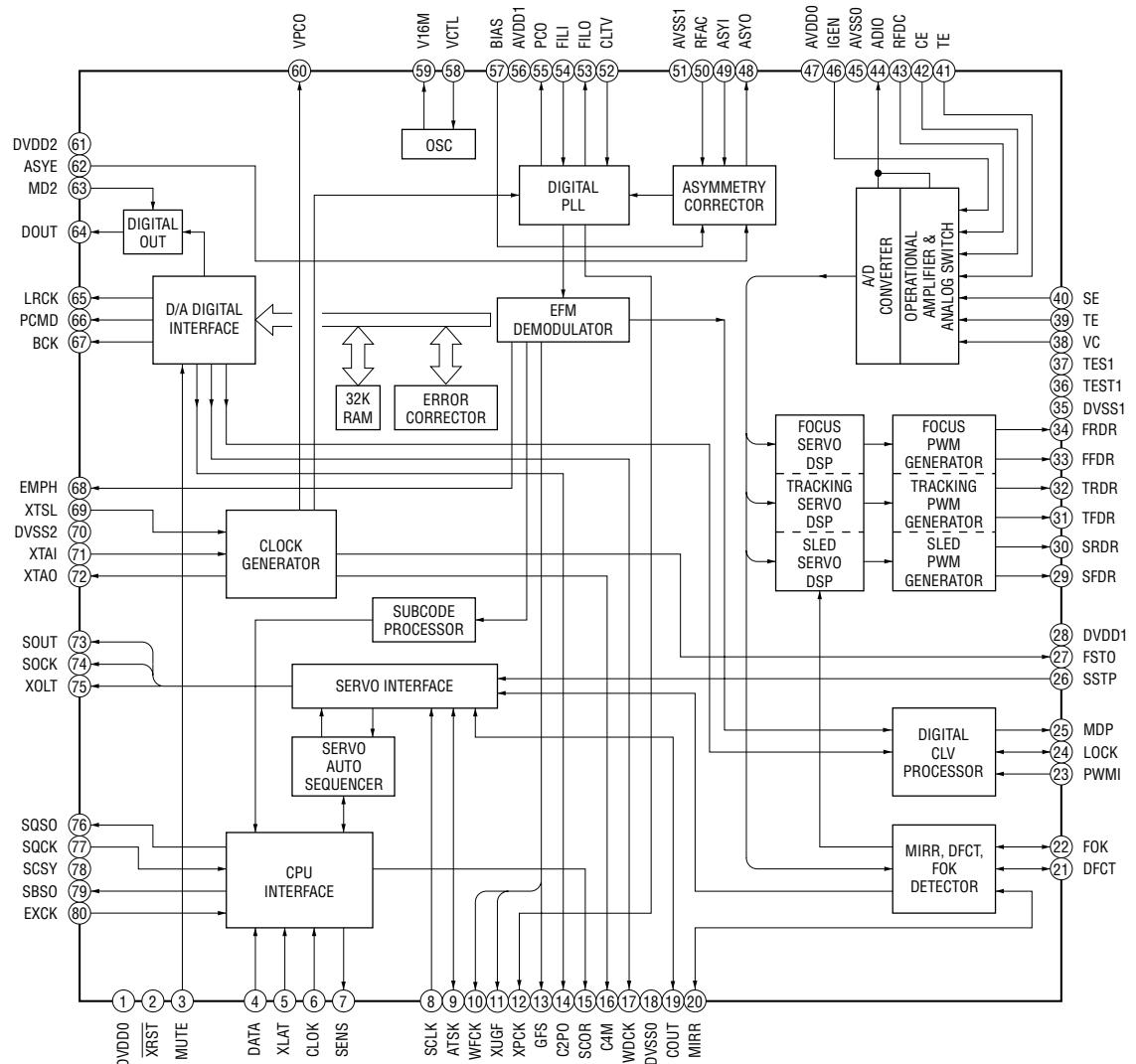
IC302 PCM1609KPTR



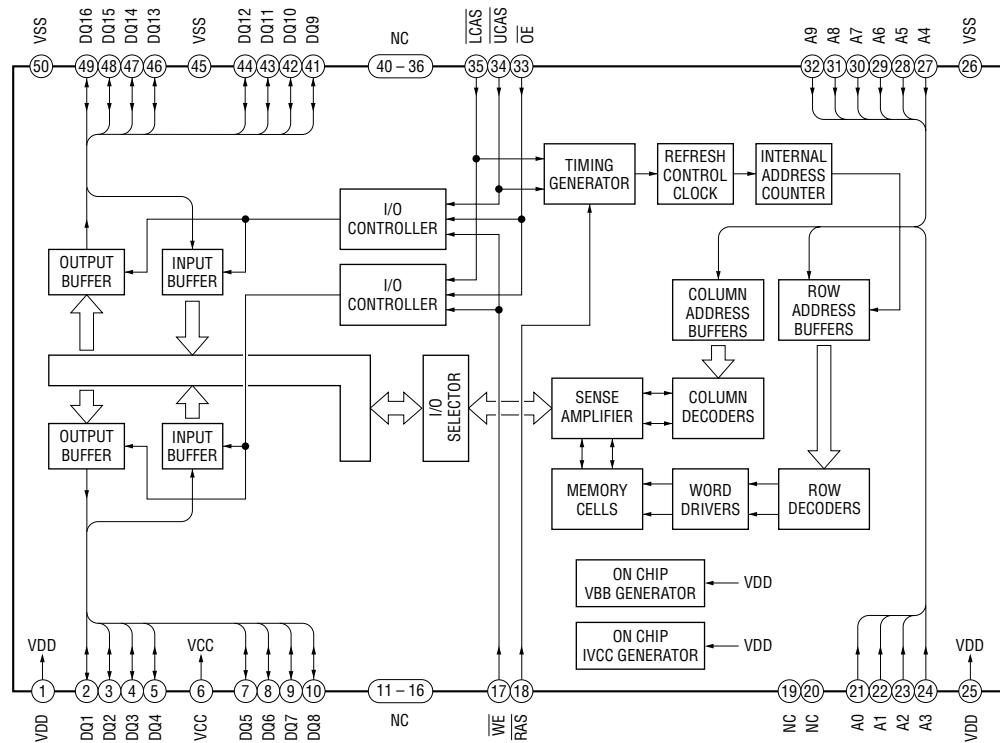
IC352 PCM1800E/2K



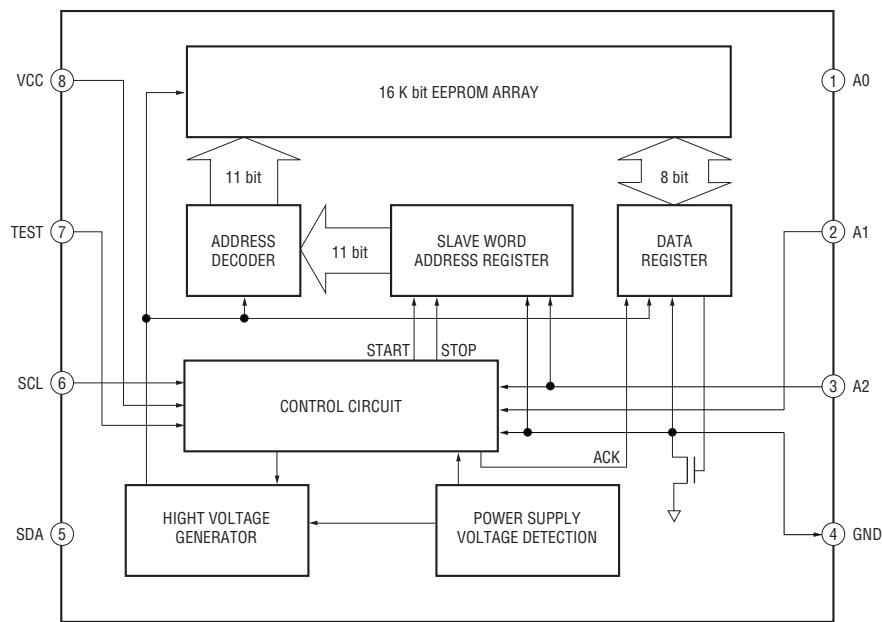
IC509 CXD3068Q



IC706 MSM51V18165F-60TSKR1

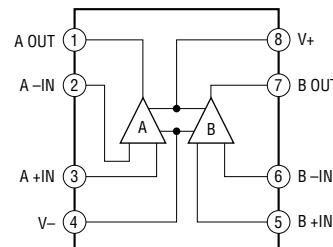


IC903 BR24L16F-WE2

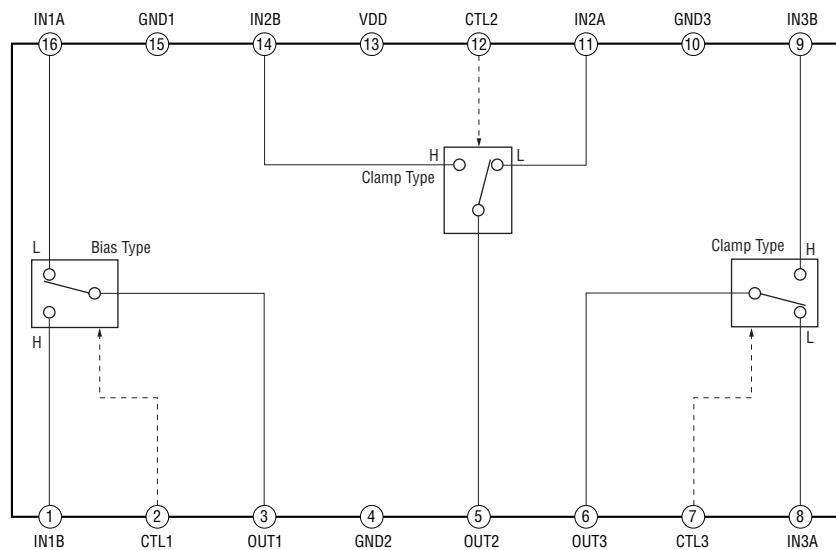


- I/O BOARD -

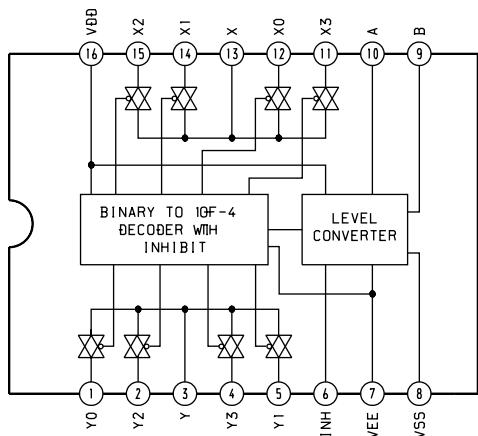
IC101,111 NJM4580E(TE2)



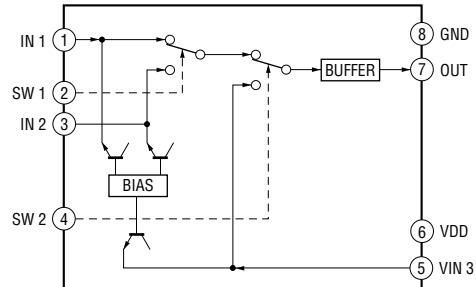
IC106 NJM2285V-TE2



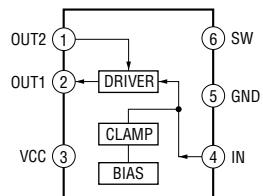
IC121 MC14052 BDR2



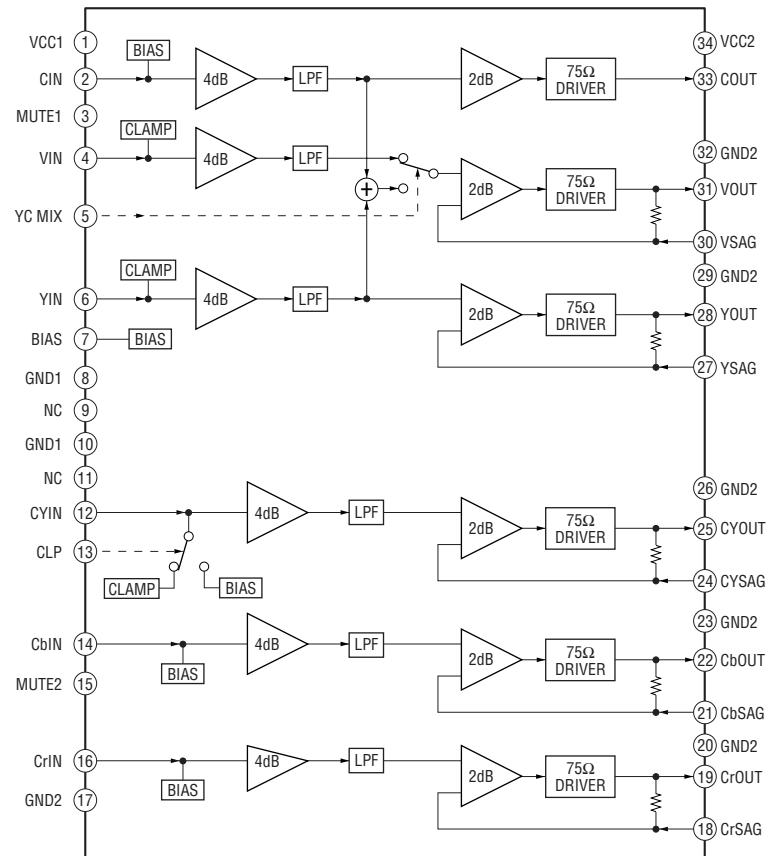
IC151 NJM2235V(TE2)



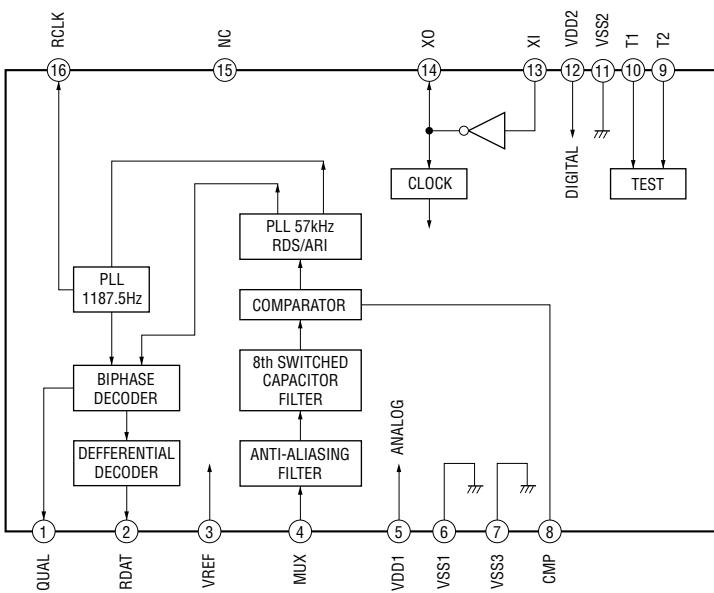
IC251 MM1510XNRE



IC252 MM1568AJBE

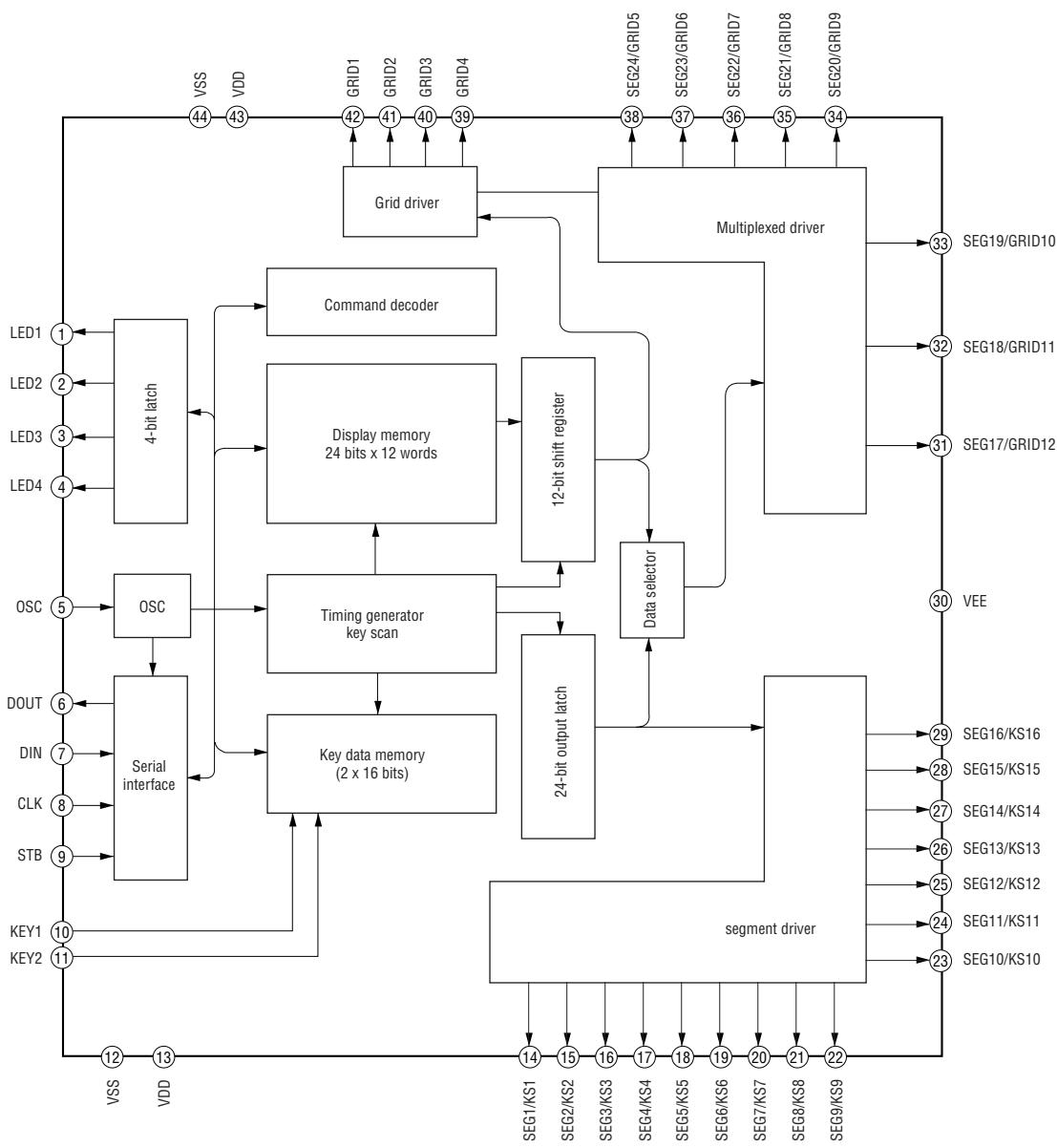


IC291 BU1924F-E2

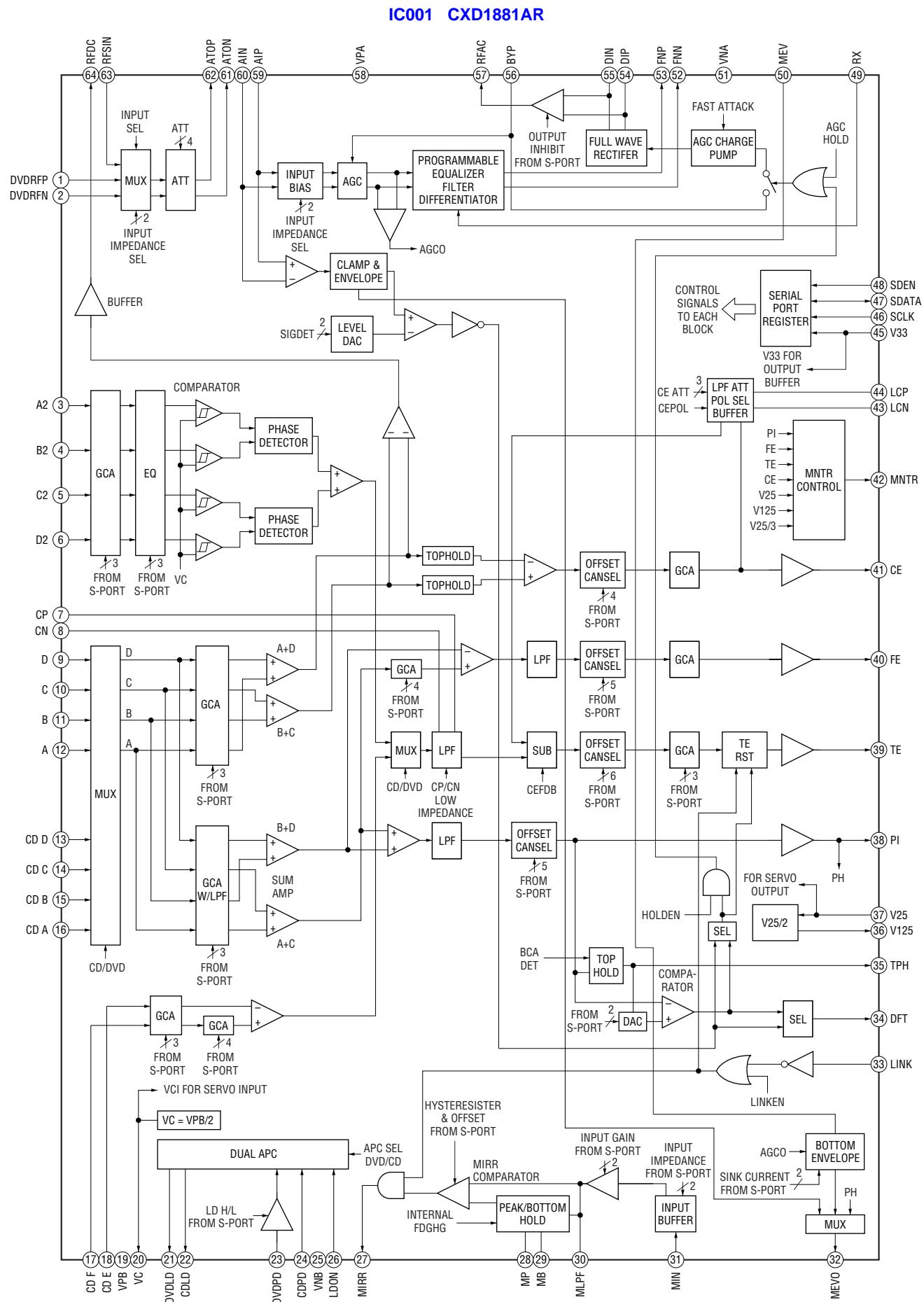


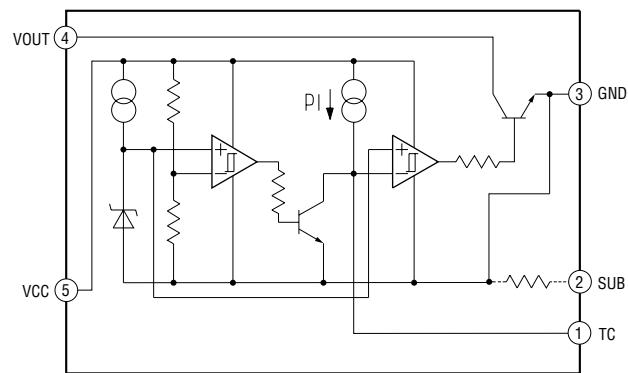
- PANEL BOARD -

IC802 PT6315



- RF BOARD -



- UCOM BOARD -**IC681 PST9229NL**

6-28. IC PIN FUNCTION DESCRIPTION

• IC207 ZIVA5X-C1F (DVD SYSTEM PROCESSOR)(DMB03 BOARD)

Pin No.	Pin Name	I/O	Description
1	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
2	HA1	I/O	Address bus
3	HD15	I/O	Data bus (address signal multiplexed)
4	HD14	I/O	Data bus (address signal multiplexed)
5	HD13	I/O	Data bus (address signal multiplexed)
6	HD12	I/O	Data bus (address signal multiplexed)
7	HD11	I/O	Data bus (address signal multiplexed)
8	HD10	I/O	Data bus (address signal multiplexed)
9	HD9	I/O	Data bus (address signal multiplexed)
10	HD8	I/O	Data bus (address signal multiplexed)
11	HD7	I/O	Data bus (address signal multiplexed)
12	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
13	GNDP	—	Ground terminal (I/O signal)
14	HD6	I/O	Data bus (address signal multiplexed)
15	HD5	I/O	Data bus (address signal multiplexed)
16	HD4	I/O	Data bus (address signal multiplexed)
17	HD3	I/O	Data bus (address signal multiplexed)
18	HD2	I/O	Data bus (address signal multiplexed)
19	HD1	I/O	Data bus (address signal multiplexed)
20	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
21	GNDP	—	Ground terminal (I/O signal)
22	HD0	I/O	Data bus (address signal multiplexed)
23	HDTACK	I/O	Acknowledge signal input/output for host data transfer (not used)
24	HIRQ0	I	Interrupt signal input for Medusa (not used)
25	WEH.UDS	I/O	Host upper data strobe signal output
26	WEL.LDS	I/O	Host lower data strobe signal output (not used)
27	HREAD	I/O	Read/write strobe signal output
28	GPIO0	I/O	Jig detection port (pull-up)
29	GND	—	Ground terminal (inside core)
30	VDD	—	Power supply terminal (+1.8V) (inside core)
31	GND25	—	Ground terminal (SDRAM I/O signal)
32	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
33	MA9	O	SDRAM address bus
34	MA8	O	SDRAM address bus
35	MA7	O	SDRAM address bus
36	MA6	O	SDRAM address bus
37	MA5	O	SDRAM address bus
38	MA4	O	SDRAM address bus
39	MA3	O	SDRAM address bus
40	MA2	O	SDRAM address bus
41	MA1	O	SDRAM address bus
42	MA0	O	SDRAM address bus
43	GND25	—	Ground terminal (SDRAM I/O signal)
44	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
45	MA10	O	SDRAM address bus
46	MA11	O	SDRAM address bus
47	BA1	O	SDRAM bank select 1 signal output
48	BA0	O	SDRAM bank select 0 signal output
49	MCS0	O	SDRAM chip select 0 signal output
50	MCS1	O	Not used

Pin No.	Pin Name	I/O	Description
51	MRAS	O	SDRAM row address strobe signal output
52	MCAS	O	SDRAM column address strobe signal output
53	MWE	O	SDRAM write enable signal output ("H" : read, "L" : write)
54	GND25	—	Ground terminal (SDRAM I/O signal)
55	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
56	MCLK	O	SDRAM Clock output
57	MD0	I/O	SDRAM data
58	MD1	I/O	SDRAM data
59	MD2	I/O	SDRAM data
60	MD3	I/O	SDRAM data
61	GND25	—	Ground terminal (SDRAM I/O signal)
62	MDQM0	O	Byte read /write mask signal 0 output
63	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
64	MD4	I/O	SDRAM data
65	MD5	I/O	SDRAM data
66	MD6	I/O	SDRAM data
67	MD7	I/O	SDRAM data
68	MD8	I/O	SDRAM data
69	MD9	I/O	SDRAM data
70	MD10	I/O	SDRAM data
71	MD11	I/O	SDRAM data
72	GND25	—	Ground terminal (SDRAM I/O signal)
73	MDQM1	O	Byte read /write mask signal 1 output
74	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
75	MD12	I/O	SDRAM data
76	MD13	I/O	SDRAM data
77	MD14	I/O	SDRAM data
78	MD15	I/O	SDRAM data
79	GND	—	Ground terminal (inside core)
80	VDD	—	Power supply terminal (+1.8V) (inside core)
81	MD16	I/O	SDRAM data
82	MD17	I/O	SDRAM data
83	MD18	I/O	SDRAM data
84	MD19	I/O	SDRAM data
85	GND25	—	Ground terminal (SDRAM I/O signal)
86	MDQM2	O	Byte read /write mask signal 2 output
87	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
88	MD20	I/O	SDRAM data
89	MD21	I/O	SDRAM data
90	MD22	I/O	SDRAM data
91	MD23	I/O	SDRAM data
92	MD24	I/O	SDRAM data
93	MD25	I/O	SDRAM data
94	MD26	I/O	SDRAM data
95	MD27	I/O	SDRAM data
96	GND25	—	Ground terminal (SDRAM I/O signal)
97	MDQM3	O	Byte read /write mask signal 3 output
98	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
99	MD28	I/O	SDRAM data
100	MD29	I/O	SDRAM data

Pin No.	Pin Name	I/O	Description
101	MD30	I/O	SDRAM data
102	MD31	I/O	SDRAM data
103	GND25	—	Ground terminal (SDRAM I/O signal)
104	VDD25	—	Power supply terminal (+3.3V) (SDRAM I/O signal)
105	VCLK	I/O	System clock (not used)
106	XCK_I/O_SEL	I/O	5.1ch/downmix switch signal output
107	VS	O	S1 signal output
108	I/P SW	O	Progressive/interlace switch signal output (not used)
109	CDSEL	O	CD-DA selection signal output (not used)
110	MREQ	O	Audio muting request signal output
111	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
112	GNDP	—	Ground terminal (I/O signal)
113	MDI	O	Serial data output to the D/A converter (IC332)
114	MC	O	Serial data clock output to the D/A converter (IC332)
115	ML	O	Latch enable signal output to the D/A converter (IC332)
116	IRQ2_	I	Busy signal input from the EEPROM (IC204)
117	VDAC_4B	—	Video DAC bias bit 4 (connected to the ground)
118	VDAC_VDD4	—	Power supply terminal (+3.3V) (Video DAC 4)
119	VDAC_4	O	VDAC output 4
120	VDAC_3B	—	Video DAC bias bit 3 (connected to the ground)
121	VDAC_VDD3	—	Power supply terminal (+3.3V) (Video DAC 3)
122	VDAC_3	O	VDAC output 3
123	VDAC_2B	—	Video DAC bias bit 2 (connected to the ground)
124	VDAC_VDD2	—	Power supply terminal (+3.3V) (Video DAC 2)
125	VDAC_2	O	VDAC output 2
126	VDAC_1B	—	Video DAC bias bit 1 (connected to the ground)
127	VDAC_VDD1	—	Power supply terminal (+3.3V) (Video DAC 1)
128	VDAC_1	O	VDAC output 1
129	VDAC_0B	—	Video DAC bias bit 0 (connected to the ground)
130	VDAC_VDD0	—	Power supply terminal (+3.3V) (Video DAC 0)
131	VDAC_0	O	VDAC output 0
132	VDAC_DVSS	—	Ground terminal (Video DAC digital system)
133	VDAC_DVDD	—	Power supply terminal (+3.3V) (Video DAC digital system)
134	VDAC_REFVDD	—	Power supply terminal (Video DAC reference)
135	VDAC_REF	I	Reference voltage input terminal(for Video DAC)
136	VDAC_REFVSS	—	Ground terminal (Video DAC reference)
137	XVSS	—	Ground terminal (crystal oscillator)
138	XOUT	O	Crystal oscillation signal output
139	XIN	I	Crystal oscillation signal input
140	XVDD	—	Power supply terminal (crystal oscillator)
141	AVSS2	—	Ground terminal (analog PLL)
142	AVDD2	—	Power supply terminal (+3.3V) (analog PLL)
143	AVDD1	—	Power supply terminal (+3.3V) (analog PLL)
144	AVSS1	—	Ground terminal (analog PLL)
145	VDD	—	Power supply terminal (+1.8V) (inside core)
146	GND	—	Ground terminal (inside core)
147	XCK	O	Audio system clock output
148	LRCK	O	LRCK signal output for audio
149	BCK	O	BCK signal output for audio
150	DATA0(DM)	O	Audio data(Down Mix signal) output

Pin No.	Pin Name	I/O	Description
151	DATA1(FLR)	O	Audio data(Front L/R signal) output
152	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
153	GNDP	—	Ground terminal (I/O signal)
154	DATA2(SLR)	O	Audio data(Rear L/R signal) output
155	DATA3(CSW)	O	Audio data(Center/Subwoofer signal) output
156	IEC958	O	S/PDIF signal (not used)
157	DAI_DATA	I	Data input from ADC (not used)
158	DAI_BCK	I	BCK signal input from ADC (not used)
159	DAI_LRCK	I	LRCK signal input from ADC (not used)
160	I2C_CL	I/O	I2C clock bus
161	I2C_DA	I/O	I2C data bus
162	CS(ZIVA_E2P)	O	Chip select signal output to the EEPROM (IC204)
163	RXD1	I	Serial data input for check jig
164	TXD1	O	Serial data output for check jig
165	WRITE_CTRL(ZIVA_E2P)	O	Write control signal output to the EEPROM (IC204)
166	GNDP	—	Ground terminal (I/O signal)
167	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
168	SDDATA7	I	SDBus data7 input
169	SDDATA6	I	SDBus data6 input
170	SDDATA5	I	SDBus data5 input
171	SDDATA4	I	SDBus data4 input
172	GND	—	Ground terminal (inside core)
173	VDD	—	Power supply terminal (+1.8V) (inside core)
174	SDDATA3	I	SDBus data3 input
175	SDDATA2	I	SDBus data2 input
176	SDDATA1	I	SDBus data1 input
177	SDDATA0	I	SDBus data0 input
178	SDREQ	O	SDBus data request signal output
179	SDEN	I	SDBus data enable signal input
180	GNDP	—	Ground terminal (I/O signal)
181	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
182	SDERROR	I	SDBus data error signal input
183	SDCLK	I	SDBus data clock input
184	HIRQ1	I	Interrupt signal input from the mechanism controller (IC901)
185	DRVCLK	I	Serial data clock input from the mechanism controller (IC901)
186	DRVTX	I	Serial data input from the mechanism controller (IC901) and the EEPROM (IC204)
187	DRVRX	O	Serial data output to the mechanism controller (IC901) and the EEPROM (IC204)
188	DRVRDY	I	Ready signal input from the mechanism controller (IC901)
189	VNW	—	Power supply for 5V tolerance voltage input
190	ALE	O	Latch enable signal output for address data demux
191	RST_SPC	O	Reset signal output to the mechanism controller (IC901)
192	INT/EXT	O	Input selection signal output for SDBus or ADC
193	HCS2	O	Chip select signal output for Medusa (not used)
194	HCS1	I/O	Not used
195	HCS0	O	Chip select signal output to the external ROM (IC206)
196	VDDP	—	Power supply terminal (+3.3V) (I/O signal)
197	TRST	I	Reset signal input
198	TDO	O	Data output
199	TDI	I	Data input
200	TMS	I	TMS signal input

Pin No.	Pin Name	I/O	Description
201	TCK	I	TCK signal input
202	RESET	I	ZIVA reset input
203	BUS CLK	I/O	Not used
204	GND	—	Ground terminal (inside core)
205	VDD	—	Power supply terminal (+1.8V) (inside core)
206	HA3	I/O	Address bus 3
207	HA2	I/O	Address bus 2
208	GNDP	—	Ground terminal (I/O signal)

• IC701 CXD1882R (DVD DECODER)(DMB03 BOARD)

Pin No.	Pin Name	I/O	Description
1, 2	D5, D6	I/O	Two-way data bus with the mechanism controller
3	VSS	—	Ground terminal (digital system)
4	D7	I/O	Two-way data bus with the mechanism controller
5	A0	I	Address signal input from the mechanism controller
6	VDD	—	Power supply terminal (+3.3V) (digital system)
7	A1	I	Address signal input from the mechanism controller
8	VDD5V	—	Power supply terminal (+5V)
9 to 14	A2 to A7	I	Address signal input from the mechanism controller
15	VSS	—	Ground terminal (digital system)
16	XWAIT	O	Wait signal output terminal Not used
17	XRD	I	Read strobe signal input from the mechanism controller
18	XWR	I	Write strobe signal input from the mechanism controller
19	XCS	I	Chip select signal input from the mechanism controller
20, 21	XINT0, XINT1	O	Interrupt signal output to the mechanism controller
22	VDD	—	Power supply terminal (+3.3V) (digital system)
23	XHRS	I	Not used
24	HDB7	O	Stream data signal output to the DSD decoder and DVD system processor
25	VSS	—	Ground terminal (digital system)
26	HDB8	O	Error flag signal output to the DSD decoder and DVD system processor
27	HDB6	O	Stream data signal output to the DSD decoder and DVD system processor
28	VDDS	—	Power supply terminal (+5V) (digital system)
29	HDB9	O	Not used
30	HDB5	O	Stream data signal output to the DSD decoder and DVD system processor
31	HDBA	O	Not used
32	HDB4	O	Stream data signal output to the DSD decoder and DVD system processor
33	VSS	—	Ground terminal (digital system)
34	HDBB	O	Not used
35	HDB3	O	Stream data signal output to the DSD decoder and DVD system processor
36	VDD	—	Power supply terminal (+3.3V) (digital system)
37	HDBC	O	Not used
38	VDDS	—	Power supply terminal (+5V) (digital system)
39	HDB2	O	Stream data signal output to the DSD decoder and DVD system processor
40	HDBD	O	Not used
41	HDB1	O	Stream data signal output to the DSD decoder and DVD system processor
42	VSS	—	Ground terminal (digital system)
43	HDBE	O	Not used
44	HDB0	O	Stream data signal output to the DSD decoder and DVD system processor
45	HDBF	O	Not used
46	XSAK	O	Serial data effect flag signal output to the DSD decoder and DVD system processor
47	VDDS	—	Power supply terminal (+5V) (digital system)
48	XDCK	O	Serial data transfer clock signal output to the DSD decoder and DVD system processor
49	XSHD	O	Header flag signal output to the DSD decoder
50	VDD	—	Power supply terminal (+3.3V) (digital system)
51	READY	O	Not used
52	VSS	—	Ground terminal (digital system)
53	XSRQ	I	“DVD mode: Serial data request signal input from the DVD system processor SACD mode: Serial data request signal input from the DSD decoder”
54	HINT	O	Not used
55	XS16	O	Not used
56	HA1	I	Not used

Pin No.	Pin Name	I/O	Description
57	XPDI	I/O	Not used
58	VDDS	—	Power supply terminal (+5V) (digital system)
59, 60	HA0, HA2	I	Not used
61	VSS	—	Ground terminal (digital system)
62, 63	HCS0, HCS1	I	Not used
64	VDD	—	Power supply terminal (+3.3V) (digital system)
65	DASP	I/O	Not used
66 to 69	MDB0 to MDB3	I/O	Two-way data bus with the D-RAM
70	VSS	—	Ground terminal (digital system)
71	MDB4	I/O	Two-way data bus with the D-RAM
72	VDD5V	—	Power supply terminal (+5V)
73 to 75	MDB5 to MDB7	I/O	Two-way data bus with the D-RAM
76	XMWR	O	Write enable signal output to the D-RAM
77	VDD	—	Power supply terminal (+3.3V) (digital system)
78	XRAS	O	Row address strobe signal output to the D-RAM
79, 80	MA0, MA1	O	Address signal output to the D-RAM
81	VSS	—	Ground terminal (digital system)
82 to 87	MA2 to MA7	O	Address signal output to the D-RAM
88	VDD	—	Power supply terminal (+3.3V) (digital system)
89	MA8	O	Address signal output to the D-RAM
90	VSS	—	Ground terminal (digital system)
91	MA9	O	Address signal output to the D-RAM
92	MNT1	O	EEPROM ready signal output to the mechanism controller
93	MNT2	O	Operation clock signal output for PSP physical disc mark detection to DSD decoder
94	XMOE	O	Output enable signal output to the D-RAM
95	XCAS	O	Column address strobe signal output to the D-RAM
96, 97	MDB8, MDB9	I/O	Two-way data bus with the D-RAM
98	VSS	—	Ground terminal (digital system)
99	MDBA	I/O	Two-way data bus with the D-RAM
100	VDD	—	Power supply terminal (+3.3V) (digital system)
101, 102	MDBB, MDBC	I/O	Two-way data bus with the D-RAM
103	VDD5V	—	Power supply terminal (+5V)
104 to 106	MDDB to MDBF	I/O	Two-way data bus with the D-RAM
107	GFS	O	Guard frame sync signal output to the mechanism controller
108	VSS	—	Ground terminal (digital system)
109	APEO	O	Absolute phase error signal output
110	VDD	—	Power supply terminal (+3.3V) (digital system)
111	DASYO	O	RF binary signal output
112	GNDA5	—	Ground terminal (analog system)
113, 114	ASF1, AFS2	—	Filter connected terminal for selection the constant asymmetry compensation
115	DASYI	I	Analog signal input after integrated from the RF binary signal
116	RFDCC	I	Input terminal for adjusting DC cut high-pass filter for RF signal Not used
117	RFIN	I	RF signal input from the DVD/CD RF amplifier
118, 119	VCCA5, VCCA4	—	Power supply terminal (+3.3V) (analog system)
120	VCOR1	—	VCO oscillating range setting resistor connected terminal
121	VCOIN	I	VCO input terminal
122, 123	GNDA4, GNDA3	—	Ground terminal (analog system)
124	LPF5	O	Signal output from the operation amplifier from PLL loop filter
125	VC1	I	Middle point voltage (+1.65V) input terminal
126, 127	LPF2, LPF1	I	Inverted signal input to the operation amplifier from PLL loop filter

Pin No.	Pin Name	I/O	Description
128, 129	VCCA3, VCCA2	—	Power supply terminal (+3.3V) (analog system)
130	PD0	O	Signal output from the charge pump for phase comparator
131	PDHVCC	I	Middle point voltage input terminal for RF PLL
132	FDO	O	Signal output from the charge pump for frequency comparator
133, 134	GNDA2, GNDA1	—	Ground terminal (analog system)
135	SPO	O	Spindle motor control signal output
136	VC2	I	Middle point voltage (+1.65V) input terminal
137	MDIN2	I	Spindle motor servo drive signal input
138	MDIN1	I	MDP input terminal
139	VCCA1	—	Power supply terminal (+3.3V) (analog system)
140	CLVS	O	Control signal output for selection the spindle control filter constant at CLVS
141	VSS	—	Ground terminal (digital system)
142	MDSOUT	O	Frequency error output terminal of internal CLV circuit
143	VDD	—	Power supply terminal (+3.3V) (digital system)
144	MDPOUT	O	Phase error output terminal of internal CLV circuit
145	DEFECT	I	Defect signal input terminal (conected to ground terminal)
146	GSCOR	I	Guard subcode sync (S0+S1) detection signal input from the digital signal processor
147	EXCK	O	Subcode serial data reading clock signal output to the digital signal processor
148	SBIN	I	Subcode serial data input from the digital signal processor
149	VSS	—	Ground terminal (digital system)
150	SCOR	I	Subcode sync (S0+S1) detection signal input from the digital signal processor
151	WFCK	I	Write frame clock signal input from the digital signal processor
152	VDD5V	—	Power supply terminal (+5V)
153	XRCI	I	RAM overflow signal input terminal (conected to ground terminal)
154	VDDS	—	Power supply terminal (+5V) (digital system)
155	C2PO	I	C2 pointer signal input from the digital signal processor
156	VDD	—	Power supply terminal (+3.3V) (digital system)
157	DBCK	O	Bit clock signal (2.8224 MHz) output terminal Not used
158	BCLK	I	Bit clock signal (2.8224 MHz) input from the digital signal processor
159	DDAT	O	PCM data output terminal
160	MDAT	I	Serial data input from the digital signal processor
161	VSS	—	Ground terminal (digital system)
162	DLRC	O	L/R sampling clock signal (44.1 kHz) output terminal Not used
163	LRCK	I	L/R sampling clock signal (44.1 kHz) input from the digital signal processor
164	XRST	I	Reset signal input from the mechanism controller “L”: reset
165	IFS0	I	Interface selection signal input terminal Fixed at “L” in this set
166	IFS1	I	Interface selection signal input terminal Fixed at “H” in this set
167	XTAL	I	33.8688 MHz clock signal input terminal
168	VSS	—	Ground terminal (digital system)
169	XTL2	O	System clock output terminal (33.8688 MHz)
170	XTL1	I	System clock input terminal (33.8688 MHz)
171	VDD	—	Power supply terminal (+3.3V) (digital system)
172 to 176	D0 to D4	I/O	Two-way data bus with the mechanism controller

• IC901 CXP973064-232R (MECHANISM CONTROLLER)(DMB03 BOARD)

Pin No.	Pin Name	I/O	Description
1	NO USE	O	Not used
2	SDEN	O	Serial data enable signal output to DVD/CD RF amplifier
3	DOCTRL/ ISBTTEST	O	Digital out on/off control signal output to the digital signal processor “L”: digital out off, “H”: digital out on
4	XPST 2753	O	Reset signal output for DSD decoder
5	SDA EEP	I/O	Two-way data bus with the EEPROM
6	MNT1	I	EEPROM ready signal input from the DVD decoder
7	FCS JMP 1	O	Focus jump 1 signal output to the motor/coil driver
8	FCS JMP 2	O	Focus jump 2 signal output to the motor/coil driver
9	SENS CD	I	Internal status (SENSE) signal input from the digital signal processor
10	CDSP2	O	Loading motor drive signal (loading in direction) output terminal
11	CDSP4	O	Loading motor drive signal (loading out direction) output terminal
12	XCS DVD	O	Chip select signal output to the DVD decoder
13	VSS	—	Ground terminal (digital system)
14 to 21	D0 to D7	I/O	Two-way data bus with the DVD decoder
22	INIT0 DVD	I	Interrupt signal input from the DVD decoder
23	INIT1 DVD	I	Interrupt signal input from the DVD decoder
24	MSCK SAMBA	O	Serial data transfer clock signal output to the DSD decoder
25	XRST 1882	O	Reset signal output to the DVD decoder “L”: reset
26	SCOR	I	Subcode sync (S0+S1) detection signal input from the digital signal processor
27	LAT CD	O	Serial data latch pulse signal output to the digital signal processor
28	LD ON	O	Laser diode on/off control signal output to the DVD/CD RF amplifier “L”: laser diode off, “H”: laser diode on
29	MIRR	I	Mirror signal input from the digital signal processor
30	COUT CD	I	Numbers of track counted signal input from the digital signal processor
31	INLIM	I	Detection signal input from limit in switch The optical pick-up is inner position when “H”
32	CS ZIVA	O	Chip select signal output to the DVD system processor
33	SI ZIVA	I	Serial data input from the DVD system processor
34	SO ZIVA	O	Serial data output to the DVD system processor
35	SCK ZIVA	O	Serial data transfer clock signal output to the DVD system processor
36	DRVIRQ	O	Interrupt request signal output to the DVD system processor
37	DRVRDY	O	Ready signal output to the DVD system processor
38	RST	I	System reset signal input from the DVD system processor “L”: reset
39	VSS	—	Ground terminal (digital system)
40	XTAL	I	System clock input terminal (20 MHz)
41	EXTAL	O	System clock output terminal (20 MHz)
42	VDD	—	Power supply terminal (+3.3V) (digital system)
43, 44	SLED A, SLED B	O	Sled motor drive signal output
45	SCK DSD	O	Output terminal for offset adjustment of APEO
46	SDOUT DSD	O	Serial data output to the DSD decoder
47	SDIN DSD	I	Serial data input from the DSD decoder
48	READY DSD	I	Ready signal input from the DSD decoder “L”: ready
49	DATA CD	O	Serial data output to the digital signal processor
50	CLOK CD	O	Serial data transfer clock signal output to the digital signal processor
51	XMSLAT	O	Serial data latch pulse signal output to the DSD decoder
52	SQSO	I	Subcode Q data input from the digital signal processor
53	MUTE DSD	O	Muting on/off control signal output to the DSD decoder “H”: muting on
54	SQCK	O	Subcode Q data reading clock signal output to the digital signal processor
55	VSS	—	Ground terminal (digital system)
56	CONTROL 4	I	Disc tray in detection signal input terminal Not used

Pin No.	Pin Name	I/O	Description
57	CONTROL 2	I	Disc tray out detection signal input terminal Not used
58	GFS DVD	I	Guard frame sync signal input from the DVD decoder
59	MUTE CD	O	Muting on/off control signal output to the digital signal processor "H": muting on
60	MUTE 2D	O	Muting on/off control signal output to the motor/coil driver "H": muting on
61	SLED	I	Sled motor servo drive PWM signal input terminal
62	FG	I	Spindle motor control signal input
63	SP ON	O	Muting on/off control signal output to the motor/coil driver "H": muting on
64	JIT	I	Jitter signal input
65	TE	I	Tracking error signal input from the DVD/CD RF amplifier
66	PI	I	Pull in signal input from the DVD/CD RF amplifier
67	FE	I	Focus error signal input from the DVD/CD RF amplifier
68	AVSS	—	Ground terminal (for A/D converter)
69	AVREF	I	Reference voltage input terminal (for A/D converter)
70	AVDD	—	Power supply terminal (+3.3V) (for A/D converter)
71	GFS CD	I	Guard frame sync signal input from the digital signal processor
72	SCLK CD	O	SENSE serial data reading clock signal output to the digital signal processor
73	TSD	O	Thermal shut down signal output to the motor/coil driver
74	FOK CD	I	Focus OK signal input from the digital signal processor
75	LOCK CD	I	GFS is sampled by 460 Hz "H" input when GFS is "H"
76	LDSEL	O	Laser diode selection signal output
77	SACD/DVD	O	"SACD/DVD selection signal output "L": DVD, "H": SACD"
78	I2C SIO	I/O	Communication data bus with the DVD system processor and system controller
79	I2C SCL	I/O	Communication data reading clock signal input or transfer clock signal output with the DVD system processor and system controller
80	RXD	I	Serial data input (RS-232C)
81	TXD	O	Serial data output (RS-232C)
82	SDCLK RF	O	Serial data transfer clock signal output to the DVD/CD RF amplifier
83	SDATA RF	I/O	Two-way data bus with the DVD/CD RF amplifier
84	XWR	O	Write strobe signal output to the DVD decoder
85	XRD	O	Read strobe signal output to the DVD decoder
86	(PWE)	—	Not used
87	VDD	—	Power supply terminal (+3.3V) (digital system)
88	VSS	—	Ground terminal (digital system)
89 to 96	A0 to A7	O	Address signal output to the DVD decoder
97	DSAVE	O	Motor/coil driver power save control signal output terminal
98	XDRST	O	Reset signal output to the digital signal processor and DSD decoder "L": reset
99	WP EEP	O	Write protect signal output to the EEPROM
100	SCL EEP	O	Clock signal output to the EEPROM

• IC501 μPD703260YGF-S07-JBT-A (SYSTEM CONTROLLER)(UCOM BOARD)

Pin No.	Pin Name	I/O	Description
1	UNREG MONITOR	I	Monitoring voltage input for protecting power block
2	SUBTRANS-MONITOR	I	Monitoring voltage input for protecting power block
3	AVREF0	—	Analog reference voltage for A/D converter
4	AVSS	—	Ground terminal (analog)
5	NO-USE	O	Not used (open)
6	FL STB	O	Strobe signal output to the FL driver (IC802)
7	AVREF1	—	Analog reference voltage for D/A converter
8	NO-USE	O	Not used (open)
9	AC ON/OFF	O	Power supply and relay control signal output
10	IC	—	Flash programing mode terminal
11	VDD	—	Power supply terminal
12	REGC	—	Regulator control terminal (connected to the capacitor)
13	VSS	—	Ground terminal
14	X1	I	Main oscillator signal input
15	X2	O	Main oscillator signal output
16	RESET	I	System reset signal input
17	XT1	I	Sub oscillator signal input (pull-down)
18	XT2	O	Sub oscillator signal output (open)
19	LOD_POSI	O	Loading motor control signal output (open action)
20	RM_INT	I	Wakeup signal input from standby mode by sircs input
21	KEY INT	I	Wakeup signal input from standby mode by key input
22	NO-USE	I	Not used (pull-down)
23	AC_CUT	I	AC-CUT detection signal input (primary power off)
24	LOD_NEG	O	Loading motor control signal output (close action)
25	IN SW	I	Switch (tray position) signal input (tray in)
26	OUT SW	I	Switch (tray position) signal input (tray out)
27	FL DATA	O	Data output to the FL driver (IC802)
28	SIRCS	I	SIRCS signal input from the remote sensor (IC801)
29	FL_CLK	O	Clock output to the FL driver (IC802)
30	NO-USE	O	Not used (open)
31	ATT	O	Line attenuation control signal output
32	HP MUTE	O	Muting control signal output for the headphone signal
33	STK-MUTE	O	Standby control signal output to the power amplifier (IC401)
34	TA-MUTE	O	Line muting signal output
35	EVSS	—	Ground terminal (port)
36	EVDD	—	Power supply terminal (port)
37	I2C DATA	I	I2C data input
38	I2C CLK	I	I2C clock input
39	VL-DATA1	O	Volume control data output to the electronic volume (IC502)
40	VL-DATA2	O	Volume control data output to the electronic volume (IC552)
41	VL-DATA3	O	Volume control data output to the electronic volume (IC522)
42	VL-CLK	O	Clock output to the electronic volumes
43	F-RELAY	O	Front speaker relay and woofer relay control signal output
44	R-RELAY	O	Rear speaker relay and center speaker relay control signal output
45	PROTECT-IN	I	Speaker protection signal input
46	DVD MUTE REQ	I	Muting request signal input from the DVD system processor (IC207)
47	DVD SYS RESET	O	Reset signal output to the DVD system processor (IC207)
48 to 59	NO-USE	O	Not used (open)
60	RDS_CLK	I	RDS clock input
61	RDS_DATA	I	RDS data input

Pin No.	Pin Name	I/O	Description
62 to 68	NO-USE	O	Not used (open)
69	AU OUT MUTE	O	Analog audio signal output muting control signal output
70	NO-USE	O	Not used (open)
71	BVSS	—	Ground terminal (bus interface)
72	BVDD	—	Power supply terminal (bus interface)
73 to 75	NO-USE	O	Not used (open)
76	AV SEL0	O	Audio / video select0 signal output
77	AV SEL1	O	Audio / video select1 signal output
78	AV SEL2	O	Audio / video select2 signal output
79	AV SEL3	O	Audio / video select3 signal output
80	TUNED	I	Tuner tuned status signal input from the tuner
81	PLL_CLK	O	Clock output to the tuner
82	PLL_DO	O	Data output to the tuner
83	PLL_CE	O	Chip enable signal output to the tuner
84	PLL_DI	I	Data input from the tuner
85, 86	NO-USE	O	Not used (open)
87	SOFT-TEST	O	Soft check terminal
88	STBY LED	O	Standby LED control signal output
89, 90	NO-USE	O	Not used (open)
91	HP-SW	I	HP plug insert detection signal input
92	EN_A	I	Volume signal input from the encoder
93	EN_B	I	Volume signal input from the encoder
94	KEY2	I	Key input 2
95	KEY1	I	Key input 1
96	KEY0	I	Key input 0
97	SHIMUKE	I	Destination selection terminal
98	MODEL	I	Model selection terminal
99	DEVICE1	I	Device selection1 terminal (DISPLAY)
100	DEVICE2	I	Device selection2 terminal (AMP)

SECTION 7

EXPLODED VIEWS

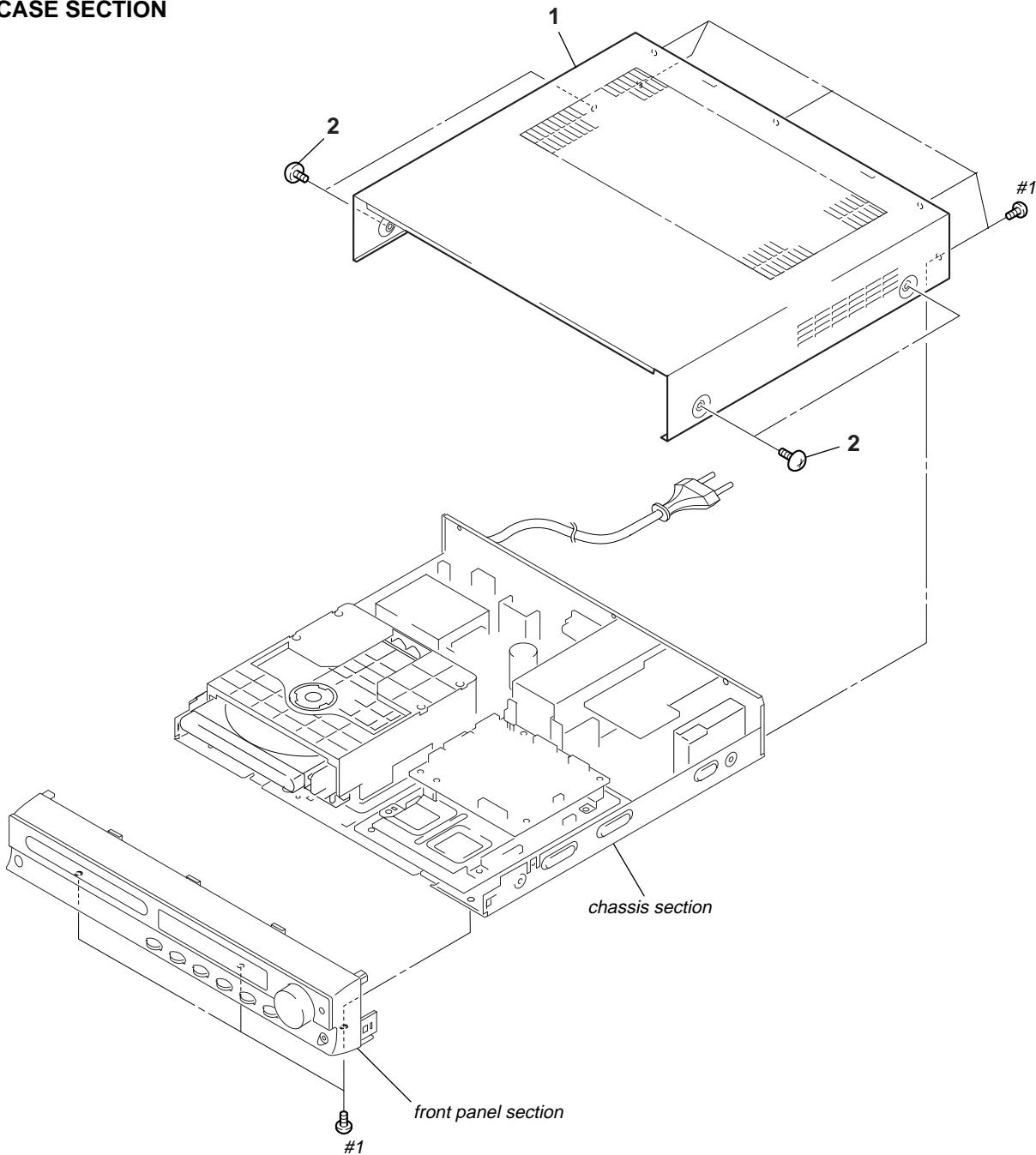
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
RU : Russian model

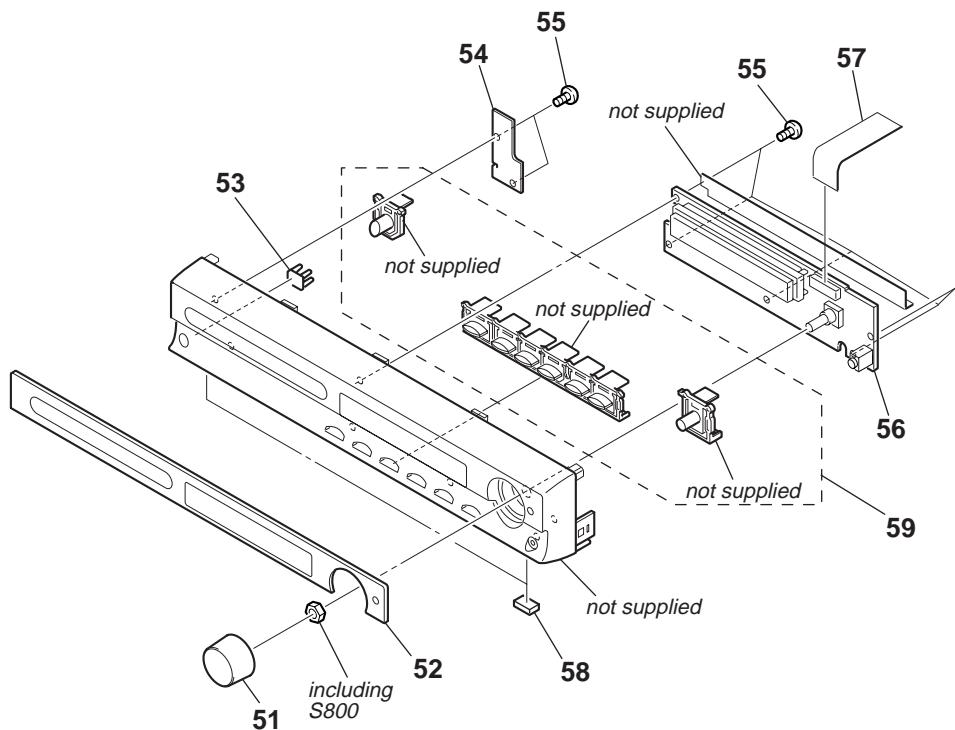
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

7-1. CASE SECTION



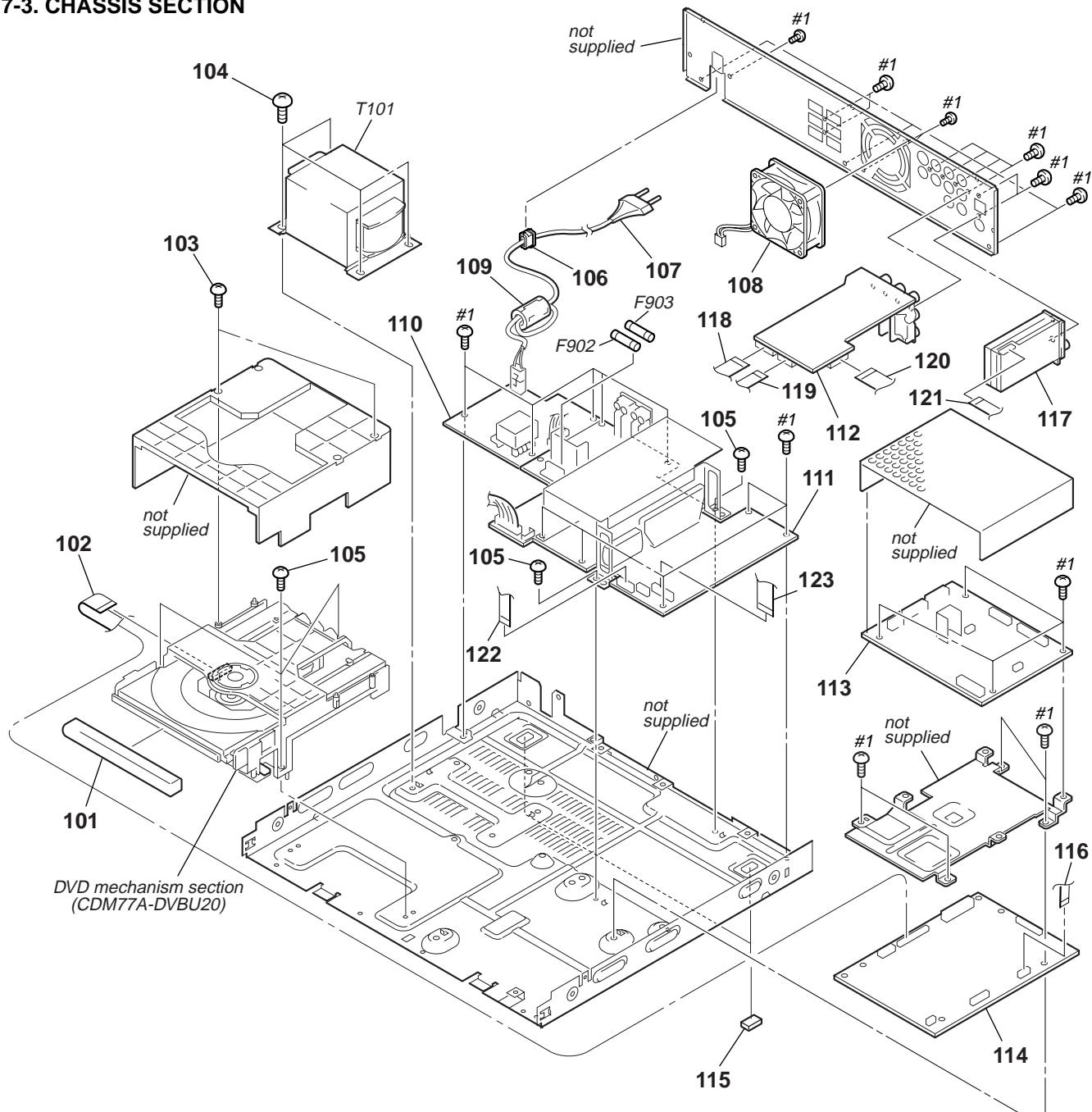
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-249-698-01	CASE		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
2	3-363-099-11	SCREW (CASE 3 TP2)					

7-2. FRONT PANEL SECTION



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
51	4-249-176-01	KNOB, VOL		56	A-4748-517-A	PANEL BOARD, COMPLETE	
52	4-249-179-01	PLATE, ORNAMENTAL		57	1-773-039-11	WIRE (FLAT TYPE) (17 CORE)	
53	4-249-175-01	POWER, INDICATOR		58	4-250-787-01	FOOT	
54	1-689-809-11	STANDBY BOARD		59	4-249-173-01	BUTTON (EZ)	
55	4-951-620-01	SCREW (2.6X8), +BVTP					

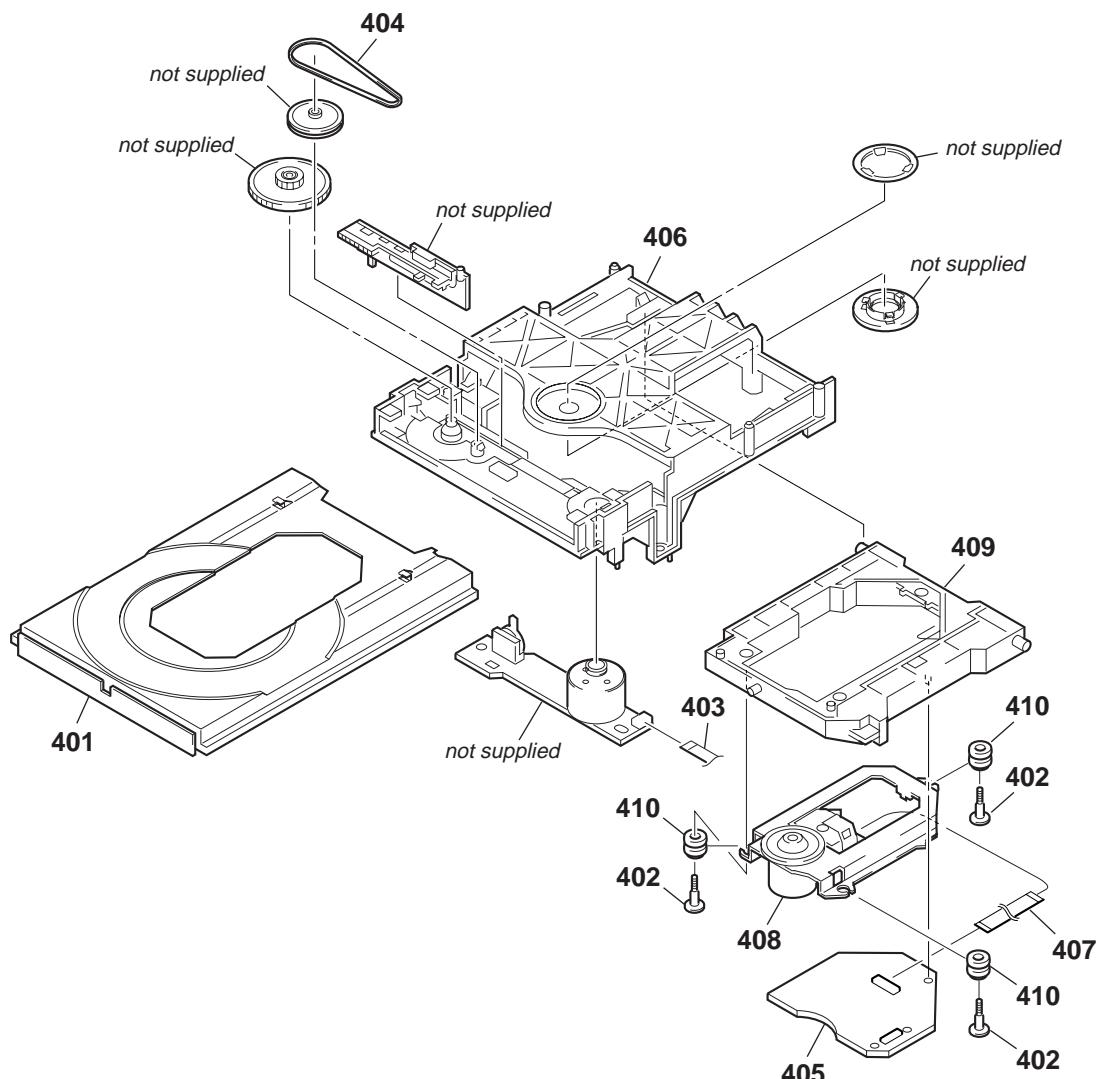
7-3. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-249-177-01	CD (LID)		114	A-4748-541-A	DMB03 BOARD, COMPLETE (AEP,UK)	
102	1-775-267-11	WIRE (FLAT TYPE) (29 CORE)		114	A-4750-134-A	DMB03 BOARD, COMPLETE (RU)	
103	4-951-620-01	SCREW (2.6X8), +BVTP		115	4-250-787-01	FOOT	
104	4-900-386-01	SCREW		116	1-773-989-11	WIRE (FLAT TYPE) (5 CORE)	
105	3-970-608-01	SUMITITE (B3), +BV (AEP,UK)		117	A-4738-774-A	TUNER UNIT	
105	3-970-608-11	SUMITITE (B3), +BV (RU)		118	1-775-152-11	WIRE (FLAT TYPE) (17 CORE)	
* 106	3-703-244-00	BUSHING (2104), CORD		119	1-775-083-11	WIRE (FLAT TYPE) (9 CORE)	
△ 107	1-575-651-21	CORD, POWER		120	1-827-627-11	WIRE (FLAT TYPE) (15 CORE)	
108	1-763-697-21	DC FAN (AEP,UK)		121	1-769-937-11	WIRE (FLAT TYPE) (11 CORE)	
108	1-787-094-11	FAN, DC (RU)		122	1-775-102-11	WIRE (FLAT TYPE) (11 CORE)	
109	1-500-386-21	FILTER, CLAMP (FERRITE CORE)		123	1-775-189-11	WIRE (FLAT TYPE) (21 CORE)	
110	A-4748-523-A	SUB TRANS BOARD, COMPLETE		△ F902	1-533-473-12	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
111	A-4748-520-A	AMP BOARD, COMPLETE		△ F903	1-533-473-12	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
112	A-4748-534-A	I/O BOARD, COMPLETE		△ T101	1-443-067-11	TRANSFORMER, POWER	
113	A-4748-528-A	UCOM BOARD, COMPLETE (AEP,UK)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
113	A-4750-132-A	UCOM BOARD, COMPLETE (RU)					

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

7-4. DVD MECHANISM SECTION (CDM77A-DVBU20)



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
401	4-243-742-01	TRAY (AU)		406	4-243-741-01	BASE (AU), LOADING	
402	4-981-923-01	SCREW (M), STEP		407	1-689-264-11	PWB, FLEXIBLE (24 CORE)	
403	1-773-983-11	WIRE (FLAT TYPE)(5 CORE)		▲ 408	1-477-263-11	OPTICAL PICK-UP (TDP022W)	
404	3-080-478-01	BELT		409	4-243-743-01	HOLDER (DBU1)	
405	A-4728-690-A	RF BOARD, COMPLETE		410	3-053-847-41	INSULATOR	

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety.
Replace only with part number specified.

SECTION 8

ELECTRICAL PARTS LIST

AMP

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “**” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS

All resistors are in ohms

METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F : nonflammable

• CAPACITORS

uF : μ F

• COILS

uH : μ H

• SEMICONDUCTORS

In each case, u: μ , for example:

uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,

uPC...: μ PC..., uPD...: μ PD.

• Abbreviation

RU : Russian model

When indicating parts by reference number, please include the board name.

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4748-520-A	AMP BOARD, COMPLETE	*****	C372	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V
< CAPACITOR >							
C301	1-126-044-11	ELECT	1uF 20.00% 50V	C373	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V
C302	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C374	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V
C303	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C391	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C304	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C392	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C305	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C393	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C306	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C394	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C307	1-126-044-11	ELECT	1uF 20.00% 50V	C395	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C308	1-104-665-11	ELECT	100uF 20.00% 10V	C396	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C309	1-104-665-11	ELECT	100uF 20.00% 10V	C397	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C311	1-126-948-11	ELECT	100uF 20.00% 35V	C398	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C312	1-126-948-11	ELECT	100uF 20.00% 35V	C401	1-126-044-11	ELECT	1uF 20.00% 50V
C313	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C402	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C321	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V	C403	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C322	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V	C404	1-126-059-11	ELECT	10uF 20.00% 50V
C323	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V	C406	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C324	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V	C407	1-126-948-11	ELECT	100uF 20.00% 35V
C325	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V	C408	1-126-964-11	ELECT	10uF 20.00% 50V
C326	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V	C411	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V
C341	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C412	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V
C342	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C421	1-126-933-11	ELECT	100uF 20.00% 16V
C343	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C422	1-126-964-11	ELECT	10uF 20.00% 50V
C344	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C423	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C345	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C425	1-126-963-11	ELECT	4.7uF 20.00% 50V
C346	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C441	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C347	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C442	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C348	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C443	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C351	1-126-044-11	ELECT	1uF 20.00% 50V	C444	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C352	1-126-044-11	ELECT	1uF 20.00% 50V	C451	1-126-044-11	ELECT	1uF 20.00% 50V
C353	1-126-044-11	ELECT	1uF 20.00% 50V	C452	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C354	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C453	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C355	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C454	1-126-059-11	ELECT	10uF 20.00% 50V
C356	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C461	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V
C357	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C462	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V
C358	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C471	1-126-964-11	ELECT	10uF 20.00% 50V
C359	1-162-957-11	CERAMIC CHIP	220PF 5% 50V	C472	1-104-665-11	ELECT	100uF 20.00% 10V
C360	1-126-059-11	ELECT	10uF 20.00% 50V	C473	1-126-961-11	ELECT	2.2uF 20.00% 50V
C361	1-126-059-11	ELECT	10uF 20.00% 50V	C474	1-104-665-11	ELECT	100uF 20.00% 10V
C362	1-126-059-11	ELECT	10uF 20.00% 50V	C491	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C371	1-115-339-11	CERAMIC CHIP	0.1uF 10.00% 50V	C492	1-164-156-11	CERAMIC CHIP	0.1uF 25V
				C493	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
				C494	1-162-957-11	CERAMIC CHIP	220PF 5% 50V

AMP

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
C501	1-126-233-11	ELECT	22uF	20%	50V	C962	1-126-948-11	ELECT	100uF	20.00%	35V
C502	1-126-059-11	ELECT	10uF	20.00%	50V	C963	1-126-916-11	ELECT	1000uF	20.00%	6.3V
C503	1-130-471-00	MYLAR	0.001uF	5%	50V	C964	1-137-980-91	CERAMIC CHIP	0.47uF	10%	50V
C504	1-130-471-00	MYLAR	0.001uF	5%	50V	C965	1-137-980-91	CERAMIC CHIP	0.47uF	10%	50V
C505	1-136-287-11	MYLAR	0.0047uF	5.00%	50V	C966	1-162-974-11	CERAMIC CHIP	0.01uF	50V	
C506	1-136-287-11	MYLAR	0.0047uF	5.00%	50V	C967	1-162-974-11	CERAMIC CHIP	0.01uF	50V	
C507	1-126-022-11	ELECT	47uF	20.00%	16V	C970	1-126-935-11	ELECT	470uF	20.00%	10V
C508	1-126-059-11	ELECT	10uF	20.00%	50V	C971	1-107-713-11	ELECT	4.7uF	20.00%	50V
C509	1-126-233-11	ELECT	22uF	20%	50V				< CONNECTOR >		
C510	1-126-059-11	ELECT	10uF	20.00%	50V	CN302	1-779-289-11	CONNECTOR, FFC(LIF(NON-ZIF))21P			
C511	1-126-022-11	ELECT	47uF	20.00%	16V	CN303	1-779-277-11	CONNECTOR, FFC(LIF(NON-ZIF))9P			
C512	1-126-233-11	ELECT	22uF	20%	50V	CN401	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
C513	1-126-059-11	ELECT	10uF	20.00%	50V	CN421	1-564-506-11	PLUG, CONNECTOR 3P			
C514	1-164-362-11	CERAMIC CHIP	470PF	5.00%	50V	CN801	1-784-739-11	CONNECTOR, FFC 17P			
C515	1-164-362-11	CERAMIC CHIP	470PF	5.00%	50V	* CN951	1-564-242-00	PIN, CONNECTOR(3.96mm PITCH)5P			
C521	1-126-059-11	ELECT	10uF	20.00%	50V	CN952	1-779-279-11	CONNECTOR, FFC(LIF(NON-ZIF))11P			
C522	1-126-059-11	ELECT	10uF	20.00%	50V	CN953	1-568-951-11	PIN, CONNECTOR 2P			
C523	1-130-471-00	MYLAR	0.001uF	5%	50V				< DIODE >		
C524	1-130-471-00	MYLAR	0.001uF	5%	50V	D321	8-719-988-61	DIODE 1SS355TE-17			
C525	1-136-287-11	MYLAR	0.0047uF	5.00%	50V	D322	8-719-988-61	DIODE 1SS355TE-17			
C526	1-136-287-11	MYLAR	0.0047uF	5.00%	50V	D323	8-719-988-61	DIODE 1SS355TE-17			
C527	1-126-022-11	ELECT	47uF	20.00%	16V	D331	8-719-988-61	DIODE 1SS355TE-17			
C528	1-126-059-11	ELECT	10uF	20.00%	50V	D371	8-719-988-61	DIODE 1SS355TE-17			
C529	1-126-059-11	ELECT	10uF	20.00%	50V	D372	8-719-988-61	DIODE 1SS355TE-17			
C530	1-126-059-11	ELECT	10uF	20.00%	50V	D381	8-719-988-61	DIODE 1SS355TE-17			
C531	1-126-022-11	ELECT	47uF	20.00%	16V	D382	8-719-988-61	DIODE 1SS355TE-17			
C532	1-126-059-11	ELECT	10uF	20.00%	50V	D401	8-719-988-61	DIODE 1SS355TE-17			
C533	1-126-059-11	ELECT	10uF	20.00%	50V	D411	8-719-988-61	DIODE 1SS355TE-17			
C534	1-164-362-11	CERAMIC CHIP	470PF	5.00%	50V	D430	8-719-988-61	DIODE 1SS355TE-17			
C535	1-164-362-11	CERAMIC CHIP	470PF	5.00%	50V	D461	8-719-988-61	DIODE 1SS355TE-17			
C541	1-107-715-11	ELECT	22uF	20.00%	35V	D462	8-719-988-61	DIODE 1SS355TE-17			
C542	1-107-715-11	ELECT	22uF	20.00%	35V	D471	8-719-988-61	DIODE 1SS355TE-17			
C551	1-126-059-11	ELECT	10uF	20.00%	50V	D472	8-719-988-61	DIODE 1SS355TE-17			
C552	1-126-059-11	ELECT	10uF	20.00%	50V	D473	8-719-988-61	DIODE 1SS355TE-17			
C553	1-130-471-00	MYLAR	0.001uF	5%	50V	D951	6-500-250-01	DIODE D15XB20-4001			
C554	1-130-471-00	MYLAR	0.001uF	5%	50V	D952	6-500-250-01	DIODE D15XB20-4001			
C555	1-136-287-11	MYLAR	0.0047uF	5.00%	50V	D954	8-719-210-21	DIODE 11EQS04-TA1B			
C556	1-136-287-11	MYLAR	0.0047uF	5.00%	50V	D955	8-719-079-47	DIODE RK36LF-A4			
C557	1-126-022-11	ELECT	47uF	20.00%	16V	D956	8-719-079-47	DIODE RK36LF-A4			
C558	1-126-059-11	ELECT	10uF	20.00%	50V	D957	8-719-988-61	DIODE 1SS355TE-17			
C559	1-126-059-11	ELECT	10uF	20.00%	50V	D958	8-719-988-61	DIODE 1SS355TE-17			
C560	1-126-059-11	ELECT	10uF	20.00%	50V				< GROUND TERMINAL BOARD >		
C561	1-126-022-11	ELECT	47uF	20.00%	16V	EP902	1-537-770-21	TERMINAL BOARD, GROUND			
C562	1-126-059-11	ELECT	10uF	20.00%	50V	EP951	1-537-770-21	TERMINAL BOARD, GROUND			
C563	1-126-059-11	ELECT	10uF	20.00%	50V				< FUSE HOLDER >		
C564	1-164-362-11	CERAMIC CHIP	470PF	5.00%	50V	FH903	1-533-233-11	FUSE HOLDER			
C565	1-164-362-11	CERAMIC CHIP	470PF	5.00%	50V	FH904	1-533-233-11	FUSE HOLDER			
C951	1-137-401-11	MYLAR	0.22uF	5.00%	100V	FH905	1-533-233-11	FUSE HOLDER			
C952	1-126-041-11	ELECT	2200uF	20.00%	35V	FH906	1-533-233-11	FUSE HOLDER			
C953	1-126-041-11	ELECT	2200uF	20.00%	35V				< IC >		
C955	1-119-939-51	ELECT	6800uF	20.00%	35V	IC301	6-704-868-01	IC STK402-920			
C956	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	IC401	6-703-084-01	IC STK403-030			
C957	1-126-948-11	ELECT	100uF	20.00%	35V						
C958	1-126-767-11	ELECT	1000uF	20.00%	16V						
C959	1-126-948-11	ELECT	100uF	20.00%	35V						
C960	1-137-980-91	CERAMIC CHIP	0.47uF	10%	50V						
C961	1-126-926-11	ELECT	1000uF	20.00%	10V						

AMP

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
IC501	8-759-385-17	IC NJM4580E(TE2)		Q551	8-729-422-35	TRANSISTOR	2SC3624A-T1L15
IC502	8-759-539-45	IC M62429P		Q552	8-729-422-35	TRANSISTOR	2SC3624A-T1L15
IC521	8-759-385-17	IC NJM4580E(TE2)		Q972	8-729-027-23	TRANSISTOR	DTA114EKA-T146
IC522	8-759-539-45	IC M62429P		< RESISTOR >			
IC551	8-759-385-17	IC NJM4580E(TE2)		R301	1-216-821-11	METAL CHIP	1K 5% 1/16W
IC552	8-759-539-45	IC M62429P		R302	1-216-841-11	METAL CHIP	47K 5% 1/16W
IC951	6-701-021-01	IC SI-8120JF		R303	1-216-841-11	METAL CHIP	47K 5% 1/16W
IC952	8-759-474-09	IC SI-8050S-LF1101		R304	1-216-841-11	METAL CHIP	47K 5% 1/16W
IC953	6-700-813-01	IC SI-8033JF		R305	1-216-841-11	METAL CHIP	47K 5% 1/16W
< JACK >				R306	1-216-818-11	METAL CHIP	560 5% 1/16W
J301	1-694-919-11	TERMINAL BOARD (6CH SPEAKER)		R307	1-216-818-11	METAL CHIP	560 5% 1/16W
< COIL >				R308	1-216-841-11	METAL CHIP	47K 5% 1/16W
L341	1-420-872-52	COIL, AIR-CORE		△ R309	1-245-605-51	FUSIBLE	100 5% 1/4W
L342	1-420-872-52	COIL, AIR-CORE		△ R310	1-245-605-51	FUSIBLE	100 5% 1/4W
L343	1-420-872-52	COIL, AIR-CORE		R311	1-216-833-11	METAL CHIP	10K 5% 1/16W
L391	1-420-872-52	COIL, AIR-CORE		R313	1-216-833-11	METAL CHIP	10K 5% 1/16W
L392	1-420-872-52	COIL, AIR-CORE		R321	1-216-821-11	METAL CHIP	1K 5% 1/16W
L441	1-420-872-52	COIL, AIR-CORE		R322	1-216-835-11	METAL CHIP	15K 5% 1/16W
L491	1-420-872-52	COIL, AIR-CORE		R323	1-216-845-11	METAL CHIP	100K 5% 1/16W
L901	1-414-398-11	INDUCTOR	10uH	△ R324	1-208-602-11	METAL	0.22 2W
L902	1-414-398-11	INDUCTOR	10uH	R325	1-249-625-31	CARBON	10 5% 1/2W
L951	1-456-419-11	INDUCTOR	120uH	R326	1-216-821-11	METAL CHIP	1K 5% 1/16W
L952	1-456-419-11	INDUCTOR	120uH	R327	1-216-835-11	METAL CHIP	15K 5% 1/16W
L953	1-456-419-11	INDUCTOR	120uH	R328	1-216-845-11	METAL CHIP	100K 5% 1/16W
< TRANSISTOR >				△ R329	1-208-602-11	METAL	0.22 2W
Q321	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R330	1-249-625-31	CARBON	10 5% 1/2W
Q322	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R331	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q323	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R332	1-216-835-11	METAL CHIP	15K 5% 1/16W
Q331	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R333	1-216-845-11	METAL CHIP	100K 5% 1/16W
Q332	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	△ R334	1-208-602-11	METAL	0.22 2W
Q371	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R335	1-249-625-31	CARBON	10 5% 1/2W
Q372	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R337	1-216-833-11	METAL CHIP	10K 5% 1/16W
Q381	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R338	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q382	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R339	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q383	8-729-027-23	TRANSISTOR	DTA114EKA-T146	△ R340	1-215-865-11	METAL OXIDE	220 5% 1W
Q401	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R341	1-247-791-91	CARBON	22 5% 1/4W
Q411	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R342	1-247-791-91	CARBON	22 5% 1/4W
Q424	8-729-026-68	TRANSISTOR	2SD2525(TP)	R343	1-247-791-91	CARBON	22 5% 1/4W
Q425	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R344	1-247-791-91	CARBON	22 5% 1/4W
Q426	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R345	1-247-791-91	CARBON	22 5% 1/4W
Q461	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R346	1-247-791-91	CARBON	22 5% 1/4W
Q462	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R347	1-247-791-91	CARBON	22 5% 1/4W
Q463	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R348	1-247-791-91	CARBON	22 5% 1/4W
Q472	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R349	1-247-791-91	CARBON	22 5% 1/4W
Q473	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R350	1-247-791-91	CARBON	22 5% 1/4W
Q474	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R351	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q476	8-729-921-73	TRANSISTOR	2SD1781K-T146-QR	R352	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q477	8-729-026-48	TRANSISTOR	2SA1037AK-T146-Q	R353	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q478	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R354	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q479	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E	R355	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q511	8-729-422-35	TRANSISTOR	2SC3624A-T1L15	R356	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q512	8-729-422-35	TRANSISTOR	2SC3624A-T1L15	R357	1-216-819-11	METAL CHIP	680 5% 1/16W
Q521	8-729-422-35	TRANSISTOR	2SC3624A-T1L15	R358	1-216-819-11	METAL CHIP	680 5% 1/16W
Q522	8-729-422-35	TRANSISTOR	2SC3624A-T1L15	R359	1-216-819-11	METAL CHIP	680 5% 1/16W

The components identified by mark △ or dotted line with mark △ are critical for safety.
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AMP

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R360	1-216-841-11	METAL CHIP	47K	5%	1/16W	R451	1-216-821-11	METAL CHIP	1K	5%	1/16W
R361	1-216-841-11	METAL CHIP	47K	5%	1/16W	R452	1-216-841-11	METAL CHIP	47K	5%	1/16W
R362	1-216-841-11	METAL CHIP	47K	5%	1/16W	R453	1-216-819-11	METAL CHIP	680	5%	1/16W
R371	1-216-821-11	METAL CHIP	1K	5%	1/16W	R454	1-216-841-11	METAL CHIP	47K	5%	1/16W
R372	1-216-835-11	METAL CHIP	15K	5%	1/16W	R461	1-216-821-11	METAL CHIP	1K	5%	1/16W
R373	1-216-845-11	METAL CHIP	100K	5%	1/16W	R462	1-216-835-11	METAL CHIP	15K	5%	1/16W
▲R374	1-208-602-11	METAL	0.22		2W	R463	1-216-845-11	METAL CHIP	100K	5%	1/16W
R375	1-249-625-31	CARBON	10	5%	1/2W	▲R464	1-208-602-11	METAL	0.22		2W
R376	1-216-821-11	METAL CHIP	1K	5%	1/16W	R465	1-249-625-31	CARBON	10	5%	1/2W
R377	1-216-835-11	METAL CHIP	15K	5%	1/16W	R467	1-216-833-11	METAL CHIP	10K	5%	1/16W
R378	1-216-845-11	METAL CHIP	100K	5%	1/16W	R468	1-216-841-11	METAL CHIP	47K	5%	1/16W
▲R379	1-208-602-11	METAL	0.22		2W	R469	1-216-841-11	METAL CHIP	47K	5%	1/16W
R380	1-249-625-31	CARBON	10	5%	1/2W	▲R470	1-215-865-11	METAL OXIDE	220	5%	1W
R382	1-216-833-11	METAL CHIP	10K	5%	1/16W	R471	1-216-841-11	METAL CHIP	47K	5%	1/16W
R383	1-216-841-11	METAL CHIP	47K	5%	1/16W	R473	1-216-821-11	METAL CHIP	1K	5%	1/16W
R384	1-216-841-11	METAL CHIP	47K	5%	1/16W	R475	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R385	1-216-841-11	METAL CHIP	47K	5%	1/16W	R477	1-216-837-11	METAL CHIP	22K	5%	1/16W
▲R386	1-215-865-11	METAL OXIDE	220	5%	1W	R478	1-216-839-11	METAL CHIP	33K	5%	1/16W
▲R387	1-215-865-11	METAL OXIDE	220	5%	1W	R479	1-216-833-11	METAL CHIP	10K	5%	1/16W
R391	1-247-791-91	CARBON	22	5%	1/4W	R480	1-216-833-11	METAL CHIP	10K	5%	1/16W
R392	1-247-791-91	CARBON	22	5%	1/4W	R482	1-216-841-11	METAL CHIP	47K	5%	1/16W
R393	1-247-791-91	CARBON	22	5%	1/4W	R483	1-216-842-11	METAL CHIP	56K	5%	1/16W
R394	1-247-791-91	CARBON	22	5%	1/4W	R484	1-216-841-11	METAL CHIP	47K	5%	1/16W
R395	1-247-791-91	CARBON	22	5%	1/4W	R485	1-216-842-11	METAL CHIP	56K	5%	1/16W
R396	1-247-791-91	CARBON	22	5%	1/4W	R486	1-216-843-11	METAL CHIP	68K	5%	1/16W
R397	1-247-791-91	CARBON	22	5%	1/4W	R487	1-216-841-11	METAL CHIP	47K	5%	1/16W
R398	1-247-791-91	CARBON	22	5%	1/4W	R488	1-216-842-11	METAL CHIP	56K	5%	1/16W
R401	1-216-821-11	METAL CHIP	1K	5%	1/16W	R493	1-247-791-91	CARBON	22	5%	1/4W
R402	1-216-841-11	METAL CHIP	47K	5%	1/16W	R494	1-247-791-91	CARBON	22	5%	1/4W
R403	1-216-819-11	METAL CHIP	680	5%	1/16W	R495	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R404	1-216-841-11	METAL CHIP	47K	5%	1/16W	R496	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
▲R405	1-245-605-51	FUSIBLE	100	5%	1/4W	R497	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R406	1-216-821-11	METAL CHIP	1K	5%	1/16W	R501	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R407	1-216-839-11	METAL CHIP	33K	5%	1/16W	R502	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R408	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R503	1-216-833-11	METAL CHIP	10K	5%	1/16W
R409	1-216-833-11	METAL CHIP	10K	5%	1/16W	R504	1-216-833-11	METAL CHIP	10K	5%	1/16W
R411	1-216-821-11	METAL CHIP	1K	5%	1/16W	R505	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R412	1-216-835-11	METAL CHIP	15K	5%	1/16W	R506	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R413	1-216-845-11	METAL CHIP	100K	5%	1/16W	R507	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
▲R414	1-208-602-11	METAL	0.22		2W	R508	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R415	1-249-625-31	CARBON	10	5%	1/2W	R509	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R421	1-216-841-11	METAL CHIP	47K	5%	1/16W	R510	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R422	1-216-841-11	METAL CHIP	47K	5%	1/16W	R513	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R423	1-216-841-11	METAL CHIP	47K	5%	1/16W	R514	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R424	1-216-841-11	METAL CHIP	47K	5%	1/16W	R515	1-216-833-11	METAL CHIP	10K	5%	1/16W
R425	1-216-841-11	METAL CHIP	47K	5%	1/16W	R516	1-216-833-11	METAL CHIP	10K	5%	1/16W
R426	1-216-841-11	METAL CHIP	47K	5%	1/16W	R517	1-216-837-11	METAL CHIP	22K	5%	1/16W
R428	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R518	1-216-837-11	METAL CHIP	22K	5%	1/16W
R429	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R521	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R434	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R522	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R435	1-216-849-11	METAL CHIP	220K	5%	1/16W	R523	1-216-833-11	METAL CHIP	10K	5%	1/16W
R436	1-216-809-11	METAL CHIP	100	5%	1/16W	R524	1-216-833-11	METAL CHIP	10K	5%	1/16W
R437	1-216-841-11	METAL CHIP	47K	5%	1/16W	R525	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R438	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R526	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R441	1-247-791-91	CARBON	22	5%	1/4W	R527	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R442	1-247-791-91	CARBON	22	5%	1/4W						
R443	1-247-791-91	CARBON	22	5%	1/4W						
R444	1-247-791-91	CARBON	22	5%	1/4W						

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Replace only with part number specified.

AMP **DMB03**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>		<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>			
R528	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	RY461	1-755-170-11	RELAY (12V)	< THERMISTOR(POSITIVE) >		
R529	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	THP471	1-202-854-00	THERMISTOR, POSITIVE	*****		
R530	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	A-4748-541-A	DMB03 BOARD, COMPLETE (AEP,UK)			*****	
R533	1-216-825-11	METAL CHIP	2.2K	5%	1/16W						
R534	1-216-825-11	METAL CHIP	2.2K	5%	1/16W						
R535	1-216-833-11	METAL CHIP	10K	5%	1/16W						
R536	1-216-833-11	METAL CHIP	10K	5%	1/16W						
R537	1-216-837-11	METAL CHIP	22K	5%	1/16W						
R538	1-216-837-11	METAL CHIP	22K	5%	1/16W	A-4750-134-A	DMB03 BOARD, COMPLETE (RU)			*****	
R541	1-216-845-11	METAL CHIP	100K	5%	1/16W						
R542	1-216-845-11	METAL CHIP	100K	5%	1/16W						
R543	1-247-741-11	CARBON	150	5%	1/2W						
< CAPACITOR >											
R544	1-247-741-11	CARBON	150	5%	1/2W	C101	1-126-246-11	ELECT CHIP	220uF	20%	4V
R545	1-247-739-11	CARBON	100	5%	1/2W F	C151	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
R546	1-247-739-11	CARBON	100	5%	1/2W F	C204	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C205	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R552	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C213	1-126-209-11	ELECT CHIP	100uF	20.00%	4V
R553	1-216-833-11	METAL CHIP	10K	5%	1/16W	C214	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R554	1-216-833-11	METAL CHIP	10K	5%	1/16W	C215	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R555	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C216	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R556	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C218	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R557	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C220	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R558	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C226	1-107-820-11	CERAMIC CHIP	0.1uF	16V	
R559	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C227	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R560	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C229	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R563	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C230	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R564	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C231	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R565	1-216-833-11	METAL CHIP	10K	5%	1/16W	C232	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R566	1-216-833-11	METAL CHIP	10K	5%	1/16W	C233	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R567	1-216-837-11	METAL CHIP	22K	5%	1/16W	C234	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R568	1-216-837-11	METAL CHIP	22K	5%	1/16W	C235	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R951	1-216-845-11	METAL CHIP	100K	5%	1/16W	C236	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R952	1-218-867-11	METAL CHIP	6.8K	5%	1/10W	C237	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R953	1-216-815-11	METAL CHIP	330	5%	1/16W	C238	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R954	1-216-810-11	METAL CHIP	120	5%	1/16W	C239	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R955	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C240	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R956	1-216-837-11	METAL CHIP	22K	5%	1/16W	C241	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R957	1-216-837-11	METAL CHIP	22K	5%	1/16W	C242	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R958	1-216-837-11	METAL CHIP	22K	5%	1/16W	C243	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R959	1-216-833-11	METAL CHIP	10K	5%	1/16W	C244	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R960	1-216-809-11	METAL CHIP	100	5%	1/16W	C245	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R961	1-216-810-11	METAL CHIP	120	5%	1/16W	C246	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R962	1-216-833-11	METAL CHIP	10K	5%	1/16W	C247	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R963	1-216-833-11	METAL CHIP	10K	5%	1/16W	C248	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R964	1-216-833-11	METAL CHIP	10K	5%	1/16W	C249	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R965	1-216-833-11	METAL CHIP	10K	5%	1/16W	C250	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R971	1-216-845-11	METAL CHIP	100K	5%	1/16W	C251	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R972	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C252	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R973	1-216-833-11	METAL CHIP	10K	5%	1/16W	C253	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R974	1-249-421-11	CARBON	2.2K	5%	1/4W F	C254	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
R980	1-216-818-11	METAL CHIP	560	5%	1/16W	C255	1-117-370-11	CERAMIC CHIP	10uF	10V	
R981	1-216-805-11	METAL CHIP	47	5%	1/16W	C256	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
< RELAY >											
RY331	1-755-170-11	RELAY (12V)				C257	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
RY381	1-755-170-11	RELAY (12V)				C258	1-117-370-11	CERAMIC CHIP	10uF	10V	
RY382	1-755-170-11	RELAY (12V)				C259	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
						C260	1-164-947-11	CERAMIC CHIP	0.01uF	50V	
						C261	1-164-947-11	CERAMIC CHIP	0.01uF	50V	

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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks	
C262	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C509	1-164-934-11	CERAMIC CHIP	330PF 10.00% 50V
C263	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C510	1-164-937-11	CERAMIC CHIP	0.001uF 10.00% 50V
C264	1-164-947-11	CERAMIC CHIP	0.01uF	50V				
C265	1-117-370-11	CERAMIC CHIP	10uF	10V	C512	1-164-943-11	CERAMIC CHIP	0.01uF 10.00% 16V
C266	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C514	1-164-943-11	CERAMIC CHIP	0.01uF 10.00% 16V
					C516	1-164-939-11	CERAMIC CHIP	0.0022uF 10.00% 50V
C267	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C517	1-117-370-11	CERAMIC CHIP	10uF 10V
C268	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C518	1-164-947-11	CERAMIC CHIP	0.01uF 50V
C269	1-164-947-11	CERAMIC CHIP	0.01uF	50V				
C270	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C519	1-164-943-11	CERAMIC CHIP	0.01uF 10.00% 16V
C271	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C522	1-125-777-11	CERAMIC CHIP	0.1uF 10.00% 6.3V
					C525	1-164-947-11	CERAMIC CHIP	0.01uF 50V
C272	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C526	1-126-395-11	ELECT	22uF 20% 16V
C275	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C527	1-164-947-11	CERAMIC CHIP	0.01uF 50V
C281	1-164-947-11	CERAMIC CHIP	0.01uF	50V				
C282	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C528	1-126-395-11	ELECT	22uF 20% 16V
C283	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C529	1-164-947-11	CERAMIC CHIP	0.01uF 50V
					C531	1-119-923-11	CERAMIC CHIP	0.047uF 10.00% 10V
C284	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C533	1-164-939-11	CERAMIC CHIP	0.0022uF 10.00% 50V
C286	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C534	1-107-819-11	CERAMIC CHIP	0.022uF 10.00% 16V
C287	1-164-947-11	CERAMIC CHIP	0.01uF	50V				
C302	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V	C535	1-164-939-11	CERAMIC CHIP	0.0022uF 10.00% 50V
C303	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V	C543	1-107-820-11	CERAMIC CHIP	0.1uF 16V
					C544	1-125-777-11	CERAMIC CHIP	0.1uF 10.00% 10V
C304	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V	C545	1-117-370-11	CERAMIC CHIP	10uF 10V
C305	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V	C547	1-107-725-11	CERAMIC CHIP	0.1uF 10.00% 16V
C306	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V				
C307	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V	C548	1-164-943-11	CERAMIC CHIP	0.01uF 10.00% 16V
C308	1-164-874-11	CERAMIC CHIP	100PF	5.00% 50V	C551	1-125-891-11	CERAMIC CHIP	0.47uF 10.00% 10V
					C552	1-216-295-91	SHORT CHIP	0
C309	1-164-874-11	CERAMIC CHIP	100PF	5.00% 50V	C553	1-164-940-11	CERAMIC CHIP	0.0033uF 10.00% 16V
C315	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C556	1-117-370-11	CERAMIC CHIP	10uF 10V
C316	1-164-947-11	CERAMIC CHIP	0.01uF	50V				
C321	1-126-206-11	ELECT CHIP	100uF	20% 6.3V	C558	1-126-209-11	ELECT CHIP	100uF 20.00% 4V
C322	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C559	1-125-777-11	CERAMIC CHIP	0.1uF 10.00% 10V
					C560	1-164-938-11	CERAMIC CHIP	0.0015uF 10.00% 50V
C323	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C561	1-107-820-11	CERAMIC CHIP	0.1uF 16V
C324	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C563	1-164-874-11	CERAMIC CHIP	100PF 5.00% 50V
C325	1-126-209-11	ELECT CHIP	100uF	20.00% 4V	C565	1-125-777-11	CERAMIC CHIP	0.1uF 10.00% 10V
C326	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C567	1-107-820-11	CERAMIC CHIP	0.1uF 16V
C352	1-126-206-11	ELECT CHIP	100uF	20% 6.3V	C568	1-117-370-11	CERAMIC CHIP	10uF 10V
					C569	1-107-820-11	CERAMIC CHIP	0.1uF 16V
C355	1-126-206-11	ELECT CHIP	100uF	20% 6.3V	C570	1-117-370-11	CERAMIC CHIP	10uF 10V
C356	1-126-193-11	ELECT	1uF	20% 50V				
C357	1-126-193-11	ELECT	1uF	20% 50V				
C363	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C573	1-164-874-11	CERAMIC CHIP	100PF 5.00% 50V
C364	1-126-206-11	ELECT CHIP	100uF	20% 6.3V	C588	1-164-939-11	CERAMIC CHIP	0.0022uF 10.00% 50V
					C589	1-164-939-11	CERAMIC CHIP	0.0022uF 10.00% 50V
C365	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C590	1-164-939-11	CERAMIC CHIP	0.0022uF 10.00% 50V
C366	1-126-206-11	ELECT CHIP	100uF	20% 6.3V	C592	1-124-779-00	ELECT CHIP	10uF 20% 16V
C367	1-164-935-11	CERAMIC CHIP	470PF	10.00% 50V				
C368	1-164-935-11	CERAMIC CHIP	470PF	10.00% 50V	C701	1-126-209-11	ELECT CHIP	100uF 20.00% 4V
C392	1-126-395-11	ELECT	22uF	20% 16V	C702	1-117-370-11	CERAMIC CHIP	10uF 10V
					C703	1-125-777-11	CERAMIC CHIP	0.1uF 10.00% 6.3V
C393	1-164-947-11	CERAMIC CHIP	0.01uF	50V	C705	1-164-943-11	CERAMIC CHIP	0.01uF 10.00% 16V
C394	1-126-246-11	ELECT CHIP	220uF	20% 4V	C706	1-107-820-11	CERAMIC CHIP	0.1uF 16V
C412	1-216-864-11	METAL CHIP	0	5% 1/16W				
C413	1-216-864-11	METAL CHIP	0	5% 1/16W	C708	1-164-943-11	CERAMIC CHIP	0.01uF 10.00% 16V
C414	1-216-864-11	METAL CHIP	0	5% 1/16W	C709	1-107-820-11	CERAMIC CHIP	0.1uF 16V
					C711	1-119-923-11	CERAMIC CHIP	0.047uF 10.00% 10V
C415	1-216-864-11	METAL CHIP	0	5% 1/16W	C712	1-164-874-11	CERAMIC CHIP	100PF 5.00% 50V
C416	1-216-864-11	METAL CHIP	0	5% 1/16W	C713	1-107-820-11	CERAMIC CHIP	0.1uF 16V
C501	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V				
C502	1-164-943-11	CERAMIC CHIP	0.01uF	10.00% 16V	C714	1-107-820-11	CERAMIC CHIP	0.1uF 16V
C503	1-127-772-81	CERAMIC CHIP	33000PF	10% 10V	C715	1-164-938-11	CERAMIC CHIP	0.0015uF 10.00% 50V
					C716	1-125-891-11	CERAMIC CHIP	0.47uF 10.00% 10V
C504	1-127-772-81	CERAMIC CHIP	33000PF	10% 10V	C717	1-164-943-11	CERAMIC CHIP	0.01uF 10.00% 16V
C506	1-164-934-11	CERAMIC CHIP	330PF	10.00% 50V	C718	1-107-820-11	CERAMIC CHIP	0.1uF 16V
C508	1-164-937-11	CERAMIC CHIP	0.001uF	10.00% 50V				

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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks				
C720	1-125-777-11	CERAMIC CHIP	0.1uF	10.00%	10V	C925	1-126-395-11	ELECT	22uF	20%	16V
C721	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C926	1-126-246-11	ELECT CHIP	220uF	20%	4V
C722	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C927	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C723	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C928	1-117-370-11	CERAMIC CHIP	10uF		10V
C724	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C1304	1-218-990-11	SHORT CHIP	0		
C725	1-107-820-11	CERAMIC CHIP	0.1uF		16V						
C726	1-107-820-11	CERAMIC CHIP	0.1uF		16V						< CONNECTOR >
C727	1-117-370-11	CERAMIC CHIP	10uF		10V	* CN101	1-784-365-31	CONNECTOR, FFC/FPC 5P			
C728	1-125-777-11	CERAMIC CHIP	0.1uF	10.00%	10V	CN102	1-815-954-21	PIN, CONNECTOR (PC BOARD) 13P			
C729	1-117-370-11	CERAMIC CHIP	10uF		10V	CN105	1-784-374-31	CONNECTOR, FFC/FPC 15P (AEP,UK)			
C730	1-107-820-11	CERAMIC CHIP	0.1uF		16V	CN105	1-784-374-21	CONNECTOR, FFC/FPC 15P (RU)			
C740	1-107-820-11	CERAMIC CHIP	0.1uF		16V	CN107	1-778-692-11	CONNECTOR, FFC/FPC 21P			
C741	1-107-820-11	CERAMIC CHIP	0.1uF		16V						
C742	1-107-820-11	CERAMIC CHIP	0.1uF		16V	CN501	1-778-957-11	CONNECTOR, FFC/FPC 29P			
C743	1-107-820-11	CERAMIC CHIP	0.1uF		16V	CN901	1-764-177-11	PIN, CONNECTOR (SMD)(1.5mm) 7P			
C744	1-107-820-11	CERAMIC CHIP	0.1uF		16V						< DIODE >
C745	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D202	8-719-988-61	DIODE 1SS355TE-17			
C752	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D392	8-719-988-61	DIODE 1SS355TE-17			
C760	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D393	8-719-988-61	DIODE 1SS355TE-17			
C761	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D394	8-719-988-61	DIODE 1SS355TE-17			
C762	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D901	8-719-988-61	DIODE 1SS355TE-17			
C763	1-107-820-11	CERAMIC CHIP	0.1uF		16V						
C764	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1101	8-719-988-61	DIODE 1SS355TE-17			
C765	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1102	8-719-988-61	DIODE 1SS355TE-17			
C766	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	D1201	1-216-295-91	SHORT CHIP 0			
C767	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1202	1-216-295-91	SHORT CHIP 0			
C768	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1203	8-719-988-61	DIODE 1SS355TE-17			
C769	1-107-820-11	CERAMIC CHIP	0.1uF		16V						
C770	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1204	8-719-988-61	DIODE 1SS355TE-17			
C771	1-119-923-11	CERAMIC CHIP	0.047uF	10.00%	10V	D1301	8-719-988-61	DIODE 1SS355TE-17			
C772	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1302	8-719-988-61	DIODE 1SS355TE-17			
C773	1-125-891-11	CERAMIC CHIP	0.47uF	10.00%	10V	D1303	8-719-988-61	DIODE 1SS355TE-17			
C774	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V	D1304	8-719-988-61	DIODE 1SS355TE-17			
C775	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1801	8-719-988-61	DIODE 1SS355TE-17			
C776	1-107-820-11	CERAMIC CHIP	0.1uF		16V	D1802	8-719-988-61	DIODE 1SS355TE-17			
C777	1-107-820-11	CERAMIC CHIP	0.1uF		16V						< FERRITE BEAD >
C778	1-107-820-11	CERAMIC CHIP	0.1uF		16V	FB901	1-500-284-21	FERRITE	0uH		
C779	1-117-370-11	CERAMIC CHIP	10uF		10V	FB902	1-500-284-21	FERRITE	0uH		
C780	1-117-370-11	CERAMIC CHIP	10uF		10V	FB903	1-500-284-21	FERRITE	0uH		
C781	1-165-643-21	ELECT CHIP	150uF	20%	4V						< FILTER >
C782	1-164-938-11	CERAMIC CHIP	0.0015uF	10.00%	50V	FL203	1-234-177-21	FERRITE	0uH		
C783	1-164-938-11	CERAMIC CHIP	0.0015uF	10.00%	50V	FL204	1-234-177-21	FERRITE	0uH		
C901	1-126-209-11	ELECT CHIP	100uF	20.00%	4V	FL205	1-234-177-21	FERRITE	0uH		
C902	1-164-947-11	CERAMIC CHIP	0.01uF		50V	FL206	1-234-177-21	FERRITE	0uH		
C903	1-126-209-11	ELECT CHIP	100uF	20.00%	4V	FL302	1-234-177-21	FERRITE	0uH		
C904	1-164-947-11	CERAMIC CHIP	0.01uF		50V						
C905	1-164-947-11	CERAMIC CHIP	0.01uF		50V	FL303	1-234-177-21	FERRITE	0uH		
C906	1-164-947-11	CERAMIC CHIP	0.01uF		50V	FL352	1-234-177-21	FERRITE	0uH		
C907	1-164-947-11	CERAMIC CHIP	0.01uF		50V	FL501	1-234-177-21	FERRITE	0uH		
C908	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	FL502	1-234-177-21	FERRITE	0uH		
C909	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V	FL701	1-234-177-21	FERRITE	0uH		
C910	1-164-947-11	CERAMIC CHIP	0.01uF		50V	FL702	1-234-177-21	FERRITE	0uH		
C913	1-127-772-81	CERAMIC CHIP	33000PF	10%	10V	FL703	1-234-177-21	FERRITE	0uH		
C914	1-164-849-11	CERAMIC CHIP	9PF	0.50PF	50V	FL704	1-234-177-21	FERRITE	0uH		
C915	1-164-847-11	CERAMIC CHIP	7PF	0.50PF	50V	FL705	1-234-177-21	FERRITE	0uH		
C916	1-126-209-11	ELECT CHIP	100uF	20.00%	4V	FL706	1-234-177-21	FERRITE	0uH		
C917	1-164-947-11	CERAMIC CHIP	0.01uF		50V						
C918	1-164-947-11	CERAMIC CHIP	0.01uF		50V	FL901	1-234-177-21	FERRITE	0uH		
C924	1-164-947-11	CERAMIC CHIP	0.01uF		50V	FL903	1-234-177-21	FERRITE	0uH		
						FL908	1-234-177-21	FERRITE	0uH		

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Ref. No.	Part No.	Description		Remarks	Ref. No.	Part No.	Description		Remarks
< IC >					< TRANSISTOR >				
IC203	6-704-069-01	IC	HY57V283220T-6		Q202	8-729-929-26	TRANSISTOR	DTC114TE-TL	
* IC204	6-703-671-01	IC	BR9040F-WE2		Q901	8-729-929-26	TRANSISTOR	DTC114TE-TL	
IC206	6-803-555-01	IC	MBM29PL32BM90TN-SB3V107		Q903	8-729-025-28	TRANSISTOR	2SK1828TE85L	
IC207	6-703-540-01	IC	ZIVA5X-C1F		Q904	8-729-025-28	TRANSISTOR	2SK1828TE85L	
IC211	6-700-398-01	IC	uPC2918T-E1				< RESISTOR >		
IC216	6-700-437-01	IC	SN74ALVCH16841DGGR		R10	1-216-801-11	METAL CHIP	22	5% 1/16W
IC255	8-759-649-43	IC	SN74AHC1G00DCKR		R11	1-216-801-11	METAL CHIP	22	5% 1/16W
IC256	8-759-549-21	IC	SN74LV573APWR		R12	1-216-801-11	METAL CHIP	22	5% 1/16W
IC258	8-759-549-21	IC	SN74LV573APWR		R13	1-216-801-11	METAL CHIP	22	5% 1/16W
IC259	8-759-549-21	IC	SN74LV573APWR		R14	1-216-801-11	METAL CHIP	22	5% 1/16W
IC302	6-703-787-01	IC	PCM1609KPTR		R15	1-216-801-11	METAL CHIP	22	5% 1/16W
IC352	8-759-560-56	IC	PCM1800E/2K		R197	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
IC392	8-759-583-47	IC	uPC2933T-E2		R198	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
IC501	6-702-157-01	IC	FAN8035L		R207	1-216-864-11	METAL CHIP	0	5% 1/16W
IC503	8-759-058-43	IC	NJM3404AV(TE2)		R213	1-216-807-11	METAL CHIP	68	5% 1/16W
IC509	8-752-408-73	IC	CXD3068Q		R214	1-216-864-11	METAL CHIP	0	5% 1/16W
IC701	6-703-552-01	IC	CXD1882R		R215	1-216-864-11	METAL CHIP	0	5% 1/16W
IC703	8-759-058-43	IC	NJM3404AV(TE2)		R217	1-216-813-11	METAL CHIP	220	5% 1/16W
IC706	8-759-564-30	IC	MSM51V18165F-60TSKR1		R218	1-216-864-11	METAL CHIP	0	5% 1/16W
IC901	8-753-211-15	IC	CXP973064-232R		R219	1-216-864-11	METAL CHIP	0	5% 1/16W
IC902	8-759-649-48	IC	SN74AHC1G32DCKR		R220	1-216-864-11	METAL CHIP	0	5% 1/16W
IC903	6-704-004-01	IC	BR24L16F-WE2		R221	1-216-864-11	METAL CHIP	0	5% 1/16W
IC904	6-702-563-01	IC	TC7W74FK-TE85L		R222	1-216-864-11	METAL CHIP	0	5% 1/16W
IC906	6-700-407-01	IC	SM8707GV-G-E2		R223	1-216-864-11	METAL CHIP	0	5% 1/16W
IC907	8-759-583-47	IC	uPC2933T-E2		R224	1-216-864-11	METAL CHIP	0	5% 1/16W
< JUMPER RESISTOR >					R225	1-543-958-11	FERRITE	0uH	
JW392	1-216-864-11	METAL CHIP	0	5% 1/16W	R226	1-216-813-11	METAL CHIP	220	5% 1/16W
JW601	1-218-990-11	SHORT CHIP	0		R227	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
JW602	1-218-990-11	SHORT CHIP	0		R228	1-216-813-11	METAL CHIP	220	5% 1/16W
JW603	1-218-990-11	SHORT CHIP	0		R230	1-216-803-11	METAL CHIP	33	5% 1/16W
JW604	1-218-990-11	SHORT CHIP	0		R231	1-216-803-11	METAL CHIP	33	5% 1/16W
JW605	1-218-990-11	SHORT CHIP	0		R232	1-216-803-11	METAL CHIP	33	5% 1/16W
JW606	1-218-990-11	SHORT CHIP	0		R233	1-216-864-11	METAL CHIP	0	5% 1/16W
JW607	1-218-990-11	SHORT CHIP	0		R234	1-216-833-11	METAL CHIP	10K	5% 1/16W
JW801	1-218-990-11	SHORT CHIP	0		R240	1-216-841-11	METAL CHIP	47K	5% 1/16W
JW802	1-218-990-11	SHORT CHIP	0		R241	1-216-864-11	METAL CHIP	0	5% 1/16W
JW803	1-218-990-11	SHORT CHIP	0		R243	1-216-864-11	METAL CHIP	0	5% 1/16W
JW804	1-218-990-11	SHORT CHIP	0		R244	1-216-821-11	METAL CHIP	1K	5% 1/16W
JW805	1-218-990-11	SHORT CHIP	0		R245	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
JW806	1-218-990-11	SHORT CHIP	0		R246	1-216-833-11	METAL CHIP	10K	5% 1/16W
< COIL >					R247	1-216-821-11	METAL CHIP	1K	5% 1/16W
L402	1-216-296-11	SHORT CHIP	0		R248	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
L403	1-216-296-11	SHORT CHIP	0		R250	1-216-864-11	METAL CHIP	0	5% 1/16W
L404	1-216-296-11	SHORT CHIP	0		R251	1-216-864-11	METAL CHIP	0	5% 1/16W
L405	1-216-296-11	SHORT CHIP	0		R253	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
L406	1-216-296-11	SHORT CHIP	0		R254	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
L412	1-216-296-11	SHORT CHIP	0		R255	1-216-864-11	METAL CHIP	0	5% 1/16W
L413	1-216-296-11	SHORT CHIP	0		R257	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
L414	1-216-296-11	SHORT CHIP	0		R259	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
L415	1-216-296-11	SHORT CHIP	0		R260	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
L416	1-216-296-11	SHORT CHIP	0		R261	1-216-829-11	METAL CHIP	4.7K	5% 1/16W
L901	1-412-031-11	INDUCTOR CHIP	47uH		R262	1-216-864-11	METAL CHIP	0	5% 1/16W
					R263	1-218-285-11	METAL CHIP	75	5% 1/10W
					R264	1-218-285-11	METAL CHIP	75	5% 1/10W
					R265	1-218-285-11	METAL CHIP	75	5% 1/10W

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Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R266	1-218-285-11	METAL CHIP	75	5%	1/10W	R516	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R267	1-218-285-11	METAL CHIP	75	5%	1/10W	R517	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R268	1-543-958-11	FERRITE	0uH			R519	1-216-845-11	METAL CHIP	100K	5%	1/16W
R269	1-216-813-11	METAL CHIP	220	5%	1/16W	R520	1-216-833-11	METAL CHIP	10K	5%	1/16W
R270	1-216-864-11	METAL CHIP	0	5%	1/16W	R521	1-216-845-11	METAL CHIP	100K	5%	1/16W
R273	1-216-864-11	METAL CHIP	0	5%	1/16W	R522	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R274	1-216-864-11	METAL CHIP	0	5%	1/16W	R523	1-216-833-11	METAL CHIP	10K	5%	1/16W
R275	1-216-864-11	METAL CHIP	0	5%	1/16W	R524	1-216-833-11	METAL CHIP	10K	5%	1/16W
R276	1-216-864-11	METAL CHIP	0	5%	1/16W	R525	1-216-833-11	METAL CHIP	10K	5%	1/16W
R277	1-216-864-11	METAL CHIP	0	5%	1/16W	R527	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R278	1-218-285-11	METAL CHIP	75	5%	1/10W	R528	1-216-864-11	METAL CHIP	0	5%	1/16W
R279	1-218-285-11	METAL CHIP	75	5%	1/10W	R529	1-216-839-11	METAL CHIP	33K	5%	1/16W
R280	1-218-285-11	METAL CHIP	75	5%	1/10W	R530	1-216-842-11	METAL CHIP	56K	5%	1/16W
R281	1-218-285-11	METAL CHIP	75	5%	1/10W	R531	1-216-864-11	METAL CHIP	0	5%	1/16W
R282	1-218-285-11	METAL CHIP	75	5%	1/10W	R532	1-216-864-11	METAL CHIP	0	5%	1/16W
R283	1-218-847-11	METAL CHIP	1K	0.5%	1/10W	R533	1-216-839-11	METAL CHIP	33K	5%	1/16W
R284	1-218-829-11	METAL CHIP	180	0.5%	1/10W	R534	1-216-842-11	METAL CHIP	56K	5%	1/16W
R285	1-216-864-11	METAL CHIP	0	5%	1/16W	R535	1-216-864-11	METAL CHIP	0	5%	1/16W
R291	1-216-864-11	METAL CHIP	0	5%	1/16W	R536	1-216-833-11	METAL CHIP	10K	5%	1/16W
R292	1-216-864-11	METAL CHIP	0	5%	1/16W	R537	1-216-843-11	METAL CHIP	68K	5%	1/16W
R293	1-216-864-11	METAL CHIP	0	5%	1/16W	R538	1-216-864-11	METAL CHIP	0	5%	1/16W
R294	1-216-864-11	METAL CHIP	0	5%	1/16W	R539	1-216-864-11	METAL CHIP	0	5%	1/16W
R295	1-216-864-11	METAL CHIP	0	5%	1/16W	R540	1-216-864-11	METAL CHIP	0	5%	1/16W
R296	1-216-864-11	METAL CHIP	0	5%	1/16W	R541	1-216-864-11	METAL CHIP	0	5%	1/16W
R301	1-216-821-11	METAL CHIP	1K	5%	1/16W	R543	1-216-864-11	METAL CHIP	0	5%	1/16W
R302	1-216-813-11	METAL CHIP	220	5%	1/16W	R544	1-216-864-11	METAL CHIP	0	5%	1/16W
R303	1-216-813-11	METAL CHIP	220	5%	1/16W	R545	1-216-833-11	METAL CHIP	10K	5%	1/16W
R304	1-216-813-11	METAL CHIP	220	5%	1/16W	R547	1-216-864-11	METAL CHIP	0	5%	1/16W
R305	1-216-813-11	METAL CHIP	220	5%	1/16W	R548	1-216-833-11	METAL CHIP	10K	5%	1/16W
R306	1-216-813-11	METAL CHIP	220	5%	1/16W	R550	1-216-821-11	METAL CHIP	1K	5%	1/16W
R307	1-216-813-11	METAL CHIP	220	5%	1/16W	R551	1-216-821-11	METAL CHIP	1K	5%	1/16W
R308	1-216-813-11	METAL CHIP	220	5%	1/16W	R552	1-216-821-11	METAL CHIP	1K	5%	1/16W
R309	1-216-813-11	METAL CHIP	220	5%	1/16W	R553	1-216-864-11	METAL CHIP	0	5%	1/16W
R310	1-216-809-11	METAL CHIP	100	5%	1/16W	R554	1-216-864-11	METAL CHIP	0	5%	1/16W
R311	1-216-809-11	METAL CHIP	100	5%	1/16W	R555	1-216-864-11	METAL CHIP	0	5%	1/16W
R312	1-216-809-11	METAL CHIP	100	5%	1/16W	R558	1-216-841-11	METAL CHIP	47K	5%	1/16W
R313	1-543-958-11	FERRITE	0uH			R559	1-216-821-11	METAL CHIP	1K	5%	1/16W
R314	1-216-801-11	METAL CHIP	22	5%	1/16W	R560	1-216-821-11	METAL CHIP	1K	5%	1/16W
R327	1-216-864-11	METAL CHIP	0	5%	1/16W	R561	1-216-821-11	METAL CHIP	1K	5%	1/16W
R328	1-216-813-11	METAL CHIP	220	5%	1/16W	R562	1-216-821-11	METAL CHIP	1K	5%	1/16W
R329	1-216-813-11	METAL CHIP	220	5%	1/16W	R563	1-216-821-11	METAL CHIP	1K	5%	1/16W
R335	1-543-958-11	FERRITE	0uH			R564	1-216-821-11	METAL CHIP	1K	5%	1/16W
R352	1-216-864-11	METAL CHIP	0	5%	1/16W	R565	1-216-821-11	METAL CHIP	1K	5%	1/16W
R353	1-216-864-11	METAL CHIP	0	5%	1/16W	R566	1-216-833-11	METAL CHIP	10K	5%	1/16W
R362	1-216-833-11	METAL CHIP	10K	5%	1/16W	R567	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R392	1-216-797-11	METAL CHIP	10	5%	1/16W	R568	1-216-857-11	METAL CHIP	1M	5%	1/16W
R501	1-216-864-11	METAL CHIP	0	5%	1/16W	R569	1-216-864-11	METAL CHIP	0	5%	1/16W
R502	1-216-864-11	METAL CHIP	0	5%	1/16W	R571	1-216-857-11	METAL CHIP	1M	5%	1/16W
R503	1-216-841-11	METAL CHIP	47K	5%	1/16W	R572	1-216-853-11	METAL CHIP	470K	5%	1/16W
R504	1-216-841-11	METAL CHIP	47K	5%	1/16W	R573	1-216-833-11	METAL CHIP	10K	5%	1/16W
R505	1-216-841-11	METAL CHIP	47K	5%	1/16W	R575	1-216-864-11	METAL CHIP	0	5%	1/16W
R506	1-216-841-11	METAL CHIP	47K	5%	1/16W	R576	1-216-864-11	METAL CHIP	0	5%	1/16W
R507	1-216-864-11	METAL CHIP	0	5%	1/16W	R577	1-216-864-11	METAL CHIP	0	5%	1/16W
R508	1-216-864-11	METAL CHIP	0	5%	1/16W	R578	1-216-864-11	METAL CHIP	0	5%	1/16W
R510	1-216-847-11	METAL CHIP	150K	5%	1/16W	R579	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R511	1-216-847-11	METAL CHIP	150K	5%	1/16W	R580	1-216-839-11	METAL CHIP	33K	5%	1/16W
R512	1-216-842-11	METAL CHIP	56K	5%	1/16W	R581	1-216-834-11	METAL CHIP	12K	5%	1/16W
R513	1-216-842-11	METAL CHIP	56K	5%	1/16W						

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Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R583	1-216-864-11	METAL CHIP	0	5%	1/16W	R751	1-216-864-11	METAL CHIP	0	5%	1/16W
R584	1-216-839-11	METAL CHIP	33K	5%	1/16W	R752	1-216-864-11	METAL CHIP	0	5%	1/16W
R585	1-216-864-11	METAL CHIP	0	5%	1/16W	R753	1-216-864-11	METAL CHIP	0	5%	1/16W
R586	1-216-841-11	METAL CHIP	200K	5%	1/10W	R754	1-216-864-11	METAL CHIP	0	5%	1/16W
R587	1-216-864-11	METAL CHIP	0	5%	1/16W	R755	1-216-864-11	METAL CHIP	0	5%	1/16W
R588	1-216-833-11	METAL CHIP	10K	5%	1/16W	R756	1-216-864-11	METAL CHIP	0	5%	1/16W
R589	1-216-833-11	METAL CHIP	10K	5%	1/16W	R757	1-216-864-11	METAL CHIP	0	5%	1/16W
R592	1-216-864-11	METAL CHIP	0	5%	1/16W	R758	1-216-864-11	METAL CHIP	0	5%	1/16W
R593	1-216-845-11	METAL CHIP	100K	5%	1/16W	R759	1-216-864-11	METAL CHIP	0	5%	1/16W
R597	1-216-864-11	METAL CHIP	0	5%	1/16W	R762	1-216-837-11	METAL CHIP	22K	5%	1/16W
R599	1-216-821-11	METAL CHIP	1K	5%	1/16W	R763	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R601	1-216-864-11	METAL CHIP	0	5%	1/16W	R764	1-216-857-11	METAL CHIP	1M	5%	1/16W
R615	1-216-864-11	METAL CHIP	0	5%	1/16W	R765	1-216-837-11	METAL CHIP	22K	5%	1/16W
R629	1-216-864-11	METAL CHIP	0	5%	1/16W	R766	1-216-864-11	METAL CHIP	0	5%	1/16W
R694	1-216-833-11	METAL CHIP	10K	5%	1/16W	R767	1-216-841-11	METAL CHIP	47K	5%	1/16W
R695	1-216-864-11	METAL CHIP	0	5%	1/16W	R769	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R696	1-216-864-11	METAL CHIP	0	5%	1/16W	R770	1-216-864-11	METAL CHIP	0	5%	1/16W
R698	1-216-864-11	METAL CHIP	0	5%	1/16W	R776	1-216-864-11	METAL CHIP	0	5%	1/16W
R699	1-216-864-11	METAL CHIP	0	5%	1/16W	R777	1-216-864-11	METAL CHIP	0	5%	1/16W
R700	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	R778	1-216-845-11	METAL CHIP	100K	5%	1/16W
R707	1-216-809-11	METAL CHIP	100	5%	1/16W	R780	1-216-864-11	METAL CHIP	0	5%	1/16W
R708	1-216-853-11	METAL CHIP	470K	5%	1/16W	R781	1-216-864-11	METAL CHIP	0	5%	1/16W
R709	1-216-847-11	METAL CHIP	150K	5%	1/16W	R784	1-216-864-11	METAL CHIP	0	5%	1/16W
R710	1-216-833-11	METAL CHIP	10K	5%	1/16W	R785	1-216-833-11	METAL CHIP	10K	5%	1/16W
R711	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R786	1-216-845-11	METAL CHIP	100K	5%	1/16W
R712	1-216-833-11	METAL CHIP	10K	5%	1/16W	R787	1-216-845-11	METAL CHIP	100K	5%	1/16W
R713	1-216-833-11	METAL CHIP	10K	5%	1/16W	R788	1-216-845-11	METAL CHIP	100K	5%	1/16W
R714	1-216-833-11	METAL CHIP	10K	5%	1/16W	R789	1-216-845-11	METAL CHIP	100K	5%	1/16W
R715	1-216-833-11	METAL CHIP	10K	5%	1/16W	R799	1-216-864-11	METAL CHIP	0	5%	1/16W
R716	1-216-809-11	METAL CHIP	100	5%	1/16W	R805	1-216-864-11	METAL CHIP	0	5%	1/16W
R717	1-216-845-11	METAL CHIP	100K	5%	1/16W	R901	1-216-801-11	METAL CHIP	22	5%	1/16W
R718	1-216-833-11	METAL CHIP	10K	5%	1/16W	R902	1-216-801-11	METAL CHIP	22	5%	1/16W
R719	1-216-821-11	METAL CHIP	1K	5%	1/16W	R904	1-216-833-11	METAL CHIP	10K	5%	1/16W
R720	1-216-821-11	METAL CHIP	1K	5%	1/16W	R905	1-216-801-11	METAL CHIP	22	5%	1/16W
R721	1-216-839-11	METAL CHIP	33K	5%	1/16W	R906	1-216-801-11	METAL CHIP	22	5%	1/16W
R724	1-216-821-11	METAL CHIP	1K	5%	1/16W	R907	1-216-801-11	METAL CHIP	22	5%	1/16W
R725	1-216-824-11	METAL CHIP	1.8K	5%	1/16W	R908	1-216-833-11	METAL CHIP	10K	5%	1/16W
R726	1-216-845-11	METAL CHIP	100K	5%	1/16W	R910	1-216-864-11	METAL CHIP	0	5%	1/16W
R727	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R911	1-216-833-11	METAL CHIP	10K	5%	1/16W
R728	1-216-833-11	METAL CHIP	10K	5%	1/16W	R912	1-216-833-11	METAL CHIP	10K	5%	1/16W
R730	1-216-801-11	METAL CHIP	22	5%	1/16W	R913	1-216-833-11	METAL CHIP	10K	5%	1/16W
R731	1-216-801-11	METAL CHIP	22	5%	1/16W	R915	1-216-809-11	METAL CHIP	100	5%	1/16W
R732	1-216-833-11	METAL CHIP	10K	5%	1/16W	R916	1-216-821-11	METAL CHIP	1K	5%	1/16W
R733	1-216-833-11	METAL CHIP	10K	5%	1/16W	R917	1-216-821-11	METAL CHIP	1K	5%	1/16W
R734	1-216-833-11	METAL CHIP	10K	5%	1/16W	R918	1-216-801-11	METAL CHIP	22	5%	1/16W
R735	1-216-833-11	METAL CHIP	10K	5%	1/16W	R919	1-216-864-11	METAL CHIP	0	5%	1/16W
R736	1-216-833-11	METAL CHIP	10K	5%	1/16W	R920	1-216-809-11	METAL CHIP	100	5%	1/16W
R737	1-216-833-11	METAL CHIP	10K	5%	1/16W	R921	1-216-809-11	METAL CHIP	100	5%	1/16W
R738	1-216-833-11	METAL CHIP	10K	5%	1/16W	R922	1-216-801-11	METAL CHIP	22	5%	1/16W
R741	1-216-801-11	METAL CHIP	22	5%	1/16W	R923	1-216-813-11	METAL CHIP	220	5%	1/16W
R742	1-216-801-11	METAL CHIP	22	5%	1/16W	R925	1-216-809-11	METAL CHIP	100	5%	1/16W
R743	1-216-801-11	METAL CHIP	22	5%	1/16W	R926	1-216-809-11	METAL CHIP	100	5%	1/16W
R744	1-216-801-11	METAL CHIP	22	5%	1/16W	R927	1-216-857-11	METAL CHIP	1M	5%	1/16W
R745	1-216-841-11	METAL CHIP	47K	5%	1/16W	R928	1-216-809-11	METAL CHIP	100	5%	1/16W
R746	1-216-841-11	METAL CHIP	47K	5%	1/16W	R929	1-216-809-11	METAL CHIP	100	5%	1/16W
R747	1-216-839-11	METAL CHIP	33K	5%	1/16W	R930	1-216-809-11	METAL CHIP	100	5%	1/16W
R748	1-216-839-11	METAL CHIP	33K	5%	1/16W	R931	1-216-801-11	METAL CHIP	22	5%	1/16W
R750	1-216-833-11	METAL CHIP	10K	5%	1/16W						

DMB03

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Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks					
C163	1-126-795-11	ELECT	10uF	20.00%	50V				< IC >					
C164	1-126-795-11	ELECT	10uF	20.00%	50V				IC101	8-759-385-17	IC NJM4580E(TE2)			
C168	1-164-156-11	CERAMIC CHIP	0.1uF	25V			IC106	8-759-284-49	IC NJM2285V-TE2					
C169	1-126-795-11	ELECT	10uF	20.00%	50V				IC111	8-759-385-17	IC NJM4580E(TE2)			
C170	1-164-156-11	CERAMIC CHIP	0.1uF	25V			IC121	8-759-385-76	IC MC14052 BDR2					
C171	1-162-960-11	CERAMIC CHIP	220PF	10%	50V				IC151	8-759-696-10	IC NJM2235V(TE2)			
C191	1-162-960-11	CERAMIC CHIP	220PF	10%	50V				IC251	6-702-334-01	IC MM1510XNRE			
C192	1-162-960-11	CERAMIC CHIP	220PF	10%	50V				IC252	6-702-335-01	IC MM1568AJBE			
C201	1-128-551-11	ELECT	22uF	20.00%	25V				IC291	8-759-557-36	IC BU1924F-E2			
C202	1-128-551-11	ELECT	22uF	20.00%	25V				< JACK >					
C211	1-126-795-11	ELECT	10uF	20.00%	50V	J101	1-816-039-11	JACK, PIN 3P (VIDEO OUT/AUDIO OUT)						
C212	1-164-730-11	CERAMIC CHIP	0.0012uF	10.00%	50V	J102	1-817-876-11	JACK, PIN 3P (VIDEO IN/AUDIO IN)						
C213	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	J171	1-817-877-11	JACK, PIN 2P (AUDIO IN)						
C214	1-126-795-11	ELECT	10uF	20.00%	50V	J251	1-694-920-11	TERMINAL BOARD (S TERMINAL+1P) (MONITOR OUT)						
C215	1-126-795-11	ELECT	10uF	20.00%	50V				< JUMPER RESISTOR >					
C216	1-164-156-11	CERAMIC CHIP	0.1uF	25V										
C221	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	JW251	1-216-864-11	METAL CHIP	0	5%	1/16W			
C222	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	JW253	1-216-864-11	METAL CHIP	0	5%	1/16W			
C223	1-128-551-11	ELECT	22uF	20.00%	25V	JW254	1-216-864-11	METAL CHIP	0	5%	1/16W			
C224	1-128-551-11	ELECT	22uF	20.00%	25V	< COIL >								
C225	1-128-551-11	ELECT	22uF	20.00%	25V	L152	1-469-525-91	INDUCTOR	10uH					
C226	1-164-245-11	CERAMIC CHIP	0.015uF	10.00%	25V	L251	1-469-525-91	INDUCTOR	10uH					
C227	1-128-551-11	ELECT	22uF	20.00%	25V	< TRANSISTOR >								
C228	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	Q103	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR					
C229	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V	Q112	8-729-920-31	TRANSISTOR	DTC343TK-T-146					
C252	1-126-916-11	ELECT	1000uF	20.00%	6.3V	Q121	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR					
C254	1-126-933-11	ELECT	100uF	20.00%	16V	Q122	8-729-901-00	TRANSISTOR	DTC124EKA-T146					
C255	1-164-156-11	CERAMIC CHIP	0.1uF	25V			Q123	8-729-901-00	TRANSISTOR	DTC124EKA-T146				
C256	1-126-795-11	ELECT	10uF	20.00%	50V	Q203	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR					
C257	1-128-551-11	ELECT	22uF	20.00%	25V	Q212	8-729-920-31	TRANSISTOR	DTC343TK-T-146					
C258	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	Q221	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR					
C266	1-126-916-11	ELECT	1000uF	20.00%	6.3V	Q251	8-729-027-23	TRANSISTOR	DTA114EKA-T146					
C268	1-126-916-11	ELECT	1000uF	20.00%	6.3V	Q252	8-729-900-53	TRANSISTOR	DTC114EKA-T146					
C269	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	Q291	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR					
C272	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	< RESISTOR >								
C273	1-164-156-11	CERAMIC CHIP	0.1uF	25V			R102	1-216-817-11	METAL CHIP	470	5%	1/16W		
C292	1-126-963-11	ELECT	4.7uF	20.00%	50V	R103	1-216-825-11	METAL CHIP	2.2K	5%	1/16W			
C293	1-164-739-11	CERAMIC CHIP	560PF	5.00%	50V	R104	1-216-829-11	METAL CHIP	4.7K	5%	1/16W			
C294	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	R105	1-216-841-11	METAL CHIP	47K	5%	1/16W			
C295	1-164-380-11	CERAMIC CHIP	51PF	5.00%	50V	R106	1-216-845-11	METAL CHIP	100K	5%	1/16W			
C296	1-162-924-11	CERAMIC CHIP	56PF	5.00%	50V	R107	1-216-821-11	METAL CHIP	1K	5%	1/16W			
C297	1-126-947-11	ELECT	47uF	20.00%	16V	R109	1-216-821-11	METAL CHIP	1K	5%	1/16W			
C298	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	R111	1-216-821-11	METAL CHIP	1K	5%	1/16W			
C299	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	R113	1-216-845-11	METAL CHIP	100K	5%	1/16W			
< CONNECTOR >						R114	1-216-825-11	METAL CHIP	2.2K	5%	1/16W			
CN101	1-779-554-21	CONNECTOR, FFC(LIF(NON-ZIF))17P				R115	1-216-827-11	METAL CHIP	3.3K	5%	1/16W			
CN102	1-779-546-11	CONNECTOR, FFC(LIF(NON-ZIF))9P				R116	1-216-833-11	METAL CHIP	10K	5%	1/16W			
CN103	1-779-552-21	CONNECTOR, FFC(LIF(NON-ZIF))15P				R117	1-216-825-11	METAL CHIP	2.2K	5%	1/16W			
CN104	1-784-733-11	CONNECTOR, FFC 11P				R118	1-216-818-11	METAL CHIP	560	5%	1/16W			
< DIODE >						R119	1-218-867-11	METAL CHIP	6.8K	5%	1/10W			
D291	8-719-056-78	DIODE UDVSTE-174.3B				R120	1-216-825-11	METAL CHIP	2.2K	5%	1/16W			
< FERRITE BEAD >						R121	1-216-845-11	METAL CHIP	100K	5%	1/16W			
FB121	1-412-002-31	INDUCTOR	4.7uH				R122	1-216-827-11	METAL CHIP	3.3K	5%	1/16W		
FB151	1-500-284-21	FERRITE	0uH											
FB221	1-412-002-31	INDUCTOR	4.7uH											

I/O	MS-128	PANEL
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Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R123	1-216-841-11	METAL CHIP	47K	5%	1/16W	R228	1-216-839-11	METAL CHIP	33K	5%	1/16W
R124	1-216-845-11	METAL CHIP	100K	5%	1/16W	R229	1-216-839-11	METAL CHIP	33K	5%	1/16W
R125	1-216-845-11	METAL CHIP	100K	5%	1/16W	R230	1-216-833-11	METAL CHIP	10K	5%	1/16W
R126	1-216-845-11	METAL CHIP	100K	5%	1/16W	R231	1-216-833-11	METAL CHIP	10K	5%	1/16W
R127	1-216-845-11	METAL CHIP	100K	5%	1/16W	R232	1-216-839-11	METAL CHIP	33K	5%	1/16W
R128	1-216-839-11	METAL CHIP	33K	5%	1/16W	R233	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R129	1-216-839-11	METAL CHIP	33K	5%	1/16W	R234	1-216-815-11	METAL CHIP	330	5%	1/16W
R130	1-216-833-11	METAL CHIP	10K	5%	1/16W	R235	1-216-853-11	METAL CHIP	470K	5%	1/16W
R131	1-216-833-11	METAL CHIP	10K	5%	1/16W	R236	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R132	1-216-839-11	METAL CHIP	33K	5%	1/16W	R237	1-216-833-11	METAL CHIP	10K	5%	1/16W
R133	1-218-867-11	METAL CHIP	6.8K	5%	1/10W	R238	1-216-833-11	METAL CHIP	10K	5%	1/16W
R134	1-216-815-11	METAL CHIP	330	5%	1/16W	R239	1-216-833-11	METAL CHIP	10K	5%	1/16W
R135	1-216-853-11	METAL CHIP	470K	5%	1/16W	R240	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R136	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R251	1-216-864-11	METAL CHIP	0	5%	1/16W
R137	1-216-809-11	METAL CHIP	100	5%	1/16W	R255	1-218-285-11	METAL CHIP	75	5%	1/10W
R138	1-216-809-11	METAL CHIP	100	5%	1/16W	R256	1-218-285-11	METAL CHIP	75	5%	1/10W
R139	1-216-833-11	METAL CHIP	10K	5%	1/16W	R257	1-218-285-11	METAL CHIP	75	5%	1/10W
R140	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R261	1-216-833-11	METAL CHIP	10K	5%	1/16W
R141	1-216-864-11	METAL CHIP	0	5%	1/16W	R262	1-216-833-11	METAL CHIP	10K	5%	1/16W
R142	1-216-864-11	METAL CHIP	0	5%	1/16W	R263	1-216-821-11	METAL CHIP	1K	5%	1/16W
R143	1-216-809-11	METAL CHIP	100	5%	1/16W	R291	1-216-843-11	METAL CHIP	68K	5%	1/16W
R144	1-216-809-11	METAL CHIP	100	5%	1/16W	R292	1-216-841-11	METAL CHIP	47K	5%	1/16W
R145	1-216-809-11	METAL CHIP	100	5%	1/16W	R293	1-216-821-11	METAL CHIP	1K	5%	1/16W
R146	1-216-809-11	METAL CHIP	100	5%	1/16W	R294	1-216-845-11	METAL CHIP	100K	5%	1/16W
R147	1-216-864-11	METAL CHIP	0	5%	1/16W	R295	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R149	1-216-864-11	METAL CHIP	0	5%	1/16W	R296	1-216-853-11	METAL CHIP	470K	5%	1/16W
R150	1-216-864-11	METAL CHIP	0	5%	1/16W	R297	1-216-814-11	METAL CHIP	270	5%	1/16W
R151	1-216-833-11	METAL CHIP	10K	5%	1/16W						< VIBRATOR >
R153	1-216-833-11	METAL CHIP	10K	5%	1/16W	X291	1-579-900-21	VIBRATOR, CRYSTAL 4.33MHz			
R171	1-216-821-11	METAL CHIP	1K	5%	1/16W						*****
R172	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R173	1-216-864-11	METAL CHIP	0	5%	1/16W						
R191	1-218-285-11	METAL CHIP	75	5%	1/10W						MS-128 BOARD
R192	1-218-285-11	METAL CHIP	75	5%	1/10W						*****
R202	1-216-817-11	METAL CHIP	470	5%	1/16W						< CONNECTOR >
R203	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	CN001	1-815-412-11	CONNECTOR, FFC/FPC 5P			
R204	1-216-829-11	METAL CHIP	4.7K	5%	1/16W						
R205	1-216-841-11	METAL CHIP	47K	5%	1/16W						< SWITCH >
R206	1-216-845-11	METAL CHIP	100K	5%	1/16W	S001	1-786-509-11	SWITCH, ROTARY			
R207	1-216-821-11	METAL CHIP	1K	5%	1/16W						*****
R209	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R211	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R213	1-216-845-11	METAL CHIP	100K	5%	1/16W						A-4748-517-A PANEL BOARD, COMPLETE
R214	1-216-825-11	METAL CHIP	2.2K	5%	1/16W						*****
R215	1-216-827-11	METAL CHIP	3.3K	5%	1/16W						
R216	1-216-833-11	METAL CHIP	10K	5%	1/16W	4-249-178-01	HOLDER (FL)				
R217	1-216-825-11	METAL CHIP	2.2K	5%	1/16W						
R218	1-216-818-11	METAL CHIP	560	5%	1/16W						< CAPACITOR >
R219	1-218-867-11	METAL CHIP	6.8K	5%	1/10W	C800	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R220	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C801	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R221	1-216-845-11	METAL CHIP	100K	5%	1/16W	C802	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
R222	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	C803	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
R223	1-216-841-11	METAL CHIP	47K	5%	1/16W	C811	1-126-795-11	ELECT	10uF	20.00%	50V
R224	1-216-845-11	METAL CHIP	100K	5%	1/16W	C812	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R225	1-216-845-11	METAL CHIP	100K	5%	1/16W	C813	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R226	1-216-845-11	METAL CHIP	100K	5%	1/16W	C814	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R227	1-216-845-11	METAL CHIP	100K	5%	1/16W	C815	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C816	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

PANEL

RF

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks		
C817	1-162-964-11	CERAMIC CHIP			0.001uF	10%	50V	< RESISTOR >					
C818	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R812	1-216-821-11	METAL CHIP	1K	5%	1/16W
C819	1-162-974-11	CERAMIC CHIP			0.01uF		50V	R813	1-216-821-11	METAL CHIP	1K	5%	1/16W
C820	1-162-974-11	CERAMIC CHIP			0.01uF		50V	R814	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
C821	1-126-795-11	ELECT			10uF	20.00%	50V	R822	1-216-821-11	METAL CHIP	1K	5%	1/16W
C822	1-164-360-11	CERAMIC CHIP			0.1uF		16V	R823	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
C823	1-126-795-11	ELECT			10uF	20.00%	50V	R840	1-216-844-11	METAL CHIP	82K	5%	1/16W
C824	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R841	1-216-809-11	METAL CHIP	100	5%	1/16W
C825	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R842	1-216-809-11	METAL CHIP	100	5%	1/16W
C826	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R843	1-216-809-11	METAL CHIP	100	5%	1/16W
C827	1-162-970-11	CERAMIC CHIP			0.01uF	10%	25V	R844	1-216-845-11	METAL CHIP	100K	5%	1/16W
C828	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R846	1-216-845-11	METAL CHIP	100K	5%	1/16W
C829	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R850	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
C830	1-126-791-11	ELECT			10uF	20.00%	16V	R855	1-216-809-11	METAL CHIP	100	5%	1/16W
C833	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R874	1-216-839-11	METAL CHIP	33K	5%	1/16W
C834	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R879	1-216-809-11	METAL CHIP	100	5%	1/16W
C835	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R881	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
C836	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	R882	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
C838	1-162-960-11	CERAMIC CHIP			220PF	10%	50V	< SWITCH >					
C839	1-162-964-11	CERAMIC CHIP			0.001uF	10%	50V	S800	1-418-632-11	ENCODER, ROTARY (12 TYPE) (VOLUME)			
C876	1-162-961-11	CERAMIC CHIP			330PF	10%	50V	S811	1-786-220-11	SWITCH, KEY BOARD (FUNCTION)			
		< DIODE >					S812	1-786-220-11	SWITCH, KEY BOARD (▷)				
D806	8-719-988-61	DIODE			ISS355TE-17		S813	1-786-220-11	SWITCH, KEY BOARD (II)				
D807	8-719-988-61	DIODE			ISS355TE-17		S814	1-786-220-11	SWITCH, KEY BOARD (■)				
D808	8-719-988-61	DIODE			ISS355TE-17		S821	1-786-220-11	SWITCH, KEY BOARD (合)				
D809	8-719-988-61	DIODE			ISS355TE-17		S822	1-786-220-11	SWITCH, KEY BOARD (NEXT ►► / +)				
D810	8-719-421-24	DIODE			MA8039-H-TX		S823	1-786-220-11	SWITCH, KEY BOARD (◀◀ PREV / -)				
D885	8-719-058-24	DIODE			RB501V-40TE-17		< TRANSFORMER >						
D887	8-719-058-24	DIODE			RB501V-40TE-17		T801	1-443-068-11	TRANSFORMER, DC-DC CONVERTER				
		< FERRITE BEAD >					< THERMISTOR(POSITIVE) >						
FB800	1-216-295-91	SHORT CHIP			0		THP801	1-804-046-11	THERMISTOR, POSITIVE (RXE030)				
FB801	1-414-813-11	FERRITE			0uH		*****						
FB802	1-216-295-91	SHORT CHIP			0		A-4728-690-A	RF BOARD, COMPLETE			*****		
FB851	1-500-284-21	FERRITE			0uH								
		< FILTER >											
FL801	1-518-932-11	INDICATOR TUBE, FLUORESCENT					< CAPACITOR >						
		< IC >					C001	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
IC802	8-759-643-83	IC			PT6315		C002	1-124-779-00	ELECT CHIP	10uF	20%	16V	
		< JACK >					C003	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
J851	1-794-453-11	JACK (PHONES)					C004	1-124-779-00	ELECT CHIP	10uF	20%	16V	
		< COIL >					C005	1-128-993-21	ELECT CHIP	22uF	20%	10V	
L801	1-410-671-31	INDUCTOR			47uH		C006	1-128-993-21	ELECT CHIP	22uF	20%	10V	
L812	1-410-997-42	INDUCTOR			2.2uH		C008	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	
L813	1-410-997-42	INDUCTOR			2.2uH		C009	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	
		< TRANSISTOR >					C010	1-115-416-11	CERAMIC CHIP	0.001uF	5.00%	25V	
Q803	8-729-808-42	TRANSISTOR			2SD1624T-TD-E		C011	1-115-416-11	CERAMIC CHIP	0.001uF	5.00%	25V	
Q804	8-729-808-42	TRANSISTOR			2SD1624T-TD-E		C012	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	
Q881	8-729-422-35	TRANSISTOR			2SC3624A-T1L15		C013	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	
Q882	8-729-422-35	TRANSISTOR			2SC3624A-T1L15		C014	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
		< TRANSISTOR >					C015	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
Q803	8-729-808-42	TRANSISTOR			2SD1624T-TD-E		C016	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
Q804	8-729-808-42	TRANSISTOR			2SD1624T-TD-E		C017	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
Q881	8-729-422-35	TRANSISTOR			2SC3624A-T1L15		C018	1-164-172-11	CERAMIC CHIP	0.0056uF	10.00%	25V	
Q882	8-729-422-35	TRANSISTOR			2SC3624A-T1L15								

RF	STANDBY	SUB TRANSFORMER
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks	
C019	1-164-172-11	CERAMIC CHIP	0.0056uF 10.00% 25V	R012	1-216-864-11	METAL CHIP	0 5% 1/16W	
C020	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	R013	1-216-864-11	METAL CHIP	0 5% 1/16W	
C021	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	R014	1-216-864-11	METAL CHIP	0 5% 1/16W	
C022	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	R015	1-216-864-11	METAL CHIP	0 5% 1/16W	
C023	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	R016	1-216-864-11	METAL CHIP	0 5% 1/16W	
C024	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R017	1-216-864-11	METAL CHIP	0 5% 1/16W	
C025	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R018	1-216-864-11	METAL CHIP	0 5% 1/16W	
C026	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R019	1-216-864-11	METAL CHIP	0 5% 1/16W	
C027	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R020	1-216-864-11	METAL CHIP	0 5% 1/16W	
C028	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R021	1-216-864-11	METAL CHIP	0 5% 1/16W	
C029	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R022	1-216-813-11	METAL CHIP	220 5% 1/16W	
C030	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R023	1-216-820-11	METAL CHIP	820 5% 1/16W	
C031	1-115-416-11	CERAMIC CHIP	0.001uF 5.00% 25V	R024	1-216-864-11	METAL CHIP	0 5% 1/16W	
C032	1-165-176-11	CERAMIC CHIP	0.047uF 10.00% 16V	R025	1-216-809-11	METAL CHIP	100 5% 1/16W	
C033	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R026	1-218-718-11	METAL CHIP	12K 0.5% 1/10W	
C034	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R027	1-216-864-11	METAL CHIP	0 5% 1/16W	
C035	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R028	1-216-864-11	METAL CHIP	0 5% 1/16W	
C036	1-125-891-11	CERAMIC CHIP	0.47uF 10.00% 10V	R029	1-216-864-11	METAL CHIP	0 5% 1/16W	
C037	1-162-959-11	CERAMIC CHIP	330PF 5% 50V	R032	1-216-809-11	METAL CHIP	100 5% 1/16W	
C038	1-164-677-11	CERAMIC CHIP	0.033uF 10.00% 16V	R033	1-216-864-11	METAL CHIP	0 5% 1/16W	
C039	1-164-677-11	CERAMIC CHIP	0.033uF 10.00% 16V	R034	1-219-570-11	METAL CHIP	10M 5% 1/10W	
C040	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R035	1-216-864-11	METAL CHIP	0 5% 1/16W	
C041	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	R041	1-216-821-11	METAL CHIP	1K 5% 1/16W	
C042	1-164-218-11	CERAMIC CHIP	180PF 0.25PF 50V	*****				
C049	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	1-689-809-11 STANDBY BOARD				

< CONNECTOR >								
< CAPACITOR >								
CN001	1-815-031-11	CONNECTOR, FFC/FPC (ZIF) 24P	C808	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	
CN002	1-784-836-21	CONNECTOR, FFC(LIF(NON-ZIF))29P	C809	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	
CN003	1-784-861-21	CONNECTOR, FFC(LIF(NON-ZIF))9P	C832	1-126-795-11	ELECT	10uF	20.00% 50V	
< DIODE >								
D001	8-719-988-61	DIODE 1SS355TE-17	D802	8-719-988-61	DIODE 1SS355TE-17			
D002	8-719-988-61	DIODE 1SS355TE-17	D803	8-719-988-61	DIODE 1SS355TE-17			
< IC >								
IC001	6-703-551-01	IC CXD1881AR	D804	8-719-988-61	DIODE 1SS355TE-17			
< COIL >								
L001	1-412-031-11	INDUCTOR CHIP 47uH	D812	8-719-300-71	DIODE SEL2210R-TP6			
L002	1-412-031-11	INDUCTOR CHIP 47uH						
< TRANSISTOR >								
Q001	8-729-903-46	TRANSISTOR 2SB1132-T100-QR	IC801	8-759-826-34	IC NJL74H400A (■)			
Q002	8-729-903-46	TRANSISTOR 2SB1132-T100-QR						
< RESISTOR >								
R001	1-218-668-11	METAL CHIP 100 0.5% 1/10W	R804	1-216-821-11	METAL CHIP 1K 5% 1/16W			
R003	1-216-803-11	METAL CHIP 33 5% 1/16W	R810	1-216-805-11	METAL CHIP 47 5% 1/16W			
R004	1-216-803-11	METAL CHIP 33 5% 1/16W	R835	1-216-805-11	METAL CHIP 47 5% 1/16W			
R005	1-216-841-11	METAL CHIP 47K 5% 1/16W						
R006	1-216-817-11	METAL CHIP 470 5% 1/16W						
< SWITCH >								
			S831	1-786-220-11	SWITCH, KEY BOARD (POWER)			

A-4748-523-A SUB TRANSFORMER BOARD, COMPLETE								

< CAPACITOR >								
R007	1-216-803-11	METAL CHIP 33 5% 1/16W	△ C905	1-113-925-11	CERAMIC 0.01uF 20.00% 250V			
R008	1-216-803-11	METAL CHIP 33 5% 1/16W	C911	1-126-768-11	ELECT 2200uF 20.00% 16V			
R009	1-216-841-11	METAL CHIP 47K 5% 1/16W	C912	1-115-339-11	CERAMIC CHIP 0.1uF 10.00% 50V			
R010	1-216-817-11	METAL CHIP 470 5% 1/16W						
R011	1-216-864-11	METAL CHIP 0 5% 1/16W						

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

SUB TRANSFORMER							UCOM								
Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description	Remarks						
C913	1-104-665-11	ELECT	100uF	20.00%	10V	C530	1-126-916-11	ELECT	1000uF	20.00% 6.3V					
C914	1-126-960-11	ELECT	1uF	20.00%	50V	C536	1-164-156-11	CERAMIC CHIP	0.1uF	25V					
C915	1-126-947-11	ELECT	47uF	20.00%	16V	C572	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V					
C916	1-115-339-11	CERAMIC CHIP	0.1uF	10.00%	50V	C594	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V					
< CONNECTOR >							C595	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V				
CN901	1-774-108-11	PIN, CONNECTOR (PC BOARD)					C604	1-126-947-11	ELECT	47uF	20.00% 16V				
CN902	1-564-321-00	PIN, CONNECTOR(3.96mm PITCH)2P					C606	1-216-864-11	METAL CHIP	0	5% 1/16W				
< DIODE >							C607	1-216-864-11	METAL CHIP	0	5% 1/16W				
D901	8-719-991-33	DIODE 1SS133T-77					C609	1-162-919-11	CERAMIC CHIP	22PF	5% 50V				
D911	6-500-522-11	DIODE 10EDB40-TA2B5					C651	1-126-934-11	ELECT	220uF	20.00% 10V				
D912	6-500-522-11	DIODE 10EDB40-TA2B5					C652	1-126-934-11	ELECT	220uF	20.00% 10V				
D913	6-500-522-11	DIODE 10EDB40-TA2B5					C653	1-126-933-11	ELECT	100uF	20.00% 16V				
D914	6-500-522-11	DIODE 10EDB40-TA2B5					C654	1-164-156-11	CERAMIC CHIP	0.1uF	25V				
D915	6-500-522-11	DIODE 10EDB40-TA2B5					C655	1-164-156-11	CERAMIC CHIP	0.1uF	25V				
< IC >							C656	1-126-934-11	ELECT	220uF	20.00% 10V				
IC911	6-701-760-01	IC uPC3504AHF					C657	1-164-156-11	CERAMIC CHIP	0.1uF	25V				
< TRANSISTOR >							C658	1-164-156-11	CERAMIC CHIP	0.1uF	25V				
Q901	8-729-016-79	TRANSISTOR	2SC2412KLN-T146-E					C659	1-126-934-11	ELECT	220uF	20.00% 10V			
< RESISTOR >							C660	1-126-935-11	ELECT	470uF	20.00% 10V				
R902	1-216-845-11	METAL CHIP	100K	5%	1/16W			C661	1-164-156-11	CERAMIC CHIP	0.1uF	25V			
R903	1-216-819-11	METAL CHIP	680	5%	1/16W			C662	1-164-156-11	CERAMIC CHIP	0.1uF	25V			
R904	1-247-791-91	CARBON	22	5%	1/4W			C663	1-126-933-11	ELECT	100uF	20.00% 16V			
R911	1-216-835-11	METAL CHIP	15K	5%	1/16W			C664	1-164-156-11	CERAMIC CHIP	0.1uF	25V			
R912	1-216-839-11	METAL CHIP	33K	5%	1/16W			C665	1-164-156-11	CERAMIC CHIP	0.1uF	25V			
< RELAY >							C666	1-126-933-11	ELECT	100uF	20.00% 16V				
RY901	1-755-467-11	RELAY (POWER)					C667	1-126-933-11	ELECT	100uF	20.00% 16V				
< TRANSFORMER >							C668	1-126-963-11	ELECT	4.7uF	20.00% 50V				
< CONNECTOR >															
▲ T901	1-437-730-11	TRANSFORMER, POWER					CN601	1-784-778-11	CONNECTOR, FFC 17P						
*****							CN602	1-779-275-11	CONNECTOR, FFC(LIF(NON-ZIF))7P						
A-4748-528-A UCOM BOARD, COMPLETE (AEP,UK)							CN611	1-779-273-11	CONNECTOR, FFC(LIF(NON-ZIF))5P						
*****							CN621	1-779-279-11	CONNECTOR, FFC(LIF(NON-ZIF))11P						
A-4750-132-A UCOM BOARD, COMPLETE (RU)							CN631	1-779-285-11	CONNECTOR, FFC(LIF(NON-ZIF))17P						

< CAPACITOR >							CN651	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P						
C501	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	* CN652	1-764-333-11	PLUG, CONNECTOR 10P							
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	* CN653	1-564-715-11	PIN, CONNECTOR (SMALL TYPE)13P							
C503	1-164-156-11	CERAMIC CHIP	0.1uF			CN654	1-779-273-11	CONNECTOR, FFC(LIF(NON-ZIF))5P							
C504	1-126-934-11	ELECT	220uF	20.00%	10V										
C511	1-164-156-11	CERAMIC CHIP	0.1uF			< DIODE >									
C512	1-126-963-11	ELECT	4.7uF	20.00%	50V	D501	8-719-988-61	DIODE 1SS355TE-17							
C516	1-164-156-11	CERAMIC CHIP	0.1uF			D611	8-719-988-61	DIODE 1SS355TE-17							
C523	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	D612	8-719-988-61	DIODE 1SS355TE-17							
C528	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V	D651	8-719-210-33	DIODE EC10DS2-TE12L5							
C529	1-126-947-11	ELECT	47uF	20.00%	16V	D652	8-719-210-33	DIODE EC10DS2-TE12L5							
< CONNECTOR >							D683	8-719-988-61	DIODE 1SS355TE-17						
*****							D684	8-719-988-61	DIODE 1SS355TE-17						

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UCOM

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		<u>Remarks</u>	
D685	8-719-988-61	DIODE	1SS355TE-17		R581	1-216-841-11	METAL CHIP	47K	5% 1/16W	
D686	8-719-988-61	DIODE	1SS355TE-17		R582	1-216-841-11	METAL CHIP	47K	5% 1/16W	
D687	8-719-988-61	DIODE	1SS355TE-17		R583	1-216-833-11	METAL CHIP	10K	5% 1/16W	
< GROUND TERMINAL BOARD >										
EPT601	1-537-770-21	TERMINAL BOARD, GROUND			R584	1-216-833-11	METAL CHIP	10K	5% 1/16W	
EPT602	1-537-770-21	TERMINAL BOARD, GROUND			R585	1-216-833-11	METAL CHIP	10K	5% 1/16W	
< FERRITE BEAD >										
FB512	1-414-813-11	FERRITE	0uH		R586	1-216-833-11	METAL CHIP	10K	5% 1/16W	
FB601	1-216-295-91	SHORT CHIP	0		R588	1-216-827-11	METAL CHIP	3.3K	5% 1/16W	
< IC >										
IC501	6-803-391-01	IC	uPD703260YGF-S07-JBT-A		R591	1-216-833-11	METAL CHIP	10K	5% 1/16W	
IC651	8-759-450-47	IC	BA05T		R592	1-216-809-11	METAL CHIP	100	5% 1/16W	
IC652	8-759-450-47	IC	BA05T		R593	1-216-809-11	METAL CHIP	100	5% 1/16W	
IC653	6-701-760-01	IC	uPC3504AHF		R594	1-216-809-11	METAL CHIP	100	5% 1/16W	
IC654	8-759-231-57	IC	TA7810S		R595	1-216-809-11	METAL CHIP	100	5% 1/16W	
IC671	8-759-598-69	IC	BA6956AN		R596	1-216-809-11	METAL CHIP	100	5% 1/16W	
IC681	8-759-666-13	IC	PST9229NL		R597	1-216-829-11	METAL CHIP	4.7K	5% 1/16W	
(AEP,UK) (RU)										
< COIL >										
L651	1-414-398-11	INDUCTOR	10uH		R598	1-216-829-11	METAL CHIP	4.7K	5% 1/16W	
L652	1-414-398-11	INDUCTOR	10uH		R599	1-216-829-11	METAL CHIP	4.7K	5% 1/16W	
< TRANSISTOR >										
Q501	6-550-363-01	TRANSISTOR	2SB1690KT146		R600	1-216-829-11	METAL CHIP	4.7K	5% 1/16W	
Q502	8-729-900-53	TRANSISTOR	DTC114EKA-T146		R601	1-216-809-11	METAL CHIP	100	5% 1/16W	
Q503	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR		R602	1-216-809-11	METAL CHIP	100	5% 1/16W	
Q504	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR		R603	1-216-809-11	METAL CHIP	100	5% 1/16W	
Q505	8-729-027-23	TRANSISTOR	DTA114EKA-T146		R604	1-216-809-11	METAL CHIP	100	5% 1/16W	
Q507	8-729-027-23	TRANSISTOR	DTA114EKA-T146		R605	1-216-809-11	METAL CHIP	100	5% 1/16W	
Q601	8-729-040-20	TRANSISTOR	RT1P137L-TP		R607	1-216-864-11	METAL CHIP	0	5% 1/16W	
Q602	8-729-900-53	TRANSISTOR	DTC114EKA-T146		R608	1-216-833-11	METAL CHIP	10K	5% 1/16W	
Q681	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR		R611	1-216-809-11	METAL CHIP	100	5% 1/16W	
< RESISTOR >										
R501	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R612	1-216-809-11	METAL CHIP	100	5% 1/16W
R502	1-216-845-11	METAL CHIP	100K	5%	1/16W	R621	1-216-809-11	METAL CHIP	100	5% 1/16W
R503	1-216-833-11	METAL CHIP	10K	5%	1/16W	R622	1-216-809-11	METAL CHIP	100	5% 1/16W
R510	1-216-833-11	METAL CHIP	10K	5%	1/16W	R623	1-216-809-11	METAL CHIP	100	5% 1/16W
R517	1-216-845-11	METAL CHIP	100K	5%	1/16W	R624	1-216-809-11	METAL CHIP	100	5% 1/16W
R522	1-216-833-11	METAL CHIP	10K	5%	1/16W	R625	1-216-809-11	METAL CHIP	100	5% 1/16W
R523	1-216-841-11	METAL CHIP	47K	5%	1/16W	R626	1-216-809-11	METAL CHIP	100	5% 1/16W
R528	1-216-853-11	METAL CHIP	470K	5%	1/16W	R627	1-216-809-11	METAL CHIP	100	5% 1/16W
R529	1-216-841-11	METAL CHIP	47K	5%	1/16W	R628	1-216-809-11	METAL CHIP	100	5% 1/16W
R530	1-216-841-11	METAL CHIP	47K	5%	1/16W	R629	1-216-809-11	METAL CHIP	100	5% 1/16W
R531	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R630	1-216-809-11	METAL CHIP	100	5% 1/16W
R532	1-216-864-11	METAL CHIP	0	5%	1/16W	R631	1-216-821-11	METAL CHIP	1K	5% 1/16W
R537	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R632	1-216-821-11	METAL CHIP	1K	5% 1/16W
R538	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R633	1-216-809-11	METAL CHIP	100	5% 1/16W
R545	1-216-833-11	METAL CHIP	10K	5%	1/16W	R634	1-216-809-11	METAL CHIP	100	5% 1/16W
R560	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R635	1-216-809-11	METAL CHIP	100	5% 1/16W
R561	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R636	1-216-809-11	METAL CHIP	100	5% 1/16W
R569	1-216-833-11	METAL CHIP	10K	5%	1/16W	R637	1-216-809-11	METAL CHIP	100	5% 1/16W
R578	1-216-833-11	METAL CHIP	10K	5%	1/16W	R638	1-216-809-11	METAL CHIP	100	5% 1/16W
R580	1-216-835-11	METAL CHIP	15K	5%	1/16W	R639	1-216-809-11	METAL CHIP	100	5% 1/16W
						R640	1-216-809-11	METAL CHIP	100	5% 1/16W
						R641	1-216-809-11	METAL CHIP	100	5% 1/16W
						R642	1-216-809-11	METAL CHIP	100	5% 1/16W
						R651	1-216-809-11	METAL CHIP	100	5% 1/16W
						R653	1-216-809-11	METAL CHIP	100	5% 1/16W
						R654	1-216-809-11	METAL CHIP	100	5% 1/16W
						R671	1-216-820-11	METAL CHIP	820	5% 1/16W
						R672	1-216-821-11	METAL CHIP	1K	5% 1/16W
						R673	1-216-829-11	METAL CHIP	4.7K	5% 1/16W

Ref. No.	Part No.	Description			Remarks
R674	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R675	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R676	1-216-833-11	METAL CHIP	10K	5%	1/16W
R677	1-216-833-11	METAL CHIP	10K	5%	1/16W
R681	1-216-813-11	METAL CHIP	220	5%	1/16W
R682	1-216-833-11	METAL CHIP	10K	5%	1/16W
R683	1-216-833-11	METAL CHIP	10K	5%	1/16W
R684	1-216-841-11	METAL CHIP	47K	5%	1/16W
R685	1-216-845-11	METAL CHIP	100K	5%	1/16W
R687	1-216-841-11	METAL CHIP	47K	5%	1/16W
R688	1-216-829-11	METAL CHIP	4.7K	5%	1/16W

< VIBRATOR >

X501 1-795-058-21 VIBRATOR, CERAMIC 5MHz

MISCELLANEOUS

57	1-773-039-11	WIRE (FLAT TYPE) (17 CORE)
102	1-775-267-11	WIRE (FLAT TYPE) (29 CORE)
△107	1-575-651-21	CORD, POWER
108	1-763-697-21	DC FAN (AEP,UK)
108	1-787-094-11	FAN, DC (RU)
109	1-500-386-21	FILTER, CLAMP (FERRITE CORE)
116	1-773-989-11	WIRE (FLAT TYPE) (5 CORE)
118	1-775-152-11	WIRE (FLAT TYPE) (17 CORE)
119	1-775-083-11	WIRE (FLAT TYPE) (9 CORE)
120	1-827-627-11	WIRE (FLAT TYPE) (15 CORE)
121	1-769-937-11	WIRE (FLAT TYPE) (11 CORE)
122	1-775-102-11	WIRE (FLAT TYPE) (11 CORE)
123	1-775-189-11	WIRE (FLAT TYPE) (21 CORE)
403	1-773-983-11	WIRE (FLAT TYPE)(5 CORE)
407	1-689-264-11	PWB, FLEXIBLE (24 CORE)
△408	1-477-263-11	OPTICAL PICK-UP (TDP022W)
△F902	1-533-473-12	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)
△F903	1-533-473-12	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)
△T101	1-443-067-11	TRANSFORMER, POWER

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.