

HCD-GN88D

SERVICE MANUAL

Ver 1.2 2004.03

*E Model
Australian Model*



HCD-GN88D is the amplifier, DVD player, tape deck and tuner section in MHC-GN88D.

| | | |
|--------------|------------------------------------|---------------|
| DVD Section | Model Name Using Similar Mechanism | NEW |
| | DVD Mechanism Type | CDM74D-DVBU23 |
| | Base Unit Name | DVBU23 |
| | Optical Pick-up Name | TDP022W |
| TAPE Section | Model Name Using Similar Mechanism | HCD-GN800 |
| | Tape Transport Mechanism Type | CWM43RR23 |

SPECIFICATIONS

Amplifier section

The following are measured at AC 120, 127, 220, 240V 50/60 Hz
DIN power output (rated)

Front speaker: 185 + 185 watts
(6 ohms at 1 kHz, DIN)
Center speaker: 50 watts
(8 ohms at 1 kHz, DIN)
Surround speaker: 50 + 50 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)

Front speaker: 235 + 235 watts
(6 ohms at 1 kHz, 10% THD)
Center speaker: 70 watts
(8 ohms at 1 kHz, 10% THD)
Surround speaker: 70 + 70 watts
(8 ohms at 1 kHz, 10% THD)

Inputs

GAME (VIDEO): 1 Vp-p, 75 ohms
(phono jack)
GAME (AUDIO): Voltage 250 mV,
(phono jacks) impedance 47 kilohms
MD/VIDEO (AUDIO) IN: voltage 450 mV/250 mV,
(phono jacks) impedance 47 kilohms
MIC: sensitivity 1 mV,
(phone jack) impedance 10 kilohms

Outputs

AUDIO OUT:
(phono jacks) Voltage 250 mV
impedance 1 kilohms
VIDEO OUT:
(phono jack) max. output level 1 Vp-p,
unbalanced, Sync.
negative load impedance
75 ohms

COMPONENT VIDEO OUT:

Y: 1 Vp-p, 75 ohms
Pb/Cb: 0.7 Vp-p, 75 ohms
Pb/Cr: 0.7 Vp-p, 75 ohms

S VIDEO OUT (4-pin/mini-DIN jack):

Y: 1 Vp-p, unbalanced,
Sync negative
C: 0.286 Vp-p load
impedance 75 ohms
accepts headphones of
8 ohms or more
accepts impedance of 6 to 16 ohms
Voltage 250 mV
impedance 1 kilohms
accepts impedance of
8 ohms to 16 ohms

PHONES:

(stereo mini jack)
FRONT SPEAKER:
SUBWOOFER OUT:
(phono jack)
SURROUND SPEAKER:

CENTER SPEAKER:

accept impedance of
8 ohms to 16 ohms

– Continued on next page –

Mini Hi-Fi COMPONENT SYSTEM

9-877-457-03
2004C02-1
© 2004.03

Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

SONY®

Disc player section

| | |
|---------------------------|---|
| Laser | Semiconductor laser (DVD: $\lambda = 650$ nm, CD: $\lambda = 780$ nm) Emission duration: continuous |
| Frequency response | DVD (PCM 48 kHz): 2 Hz – 22 kHz = (± 1 dB) CD: 2 Hz – 20 kHz (± 0.5 dB) |
| Video color system format | NTSC, PAL (except Latin American models) DVD DIGITAL OUT (OPTICAL) (Square optical connector jack, rear panel) |
| Wave length | 660 nm |

Tape player section

| | |
|--------------------|--|
| Recording system | 4-track 2-channel stereo |
| Frequency response | 50 – 13,000 Hz (± 3 dB), using Sony TYPE I cassette |

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

| | |
|------------------------|-------------------|
| Tuning range | 87.5 – 108.0 MHz |
| Antenna | FM lead antenna |
| Antenna terminals | 75 ohm unbalanced |
| Intermediate frequency | 10.7 MHz |

AM tuner section

| | |
|------------------------|---|
| Tuning range | North and Latin American models: 530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz) Saudi Arabian models: 531 – 1,602 kHz (with the interval set at 9 kHz) Other models: 531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz) |
| Antenna | AM loop antenna |
| Antenna terminals | External antenna terminal |
| Intermediate frequency | 450 kHz |

General

| | |
|-----------------------|--|
| Power requirements | |
| Mexican models: | 127 V AC, 60 Hz |
| Argentina models: | 220 V AC, 50/60 Hz |
| Australia models: | 230 – 240 V AC, 50/60 Hz |
| Saudi Arabian Models: | 120 – 127 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector |
| Thai models: | 220 V AC, 50/60 Hz |
| Other models: | 120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector |
| Power consumption | 320 watts |
| Dimensions (w/h/d) | Approx. 280 x 360 x 386.5 mm |
| Mass : | Approx. 15.2 kg |

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle 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.

Notes on chip component replacement

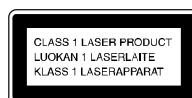
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the 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.

CAUTION

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



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



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.)



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.

TABLE OF CONTENTS

| | | | |
|---|----|---|----|
| 1. SERVICING NOTES | 4 | 7-7. Printed Wiring Board – DMB03 Board (Side A)– | 36 |
| 2. GENERAL | | Printed Wiring Board – DMB03 Board (Side B)– | 37 |
| Location of Controls | 5 | 7-8. Schematic Diagram – DMB03 Board (1/8) – | 38 |
| 3. DISASSEMBLY | | 7-9. Schematic Diagram – DMB03 Board (2/8) – | 39 |
| 3-1. Case | 8 | 7-10. Schematic Diagram – DMB03 Board (3/8) – | 40 |
| 3-2. Loading (Panel) | 8 | 7-11. Schematic Diagram – DMB03 Board (4/8) – | 41 |
| 3-3. Front Panel Assy | 9 | 7-12. Schematic Diagram – DMB03 Board (5/8) – | 42 |
| 3-4. Tuner Pack, Sub Trans Board | 9 | 7-13. Schematic Diagram – DMB03 Board (6/8) – | 43 |
| 3-5. DVD Mechanism Deck | 10 | 7-14. Schematic Diagram – DMB03 Board (7/8) – | 44 |
| 3-6. Game In Board, Tape Mechanism Deck | 10 | 7-15. Schematic Diagram – DMB03 Board (8/8) – | 45 |
| 3-7. CD Switch Board, Display Board | 11 | 7-16. Printed Wiring Board – Video, Regulator Board – | 46 |
| 3-8. Volume Board | 11 | 7-17. Schematic Diagram – Video, Regulator Board – | 47 |
| 3-9. Back Panel, Subwoofer Board | 12 | 7-18. Printed Wiring Boards – Main Board – | 48 |
| 3-10. Main Board | 12 | 7-19. Schematic Diagram – Main Board (1/4) – | 49 |
| 3-11. Power Amp Board | 13 | 7-20. Schematic Diagram – Main Board (2/4) – | 50 |
| 3-12. Video Board, DMB03 Board, Regulator Board | 13 | 7-21. Schematic Diagram – Main Board (3/4) – | 51 |
| 3-13. SW Board, Driver Board | 14 | 7-22. Schematic Diagram – Main Board (4/4) – | 52 |
| 3-14. RF Board, Pick-up Unit | 14 | 7-23. Printed Wiring Boards | |
| 3-15. Sensor Board | 15 | – Game In, CD Switch Board – | 53 |
| 3-16. Motor (TB) Board | 15 | 7-24. Schematic Diagram | |
| 3-17. Motor (LD) Board | 16 | – Game In, CD Switch Board – | 54 |
| 4. TEST MODE | 17 | 7-25. Printed Wiring Board – Display Board – | 55 |
| 5. MECHANICAL ADJUSTMENTS | 19 | 7-26. Schematic Diagram – Display Board – | 56 |
| 6. ELECTRICAL ADJUSTMENTS | | 7-27. Printed Wiring Board – Power Amp Board – | 57 |
| Deck section | 19 | 7-28. Schematic Diagram – Power Amp Board – | 58 |
| Video Section | 22 | 7-29. Printed Wiring Board – Surround Board – | 59 |
| 7. DIAGRAMS | | 7-30. Schematic Diagram – Surround Board – | 60 |
| 7-1. Circuit Board Location | 24 | 7-31. Printed Wiring Boards – Trans Board – | 61 |
| 7-2. Block Diagram – DVD DSP (1/2) Section – | 26 | 7-32. Schematic Diagram – Trans Board – | 62 |
| Block Diagram – DVD DSP (2/2) Section – | 27 | 7-33. IC Block Diagram | 63 |
| Block Diagram – Tuner/Tape Deck Section – | 28 | 7-34. IC Pin Function Description | 68 |
| Block Diagram – Main Section – | 29 | 8. EXPLODED VIEWS | |
| Block Diagram – Amp Section – | 30 | 8-1. Case, Back Panel DMB03 Board Section | 79 |
| Block Diagram – Display Section – | 31 | 8-2. Front Panel Section | 80 |
| 7-3. Printed Wiring Board – RF Board – | 32 | 8-3. Chassis Section | 81 |
| 7-4. Schematic Diagram – RF Board – | 33 | 8-4. DVD Mechanism Deck Section-1 | |
| 7-5. Printed Wiring Board – DVD Mechanism Board – | 34 | (CDM74D-DVBU43) | 82 |
| 7-6. Schematic Diagram – DVD Mechanism Board – | 35 | 8-5. DVD Mechanism Deck Section-2 | |
| | | (CDM74D-DVBU43) | 83 |
| | | 9. ELECTRICAL PARTS LIST | 84 |

SECTION 1

SERVICING NOTES

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

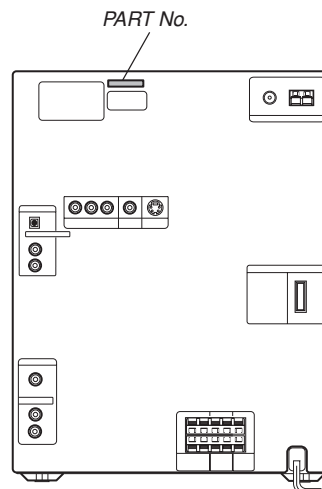
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveforms is output three times.

• MODEL IDENTIFICATION

– Back Panel –



| MODEL | PART No. |
|----------------|--------------|
| E3, E15 models | 4-246-186-0□ |
| SP model | 4-246-186-1□ |
| MY model | 4-246-186-2□ |
| EA model | 4-246-186-3□ |
| E51 model | 4-246-186-4□ |
| MX model | 4-246-186-5□ |
| TH model | 4-246-186-6□ |
| AUS model | 4-246-186-7□ |
| PH model | 4-246-186-8□ |

• Abbreviation

| | |
|-----|------------------------------|
| AUS | : Australian model |
| E3 | : 240 V AC Area in E model |
| EA | : Saudi Arabia model |
| E15 | : Iran model |
| E51 | : Chilean and Peruvian model |
| MX | : Mexican model |
| PH | : Philippines model |
| SP | : Singapore model |
| MY | : Malaysia model |
| TH | : Thai model |

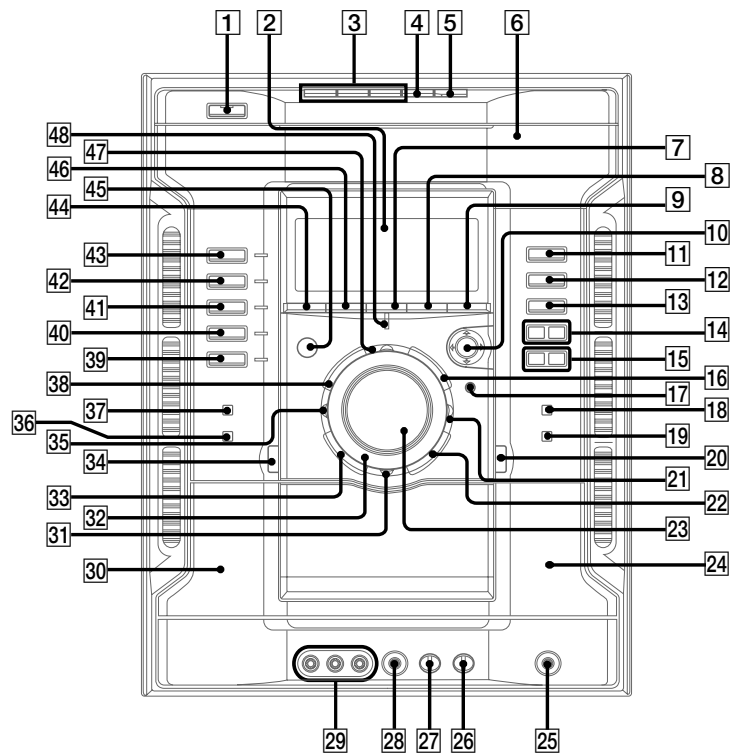
DVD TRAY LOCK MODE

- This mode let you lock the disc trays. When this mode is activated, the disc tray will not open when button or button is pressed. The message "LOCKED" will be displayed in the will be displayed on the fluorescent indicator tube.

Procedure:

- Press button to turn the set ON.
- Select DVD function.
- Press button and button simultaneously and hold down until "LOCKED" or "UNLOCKED" displayed on the fluorescent indicator tube (around 5 seconds).

Main unit



Remote Control

ALPHABETICAL ORDER

A - D

ALBUM +/- [35]
 AMP MENU [43]
 ANGLE [23]
 AUDIO [24]
 CLEAR [13]
 CLOCK/TIMER SELECT [2]
 CLOCK/TIMER SET [3]
 D.SKIP [11]
 DISPLAY [44]
 DVD [48]
 DVD DISPLAY [42]
 DVD MENU [33]
 DVD SETUP [40]
 DVD TOP MENU [34]

E - N

EFFECT ON/OFF [21]
 ENTER [31]
 GAME [47]
 GAME EQ [30]
 GAME MIXING [46]
 GROOVE [19]
 KEY CONTROL #/b [27]
 MD (VIDEO) [45]
 MUSIC EQ [32]
 MOVIE EQ [25]
 NEXT [37]
 Numeric button [10]

O - S

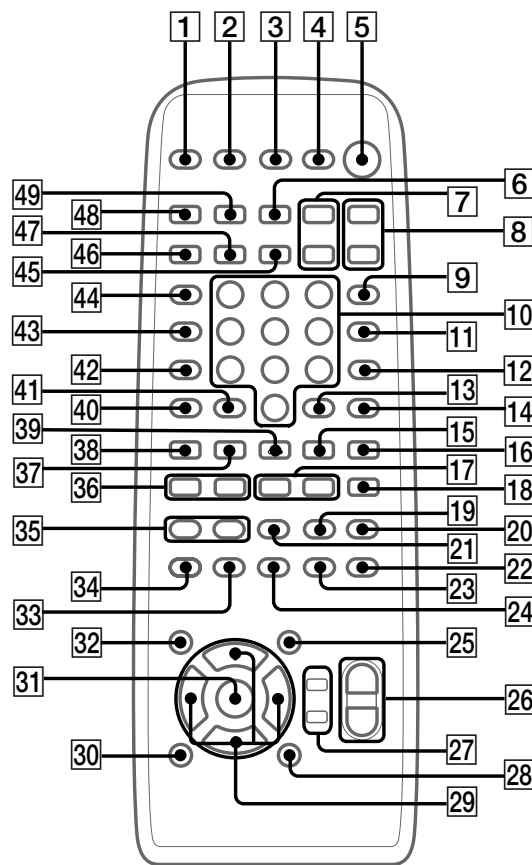
P FILE [28]
 PLAY MODE [14]
 PRESET + [37]
 PRESET - [38]
 PREV [38]
 REPEAT [12]
 RETURN ↺ [39]
 SELECT [15]
 SOUND FIELD [20]
 SUBTITLE [22]
 SLOW ◀/▶ [17]
 SLEEP [1]

T - Z

TAPE A/B [6]
 TUNER BAND [49]
 TUNING +/- [36]
 TV CH +/- [8]
 TV VOL +/- [7]
 TV/VIDEO [9]
 TV I/⏻ [4]
 VOL +/- [26]

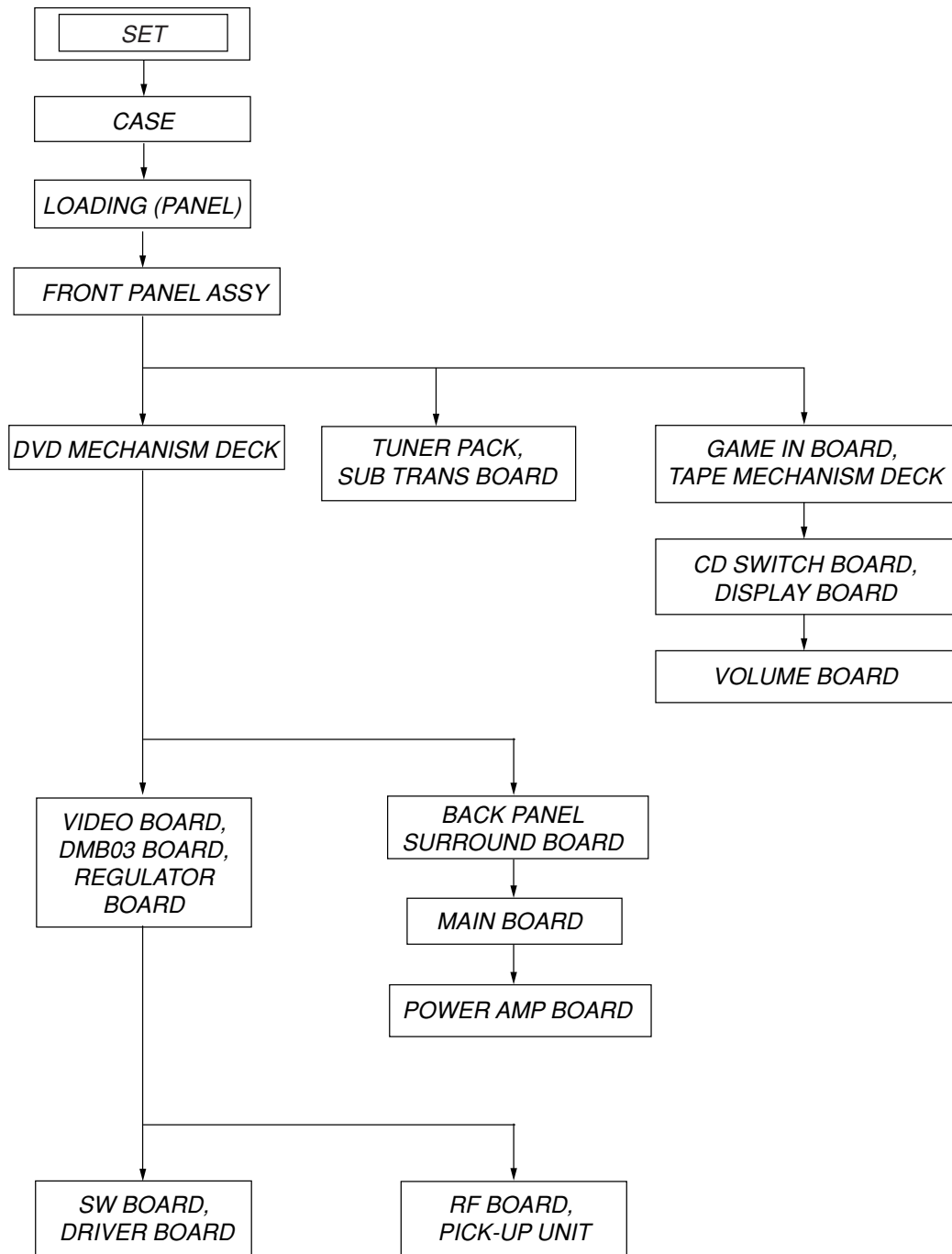
SYMBOLS

I/⏻ (power) [5]
 ■ (stop) [18]
 || (pause) [16]
 ◀▶ (play) [15]
 ▶▶ (go backward) [37]
 ◀◀ (go forward) [38]
 ▶▶/◀◀ (fast forward/rewind) [36]
 ↑/↓/◀/▶ [29]
 >10 [41]



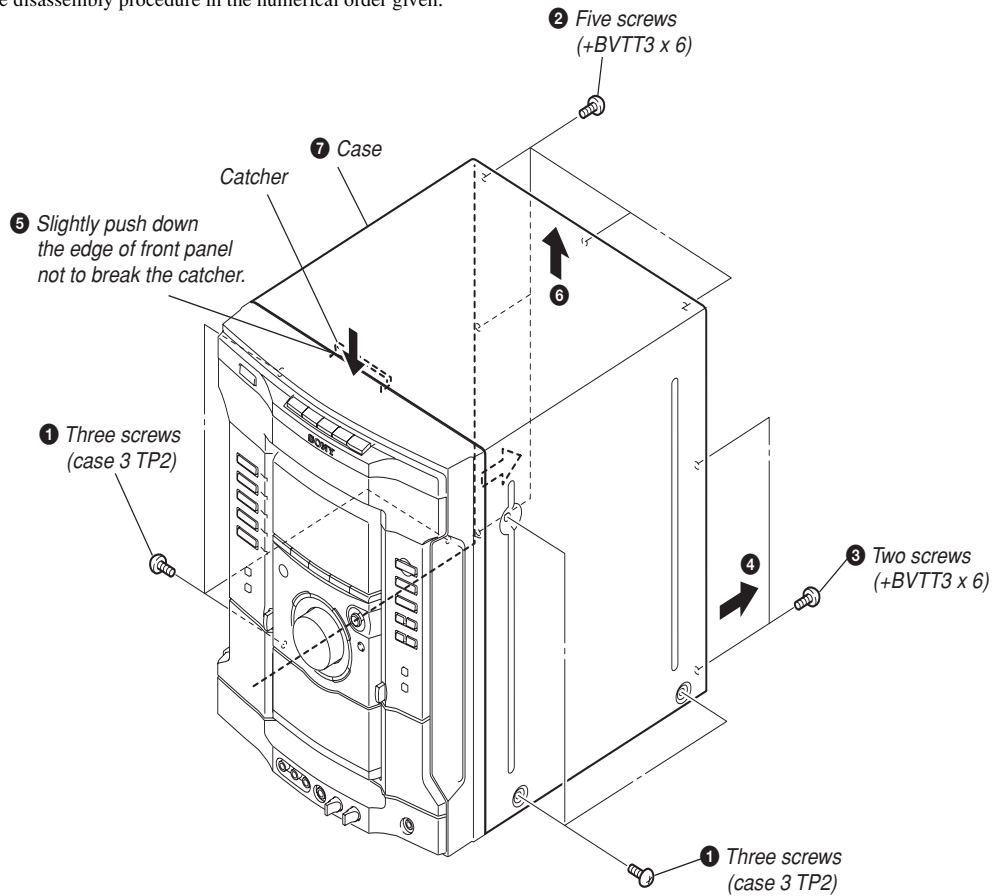
SECTION 3 DISASSEMBLY

- This set can be disassembled in the order shown below.

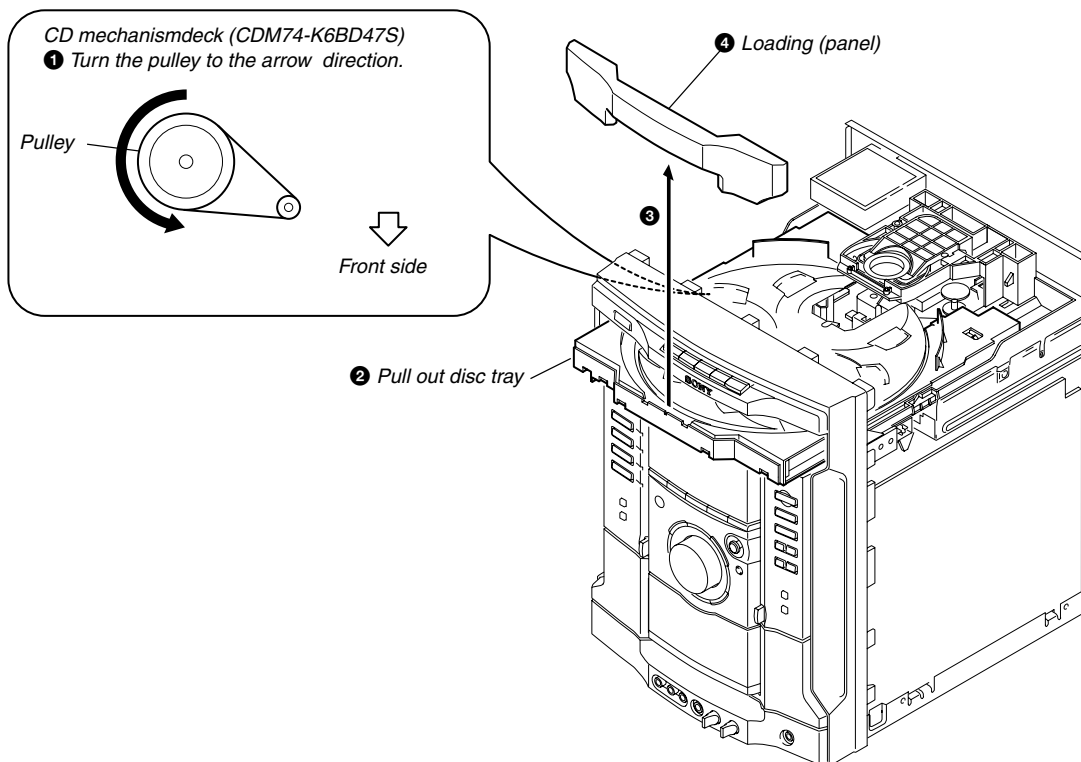


Note: Follow the disassembly procedure in the numerical order given.

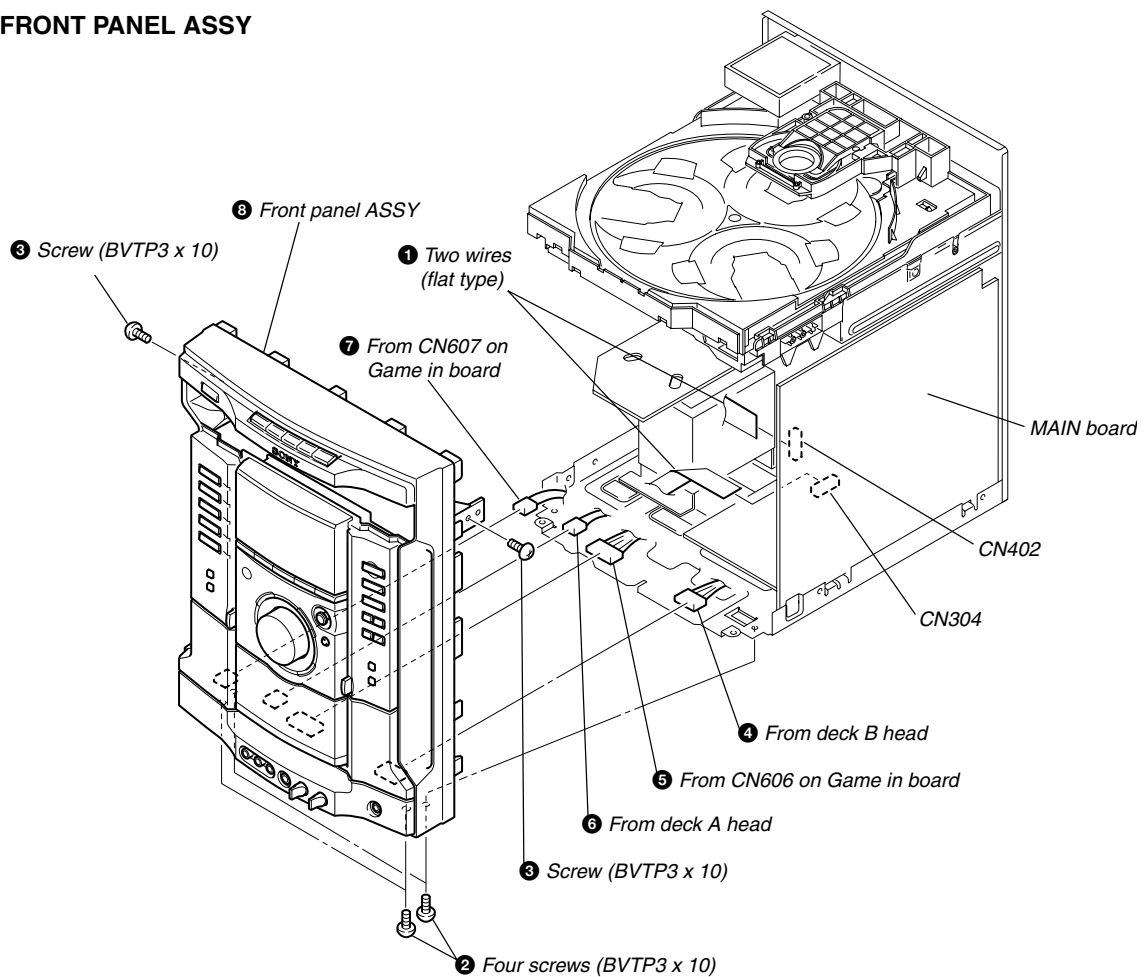
3-1. CASE



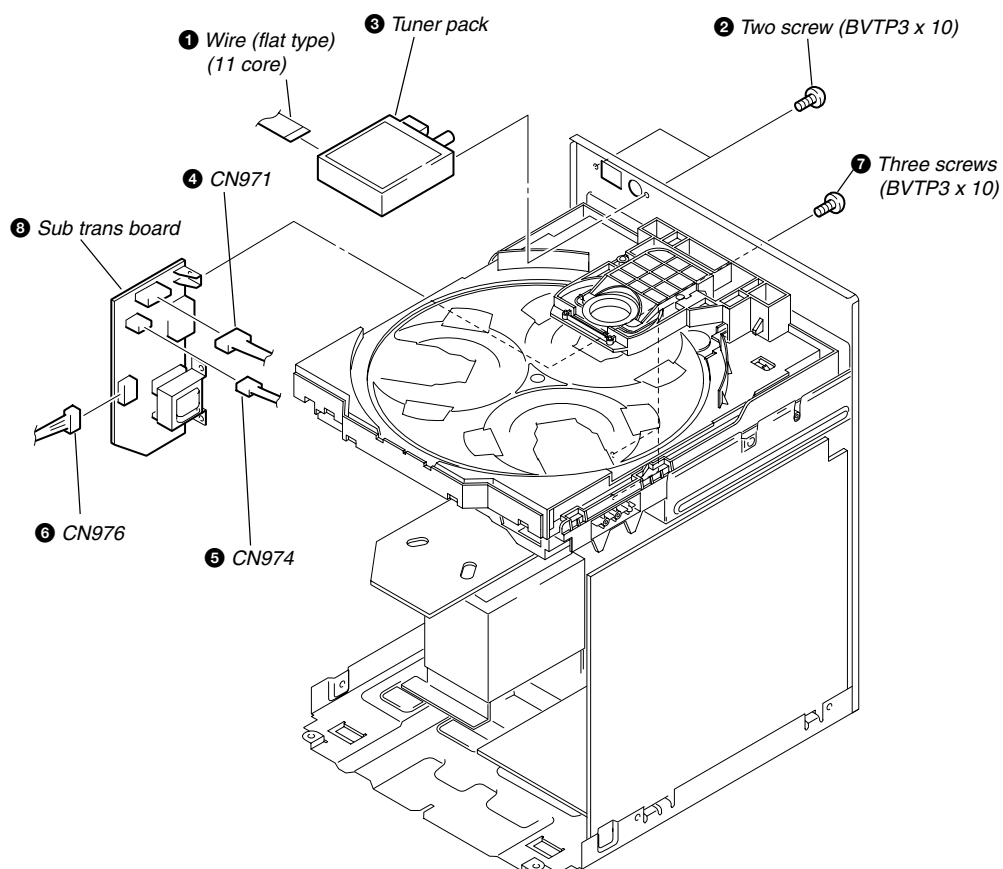
3-2. LOADING (PANEL)



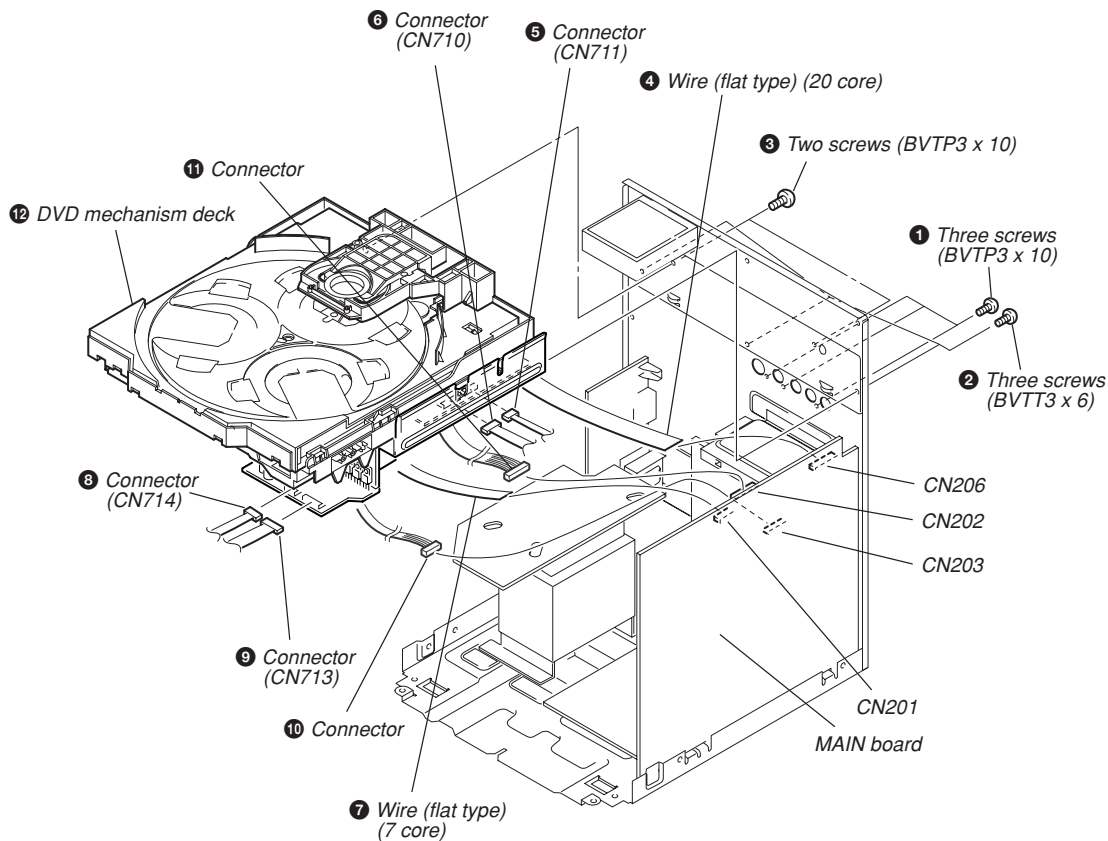
3-3. FRONT PANEL ASSY



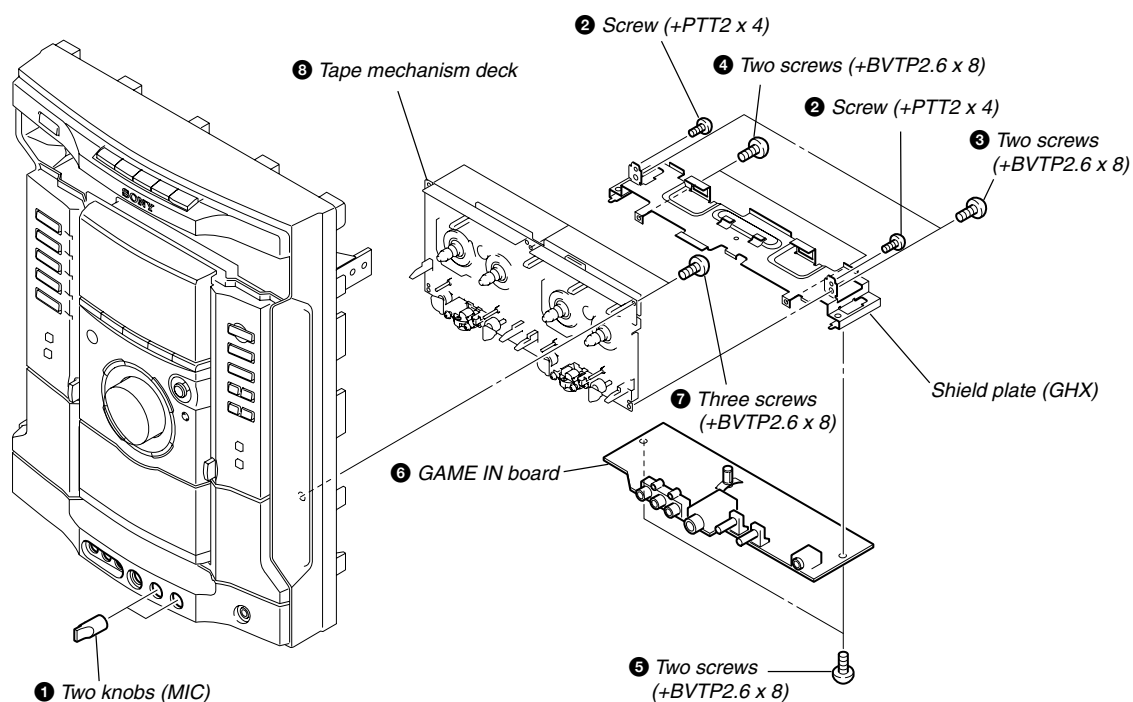
3-4. TUNER PACK, SUB TRANS BOARD



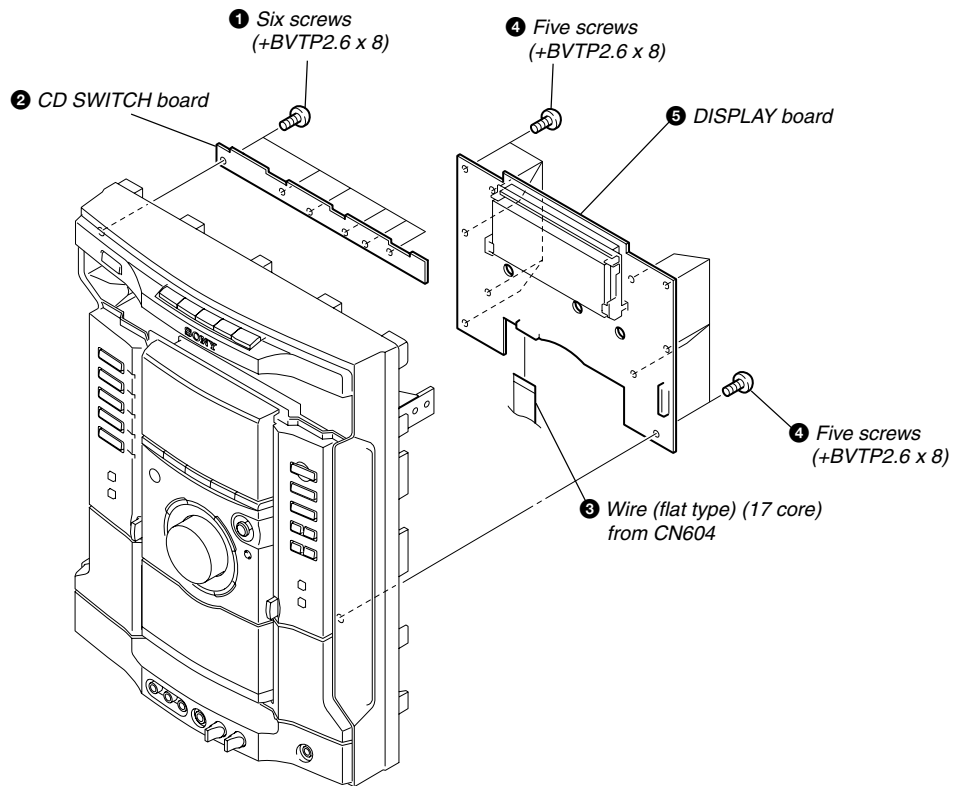
3-5. DVD MECHANISM DECK



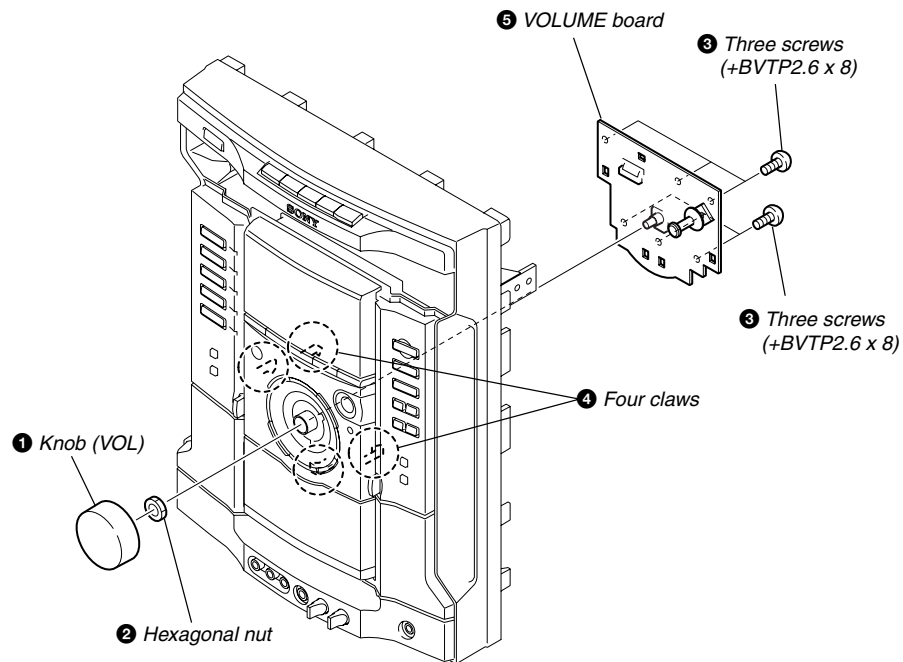
3-6. GAME IN BOARD, TAPE MECHANISM DECK



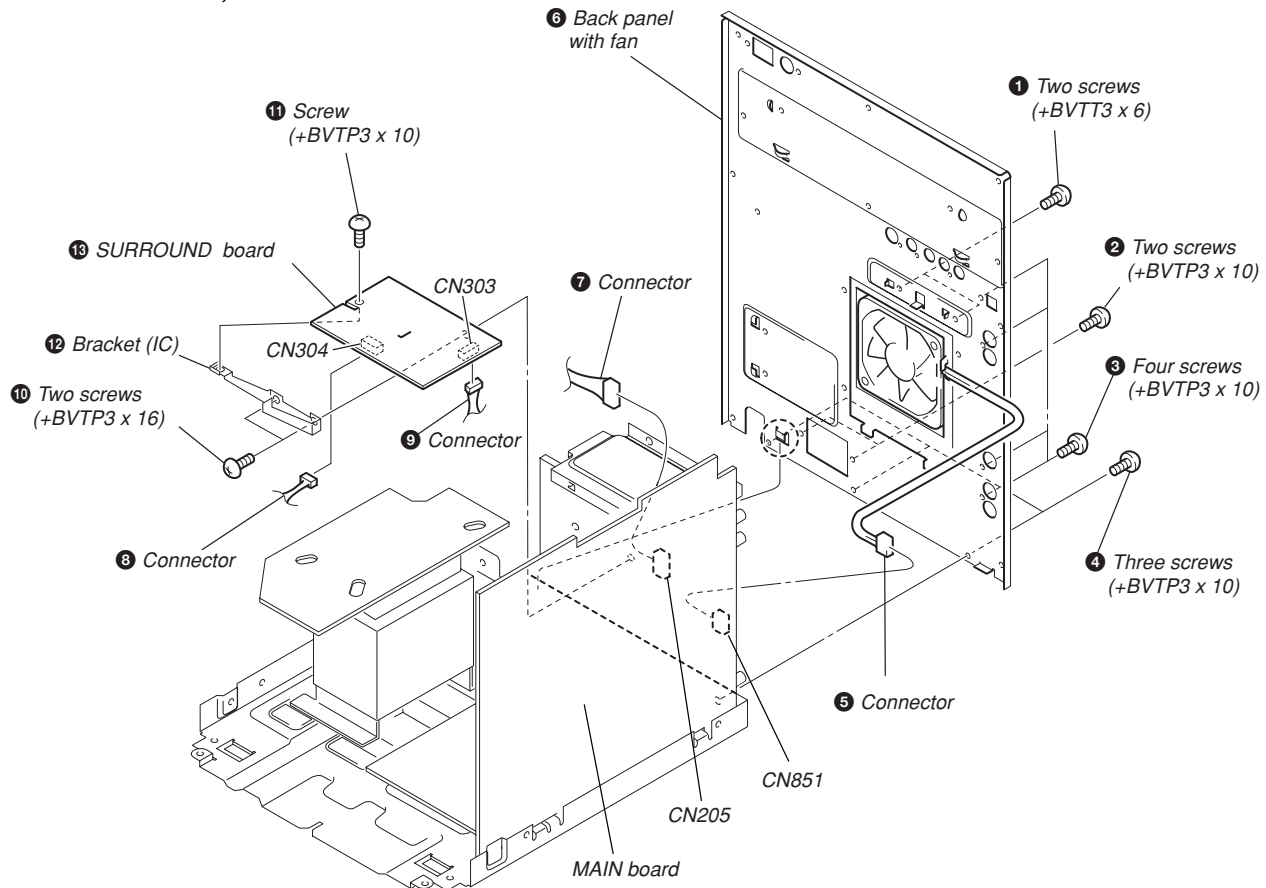
3-7. CD SWITCH BOARD, DISPLAY BOARD



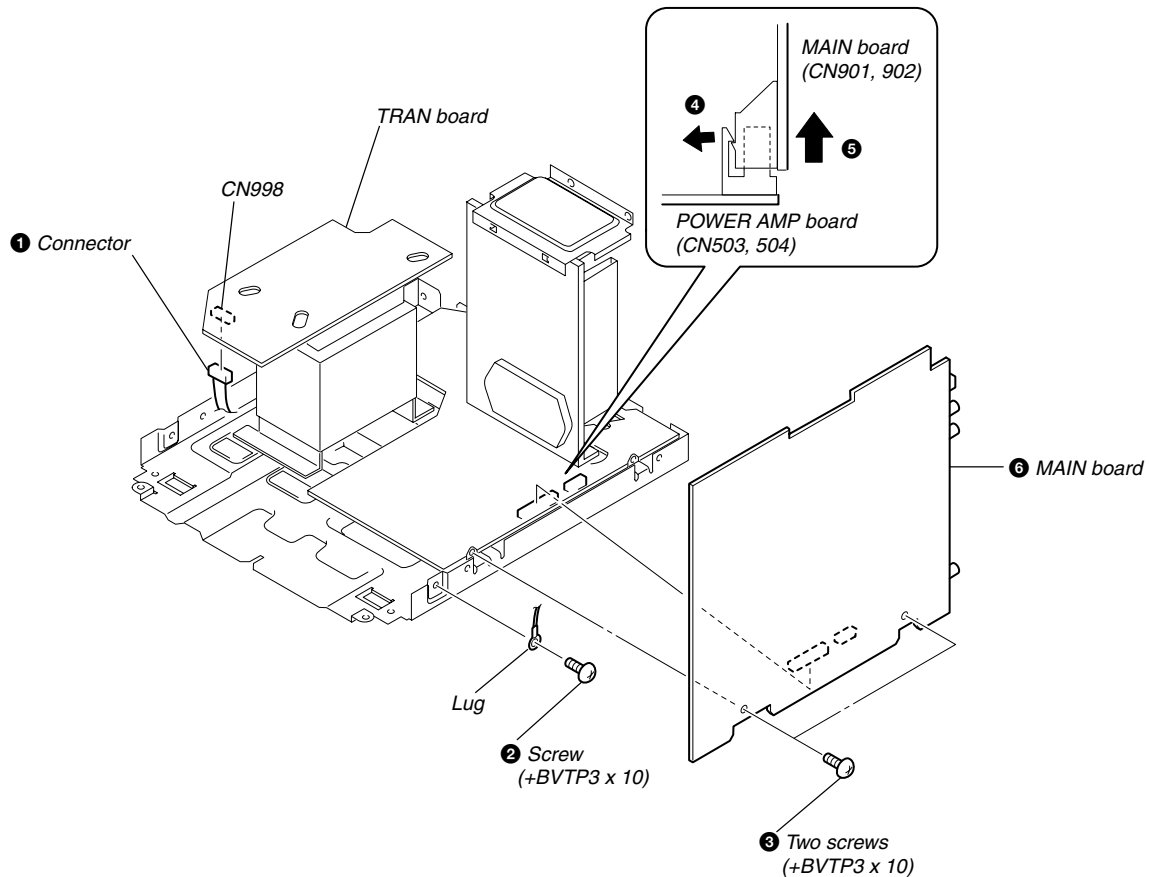
3-8. VOLUME BOARD



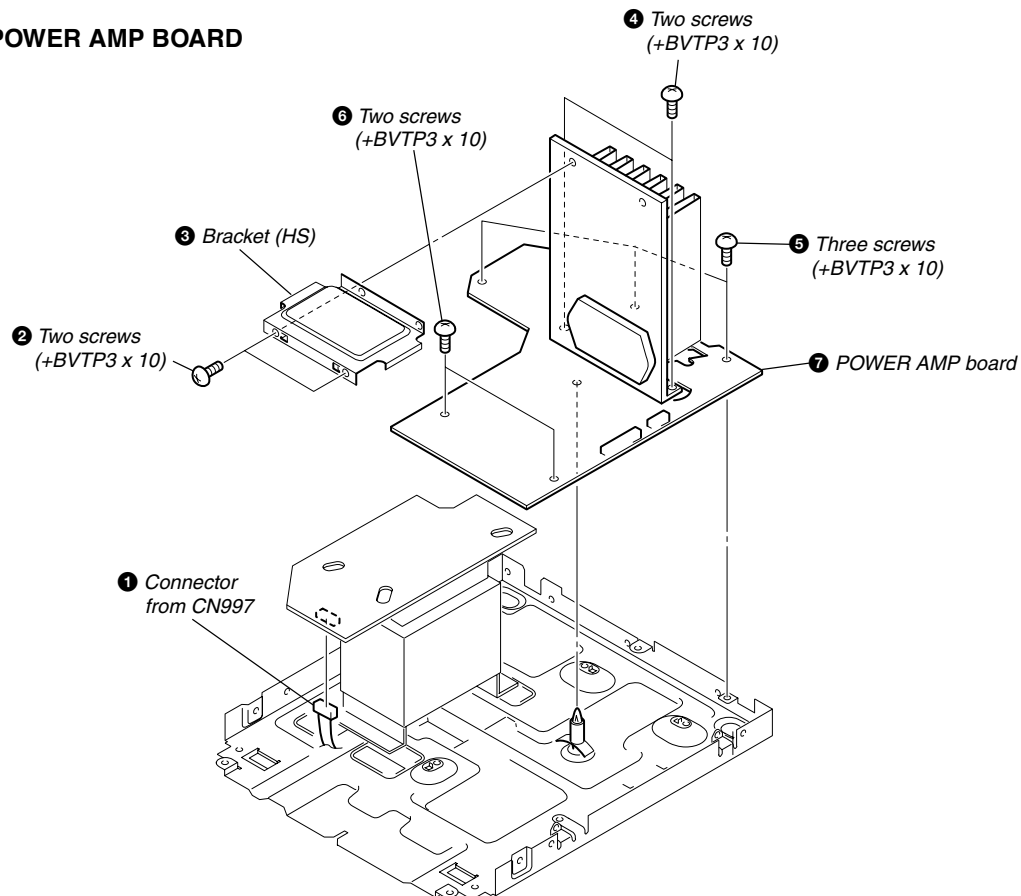
3-9. BACK PANEL, SUBWOOFER BOARD



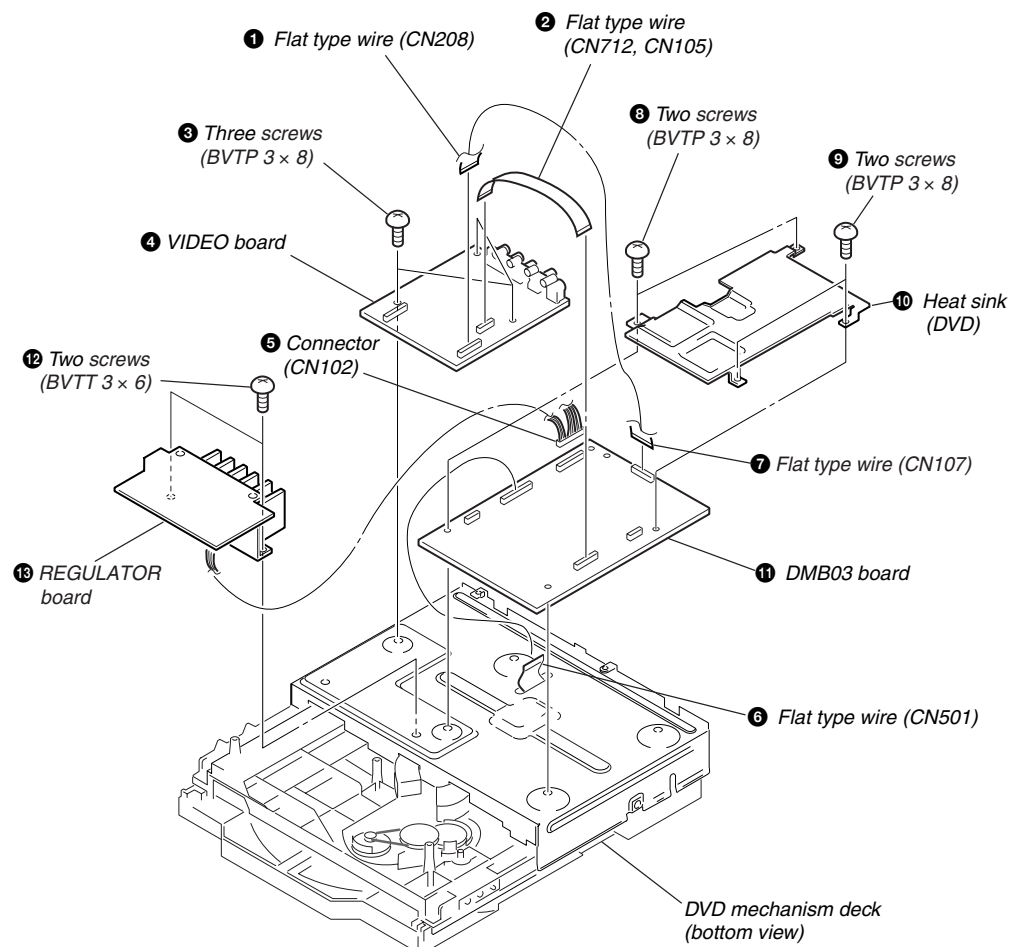
3-10. MAIN BOARD



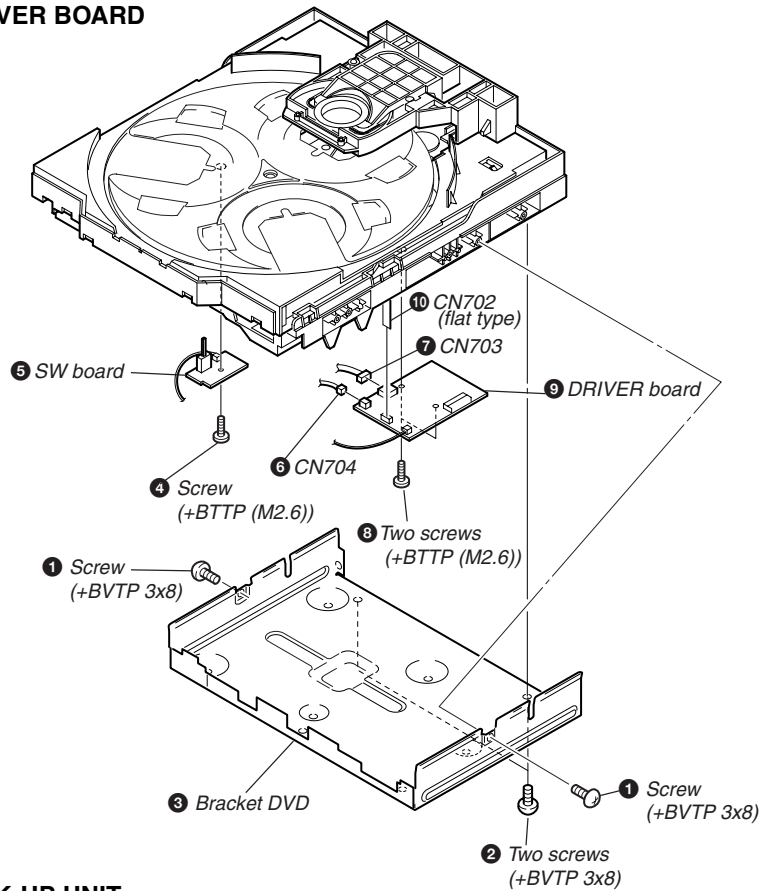
3-11. POWER AMP BOARD



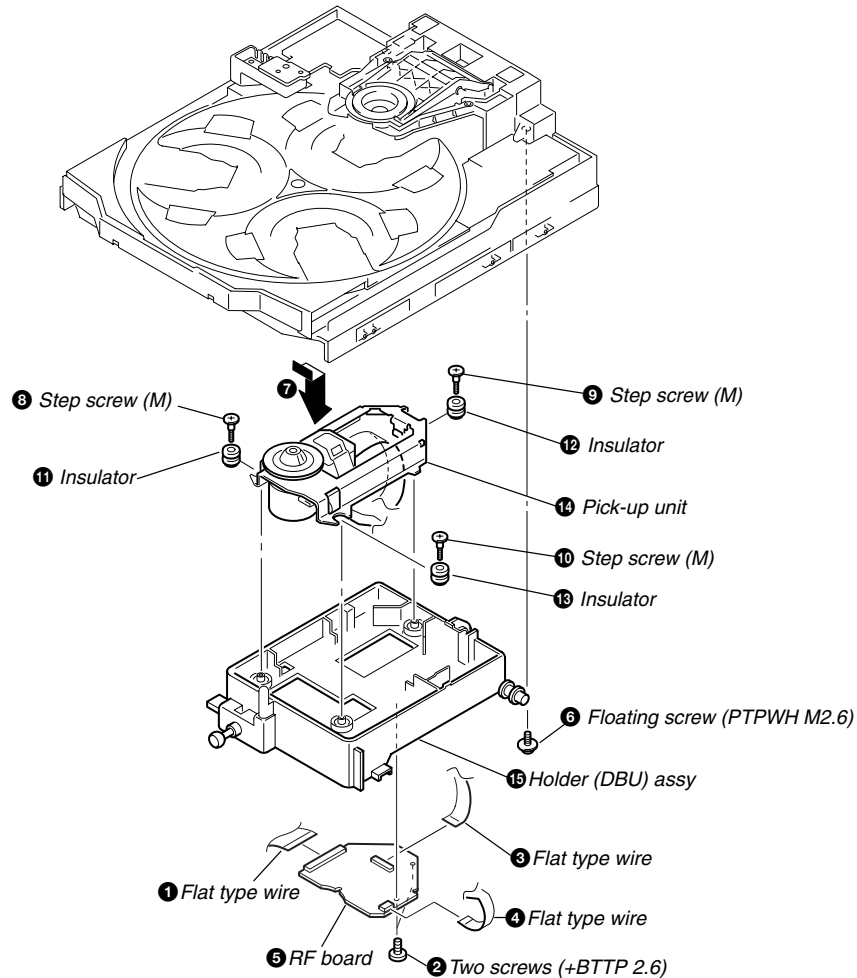
3-12. VIDEO BOARD, DMB03 BOARD, REGULATOR BOARD



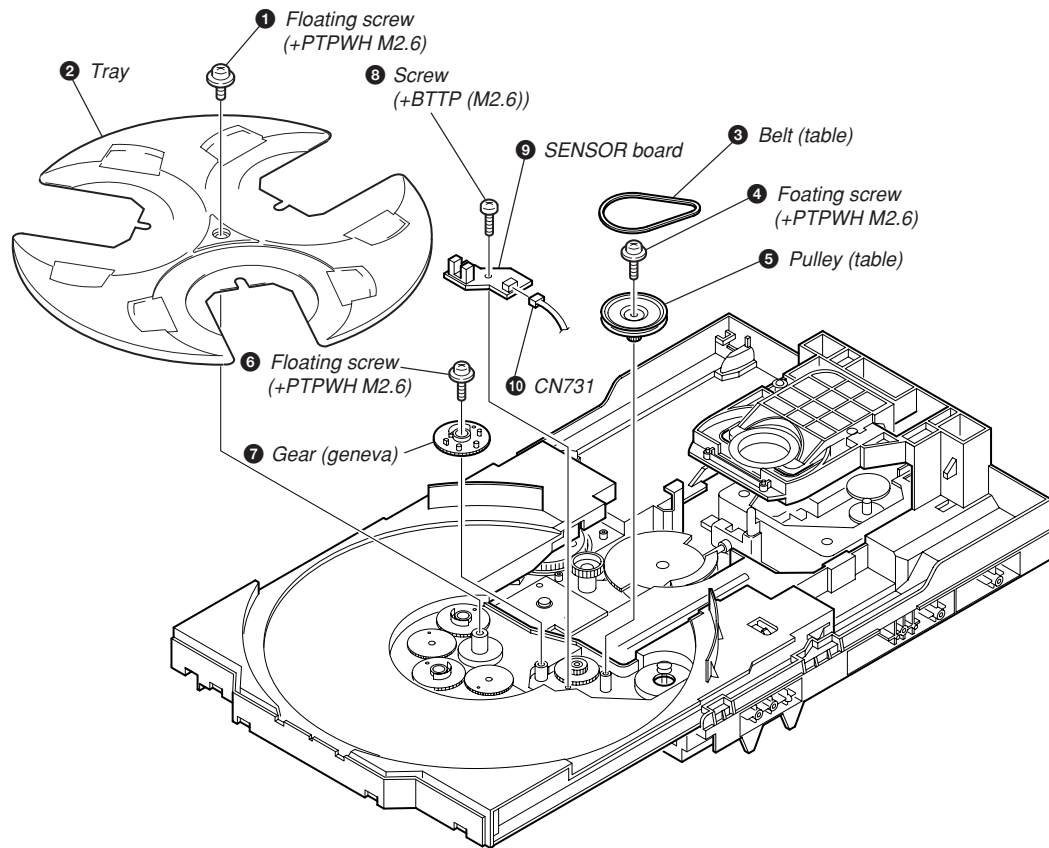
3-13. SW BOARD, DRIVER BOARD



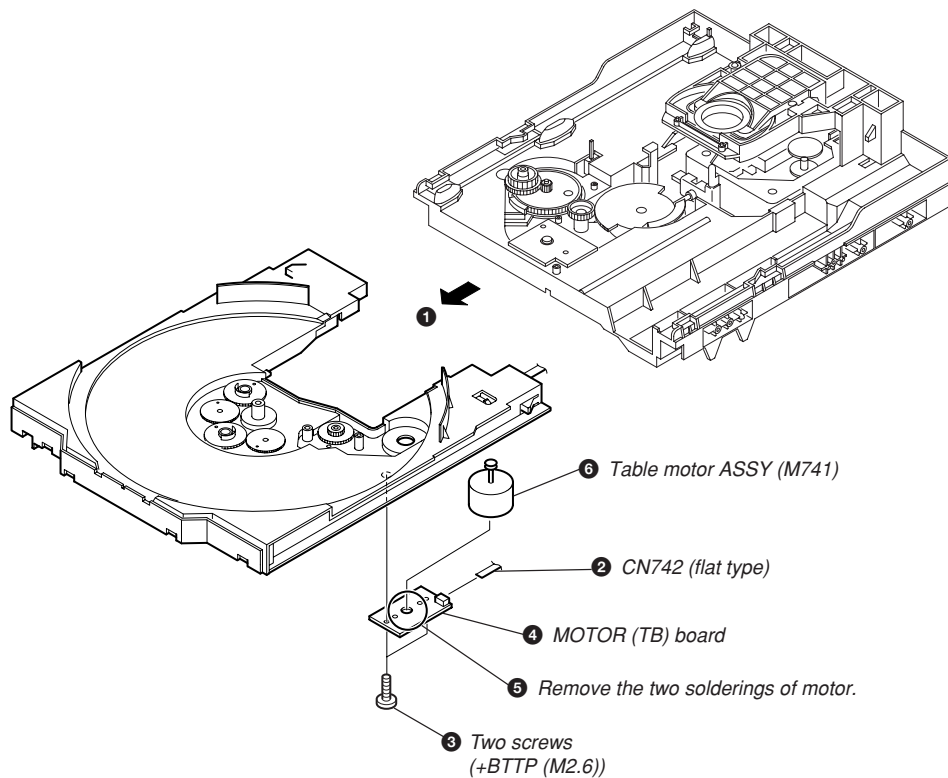
3-14. RF BOARD, PICK-UP UNIT



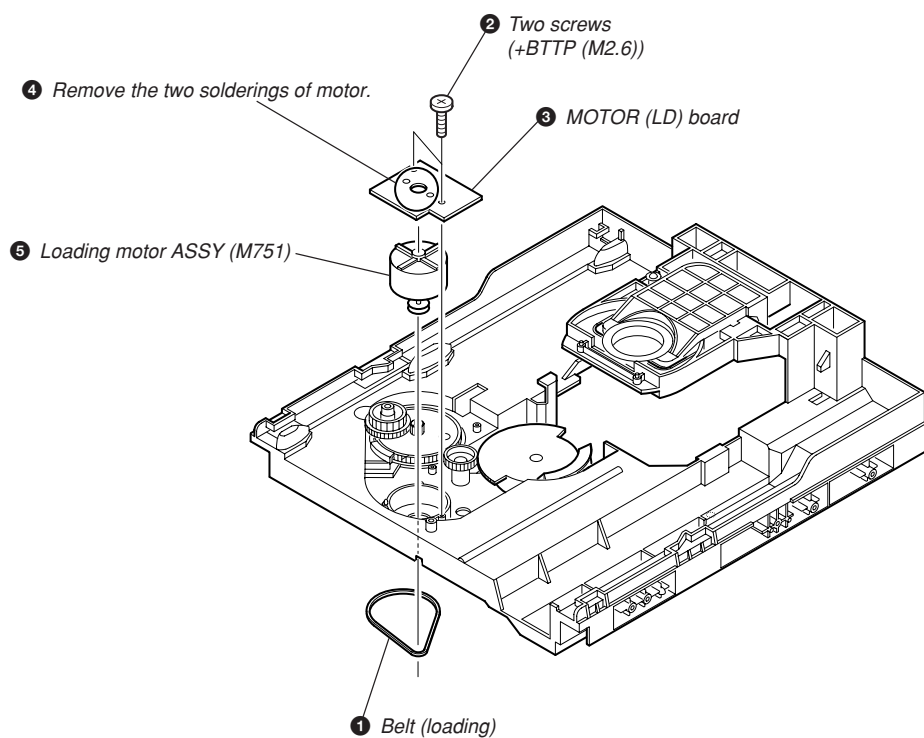
3-15. SENSOR BOARD



3-16. MOTOR (TB) BOARD



3-17. MOTOR (LD) BOARD



SECTION 4 TEST MODE

[GC TEST MODE]

- This mode is used to check the fluorescent indicator tube, LED, model, destination, software version, volume, key and VACS level.

Procedure:

- Press button, button and button simultaneously.
- All LEDs and segments in fluorescent indicator tube are lighted up.
- When you want to enter the software version display mode, press button. The model and destination are displayed.
- Each time button is pressed, the display changes from MC version, GC version, CD version, ST version, TA version, TM version and TC version in this order, and returns to the MC version display.
- When button is pressed while the version numbers are being displayed except model and destination, the date of the software creation appear. When button is pressed again, the display returns to the software version display. When button is pressed while the date of the software creation is being displayed, the date of the software creation is displayed in the same order of software version display.
- Press button, the key check mode is activated.
- In the key check mode, the fluorescent indicator tube displays "K 0 V 0".
Each time a button is pressed, "K" value increases. However, once a button has been pressed, it is no longer taken into account. "V" value increases in the manner of 0, 1, 2, 3 ... if knob is turned clockwise, or it decreases in the manner of 0, 9, 8, 7 ... if knob is turned counter-clockwise.
- When button is pressed after all LEDs and segments in fluorescent indicator tube light up, the fluorescent indicator tube displays "VACS A + B". A is VACS level which is trigger by signal level while B is VACS level which is trigger by thermal. Total VACS value would be the sum of A and B.
- When button is pressed after all LEDs and segments in fluorescent indicator tube light up, alternate segments in fluorescent indicator tube would light up. If you press button again, another half of alternate segments in fluorescent indicator tube would light up. Pressing button again would case all segments lights up.
- To release this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[MC TEST MODE]

- This mode is used to check operations of the respective sections of Amplifier, Tuner, and Tape.

Procedure:

- To enter MC Test Mode

- Press button, button and button simultaneously.
- The TAPE A and TAPE B segments flash on the fluorescent indicator tube. The function is changed to VIDEO.

* Check of Amplifier

- When button is pressed, GEQ increases to its maximum and a message "GEQ MAX" appears on the fluorescent indicator tube.
- When button is pressed, GEQ decreases to its minimum and a message "GEQ MIN" appears on the fluorescent indicator tube.
- When button or button is pressed, GEQ is set to flat and a message "GEQ FLAT" appears on the fluorescent indicator tube.
- When the knob is turned clockwise even slightly, the sound volume increases to its maximum and a message "VOLUME MAX" appears for two seconds, then the display returns to the original display.
- When the knob is turned counter-clockwise even slightly, the sound volume decreases to its minimum and a message "VOLUME MIN" appears for two seconds, then the display returns to the original display.

* Check of clock frequency

- To check the frequency of clock used to run the clock of the system, the clock output is available at IC501 pin ③ (CLOCK-OUT) on the MAIN board during MC test mode.
- The frequency is 32.768 kHz.

* Tape function

- When a tape is inserted in Deck B and recording is started, the function is changed to VIDEO automatically. When button is pressed during recording in function, ALC (Automatic Logic Control) is turned on.
- After recording is stopped by pressing button, press button will change the function to TAPE B and rewind Tape B until the recording start position and playback of Tape B is started. If the button is pressed for a pause and pressed again to resume recording during recording time, when tape deck B is rewind, tape deck B will be rewind until the position where the pause is applied.

* AMS Test Mode

- Select the function "TAPE A" or "TAPE B".
- Select Loop or Relay direction mode by pressing the button. Insert a test tape AMS-110A or AMS-120 to selected tape deck.
- Press the button to enter the AMS test mode.
- After the test tape is rewind to the beginning of the tape, the AMS+ is checked, and the mechanism is shut off after detecting the AMS signal twice.
- Then the AMS- is checked and the mechanism is shut off after detecting the AMS signal twice.
- When the check is complete, a message of either OK or NG appears.

* To release MC Test mode.

- To release this mode, press button.
- The cold reset is enforced at the same time.

[COLD RESET]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press button, button, and button simultaneously.
2. The fluorescent indicator tube becomes blank for a while, and the set is reset.

[VACS ON/OFF]

- This mode is used to switch ON and OFF the VACS (Variable Attenuation Control System).

Procedure:

1. Press button to turn the set ON.
2. Press button and button simultaneously. The message “VACS OFF” or “VACS ON” appears.

[TUNER STEP CHANGE]

- The step interval of AM channels can be toggled between 9 kHz and 10 kHz.

Procedure:

1. Press button to turn the set ON.
2. Press button to select the “AM”.
3. Press button to turn the set OFF.
4. Press button and button simultaneously. The system will turn ON automatically. The message “AM 9k STEP” or AM 10k STEP” appears and thus the channel step is changed.

[DVD REPEAT 5 LIMIT OFF MODE]

- The number of repeat for DVD playback is 5 times when the repeat mode is “REPEAT ALL”. This mode enables DVD to repeat playback for limitless times.

Procedure:

1. Press button to turn the set ON.
2. Select CD function.
3. Press button, button and button simultaneously to enter the DVD repeat 5 limit off mode.
4. To release this mode, operate the cold reset. (Refer to the “MC COLD RESET”)

[DVD SHIP MODE (WITH MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration and clears all data including preset data stored in the RAM to initial conditions. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press button to turn the set ON.
2. Select DVD function.
3. Press button, button and button simultaneously. The set will power off automatically.
4. After the “STANDBY” blinking display finish, a message “LOCK” is displayed on the fluorescent indicator tube and the DVD ship mode is set.

[DVD SHIP MODE (WITHOUT MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press button to turn the set ON.
2. Select DVD function.
3. Press button and button simultaneously. The set will power off automatically.
4. After the “STANDBY” blinking display finish, a message “LOCK” is displayed on the fluorescent indicator tube and the DVD ship mode is set.

[DVD POWER MANAGE]

- This mode let you switch on or off power supply to the BU during TUNER function.
- When DVD POWER is set to OFF, the power supply to the BU is cut off during TUNER function. It will increase the time taken to access DVD when function change from TUNER to DVD but it will improve tuner reception.
- When DVD POWER is set to ON, the power supply to the BU is not cut off during TUNER function. It will reduce the time taken to access DVD when function change from TUNER to DVD but it will decrease tuner reception performance.

Procedure:

1. Press button to turn the set ON.
2. Select DVD function.
3. Press button to turn the set OFF.
4. Press button and button simultaneously. The set will power on automatically.
5. The message “DVD POWER ON” or “DVD POWER OFF” will be displayed on the fluorescent indicator tube.

[DVD TRAY LOCK MODE]

- This mode let you lock the disc trays. When this mode is activated, the disc tray will not open when button or button is pressed. The message “LOCKED” will be displayed in the will be displayed on the fluorescent indicator tube.

Procedure:

1. Press button to turn the set ON.
2. Select DVD function.
3. Press button and button simultaneously and hold down until “LOCKED” or “UNLOCKED” displayed on the fluorescent indicator tube (around 5 seconds).

[MD/VIDEO SWITCHING]

- This mode let you switch from MD to VIDEO and vice-versa.

Procedure:

1. Press button to turn the set ON.
2. Select MD function.
3. Press button and button simultaneously. The function will change to VIDEO. Press the same buttons again to change from VIDEO to MD.

SECTION 5 MECHANICAL ADJUSTMENTS

Precaution

- Clean the following parts with a denatured alcohol-moistened swab:
record/playback heads pinch rollers
erase head rubber belts
capstan idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

| Mode | Torque meter | Meter reading |
|---------------------|--------------|--|
| FWD | CQ-102C | 3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch) |
| FWD back tension | CQ-102C | 0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch) |
| REV | CQ-102RC | 3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch) |
| REV back tension | CQ-102RC | 0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch) |
| FF/REW | CQ-201B | 6.96 N • m to 14.02 N • m 71 to 143 g • cm (0.98 – 1.99 oz • inch) |
| FWD tension | CQ-403A | 9.80 N • m 100 g or more (3.53 oz or more) |
| REV tension | CQ-403R | 9.80 N • m 100 g or more (3.53 oz or more) |

SECTION 6 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775 V

- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjust.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-CH.
- Switches and controls should be set as follows unless otherwise specified.

• Test Tape

| Tape | Signal | Used for |
|----------|----------------|-----------------------|
| P-4-A100 | 10 kHz, -10 dB | Azimuth Adjustment |
| WS-48B | 3kHz, 0dB | Tape Speed Adjustment |

RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

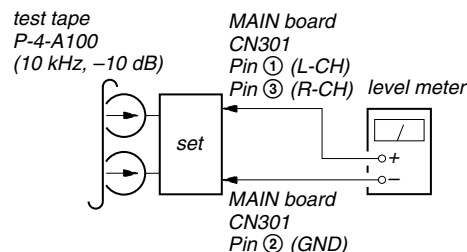
DECK A

DECK B

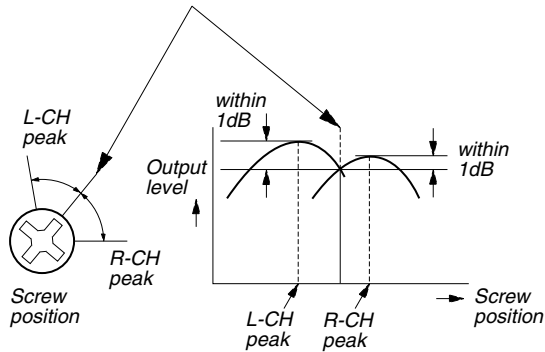
Note: Perform this adjustments for both decks

Procedure:

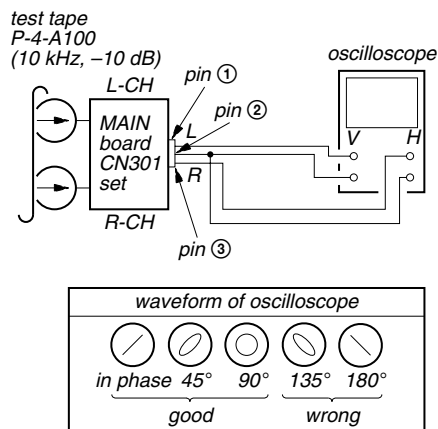
- Mode: Playback



- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.

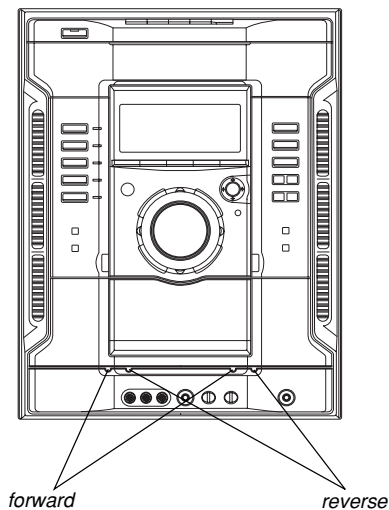


- Mode: Playback



- After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A).
Record/Playback/Erase Head (Deck B).

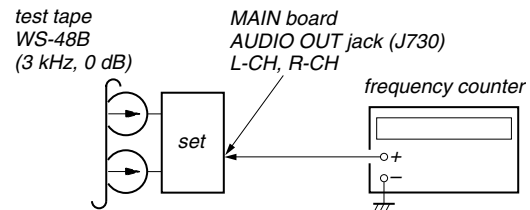


Tape Speed Adjustment

DECK B

Procedure:

Mode: Playback

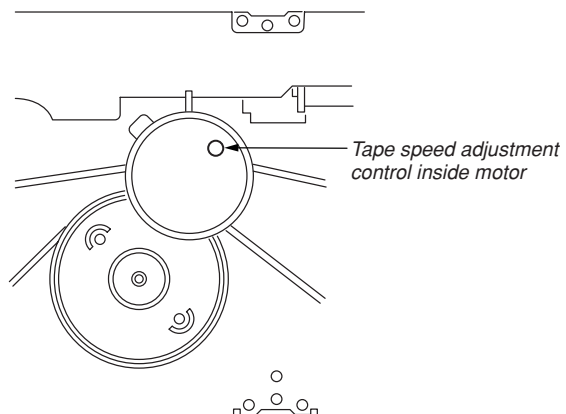


- Insert the WS-48B into the deck B.
- Press the button on the deck B.
- Adjust the tape speed adjustment control inside motor so that frequency counter reads $3,000 \pm 90\text{Hz}$.

Sample value of wow and flutter W.RMS (JIS) less than 0.3%
WS-48B

Adjustment Location:

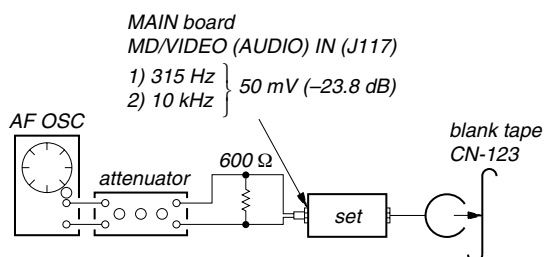
Tape speed Adjustment



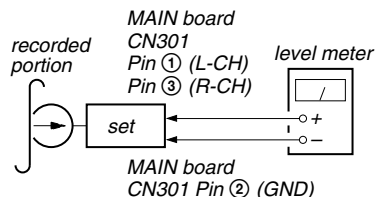
REC BIAS ADJUSTMENT DECK B**Procedure:**

In the MC test mode, the "REC memory mode" is convenient for this adjustment. In the "REC memory mode", when the REC starts the input signal FUNCTION is switched to VIDEO automatically. When the REC stops, the tape returns near to the recording start position.

1. Press **[MD (VIDEO)]** button to select VIDEO. (This step is not necessary if the above test mode has already been set)
2. Insert a tape into deck B.
3. After press **[REC PAUSE/START]** button, press **[REC PAUSE/START]** button, then recording start.
4. Mode: Record



5. Mode: Playback



6. Confirm the playback signal recorded in step 3 becomes adjustable level as follows.
If these levels are not adjustable level, adjust the RV304 (L-CH) and RV354 (R-CH) on the MAIN board to repeat steps 4 and 5.

Adjustable level: Playback output of 315 Hz to playback output of 10 kHz: ± 1.0 dB

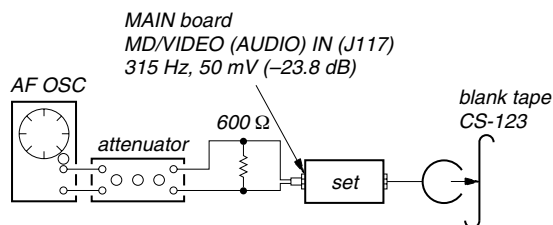
Adjustment Location: MAIN board

REC LEVEL ADJUSTMENT DECK B**Procedure:**

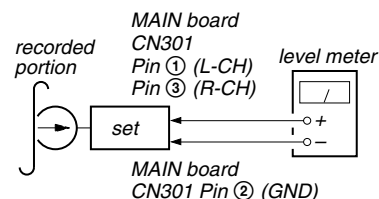
In the MC test mode, the "REC memory mode" is convenient for this adjustment. In the "REC memory mode", when the REC starts the input signal FUNCTION is switched to VIDEO automatically. When the REC stops, the tape returns near to the recording start position.

1. Press **[MD (VIDEO)]** button to select VIDEO. (This step is not necessary if the above test mode has already been set)
2. Insert a tape into deck B.
3. After press **[REC PAUSE/START]** button, press **[REC PAUSE/START]** button, then recording start.

4. Mode: Record



5. Mode: Playback



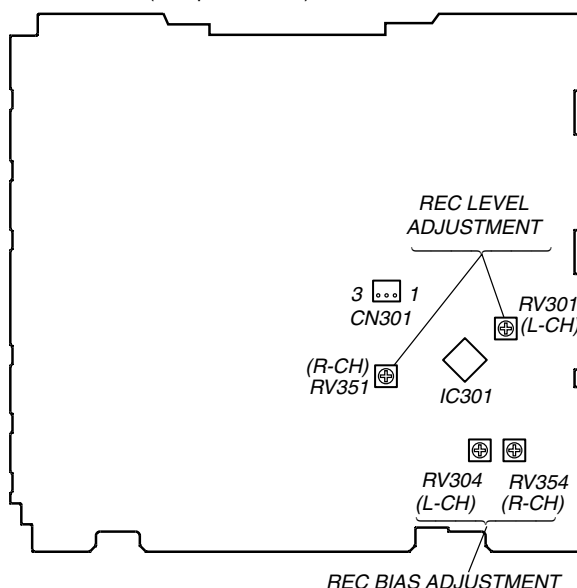
6. Confirm the play back signal recorded in step 3 becomes adjustable level as follows.

If these levels are not adjustable level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 4 and 5.

Adjustable level:

CN301 PB level: 47.2 to 53.0 mV (-24.3 to -23.3 dB)

Adjustment Location: MAIN board

- MAIN BOARD (Component Side) -

VIDEO SECTION

RE-ADJUSTMENT OF THE SERVO CIRCUIT

The re-adjustment of the servo circuit is necessary when the part which relates to the servo circuit is replaced.

Referring to [SUPPLEMENT-1 "1.DRIVE AUTO ADJUSTMENT"](#) (see page 3).

Choose ALL and do the re-adjustment of each item of DVD-SL, CD and DVD-DL.

THE PART THAT THE RE-ADJUSTMENT OF THE SERVO CIRCUIT IS NECESSARY.

1. Optical pick-up
2. RF AMP (IC001)
3. DSP IC (IC509)
4. Motor driver IC (IC501)
5. EEPROM (IC204)

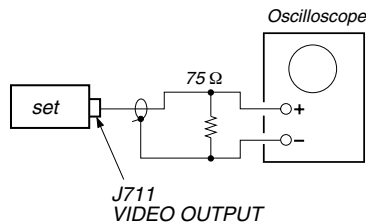
Note :

1. VIDEO board is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use DVD reference disc unless otherwise indicated.
[DVD reference disc]
 - LUV-P01 (4-999-032-01) (CD)
 - TDV-540C (J-2501-235-A) (DVD-DL)
 - TDV-520CSO (J-2501-236-A) (DVD-SL)
3. Use an oscilloscope with more than 10M Ω impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

Video Level Check (VIDEO BOARD)

Purpose

This adjustment is made to satisfy the NTSC standard, and if not adjusted correctly, the brightness will be too large or small.





Procedure:

1. Connect oscilloscope to VIDEO output.
2. Load a DVD reference disc playback.
3. Check the video signal level is 1.00 ± 0.05 Vp-p.

















SECTION 7 DIAGRAMS

Note on Schematic Diagram:

- 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.
- Δ : internal component.
-  : nonflammable resistor.
-  : fusible resistor.

Note:



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

-  : panel designation.
-  : B+ Line.
-  : B- Line.
-  : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- RF, DMB03, VIDEO, REGULATOR boards section
no mark: DVD PLAY
Other board section
no mark: TUNER (FM/AM)
(): DVD PLAY
< >: TAPE PLAY
[]: TAPE REC
- Voltages are taken with a VOM (Input impedance 10 $\text{M}\Omega$).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : TUNER (FM/AM)
 : TAPE PLAY (DECK A)
 : TAPE PLAY (DECK B)
 : RECORD
 : DVD PLAY
 : DVD PLAY (DIGITAL OUT)
 : MD/VIDEO (AUDIO) IN
 : GAME IN (AUDIO)
 : GAME IN (VIDEO)
 : MIC INPUT

• Abbreviation

AUS : Australian model
E3 : 240 V AC Area in E model
EA : Saudi Arabia model
E15 : Iran model
E51 : Chilean and Peruvian model
MX : Mexican model
PH : Philippines model
SP : Singapore model
MY : Malaysia model
TH : Thai model

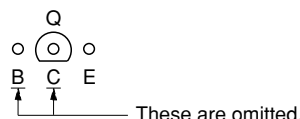
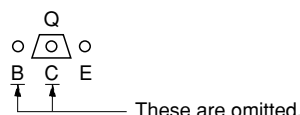
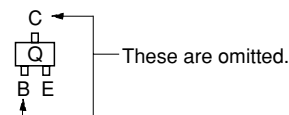
Note on Printed Wiring Boards:

-  : parts extracted from the component side.
-  : 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 the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

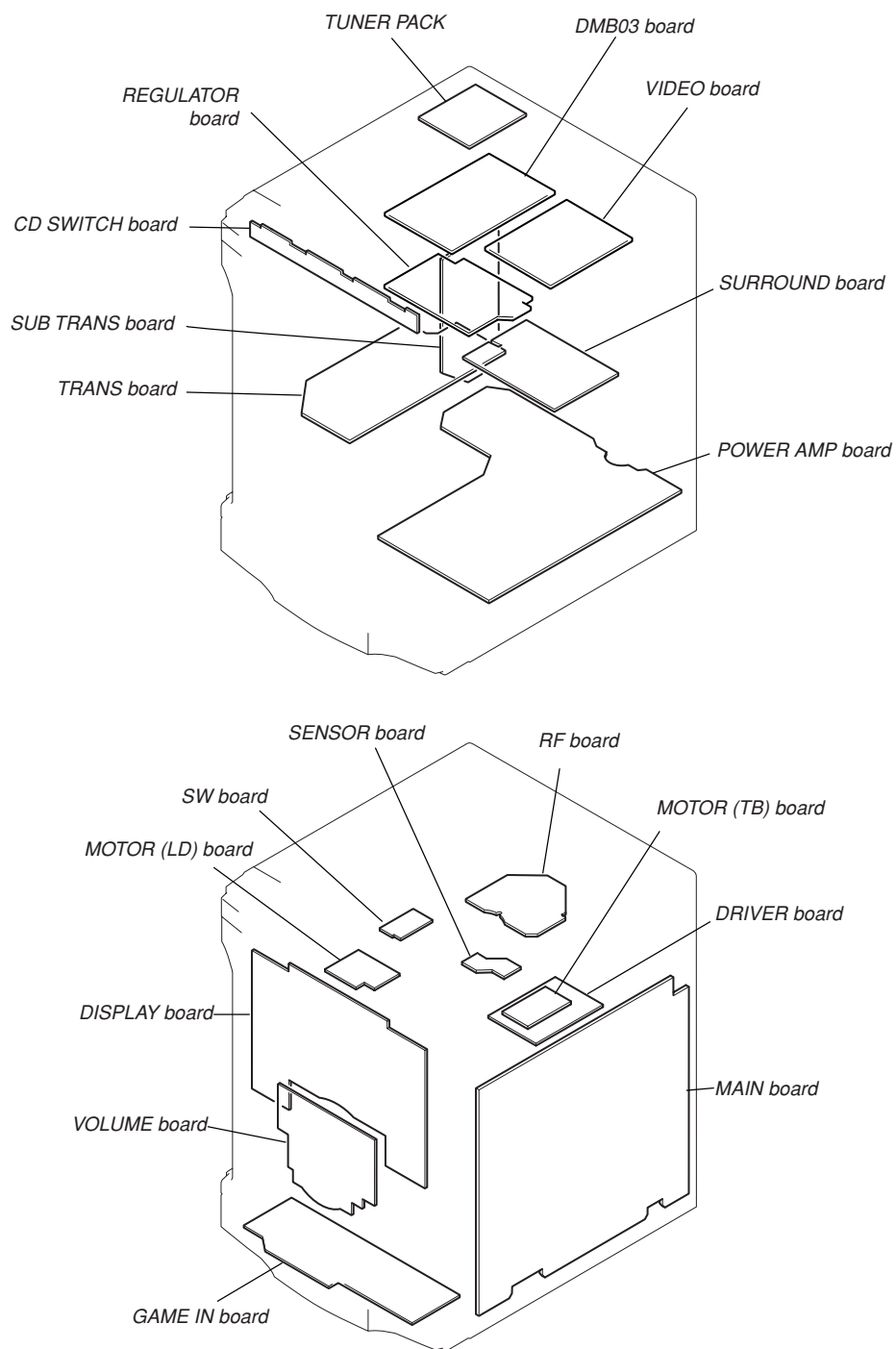
- Indication of transistor.



• Abbreviation

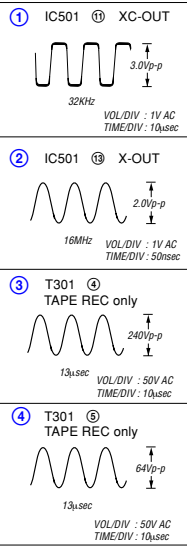
AUS : Australian model
E3 : 240 V AC Area in E model
EA : Saudi Arabia model
E15 : Iran model
E51 : Chilean and Peruvian model
MX : Mexican model
PH : Philippines model
SP : Singapore model
MY : Malaysia model
TH : Thai model

7-1. CIRCUIT BOARD LOCATION

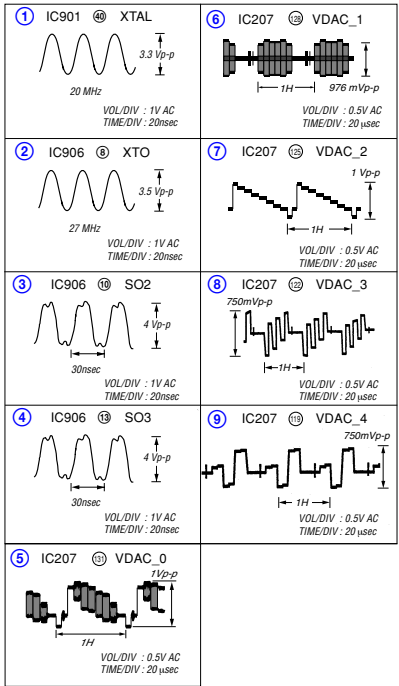


● WAVEFORMS

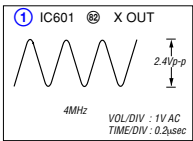
– MAIN BOARD –



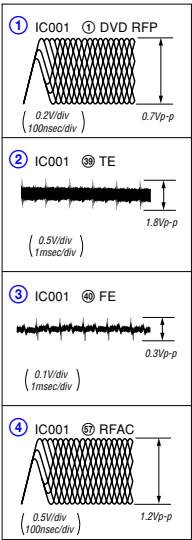
– DMB03 BOARD –



– DISPLAY BOARD –



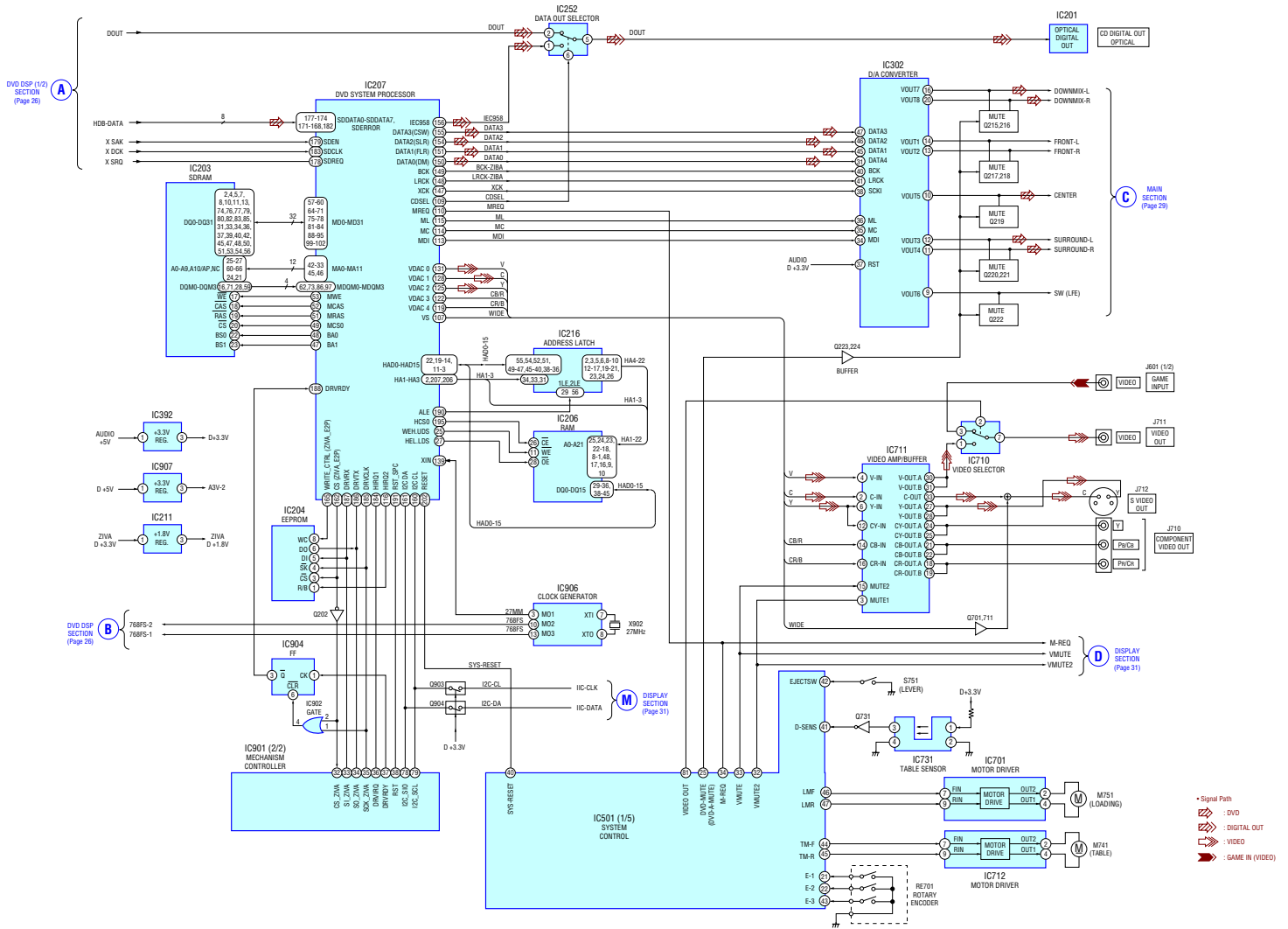
– RF Board –



7-2. BLOCK DIAGRAM – DVD DSP (1/2) Section –

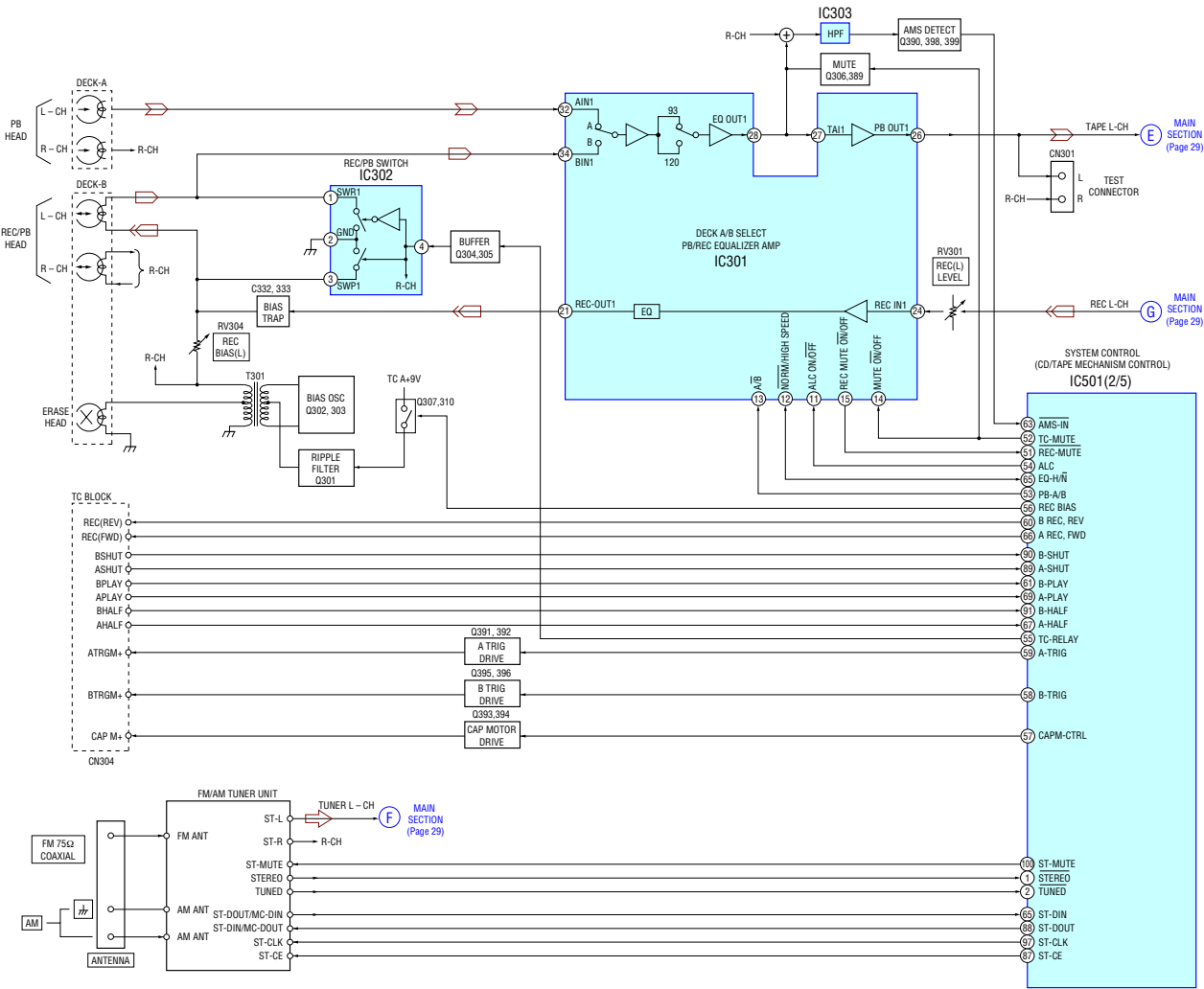


– DVD DSP (2/2) Section–



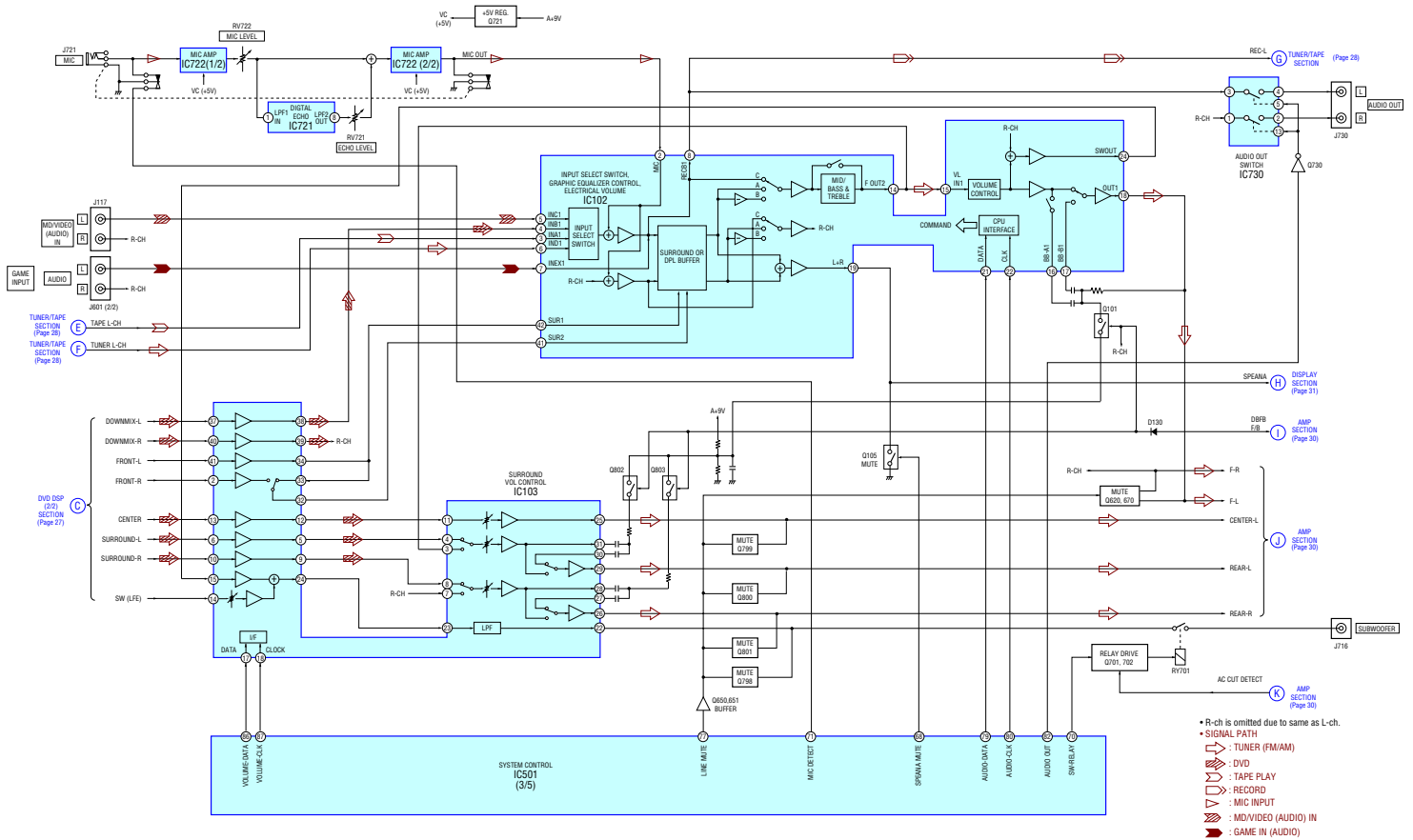
HCD-GN88D

- TUNER/TAPE DECK Section -



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
 - ◻ : TUNER (FM/AM)
 - ◻ : PLAYBACK (DECK A)
 - ◻ : PLAYBACK (DECK B)
 - ◻ : RECORD

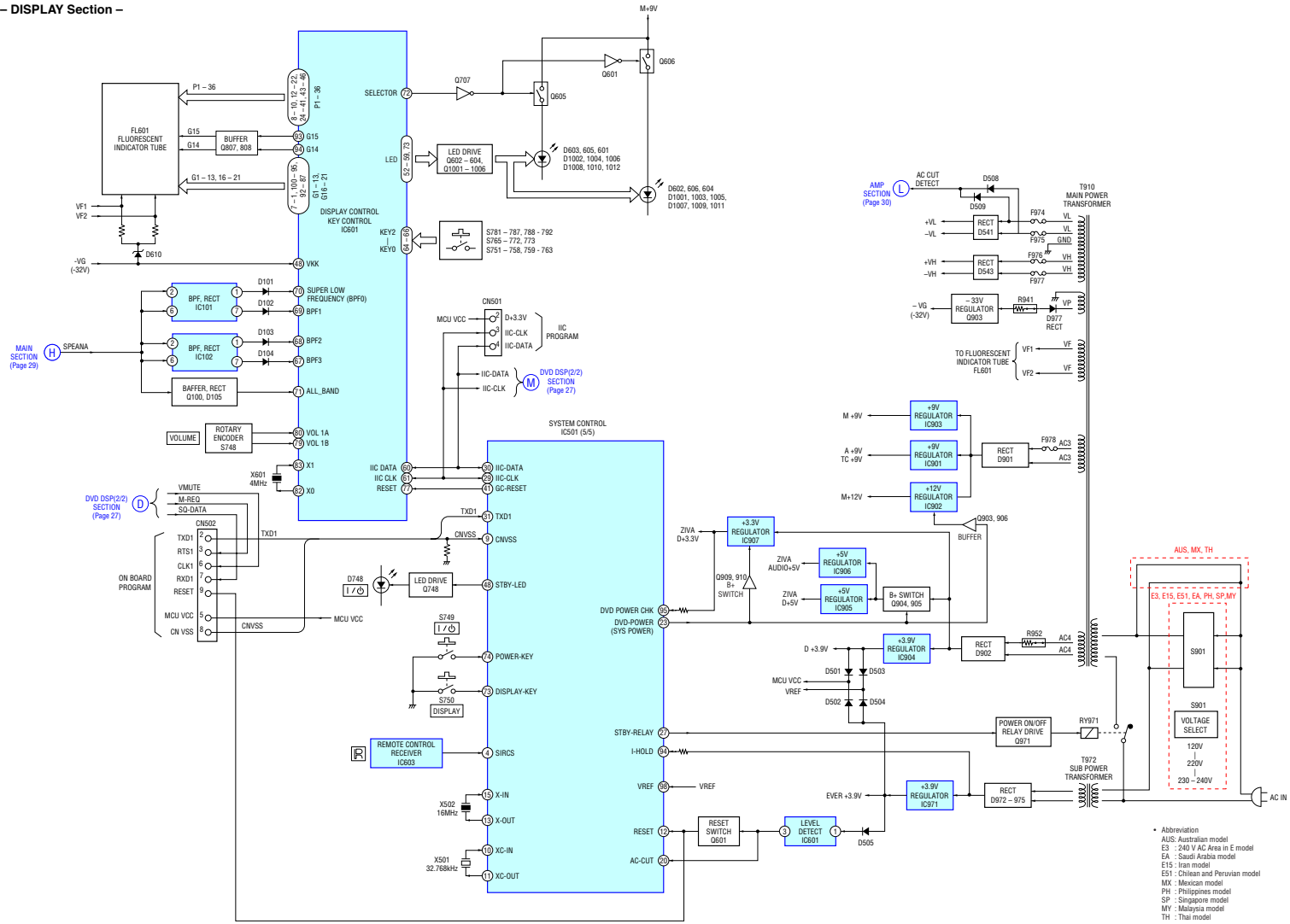
- MAIN Section -



– AMP Section –

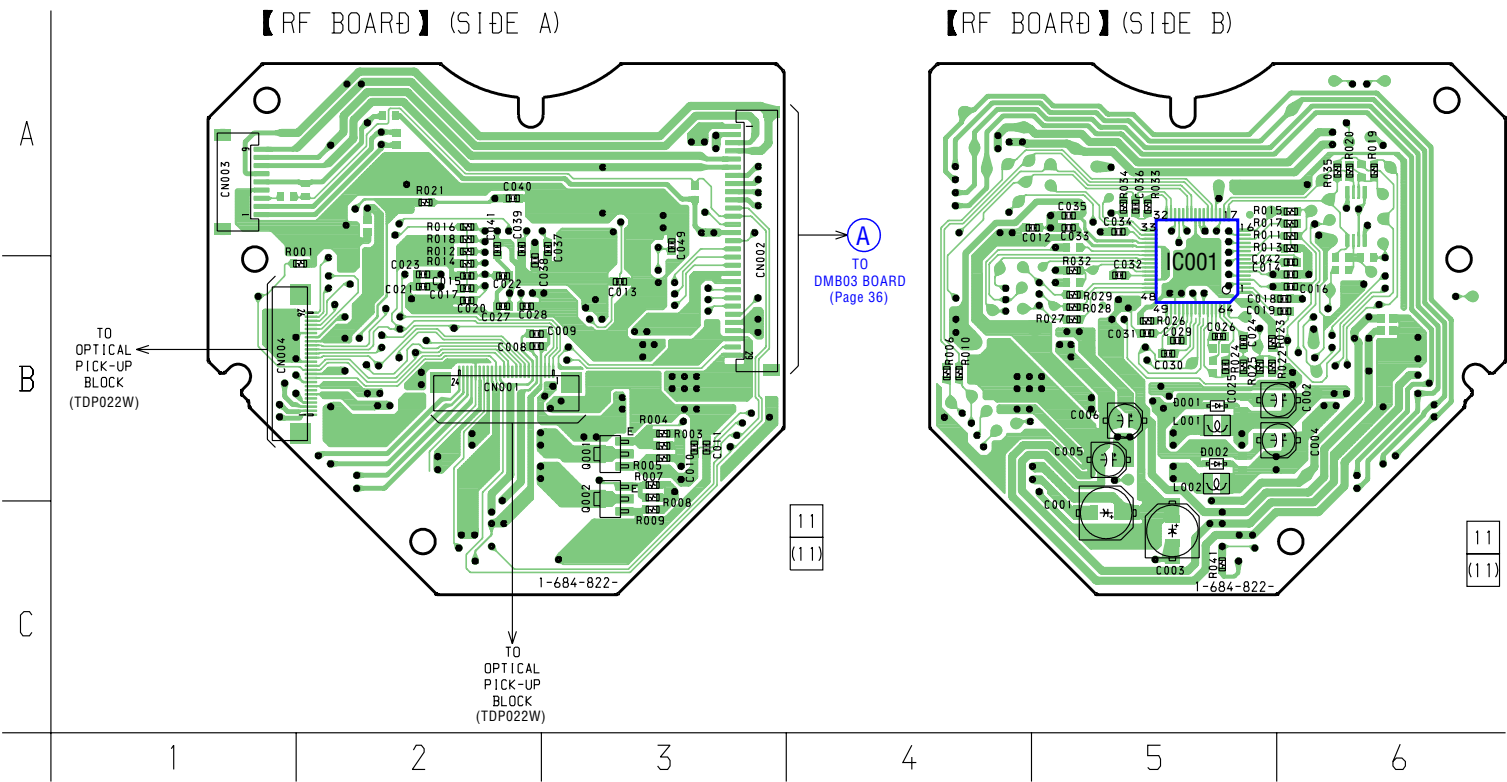


- DISPLAY Section -



HCD-GN88D

7-3. PRINTED WIRING BOARD – RF Board – See page 24 for Circuit Boards Location.



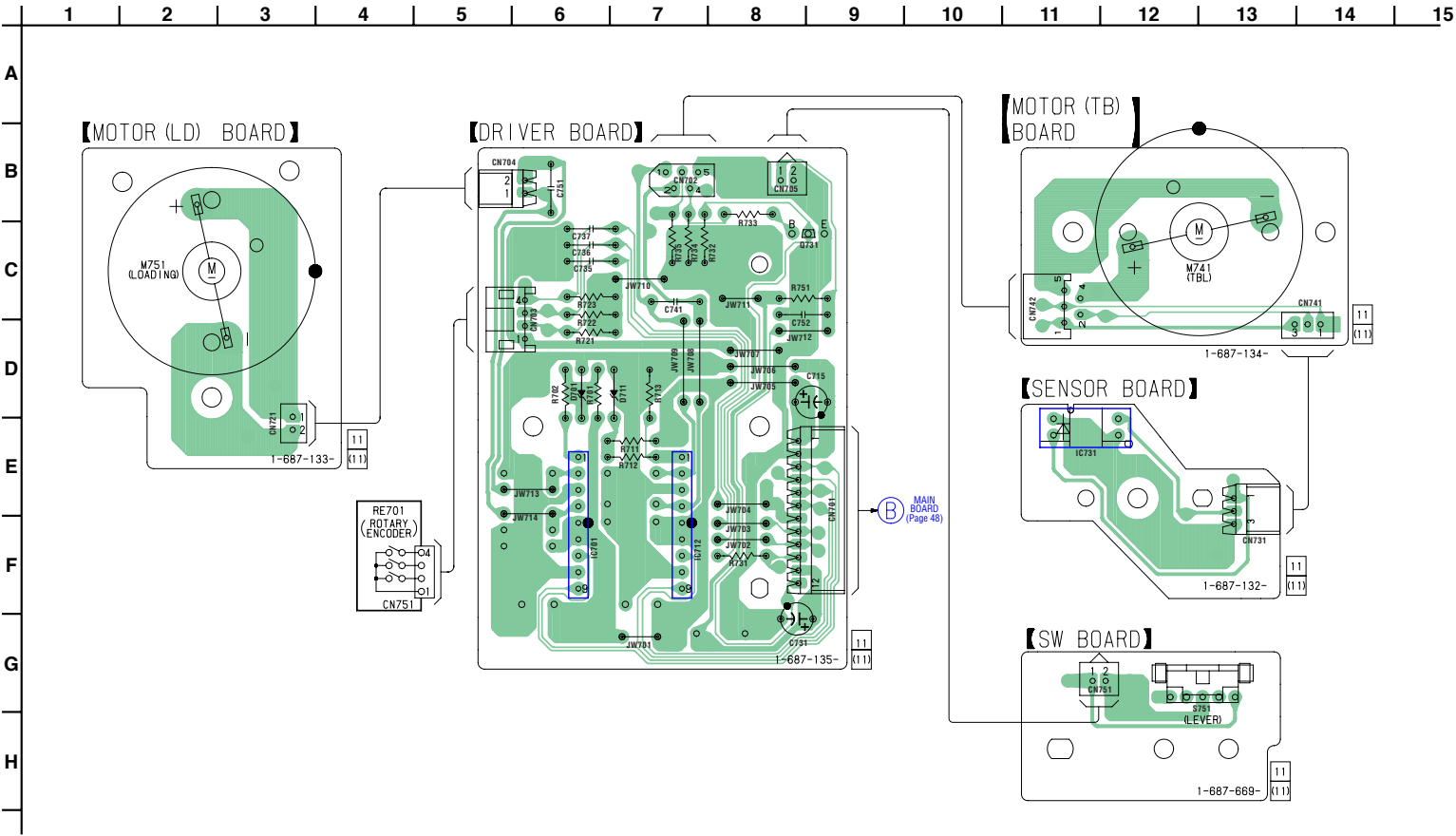
• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D001 | B-5 |
| D002 | B-5 |
| IC001 | A-5 |
| Q001 | B-3 |
| Q002 | C-3 |

[illegible]

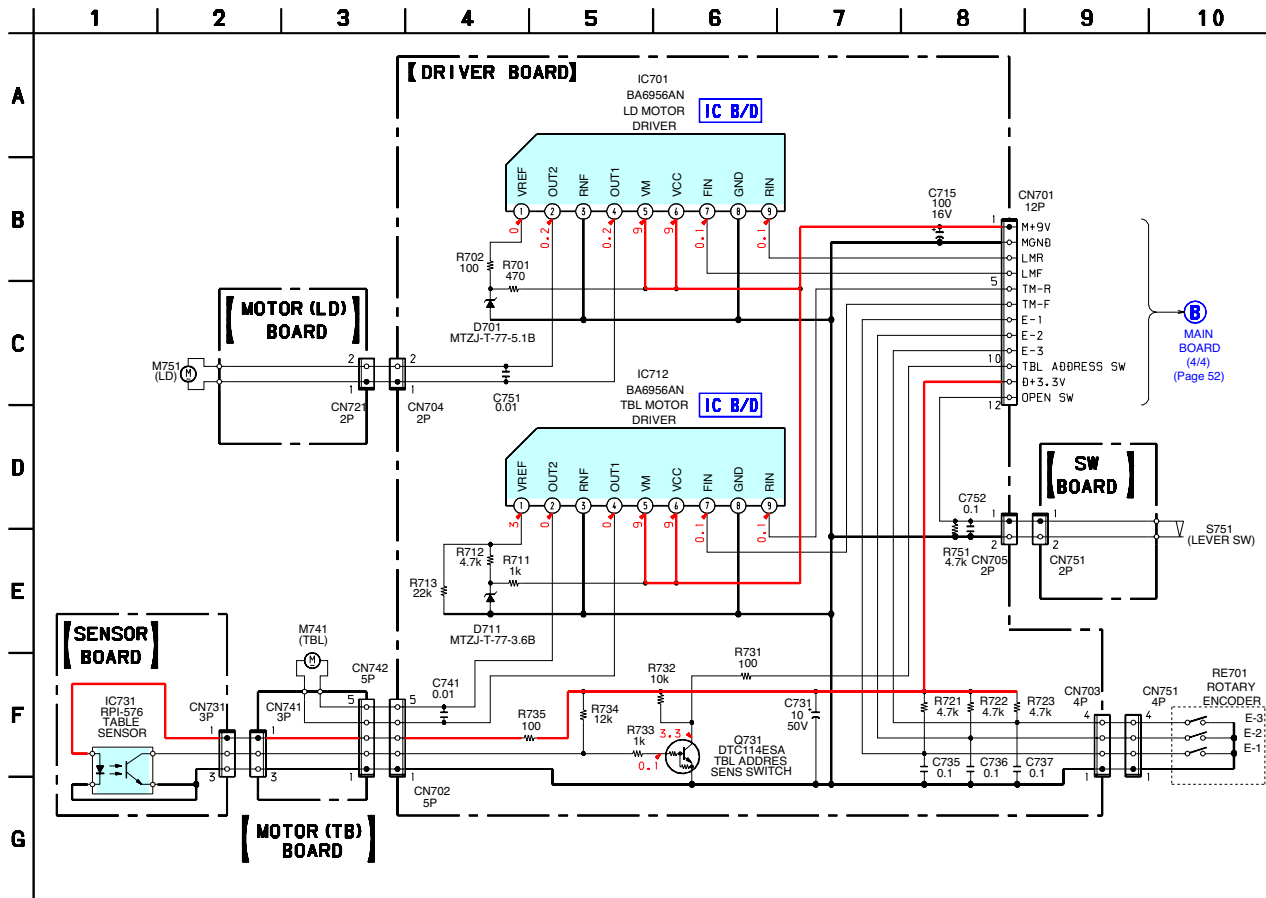
HCD-GN88D

7-5. PRINTED WIRING BOARDS — DVD MECHANISM Board — • Refer to page 24 for Circuit Boards Location.




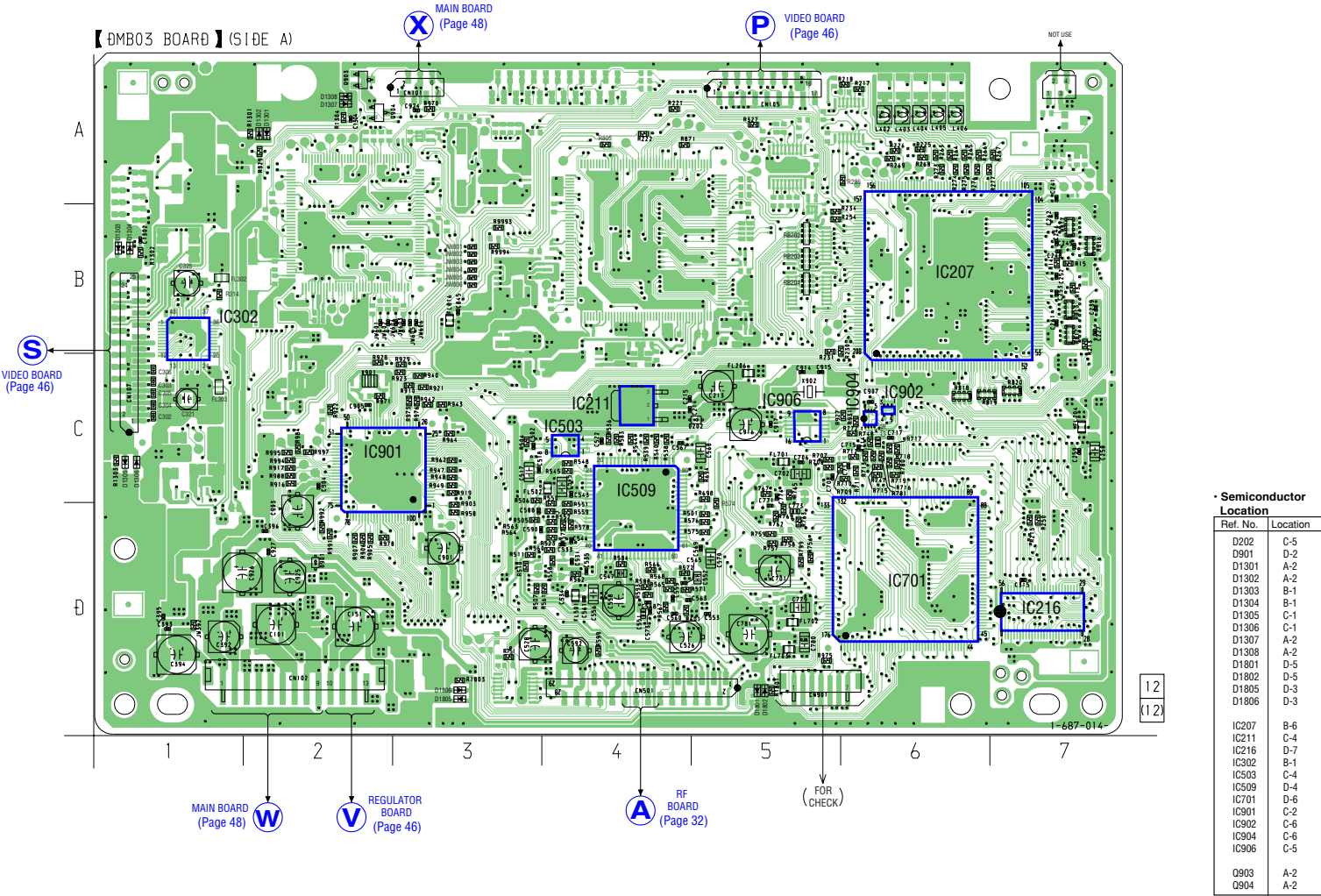
| Semiconductor Location | |
|------------------------|----------|
| Ref. No. | Location |
| D701 | D-6 |
| D711 | D-7 |
| IC701 | F-6 |
| IC712 | F-7 |
| IC731 | E-11 |
| Q731 | C-9 |


7-6. SCHEMATIC DIAGRAM – DVD MECHANISM Board –

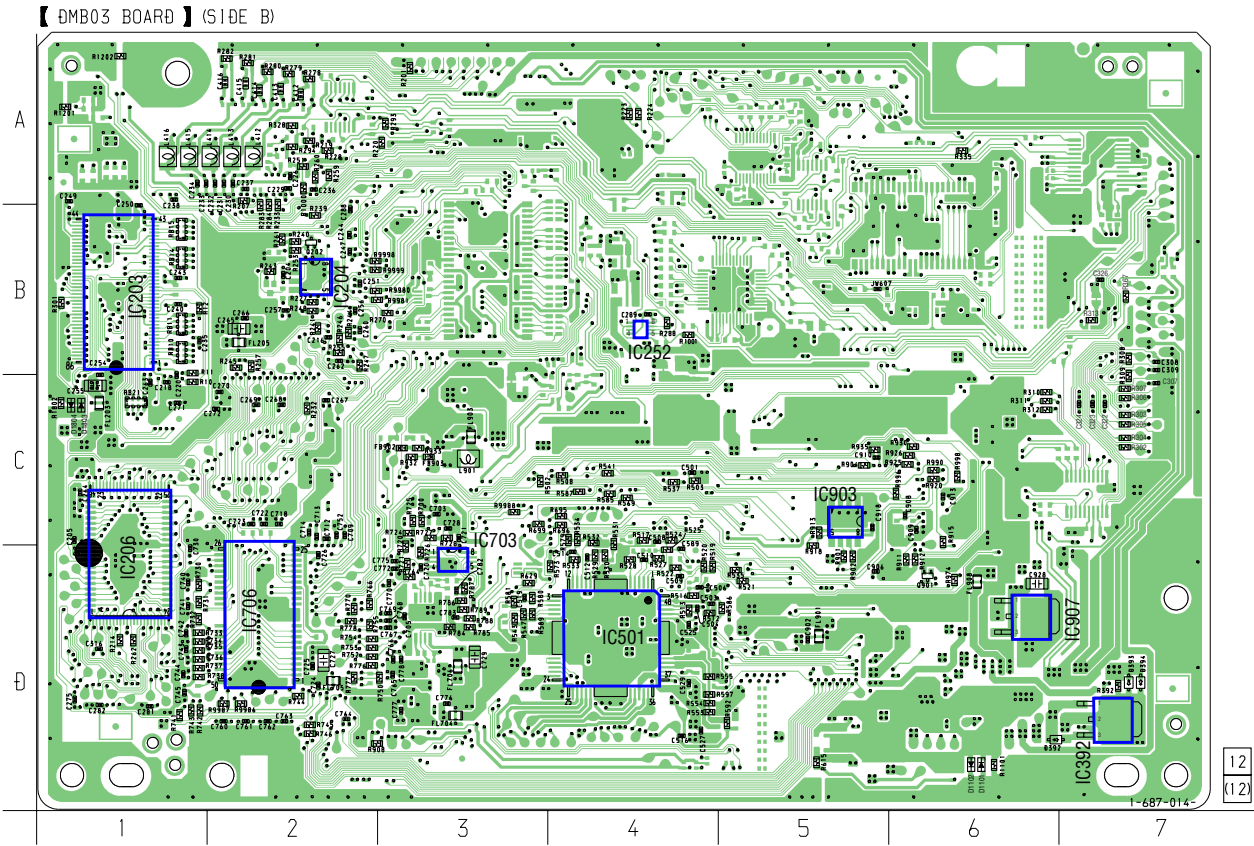


HCD-GN88D

7-7. PRINTED WIRING BOARDS – DMB03 Board (SIDE A) – • See page 24 for Circuit Boards Location.  : Uses unleaded solder.



PRINTED WIRING BOARDS – DMB03 Board (SIDE B) – • See page 24 for Circuit Boards Location.  : Uses unleaded solder.

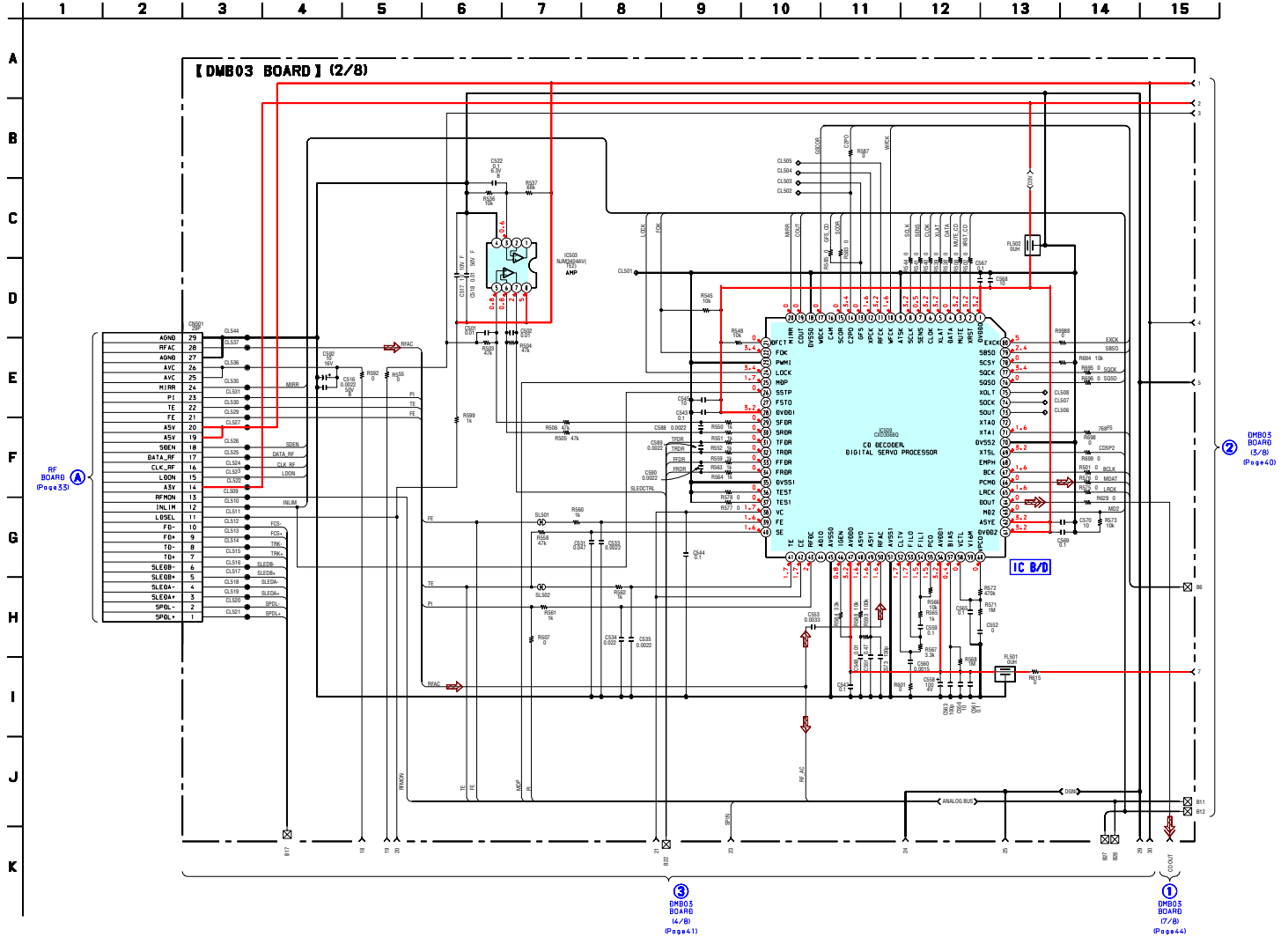


• Semiconductor Location

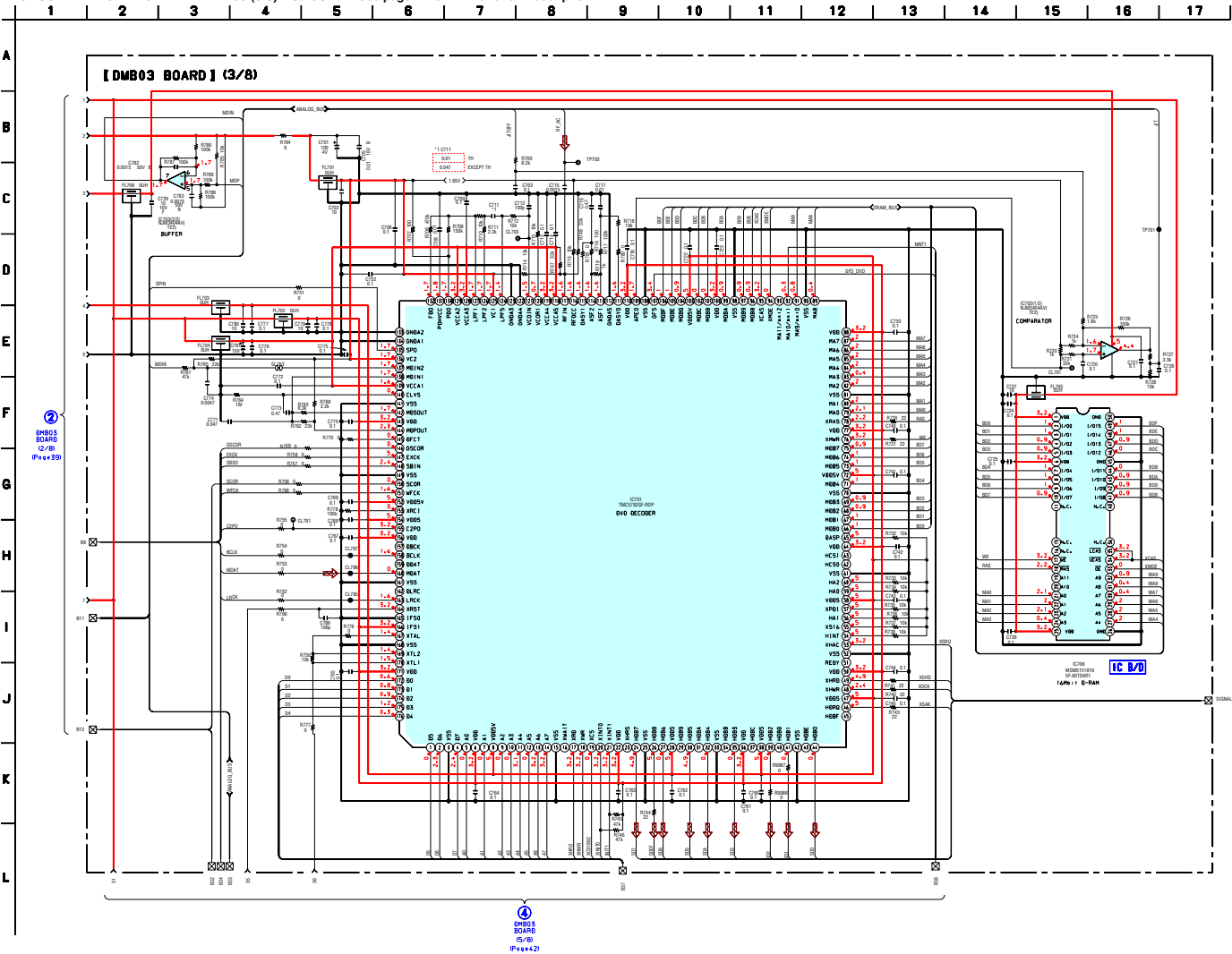
| Ref. No. | Location |
|----------|----------|
| D392 | D-6 |
| D393 | D-7 |
| D394 | D-7 |
| D1101 | D-6 |
| D1102 | D-6 |
| D1803 | C-1 |
| D1804 | C-1 |
| IC203 | B-1 |
| IC204 | B-2 |
| IC206 | D-1 |
| IC252 | B-4 |
| IC392 | D-7 |
| IC501 | D-4 |
| IC703 | D-3 |
| IC706 | D-2 |
| IC903 | C-5 |
| IC907 | D-6 |
| Q202 | B-2 |
| Q901 | D-6 |



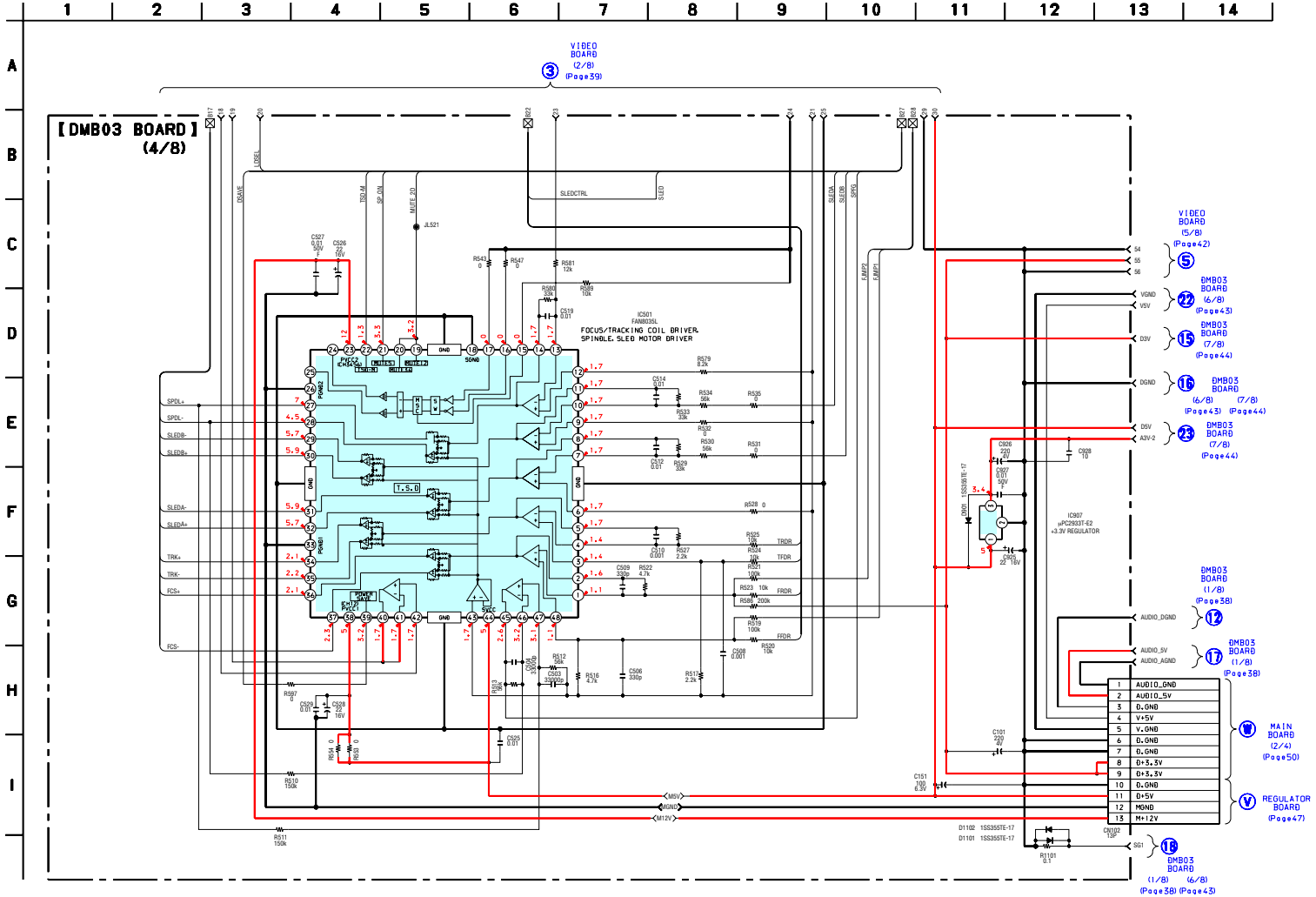
7-9. SCHEMATIC DIAGRAM – DMB03 Board (2/8) –



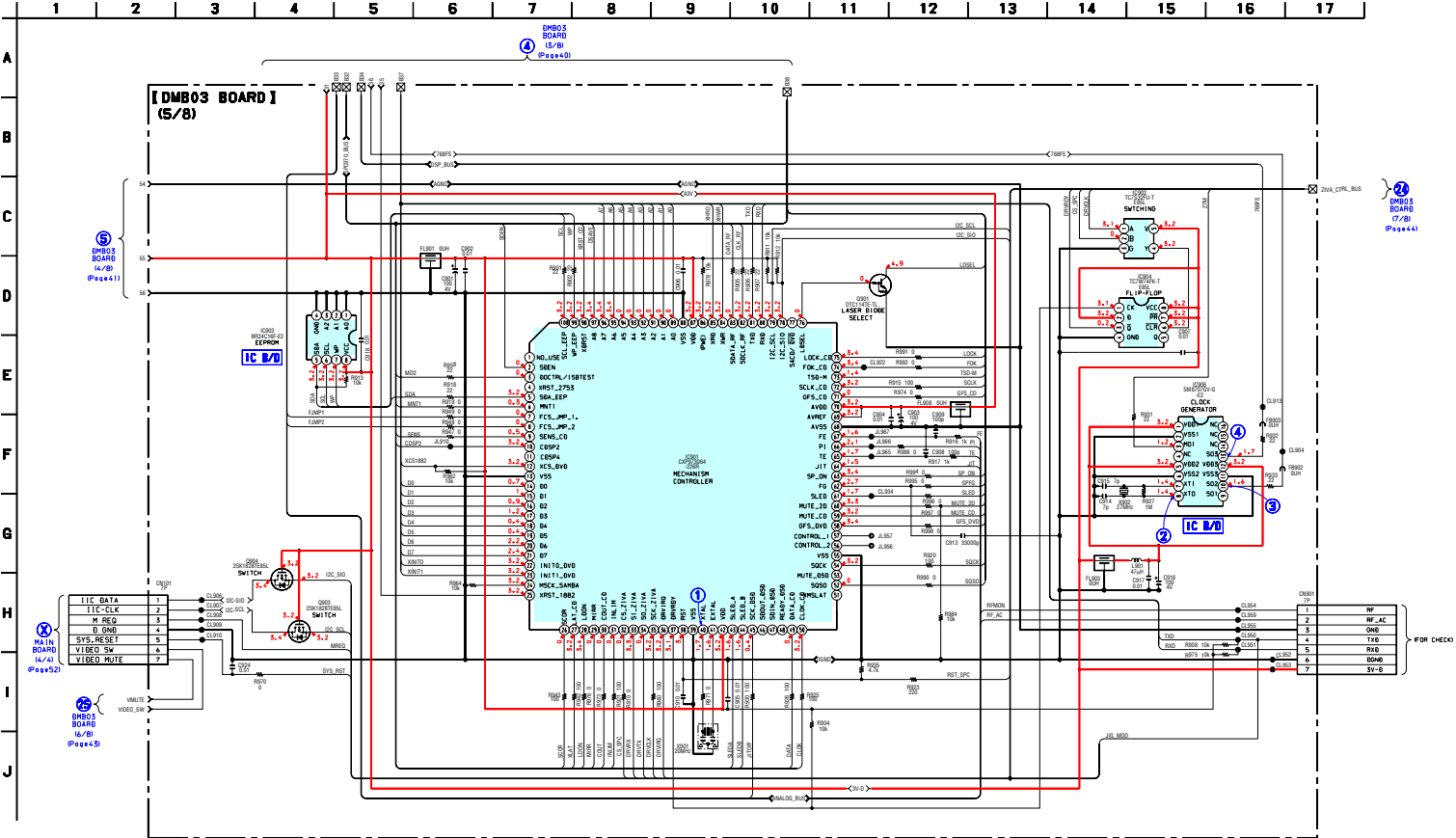
7-10. SCHEMATIC DIAGRAM – DMB03 (3/8) Boards – See page 71 for Pin Function Description.



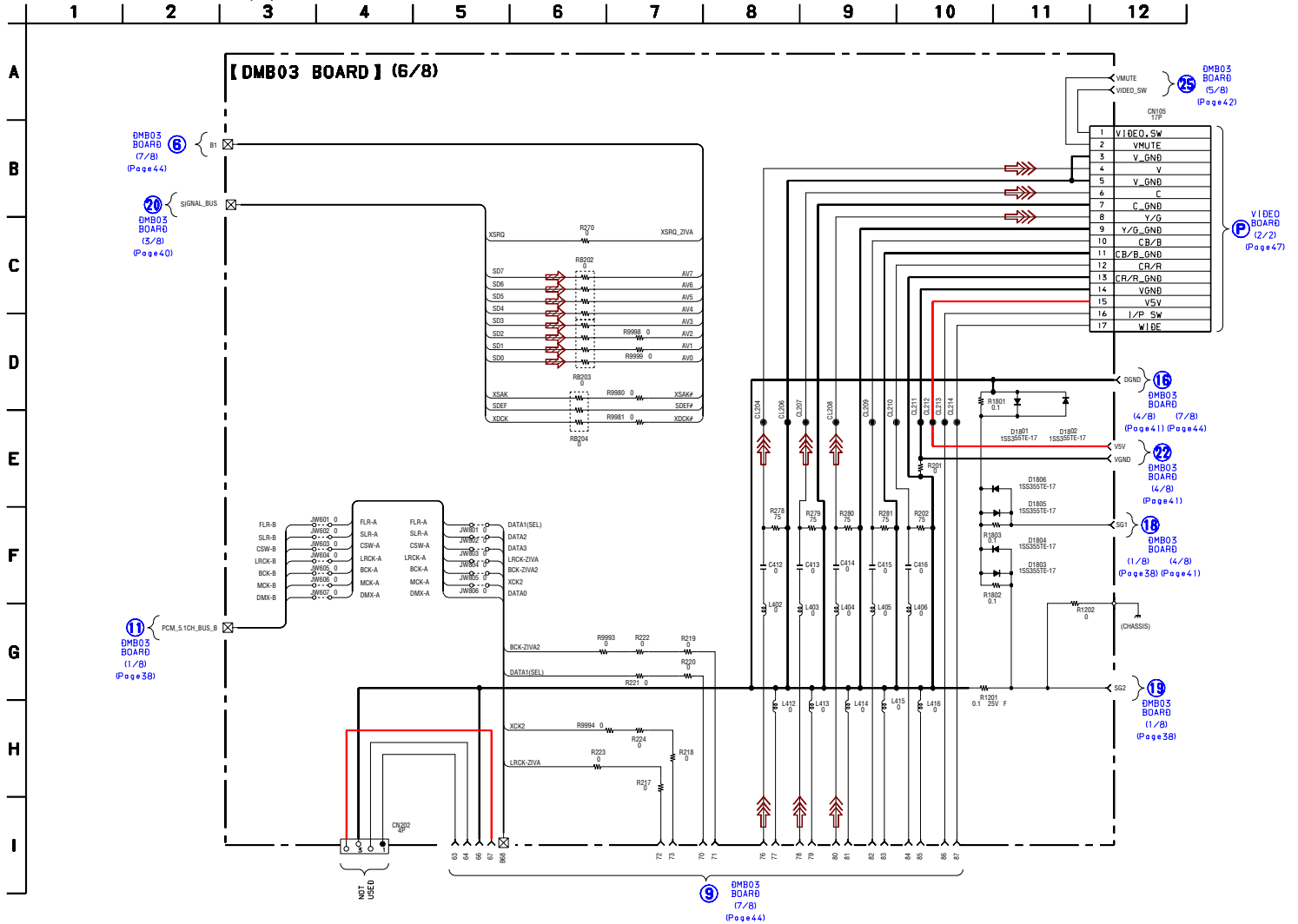
7-11. SCHEMATIC DIAGRAM – DMB03 (4/8) Boards –



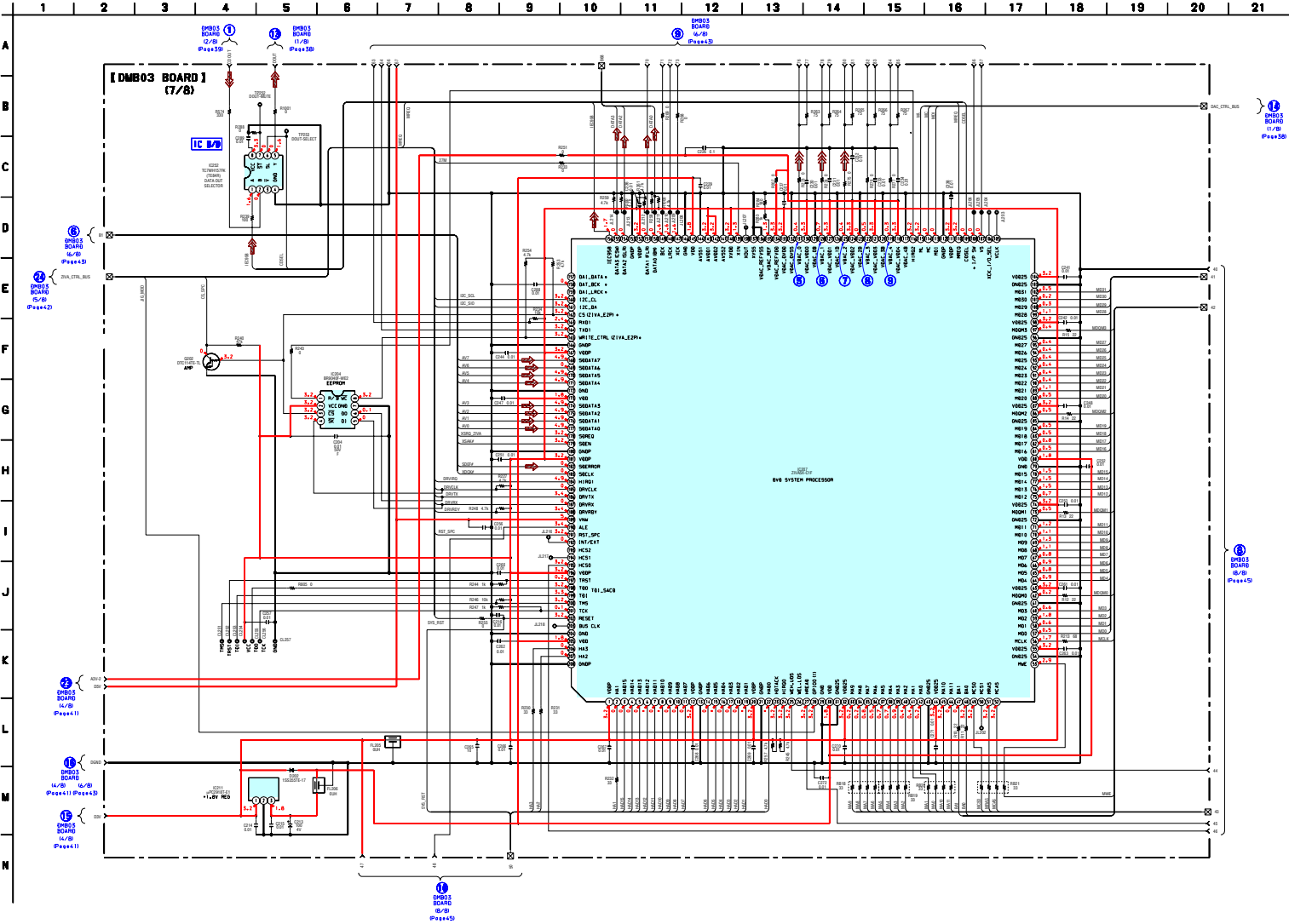
7-12. SCHEMATIC DIAGRAM – DMB03 (5/8) Boards – See page 74 for Pin Function Description.



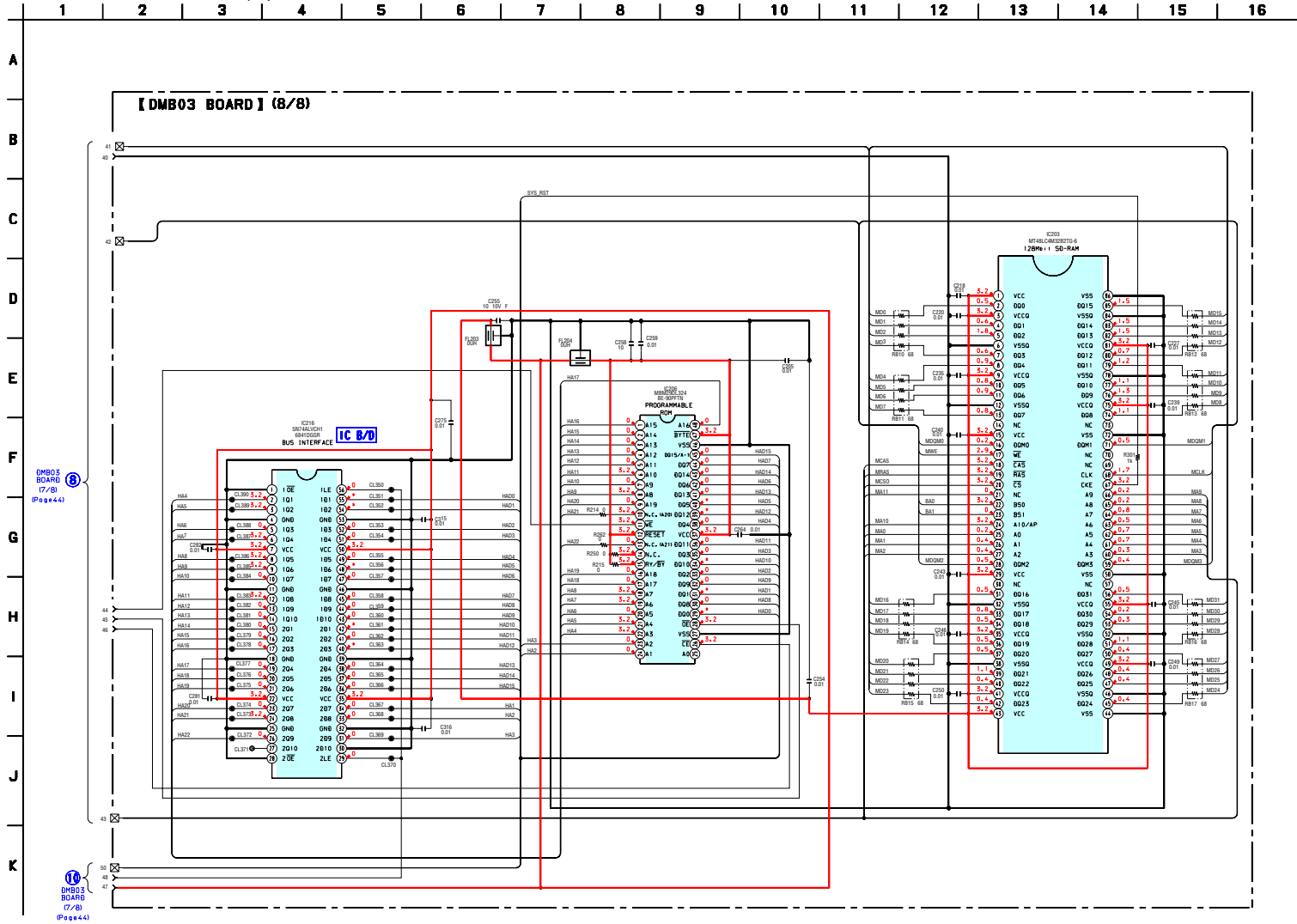
7-13. SCHEMATIC DIAGRAM – DMB03 (6/8) Boards –

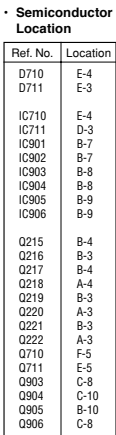


7-14. SCHEMATIC DIAGRAM – DMB03 (7/8) Boards – See page 68 for Pin Function Description.

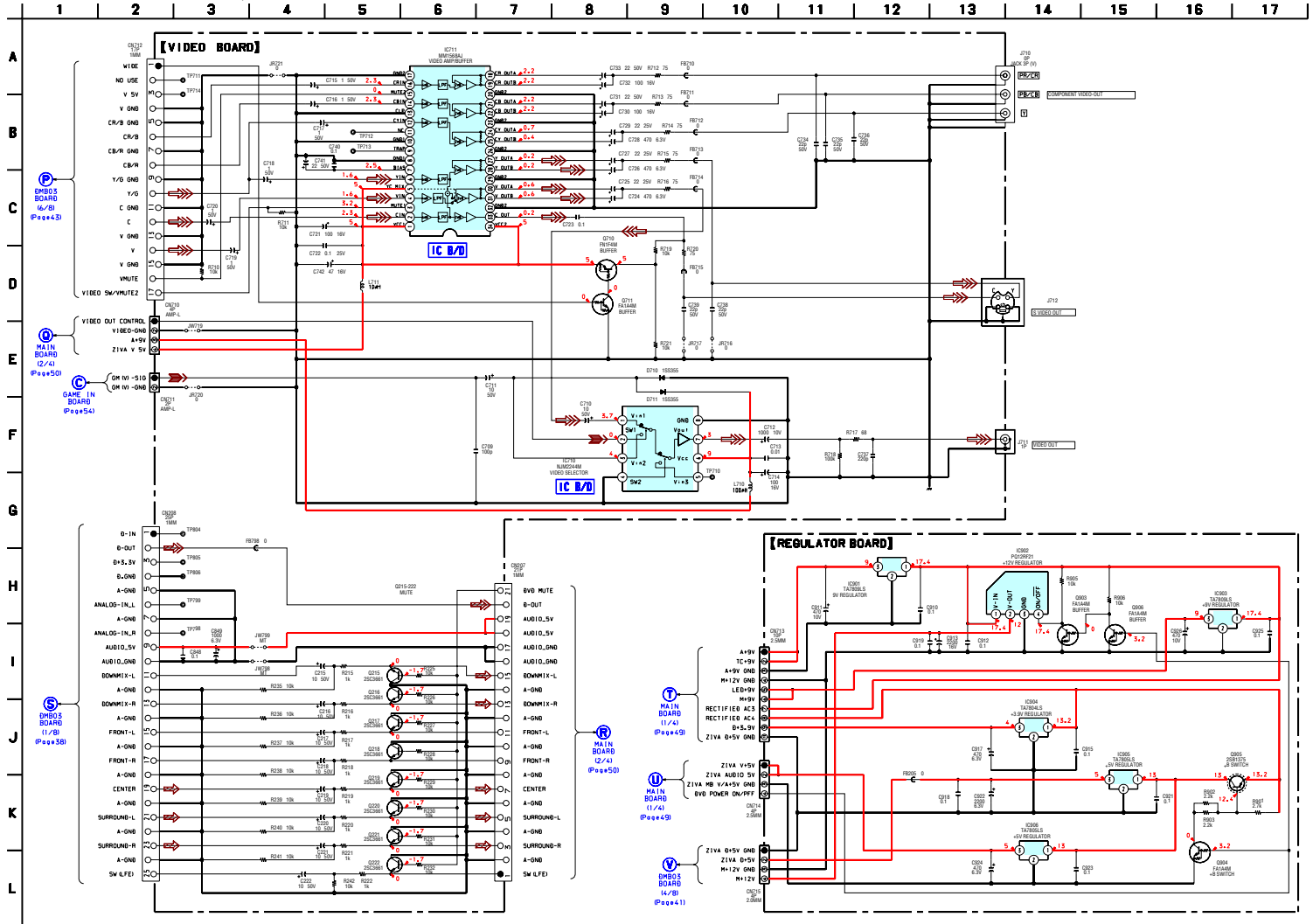


7-15. SCHEMATIC DIAGRAM – DMB03 (8/8) Boards –



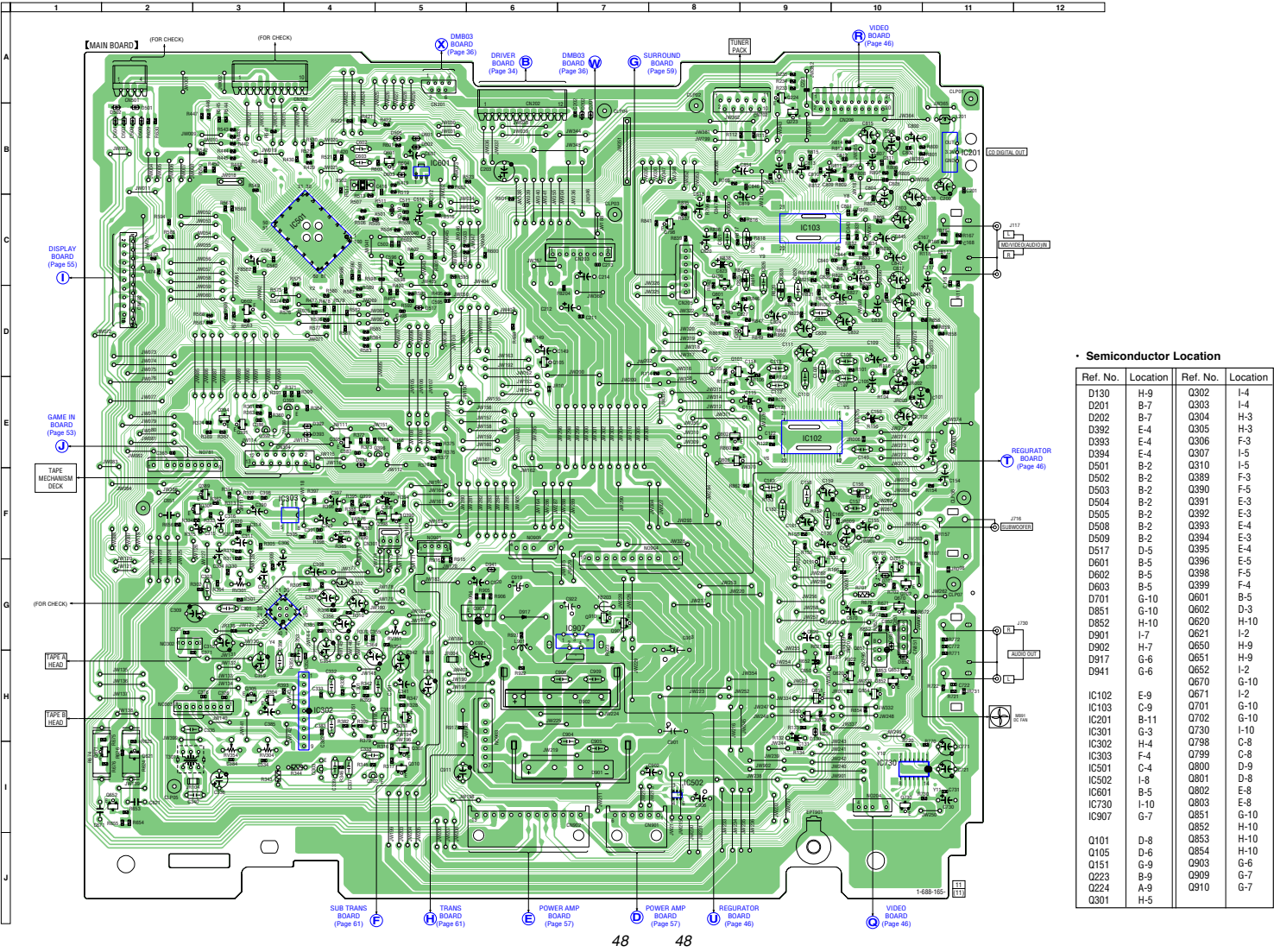


7-17. SCHEMATIC DIAGRAM – VIDEO, REGULATOR Board –

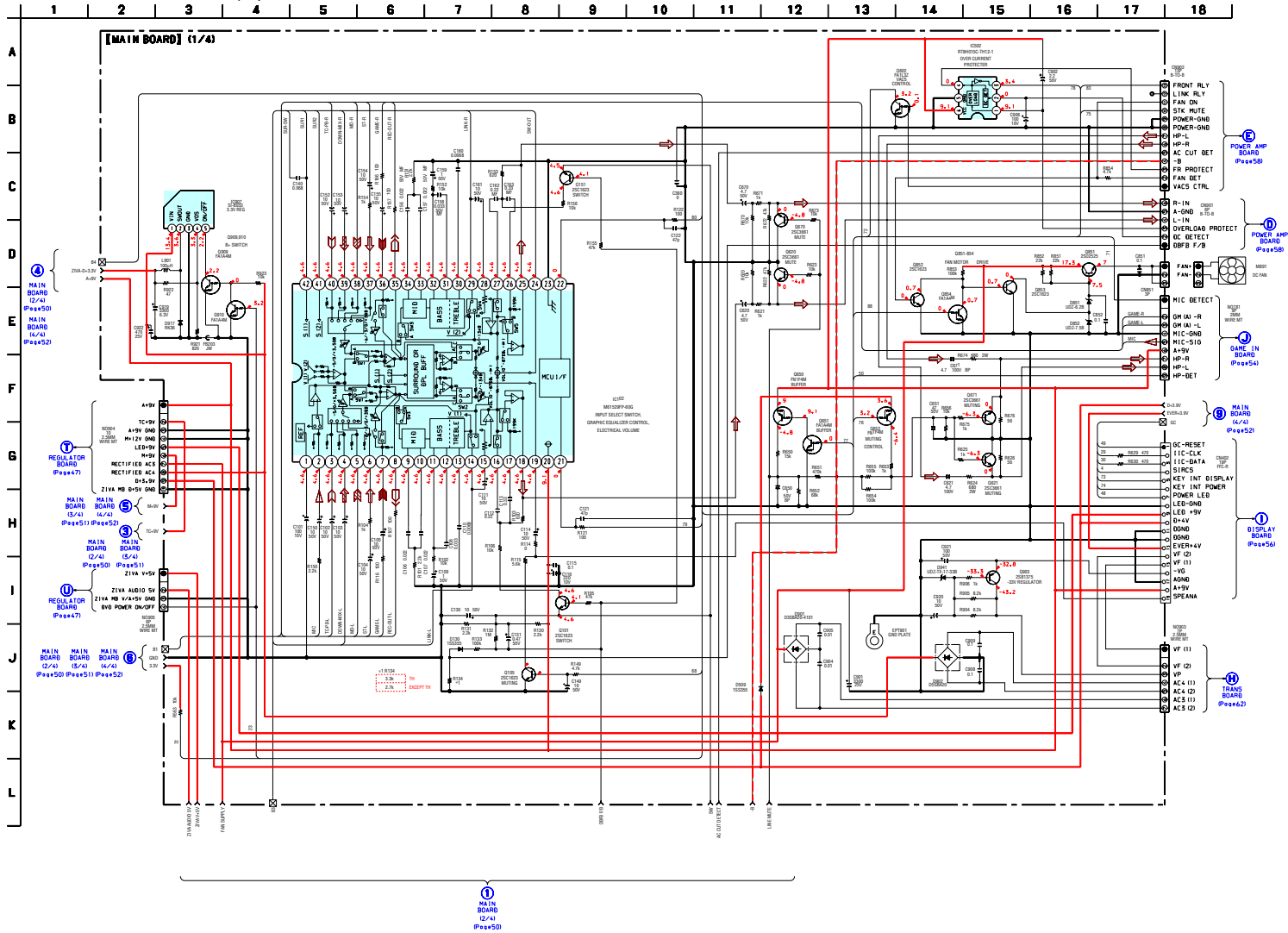


HCD-GN88D

7-18. PRINTED WIRING BOARD – MAIN Board – • See page 24 for Circuit Boards Location.

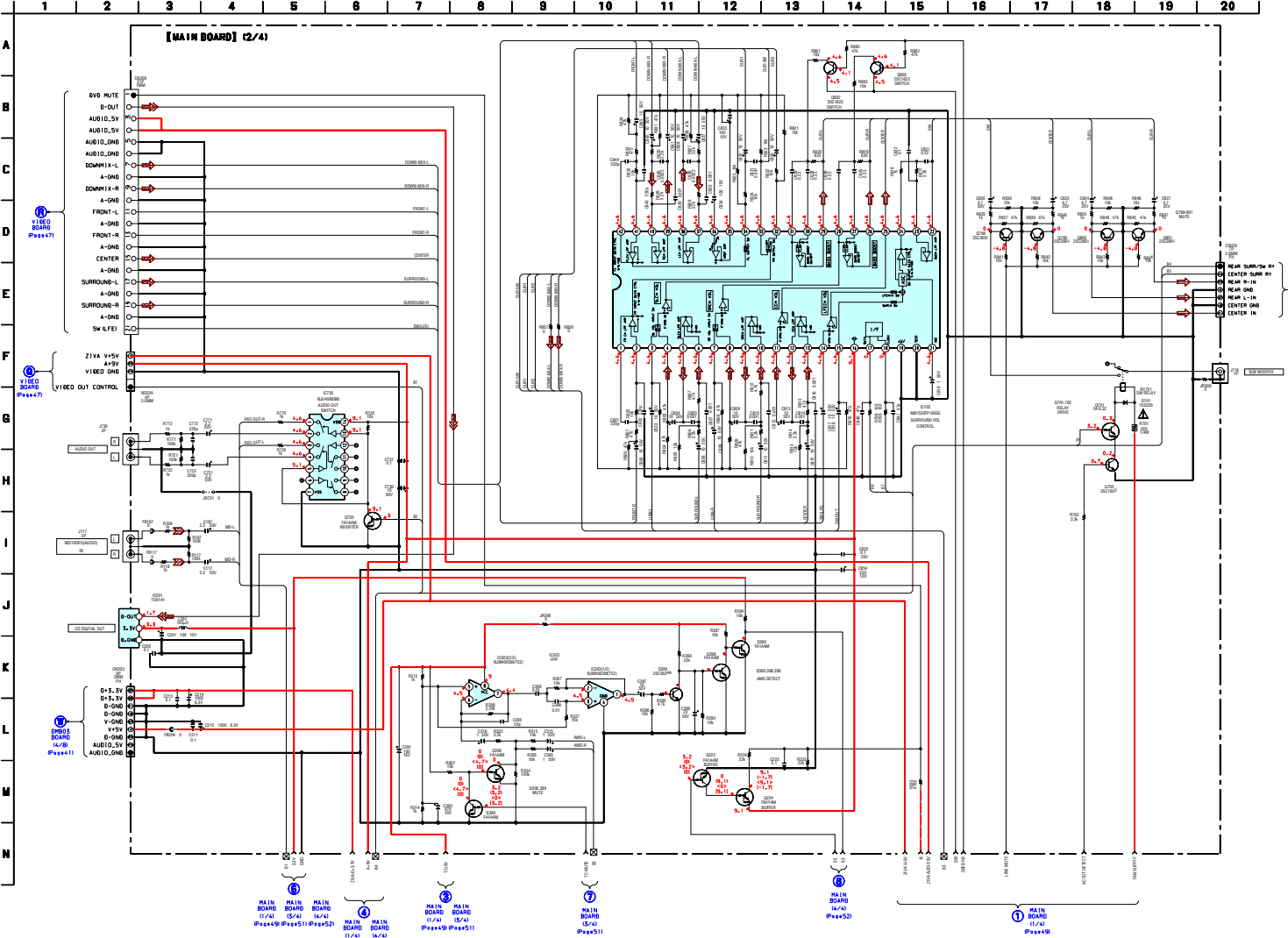


7-19. SCHEMATIC DIAGRAM – MAIN (1/4) Board –

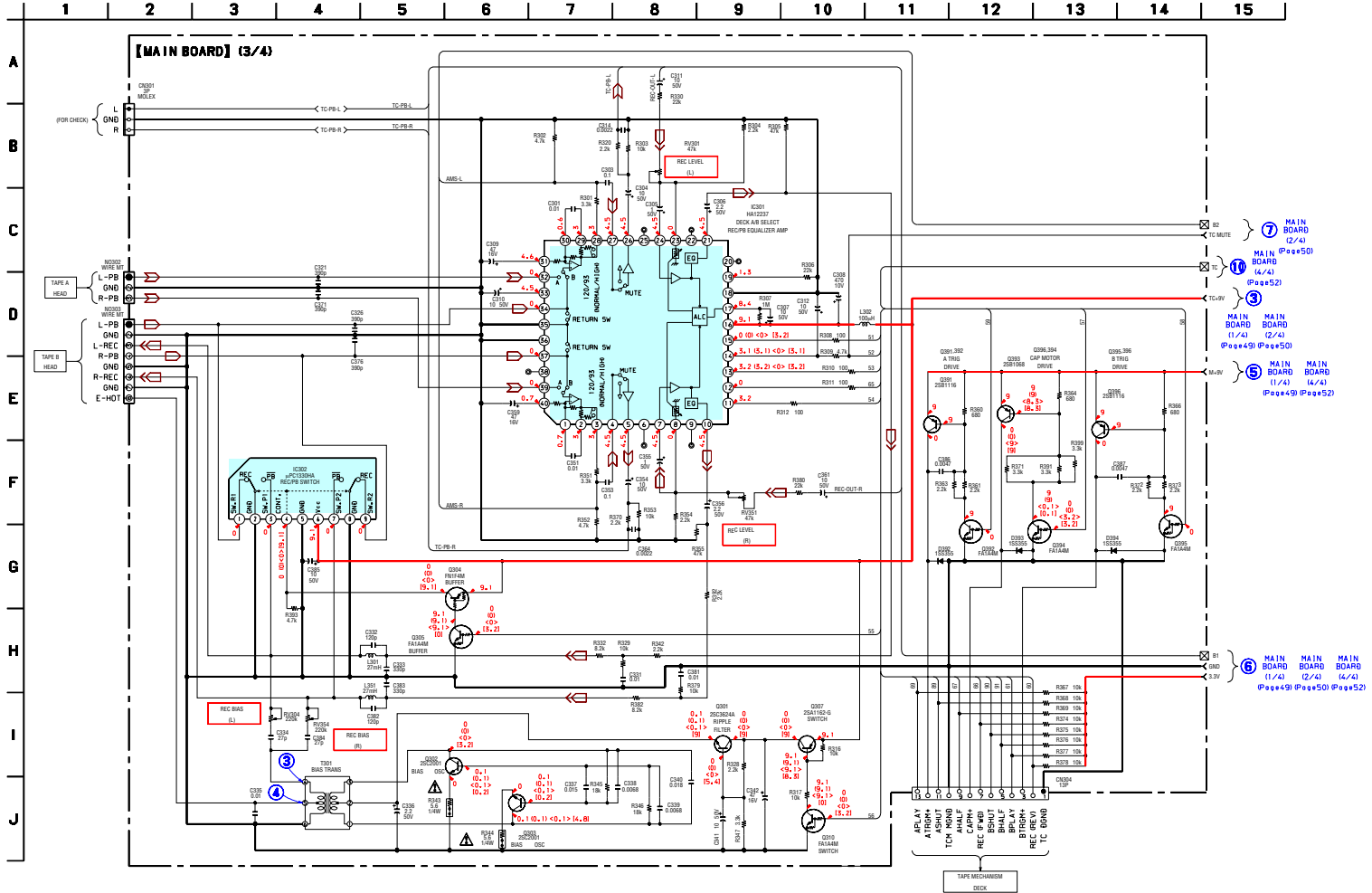


HCD-GN88D

7-20. SCHEMATIC DIAGRAM – MAIN (2/4) Board –



7-21. SCHEMATIC DIAGRAM – MAIN (3/4) Board –



7-22. SCHEMATIC DIAGRAM – MAIN (4/4) Board – • See page 76 for Pin Function Description.



MAIN BOARD

GAME IN BOARD

VOLUME BOARD

CD SWITCH BOARD

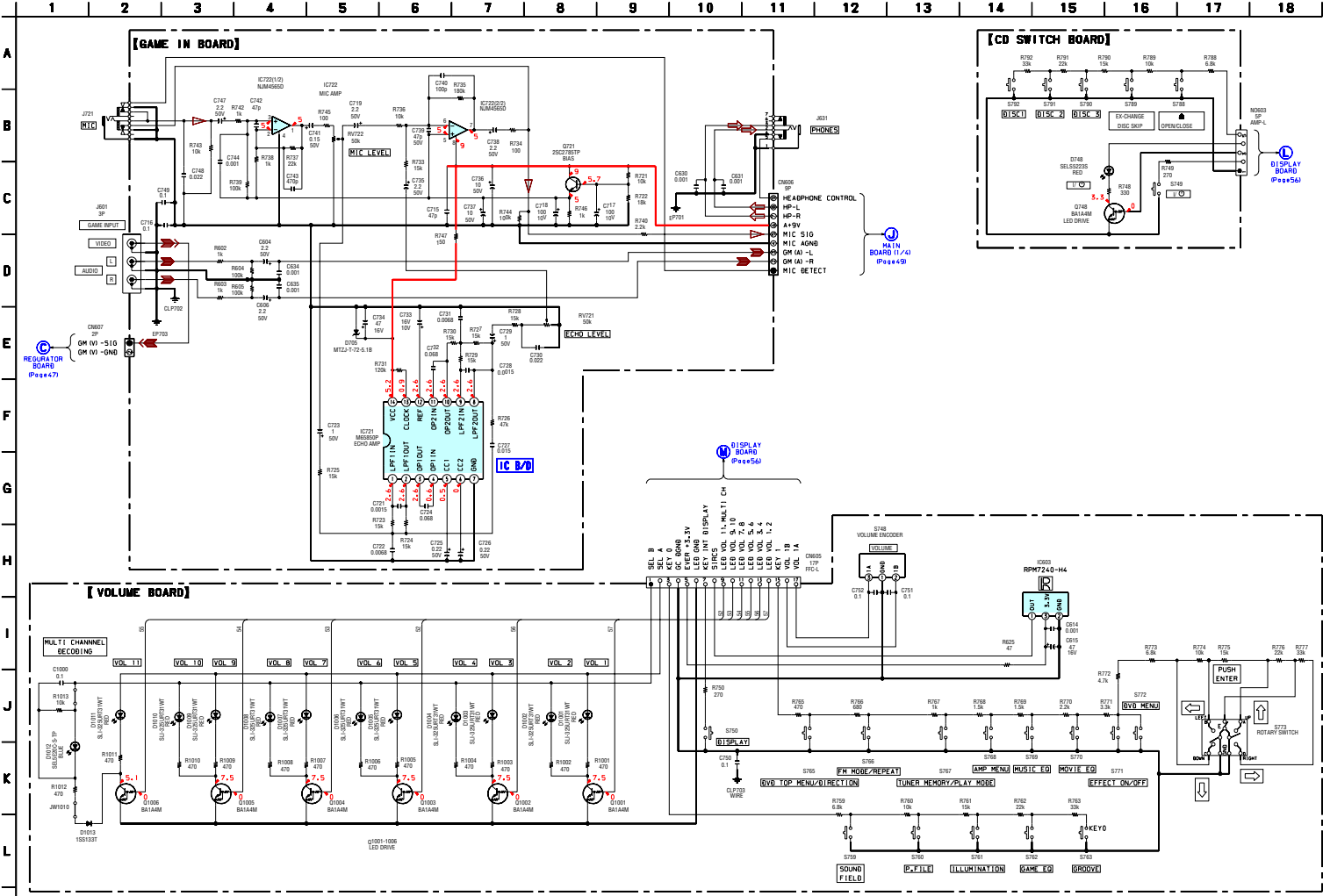
REGULATOR BOARD

DISPLAY BOARD

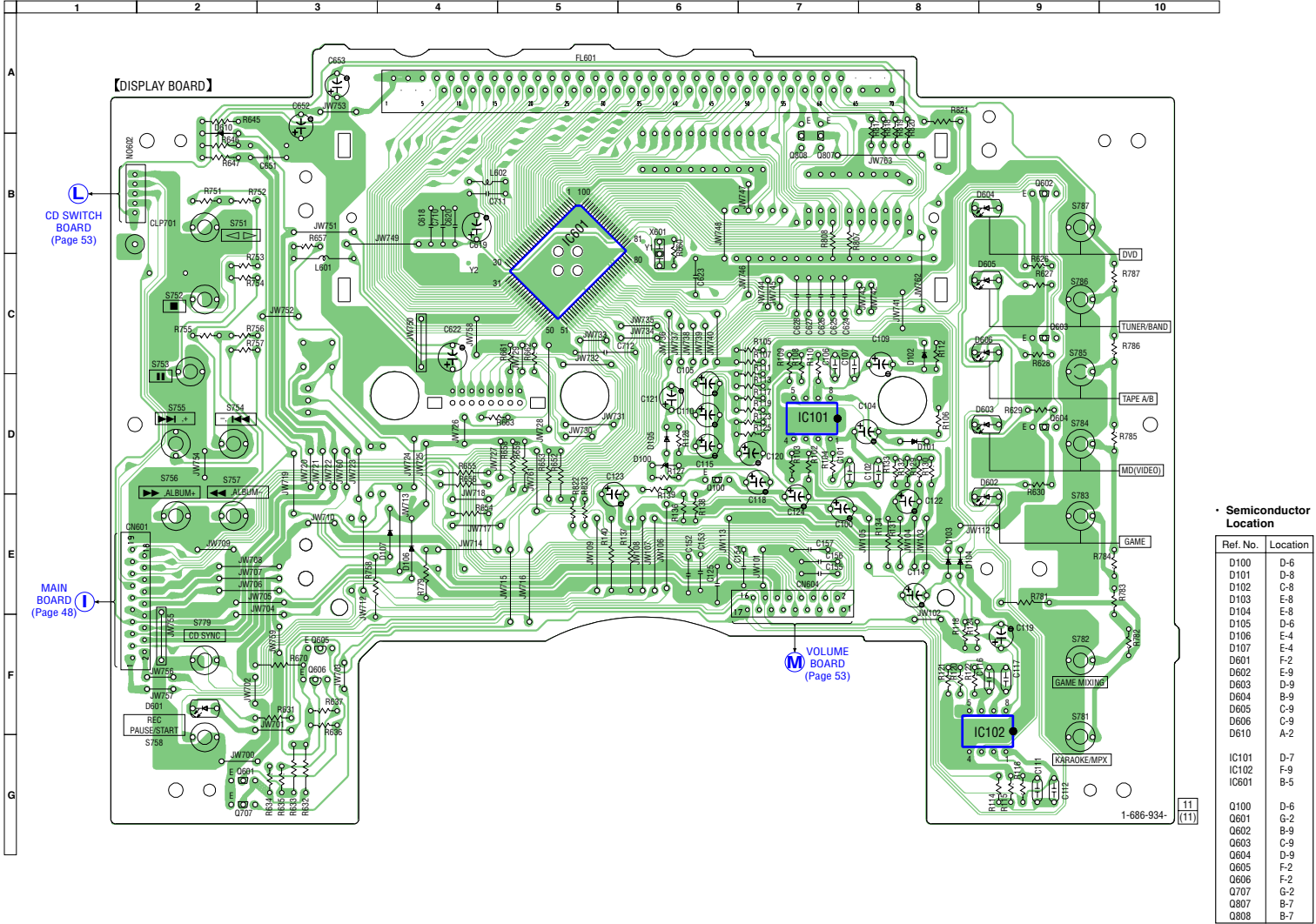
Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D748 | H-12 |
| D1001 | E-9 |
| D1002 | D-10 |
| D1003 | D-10 |
| D1004 | C-10 |
| D1005 | C-9 |
| D1006 | B-9 |
| D1007 | C-8 |
| D1008 | C-8 |
| D1009 | D-8 |
| D1010 | D-8 |
| D1011 | E-8 |
| D1012 | B-9 |
| D1013 | C-9 |
| IC603 | B-11 |
| IC722 | D-2 |
| 0721 | E-3 |
| 0748 | H-11 |
| 01001 | D-9 |
| 01002 | D-10 |
| 01003 | C-9 |
| 01004 | C-8 |
| 01005 | D-8 |
| 01006 | D-8 |

7-24. SCHEMATIC DIAGRAM – GAME IN, CD SWITCH Board –

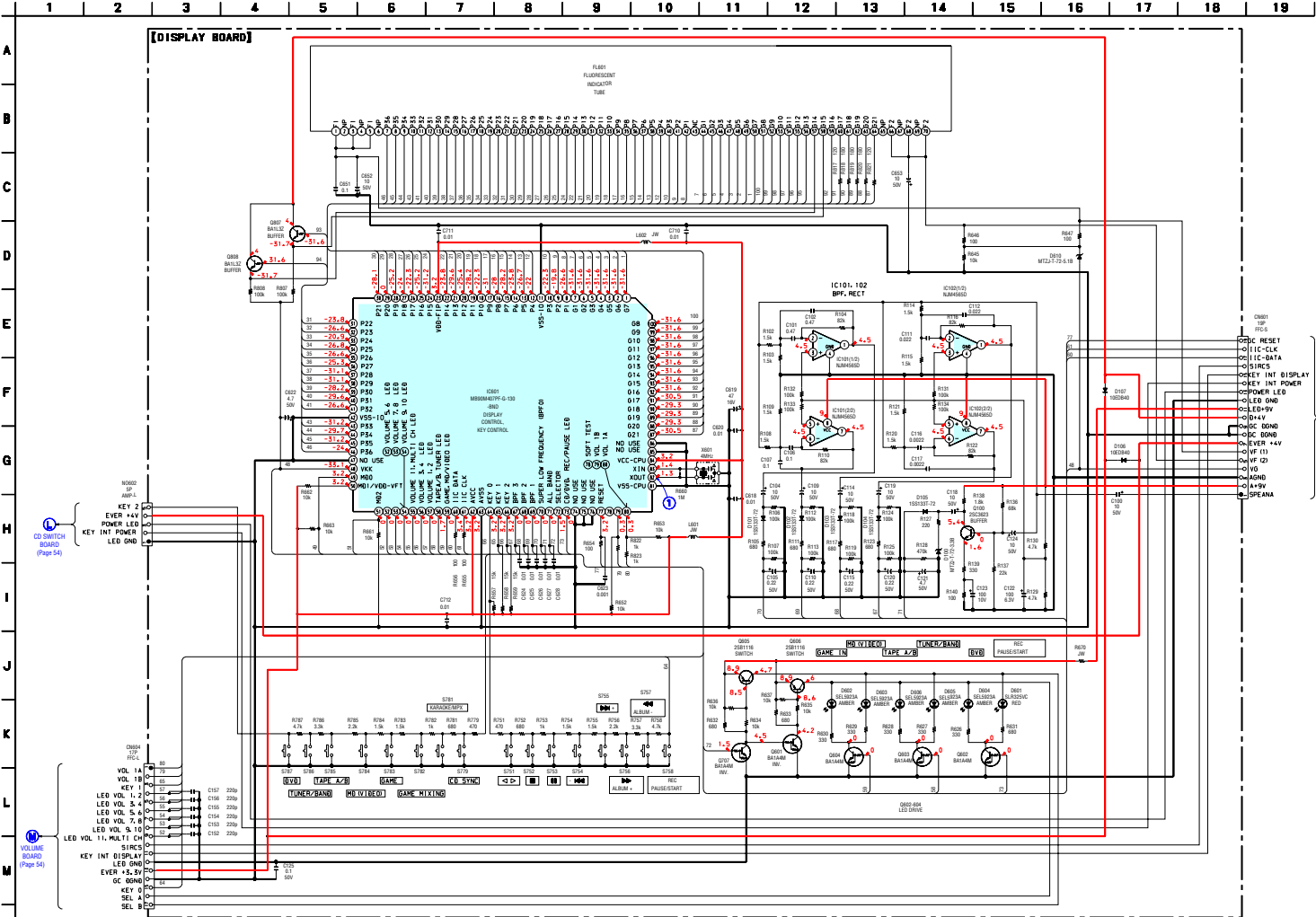


7-25. PRINTED WIRING BOARD – DISPLAY Board – • See page 24 for Circuit Boards Location.

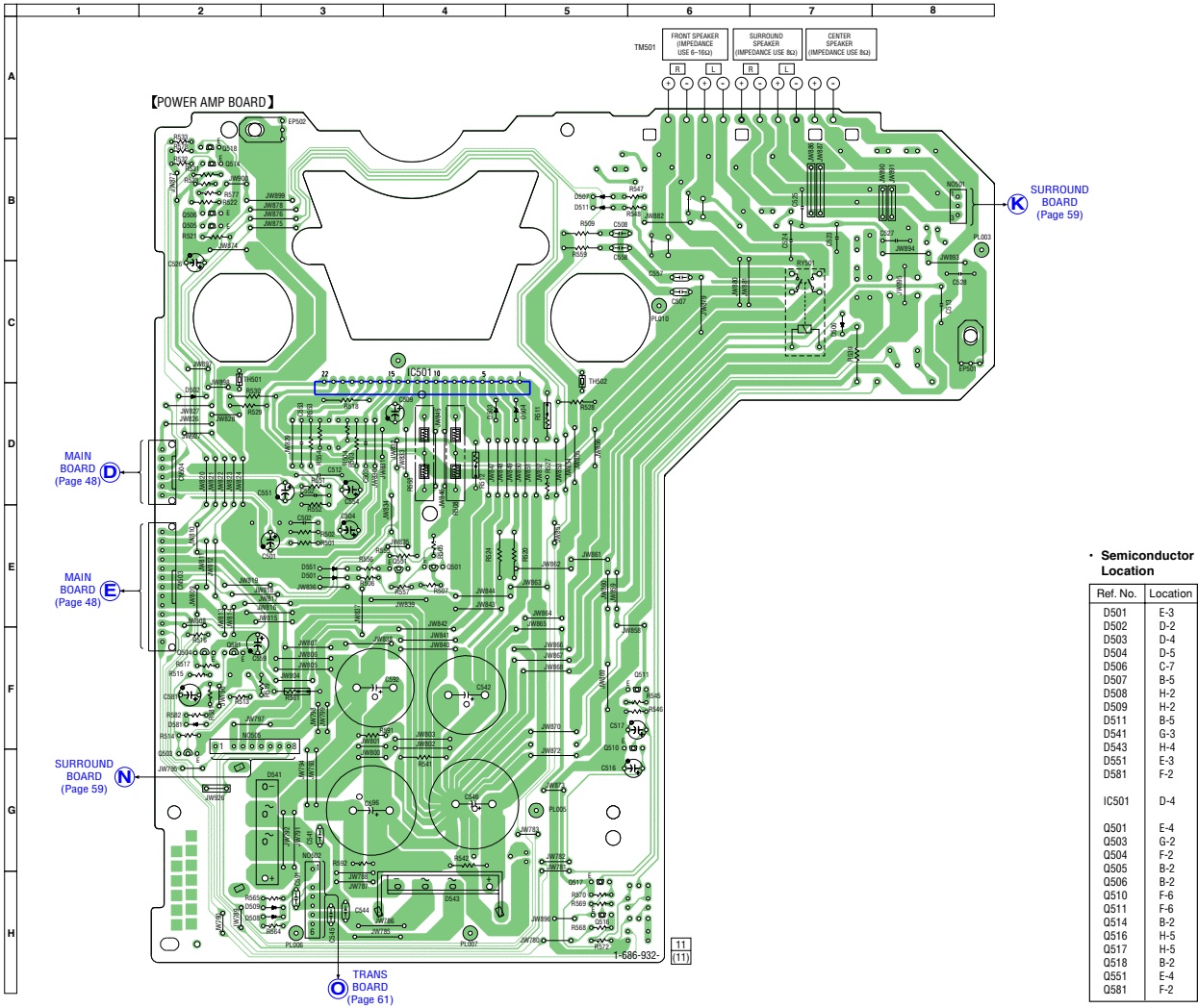


HCD-GN88D

7-26. SCHEMATIC DIAGRAM – DISPLAY Board – See page 78 for Pin Function Description.

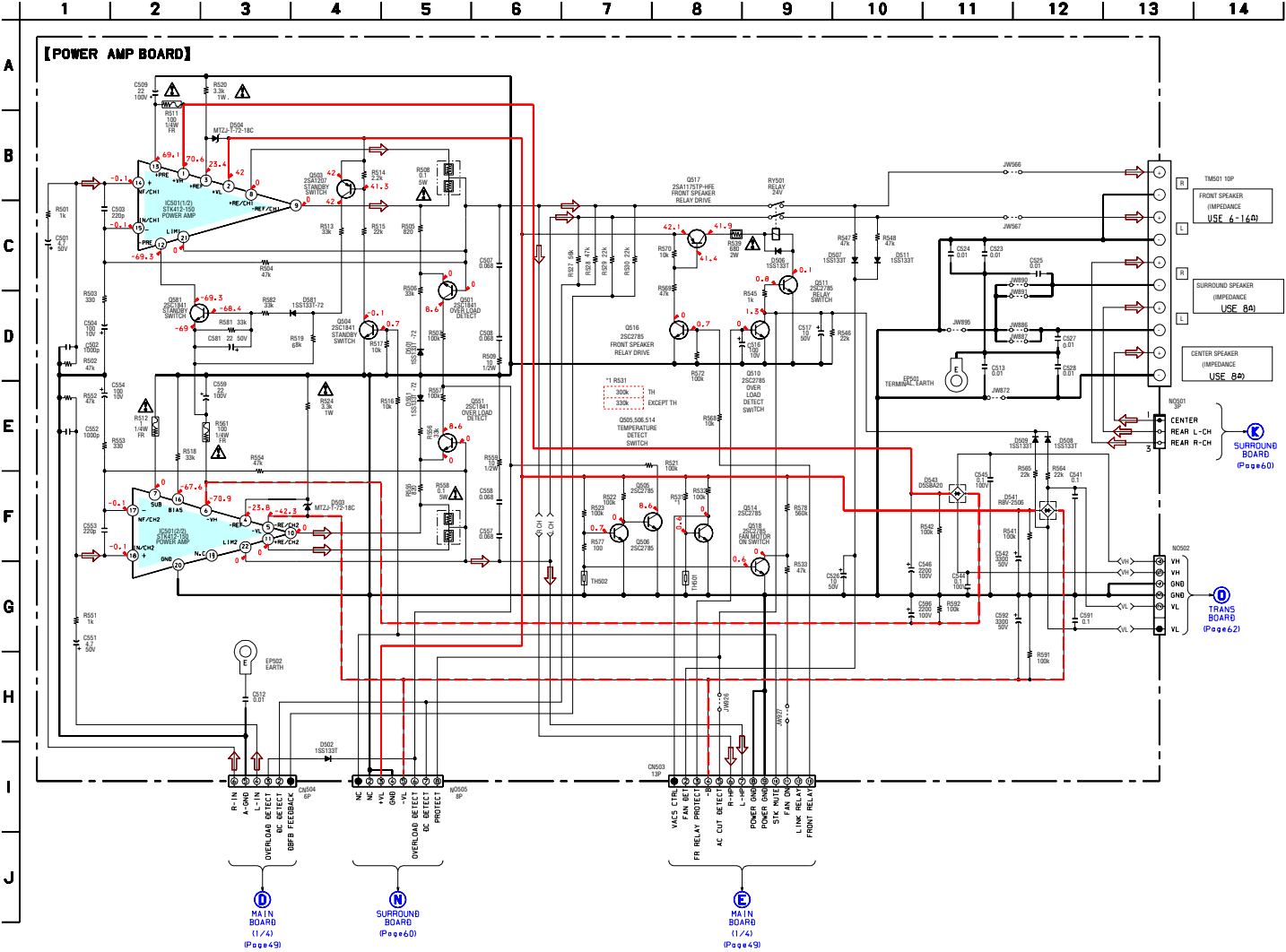


7-27. PRINTED WIRING BOARDS – POWER AMP Board – • See page 24 for Circuit Boards Location.



HCD-GN88D

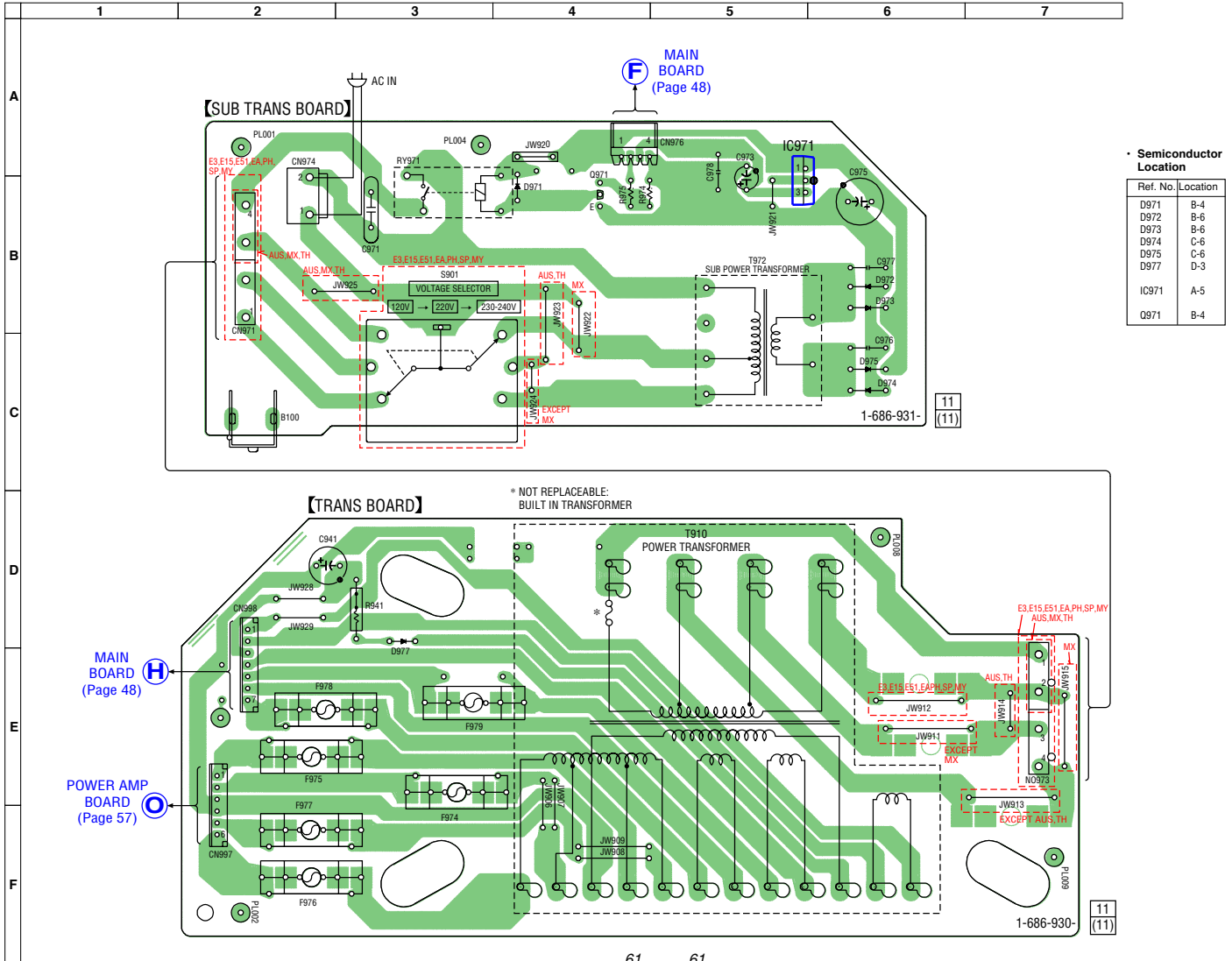
7-28. SCHEMATIC DIAGRAM – POWER AMP Board –

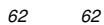






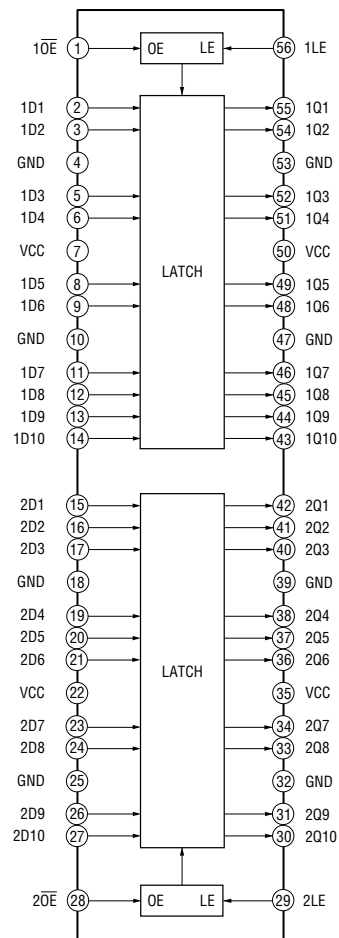
7-31. PRINTED WIRING BOARDS – TRANS Board – • See page 24 for Circuit Boards Location.



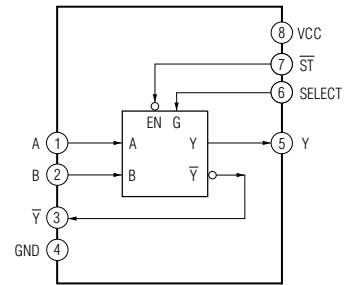


7-33. IC Block Diagrams

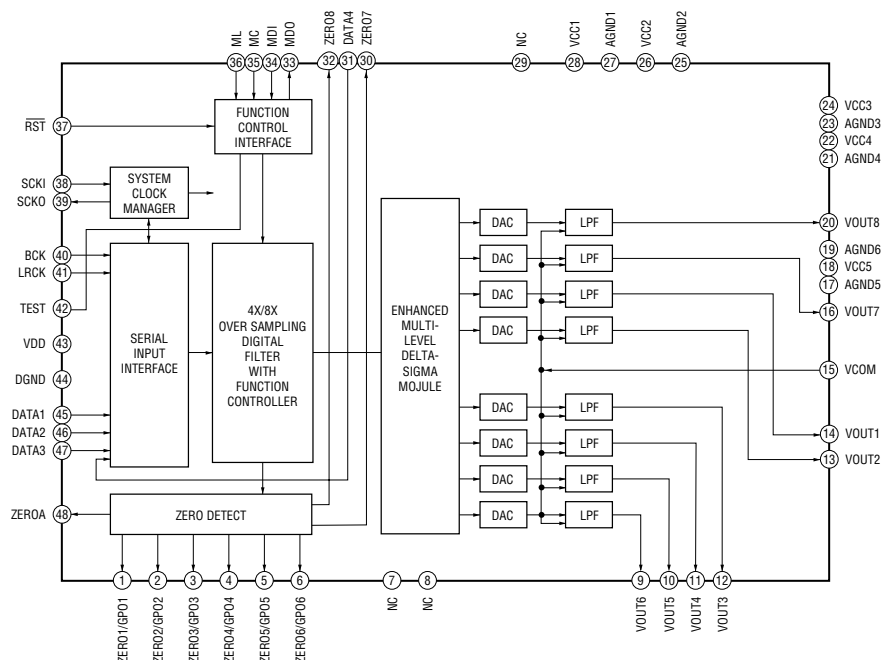
IC216 SN74ALVCH16841DGGR (DMB03 BOARD)



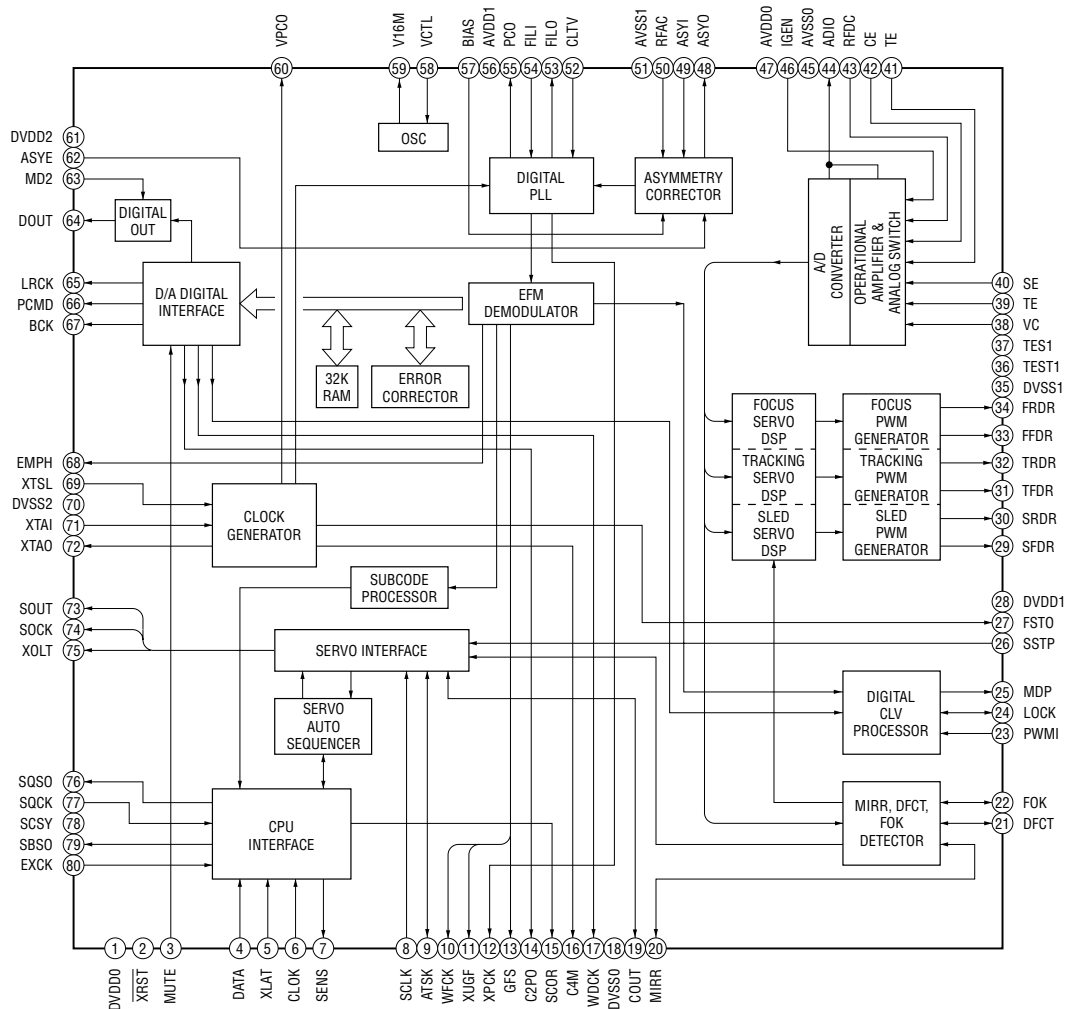
IC252 TC7WH157FK (TE85R) (DMB03 BOARD)



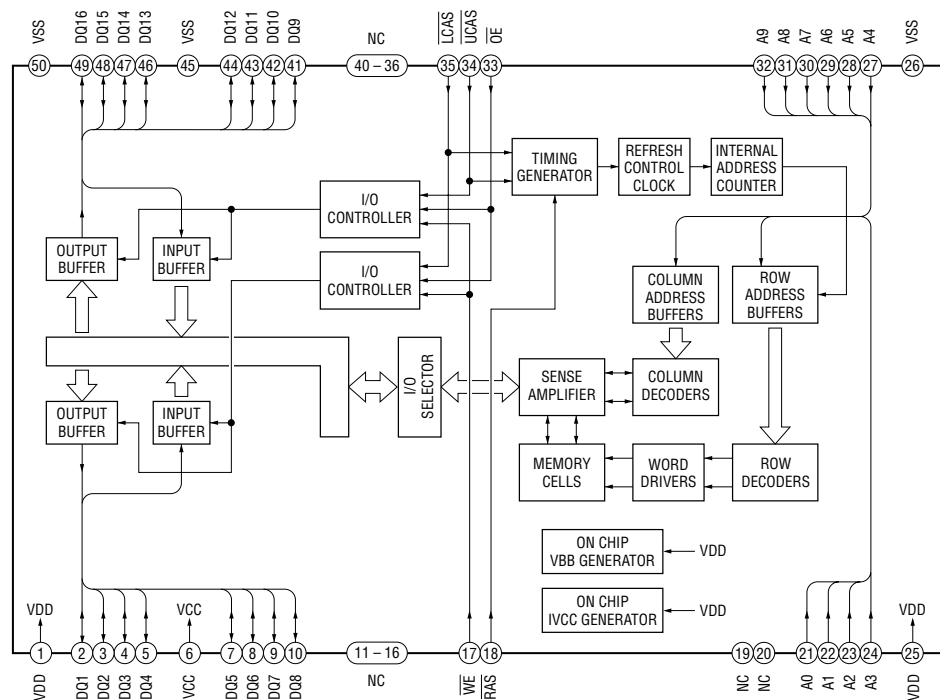
IC302 PCM1609KPTR (DMB03 BOARD)

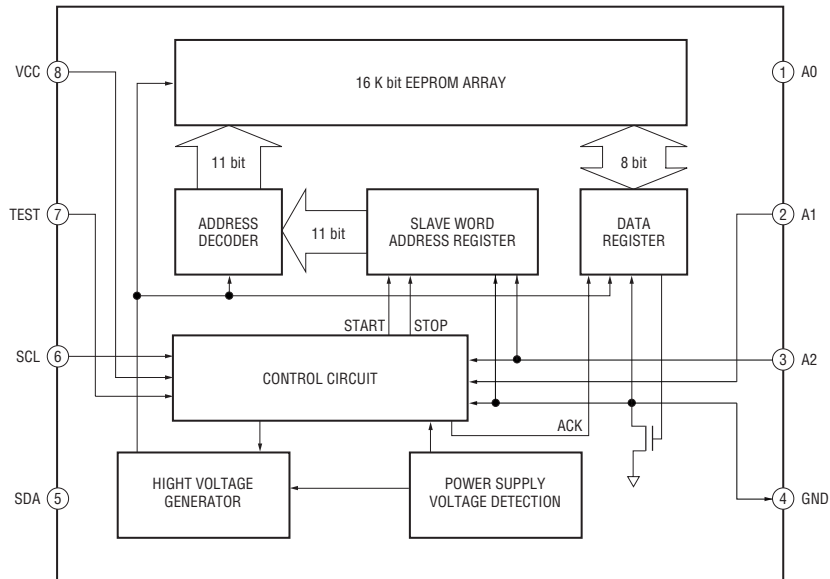
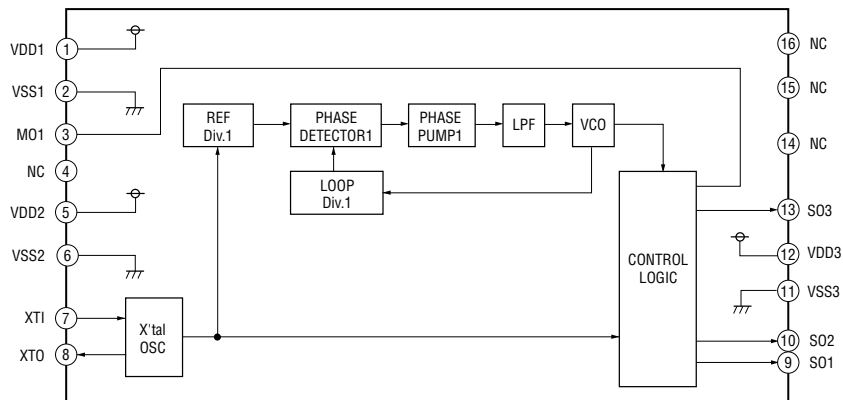


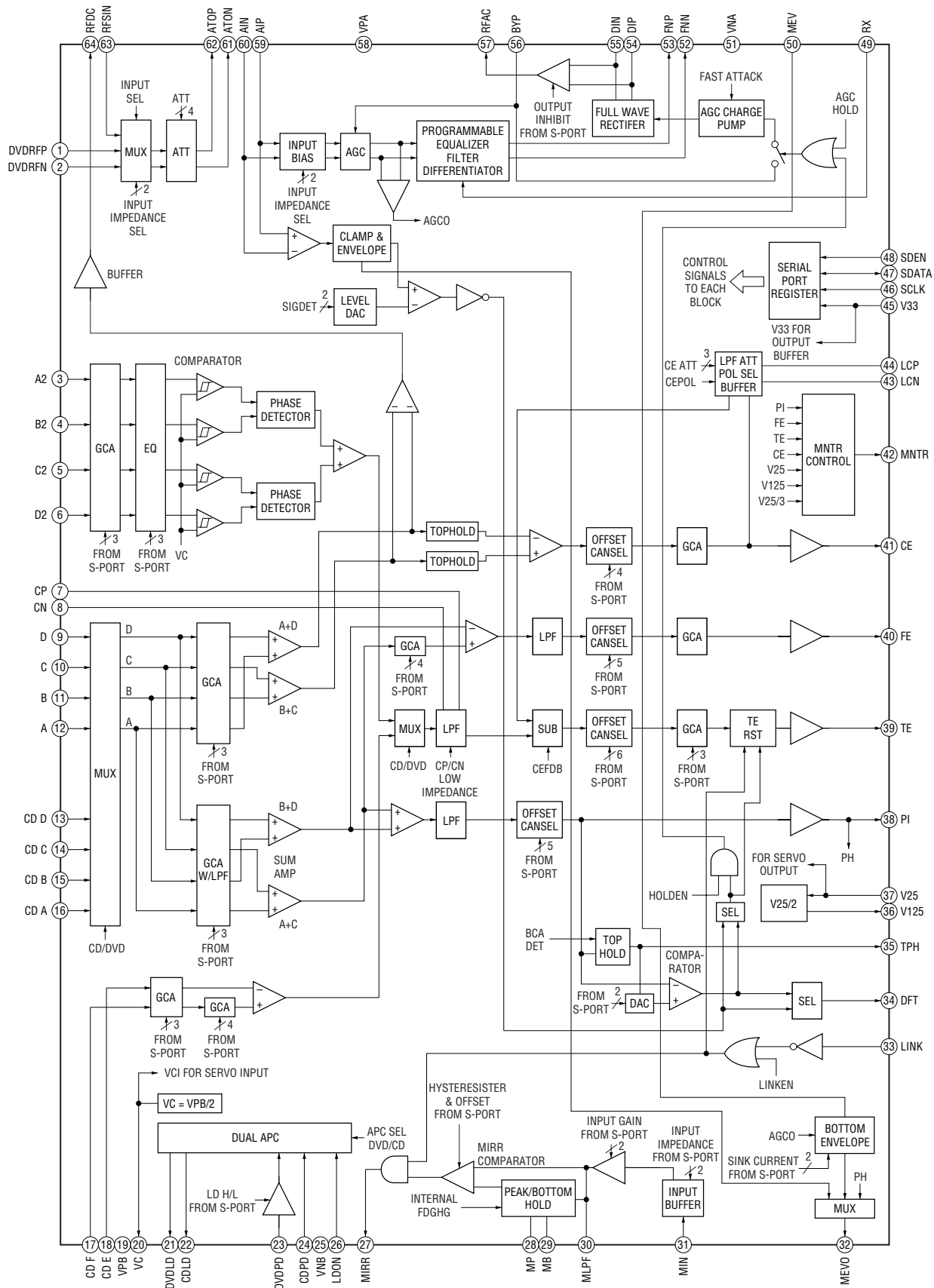
IC509 CXD3068Q (DMB03 BOARD)

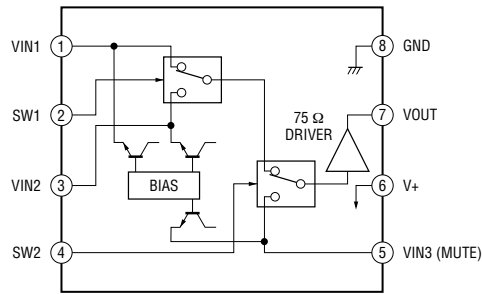
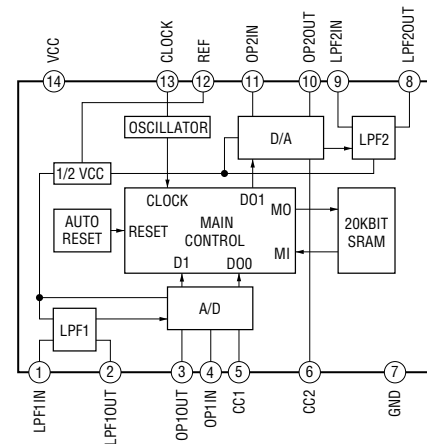
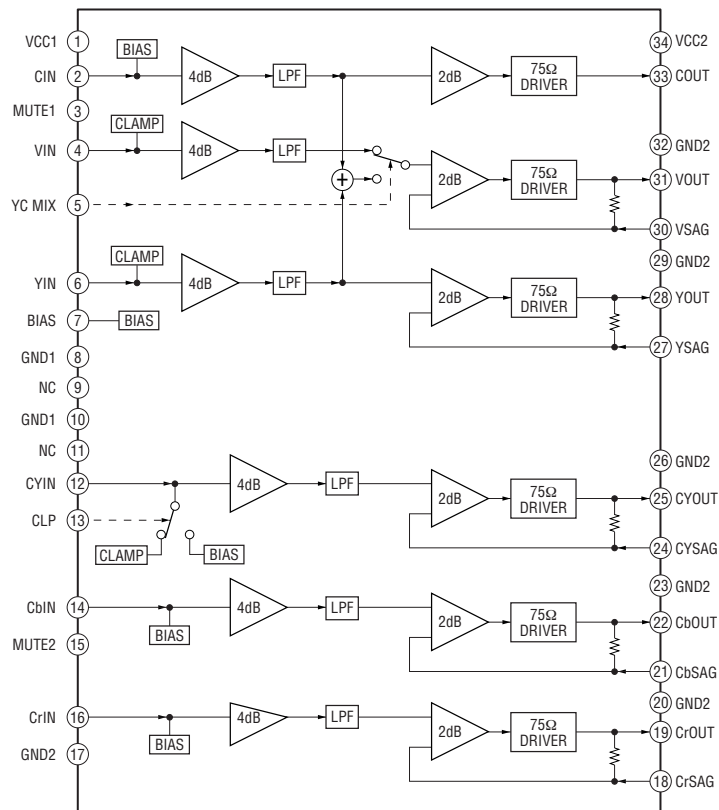
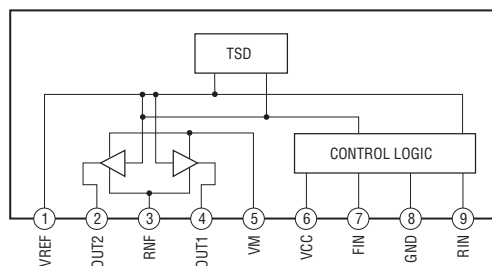


IC706 MSM51V18165F-60TSKR1 (DMB03 BOARD)



IC903 BR24C16F-E2 (DMB03 BOARD)**IC906 SM8707GV-G-E2 (DMB03 BOARD)**



IC710 NJM2244M-TE2 (VIDEO BOARD)**IC721 M65850P (GAME IN BOARD)****IC711 MM1568AJBE (VIDEO BOARD)****IC701, 712 BA6956AN (DRIVER BOARD)**

7-34. 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 to 11 | HD15 to 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 to 19 | HD6 to 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 (not used) |
| 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 to 42 | MA9 to 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, 46 | MA10,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 |
| 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 to 60 | MD0 to 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 to 71 | MD6 to 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 to 78 | MD12 to MD15 | I/O | SDRAM data |
| 79 | GND | — | Ground terminal (inside core) |
| 80 | VDD | — | Power supply terminal (+1.8V) (inside core) |
| 81 to 84 | MD16 to 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 to 95 | MD20 to 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 to 102 | MD28 to MD31 | I/O | SDRAM data |

| Pin No. | Pin Name | I/O | Discription |
|---------|-------------|-----|--|
| 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 |
| 109 | CDSEL | O | CD-DA selection signal output |
| 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 |
| 114 | MC | O | Serial data clock output to the D/A converter |
| 115 | ML | O | Latch enable signal output to the D/A converter |
| 116 | HIRQ2_ | I | Busy signal input from the EEPROM |
| 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 |
| 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) |

| Pin No. | Pin Name | I/O | Description |
|---------|----------------------|-----|--|
| 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 | I | Serial data output to the mechanism controller (IC901) and the EEPROM (IC204) |
| 188 | DRVRDY | O | 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 (not used) |
| 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 |
| 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 TMC57929PGF-RDP (DVD DECODER) (DBM03 Board)

| Pin No. | Pin Name | I/O | Description |
|---------|--------------|-----|--|
| 1, 2 | D5, D6 | I/O | Two-way data bus with CXP973064-226R |
| 3 | VSS | — | Ground |
| 4 | D7 | I/O | Two-way data bus with CXP973064-226R |
| 5 | A0 | I | Address signal input from CXP973064-226R |
| 6 | VDD | — | Power supply (+3.3V) |
| 7 | A1 | I | Address signal input from CXP973064-226R |
| 8 | VDD5V | — | Power supply (+5V) |
| 9 to 14 | A2 to A7 | I | Address signal input from CXP973064-226R |
| 15 | VSS | — | Ground |
| 16 | XWAIT | O | Not used |
| 17 | XRD | I | Read strobe signal input from CXP973064-226R |
| 18 | XWR | I | Write strobe signal input from CXP973064-226R |
| 19 | XCS | I | Chip select signal input from CXP973064-226R |
| 20, 21 | XINT0, XINT1 | O | Interrupt signal output to CXP973064-226R |
| 22 | VDD | — | Power supply (+3.3V) |
| 23 | XHRS | I | Not used |
| 24 | HDB7 | O | Stream data signal output to ZIVA5X-C1F |
| 25 | VSS | — | Ground |
| 26 | HDB8 | O | Error flag signal output to ZIVA5X-C1F |
| 27 | HDB6 | O | Stream data signal output to ZIVA5X-C1F |
| 28 | VDDS | — | Power supply (+5V) |
| 29 | HDB9 | O | Not used |
| 30 | HDB5 | O | Stream data signal output to ZIVA5X-C1F |
| 31 | HDBA | O | Not used |
| 32 | HDB4 | O | Stream data signal output to ZIVA5X-C1F |
| 33 | VSS | — | Ground |
| 34 | HDBB | O | Not used |
| 35 | HDB3 | O | Stream data signal output to ZIVA5X-C1F |
| 36 | VDD | — | Power supply (+3.3V) |
| 37 | HDBC | O | Not used |
| 38 | VDDS | — | Power supply (+5V) |
| 39 | HDB2 | O | Stream data signal output to ZIVA5X-C1F |
| 40 | HDBD | O | Not used |
| 41 | HDB1 | O | Stream data signal output to ZIVA5X-C1F |
| 42 | VSS | — | Ground |
| 43 | HDBE | O | Not used |
| 44 | HDB0 | O | Stream data signal output to ZIVA5X-C1F |
| 45 | HDBF | O | Not used |
| 46 | XSAK | O | Serial data effect flag signal output to ZIVA5X-C1F |
| 47 | VDDS | — | Power supply terminal (+5V) (digital system) |
| 48 | XDCK | O | Serial data transfer clock signal output to ZIVA5X-C1F |
| 49 | XSHD | O | Header flag signal (Not used) |
| 50 | VDD | — | Power supply (+3.3V) |
| 51 | REDY | O | Not used |
| 52 | VSS | — | Ground |
| 53 | XHAC | I | DVD mode: Serial data request signal input from ZIVA5X-C1F |
| 54 | HINT | O | Not used (Pull up) |
| 55 | XS16 | O | Not used (Pull up) |
| 56 | HA1 | I | Not used (Pull up) |

| Pin No. | Pin Name | I/O | Description |
|------------|--------------|-----|---|
| 57 | XPDI | I/O | Not used (Pull up) |
| 58 | VDDS | — | Power supply (+5V) |
| 59, 60 | HA0, HA2 | I | Not used (Pull up) |
| 61 | VSS | — | Ground (open) |
| 62, 63 | HCS0, HCS1 | I | Not used |
| 64 | VDD | — | Power supply (+3.3V) |
| 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 |
| 71 | MDB4 | I/O | Two-way data bus with the D-RAM |
| 72 | VDD5V | — | Power supply (+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 (+3.3V) |
| 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 |
| 82 to 87 | MA2 to MA7 | O | Address signal output to the D-RAM |
| 88 | VDD | — | Power supply (+3.3V) |
| 89 | MA8 | O | Address signal output to the D-RAM |
| 90 | VSS | — | Ground |
| 91 | MA9/MNT0 | O | Address signal output to the D-RAM |
| 92 | MNT1/MNT1 | O | EEPROM ready signal output to CXP973064 |
| 93 | MNT2/MNT2 | O | Address signal output to the D-RAM |
| 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 |
| 99 | MDBA | I/O | Two-way data bus with the D-RAM |
| 100 | VDD | — | Power supply (+3.3V) |
| 101, 102 | MDBB, MDBC | I/O | Two-way data bus with the D-RAM |
| 103 | VDD5V | — | Power supply (+5V) |
| 104 to 106 | MDBD to MDBF | I/O | Two-way data bus with the D-RAM |
| 107 | GFS | O | Guard frame sync signal output to CXP973064-226R |
| 108 | VSS | — | Ground |
| 109 | APEO | O | Absolute phase error signal output |
| 110 | VDD | — | Power supply (+3.3V) |
| 111 | DASYO | O | RF binary signal output |
| 112 | GNDA5 | — | Ground |
| 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 | RFDC | I | Input terminal for adjusting DC cut high-pass filter for RF signal |
| 117 | RFIN | I | RF signal input from the DVD/CD RF amplifier |
| 118, 119 | VCCA5, VCCA4 | — | Power supply (+3.3V) |
| 120 | VCOR1 | — | VCO oscillating range setting resistor connected |
| 121 | VCoin | I | VCO input |
| 122, 123 | GNDA4, GNDA3 | — | Ground |
| 124 | LPF5 | O | Signal output from the operation amplifier from PLL loop filter |
| 125 | VC1 | I | Middle point voltage (+1.65V) input |
| 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 (+3.3V) |
| 130 | PDO | 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 | GND A2, GND A1 | — | Ground |
| 135 | SPO | O | Spindle motor control signal output to FAN8035L |
| 136 | VC2 | I | Middle point voltage (+1.65V) input |
| 137 | MDIN2 | I | Spindle motor servo drive signal input |
| 138 | MDIN1 | I | MDP input |
| 139 | VCCA1 | — | Power supply (+3.3V) |
| 140 | CLVS | O | Control signal output for selection the spindle control filter constant at CLVS |
| 141 | VSS | — | Ground |
| 142 | MDSOUT | O | Frequency error output terminal of internal CLV circuit |
| 143 | VDD | — | Power supply (+3.3V) |
| 144 | MDPOUT | O | Phase error output of internal CLV circuit |
| 145 | DEFECT | I | Defect signal input (Not used) |
| 146 | GSCOR | I | Guard subcode sync (S0+S1) detection signal input from CXD3068Q |
| 147 | EXCK | O | Subcode serial data reading clock signal output to CXD3068Q |
| 148 | SBIN | I | Subcode serial data input from CXD3068Q |
| 149 | VSS | — | Ground |
| 150 | SCOR | I | Subcode sync (S0+S1) detection signal input from CXD3068Q |
| 151 | WFCK | I | Write frame clock signal input from CXD3068Q |
| 152 | VDD5V | — | Power supply (+5V) |
| 153 | XRCI | I | Not used (Pull down) |
| 154 | VDDS | — | Power supply (+5V) |
| 155 | C2PO | I | C2 pointer signal input from CXD3068Q |
| 156 | VDD | — | Power supply (+3.3V) |
| 157 | DBCK | O | Bit clock signal (2.8224 MHz) output (Not used) |
| 158 | BCLK | I | Bit clock signal (2.8224 MHz) input from CXD3068Q |
| 159 | DDAT | O | PCM data (Not used) |
| 160 | MDAT | I | Serial data input from CXD3068Q |
| 161 | VSS | — | Ground |
| 162 | DLRC | O | L/R sampling clock signal (Not used) |
| 163 | LRCK | I | L/R sampling clock signal (44.1 kHz) input from CXD3068Q |
| 164 | XRST | I | Reset signal input from CXP973064-226R "L": reset |
| 165 | IFS0 | I | Not used (connected to ground) |
| 166 | IFS1 | I | Not used (connected to VDD) |
| 167 | XTAL | I | 33.8688 MHz clock signal input from SM8707GV |
| 168 | VSS | — | Ground |
| 169 | XTA2 | O | System clock output (33.8688 MHz) |
| 170 | XTA1 | I | System clock input (33.8688 MHz) |
| 171 | VDD | — | Power supply (+3.3V) |
| 172 to 176 | D0 to D4 | I/O | Two-way data bus with the CXP973064-226R |

• IC901 CXP973064-226R (MECHANISM CONTROLLER) (DBM03 Board)

| Pin No. | Pin Name | I/O | Description |
|----------|---------------------|-----|--|
| 1 | NO_USE | O | Not used (open) |
| 2 | SDEN | O | Serial data enable signal output to CXD1881AR |
| 3 | DOCTRL/ ISBTTEST | O | Digital out on/off control signal output to CXD3068Q |
| 4 | XRST_2753 | O | Not used |
| 5 | SDA_EEP | I/O | Data bus with the EEPROM |
| 6 | MNT1 | I | EEPROM ready signal input from CXD1882R |
| 7 | FCS_JMP_1 | O | Focus jump 1 signal output to the FAN8035L |
| 8 | FCS_JMP_2 | O | Focus jump 2 signal output to the FAN8035L |
| 9 | SENS_CD | I | Internal status (SENSE) signal input from CXD3068Q |
| 10 | CDSP2 | O | Not used |
| 11 | CDSP4 | O | Not used |
| 12 | XCS_DVD | O | Chip select signal output to CXD1882R |
| 13 | VSS | — | Ground |
| 14 to 21 | D0 to D7 | I/O | Two-way data bus with CXD1882R |
| 22 | INIT0_DVD | I | Interrupt signal input from CXD1882R |
| 23 | INIT1_DVD | I | Interrupt signal input from CXD1882R |
| 24 | MSCK_SAMBA | O | Not used |
| 25 | XRST_1882 | O | Reset signal output to CXD1882R |
| 26 | SCOR | I | Subcode sync (S0+S1) detection signal input from CXD3068Q |
| 27 | LAT_CD | O | Serial data latch pulse signal output to CXD3068Q |
| 28 | LD ON | O | Laser diode on/off control signal output to CXD1881AR |
| 29 | MIRR | I | Mirror signal input from CXD1881AR |
| 30 | COUT_CD | I | Numbers of track counted signal input from CXD1881AR |
| 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 ZIVA5X-C1F |
| 33 | SI_ZIVA | I | Serial data input from ZIVA5X-C1F |
| 34 | SO_ZIVA | O | Serial data output to ZIVA5X-C1F |
| 35 | SCK_ZIVA | O | Serial data transfer clock signal output to ZIVA5X-C1F |
| 36 | DRVIRQ | O | Interrupt request signal output to ZIVA5X-C1F |
| 37 | DRVRDY | O | Ready signal output to ZIVA5X-C1F |
| 38 | RST | I | System reset signal input from ZIVA5X-C1F |
| 39 | VSS | — | Ground |
| 40 | XTAL | I | System clock input terminal (20 MHz) |
| 41 | EXTAL | O | System clock output terminal (20 MHz) |
| 42 | VDD | — | Power supply (+3.3V) |
| 43, 44 | SLED_A, SLED_B | O | Sled motor drive signal output to FAN8035L |
| 45 | SCK_DSD | O | Clock output to CXD1882R |
| 46 | SDOUT_DSD | O | Serial data output (Not used) |
| 47 | SDIN_DSD | I | Serial data input (Not used) |
| 48 | READY_DSD | I | Ready signal input (Not used) |
| 49 | DATA_CD | O | Serial data output to CXD3068Q |
| 50 | CLOK_CD | O | Serial data transfer clock signal output to CXD3068Q |
| 51 | XMSLAT | O | Serial data latch pulse signal (Not used) |
| 52 | SQSO | I | Subcode Q data input from CXD1882R |
| 53 | MUTE_DSD | O | Muting on/off control signal (Not used) |
| 54 | SQCK | O | Subcode Q data reading clock signal output to CXD1882R |
| 55 | VSS | — | Ground |
| 56 | CONTROL_2 | I | Not used |

| Pin No. | Pin Name | I/O | Description |
|----------|-----------|-----|---|
| 57 | CONTROL_1 | I | Not used (open) |
| 58 | GFS_DVD | I | Guard frame sync signal input from CXD1882R |
| 59 | MUTE_CD | O | Muting on/off control signal output to CXD3068Q |
| 60 | MUTE_2D | O | Muting on/off control signal output to FAN8035L |
| 61 | SLED | I | Sled motor servo drive PWM signal input from CXD3068Q |
| 62 | FG | I | Spindle motor control signal input from CXD1881AR |
| 63 | SP_ON | O | Muting on/off control signal output to FAN 8035L |
| 64 | JIT | I | Jitter signal input |
| 65 | TE | I | Tracking error signal input from CXD1881AR |
| 66 | PI | I | Pull in signal input from CXD1881AR |
| 67 | FE | I | Focus error signal input from CXD1881AR |
| 68 | AVSS | — | Ground |
| 69 | AVREF | I | Reference voltage input (for A/D converter) |
| 70 | AVDD | — | Power supply (+3.3V) (for A/D converter) |
| 71 | GFS_CD | I | Guard frame sync signal input from CXD3068Q |
| 72 | SCLK_CD | O | SENSE serial data reading clock signal output to CXD3068Q |
| 73 | TSD-M | O | Thermal shut down signal output to FAN8035L |
| 74 | FOK_CD | I | Focus OK signal input from CXD3068Q |
| 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 |
| 78 | I2C_SIO | I/O | Communication data bus input/output |
| 79 | I2C-SCL | I/O | Communication data reading clock signal input/output |
| 80 | RXD | I | Serial data input from the RS-232C (for check) |
| 81 | TXD | O | Serial data output to the RS-232C (for check) |
| 82 | SDCLK_RF | O | Serial data transfer clock signal output to CXD1881AR |
| 83 | SDATA_RF | I/O | Two-way data bus with CXD1881AR |
| 84 | XWR | O | Write strobe signal output to CXD1882R |
| 85 | XRD | O | Read strobe signal output to CXD1882R |
| 86 | (PWE) | — | Not used |
| 87 | VDD | — | Power supply (+3.3V) |
| 88 | VSS | — | Ground |
| 89 to 96 | A0 to A7 | O | Address signal output to CXD1882R |
| 97 | A8 | O | Motor/coil driver power save control signal (Not used) |
| 98 | XDRST | O | Reset signal output |
| 99 | WP_EEP | O | Write protect signal output to the EEPROM |
| 100 | CLK_EEP | O | Clock signal output to the EEPROM |

• IC501 M30620MCN-A27FP (SYSTEM CONTOL) (MAIN Board)

| Pin No. | Pin Name | I/O | Description |
|---------|--------------------|-----|--|
| 1 | STEREO | I | Stereo signal input from tuner |
| 2 | TUNED | I | Tuned signal input from tuner |
| 3 | ST-CE | O | Tuner chip enable signal output |
| 4 | SIRCS | I | SIRCS input |
| 5 | ST-DOUT | O | Tuner data output |
| 6 | ST-DIN | I | Tuner data input |
| 7 | ST-CLK | O | Tuner clock signal output |
| 8 | BYTE | — | Not used (connected to ground) |
| 9 | CNVSS | — | Not used (Connected to ground with resistor) |
| 10 | XC-IN | I | Sub clock input (32.768KHz) |
| 11 | XC-OUT | O | Sub clock output (32.768KHz) |
| 12 | RESET | I | System reset input |
| 13 | X-OUT | O | Main system clock output (16MHz) |
| 14 | VSS | — | Ground |
| 15 | X-IN | I | Main system clock input (16MHz) |
| 16 | VCC | — | Power supply (+3.3V) |
| 17 | NMI | I | Not used (Pull up with resistor) |
| 18 | SOFT-TEST | O | Not used (open) |
| 19 | NO USE | — | Not used (open) |
| 20 | AC-CUT | I | AC cut check signal input |
| 21 | E-1 | I | DVD/CD turn table encoder signal input |
| 22 | E-2 | I | DVD/CD turn table encoder signal input |
| 23 | DVD-POWER (SYSPWR) | O | DVD power ON signal |
| 24 | NO USE | — | Not used (open) |
| 25 | DVD-MUTE (SYSPWR) | O | DVD mute signal output |
| 26 | NO USE | — | Not used (open) |
| 27 | STBY-RELAY | O | Standby relay driver signal output |
| 28 | NO USE | I | Not used (Connected to ground) |
| 29 | IIC-CLK | I | IIC serial clock input |
| 30 | IIC-DATA | I | IIC serial data input |
| 31 | TXD1 | O | Test TX data signal output (Not used) |
| 32 | VMUTE2 | O | Video mute 2 signal output |
| 33 | VMUTE | O | Video mute signal output |
| 34 | M-REQ | I | M request signal input |
| 35 | NO USE | O | Not used (open) |
| 36 | NO USE | O | Not used (open) |
| 37 | NO USE | I | Not used (Connected to ground) |
| 38 | NO USE | I | Not used (Connected to ground) |
| 39 | CLOCK-OUT | O | Not used (open) |
| 40 | SYS-RESET | O | DVD system reset signal |
| 41 | TBL-SENS | I | Table sensor signal input |
| 42 | OPEN SW | I | CDM eject switch signal input |
| 43 | E-3 | I | DVD/CD turn table encoder signal input |
| 44 | TM-F | O | DVD/CD turn table motor-F signal output |
| 45 | MT-R | O | DVD/CD turn table motor-R signal output |
| 46 | LMF | O | LD motor-F signal output |
| 47 | LMR | O | LD motor-R signal output |
| 48 | STBY-LED | O | Standby LED driver signal output |
| 49 | GC-RESET | O | Display control system reset signal output |
| 50 | HP DETECT | I | Headphone detect input |

| Pin No. | Pin Name | I/O | Discription |
|---------|-----------------------------------|-----|--|
| 51 | REC-MUTE | O | REC mute signal output |
| 52 | TC-MUTE | O | TC line mute signal output |
| 53 | PB-A/B | O | TC A/B select signal output |
| 54 | ALC | O | ALC signal output |
| 55 | TC-RELAY | O | TC relay control signal output |
| 56 | REC BIAS | O | TC REC bias on/off signal output |
| 57 | CAPM-CONT | O | Capstan motor REV/FWD/STOP control signal output |
| 58 | B-TRG | O | TCM-B Trigger output |
| 59 | A-TRG | O | TCM-A trigger output |
| 60 | B-REC-REV | I | Record tab switch for SIDE-B signal input |
| 61 | B-PLAY | I | TCM-B play switch input |
| 62 | VCC | — | Power supply (+3.3V) |
| 63 | AMS-IN | I | AMS signal input |
| 64 | VSS | — | Ground |
| 65 | EQ-H/N | O | EQ high/Normal signal output |
| 66 | A-REC-FWD | I | Record tab switch for SIDE-A signal input |
| 67 | A-HALF | I | A deck half detection signal input |
| 68 | SPEANA ATTN | O | Speana audio level control signal output |
| 69 | A-PLAY | I | TCM-A play switch input |
| 70 | SW RELAY | O | SW relay drive signal output |
| 71 | MIC DETECT | I | MIC detect signal input |
| 72 | VACE IN | I | VACE control signal input |
| 73 | DISPLAY-KEY | I | Display key signal input |
| 74 | POWER-KEY | I | Power key signal input |
| 75 | STK-MUTE | O | Mute signal output to power IC |
| 76 | HP-MUTE | O | Headphone mute signal output |
| 77 | LINE-MUTE | O | TA LINE mute signal output |
| 78 | PROTECTOR | I | Speaker protection signal input |
| 79 | AUDIO-DATA | O | Audio input select data output |
| 80 | AUDIO-CLK | O | Audio input select clock output |
| 81 | VIDEO OUT | O | Video out select signal output |
| 82 | AUDIO-OUT | O | Audio out select signal output |
| 83 | FRONT-RELAY | O | Front speaker relay driver signal output |
| 84 | LINK-RELAY (REAR L/R SURR RLY) | O | Rear speaker relay driver signal output |
| 85 | CENTER-RELAY | O | Center speaker relay driver signal output |
| 86 | VOLUME-DATA | O | Volume level control data output |
| 87 | VOLUME-CLK | O | Volume level control clock output |
| 88 | FAN KICK | O | Fan motor control signal output |
| 89 | A-SHUT | I | TCM-A reel pulse input |
| 90 | B-SHUT | I | TCM-B reel pulse input |
| 91 | B-HALF | I | B deck half detection input |
| 92 | MODEL-IN | I | Model input |
| 93 | DEST-IN | I | Destination input |
| 94 | I-HOLD | I | Sub trans over valtage detect |
| 95 | DVD-POWER-CHK | I | DVD power D+3.3V voltage detect signal input |
| 96 | AVSS | — | Ground |
| 97 | NO USE | — | Not used (open) |
| 98 | VREF | I | Reference voltage input |
| 99 | AVCC | — | Power supply (+3.3V) |
| 100 | ST-MUTE | O | Tuner mute signal output |

• IC601 MB90M407PF-G-130-BND (DISPLAY CONTROL) (DISPLAY Board)

| Pin No. | Pin Name | I/O | Description |
|-----------|-----------------------------|-----|---|
| 1 to 7 | G7 to G1 | O | FLD grid output |
| 8 to 10 | P1 to P3 | O | FLD segment output |
| 11 | VSS-IO | — | Ground |
| 12 to 22 | P4 to P14 | O | FLD segment output |
| 23 | VDD-FIP | — | Power supply (+3.3V) |
| 24 to 41 | P15 to P32 | O | FLD segment output |
| 42 | VSS-IO | — | Ground |
| 43 to 46 | P33 to P36 | O | FLD segment output |
| 47 | NO USED | O | Not used (connected to ground) |
| 48 | VKK | — | Power supply (-35V) |
| 49 | MD0 | I | Not used (pull up with resistor) |
| 50 | MD1/VDD-VFT | I | Not used (pull up with resistor) |
| 51 | MD2 | I | Not used (pull down with resistor) |
| 52 | VOLUME 5,6 LED | O | Volume level indicator LED drive signal output |
| 53 | VOLUME 7,8 LED | O | Volume level indicator LED drive signal output |
| 54 | VOLUME 9,10 LED | O | Volume level indicator LED drive signal output |
| 55 | VOLUME 11,MULT1 CH LED | I | Volume level indicator LED drive signal output |
| 56 | VOLUME 3,4 LED | I | Volume level indicator LED drive signal output |
| 57 | VOLUME 1,2 LED | O | Volume level indicator LED drive signal output |
| 58 | TAPE A/B, TUNER LED | O | TAPE A/B indicator LED drive signal output |
| 59 | GAME, MD/VIDEO LED | O | GAME, MD/VIDEO indicator LED drive signal output |
| 60 | I2C-DATA | O | IIC serial data output |
| 61 | I2C-CLOCK | O | IIC clock signal output |
| 62 | AVCC | — | Power supply (+3.3V) |
| 63 | AVSS | — | Ground |
| 64 to 66 | KEY0 to KEY2 | I | Key input (A/D port) |
| 67 | BPF3 | I | Spectrum analyzer BPF signal input |
| 68 | BPF2 | I | Spectrum analyzer BPF signal input |
| 69 | BPF1 | I | Spectrum analyzer BPF signal input |
| 70 | SUPER LOW FQUENCY (BPF0) | I | Spectrum analyzer BPF signal input |
| 71 | ALL BAND | I | L+R signal input |
| 72 | SELECTOR | O | LED group A/B select signal output |
| 73 | CD/DVD, REC/PAUSE LED | O | CD/DVD, REC/PAUSE indicator LED drive signal output |
| 74 to 76 | NO USE | O | Not used (connected to ground) |
| 77 | RESET | I | Reset input |
| 78 | SOFT TEST | O | Not used (open) |
| 79 | VOL 1B | I | Volume encoder signal B input |
| 80 | VOL 1A | I | Volume encoder signal A input |
| 81 | VSS-CPU | — | Ground |
| 82 | XOUT | O | Crystal oscillator output (4MHz) |
| 83 | XIN | I | Crystal oscillator input (4MHz) |
| 84 | VCC-CPU | — | Power supply (+3.3V) |
| 85 to 86 | NO USED | O | Not used (open) |
| 87 to 100 | G21 to G8 | O | FLD grid output |

SECTION 8 EXPLODED VIEWS

NOTE:

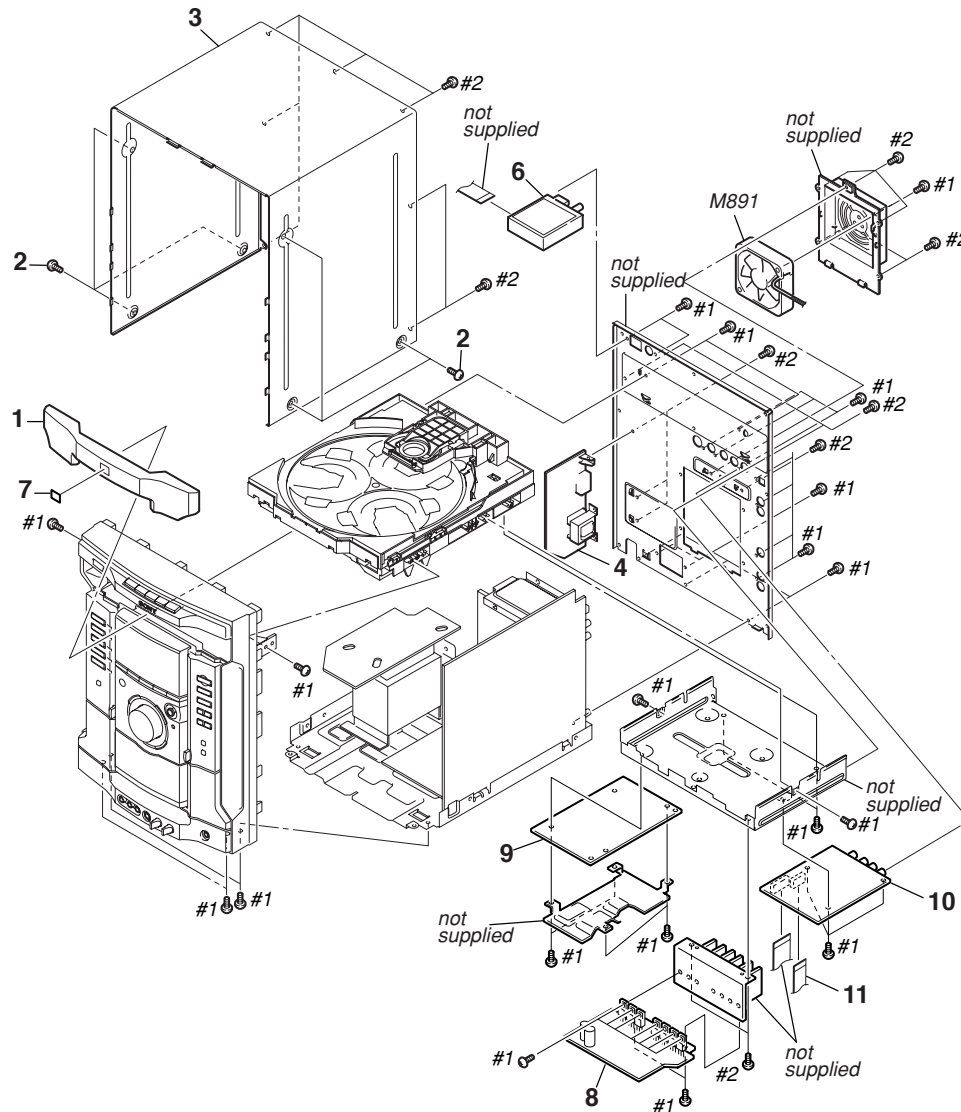
- XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Accessories are given in the last of the electrical parts list.

Abbreviation

| | |
|-----|------------------------------|
| AUS | : Australian model |
| E3 | : 240 V AC Area in E model |
| EA | : Saudi Arabia model |
| E15 | : Iran model |
| E51 | : Chilean and Peruvian model |
| MX | : Mexican model |
| PH | : Philippines model |
| SP | : Singapore model |
| MY | : Malaysia model |
| TH | : Thai model |

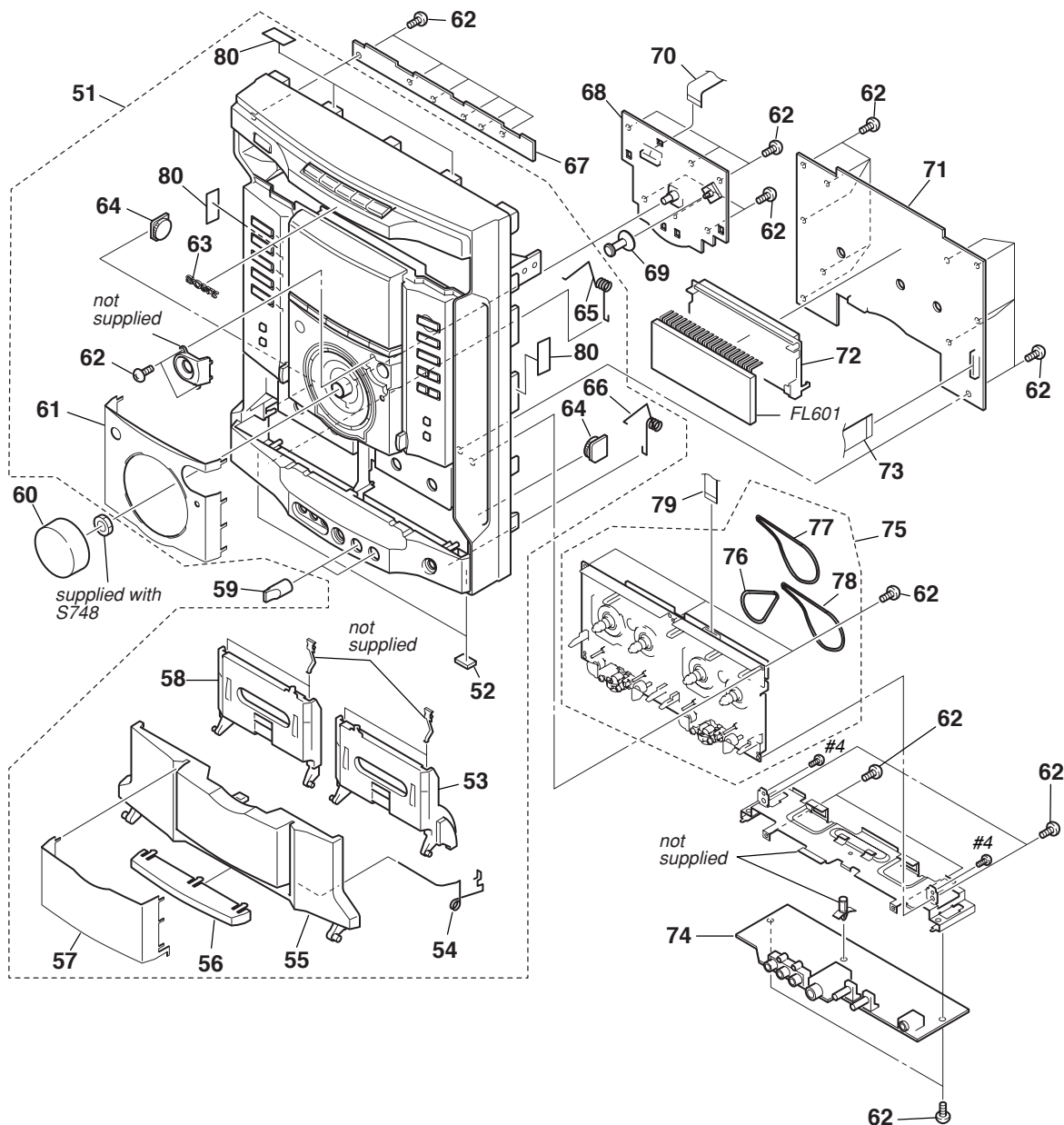
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

8-1. CASE, BACK PANEL, DMB03 BOARD SECTION



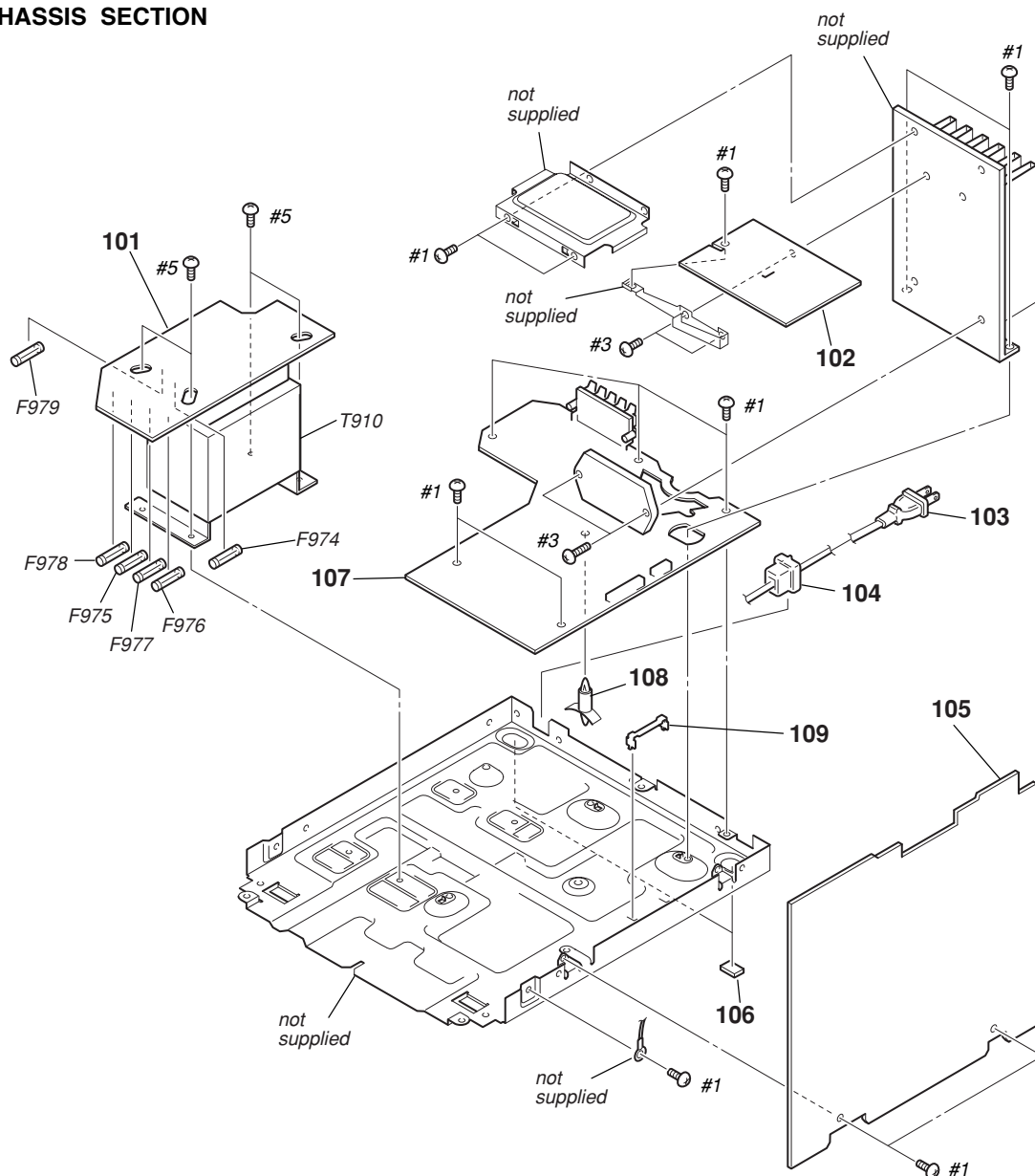
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|---------------------------------|-----------------------|----------|--------------|---------------------------------------|--------|
| 1 | 4-244-102-61 | LOADING PANEL | | 8 | A-4732-884-A | REGULATOR BOARD, COMPLETE (EXCEPT TH) | |
| 2 | 3-363-099-41 | SCREW (CASE 3 TP2) | | 8 | A-4734-506-A | REGULATOR BOARD, COMPLETE (TH) | |
| 3 | 4-231-828-51 | CASE | | 9 | A-4732-903-A | DMB03 BOARD, COMPLETE | |
| 4 | A-4731-346-A | SUB-TRANS BOARD, COMPLETE | | 10 | A-4732-883-A | VIDEO BOARD, COMPLETE (EXCEPT TH) | |
| 4 | A-4734-889-A | SUB-TRANS BOARD, COMPLETE (MX) | (E15,E3,E51,PH,SP,MY) | 10 | A-4734-505-A | VIDEO BOARD, COMPLETE (TH) | |
| 4 | A-4734-967-A | SUB-TRANS BOARD, COMPLETE (AUS) | | 11 | 1-775-165-11 | WIRE (FLAT TYPE) (17 CORE) (220mm) | |
| 4 | A-4747-641-A | SUB TRANS BOARD, COMPLETE (EA) | | M891 | 1-763-072-11 | FAN, DC | |
| 4 | A-4749-091-A | SUB TRANS BOARD, COMPLETE (TH) | | #1 | 7-685-647-79 | SCREW +BVT 3X10 TYPE2 N-S | |
| 6 | 1-693-603-31 | TUNER (FM/AM) | | #2 | 7-685-871-01 | SCREW +BVT 3X6 (S) | |
| 7 | 3-067-237-11 | EMBLEM (V), DVD | | | | | |

8-2. FRONT PANEL SECTION



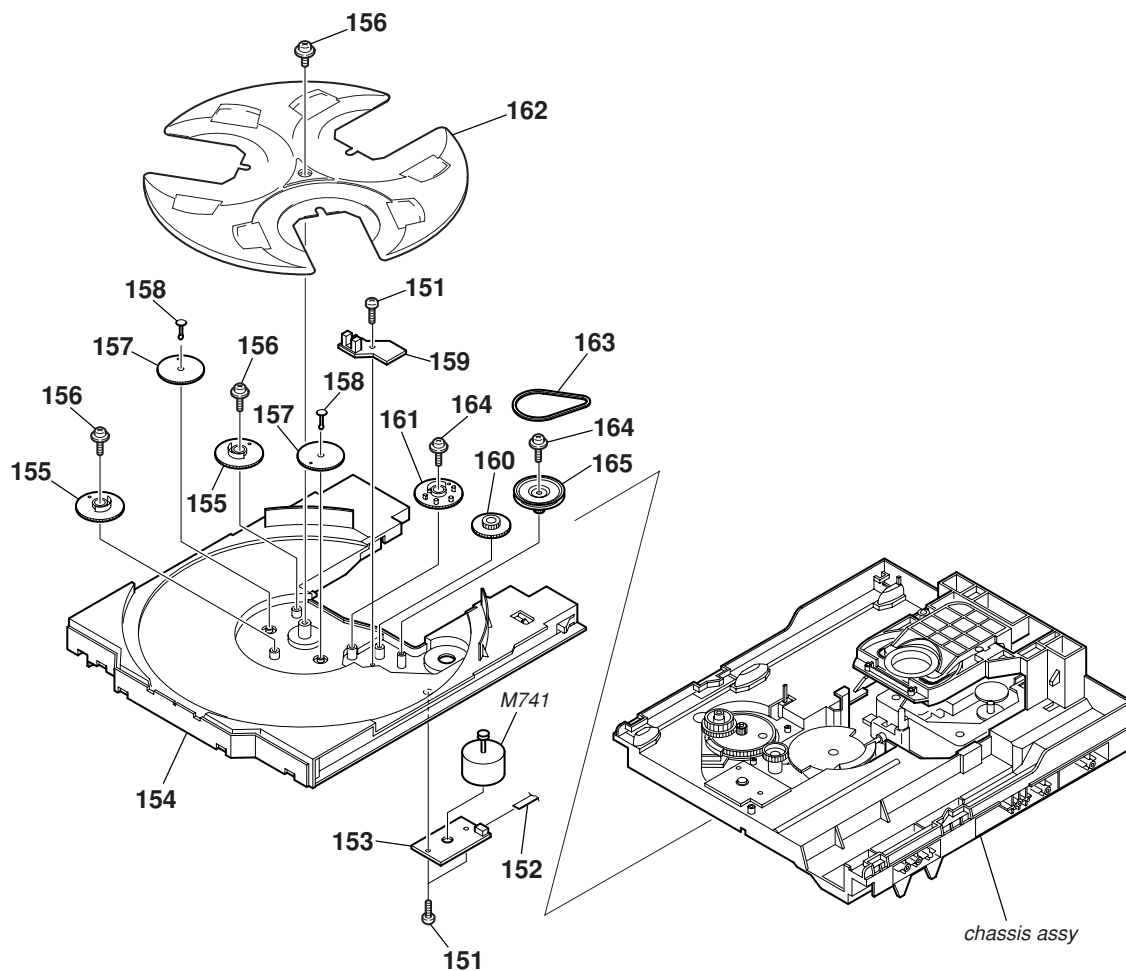
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|----------------------|--------|----------|--------------|-------------------------------------|--------|
| 51 | X-4955-539-1 | FRONT PANEL ASSY | | 68 | A-4732-868-A | VOLUME BOARD, COMPLETE (EXCEPT TH) | |
| 52 | 4-225-252-01 | CUSHION (FOOT) | | 68 | A-4734-534-A | VOLUME BOARD, COMPLETE (TH) | |
| 53 | 4-244-075-01 | HOLDER (TC-R) | | 69 | 4-244-096-01 | KNOB CURSOR | |
| 54 | 4-244-093-01 | SPRING LID | | 70 | 1-773-040-11 | WIRE (FLAT TYPE) (17 CORE) (120mm) | |
| 55 | 4-244-072-01 | LID TC | | 71 | A-4732-870-A | DISPLAY BOARD, COMPLETE (EXCEPT TH) | |
| 56 | 4-244-073-01 | WINDOW TC | | 71 | A-4734-535-A | DISPLAY BOARD, COMPLETE (TH) | |
| 57 | 4-244-090-01 | COVER (AL-TC) | | 72 | 4-231-581-01 | HOLDER (FL) | |
| 58 | 4-244-074-01 | HOLDER (TC-L) | | 73 | 1-773-110-11 | WIRE (FLAT TYPE) (19 CORE) | |
| 59 | 4-224-578-21 | KNOB (MIC) | | 74 | A-4732-871-A | GAME IN BOARD, COMPLETE (EXCEPT TH) | |
| 60 | 4-244-097-01 | KNOB (VOLUME) | | 74 | A-4734-533-A | GAME IN BOARD, COMPLETE (TH) | |
| 61 | 4-244-089-21 | COVER (AL-STR) | | 75 | 1-796-487-31 | DECK, MECHANICAL (CDM43RR23) | |
| 62 | 4-951-620-01 | SCREW (2.6X8), +BVTP | | 76 | 4-243-609-01 | BELT (AF) | |
| 63 | 4-963-404-21 | EMBLEM (5-A), SONY | | 77 | 4-243-610-01 | BELT (AL) | |
| 64 | 4-224-104-11 | DAMPER | | 78 | 4-243-608-01 | BELT (BR) | |
| 65 | 4-244-094-01 | SPRING (L) | | 79 | 1-751-688-11 | WIRE (FLAT TYPE) (13 CORE) | |
| 66 | 4-244-095-01 | SPRING R | | 80 | 3-378-434-01 | CUSHION, SARANET | |
| 67 | 1-686-936-11 | CD SWITCH BOARD | | FL601 | 1-518-862-11 | INDICATOR TUBE, FLUORESCENT | |
| | | | | #4 | 7-685-781-09 | SCREW +PTT 2X4 (S) | |

8-3. CHASSIS SECTION



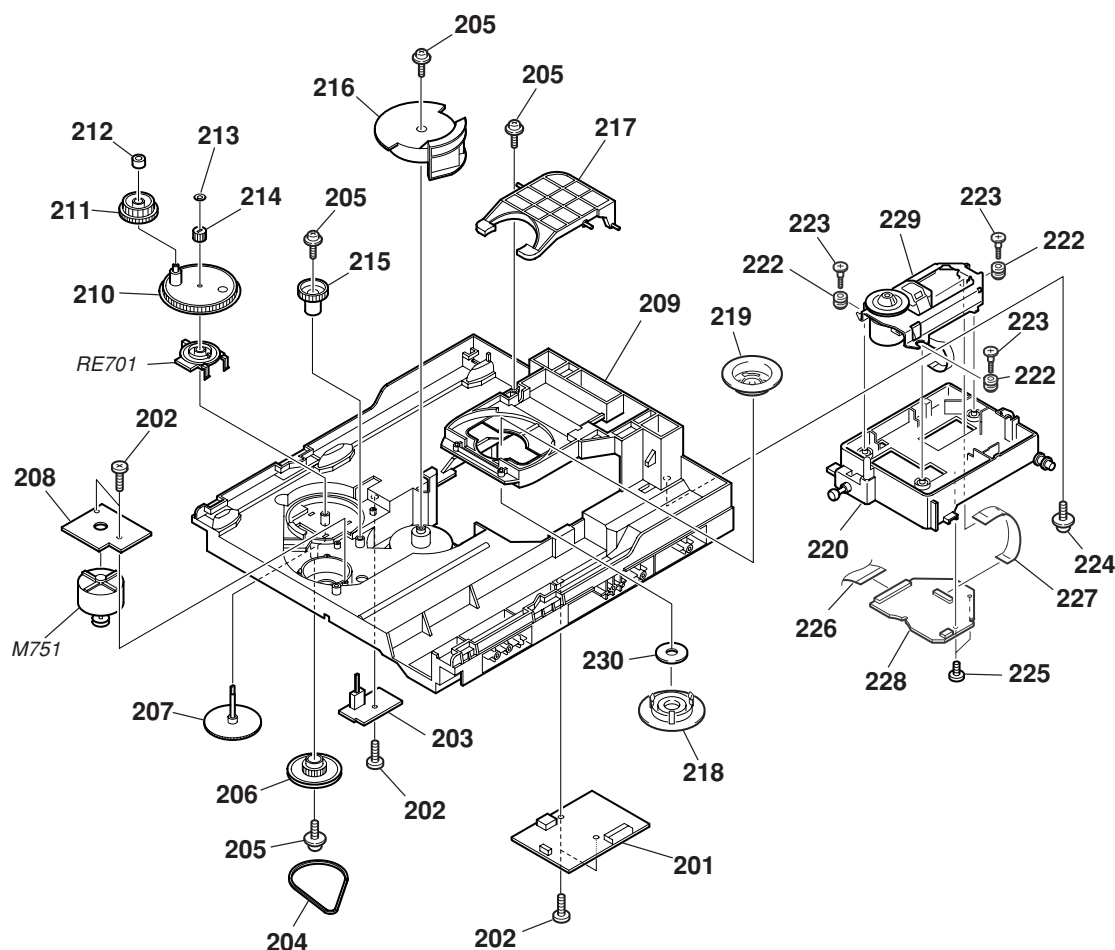
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|--|--------|----------|--------------|--|--------|
| 101 | 1-686-930-11 | TRANS BOARD | | 108 | 4-943-687-01 | HOLDER, PC BOARD | |
| 102 | A-4732-892-A | SURROUND BOARD, COMPLETE (EXCEPT TH) | | * 109 | 4-988-533-01 | HOLDER, PWB | |
| 102 | A-4734-262-A | SURROUND BOARD, COMPLETE (TH) | | Δ F974 | 1-533-473-11 | FUSE, GLASS TUBE (DIA. 5) (T6.3AL 250V) | |
| Δ 103 | 1-696-847-21 | CORD, POWER (AUS) | | Δ F975 | 1-533-473-11 | FUSE, GLASS TUBE (DIA. 5) (T6.3AL 250V) | |
| Δ 103 | 1-777-071-53 | CORD, POWER (E51,EA,PH,SP,MY) | | Δ F976 | 1-576-655-11 | FUSE, GLASS TUBE (DIA. 5) (T8AL 250V) | |
| Δ 103 | 1-824-818-11 | CORD, POWER (TH) | | Δ F977 | 1-576-655-11 | FUSE, GLASS TUBE (DIA. 5) (T8AL 250V) | |
| Δ 103 | 1-827-226-11 | CORD, POWER (E15,E3,MX) | | Δ F978 | 1-533-471-11 | FUSE, GLASS TUBE (DIA. 5) (T4AL 250V) | |
| * 104 | 3-703-244-00 | BUSHING (2104), CORD (AUS,E51,EA,PH,SP,MY,TH) | | Δ F979 | 1-533-470-11 | FUSE, GLASS TUBE (DIA. 5) (T3.15AL 250V) | |
| 104 | 3-703-571-11 | BUSHING (S) (4516), CORD (E15,E3,MX) | | Δ T910 | 1-439-741-11 | TRANSFORMER, POWER (AUS,E15,E3,E51,PH,SP,MY,TH) | |
| 105 | A-4732-888-A | MAIN BOARD, COMPLETE(E15,E3,E51,EA,MX) | | Δ T910 | 1-439-842-11 | POWER TRANSFORMER (EA,MX) | |
| 105 | A-4733-170-A | MAIN BOARD, COMPLETE (AUS,PH,SP,MY) | | #1 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S | |
| 105 | A-4734-508-A | MAIN BOARD, COMPLETE (TH) | | #3 | 7-685-650-79 | SCREW +BVTP 3X16 TYPE2 IT-3 | |
| 106 | 4-225-252-01 | CUSHION (FOOT) | | #5 | 7-685-881-09 | SCREW +BVTT 4X8 (S) | |
| 107 | A-4732-900-A | POWER BOARD, COMPLETE (EXCEPT TH) | | | | | |
| 107 | A-4734-623-A | POWER BOARD, COMPLETE (TH) | | | | | |

8-4. DVD MECHANISM DECK SECTION-1 (CDM74D-DVBU23)



| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------------------------|--------|----------|--------------|-------------------------------|--------|
| 151 | 4-218-253-21 | SCREW (M2.6), +BTTP | | 160 | 4-243-820-01 | GEAR (TABLE) | |
| 152 | 1-776-182-11 | WIRE (FLAT TYPE) (5 CORE) | | 161 | 4-243-819-01 | GEAR (GENEVA) | |
| 153 | 1-687-134-11 | MOTOR (TB) BOARD | | 162 | 4-243-816-01 | TRAY | |
| 154 | 4-243-815-01 | TABLE (LOADING) | | 163 | 4-243-823-01 | BELT (TABLE) | |
| 155 | 4-245-571-01 | GEAR (STOPPER) | | 164 | 4-985-672-01 | SCREW (+PTPWH M2.6), FLOATING | |
| 156 | 4-218-252-61 | SCREW (+PTPWH M2.6), FLOATING | | 165 | 4-243-821-01 | PULLEY (TABLE) | |
| 157 | 4-245-570-01 | GEAR (JOINT) | | M741 | A-4723-963-A | MOTOR ASSY, TABLE | |
| 158 | 4-245-572-01 | BUSHING (GEAR) | | | | | |
| 159 | 1-687-132-11 | SENSOR BOARD | | | | | |

8-5. DVD MECHANISM DECK SECTION-2 (CDM74D-DVBU23)



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

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------------------------|--------|-----------------|--------------|--------------------------------|--------|
| 201 | 1-687-135-11 | DRIVER BOARD | | 217 | 4-243-822-01 | LEVER (LIFTER) | |
| 202 | 4-218-253-31 | SCREW (M2.6), +BTTP | | 218 | X-4954-450-1 | PULLEY (240) ASSY | |
| 203 | 1-687-669-11 | SW BOARD | | 219 | 4-233-594-01 | PULLEY (B) (DVD), CHUCKING | |
| 204 | 4-244-034-01 | BELT (LOADING) | | 220 | X-4955-538-1 | HOLDER (DBU) ASSY | |
| 205 | 4-218-252-61 | SCREW (+PTPWH M2.6), FLOATING | | 222 | 3-053-847-31 | INSULATOR | |
| 206 | 4-225-844-01 | GEAR (LOADING A) | | 223 | 4-981-923-01 | SCREW (M), STEP | |
| 207 | 4-224-613-01 | GEAR (SHAFT) | | 224 | 4-218-252-51 | SCREW (+PTPWH M2.6), FLOATING | |
| 208 | 1-687-133-11 | MOTOR (LD) BOARD | | 225 | 4-218-253-11 | SCREW (M2.6), +BTTP | |
| 209 | 4-243-817-11 | CHASSIS | | 226 | 1-775-265-11 | WIRE (FLAT TYPE) (29 CORE) | |
| 210 | 4-244-108-01 | GEAR, SWING | | 227 | 1-824-106-12 | CABLE, FLEXIBLE FLAT (24 CORE) | |
| 211 | 4-224-609-01 | GEAR (LOADING C) | | 228 | A-4728-690-A | RF BOARD, COMPLETE | |
| 212 | 4-224-608-01 | COLLAR, SWING | | \triangle 229 | 1-477-263-11 | OPTICAL PICK-UP (TDPO22W) | |
| 213 | 3-016-533-01 | WASHER (FR), STOPPER | | 230 | 3-053-844-01 | YOKE | |
| 214 | 4-224-611-01 | GEAR (LOADING B) | | M751 | A-4737-553-A | MOTOR ASSY, LOADING | |
| 215 | 4-224-606-01 | GEAR (RV) | | RE701 | 1-477-680-11 | ENCODER, ROTARY | |
| 216 | 4-243-818-01 | GEAR (U/D) | | | | | |

SECTION 9

ELECTRICAL PARTS LIST

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 and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS**
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS

In each case, u: μ , for example:
 uA. . : μ A. . uPA. . : μ PA. .
 uPB. . : μ PB. . uPC. . : μ PC. .
 uPD. . : μ PD. .

• CAPACITORS

uF: μ F

• COILS

uH: μ H

• Abbreviation

| | |
|----------------------------------|------------------------|
| AUS : Australian model | MX : Mexican model |
| E3 : 240 V AC Area in E model | PH : Philippines model |
| EA : Saudi Arabia model | SP : Singapore model |
| E15 : Iran model | MY : Malaysia model |
| E51 : Chilean and Peruvian model | TH : Thai model |

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

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

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|--------------|-------------------------------------|--|---------|----------|--------------|---------------------|-------------|
| | 1-686-936-11 | CD SWITCH BOARD ***** | | C115 | 1-126-957-11 | ELECT 0.22uF 20% | 50V |
| | | < DIODE > | | C116 | 1-130-475-00 | MYLAR 0.0022uF 5% | 50V |
| D748 | 8-719-058-04 | DIODE SEL5223S-TP15 (I/⌋) | | C117 | 1-130-475-00 | MYLAR 0.0022uF 5% | 50V |
| | | < TRANSISTOR > | | C118 | 1-126-964-11 | ELECT 10uF 20% | 50V |
| Q748 | 8-729-116-02 | TRANSISTOR BA1A4M-TP | | C119 | 1-124-261-00 | ELECT 10uF 20% | 50V |
| | | < RESISTOR > | | C120 | 1-126-957-11 | ELECT 0.22uF 20% | 50V |
| R748 | 1-249-411-11 | CARBON 330 5% 1/4W | | C121 | 1-126-963-11 | ELECT 4.7uF 20% | 50V |
| R749 | 1-249-410-11 | CARBON 270 5% 1/4W F | | C122 | 1-124-584-00 | ELECT 100uF 20% | 10V |
| R788 | 1-249-427-11 | CARBON 6.8K 5% 1/4W F | | C123 | 1-104-665-11 | ELECT 100uF 20% | 10V |
| R789 | 1-249-429-11 | CARBON 10K 5% 1/4W | | C124 | 1-126-964-11 | ELECT 10uF 20% | 50V |
| R790 | 1-249-431-11 | CARBON 15K 5% 1/4W | | C125 | 1-164-159-21 | CERAMIC 0.1uF | 50V(TH) |
| R791 | 1-249-433-11 | CARBON 22K 5% 1/4W | | C125 | 1-164-159-11 | CERAMIC 0.1uF | 50V |
| R792 | 1-249-435-11 | CARBON 33K 5% 1/4W | | | | | (EXCEPT TH) |
| | | < SWITCH > | | C152 | 1-162-286-21 | CERAMIC 220PF 10% | 50V(TH) |
| S749 | 1-762-875-21 | SWITCH, KEYBOARD (I/⌋) | | C152 | 1-162-286-31 | CERAMIC 220PF 10% | 50V |
| S788 | 1-762-875-21 | SWITCH, KEYBOARD (▲OPEN/CLOSE) | | | | | (EXCEPT TH) |
| S789 | 1-762-875-21 | SWITCH, KEYBOARD (EX-CHANGE/DISK SKIP) | | C153 | 1-162-286-21 | CERAMIC 220PF 10% | 50V(TH) |
| S790 | 1-762-875-21 | SWITCH, KEYBOARD (DISC 3) | | C153 | 1-162-286-31 | CERAMIC 220PF 10% | 50V |
| S791 | 1-762-875-21 | SWITCH, KEYBOARD (DISC 2) | | | | | (EXCEPT TH) |
| S792 | 1-762-875-21 | SWITCH, KEYBOARD (DISC 1) | | C154 | 1-162-286-21 | CERAMIC 220PF 10% | 50V(TH) |
| ***** | | | | C154 | 1-162-286-31 | CERAMIC 220PF 10% | 50V |
| | | | | | | | (EXCEPT TH) |
| A-4732-870-A | DISPLAY BOARD, COMPLETE (EXCEPT TH) | | | C155 | 1-162-286-21 | CERAMIC 220PF 10% | 50V(TH) |
| A-4734-535-A | DISPLAY BOARD, COMPLETE (TH) | | | C155 | 1-162-286-31 | CERAMIC 220PF 10% | 50V |
| | | ***** | | | | | (EXCEPT TH) |
| 4-231-581-01 | HOLDER (FL) | | | C156 | 1-162-286-21 | CERAMIC 220PF 10% | 50V(TH) |
| | | < CAPACITOR > | | C156 | 1-162-286-31 | CERAMIC 220PF 10% | 50V |
| C100 | 1-126-964-11 | ELECT 10uF 20% | 50V | | | | (EXCEPT TH) |
| C101 | 1-137-194-81 | FILM 0.47uF 5% | 50V | C157 | 1-162-286-21 | CERAMIC 220PF 10% | 50V |
| C102 | 1-137-194-81 | FILM 0.47uF 5% | 50V | | | | (EXCEPT TH) |
| C104 | 1-126-964-11 | ELECT 10uF 20% | 50V | C618 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |
| C105 | 1-126-957-11 | ELECT 0.22uF 20% | 50V | C619 | 1-124-589-11 | ELECT 47uF 20% | 16V |
| C106 | 1-136-165-00 | FILM 0.1uF 5% | 50V | C620 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |
| C107 | 1-136-165-00 | FILM 0.1uF 5% | 50V | C622 | 1-126-163-11 | ELECT 4.7uF 20% | 50V |
| C109 | 1-124-261-00 | ELECT 10uF 20% | 50V | C623 | 1-162-294-31 | CERAMIC 0.001uF 10% | 50V |
| C110 | 1-126-957-11 | ELECT 0.22uF 20% | 50V | C624 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |
| C111 | 1-136-157-00 | FILM 0.022uF 5% | 50V | C625 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |
| C112 | 1-136-157-00 | FILM 0.022uF 5% | 50V | C626 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |
| C114 | 1-126-964-11 | ELECT 10uF 20% | 50V | C627 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |
| | | | | C628 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |
| | | | | C651 | 1-164-159-21 | CERAMIC 0.1uF | 50V(TH) |
| | | | | C651 | 1-164-159-11 | CERAMIC 0.1uF | 50V |
| | | | | | | | (EXCEPT TH) |
| | | | | C652 | 1-124-261-00 | ELECT 10uF 20% | 50V |
| | | | | C653 | 1-124-261-00 | ELECT 10uF 20% | 50V |
| | | | | C710 | 1-162-306-11 | CERAMIC 0.01uF 30% | 16V |

| Ref. No. | Part No. | Description | | | | Remarks | Ref. No. | Part No. | Description | | | | Remarks |
|--------------------------------|--------------|-----------------------------|----------------------------------|-----|------|---------|--------------|--------------|-------------|------|------|------|-------------|
| C711 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V | | R114 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F |
| C712 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V | | R115 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F |
| < CONNECTOR > | | | | | | | R116 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W | |
| * CN601 CN604 | 1-569-935-11 | SOCKET, CONNECTOR 19P | | | | | R117 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| | 1-568-860-11 | SOCKET, CONNECTOR 17P | | | | | R118 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| | < DIODE > | | | | | R119 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | |
| | | | | | | R120 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F | |
| | | | | | | | R121 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F |
| D100 | 8-719-109-66 | DIODE | MTZJ-T-77-3.3B (TH) | | | | R122 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W | |
| D100 | 8-719-983-63 | DIODE | MTZJ-T-72-3.3B (EXCEPT TH) | | | | R123 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| D101 | 8-719-991-33 | DIODE | 1SS133T-72 | | | | R124 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| D102 | 8-719-991-33 | DIODE | 1SS133T-72 | | | | R125 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| D103 | 8-719-991-33 | DIODE | 1SS133T-72 | | | | R127 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | F |
| D104 | 8-719-991-33 | DIODE | 1SS133T-72 | | | | R128 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W | (TH) |
| D105 | 8-719-991-33 | DIODE | 1SS133T-72 | | | | | | | | | | |
| D106 | 6-500-522-01 | DIODE | 10EDB40-TA1B2 (TH) | | | | R128 | 1-247-895-00 | CARBON | 470K | 5% | 1/4W | (EXCEPT TH) |
| D106 | 6-500-522-11 | DIODE | 10EDB40-TA2B5 (EXCEPT TH) | | | | | | | | | | |
| D107 | 6-500-522-01 | DIODE | 10EDB40-TA1B2 (TH) | | | | R129 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | F |
| D107 | 6-500-522-11 | DIODE | 10EDB40-TA2B5 (EXCEPT TH) | | | | R130 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | F |
| D601 | 8-719-063-93 | DIODE | SLR325VC-N-T32 (REC PAUSE/START) | | | | R131 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| D602 | 8-719-057-97 | DIODE | SEL5923A-TP15 (GAME) | | | | R132 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| D603 | 8-719-057-97 | DIODE | SEL5923A-TP15 (MD(VIDEO)) | | | | R133 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| D604 | 8-719-057-97 | DIODE | SEL5923A-TP15 (DVD) | | | | R134 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| D605 | 8-719-057-97 | DIODE | SEL5923A-TP15 (TUNER/BAND) | | | | R136 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W | |
| D606 | 8-719-057-97 | DIODE | SEL5923A-TP15 (TAPE A/B) | | | | R137 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | |
| D610 | 8-719-109-85 | DIODE | MTZJ-T-72-5.1B | | | | R138 | 1-249-420-11 | CARBON | 1.8K | 5% | 1/4W | F |
| < FLUORESCENT INDICATOR TUBE > | | | | | | | R139 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| FL601 | 1-518-862-11 | INDICATOR TUBE, FLUORESCENT | | | | | R140 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| < IC > | | | | | | | R626 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| IC101 | 8-759-167-88 | IC | NJM4565D | | | | R627 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| IC102 | 8-759-167-88 | IC | NJM4565D | | | | R628 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| IC601 | 6-802-903-01 | IC | MB90M407PF-G-130-BND | | | | R629 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| < TRANSISTOR > | | | | | | | R630 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| Q100 | 8-729-141-30 | TRANSISTOR | 2SC3623ATP-LK | | | | R631 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| Q601 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | | | R632 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| Q602 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | | | R633 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| Q603 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | | | R634 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| Q604 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | | | R635 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| Q605 | 8-729-140-04 | TRANSISTOR | 2SB1116-TP-LK | | | | R636 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| Q606 | 8-729-140-04 | TRANSISTOR | 2SB1116-TP-LK | | | | R637 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| Q707 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | | | R645 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| Q807 | 8-729-029-94 | TRANSISTOR | BA1L3Z-TP | | | | R646 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| Q808 | 8-729-029-94 | TRANSISTOR | BA1L3Z-TP | | | | R647 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| < RESISTOR > | | | | | | | R652 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R102 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F | R653 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R103 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F | R654 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R104 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W | | R655 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R105 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F | R656 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R106 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | R657 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | |
| R107 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | R658 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | |
| R108 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F | R659 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | |
| R109 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F | R660 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W | |
| R110 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W | | R661 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R111 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F | R662 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R112 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | R663 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R113 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | R751 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | F |
| | | | | | | | R752 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F |
| | | | | | | | R753 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F |
| | | | | | | | R754 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F |
| | | | | | | | R755 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F |

DISPLAY

DMB03

| Ref. No. | Part No. | Description | | | | Remarks | Ref. No. | Part No. | Description | | | | Remarks |
|----------|--------------|------------------------------------|--------|-----|------|---------|----------|--------------|--------------|--------|-----|------|---------|
| R756 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | F | C230 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R757 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W | | C231 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R758 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | F | | | | | | | |
| R779 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | F | C232 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R781 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | F | C233 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C234 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R782 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F | C235 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R783 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F | C236 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R784 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | F | | | | | | | |
| R785 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | F | C237 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R786 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W | | C238 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C239 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R787 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | F | C240 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R807 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | C241 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R808 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | | | | | | | |
| R817 | 1-249-406-11 | CARBON | 120 | 5% | 1/4W | F | C242 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R818 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W | F | C243 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C244 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R819 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W | F | C245 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R820 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W | F | C246 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R821 | 1-249-406-11 | CARBON | 120 | 5% | 1/4W | F | | | | | | | |
| R822 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F | C247 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| R823 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F | C248 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | < SWITCH > | | | | | C249 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C250 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S751 | 1-762-875-21 | SWITCH, KEYBOARD (<D>) | | | | | C251 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S752 | 1-762-875-21 | SWITCH, KEYBOARD (■) | | | | | C252 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S753 | 1-762-875-21 | SWITCH, KEYBOARD (■) | | | | | C253 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S754 | 1-762-875-21 | SWITCH, KEYBOARD (-, I◀◀) | | | | | C254 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S755 | 1-762-875-21 | SWITCH, KEYBOARD (▶▶I, +) | | | | | C255 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | |
| | | | | | | | C256 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S756 | 1-762-875-21 | SWITCH, KEYBOARD (▶▶ALBUM +) | | | | | | | | | | | |
| S757 | 1-762-875-21 | SWITCH, KEYBOARD (◀◀, ALBUM -) | | | | | C257 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S758 | 1-762-875-21 | SWITCH, KEYBOARD (REC PAUSE/START) | | | | | C258 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | |
| S779 | 1-762-875-21 | SWITCH, KEYBOARD (CD SYNC) | | | | | C259 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S781 | 1-762-875-21 | SWITCH, KEYBOARD (KARAOKE/MPX) | | | | | C260 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C261 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S782 | 1-762-875-21 | SWITCH, KEYBOARD (GAME MIXING) | | | | | | | | | | | |
| S783 | 1-762-875-21 | SWITCH, KEYBOARD (GAME) | | | | | C262 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S784 | 1-762-875-21 | SWITCH, KEYBOARD (MD(VIDEO)) | | | | | C263 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S785 | 1-762-875-21 | SWITCH, KEYBOARD (TAPE A/B) | | | | | C264 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S786 | 1-762-875-21 | SWITCH, KEYBOARD (TUNER/BAND) | | | | | C265 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | |
| | | | | | | | C266 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| S787 | 1-762-875-21 | SWITCH, KEYBOARD (DVD) | | | | | | | | | | | |
| | | < VIBRATOR > | | | | | C267 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C268 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| X601 | 1-577-358-21 | VIBRATOR, CERAMIC (4MHz) | | | | | C269 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| ***** | | | | | | | C270 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | A-4732-903-A | DMB03 BOARD, COMPLETE (EXCEPT TH) | | | | | C271 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | A-4734-638-A | DMB03 BOARD, COMPLETE (TH) | | | | | C272 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | ***** | | | | | C275 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | < CAPACITOR > | | | | | C281 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C282 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| | | | | | | | C288 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C101 | 1-126-246-11 | ELECT CHIP | 220uF | 20% | 4V | | C289 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C151 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V | | C302 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | |
| C204 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C303 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | |
| C205 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C304 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | |
| C213 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V | | C305 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | |
| C214 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C306 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | |
| C215 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C307 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | |
| C216 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C308 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V | |
| C218 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C309 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V | |
| C220 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C315 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C226 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | | C316 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C227 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C321 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V | |
| C229 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | | C322 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | |

| Ref. No. | Part No. | Description | | | Remarks | Ref. No. | Part No. | Description | | | Remarks |
|----------|--------------|--------------|----------|-----|---------|----------|--------------|--------------|----------|-----|-------------|
| C323 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | C701 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V |
| C324 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | C702 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C325 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V | C703 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 6.3V |
| C326 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | C705 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C392 | 1-126-395-11 | ELECT | 22uF | 20% | 16V | C706 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C393 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | C708 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C394 | 1-126-246-11 | ELECT CHIP | 220uF | 20% | 4V | C709 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C412 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C711 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V(TH) |
| C413 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C711 | 1-119-923-11 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C414 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | | | | | | (EXCEPT TH) |
| C415 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C712 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C416 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C713 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C501 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | C714 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C502 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | C715 | 1-164-938-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C503 | 1-127-772-81 | CERAMIC CHIP | 33000PF | 10% | 10V | C716 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C504 | 1-127-772-81 | CERAMIC CHIP | 33000PF | 10% | 10V | C717 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C506 | 1-164-934-11 | CERAMIC CHIP | 330PF | 10% | 50V | C718 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C508 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | C720 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C509 | 1-164-934-11 | CERAMIC CHIP | 330PF | 10% | 50V | C721 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C510 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | C722 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C512 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | C723 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C514 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | C724 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C516 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V | C725 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C517 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | C726 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C518 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | C727 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C519 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | C728 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C522 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 6.3V | C729 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C525 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | C730 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C526 | 1-126-395-11 | ELECT | 22uF | 20% | 16V | C740 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C527 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | C741 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C528 | 1-126-395-11 | ELECT | 22uF | 20% | 16V | C742 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C529 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V | C743 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C531 | 1-119-923-11 | CERAMIC CHIP | 0.047uF | 10% | 10V | C744 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C533 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V | C745 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C534 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V | C752 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C535 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V | C760 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C543 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | C761 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C544 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V | C762 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C545 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | C763 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C547 | 1-107-725-11 | CERAMIC CHIP | 0.1uF | 10% | 16V | C764 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C548 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V | C765 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C551 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V | C766 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C552 | 1-216-295-91 | SHORT CHIP | 0 | | | C767 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C553 | 1-164-940-11 | CERAMIC CHIP | 0.0033uF | 10% | 16V | C768 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C556 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | C769 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C558 | 1-126-209-11 | ELECT CHIP | 100uF | 20% | 4V | C770 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C559 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V | C771 | 1-119-923-11 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C560 | 1-164-938-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V | C772 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C561 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | C773 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C563 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V | C774 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10% | 16V |
| C565 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V | C775 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C567 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | C776 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C568 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | C777 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C569 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V | C778 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C570 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V | C779 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C573 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V | C780 | 1-117-370-11 | CERAMIC CHIP | 10uF | | 10V |
| C588 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V | C781 | 1-165-643-21 | ELECT CHIP | 150uF | 20% | 4V |
| C589 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V | C782 | 1-164-938-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C590 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V | C783 | 1-164-938-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C592 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V | | | | | | |

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|------------------|--------------|--------------------------------|-----------------|-----------------|--------------|----------------------------|------------|
| C901 | 1-126-209-11 | ELECT CHIP | 100uF 20% 4V | < FILTER > | | | |
| C902 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | FL203 | 1-234-177-21 | FERRITE | 0uH |
| C903 | 1-126-209-11 | ELECT CHIP | 100uF 20% 4V | FL204 | 1-234-177-21 | FERRITE | 0uH |
| C904 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | FL205 | 1-234-177-21 | FERRITE | 0uH |
| C905 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | FL206 | 1-234-177-21 | FERRITE | 0uH |
| C906 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | FL302 | 1-234-177-21 | FERRITE | 0uH |
| C907 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | FL303 | 1-234-177-21 | FERRITE | 0uH |
| C908 | 1-164-874-11 | CERAMIC CHIP | 100PF 5% 50V | FL501 | 1-234-177-21 | FERRITE | 0uH |
| C909 | 1-164-874-11 | CERAMIC CHIP | 100PF 5% 50V | FL502 | 1-234-177-21 | FERRITE | 0uH |
| C910 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | FL701 | 1-234-177-21 | FERRITE | 0uH |
| C913 | 1-127-772-81 | CERAMIC CHIP | 33000PF 10% 10V | FL702 | 1-234-177-21 | FERRITE | 0uH |
| C914 | 1-164-847-11 | CERAMIC CHIP | 7PF 0.50PF 50V | FL703 | 1-234-177-21 | FERRITE | 0uH |
| C915 | 1-164-847-11 | CERAMIC CHIP | 7PF 0.50PF 50V | FL704 | 1-234-177-21 | FERRITE | 0uH |
| C916 | 1-126-209-11 | ELECT CHIP | 100uF 20% 4V | FL705 | 1-234-177-21 | FERRITE | 0uH |
| C917 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | FL706 | 1-234-177-21 | FERRITE | 0uH |
| 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 |
| C925 | 1-126-395-11 | ELECT | 22uF 20% 16V | FL908 | 1-234-177-21 | FERRITE | 0uH |
| C926 | 1-126-246-11 | ELECT CHIP | 220uF 20% 4V | < IC > | | | |
| C927 | 1-164-947-11 | CERAMIC CHIP | 0.01uF 50V | IC203 | 6-704-069-01 | IC MT48LC4M32B2TG-6 | |
| C928 | 1-117-370-11 | CERAMIC CHIP | 10uF 10V | IC204 | 8-759-668-01 | IC BR9040F-D-E2 | |
| < CONNECTOR > | | | | IC206 | 6-803-640-01 | IC MBM29PL32BM90TN-GYX0305 | |
| CN101 | 1-784-366-21 | CONNECTOR, FFC/FPC 7P | | IC207 | 6-703-540-01 | IC ZIVA5X-C1F | |
| CN102 | 1-815-954-21 | PIN, CONNECTOR (PC BOARD) 13P | | IC211 | 6-700-398-01 | IC uPC2918T-E1 | |
| CN105 | 1-784-376-11 | CONNECTOR, FFC/FPC 17P | | IC216 | 6-700-437-01 | IC SN74ALVCH16841DGGR | |
| CN107 | 1-784-382-21 | CONNECTOR, FFC/FPC 25P | | IC252 | 8-759-680-48 | IC TC7WH157FK(Te85R) | |
| CN202 | 1-784-364-21 | CONNECTOR, FFC/FPC 4P | | IC302 | 6-703-787-01 | IC PCM1609KPTR | |
| CN501 | 1-778-957-11 | CONNECTOR, FFC/FPC 29P | | IC392 | 8-759-583-47 | IC uPC2933T-E2 | |
| CN901 | 1-764-177-11 | PIN, CONNECTOR (SMD)(1.5mm) 7P | | IC501 | 6-702-157-01 | IC FAN8035L | |
| < DIODE > | | | | IC503 | 8-759-058-43 | IC NJM3404AV(Te2) | |
| D202 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC509 | 8-752-408-73 | IC CXD3068Q | |
| D392 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC701 | 6-703-552-01 | IC TMC57929PGF-RDP | |
| D393 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC703 | 8-759-058-43 | IC NJM3404AV(Te2) | |
| D394 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC706 | 8-759-564-30 | IC MSM51V18165F-60TSKR1 | |
| D901 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC901 | 8-752-937-30 | IC CXP973064-226R | |
| D1101 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC902 | 8-759-058-64 | IC TC7S32FU-TE85L | |
| D1102 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC903 | 8-759-641-86 | IC BR24C16F-E2 | |
| D1301 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC904 | 6-702-563-01 | IC TC7W74FK-TE85L | |
| D1302 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC906 | 6-700-407-01 | IC SM8707GV-G-E2 | |
| D1303 | 8-719-988-61 | DIODE 1SS355TE-17 | | IC907 | 8-759-583-47 | IC uPC2933T-E2 | |
| D1304 | 8-719-988-61 | DIODE 1SS355TE-17 | | < WIRE JUMPER > | | | |
| D1305 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW392 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W |
| D1306 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW601 | 1-218-990-11 | SHORT CHIP | 0 |
| D1307 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW602 | 1-218-990-11 | SHORT CHIP | 0 |
| D1308 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW603 | 1-218-990-11 | SHORT CHIP | 0 |
| D1801 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW604 | 1-218-990-11 | SHORT CHIP | 0 |
| D1802 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW605 | 1-218-990-11 | SHORT CHIP | 0 |
| D1803 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW606 | 1-218-990-11 | SHORT CHIP | 0 |
| D1804 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW607 | 1-218-990-11 | SHORT CHIP | 0 |
| D1805 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW801 | 1-218-990-11 | SHORT CHIP | 0 |
| D1806 | 8-719-988-61 | DIODE 1SS355TE-17 | | JW802 | 1-218-990-11 | SHORT CHIP | 0 |
| < FERRITE BEAD > | | | | JW803 | 1-218-990-11 | SHORT CHIP | 0 |
| FB902 | 1-500-284-21 | FERRITE | 0uH | JW804 | 1-218-990-11 | SHORT CHIP | 0 |
| FB903 | 1-500-284-21 | FERRITE | 0uH | JW805 | 1-218-990-11 | SHORT CHIP | 0 |
| | | | | JW806 | 1-218-990-11 | SHORT CHIP | 0 |

| Ref. No. | Part No. | Description | Remarks | | | Ref. No. | Part No. | Description | Remarks | | |
|----------|--------------|----------------|--------------|----|-------|----------|--------------|-------------|---------|------|-------|
| | | < COIL > | | | | | | | | | |
| L402 | 1-216-296-11 | SHORT CHIP | 0 | | | R260 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| L403 | 1-216-296-11 | SHORT CHIP | 0 | | | R261 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| L404 | 1-216-296-11 | SHORT CHIP | 0 | | | R262 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| L405 | 1-216-296-11 | SHORT CHIP | 0 | | | R263 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| L406 | 1-216-296-11 | SHORT CHIP | 0 | | | R264 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| L412 | 1-216-296-11 | SHORT CHIP | 0 | | | R265 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| L413 | 1-216-296-11 | SHORT CHIP | 0 | | | R266 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| L414 | 1-216-296-11 | SHORT CHIP | 0 | | | R267 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| L415 | 1-216-296-11 | SHORT CHIP | 0 | | | R268 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| L416 | 1-216-296-11 | SHORT CHIP | 0 | | | R269 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| L901 | 1-412-031-11 | INDUCTOR CHIP | 47uH | | | R270 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| | | < TRANSISTOR > | | | | R273 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| Q202 | 8-729-929-26 | TRANSISTOR | DTC114TE-TL | | | R274 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| Q901 | 8-729-929-26 | TRANSISTOR | DTC114TE-TL | | | R275 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| Q903 | 8-729-025-28 | TRANSISTOR | 2SK1828TE85L | | | R276 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| Q904 | 8-729-025-28 | TRANSISTOR | 2SK1828TE85L | | | R277 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| | | < RESISTOR > | | | | R278 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R10 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R279 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R11 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R280 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R12 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R281 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R13 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R282 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R14 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R283 | 1-218-847-11 | METAL CHIP | 1K | 0.5% | 1/10W |
| R15 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R284 | 1-218-829-11 | METAL CHIP | 180 | 0.5% | 1/10W |
| R201 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R288 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R207 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R301 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R213 | 1-216-807-11 | METAL CHIP | 68 | 5% | 1/10W | R302 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R214 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R303 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R215 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R304 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R217 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R305 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R218 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R306 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R219 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R307 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R220 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R308 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R221 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R309 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R222 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R310 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R223 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R311 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R224 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R312 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R227 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | R313 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R230 | 1-216-803-11 | METAL CHIP | 33 | 5% | 1/10W | R314 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W |
| R231 | 1-216-803-11 | METAL CHIP | 33 | 5% | 1/10W | R392 | 1-216-797-11 | METAL CHIP | 10 | 5% | 1/10W |
| R232 | 1-216-803-11 | METAL CHIP | 33 | 5% | 1/10W | R501 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R233 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R502 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R234 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R503 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R239 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R504 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R240 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | R505 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R243 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R506 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R244 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R507 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R245 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | R508 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R246 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R510 | 1-216-847-11 | METAL CHIP | 150K | 5% | 1/10W |
| R247 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R511 | 1-216-847-11 | METAL CHIP | 150K | 5% | 1/10W |
| R248 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | R512 | 1-216-842-11 | METAL CHIP | 56K | 5% | 1/10W |
| R250 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R513 | 1-216-842-11 | METAL CHIP | 56K | 5% | 1/10W |
| R251 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R516 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| R253 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | R517 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R254 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | R519 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R255 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R520 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R257 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | R521 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R259 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | R522 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| | | | | | | R523 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| | | | | | | R524 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| | | | | | | R525 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remarks | Ref. No. | Part No. | Description | | | Remarks |
|----------|--------------|-------------|------|----|---------|----------|--------------|-------------|------|----|---------|
| R527 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | R615 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R528 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R629 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R529 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W | R694 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R530 | 1-216-842-11 | METAL CHIP | 56K | 5% | 1/10W | R695 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R531 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R696 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R532 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R698 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R533 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W | R699 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R534 | 1-216-842-11 | METAL CHIP | 56K | 5% | 1/10W | R700 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W |
| R535 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R707 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R536 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R708 | 1-216-853-11 | METAL CHIP | 470K | 5% | 1/10W |
| R537 | 1-216-843-11 | METAL CHIP | 68K | 5% | 1/10W | R709 | 1-216-847-11 | METAL CHIP | 150K | 5% | 1/10W |
| R538 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R710 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R539 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R711 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R540 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R712 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R541 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R713 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R543 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R714 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R544 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R715 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R545 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R716 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R547 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R717 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R548 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R718 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R550 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R719 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R551 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R720 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R552 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R721 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W |
| R553 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R724 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R554 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R725 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/10W |
| R555 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R726 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R558 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | R727 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W |
| R559 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R728 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R560 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R730 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W |
| R561 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R731 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W |
| R562 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R732 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R563 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R733 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R564 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R734 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R565 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R735 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R566 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R736 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R567 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | R737 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R568 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | R738 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R571 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | R742 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W |
| R572 | 1-216-853-11 | METAL CHIP | 470K | 5% | 1/10W | R743 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W |
| R573 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R744 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W |
| R574 | 1-216-815-11 | METAL CHIP | 330 | 5% | 1/10W | R745 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R575 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R746 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R576 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R747 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W |
| R577 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R748 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W |
| R578 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R750 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R579 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W | R751 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R580 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W | R752 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R581 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/10W | R753 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R583 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R754 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R584 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W | R755 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R585 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R756 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R586 | 1-218-747-11 | METAL CHIP | 200K | 5% | 1/10W | R757 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R587 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R758 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R588 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R759 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R589 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R762 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R592 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R763 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W |
| R593 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | R764 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W |
| R597 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R765 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R599 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | R766 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R601 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R767 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |

DMB03

DRIVER

| Ref. No. | Part No. | Description | | | Remarks | Ref. No. | Part No. | Description | | | Remarks |
|----------|--------------|-------------|------|----|---------|---------------------------|--------------|----------------------------|--------|-----|---------|
| R769 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | R990 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R770 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R991 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R776 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R992 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R777 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R994 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R778 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | R995 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R780 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R996 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R781 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R997 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R784 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R998 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R785 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R1000 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| R786 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | R1001 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R787 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | R1101 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R788 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | R1201 | 1-216-864-11 | METAL CHIP | 0 | | |
| R789 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | R1202 | 1-216-864-11 | METAL CHIP | 0 | | |
| R799 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R1301 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R805 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R1303 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R901 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R1801 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R902 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R1802 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R904 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R1803 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R905 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R9980 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R906 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R9981 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R907 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | R9986 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R908 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R9987 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R910 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R9988 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R911 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R9993 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R912 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R9994 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R913 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R9998 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R915 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R9999 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R916 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | < NETWORK RESISTOR > | | | | | |
| R917 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | RB10 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R918 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | RB11 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R919 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | RB12 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R920 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | RB13 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R921 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | RB14 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R923 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W | RB15 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R925 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | RB16 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R926 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | RB17 | 1-233-388-11 | RES, NETWORK 68 (3216) | | | |
| R927 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | RB18 | 1-234-524-21 | RES, CHIP NETWORK 33 | | | |
| R930 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | RB19 | 1-234-524-21 | RES, CHIP NETWORK 33 | | | |
| R931 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | RB20 | 1-234-524-21 | RES, CHIP NETWORK 33 | | | |
| R932 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | RB21 | 1-234-524-21 | RES, CHIP NETWORK 33 | | | |
| R933 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | RB202 | 1-234-523-21 | RES, CHIP NETWORK 0 (3216) | | | |
| R935 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | RB203 | 1-234-523-21 | RES, CHIP NETWORK 0 (3216) | | | |
| R940 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | RB204 | 1-234-523-21 | RES, CHIP NETWORK 0 (3216) | | | |
| R942 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | < VIBRATOR > | | | | | |
| R943 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | X901 | 1-781-945-21 | VIBRATOR, CERAMIC (20MHz) | | | |
| R947 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | X902 | 1-795-630-11 | VIBRATOR, CRYSTAL (27MHz) | | | |
| R948 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | ***** | | | | | |
| R949 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | 1-687-135-11 DRIVER BOARD | | | | | |
| R958 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/10W | ***** | | | | | |
| R962 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | < CAPACITOR > | | | | | |
| R964 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | C715 | 1-126-933-11 | ELECT | 100uF | 20% | 16V |
| R970 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C731 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| R971 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C735 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| R973 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C736 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| R974 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C737 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| R975 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | C741 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| R976 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | | | | | | |
| R978 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R984 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R988 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | | | | | | |

HCD-GN88D

DRIVER

GAME IN

| Ref. No. | Part No. | Description | | | | Remarks | Ref. No. | Part No. | Description | | | | Remarks |
|----------|--------------|-------------------------------------|----------------|-----|-------------|---------|--------------|--------------------------------|----------------|----------|------|-----|---------|
| C751 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V | | C726 | 1-124-464-11 | ELECT | 0.22uF | 20% | 50V | |
| C752 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | | C727 | 1-136-155-00 | FILM | 0.015uF | 5% | 50V | |
| | | < CONNECTOR > | | | | | C728 | 1-162-301-11 | CERAMIC | 0.0015uF | 20% | 16V | |
| | | | | | | | | | | | | | |
| CN701 | 1-785-338-11 | PIN, CONNECTOR(LIGHT ANGLE)12P | | | | | C729 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | |
| CN702 | 1-784-766-11 | CONNECTOR, FFC 5P | | | | | C730 | 1-161-494-00 | CERAMIC | 0.022uF | | 25V | |
| * CN703 | 1-564-720-11 | PIN, CONNECTOR (SMALL TYPE) 4P | | | | | C731 | 1-162-305-11 | CERAMIC | 0.0068uF | 30% | 16V | |
| CN704 | 1-785-328-11 | PIN, CONNECTOR (LIGHT ANGRE)2P | | | | | C732 | 1-136-495-11 | FILM | 0.068uF | 5% | 50V | |
| | | < DIODE > | | | | | C733 | 1-124-589-11 | ELECT | 47uF | 20% | 16V | |
| | | | | | | | | | | | | | |
| D701 | 8-719-947-16 | DIODE | MTZJ-T-72-5.1A | | | C734 | 1-124-589-11 | ELECT | 47uF | 20% | 16V | | |
| D711 | 8-719-983-66 | DIODE | MTZJ-T-72-3.6B | | | C735 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V | | |
| | | < IC > | | | | C736 | 1-124-261-00 | ELECT | 10uF | 20% | 50V | | |
| | | | | | | C737 | 1-124-261-00 | ELECT | 10uF | 20% | 50V | | |
| IC701 | 8-759-598-69 | IC | BA6956AN | | | C738 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V | | |
| IC712 | 8-759-598-69 | IC | BA6956AN | | | | | | | | | | |
| | | < TRNSISTOR > | | | | C739 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V | | |
| | | | | | | C740 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V | | |
| Q731 | 8-729-029-66 | TRANSISTOR | DTC114ESA | | | C741 | 1-124-250-11 | ELECT | 0.15uF | 20% | 50V | | |
| | | < RESISTOR > | | | | C742 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V | | |
| R701 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | C743 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V | | |
| R702 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | | | | | | | | |
| R711 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | | | | | | | | |
| R712 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | | | < CONNECTOR > | | | | | |
| R713 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | | | | | | | | |
| | | | | | | * CN606 | 1-564-725-11 | PIN, CONNECTOR (SMALL TYPE) 9P | | | | | |
| R721 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | | | < DIODE > | | | | | |
| R722 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | | | | | | | | |
| R723 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | | | | | | | | |
| R731 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | D705 | 8-719-109-85 | DIODE | MTZJ-T-72-5.1B | | | | |
| R732 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | | | < GROUND TERMINAL > | | | | | |
| | | | | | | | | | | | | | |
| R733 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | | | | | | | | |
| R734 | 1-249-430-11 | CARBON | 12K | 5% | 1/4W | EP701 | 1-537-738-21 | TERMINAL, GROUND | | | | | |
| R735 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | EP703 | 1-537-738-21 | TERMINAL, GROUND | | | | | |
| R751 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | | | < IC > | | | | | |
| ***** | | | | | | | | | | | | | |
| | A-4732-871-A | GAME IN BOARD, COMPLETE (EXCEPT TH) | | | | | IC721 | 8-759-450-96 | IC | M65850P | | | |
| | A-4734-533-A | GAME IN BOARD, COMPLETE (TH) | | | | | IC722 | 8-759-167-88 | IC | NJM4565D | | | |
| | | ***** | | | | | | | < JACK > | | | | |
| | | < CAPACITOR > | | | | | | | | | | | |
| | | | | | | J601 | 1-764-592-11 | JACK 3P (GAME INPUT) | | | | | |
| C604 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V | J631 | 1-794-702-11 | JACK, HEADPHONE (PHONES) | | | | | |
| C606 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V | J721 | 1-817-630-11 | JACK (LARGE TYPE) (MIC) | | | | | |
| C630 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | | | < TRANSISTOR > | | | | | |
| C631 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | | | | | | | | |
| C634 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | Q721 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK | | | | |
| | | | | | | | | < RESISTOR > | | | | | |
| C635 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | R602 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F | |
| C715 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V | R603 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F | |
| C716 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V(TH) | R604 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | |
| C716 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | R605 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | | |
| | | | | | (EXCEPT TH) | R721 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | | |
| C717 | 1-124-584-00 | ELECT | 100uF | 20% | 10V | | | | | | | | |
| C718 | 1-124-584-00 | ELECT | 100uF | 20% | 10V | | | | | | | | |
| C719 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V | R722 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W | | |
| C721 | 1-162-301-11 | CERAMIC | 0.0015uF | 20% | 16V | R723 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | | |
| C722 | 1-162-305-11 | CERAMIC | 0.0068uF | 30% | 16V | R724 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | | |
| C723 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | R725 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | | |
| | | | | | | R726 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | | |
| C724 | 1-136-495-11 | FILM | 0.068uF | 5% | 50V | | | | | | | | |
| C725 | 1-124-464-11 | ELECT | 0.22uF | 20% | 50V | | | | | | | | |

| Ref. No. | Part No. | Description | | | Remarks | Ref. No. | Part No. | Description | | | Remarks |
|--|--------------|-----------------------------------|----------|-----|---------|----------|--------------|--------------|----------|-----|---------|
| R727 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | C158 | 1-136-159-00 | FILM | 0.033uF | 5% | 50V |
| R728 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | C159 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| R729 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | C160 | 1-130-481-00 | MYLAR | 0.0068uF | 5% | 50V |
| R730 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | C161 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| R731 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W | C162 | 1-136-169-00 | FILM | 0.22uF | 5% | 50V |
| R733 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | C163 | 1-136-171-00 | FILM | 0.33uF | 5% | 50V |
| R734 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | C167 | 1-126-961-11 | ELECT | 2.2uF | 20% | 50V |
| R735 | 1-247-885-00 | CARBON | 180K | 5% | 1/4W | C200 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R736 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | C201 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| R737 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | C202 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R738 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F | C203 | 1-126-934-11 | ELECT | 220uF | 20% | 10V |
| R739 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | C211 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R740 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W F | C212 | 1-126-916-11 | ELECT | 1000uF | 20% | 6.3V |
| R742 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F | C213 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R743 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | C214 | 1-126-916-11 | ELECT | 1000uF | 20% | 6.3V |
| R744 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | C223 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| R745 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | C301 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| R746 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F | C303 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| R747 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W F | C304 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| < VARIABLE RESISTOR > | | | | | | C305 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| RV721 | 1-227-452-11 | RES, VAR, CARBON 50K (ECHO LEVEL) | | | | C306 | 1-126-961-11 | ELECT | 2.2uF | 20% | 50V |
| RV722 | 1-227-452-11 | RES, VAR, CARBON 50K (MIC LEVEL) | | | | C307 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| ***** | | | | | | C308 | 1-126-935-11 | ELECT | 470uF | 20% | 10V |
| A-4732-888-A MAIN BOARD, COMPLETE (E3,E15,E51,EA,MX) | | | | | | C309 | 1-126-947-11 | ELECT | 47uF | 20% | 16V |
| A-4733-170-A MAIN BOARD, COMPLETE (AUS,SP,MY,PH) | | | | | | C310 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| A-4734-508-A MAIN BOARD, COMPLETE (TH) | | | | | | C311 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| ***** | | | | | | C312 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| < CAPACITOR > | | | | | | C314 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C101 | 1-104-665-11 | ELECT | 100uF | 20% | 10V | C315 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C102 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C316 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C103 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C321 | 1-164-392-11 | CERAMIC CHIP | 390PF | 10% | 50V |
| C104 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C326 | 1-164-392-11 | CERAMIC CHIP | 390PF | 10% | 50V |
| C105 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C331 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C106 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | C332 | 1-137-427-11 | MYLAR | 120PF | 5% | 50V |
| C107 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | C333 | 1-162-961-11 | CERAMIC CHIP | 330PF | 10% | 50V |
| C108 | 1-136-159-00 | FILM | 0.033uF | 5% | 50V | C334 | 1-162-946-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C109 | 1-126-960-11 | ELECT | 1uF | 20% | 50V | C335 | 1-137-150-11 | MYLAR | 0.01uF | 5% | 100V |
| C110 | 1-130-481-00 | MYLAR | 0.0068uF | 5% | 50V | C336 | 1-126-961-11 | ELECT | 2.2uF | 20% | 50V |
| C111 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C337 | 1-130-485-00 | MYLAR | 0.015uF | 5% | 50V |
| C112 | 1-136-169-00 | FILM | 0.22uF | 5% | 50V | C338 | 1-130-481-00 | MYLAR | 0.0068uF | 5% | 50V |
| C113 | 1-136-171-00 | FILM | 0.33uF | 5% | 50V | C339 | 1-130-481-00 | MYLAR | 0.0068uF | 5% | 50V |
| C114 | 1-126-791-11 | ELECT | 10uF | 20% | 16V | C340 | 1-130-486-00 | MYLAR | 0.018uF | 10% | 50V |
| C115 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V | C341 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C116 | 1-126-934-11 | ELECT | 220uF | 20% | 10V | C342 | 1-126-947-11 | ELECT | 47uF | 20% | 16V |
| C117 | 1-126-961-11 | ELECT | 2.2uF | 20% | 50V | C351 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C121 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V | C353 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C122 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V | C354 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C130 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C355 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C131 | 1-126-959-11 | ELECT | 0.47uF | 20% | 50V | C356 | 1-126-961-11 | ELECT | 2.2uF | 20% | 50V |
| C140 | 1-136-495-11 | FILM | 0.068uF | 5% | 50V | C359 | 1-126-947-11 | ELECT | 47uF | 20% | 16V |
| C149 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C360 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| C150 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C361 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| C152 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C364 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C153 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C365 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C154 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C371 | 1-164-392-11 | CERAMIC CHIP | 390PF | 10% | 50V |
| C155 | 1-126-964-11 | ELECT | 10uF | 20% | 50V | C376 | 1-164-392-11 | CERAMIC CHIP | 390PF | 10% | 50V |
| C156 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | C381 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C157 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | C382 | 1-137-427-11 | MYLAR | 120PF | 5% | 50V |
| | | | | | | C383 | 1-162-961-11 | CERAMIC CHIP | 330PF | 10% | 50V |
| | | | | | | C384 | 1-162-946-11 | CERAMIC CHIP | 27PF | 5% | 50V |

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|--------------|------------------|---------------|--------------|--------------------------------|------------------|
| C385 | 1-126-964-11 | ELECT | 10uF 20% 50V | C823 | 1-126-963-11 | ELECT | 4.7uF 20% 50V |
| C386 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF 10% 50V | C824 | 1-126-963-11 | ELECT | 4.7uF 20% 50V |
| C387 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF 10% 50V | C825 | 1-136-171-00 | FILM | 0.33uF 5% 50V |
| C390 | 1-126-935-11 | ELECT | 470uF 20% 10V | C826 | 1-136-169-00 | FILM | 0.22uF 5% 50V |
| C391 | 1-126-933-11 | ELECT | 100uF 20% 16V | C827 | 1-126-963-11 | ELECT | 4.7uF 20% 50V |
| C395 | 1-162-919-11 | CERAMIC CHIP | 22PF 5% 50V | C828 | 1-136-171-00 | FILM | 0.33uF 5% 50V |
| C396 | 1-126-965-91 | ELECT | 22uF 20% 50V | C829 | 1-136-169-00 | FILM | 0.22uF 5% 50V |
| C397 | 1-126-964-11 | ELECT | 10uF 20% 50V | C830 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C398 | 1-162-970-11 | CERAMIC CHIP | 0.01uF 10% 25V | C831 | 1-136-161-00 | FILM | 0.047uF 5% 50V |
| C399 | 1-162-970-11 | CERAMIC CHIP | 0.01uF 10% 25V | C832 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C416 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V | C833 | 1-104-665-11 | ELECT | 100uF 20% 10V |
| C498 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V | C834 | 1-104-665-11 | ELECT | 100uF 20% 10V |
| C502 | 1-164-227-11 | CERAMIC CHIP | 0.022uF 10% 25V | C835 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V |
| C503 | 1-164-227-11 | CERAMIC CHIP | 0.022uF 10% 25V | C836 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF 10% 50V |
| C510 | 1-162-919-11 | CERAMIC CHIP | 22PF 5% 50V | C837 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C511 | 1-162-917-11 | CERAMIC CHIP | 15PF 5% 50V | C838 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C512 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V | C839 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V |
| C516 | 1-126-926-11 | ELECT | 1000uF 20% 10V | C840 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF 10% 50V |
| C562 | 1-104-665-11 | ELECT | 100uF 20% 10V | C841 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C564 | 1-162-970-11 | CERAMIC CHIP | 0.01uF 10% 25V | C842 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C596 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V | C843 | 1-162-960-11 | CERAMIC CHIP | 220PF 10% 50V |
| C598 | 1-126-926-11 | ELECT | 1000uF 20% 10V | C844 | 1-162-960-11 | CERAMIC CHIP | 220PF 10% 50V |
| C601 | 1-126-964-11 | ELECT | 10uF 20% 50V | C845 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C602 | 1-136-165-00 | FILM | 0.1uF 5% 50V | C846 | 1-162-923-11 | CERAMIC CHIP | 47PF 5% 50V |
| C603 | 1-136-165-00 | FILM | 0.1uF 5% 50V | C847 | 1-162-923-11 | CERAMIC CHIP | 47PF 5% 50V |
| C620 | 1-126-963-11 | ELECT | 4.7uF 20% 50V | C851 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V |
| C621 | 1-107-721-11 | ELECT | 4.7uF 20% 100V | C852 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V |
| C650 | 1-109-889-11 | ELECT | 1uF 20% 50V | C854 | 1-126-934-11 | ELECT | 220uF 20% 10V |
| C651 | 1-107-717-11 | ELECT | 47uF 20% 50V | C855 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V |
| C670 | 1-126-963-11 | ELECT | 4.7uF 20% 50V | C901 | 1-126-944-11 | ELECT | 3300uF 20% 25V |
| C671 | 1-107-721-11 | ELECT | 4.7uF 20% 100V | C902 | 1-126-961-11 | ELECT | 2.2uF 20% 50V |
| C721 | 1-126-961-11 | ELECT | 2.2uF 20% 50V | C904 | 1-130-483-00 | MYLAR | 0.01uF 5% 50V |
| C722 | 1-162-960-11 | CERAMIC CHIP | 220PF 10% 50V | C905 | 1-130-483-00 | MYLAR | 0.01uF 5% 50V |
| C730 | 1-126-964-11 | ELECT | 10uF 20% 50V | C906 | 1-126-933-11 | ELECT | 100uF 20% 16V |
| C731 | 1-164-156-11 | CERAMIC CHIP | 0.1uF 25V | C908 | 1-136-165-00 | FILM | 0.1uF 5% 50V |
| C771 | 1-126-961-11 | ELECT | 2.2uF 20% 50V | C909 | 1-136-165-00 | FILM | 0.1uF 5% 50V |
| C772 | 1-162-960-11 | CERAMIC CHIP | 220PF 10% 50V | C911 | 1-126-961-11 | ELECT | 2.2uF 20% 50V |
| C800 | 1-126-964-11 | ELECT | 10uF 20% 50V | C919 | 1-117-251-51 | ELECT | 3300uF 20% 6.3V |
| C801 | 1-162-960-11 | CERAMIC CHIP | 220PF 10% 50V | C920 | 1-126-964-11 | ELECT | 10uF 20% 50V |
| C802 | 1-162-960-11 | CERAMIC CHIP | 220PF 10% 50V | C921 | 1-126-968-11 | ELECT | 100uF 20% 50V |
| C803 | 1-126-964-11 | ELECT | 10uF 20% 50V | C922 | 1-126-941-11 | ELECT | 470uF 20% 25V |
| C804 | 1-126-964-11 | ELECT | 10uF 20% 50V | < CONNECTOR > | | | |
| C805 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V | CN201 | 1-779-544-21 | CONNECTOR, FFC(LIF(NON-ZIF))7P | |
| C806 | 1-126-964-11 | ELECT | 10uF 20% 50V | CN202 | 1-785-338-11 | PIN, CONNECTOR(LIGHT ANGLE)12P | |
| C807 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V | * CN203 | 1-564-711-11 | PIN, CONNECTOR (SMALL TYPE) 9P | |
| C808 | 1-126-964-11 | ELECT | 10uF 20% 50V | * CN205 | 1-564-709-11 | PIN, CONNECTOR (SMALL TYPE) 7P | |
| C809 | 1-126-964-11 | ELECT | 10uF 20% 50V | CN206 | 1-779-558-21 | CONNECTOR,FFC(LIF(NON-ZIF))21P | |
| C810 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V | * CN301 | 1-568-449-11 | HOUSING, CONNECTOR(PC BOARD)3P | |
| C811 | 1-126-964-11 | ELECT | 10uF 20% 50V | * CN304 | 1-569-930-11 | SOCKET, CONNECTOR 13P | |
| C812 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V | * CN402 | 1-569-935-11 | SOCKET, CONNECTOR 19P | |
| C813 | 1-126-964-11 | ELECT | 10uF 20% 50V | CN501 | 1-785-330-11 | PIN, CONNECTOR (LIGHT ANGLE)4P | |
| C814 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V | CN502 | 1-785-336-11 | PIN, CONNECTOR(LIGHT ANGLE)10P | |
| C815 | 1-126-964-11 | ELECT | 10uF 20% 50V | CN702 | 1-569-906-11 | SOCKET, CONNECTOR 11P | |
| C816 | 1-162-964-11 | CERAMIC CHIP | 0.001uF 10% 50V | CN851 | 1-564-506-11 | PLUG, CONNECTOR 3P | |
| C817 | 1-126-964-11 | ELECT | 10uF 20% 50V | CN901 | 1-770-726-11 | CONNECTOR, BOARD TO BOARD 6P | |
| C818 | 1-126-964-11 | ELECT | 10uF 20% 50V | CN902 | 1-778-982-11 | CONNECTOR, BOARD TO BOARD 13P | |
| C819 | 1-126-960-11 | ELECT | 1uF 20% 50V | < DIODE > | | | |
| C820 | 1-126-963-11 | ELECT | 4.7uF 20% 50V | D130 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| C821 | 1-136-169-00 | FILM | 0.22uF 5% 50V | | | | |
| C822 | 1-136-165-00 | FILM | 0.1uF 5% 50V | | | | |

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|------------------------------|------------|----------|--------------|----------------|-------------------|
| D201 | 8-719-988-61 | DIODE 1SS355TE-17 | | JR138 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W |
| D202 | 8-719-988-61 | DIODE 1SS355TE-17 | | JR390 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W |
| D392 | 8-719-988-61 | DIODE 1SS355TE-17 | | | | < COIL > | |
| D393 | 8-719-988-61 | DIODE 1SS355TE-17 | | | | | |
| D394 | 8-719-988-61 | DIODE 1SS355TE-17 | | L201 | 1-414-189-31 | INDUCTOR | 100uH |
| D501 | 8-719-988-61 | DIODE 1SS355TE-17 | | L301 | 1-410-780-11 | INDUCTOR | 27mH |
| D502 | 8-719-988-61 | DIODE 1SS355TE-17 | | L302 | 1-414-189-31 | INDUCTOR | 100uH |
| D503 | 8-719-988-61 | DIODE 1SS355TE-17 | | L351 | 1-410-780-11 | INDUCTOR | 27mH |
| D504 | 8-719-988-61 | DIODE 1SS355TE-17 | | L901 | 1-456-468-11 | INDUCTOR | 100uH |
| D505 | 8-719-988-61 | DIODE 1SS355TE-17 | | | | < TRANSISTOR > | |
| D508 | 8-719-988-61 | DIODE 1SS355TE-17 | | Q101 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| D509 | 8-719-988-61 | DIODE 1SS355TE-17 | | Q105 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| D517 | 8-719-988-61 | DIODE 1SS355TE-17 | | Q151 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| D601 | 8-719-988-61 | DIODE 1SS355TE-17 | | Q223 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| D602 | 8-719-988-61 | DIODE 1SS355TE-17 | | Q224 | 8-729-113-69 | TRANSISTOR | FN1F4M-T1M32 |
| D603 | 8-719-988-61 | DIODE 1SS355TE-17 | | | | | |
| D701 | 8-719-988-61 | DIODE 1SS355TE-17 | | Q301 | 8-729-141-73 | TRANSISTOR | 2SC3624A-T1L15L16 |
| D851 | 8-719-056-82 | DIODE UDZ-TE-17-6.2B | | Q302 | 8-729-142-46 | TRANSISTOR | 2SC2001TP-LK |
| D852 | 8-719-056-84 | DIODE UDZ-TE-17-7.5B | | Q303 | 8-729-142-46 | TRANSISTOR | 2SC2001TP-LK |
| D901 | 8-719-028-23 | DIODE D3SBA20-4101 | | Q304 | 8-729-113-69 | TRANSISTOR | FN1F4M-T1M32 |
| D902 | 8-719-500-60 | DIODE D5SBA20 | | Q305 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| D917 | 8-719-080-53 | DIODE RK36LF-B3 | | | | | |
| D941 | 8-719-977-81 | DIODE UDZ-TE-17-33B | | Q306 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| | | < FERRITE BEAD > | | Q307 | 8-729-216-22 | TRANSISTOR | 2SA812-T1-M5M6 |
| FB117 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q310 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| FB167 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q389 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| FB204 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q390 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| FB516 | 1-414-772-11 | FERRITE | 0uH | | | | |
| FB562 | 1-414-772-11 | FERRITE | 0uH | Q391 | 8-729-140-04 | TRANSISTOR | 2SB1116-TP-LK |
| | | < IC > | | Q392 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| IC102 | 6-703-650-11 | IC M61529FP-D60G | | Q393 | 8-729-116-57 | TRANSISTOR | 2SB1068TP-K |
| IC103 | 6-703-651-11 | IC M61530FP-D60G | | Q394 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| IC201 | 8-749-019-25 | IC TOTX141 (CD DIGITAL OUT) | | Q395 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| IC301 | 6-702-130-01 | IC HA12237F | | | | | |
| IC302 | 8-759-143-54 | IC uPC1330HA | | Q396 | 8-729-140-04 | TRANSISTOR | 2SB1116-TP-LK |
| IC303 | 8-759-710-97 | IC NJM4565M(Te2) | | Q398 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| IC501 | 6-802-866-01 | IC M30620MCN-A27FP | | Q399 | 8-729-141-73 | TRANSISTOR | 2SC3624A-T1L15L16 |
| IC502 | 6-703-610-01 | IC RT8H015C-T112-1 | | Q601 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| IC601 | 8-759-533-04 | IC M62703ML-E1 | | Q602 | 8-729-014-97 | TRANSISTOR | FA1L3Z-T1B |
| IC730 | 8-759-711-10 | IC NJU4066BM-T2 | | | | | |
| IC907 | 6-700-813-01 | IC SI-8033JF | | Q620 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| | | < JACK > | | Q621 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| J117 | 1-764-593-21 | JACK 2P (MD/VIDEO(AUDIO) IN) | | Q650 | 8-729-113-69 | TRANSISTOR | FN1F4M-T1M32 |
| J716 | 1-770-377-31 | JACK, PIN 1P (SUBWOOFER) | | Q651 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| J730 | 1-764-593-21 | JACK 2P (AUDIO OUT) | | Q652 | 8-729-113-69 | TRANSISTOR | FN1F4M-T1M32 |
| | | < JUMPER RESISTOR > | | | | | |
| JR10 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q670 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| JR002 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q671 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| JR003 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q701 | 8-729-014-97 | TRANSISTOR | FA1L3Z-T1B |
| JR004 | 1-216-296-11 | SHORT CHIP | 0 | Q702 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| JR005 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q730 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| JR006 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | | | | |
| JR008 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q798 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| JR009 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q799 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| JR015 | 1-216-864-11 | METAL CHIP | 0 5% 1/10W | Q800 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| JR104 | 1-216-296-11 | SHORT CHIP | 0 | Q801 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB |
| | | | | Q802 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| | | | | | | | |
| | | | | Q803 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| | | | | Q851 | 8-729-026-68 | TRANSISTOR | 2SD2525(TP) |
| | | | | Q852 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| | | | | Q853 | 8-729-120-28 | TRANSISTOR | 2SC1623-T1-L5L6 |
| | | | | Q854 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| | | | | | | | |
| | | | | Q903 | 8-729-209-60 | TRANSISTOR | 2SB1375 |
| | | | | Q909 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |
| | | | | Q910 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 |

MAIN

| Ref. No. | Part No. | Description | | | | Remarks | Ref. No. | Part No. | Description | | | | Remarks |
|--------------|--------------|-------------|------|----|-------|---|----------|--------------|-------------|------|----|-------|---------|
| < RESISTOR > | | | | | | | R329 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R101 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | R330 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | |
| R102 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | R332 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R103 | 1-220-373-11 | METAL CHIP | 620 | 5% | 1/10W | | R333 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R104 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | R334 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | |
| R105 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | | R342 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R106 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | △ R343 | 1-219-787-17 | FUSIBLE | 5.6 | 5% | 1/4W | |
| R107 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | △ R344 | 1-219-787-17 | FUSIBLE | 5.6 | 5% | 1/4W | |
| R110 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | | R345 | 1-216-836-11 | METAL CHIP | 18K | 5% | 1/10W | |
| R112 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | | R346 | 1-216-836-11 | METAL CHIP | 18K | 5% | 1/10W | |
| R114 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | | R347 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R116 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R351 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R117 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | | R352 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R118 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | R353 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R121 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R354 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R122 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R355 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | |
| R130 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | R360 | 1-216-819-11 | METAL CHIP | 680 | 5% | 1/10W | |
| R131 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | R361 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R132 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | | R362 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R133 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | | R363 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R134 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | | R364 | 1-216-819-11 | METAL CHIP | 680 | 5% | 1/10W | |
| (TH) | | | | | | | R365 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R134 | 1-216-826-11 | METAL CHIP | 2.7K | 5% | 1/10W | | R366 | 1-216-819-11 | METAL CHIP | 680 | 5% | 1/10W | |
| (EXCEPT TH) | | | | | | | R367 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R149 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | | R368 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R150 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | R369 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R151 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | R370 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R152 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | R371 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R153 | 1-220-373-11 | METAL CHIP | 620 | 5% | 1/10W | | R372 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R154 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | R373 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R155 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | | R374 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R156 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | R375 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R157 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R376 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R166 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R377 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R167 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | | R378 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R168 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | R379 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R233 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | | R380 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | |
| R234 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | | R382 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R235 | 1-216-853-11 | METAL CHIP | 470K | 5% | 1/10W | | R387 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R301 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | | R388 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | |
| R302 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | | R390 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R303 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | R391 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R304 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | R392 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R305 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | | R393 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R306 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | | R394 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R307 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | | R395 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R308 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R396 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R309 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | | R397 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/10W | |
| R310 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R398 | 1-216-861-11 | METAL CHIP | 2.2M | 5% | 1/10W | |
| R311 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R399 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R312 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | R401 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R313 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | R402 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R314 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | R419 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | |
| R315 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | R420 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R316 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | R421 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R317 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | R422 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | |
| R320 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | R429 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | |
| R327 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/10W | The components identified by mark △ or dotted line with mark △ are critical for safety. | | | | | | | |
| R328 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | | | | | | | |

| Ref. No. | Part No. | Description | | | Remarks | Ref. No. | Part No. | Description | | | Remarks |
|----------|--------------|-------------|------|----|--------------------|----------|--------------|-------------|------|----|--------------------|
| R430 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R581 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R442 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R582 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| | | | | | | R583 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R443 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R584 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R444 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| R445 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R585 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R446 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R586 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R447 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R587 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| | | | | | | R588 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R448 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R589 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R450 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| R473 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R590 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R474 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R591 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R477 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R592 | 1-216-811-11 | METAL CHIP | 150 | 5% | 1/10W |
| | | | | | | R593 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R478 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | (E3,E15,E51,EA,MX) |
| R488 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R593 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| R492 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | | | | | | (AUS,SP,MY,PH) |
| R493 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | | | | | | |
| R493 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R594 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| | | | | | (E3,E15,E51,EA,MX) | R595 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| | | | | | (AUS,SP,MY,PH,TH) | R597 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R495 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W | R598 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R501 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R600 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R502 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| R503 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R601 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R504 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R602 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| | | | | | | R603 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R505 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R604 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R506 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R620 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R507 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| R509 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R621 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R511 | 1-216-851-11 | METAL CHIP | 330K | 5% | 1/10W | R622 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| | | | | | | R623 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R513 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | R624 | 1-215-891-11 | METAL OXIDE | 680 | 5% | 2W |
| R517 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R625 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R519 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R521 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R626 | 1-216-806-11 | METAL CHIP | 56 | 5% | 1/10W |
| R522 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R629 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W |
| | | | | | | R630 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W |
| R523 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R650 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/10W |
| R529 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R651 | 1-216-853-11 | METAL CHIP | 470K | 5% | 1/10W |
| R530 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R540 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R652 | 1-216-843-11 | METAL CHIP | 68K | 5% | 1/10W |
| R541 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R653 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| | | | | | | R654 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R542 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R655 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R543 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R656 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R544 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R545 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R670 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R549 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R671 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| | | | | | | R672 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R550 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R673 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R560 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R674 | 1-215-891-11 | METAL OXIDE | 680 | 5% | 2W |
| R561 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| R563 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R675 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R566 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R676 | 1-216-806-11 | METAL CHIP | 56 | 5% | 1/10W |
| | | | | | | △ R701 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W F |
| R567 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R702 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W |
| R569 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R720 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R572 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| R573 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R721 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R574 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R722 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| | | | | | | R730 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R575 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R770 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R576 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W | R771 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R577 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| R578 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R772 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R579 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |
| | | | | | | | | | | | |
| R580 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | | | | | | |

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

HCD-GN88D

| MAIN | MOTOR (LD) | MOTOR (TB) | POWER AMP |
|------|------------|------------|-----------|
|------|------------|------------|-----------|

| Ref. No. | Part No. | Description | | | Remarks | Ref. No. | Part No. | Description | | | Remarks |
|----------|--------------|-------------|------|----|---------|-----------------------|---------------------------------------|-------------------------------------|---------|-----|---------|
| R798 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R860 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R799 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W | R861 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R800 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | R862 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R801 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W | R863 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| | | | | | | R904 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W |
| R802 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R803 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | R905 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W |
| R804 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | R906 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R805 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R915 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R806 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | R916 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| | | | | | | R917 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R807 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | | | | | | |
| R808 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | R921 | 1-216-820-11 | METAL CHIP | 820 | 5% | 1/10W |
| R809 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | R922 | 1-216-805-11 | METAL CHIP | 47 | 5% | 1/10W |
| R810 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R923 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R811 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | | | | | |
| | | | | | | < VARIABLE RESISTOR > | | | | | |
| R812 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | | | | | | |
| R813 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | RV301 | 1-238-019-11 | RES, ADJ, CARBON 47K (REC LEVEL(L)) | | | |
| R814 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | RV304 | 1-241-768-11 | RES, ADJ, CARBON 220K (REC BIAS(L)) | | | |
| R815 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | RV351 | 1-238-019-11 | RES, ADJ, CARBON 47K (REC LEVEL(R)) | | | |
| R816 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | RV354 | 1-241-768-11 | RES, ADJ, CARBON 220K (REC BIAS(R)) | | | |
| | | | | | | RY701 | 1-755-267-11 | RELAY | | | |
| R817 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | | | | | |
| R818 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | | | | | |
| R819 | 1-220-373-11 | METAL CHIP | 620 | 5% | 1/10W | | | | | | |
| R820 | 1-220-373-11 | METAL CHIP | 620 | 5% | 1/10W | T301 | 1-423-980-11 | TRANSFORMER, BIAS OSCILLATION | | | |
| R821 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | | | | | | |
| | | | | | | < VIBRATOR > | | | | | |
| R822 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R823 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | X501 | 1-567-098-41 | VIBRATOR, CRYSTAL (32.768kHz) | | | |
| R824 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | X502 | 1-781-107-21 | VIBRATOR, SERAMIC (16MHz) | | | |
| R825 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W | ***** | | | | | |
| R826 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | | | | | |
| | | | | | | 1-687-133-11 | MOTOR (LD) BOARD | | | | |
| R827 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | | | | | |
| R828 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | | | | | | |
| R829 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | ***** | | | | | |
| R830 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W | | | | | | |
| R831 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | | | | | | |
| | | | | | | 1-687-134-11 | MOTOR (TB) BOARD | | | | |
| | | | | | | | | | | | |
| R832 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R833 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W | | | | | | |
| R834 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | | | | | | |
| R835 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | | | | | |
| R836 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | CN742 | 1-784-727-11 | CONNECTOR, FFC 5P | | | |
| | | | | | | ***** | | | | | |
| R837 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | | | | | | |
| R838 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | A-4732-900-A | POWER AMP BOARD, COMPLETE (EXCEPT TH) | | | | |
| R839 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | A-4734-623-A | POWER AMP BOARD, COMPLETE (TH) | | | | |
| R840 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | | | | | | |
| R841 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| | | | | | | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S | | | | |
| | | | | | | | | | | | |
| R842 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R843 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R844 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | C501 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| R845 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | C502 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| R846 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | C503 | 1-162-286-31 | CERAMIC | 220PF | 10% | 50V |
| | | | | | | C504 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| R847 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | C507 | 1-136-495-11 | FILM | 0.068uF | 5% | 50V |
| R848 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | | | | | | |
| R849 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W | C508 | 1-136-495-11 | FILM | 0.068uF | 5% | 50V |
| R850 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W | C509 | 1-128-560-11 | ELECT | 22uF | 20% | 100V |
| R851 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | C512 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| | | | | | | C513 | 1-162-306-11 | CERAMIC | 0.01uF | 20% | 16V |
| R852 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W | C516 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| R853 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W | | | | | | |
| R854 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W | C517 | 1-126-964-11 | ELECT | 10uF | 20% | 50V |
| R857 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C523 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| R858 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W | C524 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |

POWER AMP

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|--------------------|--------------|-------------------------------|------------------|--------------|--------------|------------------------|------------------|
| C525 | 1-162-306-11 | CERAMIC | 0.01uF 20% 16V | Q518 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK |
| C526 | 1-126-964-11 | ELECT | 10uF 20% 50V | Q551 | 8-729-140-84 | TRANSISTOR | 2SC1841TP-PAFAEA |
| | | | | Q581 | 8-729-140-84 | TRANSISTOR | 2SC1841TP-PAFAEA |
| C527 | 1-162-306-11 | CERAMIC | 0.01uF 20% 16V | < RESISTOR > | | | |
| C528 | 1-162-306-11 | CERAMIC | 0.01uF 20% 16V | R501 | 1-249-417-11 | CARBON | 1K 5% 1/4W F |
| C541 | 1-136-165-00 | FILM | 0.1uF 5% 50V | R502 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| C542 | 1-127-811-11 | ELECT | 3300uF 20% 50V | R503 | 1-249-409-11 | CARBON | 220 5% 1/4W F |
| C544 | 1-130-777-00 | MYLAR | 0.1uF 5% 100V | R504 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| | | | | R505 | 1-249-416-11 | CARBON | 820 5% 1/4W F |
| C545 | 1-130-777-00 | MYLAR | 0.1uF 5% 100V | R506 | 1-249-435-11 | CARBON | 33K 5% 1/4W |
| C546 | 1-137-843-11 | ELECT | 2200uF 20% 100V | R507 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| C551 | 1-126-963-11 | ELECT | 4.7uF 20% 50V | △ R508 | 1-234-798-11 | ENCAPSULATED COMPONENT | |
| C552 | 1-162-294-31 | CERAMIC | 0.001uF 10% 50V | R509 | 1-260-076-11 | CARBON | 10 5% 1/2W |
| C553 | 1-162-286-31 | CERAMIC | 220PF 10% 50V | △ R511 | 1-212-881-11 | FUSIBLE | 100 5% 1/4W |
| | | | | | | | |
| C554 | 1-104-665-11 | ELECT | 100uF 20% 10V | △ R512 | 1-202-972-61 | FUSIBLE | 1 5% 1/4W |
| C557 | 1-136-495-11 | FILM | 0.068uF 5% 50V | R513 | 1-249-435-11 | CARBON | 33K 5% 1/4W |
| C558 | 1-136-495-11 | FILM | 0.068uF 5% 50V | R514 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W F |
| C559 | 1-128-560-11 | ELECT | 22uF 20% 100V | R515 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| C581 | 1-126-965-91 | ELECT | 22uF 20% 50V | R516 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| | | | | | | | |
| C591 | 1-136-165-00 | FILM | 0.1uF 5% 50V | R517 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| C592 | 1-127-811-11 | ELECT | 3300uF 20% 50V | R518 | 1-249-435-11 | CARBON | 33K 5% 1/4W |
| C596 | 1-137-843-11 | ELECT | 2200uF 20% 100V | R519 | 1-249-439-11 | CARBON | 68K 5% 1/4W |
| | | | | △ R520 | 1-215-872-11 | METAL OXIDE | 3.3K 5% 1W |
| | | | | R521 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| < CONNECTOR > | | | | | | | |
| CN502 | 1-564-509-11 | PLUG, CONNECTOR 6P (TH) | | R522 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| CN503 | 1-778-981-21 | CONNECTOR, BOARD TO BOARD 13P | | R523 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| CN504 | 1-770-722-11 | CONNECTOR, BOARD TO BOARD 6P | | △ R524 | 1-215-872-11 | METAL OXIDE | 3.3K 5% 1W |
| | | | | R527 | 1-249-438-11 | CARBON | 56K 5% 1/4W |
| | | | | R528 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| < DIODE > | | | | | | | |
| D501 | 8-719-991-33 | DIODE 1SS133T-72 | | R529 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| D502 | 8-719-991-33 | DIODE 1SS133T-72 | | R530 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| D503 | 8-719-947-70 | DIODE MTZJ-T-72-18C | | R531 | 1-247-890-11 | CARBON | 300K 5% 1/4W |
| D504 | 8-719-947-70 | DIODE MTZJ-T-72-18C | | | | | (TH) |
| D506 | 8-719-991-33 | DIODE 1SS133T-72 | | R531 | 1-247-891-00 | CARBON | 330K 5% 1/4W |
| | | | | | | | (EXCEPT TH) |
| D507 | 8-719-991-33 | DIODE 1SS133T-72 | | R532 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| D508 | 8-719-991-33 | DIODE 1SS133T-72 | | | | | |
| D509 | 8-719-991-33 | DIODE 1SS133T-72 | | R533 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| D511 | 8-719-991-33 | DIODE 1SS133T-72 | | △ R539 | 1-215-891-11 | METAL OXIDE | 680 5% 2W |
| D541 | 8-719-060-53 | DIODE RBV-2506 | | R541 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| | | | | R542 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| D543 | 8-719-500-60 | DIODE D5SBA20 | | R545 | 1-249-417-11 | CARBON | 1K 5% 1/4W F |
| D551 | 8-719-991-33 | DIODE 1SS133T-72 | | | | | |
| D581 | 8-719-991-33 | DIODE 1SS133T-72 | | R546 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| | | | | R547 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| < EARTH TERMINAL > | | | | R548 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| * EP501 | 1-537-738-21 | TERMINAL, EARTH | | R551 | 1-249-417-11 | CARBON | 1K 5% 1/4W F |
| * EP502 | 1-537-738-21 | TERMINAL, EARTH | | R552 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| | | | | | | | |
| < IC > | | | | | | | |
| IC501 | 8-749-017-06 | IC STK412-150 | | R553 | 1-249-409-11 | CARBON | 220 5% 1/4W F |
| | | | | R554 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| < TRANSISTOR > | | | | R555 | 1-249-416-11 | CARBON | 820 5% 1/4W F |
| Q501 | 8-729-140-84 | TRANSISTOR | 2SC1841TP-PAFAEA | R556 | 1-249-435-11 | CARBON | 33K 5% 1/4W |
| Q503 | 8-729-821-00 | TRANSISTOR | 2SA1207-AA | R557 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| Q504 | 8-729-140-84 | TRANSISTOR | 2SC1841TP-PAFAEA | | | | |
| Q505 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK | △ R558 | 1-234-798-11 | ENCAPSULATED COMPONENT | |
| Q506 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK | R559 | 1-260-076-11 | CARBON | 10 5% 1/2W |
| | | | | △ R561 | 1-212-881-11 | FUSIBLE | 100 5% 1/4W |
| Q510 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK | R564 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| Q511 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK | R565 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| Q514 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK | | | | |
| Q516 | 8-729-119-79 | TRANSISTOR | 2SC2785TP-FEK | | | | |
| Q517 | 8-729-119-76 | TRANSISTOR | 2SA1175TP-HFE | | | | |

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

HCD-GN88D

POWER AMP

REGULATOR

RF

| Ref. No. | Part No. | Description | Remarks |
|--|--------------|--|---------|
| R568 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R569 | 1-249-437-11 | CARBON 47K 5% | 1/4W |
| R570 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R572 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| R577 | 1-247-807-31 | CARBON 100 5% | 1/4W |
| R578 | 1-247-897-11 | CARBON 560K 5% | 1/4W |
| R581 | 1-249-435-11 | CARBON 33K 5% | 1/4W |
| R582 | 1-249-435-11 | CARBON 33K 5% | 1/4W |
| R591 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| R592 | 1-249-441-11 | CARBON 100K 5% | 1/4W |
| < RELAY > | | | |
| RY501 | 1-515-920-11 | RELAY | |
| < THERMISTOR > | | | |
| TH501 | 1-807-796-11 | THERMISTOR | |
| TH502 | 1-807-796-11 | THERMISTOR | |
| < TERMINAL > | | | |
| TM501 | 1-694-991-11 | PUSH TERMINAL (10P) (FRONT/SURROUND/CENTER SPEAKER) | |
| ***** | | | |
| A-4732-884-A REGULATOR BOARD, COMPLETE (EXCEPT TH) | | | |
| A-4734-506-A REGULATOR BOARD, COMPLETE (TH) | | | |
| ***** | | | |
| < CAPACITOR > | | | |
| C910 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C911 | 1-126-935-11 | ELECT 470uF 20% | 10V |
| C912 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C913 | 1-126-768-11 | ELECT 2200uF 20% | 16V |
| C915 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C917 | 1-126-935-11 | ELECT 470uF 20% | 6.3V |
| C918 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C919 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C921 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C922 | 1-104-656-11 | ELECT 2200uF 20% | 6.3V |
| C923 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C924 | 1-126-935-11 | ELECT 470uF 20% | 6.3V |
| C925 | 1-164-156-11 | CERAMIC CHIP 0.1uF | 25V |
| C926 | 1-126-935-11 | ELECT 470uF 20% | 10V |
| < CONNECTOR > | | | |
| * CN713 | 1-564-525-11 | PLUG, CONNECTOR 10P | |
| * CN714 | 1-564-519-11 | PLUG, CONNECTOR 4P | |
| < FERRITE BEAD > | | | |
| FB205 | 1-216-864-11 | METAL CHIP 0 5% | 1/10W |
| < IC > | | | |
| IC901 | 6-703-550-01 | IC TA7809LS | |
| IC902 | 8-759-518-68 | IC PQ12RF21 | |
| IC903 | 6-703-550-01 | IC TA7809LS | |
| IC904 | 6-703-546-01 | IC TA7804LS | |
| IC905 | 6-703-547-01 | IC TA7805LS | |
| IC906 | 6-703-547-01 | IC TA7805LS | |
| < TRANSISTOR > | | | |
| Q903 | 8-729-113-13 | TRANSISTOR FA1A4M-T1L33 | |

| Ref. No. | Part No. | Description | Remarks |
|---------------------------------|--------------|------------------------------|------------|
| Q904 | 8-729-113-13 | TRANSISTOR FA1A4M-T1L33 | |
| Q905 | 8-729-209-60 | TRANSISTOR 2SB1375 | |
| Q906 | 8-729-113-13 | TRANSISTOR FA1A4M-T1L33 | |
| < RESISTOR > | | | |
| R901 | 1-216-826-11 | METAL CHIP 2.7K 5% | 1/10W |
| R902 | 1-216-825-11 | METAL CHIP 2.2K 5% | 1/10W |
| R903 | 1-216-825-11 | METAL CHIP 2.2K 5% | 1/10W |
| R905 | 1-216-833-11 | METAL CHIP 10K 5% | 1/10W |
| R906 | 1-216-833-11 | METAL CHIP 10K 5% | 1/10W |
| ***** | | | |
| A-4728-690-A RF BOARD, COMPLETE | | | |
| ***** | | | |
| < CAPACITOR > | | | |
| C001 | 1-126-206-11 | ELECT CHIP 100uF | 20% 6.3V |
| C002 | 1-124-779-00 | ELECT CHIP 10uF | 20% 16V |
| C003 | 1-126-206-11 | ELECT CHIP 100uF | 20% 6.3V |
| C004 | 1-124-779-00 | ELECT CHIP 10uF | 20% 16V |
| C005 | 1-128-993-21 | ELECT CHIP 22uF | 20% 10V |
| C006 | 1-128-993-21 | ELECT CHIP 22uF | 20% 10V |
| C008 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C009 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C010 | 1-115-416-11 | CERAMIC CHIP 0.001uF | 5% 25V |
| C011 | 1-115-416-11 | CERAMIC CHIP 0.001uF | 5% 25V |
| C012 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C013 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C014 | 1-162-966-11 | CERAMIC CHIP 0.0022uF | 10% 50V |
| C015 | 1-162-966-11 | CERAMIC CHIP 0.0022uF | 10% 50V |
| C016 | 1-162-966-11 | CERAMIC CHIP 0.0022uF | 10% 50V |
| C017 | 1-162-966-11 | CERAMIC CHIP 0.0022uF | 10% 50V |
| C018 | 1-164-172-11 | CERAMIC CHIP 0.0056uF | 10% 25V |
| C019 | 1-164-172-11 | CERAMIC CHIP 0.0056uF | 10% 25V |
| C020 | 1-162-919-11 | CERAMIC CHIP 22PF | 5% 50V |
| C021 | 1-162-919-11 | CERAMIC CHIP 22PF | 5% 50V |
| C022 | 1-162-919-11 | CERAMIC CHIP 22PF | 5% 50V |
| C023 | 1-162-919-11 | CERAMIC CHIP 22PF | 5% 50V |
| C024 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V |
| C025 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C026 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C027 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C028 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C029 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V |
| C030 | 1-162-970-11 | CERAMIC CHIP 0.01uF | 10% 25V |
| C031 | 1-115-416-11 | CERAMIC CHIP 0.001uF | 5% 25V |
| C032 | 1-165-176-11 | CERAMIC CHIP 0.047uF | 10% 16V |
| C033 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C034 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C035 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C036 | 1-125-891-11 | CERAMIC CHIP 0.47uF | 10% 10V |
| C037 | 1-162-959-11 | CERAMIC CHIP 330PF | 5% 50V |
| C038 | 1-164-677-11 | CERAMIC CHIP 0.033uF | 10% 16V |
| C039 | 1-164-677-11 | CERAMIC CHIP 0.033uF | 10% 16V |
| C040 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C041 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| C042 | 1-164-218-11 | CERAMIC CHIP 180PF | 0.25PF 50V |
| C049 | 1-107-826-11 | CERAMIC CHIP 0.1uF | 10% 16V |
| < CONNECTOR > | | | |
| CN001 | 1-815-031-11 | CONNECTOR, FFC/FPC (ZIF) 24P | |

RF

SENSOR

SUB TRANS

| Ref. No. | Part No. | Description | Remarks |
|----------------|--------------|--------------------------------|---------|
| CN002 | 1-784-836-21 | CONNECTOR,FFC(LIF(NON-ZIF))29P | |
| CN003 | 1-784-861-21 | CONNECTOR, FFC(LIF(NON-ZIF))9P | |
| < DIODE > | | | |
| D001 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| D002 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| < IC > | | | |
| IC001 | 6-703-551-01 | IC SP3723BDAOPM | |
| < COIL > | | | |
| L001 | 1-412-031-11 | INDUCTOR CHIP 47uH | |
| L002 | 1-412-031-11 | INDUCTOR CHIP 47uH | |
| < TRANSISTOR > | | | |
| Q001 | 8-729-903-46 | TRANSISTOR 2SB1132-P | |
| Q002 | 8-729-903-46 | TRANSISTOR 2SB1132-P | |
| < RESISTOR > | | | |
| R001 | 1-218-668-11 | METAL CHIP 100 0.5% 1/10W | |
| R003 | 1-216-803-11 | METAL CHIP 33 5% 1/10W | |
| R004 | 1-216-803-11 | METAL CHIP 33 5% 1/10W | |
| R005 | 1-216-841-11 | METAL CHIP 47K 5% 1/10W | |
| R006 | 1-216-817-11 | METAL CHIP 470 5% 1/10W | |
| R007 | 1-216-803-11 | METAL CHIP 33 5% 1/10W | |
| R008 | 1-216-803-11 | METAL CHIP 33 5% 1/10W | |
| R009 | 1-216-841-11 | METAL CHIP 47K 5% 1/10W | |
| R010 | 1-216-817-11 | METAL CHIP 470 5% 1/10W | |
| R011 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R012 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R013 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R014 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R015 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R016 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R017 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R018 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R019 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R020 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R021 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R022 | 1-216-813-11 | METAL CHIP 220 5% 1/10W | |
| R023 | 1-216-820-11 | METAL CHIP 820 5% 1/10W | |
| R024 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R025 | 1-216-809-11 | METAL CHIP 100 5% 1/10W | |
| R026 | 1-218-718-11 | METAL CHIP 12K 0.5% 1/10W | |
| R027 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R028 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R029 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R032 | 1-216-809-11 | METAL CHIP 100 5% 1/10W | |
| R033 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R034 | 1-219-570-11 | METAL CHIP 10M 5% 1/10W | |
| R035 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| R041 | 1-216-821-11 | METAL CHIP 1K 5% 1/10W | |
| ***** | | | |
| | 1-687-132-11 | SENSOR BOARD | |
| ***** | | | |
| < CONNECTOR > | | | |
| CN731 | 1-785-329-21 | PIN, CONNECTOR (LIGHT ANGLE)3P | |
| ***** | | | |

| Ref. No. | Part No. | Description | Remarks |
|----------------|--------------|--------------------------------------|--------------------------|
| | A-4734-889-A | SUB TRANS BOARD, COMPLETE (MX) | |
| | A-4734-967-A | SUB TRANS BOARD, COMPLETE (AUS) | |
| | A-4749-088-A | SUB TRANS BOARD, COMPLETE | (E15,E3,E51,PH,SP,MY) |
| | A-4749-091-A | SUB TRANS BOARD, COMPLETE (TH) | |
| | A-4749-093-A | SUB TRANS BOARD, COMPLETE (EA) | ***** |
| < CAPACITOR > | | | |
| △C971 | 1-113-925-11 | CERAMIC 0.01uF 20% 250V | |
| C973 | 1-126-933-11 | ELECT 100uF 20% 16V | |
| C975 | 1-126-767-11 | ELECT 1000uF 20% 16V | |
| C976 | 1-164-159-21 | CERAMIC 0.1uF 50V(TH) | |
| C976 | 1-164-159-11 | CERAMIC 0.1uF 50V | (EXCEPT TH) |
| C977 | 1-164-159-21 | CERAMIC 0.1uF 50V(TH) | |
| C977 | 1-164-159-11 | CERAMIC 0.1uF 50V | (EXCEPT TH) |
| C978 | 1-164-159-21 | CERAMIC 0.1uF 50V(TH) | |
| C978 | 1-164-159-11 | CERAMIC 0.1uF 50V | (EXCEPT TH) |
| < CONNECTOR > | | | |
| CN971 | 1-568-106-11 | PIN, CONNECTOR(3.96mm PITCH)4P | (E15,E3,E51,EA,PH,SP,MY) |
| CN971 | 1-564-321-00 | PIN, CONNECTOR(3.96mm PITCH)2P | (AUS,MX,TH) |
| CN974 | 1-564-321-00 | PIN, CONNECTOR(3.96mm PITCH)2P | |
| CN976 | 1-785-330-11 | PIN, CONNECTOR (LIGHT ANGLE)4P | |
| < DIODE > | | | |
| D971 | 8-719-991-33 | DIODE 1SS133T-72 | |
| D972 | 8-719-200-82 | DIODE 11ES2-NTA1B (TH) | |
| D972 | 8-719-024-99 | DIODE 11ES2-NTA2B (EXCEPT TH) | |
| D973 | 8-719-200-82 | DIODE 11ES2-NTA1B (TH) | |
| D973 | 8-719-024-99 | DIODE 11ES2-NTA2B (EXCEPT TH) | |
| D974 | 8-719-200-82 | DIODE 11ES2-NTA1B (TH) | |
| D974 | 8-719-024-99 | DIODE 11ES2-NTA2B (EXCEPT TH) | |
| D975 | 8-719-200-82 | DIODE 11ES2-NTA1B (TH) | |
| D975 | 8-719-024-99 | DIODE 11ES2-NTA2B (EXCEPT TH) | |
| < IC > | | | |
| IC971 | 6-703-546-01 | IC TA7804LS | |
| < TRANSISTOR > | | | |
| Q971 | 8-729-119-79 | TRANSISTOR 2SC2785TP-FEK | |
| < RESISTOR > | | | |
| R974 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R975 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| < RELAY > | | | |
| △RY971 | 1-755-276-11 | RELAY, POWER | |
| < SWITCH > | | | |
| △S901 | 1-786-055-21 | SELECTOR, VOLTAGE (VOLTAGE SELECTOR) | (EXCEPT AUS,MX,TH) |

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

HCD-GN88D

SUB TRANS

SURROUND

| Ref. No. | Part No. | Description | Remarks |
|---------------------|--------------|--------------------------------------|---------|
| < TRANSFORMER > | | | |
| △ T972 | 1-437-775-21 | TRANSFORMER, POWER (EA,MX) | |
| △ T972 | 1-437-751-12 | TRANSFORMER, POWER (EXCEPT EA,MX) | |
| ***** | | | |
| | A-4732-892-A | SURROUND BOARD, COMPLETE (EXCEPT TH) | |
| | A-4734-262-A | SURROUND BOARD, COMPLETE (TH) | |
| ***** | | | |
| < CAPACITOR > | | | |
| C301 | 1-126-963-11 | ELECT 4.7uF 20% 50V | |
| C302 | 1-162-286-21 | CERAMIC 220PF 10% 50V(TH) | |
| C302 | 1-162-286-31 | CERAMIC 220PF 10% 50V | |
| (EXCEPT TH) | | | |
| C303 | 1-107-473-11 | CERAMIC 220PF 5% 50V | |
| C304 | 1-126-947-11 | ELECT 47uF 20% 10V | |
| C306 | 1-136-495-11 | FILM 0.068uF 5% 50V | |
| C307 | 1-136-495-11 | FILM 0.068uF 5% 50V | |
| C308 | 1-128-576-11 | ELECT 100uF 20% 63V | |
| C319 | 1-162-306-11 | CERAMIC 0.01uF 30% 16V | |
| C341 | 1-126-963-11 | ELECT 4.7uF 20% 50V | |
| C342 | 1-162-286-21 | CERAMIC 220PF 10% 50V(TH) | |
| C342 | 1-162-286-31 | CERAMIC 220PF 10% 50V | |
| (EXCEPT TH) | | | |
| C343 | 1-107-473-11 | CERAMIC 220PF 5% 50V | |
| C344 | 1-126-947-11 | ELECT 47uF 20% 10V | |
| C346 | 1-136-495-11 | FILM 0.068uF 5% 50V | |
| C347 | 1-136-495-11 | FILM 0.068uF 5% 50V | |
| C351 | 1-126-963-11 | ELECT 4.7uF 20% 50V | |
| C352 | 1-162-286-21 | CERAMIC 220PF 10% 50V(TH) | |
| C352 | 1-162-286-31 | CERAMIC 220PF 10% 50V | |
| (EXCEPT TH) | | | |
| C353 | 1-107-473-11 | CERAMIC 220PF 5% 50V | |
| C354 | 1-126-947-11 | ELECT 47uF 20% 10V | |
| C356 | 1-136-495-11 | FILM 0.068uF 5% 50V | |
| C357 | 1-136-495-11 | FILM 0.068uF 5% 50V | |
| C358 | 1-128-576-11 | ELECT 100uF 20% 63V | |
| < CONNECTOR > | | | |
| CN303 | 1-564-509-11 | PLUG, CONNECTOR 6P | |
| * CN304 | 1-564-520-11 | PLUG, CONNECTOR 5P | |
| < DIODE > | | | |
| D301 | 8-719-991-33 | DIODE 1SS133T-72 | |
| D341 | 8-719-991-33 | DIODE 1SS133T-72 | |
| D351 | 8-719-991-33 | DIODE 1SS133T-72 | |
| D381 | 8-719-991-33 | DIODE 1SS133T-72 | |
| D382 | 8-719-991-33 | DIODE 1SS133T-72 | |
| D391 | 8-719-991-33 | DIODE 1SS133T-72 | |
| < GROUND TERMINAL > | | | |
| EP301 | 1-537-738-21 | TERMINAL, GROUND | |
| < IC > | | | |
| IC301 | 6-600-168-01 | IC STK443-090 | |
| < TRANSISTOR > | | | |
| Q301 | 8-729-119-79 | TRANSISTOR 2SC2785TP-FEK | |
| Q341 | 8-729-119-79 | TRANSISTOR 2SC2785TP-FEK | |
| Q351 | 8-729-119-79 | TRANSISTOR 2SC2785TP-FEK | |

| Ref. No. | Part No. | Description | Remarks |
|--------------|--------------|--------------------------|---------|
| Q381 | 8-729-119-76 | TRANSISTOR 2SA1175TP-HFE | |
| Q383 | 8-729-119-76 | TRANSISTOR 2SA1175TP-HFE | |
| Q384 | 8-729-900-36 | TRANSISTOR BA1F4M-TP | |
| Q385 | 8-729-119-79 | TRANSISTOR 2SC2785TP-FEK | |
| Q386 | 8-729-900-36 | TRANSISTOR BA1F4M-TP | |
| < RESISTOR > | | | |
| R301 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R302 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R303 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R304 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| △ R305 | 1-234-499-21 | ENCAPSULATED COMPONENT | |
| R307 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R308 | 1-249-434-11 | CARBON 27K 5% 1/4W | |
| R309 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R310 | 1-260-076-11 | CARBON 10 5% 1/2W | |
| △ R311 | 1-212-881-11 | FUSIBLE 100 5% 1/4W | |
| R319 | 1-247-862-11 | CARBON 20K 5% 1/4W | |
| △ R320 | 1-202-972-61 | FUSIBLE 1 5% 1/4W | |
| R331 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R332 | 1-249-438-11 | CARBON 56K 5% 1/4W | |
| R333 | 1-249-439-11 | CARBON 68K 5% 1/4W | |
| R341 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R342 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R343 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R344 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| △ R345 | 1-234-499-21 | ENCAPSULATED COMPONENT | |
| R347 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R348 | 1-249-434-11 | CARBON 27K 5% 1/4W | |
| R349 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R350 | 1-260-076-11 | CARBON 10 5% 1/2W | |
| R351 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R352 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R353 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R354 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| △ R356 | 1-234-499-21 | ENCAPSULATED COMPONENT | |
| R357 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R358 | 1-249-434-11 | CARBON 27K 5% 1/4W | |
| R359 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R360 | 1-260-076-11 | CARBON 10 5% 1/2W | |
| △ R361 | 1-212-881-11 | FUSIBLE 100 5% 1/4W | |
| △ R387 | 1-215-891-11 | METAL OXIDE 680 5% 2W | |
| △ R388 | 1-215-891-11 | METAL OXIDE 680 5% 2W | |
| R390 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R395 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R396 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R397 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R399 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R401 | 1-249-417-11 | CARBON 1K 5% 1/4W F | |
| R402 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| < RELAY > | | | |
| RY381 | 1-755-417-12 | RELAY | |
| RY382 | 1-755-417-12 | RELAY | |
| ***** | | | |

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

SW

TRANS

VIDEO

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|-----------------------------------|---------|----------|--------------|------------------------------------|---------|
| | 1-687-669-11 | SW BOARD ***** | | C720 | 1-126-960-11 | ELECT 1uF 20% 50V | |
| S751 | 1-786-514-11 | SWITCH, LEVER (SLIDE) (LEVER) | | C721 | 1-126-933-11 | ELECT 100uF 20% 16V | |
| ***** | | | | C722 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| | 1-686-930-11 | TRANS BOARD ***** | | C723 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| | | < CAPACITOR > | | C724 | 1-126-935-11 | ELECT 470uF 20% 6.3V | |
| C941 | 1-128-576-11 | ELECT 100uF 20% 63V | | C725 | 1-128-551-11 | ELECT 22uF 20% 25V | |
| | | < CONNECTOR > | | C726 | 1-126-935-11 | ELECT 470uF 20% 6.3V | |
| CN997 | 1-564-509-11 | PLUG, CONNECTOR 6P | | C727 | 1-128-551-11 | ELECT 22uF 20% 25V | |
| * CN998 | 1-564-510-11 | PLUG, CONNECTOR 7P | | C728 | 1-126-935-11 | ELECT 470uF 20% 6.3V | |
| | | < DIODE > | | C729 | 1-128-551-11 | ELECT 22uF 20% 25V | |
| D977 | 8-719-024-99 | DIODE 11ES2-NTA2B | | C730 | 1-126-933-11 | ELECT 100uF 20% 16V | |
| | | < FUSE HOLDER > | | C731 | 1-126-965-91 | ELECT 22uF 20% 50V | |
| FH9741 | 1-533-233-11 | FUSE HOLDER | | C732 | 1-126-933-11 | ELECT 100uF 20% 16V | |
| FH9742 | 1-533-233-11 | FUSE HOLDER | | C733 | 1-126-965-91 | ELECT 22uF 20% 50V | |
| FH9751 | 1-533-233-11 | FUSE HOLDER | | C734 | 1-162-919-11 | CERAMIC CHIP 22PF 5% 50V | |
| FH9752 | 1-533-233-11 | FUSE HOLDER | | C735 | 1-162-919-11 | CERAMIC CHIP 22PF 5% 50V | |
| FH9761 | 1-533-233-11 | FUSE HOLDER | | C736 | 1-162-919-11 | CERAMIC CHIP 22PF 5% 50V | |
| FH9762 | 1-533-233-11 | FUSE HOLDER | | C737 | 1-162-957-11 | CERAMIC CHIP 220PF 5% 50V | |
| FH9771 | 1-533-233-11 | FUSE HOLDER | | C738 | 1-162-919-11 | CERAMIC CHIP 22PF 5% 50V | |
| FH9772 | 1-533-233-11 | FUSE HOLDER | | C739 | 1-162-919-11 | CERAMIC CHIP 22PF 5% 50V | |
| FH9781 | 1-533-233-11 | FUSE HOLDER | | C740 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| FH9782 | 1-533-233-11 | FUSE HOLDER | | C741 | 1-126-965-91 | ELECT 22uF 20% 50V | |
| FH9791 | 1-533-233-11 | FUSE HOLDER | | C742 | 1-126-947-11 | ELECT 47uF 20% 16V | |
| FH9792 | 1-533-233-11 | FUSE HOLDER | | C848 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| | | < RESISTOR > | | C849 | 1-126-916-11 | ELECT 1000uF 20% 6.3V | |
| △ R941 | 1-217-637-00 | FUSIBLE 1 5% 1/4W | | | | < CONNECTOR > | |
| ***** | | | | CN207 | 1-779-289-11 | CONNECTOR,FFC(LIF(NON-ZIF))21P | |
| | A-4732-883-A | VIDEO BOARD, COMPLETE (EXCEPT TH) | | CN208 | 1-779-293-11 | CONNECTOR,FFC(LIF(NON-ZIF))25P | |
| | A-4734-505-A | VIDEO BOARD, COMPLETE (TH) | | * CN710 | 1-564-720-11 | PIN, CONNECTOR (SMALL TYPE) 4P | |
| | | ***** | | CN711 | 1-785-328-11 | PIN, CONNECTOR (LIGHT ANGRE)2P | |
| | | < CAPACITOR > | | CN712 | 1-779-285-11 | CONNECTOR,FFC(LIF(NON-ZIF))17P | |
| C215 | 1-126-964-11 | ELECT 10uF 20% 50V | | | | < DIODE > | |
| C216 | 1-126-964-11 | ELECT 10uF 20% 50V | | D710 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| C217 | 1-126-964-11 | ELECT 10uF 20% 50V | | D711 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| C218 | 1-126-964-11 | ELECT 10uF 20% 50V | | | | < FERRITE BEAD > | |
| C219 | 1-126-964-11 | ELECT 10uF 20% 50V | | FB710 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| C220 | 1-126-964-11 | ELECT 10uF 20% 50V | | FB711 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| C221 | 1-126-964-11 | ELECT 10uF 20% 50V | | FB712 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| C222 | 1-126-964-11 | ELECT 10uF 20% 50V | | FB713 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| C709 | 1-162-953-11 | CERAMIC CHIP 100PF 5% 50V | | FB714 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| C710 | 1-126-964-11 | ELECT 10uF 20% 50V | | FB715 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| C711 | 1-126-964-11 | ELECT 10uF 20% 50V | | FB798 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| C712 | 1-126-926-11 | ELECT 1000uF 20% 10V | | | | < IC > | |
| C713 | 1-162-970-11 | CERAMIC CHIP 0.01uF 10% 25V | | IC710 | 8-759-295-90 | IC NJM2244M-TE2 | |
| C714 | 1-126-933-11 | ELECT 100uF 20% 16V | | IC711 | 6-702-335-01 | IC MM1568AJBE | |
| C715 | 1-126-960-11 | ELECT 1uF 20% 50V | | | | < JACK > | |
| C716 | 1-126-960-11 | ELECT 1uF 20% 50V | | J710 | 1-793-483-11 | JACK, PIN 3P (COMPONENT VIDEO OUT) | |
| C717 | 1-126-960-11 | ELECT 1uF 20% 50V | | J711 | 1-774-227-11 | JACK, PIN 1P (VIDEO OUT) | |
| C718 | 1-126-960-11 | ELECT 1uF 20% 50V | | J712 | 1-537-943-11 | TERMINAL, S (S-VIDEO OUT) | |
| C719 | 1-126-960-11 | ELECT 1uF 20% 50V | | | | < JUMPER RESISTOR > | |
| | | | | JR713 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |

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

HCD-GN88D

VIDEO

VOLUME

| Ref. No. | Part No. | Description | | | Remarks |
|----------------|--------------|-------------|--------------|----|---------|
| JR716 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR717 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR720 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR721 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| < COIL > | | | | | |
| L710 | 1-414-189-31 | INDUCTOR | 100uH | | |
| L711 | 1-414-183-41 | INDUCTOR | 10uH | | |
| < TRANSISTOR > | | | | | |
| Q215 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q216 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q217 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q218 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q219 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q220 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q221 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q222 | 8-729-802-80 | TRANSISTOR | 2SC3661-TB | | |
| Q710 | 8-729-113-69 | TRANSISTOR | FN1F4M-T1M32 | | |
| Q711 | 8-729-113-13 | TRANSISTOR | FA1A4M-T1L33 | | |
| < RESISTOR > | | | | | |
| R215 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R216 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R217 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R218 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R219 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R220 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R221 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R222 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R225 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R226 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R227 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R228 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R229 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R230 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R231 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R232 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R235 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R236 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R237 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R238 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R239 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R240 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R241 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R242 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R710 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R711 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R712 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R713 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R714 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R715 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R716 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R717 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R718 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R719 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R720 | 1-218-285-11 | METAL CHIP | 75 | 5% | 1/10W |
| R721 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remarks |
|----------------|--------------|------------------------------------|--------------------------|-----|-------------|
| | A-4732-868-A | VOLUME BOARD, COMPLETE (EXCEPT TH) | | | |
| | A-4734-534-A | VOLUME BOARD, COMPLETE (TH) | | | |
| ***** | | | | | |
| < CAPACITOR > | | | | | |
| C614 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C615 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C750 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V(TH) |
| C750 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| | | | | | (EXCEPT TH) |
| C751 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V(TH) |
| C751 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| | | | | | (EXCEPT TH) |
| C752 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V(TH) |
| C752 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| | | | | | (EXCEPT TH) |
| C1000 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V(TH) |
| C1000 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| | | | | | (EXCEPT TH) |
| < CONNECTOR > | | | | | |
| CN605 | 1-568-860-11 | SOCKET, CONNECTOR 17P | | | |
| < DIODE > | | | | | |
| D1001 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 1) | | |
| D1002 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 2) | | |
| D1003 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 3) | | |
| D1004 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 4) | | |
| D1005 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 5) | | |
| D1006 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 6) | | |
| D1007 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 7) | | |
| D1008 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 8) | | |
| D1009 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 9) | | |
| D1010 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 10) | | |
| D1011 | 6-500-529-01 | DIODE | SLI-325URT31W (VOL 11) | | |
| D1012 | 6-500-647-01 | DIODE | SEL5E20C-S-TP | | |
| | | | (MULTI CHANNEL DECODING) | | |
| D1013 | 8-719-991-33 | DIODE | 1SS133T-72 | | |
| < IC > | | | | | |
| IC603 | 6-600-174-01 | IC | RPM7240-H4 | | |
| < TRANSISTOR > | | | | | |
| Q1001 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | |
| Q1002 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | |
| Q1003 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | |
| Q1004 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | |
| Q1005 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | |
| Q1006 | 8-729-116-02 | TRANSISTOR | BA1A4M-TP | | |
| < RESISTOR > | | | | | |
| R625 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W F |
| R750 | 1-249-410-11 | CARBON | 270 | 5% | 1/4W F |
| R759 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W F |
| R760 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R761 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W |
| R762 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W |
| R763 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R765 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F |
| R766 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W F |
| R767 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W F |

| Ref. No. | Part No. | Description | | | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|--|------|----|---------|----------|--------------|---|------------------------------|
| R768 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W F | 226 | 1-775-265-11 | WIRE (FLAT TYPE) (29 CORE) | |
| R769 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W F | | | | |
| R770 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W F | 227 | 1-824-106-12 | CABLE, FLEXIBLE FLAT (24 CORE) | |
| R771 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W | △ 229 | 1-477-263-11 | OPTICAL PICK-UP (TDP022W) | |
| R772 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W F | △ F974 | 1-533-473-11 | FUSE, GLASS TUBE (DIA. 5) (T6.3AL 250V) | |
| | | | | | | △ F975 | 1-533-473-11 | FUSE, GLASS TUBE (DIA. 5) (T6.3AL 250V) | |
| R773 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W F | △ F976 | 1-576-655-11 | FUSE, GLASS TUBE (DIA. 5) (8A 250V) | |
| R774 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | | | | |
| R775 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | △ F977 | 1-576-655-11 | FUSE, GLASS TUBE (DIA. 5) (8A 250V) | |
| R776 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | △ F978 | 1-533-471-11 | FUSE, GLASS TUBE (DIA. 5) (4A 250V) | |
| R777 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W | △ F979 | 1-533-470-11 | FUSE, GLASS TUBE (DIA. 5) (3.15A 250V) | |
| R1001 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | M741 | A-4723-963-A | MOTOR ASSY, TABLE | |
| R1002 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | M751 | A-4737-553-A | MOTOR ASSY, LOADING | |
| R1003 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | | | | |
| R1004 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | M891 | 1-763-072-11 | FAN, DC | |
| R1005 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | RE701 | 1-477-680-11 | ENCODER, ROTARY | |
| | | | | | | △ T910 | 1-439-741-11 | TRANSFORMER, POWER | (AUS,E15,E3,E51,PH,SP,MY,TH) |
| R1006 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | △ T910 | 1-439-842-11 | POWER TRANSFORMER (EA,MX) | |
| R1007 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | | | | |
| R1008 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | | | | |
| R1009 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | | | | |
| R1010 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | | | | |
| | | | | | | | | | |
| R1011 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W F | | | | |
| R1012 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W F | | | | |
| R1013 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | | | | |
| | | | | | | | | | |
| | | < SWITCH > | | | | | | | |
| | | | | | | | | | |
| S748 | 1-476-504-11 | ENCODER, ROTARY (VOLUME) | | | | | | | |
| S750 | 1-771-410-21 | SWITCH, TACTILE (DISPLAY) | | | | | | | |
| S759 | 1-771-410-21 | SWITCH, TACTILE (SOUND FIELD) | | | | | | | |
| S760 | 1-771-410-21 | SWITCH, TACTILE (P.FILE) | | | | | | | |
| S761 | 1-771-410-21 | SWITCH, TACTILE (ILLUMINATION) | | | | | | | |
| | | | | | | | | | |
| S762 | 1-771-410-21 | SWITCH, TACTILE (GAME EQ) | | | | | | | |
| S763 | 1-771-410-21 | SWITCH, TACTILE (GROOVE) | | | | | | | |
| S765 | 1-771-410-21 | SWITCH, TACTILE (DVD TOP MENU/DIRECTION) | | | | | | | |
| S766 | 1-771-410-21 | SWITCH, TACTILE (FM MODE/REPEAT) | | | | | | | |
| S767 | 1-771-410-21 | SWITCH, TACTILE | | | | | | | |
| | | (TUNER MEMORY/PLAY MODE) | | | | | | | |
| | | | | | | | | | |
| S768 | 1-771-410-21 | SWITCH, TACTILE (AMP MENU) | | | | | | | |
| S769 | 1-771-410-21 | SWITCH, TACTILE (MUSIC EQ) | | | | | | | |
| S770 | 1-771-410-21 | SWITCH, TACTILE (MOVIE EQ) | | | | | | | |
| S771 | 1-771-410-21 | SWITCH, TACTILE (EFFECT ON/OFF) | | | | | | | |
| S772 | 1-771-410-21 | SWITCH, TACTILE (DVD MENU) | | | | | | | |
| | | | | | | | | | |
| S773 | 1-786-528-11 | SWITCH, ROTARY (←,→,↑,↓, PUSH ENTER) | | | | | | | |
| ***** | | | | | | | | | |
| | | MISCELLANEOUS | | | | | | | |
| | | ***** | | | | | | | |
| | | | | | | | | | |
| △ | 1-569-007-11 | ADAPTOR, CONVERSION (E3,E15) | | | | | | | |
| △ | 1-569-008-21 | ADAPTOR, CONVERSION (E51,EA,PH,SP,MY) | | | | | | | |
| △ | 1-770-019-51 | ADAPTOR, CONVERSION PLUG (TH) | | | | | | | |
| 6 | 1-693-603-31 | TUNER (FM/AM) | | | | | | | |
| 11 | 1-775-165-11 | WIRE (FLAT TYPE) (17 CORE) (220mm) | | | | | | | |
| | | | | | | | | | |
| 70 | 1-773-040-11 | WIRE (FLAT TYPE) (17 CORE) (120mm) | | | | | | | |
| 73 | 1-773-110-11 | WIRE (FLAT TYPE) (19 CORE) | | | | | | | |
| 75 | 1-796-487-31 | DECK, MECHANICAL (CDM43RR23) | | | | | | | |
| 79 | 1-751-688-11 | WIRE (FLAT TYPE) (13 CORE) | | | | | | | |
| △ 103 | 1-696-847-21 | CORD, POWER (AUS) | | | | | | | |
| | | | | | | | | | |
| △ 103 | 1-777-071-53 | CORD, POWER (E51,EA,PH,SP,MY) | | | | | | | |
| △ 103 | 1-824-818-11 | CORD, POWER (TH) | | | | | | | |
| △ 103 | 1-827-226-11 | CORD, POWER (E15,E3,MX) | | | | | | | |
| 152 | 1-776-182-11 | WIRE (FLAT TYPE) (5 CORE) | | | | | | | |

HCD-GN88D

SONY®

SERVICE MANUAL

Ver 1.1 2003.08

*E Model
Australian Model*

SUPPLEMENT-1




File this supplement with the service manual.

| |
|----------------------------|
| Subject: DVD OSD Test Mode |
|----------------------------|

DVD OSD Test Mode**[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).

[STARTING TEST MODE]

1. Press the  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 liquid crystal display, 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)


```

Test Mode Menu

0. Syscon Diagnosis
1. Drive Auto Adjustment
2. Drive Manual Operation
3. Mecha Aging
4. Emergency History
5. Mecha Error History
6. Version Information
7. Video Level Adjustment


Exit: POWER Key
Model      :MHC-GN88D xx
Revision   :x.xx

```

4. To execute each function, select the desired menu and press its number on the remote commander RM-SR246D.
5. To release from test mode, press the  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  key on the remote commander, and the following Check Menu will be displayed.

```

### Syscon Diagnosis ###

Check Menu

0. Quit
1. All
2. Version
3. EEPROM
4. GPIO
5. SD Bus
6. Video

```

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

```

### Syscon Diagnosis ###


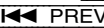
Diag All Check
No.2 Version

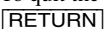
2-3. ROM Check Sum
Check Sum = xxxx

Press NEXT Key to Continue
Press PREV Key to Repeat

```


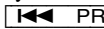

For the ROM Check, the check sum calculated by the Syscon is output, and therefore you must compare it with the specified value for confirmation.

Following the message, press the  button to go to the next item, or press the  button to repeat the same operation again.

To quit the diagnosis and return to Check Menu screen, press the  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  key on the remote commander to quit the diagnosis, or press the  button to repeat the same check where an error occurred, or press the  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. (MHC-GN88D)

- 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).

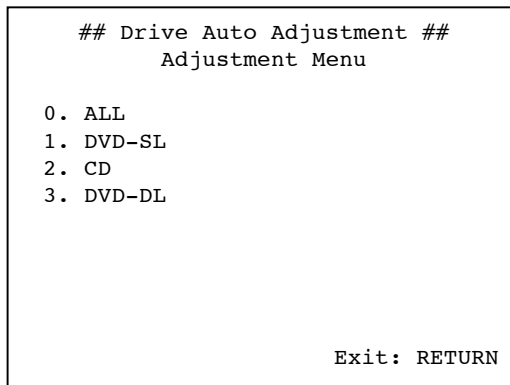
0-6. Video Check

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.

- Use DVD reference disc unless otherwise indicated.
[DVD reference disc]
- LUV-P01 (4-999-032-01) (CD)
- TDV-540C (J-2501-235-A) (DVD-DL)
- TDV-520CSO (J-2501-236-A) (DVD-SL)



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 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 focus offset adjust
17. Auto focus gain adjust
18. Auto focus offset adjust
19. EQ boost adjust
20. Auto track gain adjust
21. All servo stop
22. 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. Sled ON
16. Check CLV on
17. Auto focus offset adjust
18. Auto focus gain adjust
19. Auto focus offset adjust
20. EQ boost adjust
21. Auto track gain adjust
22. 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
- Layer 0 Adjust**
22. Focus jump (L1 → L0)
23. Auto track offset adjust L0
24. CLVA on
25. Wait 500 msec
26. Tracking on
27. Wait 500 msec
28. Sled on
29. Check CLV lock
30. Auto Focus Adjust
31. Auto focus gain adjust
32. Auto focus offset adjust
33. EQ boost adjust
34. Auto track gain adjust
35. 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.

```
## Drive Manual Operation ##
      Operation Menu
1. Disc Type
2. Servo Control
3. Track/Layer Jump
4. Non EEPROM Write Adjust
5. EEPROM Write Adjust
6. Memory Check
7. Disc Check Memory
8. Error Rate Display
9. SACD Water Mark

Exit: RETURN
```

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 [I/⏻] button to turn the power off.

Basic operation:

(controllable from front panel or remote commander)

- | | |
|----------------------|--|
| [I/⏻] | : 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

```
Disc Type

Disc Type Select

1. Disc Type Auto Check
2. Set Disc Type DVD
3. Set Disc Type CD
4. Set Disc Type Hybrid

Exit: RETURN
```

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 Auto Check

Disc Type    xx
Layer        xx
Mirr Time    xx
Mirr Count   xx
FZC Count    xx
PI Reference xx
PI Peak      xx

ENTER.Execute

Exit: RETURN
```

- | | |
|-----------|--|
| 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.

FZC Count : The number of times which focus zero cross points of each layer when lens down.

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)
- [8]: DVD-RW disc (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.
- [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 | |
| 2. 1Tj | REV | |
| 3. 500Tj | Fine FWD | |
| 4. 500Tj | Fine REV | |
| 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 [1] 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. 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 coares :
Adjusts tracking offset of the RF amp (IC001) side.
- [4] TRK. Offset fine :
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 coarse :
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 DVDWRW
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

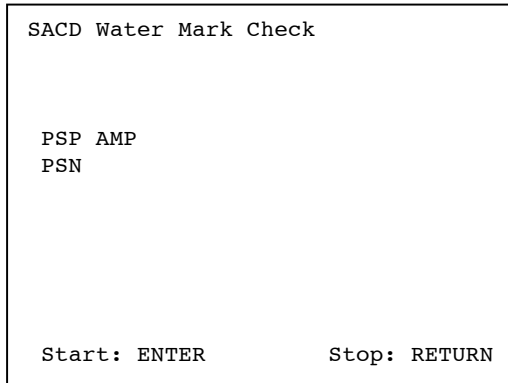
Exit: RETURN

```

On this screen, measure and display the error rate.

UC : Incorrect value
CR : Correct value
Add : Address

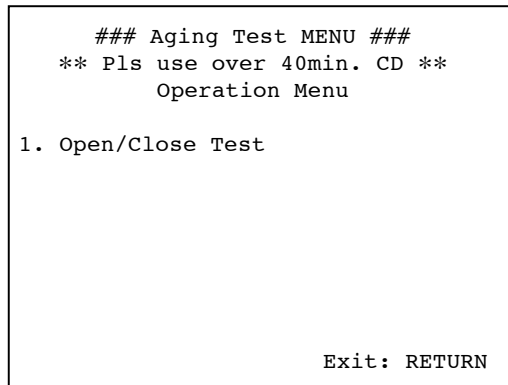
2-9. SACD Water Mark Check (Not used)



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.

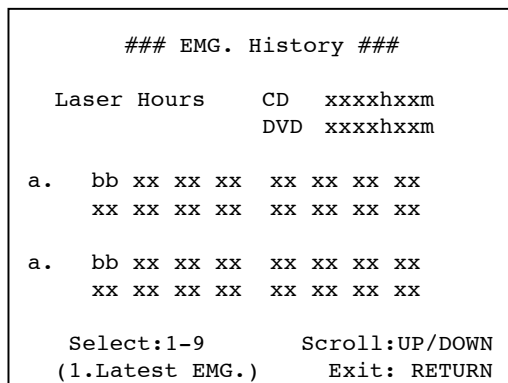


- 1) On the Aging Test MENU screen, press the [1] key on the remote commander to display the Open/Close Test screen.
- 2) Insert discs and press the [ENTER] key on the remote commander.
- 3) Is starts the aging.
During aging, the disc number, operating status and repeat cycle are displayed. Aging can 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.

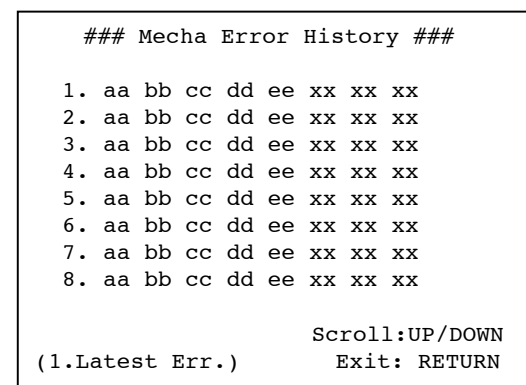
• Code list of Emergency History

- 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 (IC801) failed, or DSD decoder (IC801) 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)

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 table at an error occurred.

(tbl sq jcp)

13 : The rotation stop position determination error of a table

11 to 12 : The loading position determination error of a table

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

(lod OP 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)

ee : The status of table operation. ("n" is unfixed)

(tbl op jcp)

1n : Rotating in the direction of a forward.

2n : Rotating in the direction of a reverse.

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.

```

## Version Information ##

IF con.   Ver.x. xx

SYScon.   Ver.x. xx (xxxx)
          Model      MHC-GN88D
          Region     0x
          Config      xxxxxxxx

Front End Ver.x.xx

                               Exit: RETURN

```

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.

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.

[illegible]