

HCD-GX25/RG220

SERVICE MANUAL

Ver 1.0 2003. 08



(Photo: HCD-GX25)

US Model
Canadian Model
HCD-GX25
AEP Model
UK Model
E Model
Australian Model
HCD-RG220

- HCD-GX25/RG220 is the tuner, deck, CD and amplifier section in MHC-GX25/RG220.

CD Section	Model Name Using Similar Mechanism	HCD-GX45/RG440
	CD Mechanism Type	CDM74F-K6BD71A CDM74F-K6BD72
	Base Unit Name	BU-K6BD71A BU-K6BD72
	Optical Pick-up Block	KSM-213DCP
Tape Deck Section	Model Name Using Similar Machanism	HCD-GX45/RG440
	Tape Transport Mechanism Type	CWM43FF-13

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

(HCD-GX25 USA model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads, both channels driven, from 120 – 10,000 Hz; rated 120 watts per channel minimum RMS power, with no more than 10 % total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

North American models:

HCD-GX25:

Continuous RMS power output (reference):
120 + 120 watts (6 ohms at
1 kHz, 10% THD)
Total harmonic distortion less than 0.07% (6 ohms at
1 kHz, 60 W)

European and Russian models:

HCD-RG220:

DIN power output (rated): 50 + 50 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference):
60 + 60 watts (6 ohms at
1 kHz, 10% THD)
Music power output (reference):
120 + 120 watts (6 ohms at
1 kHz, 10% THD)

Other models:

HCD-RG220:

The following measured at AC 120, 127, 220, 240 V,
50/60 Hz

DIN power output (rated): 80 + 80 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):
100 + 100 watts (6 ohms at
1 kHz, 10% THD)

Inputs

GAME INPUT AUDIO L/R (phono jacks):
voltage 250 mV,
impedance 47 kilohms

GAME INPUT VIDEO (phono jack):
1 V_{p-p}, 75 ohms

Outputs

PHONES (stereo mini jack):
accepts headphones of
8 ohms or more

VIDEO OUT (phono jack): max. output level
1 V_{p-p}, unbalanced, Sync
negative, load impedance
75 ohms

SPEAKER:
accepts impedance of 6 to
16 ohms

– Continued on next page –

COMPACT DISC DECK RECEIVER

9-961-149-01

2003H04-1

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Sony Corporation

Home Audio Company

Published by Sony Engineering Corporation

SONY®

HCD-GX25/RG220

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser ($\lambda=780$ nm) Emission duration: continuous
Frequency response	2 Hz – 20 kHz (± 0.5 dB)
Wavelength	780 – 790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

Tape deck section

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

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	65.0 – 74.0 MHz
Russian models	(There is no stereo effect) 87.5 – 108.0 MHz
Other models	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Pan-American models:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
European, Russian, Middle Eastern and Philippine models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Other models:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
North American models:	120 V AC, 60 Hz
European and Russian models:	230 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Argentine model:	220 V AC, 50/60 Hz
Mexican model:	127 V AC, 60 Hz
Saudi Arabian model:	120 – 127 V/220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Korean model:	220 V AC, 60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption

USA model:	
HCD-GX25:	120 watts
European and Russian models:	
HCD-RG220:	80 watts 0.35 watts (at the Power Saving Mode)

Other models:	
HCD-RG220:	110 watts

Dimensions (w/h/d)	Approx. 280 x 325 x 407 mm
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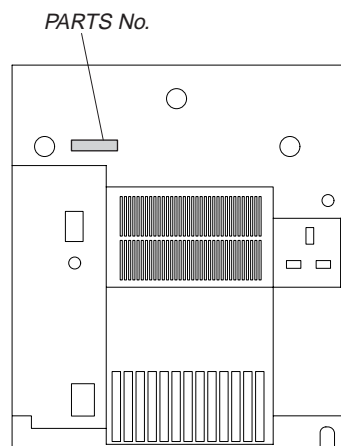
Mass

North American models:	
HCD-GX25:	Approx. 8.5 kg
European and Russian models:	
HCD-RG220:	Approx. 8.5 kg
Other models:	
HCD-RG220:	Approx. 8.5 kg

Design and specifications are subject to change without notice.

MODEL IDENTIFICATION

– BACK PANEL –



MODEL	PARTS No.
GX25: US, CND	4-244-697-01
RG220: EXCEPT EA	4-244-697-21
RG220: EA	4-244-697-51

- Abbreviation
CND : Canadian model
EA : Saudi Arabia model

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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

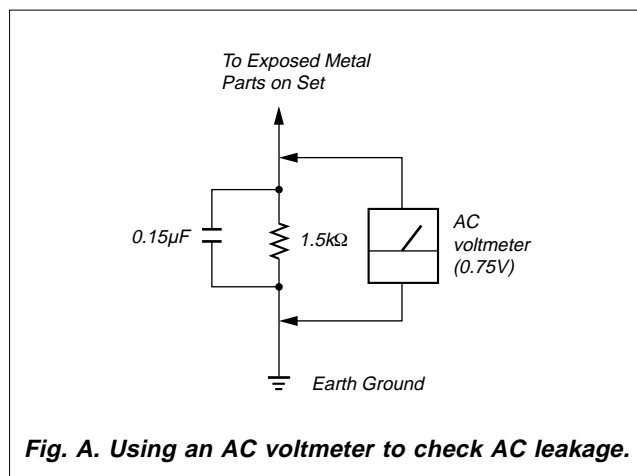


Fig. A. Using an AC voltmeter to check AC leakage.

Notes on Chip Component Replacement

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

Flexible Circuit Board Repairing

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

CAUTION

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

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

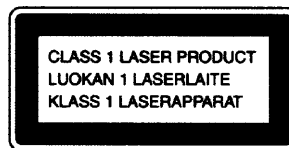
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

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



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

SETTING AND RELEASING THE CD DISC TRAY LOCK FUNCTION

This set has a disc tray lock function to prevent discs for demonstration at shops from theft. While this lock function is set, the tray will not be delivered out even when the OPEN/CLOSE button is pressed.

Setting method:

Press the OPEN/CLOSE button while pressing the STOP button. After a few seconds, the message "LOCKED" will appear on the fluorescent indicator tube with the tray locked.

Releasing method:

Just as the lock is set, press the OPEN/CLOSE button while pressing the STOP button.

After a few seconds, the message "UNLOCKED" will appear with the lock released.

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.

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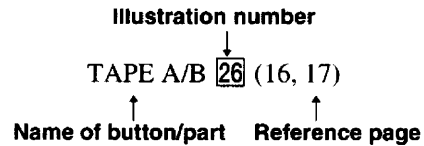
SECTION 1
GENERAL

This section is extracted from instruction manual.

List of button locations and reference pages

How to use this page

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.



Main unit

ALPHABETICAL ORDER

A - L

- ALBUM +* 15 (10, 12)
- ALBUM -* 20 (10, 12)
- CD 28 (9, 12, 17)
- CD SYNC 24 (17)
- Deck A 21 (16)
- Deck B 14 (16, 17)
- DISC 1 - 3 8 (10, 12)
- DISC SKIP/EX-CHANGE 9 (9, 10)
- Disc tray 7 (9)
- DISPLAY 2 (15, 22, 23)
- Display window 4
- EFFECT ON/OFF 11 (18)
- GAME 25 (19, 25)
- GAME EQ 12 (18)
- GAME INPUT AUDIO L/R jacks 19 (25)
- GAME INPUT VIDEO jack 18 (25)
- GAME MIXING 12 (19)
- GROOVE 12 (18, 28)

M - Z

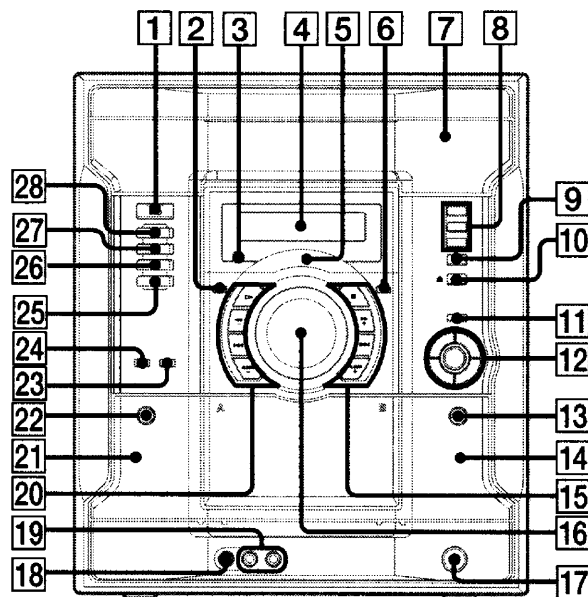
- MOVIE EQ 12 (18)
- MUSIC EQ 12 (18)
- PHONES jack 17
- Power illuminator 5 (24)
- Remote sensor 3
- REC PAUSE/START 23 (17, 19)
- TAPE A/B 26 (16, 17)
- TUNER/BAND 27 (13, 14, 17)
- VOLUME control 16 (18, 20)

BUTTON DESCRIPTIONS

- I/⏻ (power) 1 (7, 14, 20, 26, 28)
- ⏸ (pause) 6 (10, 16)
- ⏏ (eject) 10 (9)
- PUSH ⏏ (deck B) (eject) 13 (16)
- (stop) 15 (10, 16, 17)
- ▶▶+ (fast forward) 15 (10, 13, 16)
- ▶▶ (go forward) 15 (8, 10, 13, 16, 20)
- ▷ (play) 20 (10, 16)
- ◀◀ (rewind) 20 (10, 13, 16)
- ◀◀ (go back) 20 (8, 10, 13, 16, 20)
- ▲ PUSH (deck A) (eject) 22 (16)

* MHC-GX45/GX35/RG440S/RG330/RG310 and MHC-RG220 (European and Russian models) only

Additional Information



continued

Remote control for MHC-GX45/GX35/RG440S/RG330/RG310 and MHC-RG220 (European and Russian models)

ALPHABETICAL ORDER

A-H

- ALBUM +/- **14** (10, 12)
- CD **19** (9, 12, 17)
- CLEAR **5** (12)
- CLOCK/TIMER SELECT **2** (21, 22)
- CLOCK/TIMER SET **3** (8, 20, 21)
- DISPLAY **6** (15, 22, 23)
- D. SKIP **7** (10)
- ENTER **16** (8, 12, 13, 20, 21)
- FM MODE **21** (15)
- GAME (MD)* **10** (19, 25)
- GROOVE **13** (18, 28)

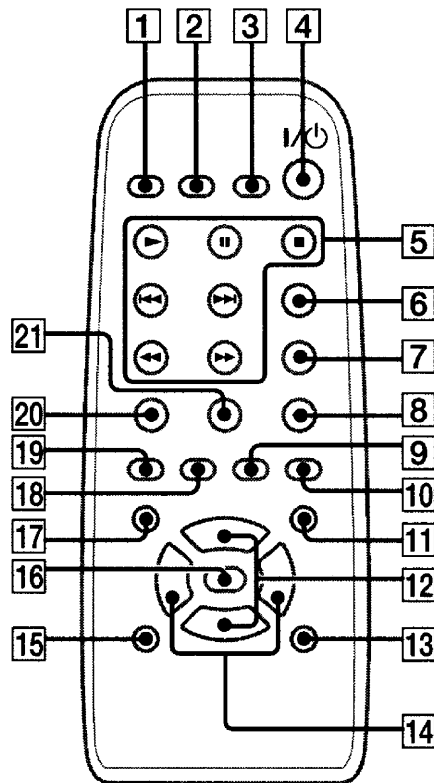
I-Z

- ILLUMINATION **15** (24)
- PLAY MODE **20** (10, 12, 16)
- PRESET EQ **17** (18)
- PRESET -/+ **5** (13, 14)
- REPEAT **21** (11)
- SLEEP **1** (20)
- SURROUND **11** (19)
- TAPE A/B **9** (16, 17)
- TUNER/BAND **18** (13, 14, 17)
- TUNER MEMORY **8** (13)
- TUNING -/+ **5** (13, 15)
- VOL +/- **12** (18, 20)

BUTTON DESCRIPTIONS

- I/⏻ (power) **4** (7, 14, 20, 26, 28)
- ◀▶ (rewind/fast forward) **5** (10, 16)
- ◀◀▶▶ (go back/go forward) **5** (8, 10, 13, 16, 20)
- ▶ (play) **5** (10, 16)
- ⏸ (pause) **5** (10, 16)
- (stop) **5** (10, 16, 17)

* This button is used to switch to GAME function.



Additional Information

continued

Remote control for MHC-GX25 and MHC-RG220 (except for European and Russian models)

ALPHABETICAL ORDER

A - N

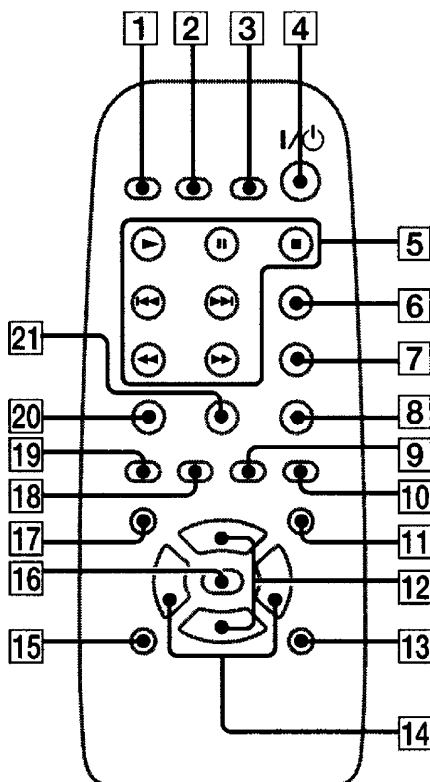
- CD **19** (9, 12, 17)
- CLEAR **20** (12)
- CLOCK/TIMER SELECT **2** (21, 22)
- CLOCK/TIMER SET **3** (8, 20, 21)
- DISPLAY **6** (15, 22, 23)
- D. SKIP **7** (10)
- ENTER **15** (8, 12, 13, 20, 21)
- EQ +/- **14** (18)
- GAME **10** (19, 25)
- GROOVE **13** (18, 28)

O - Z

- ON/OFF **16** (18)
- PLAY MODE **21** (10, 12, 16)
- PRESET +/- **5** (13, 14)
- REPEAT **8** (11)
- SLEEP **1** (20)
- STEREO/MONO **8** (15)
- SURROUND **11** (19)
- TAPE A/B **9** (16, 17)
- TUNER/BAND **18** (13, 14, 17)
- TUNER MEMORY **17** (13)
- TUNING +/- **5** (13, 15)
- VOL +/- **12** (18, 20)

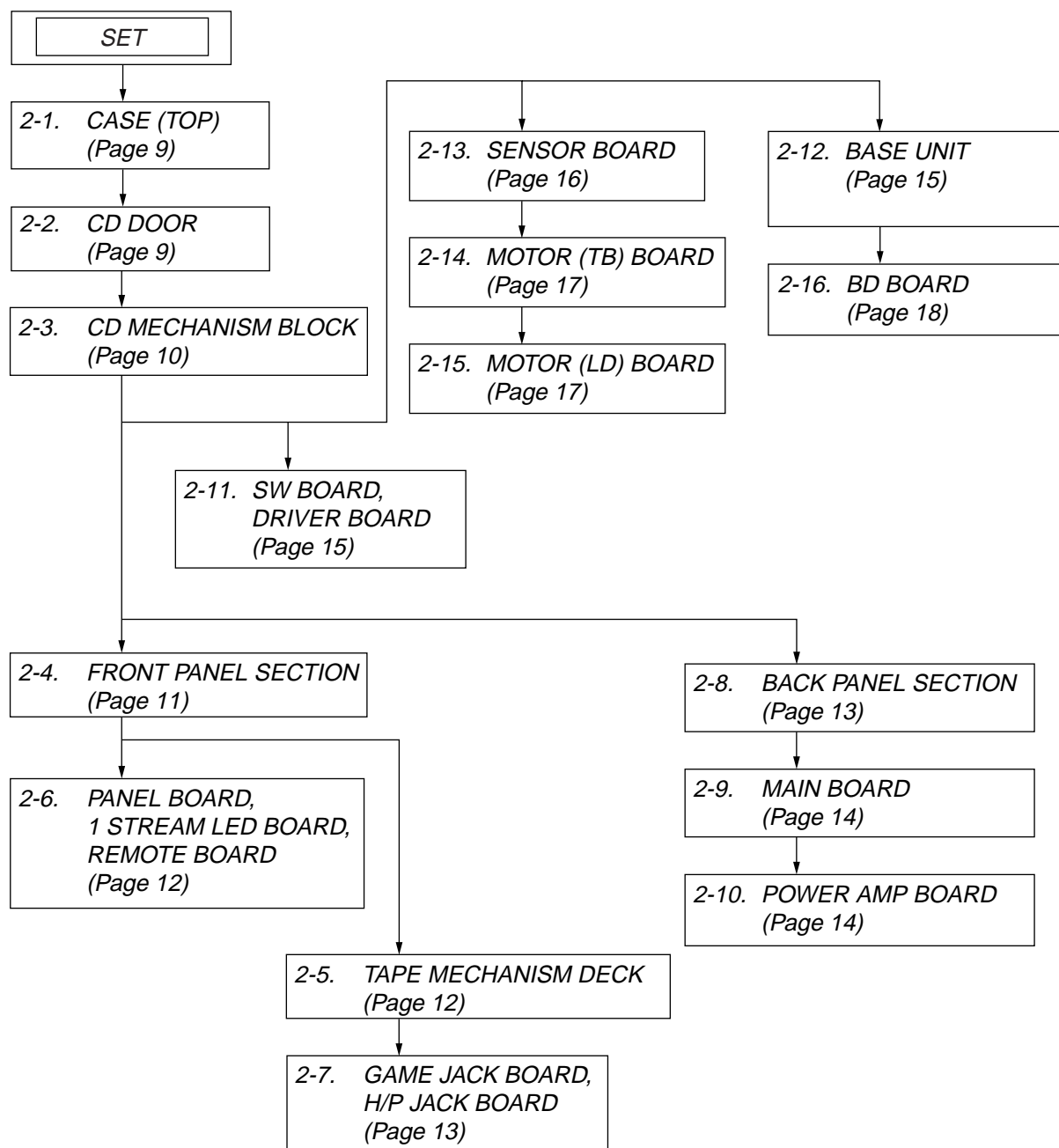
BUTTON DESCRIPTIONS

- I/⏻ (power) **4** (7, 14, 20, 26, 28)
- ◀◀/▶▶ (rewind/fast forward) **5** (10, 16)
- ◀◀/▶▶ (go back/go forward) **5** (8, 10, 13, 16, 20)
- ▶ (play) **5** (10, 16)
- ⏸ (pause) **5** (10, 16)
- (stop) **5** (10, 16, 17)



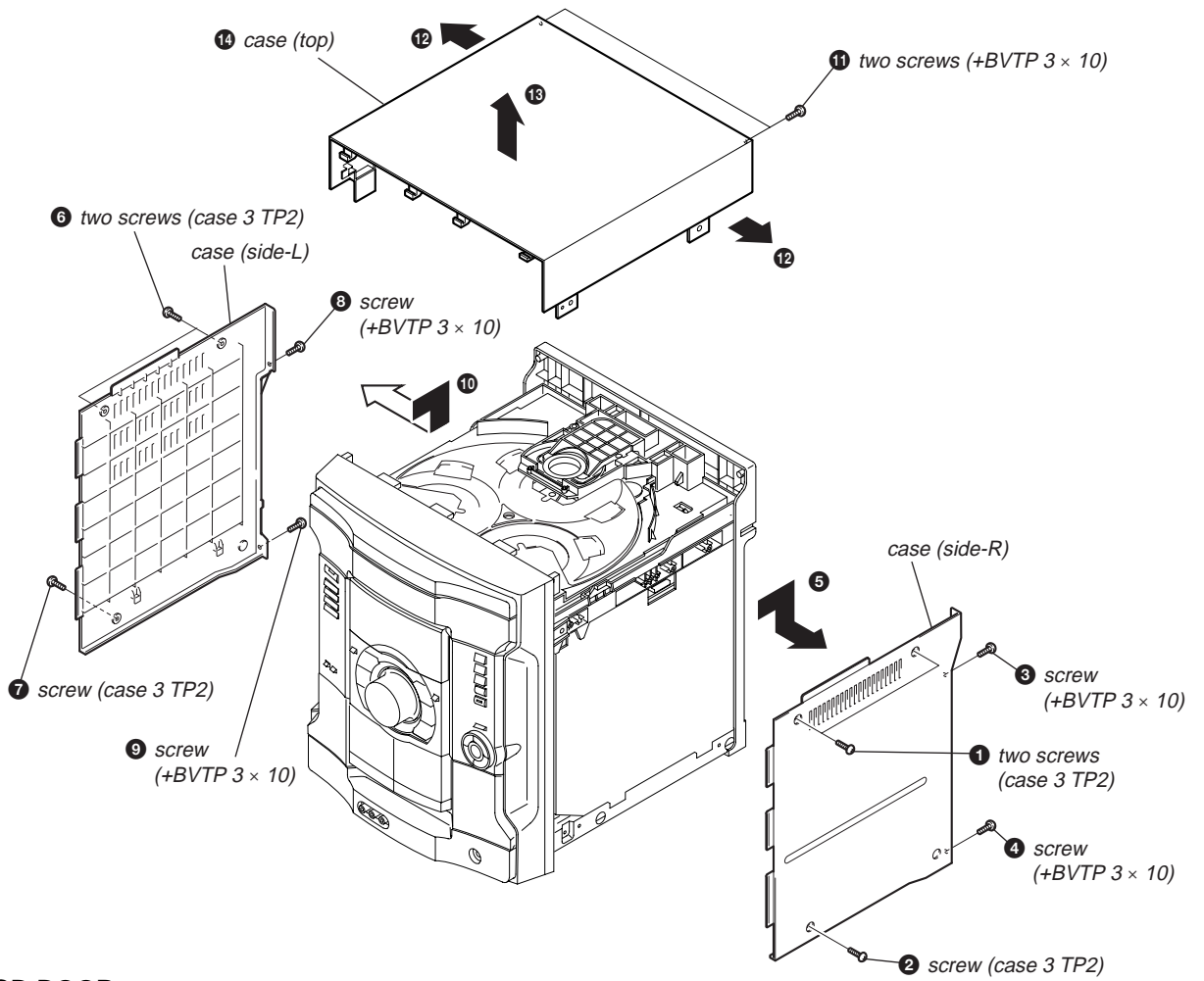
SECTION 2 DISASSEMBLY

Note : Disassemble the unit in the order as shown below.

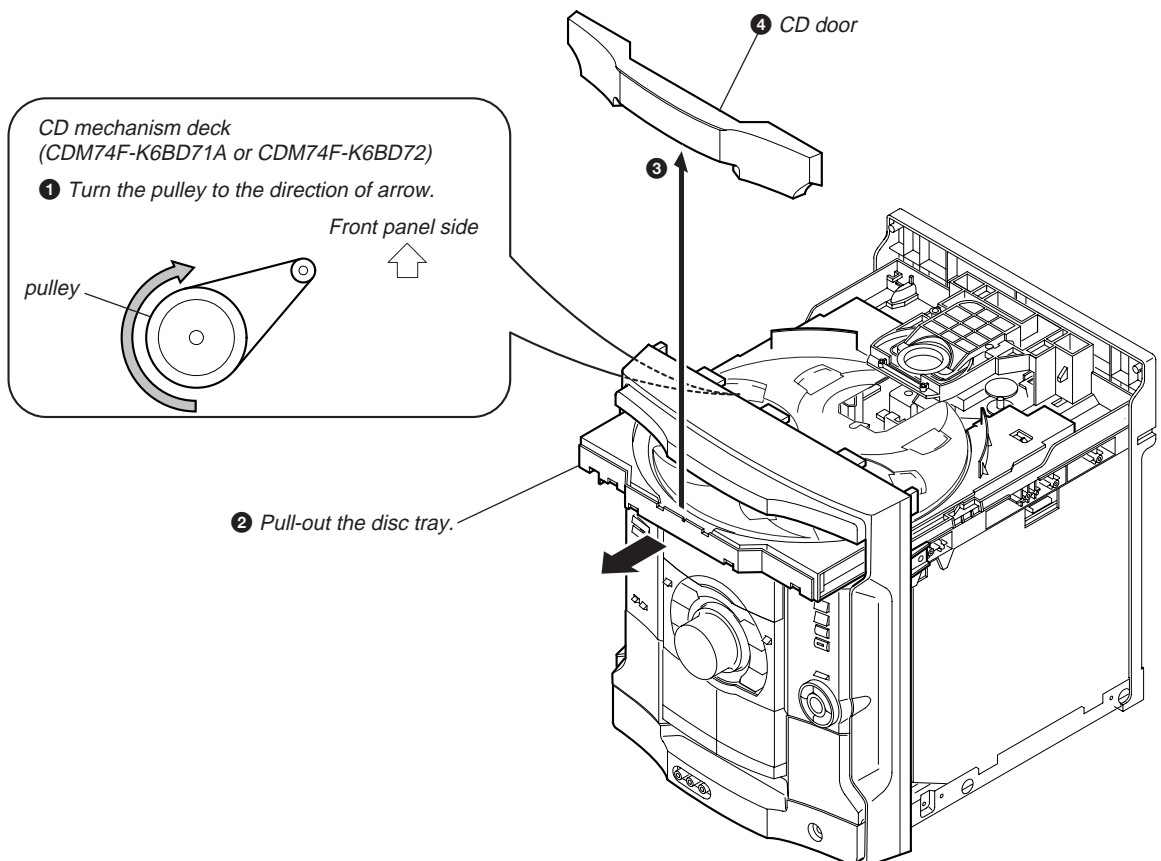


Note : Follow the disassembly procedure in the numerical order given.

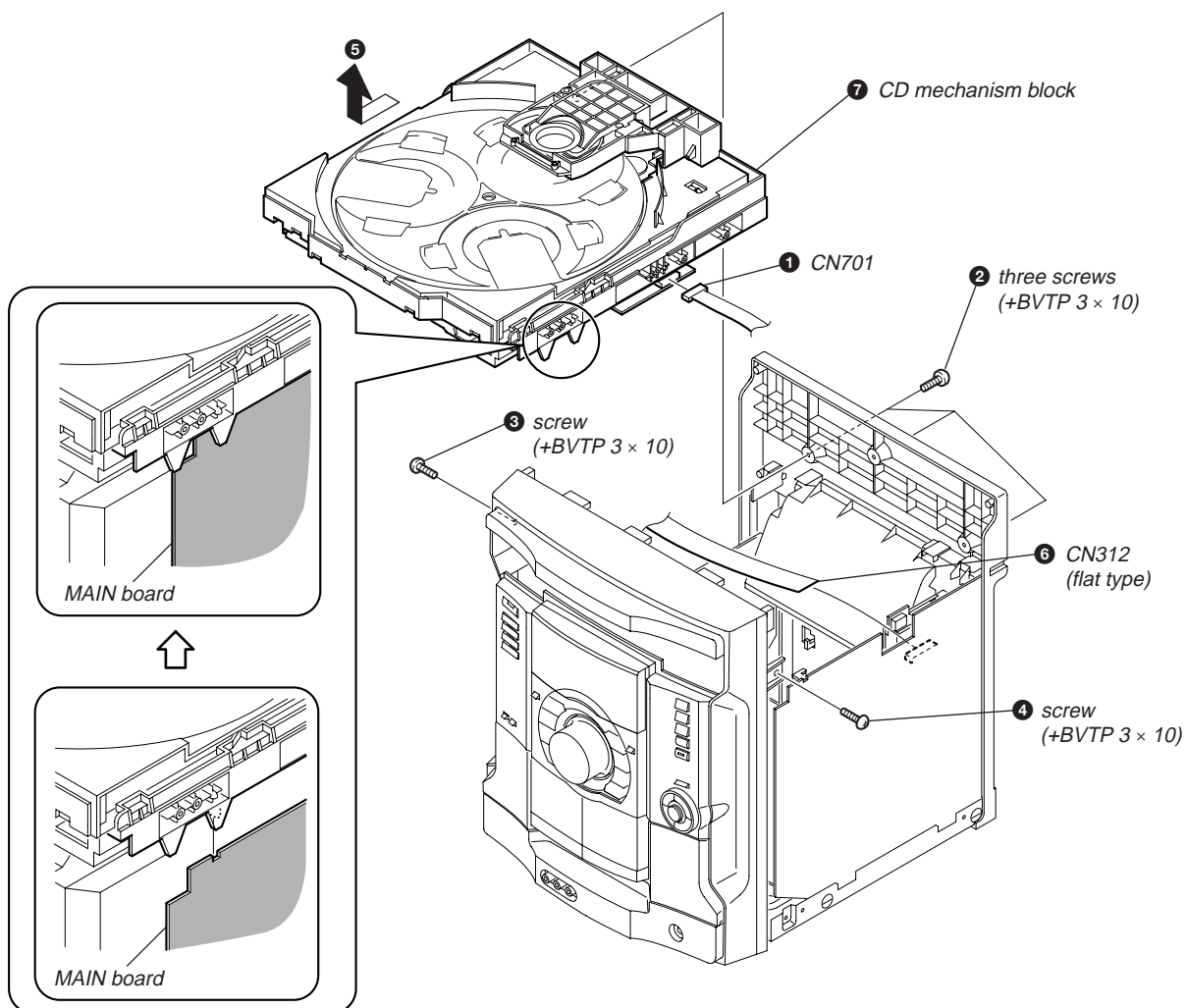
2-1. CASE (TOP)



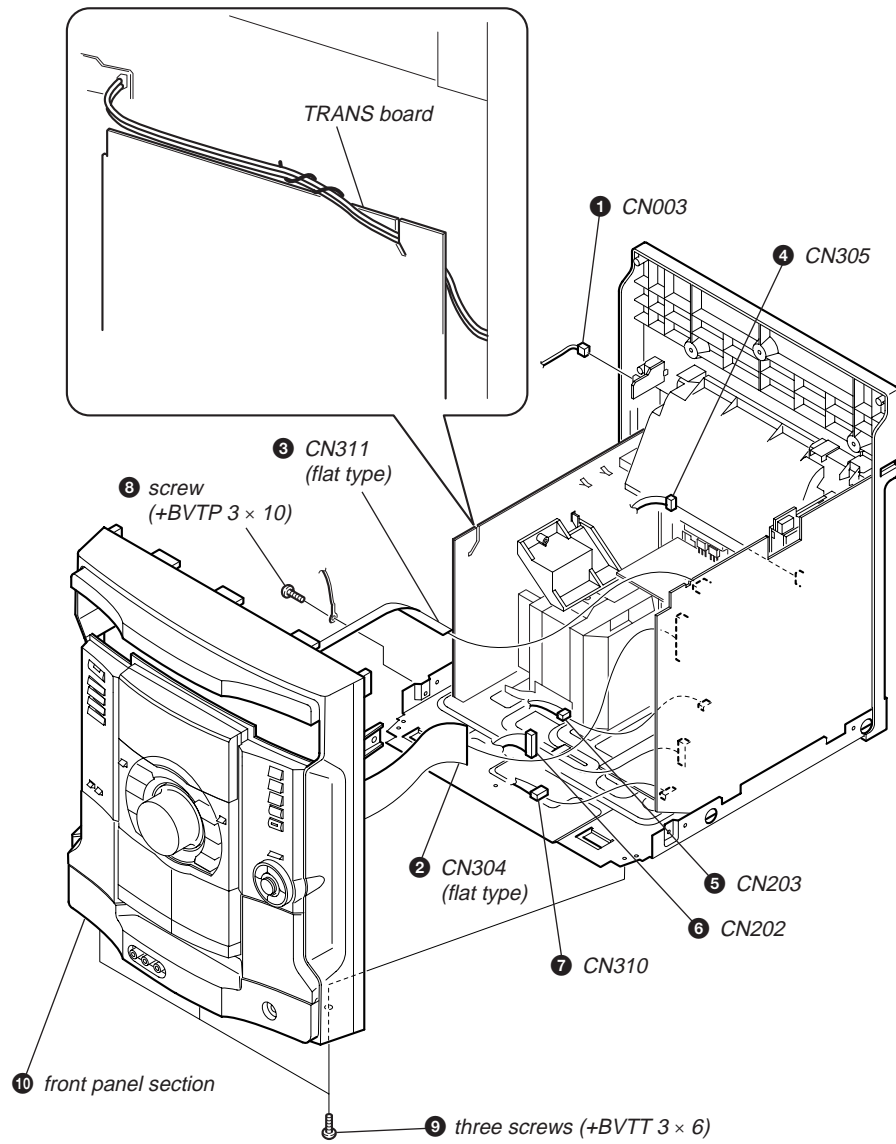
2-2. CD DOOR



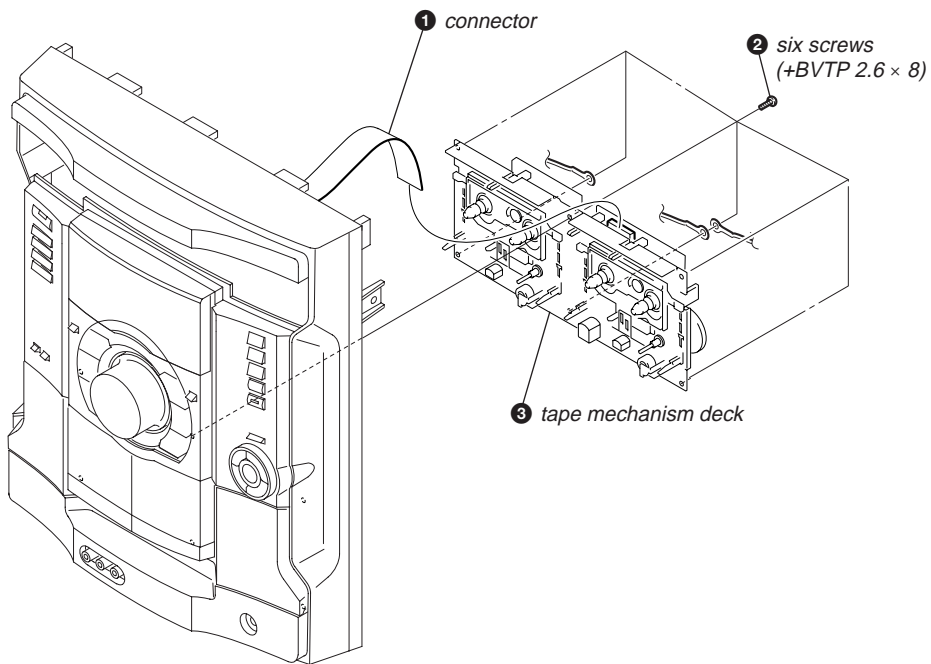
2-3. CD MECHANISM BLOCK



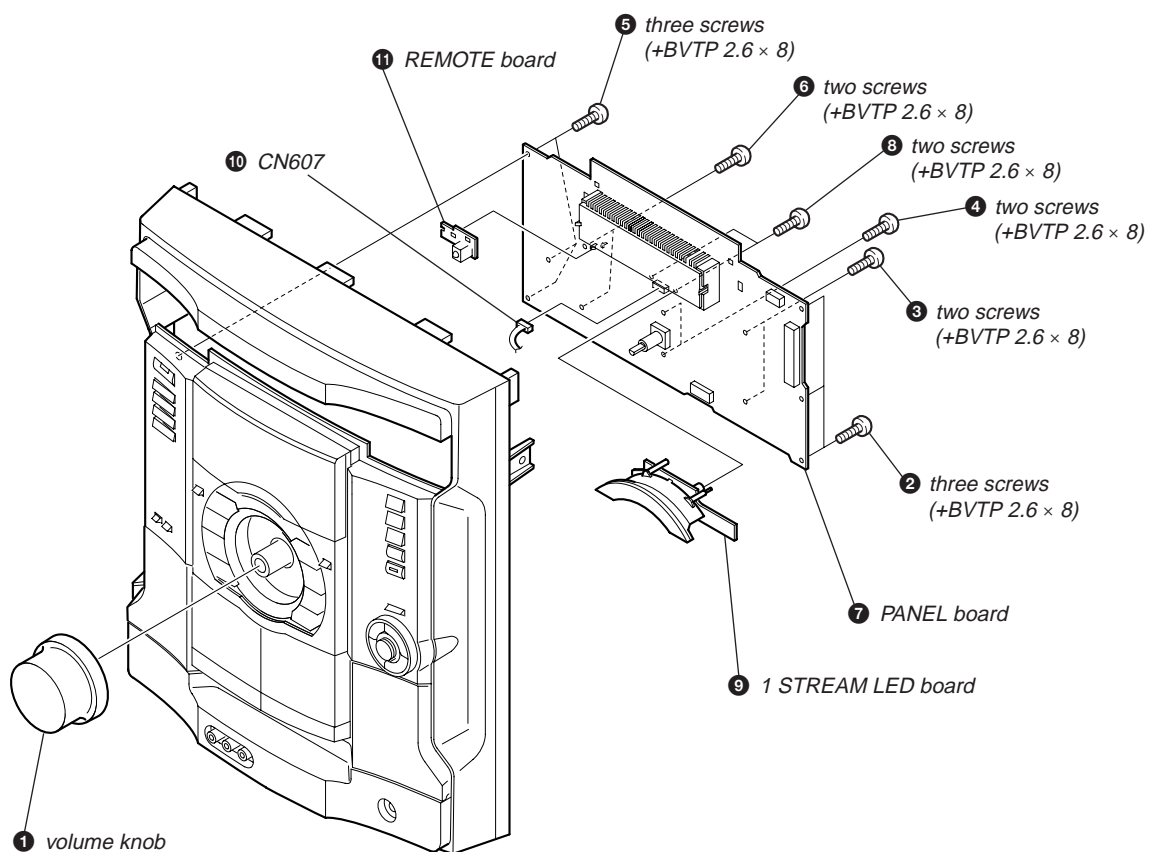
2-4. FRONT PANEL SECTION



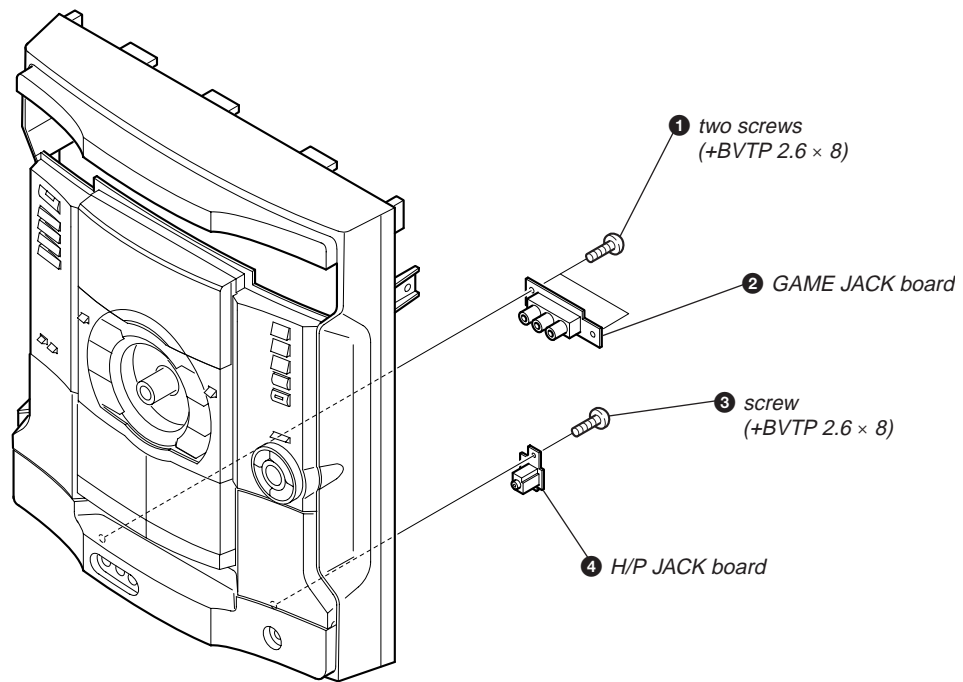
2-5. TAPE MECHANISM DECK



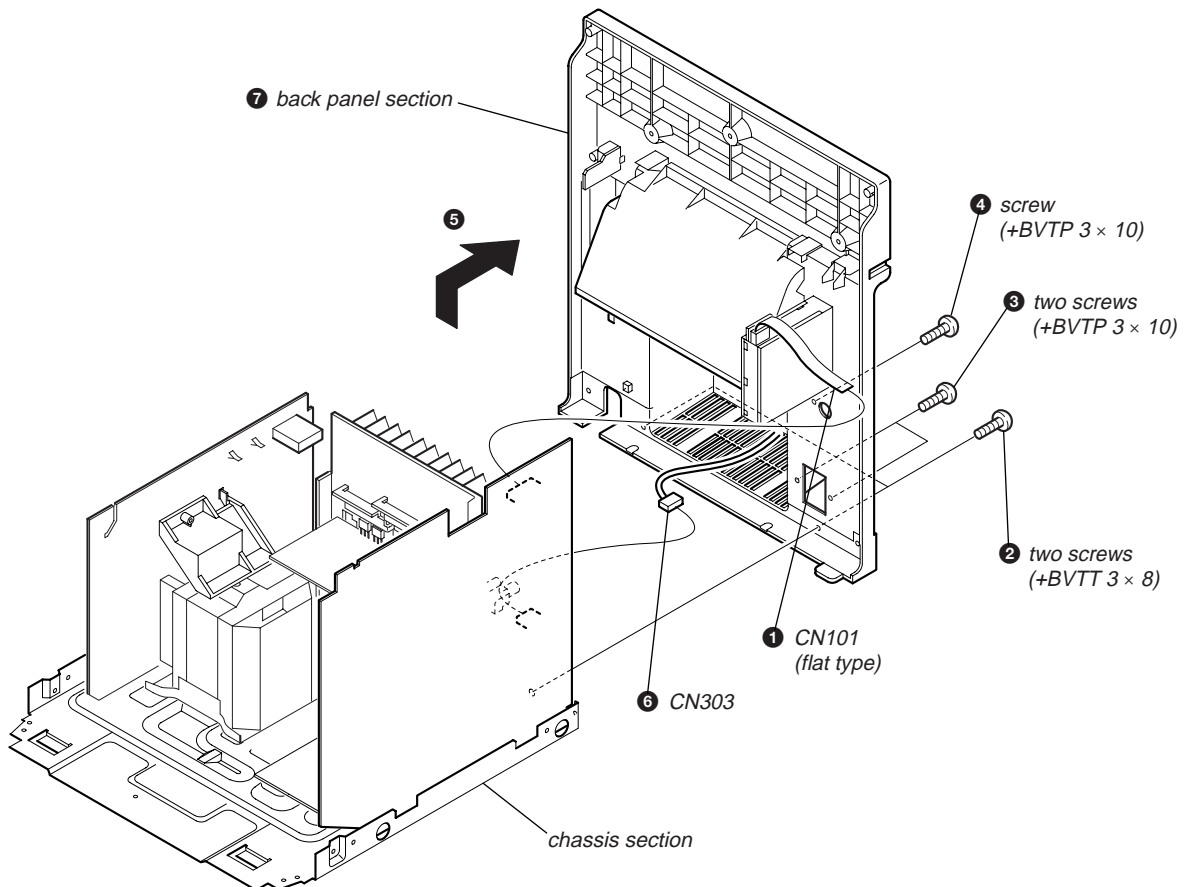
2-6. PANEL BOARD, 1 STREAM LED BOARD, REMOTE BOARD



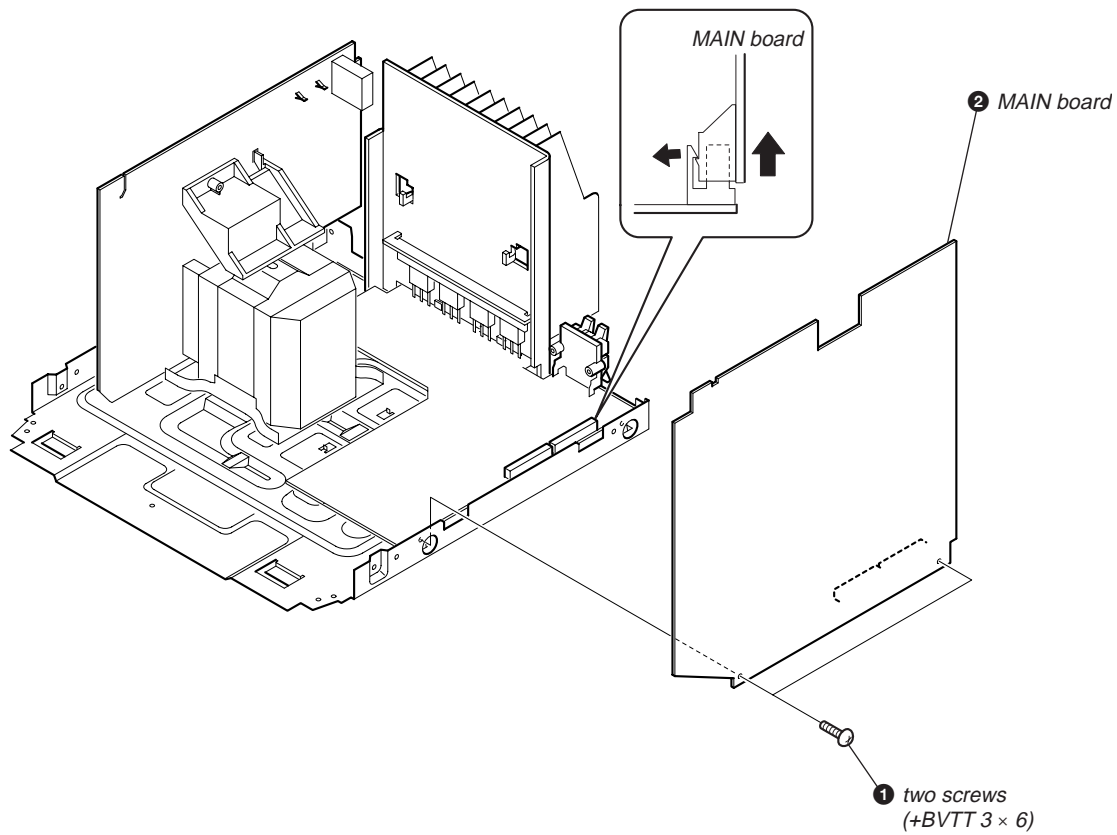
2-7. GAME JACK BOARD, H/P JACK BOARD



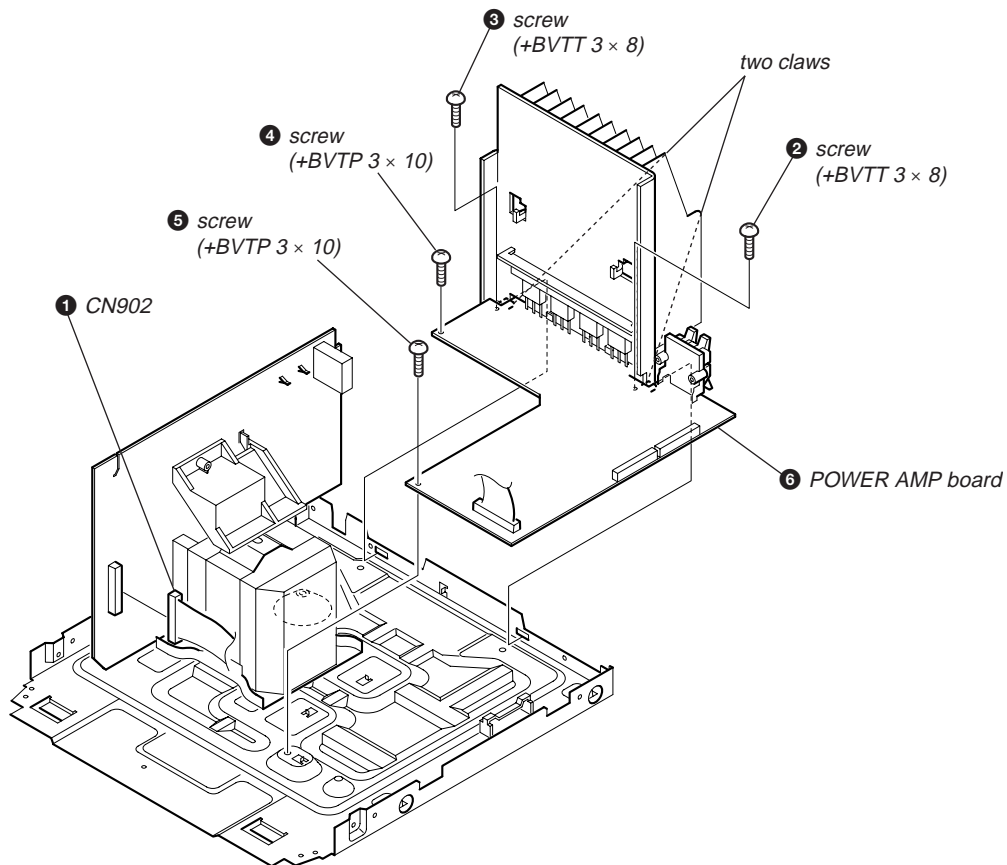
2-8. BACK PANEL SECTION



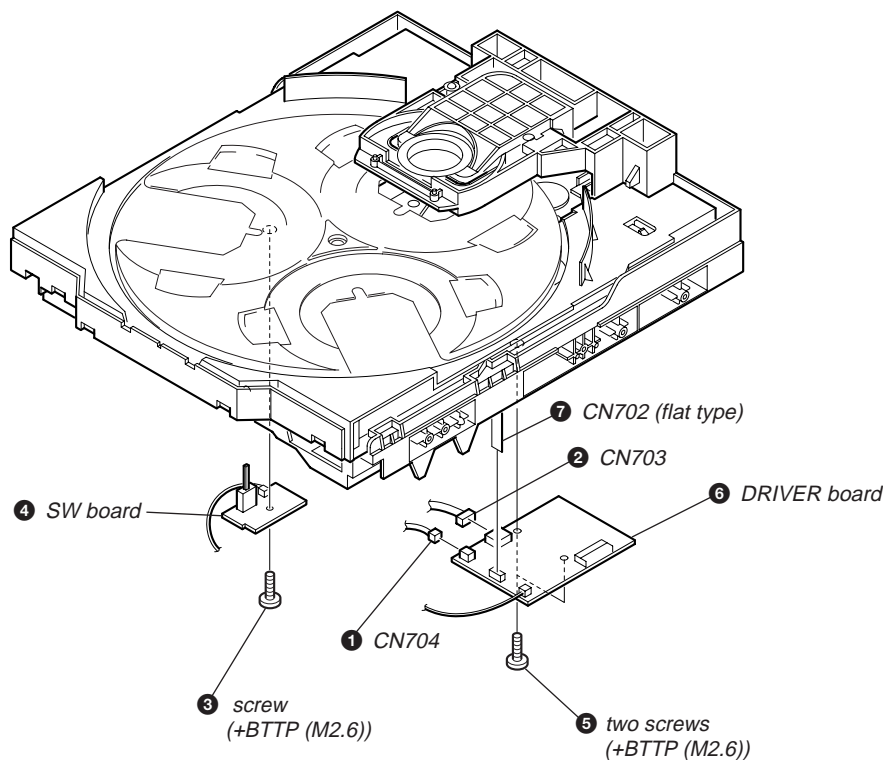
2-9. MAIN BOARD



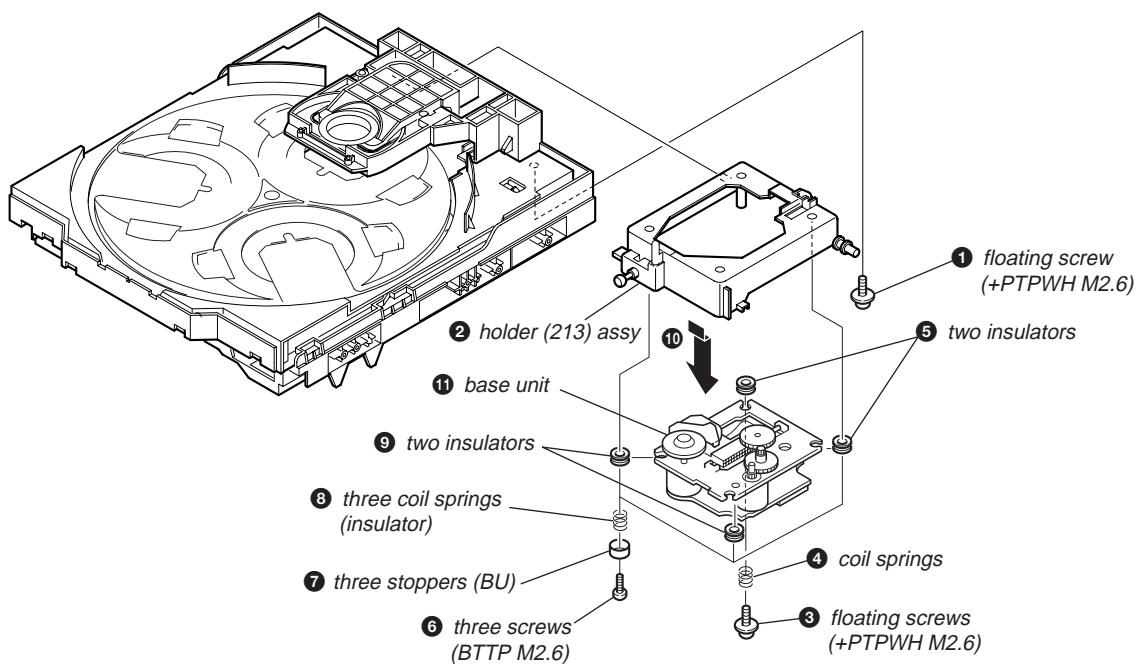
2-10. POWER AMP BOARD



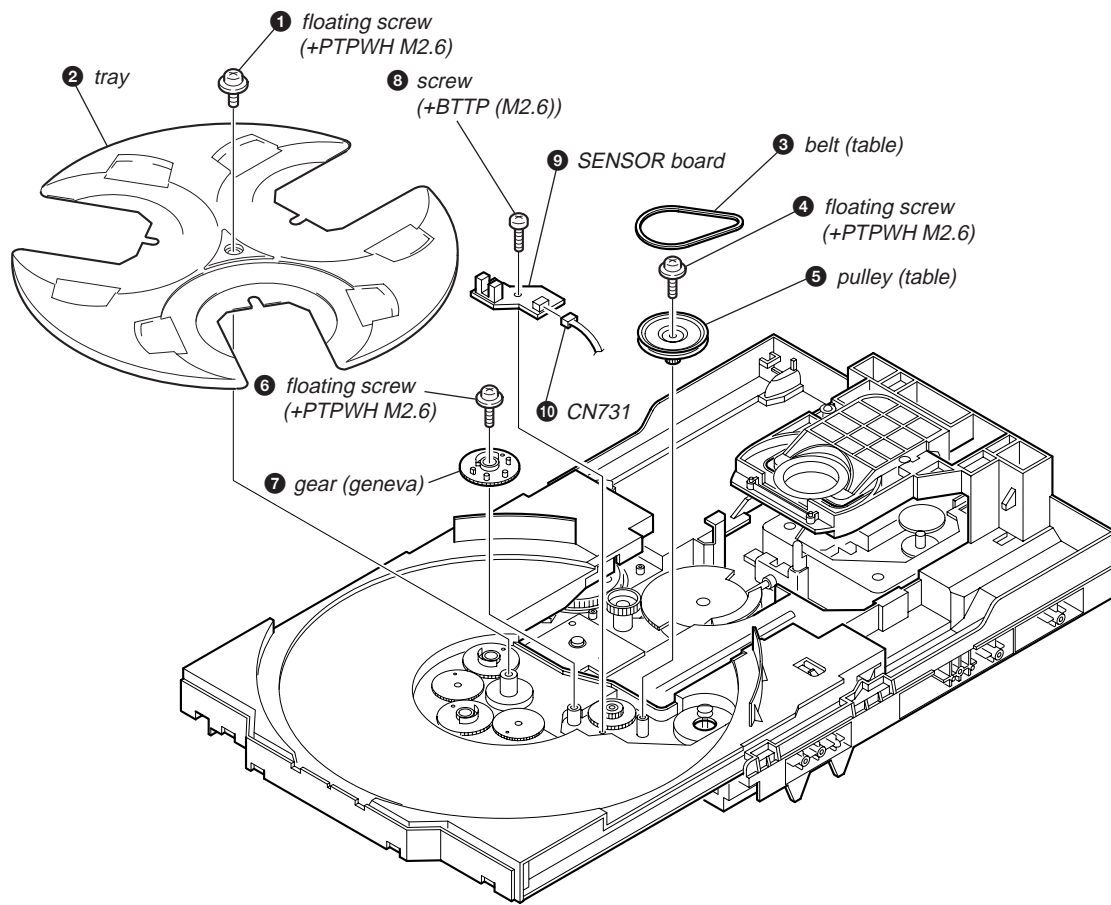
2-11. SW BOARD, DRIVER BOARD



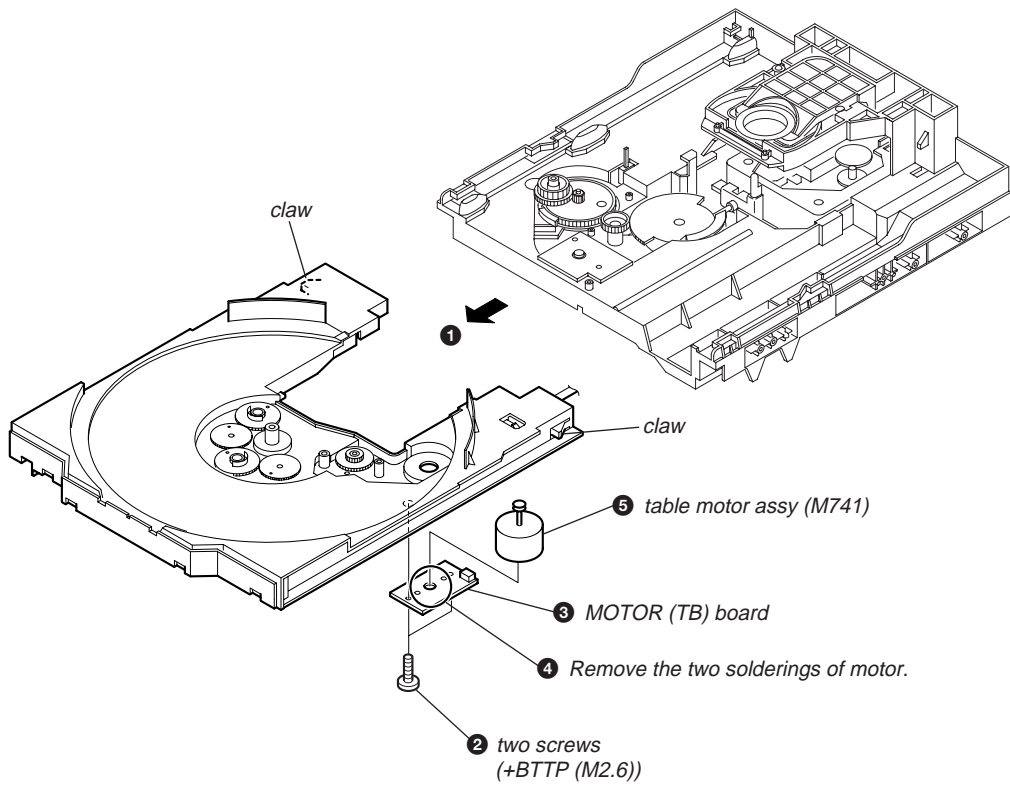
2-12. BASE UNIT (CDM74F-K6BD71A, CDM74F-K6BD72)



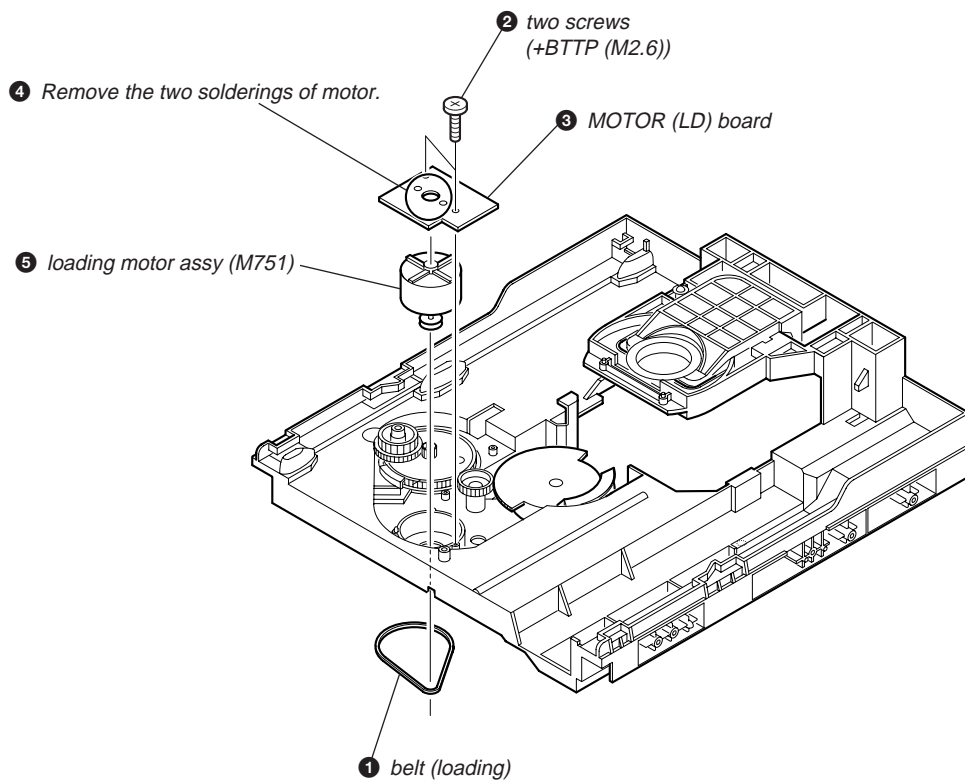
2-13. SENSOR BOARD



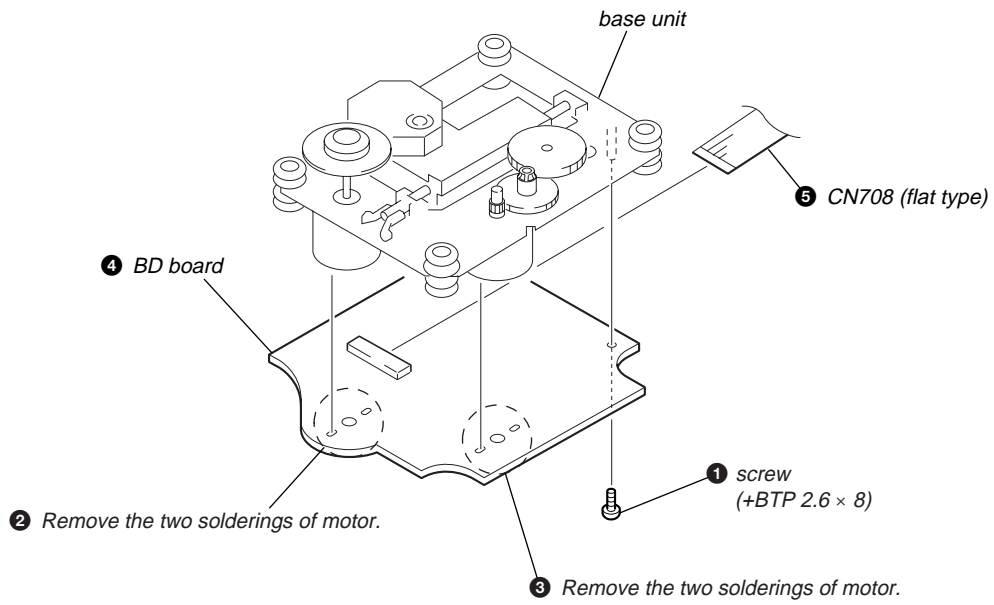
2-14. MOTOR (TB) BOARD



2-15. MOTOR (LD) BOARD



2-16. BD BOARD (BU-K6BD71A, BU-K6BD72)



SECTION 3 TEST MODE

[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:

- Press the [POWER] key to turn the power ON.
- Press three keys of [■], [GROOVE] and [POWER] simultaneously.
- The message "COLD RESET" is displayed on the fluorescent indicator tube momentarily, then becomes standby states.

[TUNER STEP CHANGE-OVER]

(Except AEP and UK models)

- A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

- Press the [POWER] key to turn the power ON.
- Press the [TUNER BAND] key to select "AM".
- Press the [POWER] key to turn the power OFF.
- Press two keys of [TUNER/BAND] and [POWER] simultaneously.
- The message "9K STEP" or "10K STEP" is displayed on the fluorescent indicator tube, and thus the channel step is changed over.

[CD SHIP MODE]

- 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:

- Press the [POWER] key to turn the power ON.
- Press the [CD] key to select "CD".
- Press two keys of [CD] and [POWER] simultaneously.
- The message "LOCK" is displayed on the fluorescent indicator tube, and the CD ship mode is set.

[CD TRAY LOCK MODE]

- This mode is used to unable to take sample disc out of tray in the shop.

Procedure:

- Press the [POWER] key to turn the power ON.
- Press the [CD] key to select "CD".
- Set disc on the tray.
- While pressing the [■] key, press the [▲] key for 5 seconds.
- The message "LOCKED" is displayed on the fluorescent indicator tube and the tray is locked. (Even if pressing the [▲] key, the message "LOCKED" is displayed on the fluorescent indicator tube and the tray is locked)
- To release from this mode, while pressing the [■] key, press the [▲] key for 5 seconds.
- The message "UNLOCKED" is displayed on the fluorescent indicator tube and the tray is unlocked.

[AMP TEST MODE]

- This mode is used to set the parameter of AMP IC for adjustment of tone quality and VACS level and display VACS status.

Procedure:

- Press the [POWER] key to turn the power ON.
- Press three keys of [■], [GAME EQ] and [EFFECT ON/OFF] simultaneously.
- When the AMP test mode is activated, the message "AMP TEST" is displayed on the fluorescent indicator tube momentarily.
- Press two keys of [GAME EQ] and [DISC 2] simultaneously, mode is changed over to parameter setting of AMP IC and display of VACS status.
- When the VACS status, the message VACS level, VACS signal level, and VACS signal hold level is displayed on the fluorescent indicator tube.
- Press the [GROOVE] key, DBFB ON/OFF is changed over.
- Press the [GAME MIXING] key, surround ON/OFF is changed over.
- To release from this mode, press two keys of [GAME EQ] and [MOVIE EQ] simultaneously.

[AGING MODE]

- This mode can be used for operation check of CD section and tape deck section.

CD section and tape deck section work in parallel.

If an error occurred:

The aging operation stops only an error occurred sections and display then status.

If no error occurs:

The aging operation continues repeatedly.

Procedure:

- Press the [POWER] key to turn the power ON.
- Press the [CD] key to select "CD".
- Set disc on the tray and set tape into the deck.
- Set the "ALL DISCS" mode and "REV OFF" mode.
- Press three keys of [STOP], [GAME EQ] and [DISC SKIP/EX-CHANGE] simultaneously.
- The message "AGING" is displayed on the fluorescent indicator tube momentarily, then aging operations of CD and tape are started at the same time.
- To release from this mode, operate the "COLD RESET".

1. Display at the Aging Mode

Display operating state of CD section and tape deck section alternately.

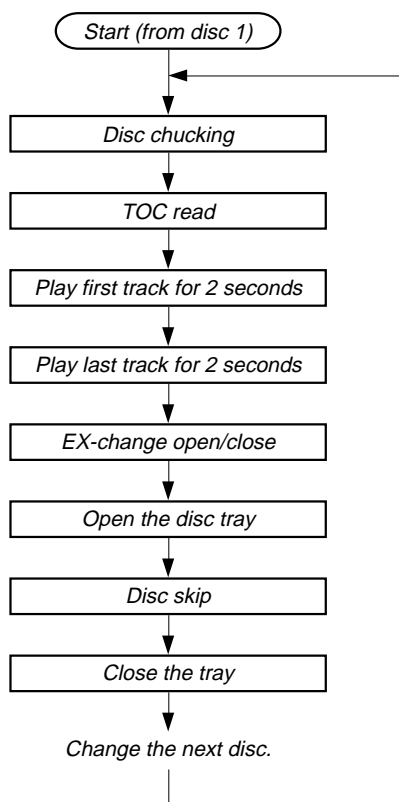
If an error occurred, stop display which that section.

2. CD Section

The sequence during the aging mode is following as below.

Display at the aging mode is the same as the normal operation.

Aging mode sequence (CD section) :

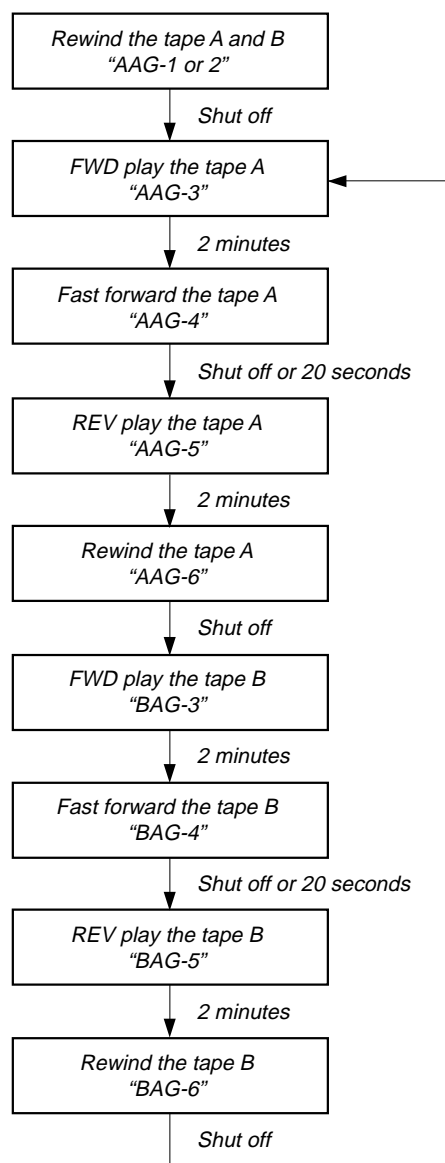


3. Tape Deck Section

The sequence during the aging mode is following as below.

If an error occurred, stop display that step.

Aging mode sequence (tape deck section) :



Note: "*AG-*" is display of each step.

[GC TEST MODE]

- This mode is used to check the fluorescent indicator tube, LED and key.

Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press three keys of **[■]**, **[GAME EQ]** and **[DISC 2]** simultaneously.
3. Fluorescent indicator tube and LEDs are all turned ON.
4. Press two keys of **[GAME EQ]** and **[DISC 2]** simultaneously, mode is changed over.
5. In the key check mode, press each key, the defined key number of every each key list is displayed on the fluorescent indicator tube.
6. In the key count check mode, "KEYCNT 0" is displayed on the fluorescent indicator tube. Each time a key is pressed, "KEYCNT" value increases. However, once a key is pressed, it is no longer taken into account.
7. In the headphone input check mode, connect the headphone, the message "H_P ON" is displayed on the fluorescent indicator tube, and disconnect the headphone, the message "H_P OFF" is displayed on the fluorescent indicator tube.
8. In the volume check mode, turn the **[VOLUME]** knob, the display on the fluorescent indicator tube is changed over to "VOLUME UP", "VOLUME FLAT" or "VOLUME DOWN"

[MC TEST MODE]

- This mode is used to check operations of Amplifier.

Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press three keys of **[■]**, **[GAME EQ]** and **[DISC 3]** simultaneously.
3. When the MC test mode is activated, the message "TEST MODE" is displayed on the fluorescent indicator tube momentarily, then VACS level is displayed on the fluorescent indicator tube.
4. Press the **[MUSIC EQ]** key, the display on the fluorescent indicator tube is changed over to "GEQ MAX", press the **[EFFECT ON/OFF]** key, the display on the fluorescent indicator tube is changed over to "GEQ FLAT", press the **[MOVIE EQ]** key, the display on the fluorescent indicator tube is changed over to "GEQ MIN",
5. Turn the **[VOLUME]** knob, the display on the fluorescent indicator tube is changed over to "VOLUME MAX", "VOLUME 16" or "VOLUME MIN"
6. Press the **[GROOVE]** key, VACS ON/OFF is changed over.
7. When the **[REC PAUSE/START]** key is pressed with a tape set in the deck-B, the function is switched "MD" or "VIDEO" and recording starts. When the **[◀▶]** or **[▶▶]** key is pressed during recording, the tape is rewind back to the beginning of recording, the function is switched to "TAPE B", then playback starts.
8. When the **[CD SYNC]** key is pressed with the test tape (AMS-100, AMS-110A) in the deck, number of space between tunes is counted, then if AMS-110A is set, "OK" is displayed on the fluorescent indicator tube and if AMS-100 is set, "NG" is displayed on the fluorescent indicator tube.
9. To release from this mode, press the **[POWER]** key.

[MODEL, DESTINATION AND VERSION DISPLAY]

- This mode is used to check the model, destination and software version.

Procedure:

1. Set to the standby state.
2. Press three keys of **[■]**, **[GAME EQ]** and **[MOVIE EQ]** simultaneously.
3. When the model, destination and version display mode is activated, the model and destination is displayed on the fluorescent indicator tube.
4. Press two keys of **[GAME EQ]** and **[DISC 2]** simultaneously, mode is changed over to model and destination display mode and version display mode.
5. To release from this mode, press the two keys of **[GAME EQ]** and **[MOVIE EQ]** simultaneously.

[CD ERROR CODE DISPLAY]

- This mode can be used for error display of CD section.

Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Press three keys of **[■]**, **[GAME EQ]** and **[DISC 1]** simultaneously.

Note: Error code is not displayed on the fluorescent indicator tube.

[CD SERVICE MODE]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Press three keys of **[■]**, **[GAME EQ]** and **[▲]** simultaneously.
4. When the CD service mode is activated, the message "TRAVERS ON" is displayed on the fluorescent indicator tube.
5. Press the **[▶▶]** key, optical pick-up move to outside track and the message "SLED OUT" is displayed on the fluorescent indicator tube.
6. Press the **[◀◀]** key, optical pick-up move to inside track and the message "SLED IN" is displayed on the fluorescent indicator tube..
7. Press the **[MOVIE EQ]** key, traverse ON/OFF is changed over.

[5 REPEAT LIMIT CANCEL]

- Number of repeat for CD playback is 5 times when the repeat mode is "REPEAT". This mode is used to enables CD to repeat playback for limitless times.

Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Press three keys of **[■]**, **[GAME EQ]** and **[▶]** simultaneously.

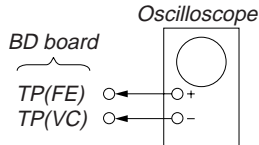
SECTION 4 ELECTRICAL ADJUSTMENTS

CD SECTION

Note:

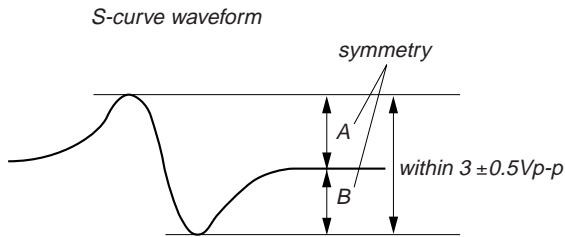
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MW impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-CURVE CHECK



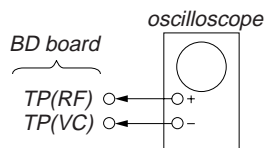
Procedure :

1. Connect an oscilloscope to TP (FE) and TP (VC).
2. Turn the power on.
3. Load a disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
4. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 0.5 V_{p-p}$.



- Note:**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

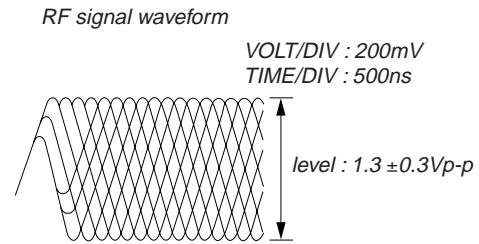
RF LEVEL CHECK



Procedure :

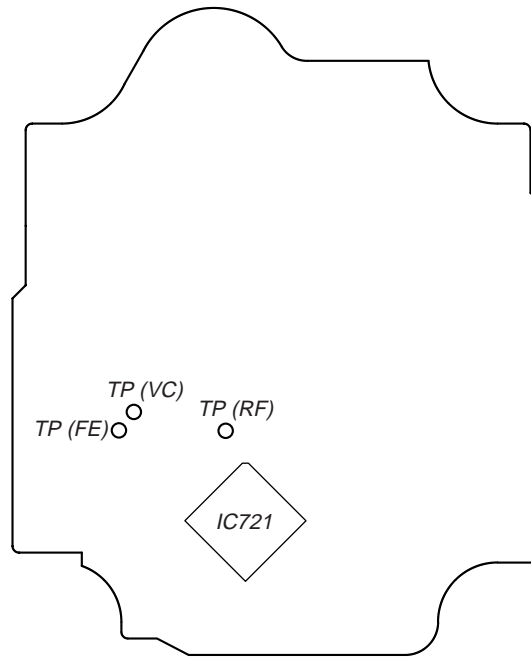
1. Connect an oscilloscope to TP (RF) and TP (VC).
2. Turn the power on.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

Note: Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.

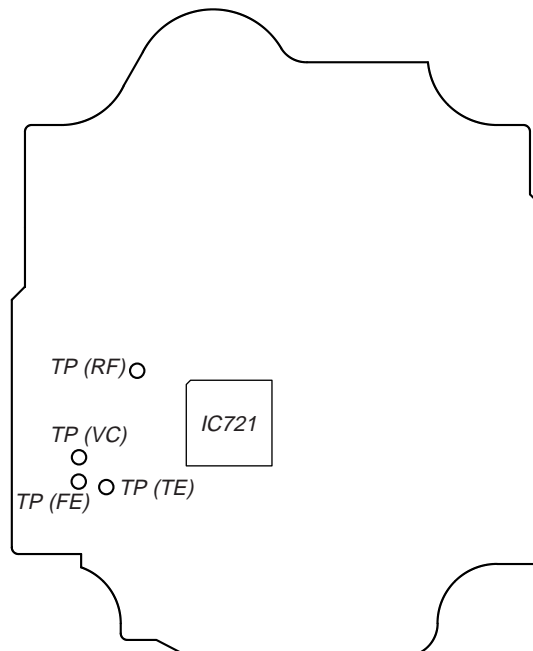


Connecting Location: BD board

- **HCD-GX25/RG220: Except AEP, UK, Russia Model**
– BD Board (Conductor side) –



- **HCD-RG220: AEP, UK, Russia Model**
– BD Board (Conductor side) –



SECTION 5 DIAGRAMS

5-1. IC PIN DESCRIPTIONS

• IC309 BU2099FV (MULTI CONTROLLER) (MAIN BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	VSS	—	Ground pin
2	NC	—	Not used. (Open)
3	DATA	I	Serial data input from the tape mechanism controller
4	CLOCK	I	Serial data transfer clock signal input from the system controller
5	LCK	I	Serial data latch pulse clock signal input from the system controller
6	$\overline{\text{REC}}$	O	Recording on/off control signal output “L”: recording
7	$\overline{\text{BIAS}}$	O	Recording bias on/off control signal output “L”: bias on
8	$\text{A}/\overline{\text{B}}$	O	Deck-A/B selection signal output to the deck-A/B select switch “L”: deck-B, “H”: deck-A
9	PB MUTE	O	Playback muting on/off control signal output to the recording/playback equalizer amplifier “H”: muting on
10	$\overline{\text{REC MUTE}}$	O	Recording muting on/off control signal output to the recording/playback equalizer amplifier “L”: muting on
11	TUNER MUTE	O	Tuner muting on/off control signal output to the tuner unit “H”: muting on
12	LM-R (CD)	O	Loading motor drive signal output
13	LM-L (CD)	O	Loading motor drive signal output
14	TM-R (CD)	O	Table motor drive signal output
15	TM-L (CD)	O	Table motor drive signal output
16	SP RELAY	O	Front speaker on/off relay drive control signal output “L”: front speaker on
17	LINK/MATRIX	O	Surround speaker on/off relay drive control signal output “H”: surround speaker on
18	SO	O	Serial data output to the bass boost controller
19	$\overline{\text{OE}}$	—	Not used. (Connect to ground.)
20	VDD	—	Power supply pin (+3.3 V)

• IC310 BU2099FV (BASS BOOST CONTROLLER) (MAIN BOARD) (HCD-RG220: AEP, UK, RUSSIA MODEL)

Pin No.	Pin Name	I/O	Pin Description
1	VSS	—	Ground pin
2	NC	—	Not used. (Open)
3	DATA	I	Serial data input from the multi controller
4	CLOCK	I	Serial data transfer clock signal input from the system controller
5	LCK	I	Serial data latch pulse clock signal input from the system controller
6 to 8	NC	—	Not used. (Open)
9	MOTOR VCC	O	Motor power control signal output “L”: motor power on
10	SOL A	O	SOL-A control signal output
11	SOL B	O	SOL-B control signal output
12	LINE OUT MUTE	O	Line out mute signal output terminal “H”: mute on Not used in this set. (Open)
13	CD MUTE	O	CD mute signal output terminal “H”: mute on Not used in this set. (Open)
14 to 16	CONT 1 to 3	O	Bass boost control signal output “H”: bass boost Not used in this set. (Open)
17	NC	—	Not used. (Open)
18	SO	O	Serial data output Not used. (Open)
19	$\overline{\text{OE}}$	—	Not used. (Connect to ground.)
20	VDD	—	Power supply pin (+3.3 V)

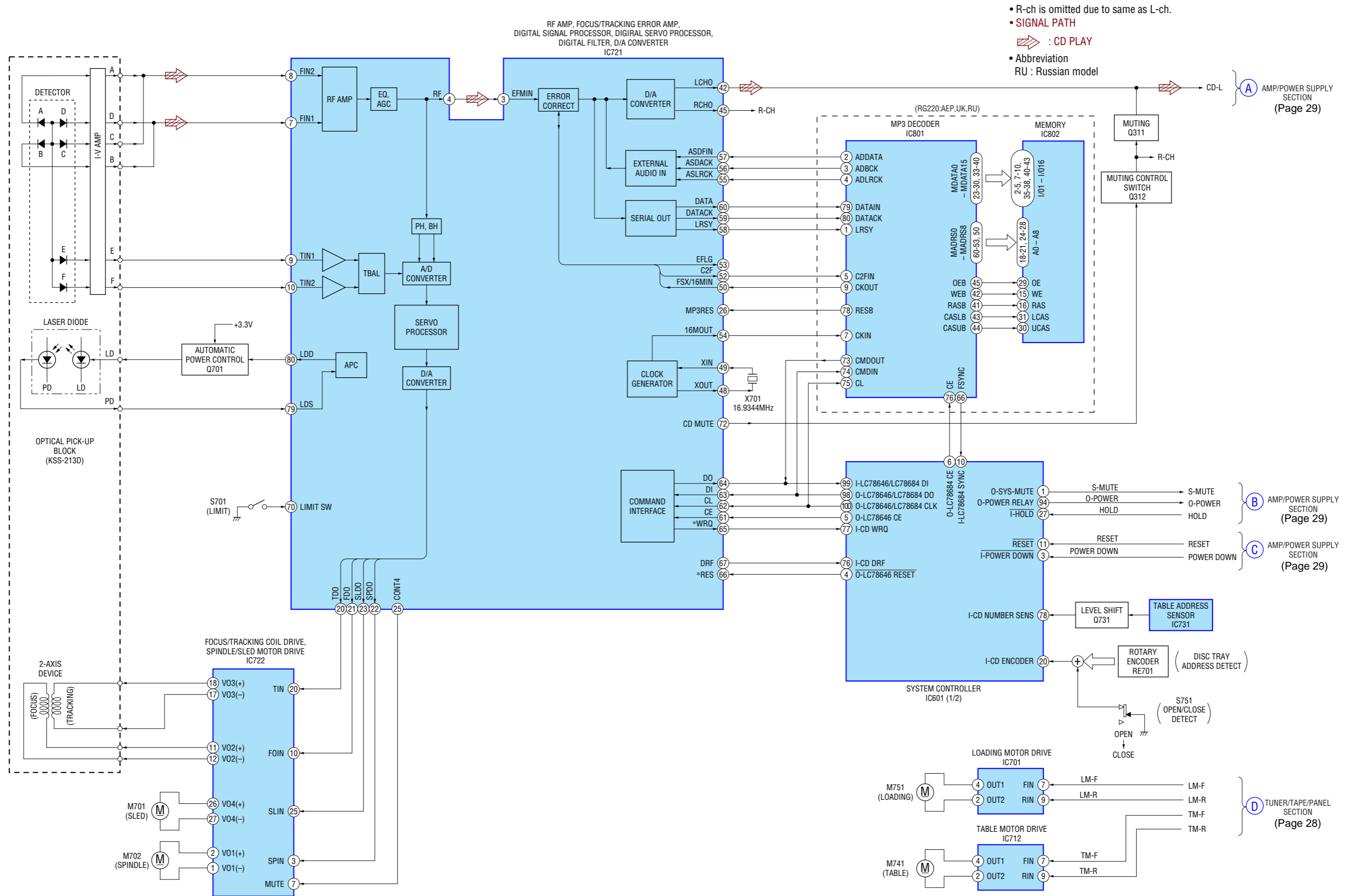
- IC601 LC876756C-51W9-E (SYSTEM CONTROL, FLD CONTROL) (PANEL BOARD) (EXCEPT AEP, UK, RUSSIA MODEL)
- IC601 LC876780B-51YO-E (SYSTEM CONTROL, FLD CONTROL) (PANEL BOARD) (AEP, UK, RUSSIA MODEL)

Pin No.	Pin Name	I/O	Pin Description
1	SYS MUTE	O	System mute signal output
2	BU1924 DATA	I	GX25, RG220 (except AEP, UK, Russia): Not used. (Connected to ground.) RG220 (AEP, UK, Russia): Serial data signal input
3	PWR DOWN	I	Power down signal input
4	LC78646 RESET	O	CD reset signal output
5	LC78646 CE	O	CD CE signal output
6	LC78684 CE (MP3)	O	CD CE (MP3) signal output
7	M61519 CLK	O	Clock signal output
8	BU2099FV LCK	O	LCK signal output
9	LC72121 CE	O	CE signal output
10	LC78684 SYNC	I	SYNC signal input
11	RESET	I	Reset signal input from the reset IC
12	XT1	I	Oscillator connect pin (32.768 kHz)
13	XT2	O	Oscillator connect pin (32.768 kHz)
14	VSS1	—	Ground pin
15	CF1	I	Ceramic vibrator connect pin (8.64 MHz)
16	CF2	O	Ceramic vibrator connect pin (8.64 MHz)
17	VDD1	—	Power supply pin (+3.3 V)
18	TAPE A STAT	I	Tape A start signal input
19	TAPE B STAT	I	Tape B start signal input
20	CD ENCODER	I	CD encoder switch signal input
21	SW ON/OFF SENSOR	I	Switch control on/off signal input
22	STREAM IN	I	Stream in signal input
23	VACS	I	VACS signal input
24	KEY2	I	Key signal input 2
25	KEY1	I	Key signal input 1
26	KEY0	I	Key signal input 0
27	PROTECTOR (HOLD)	I	Protector (Hold) signal input
28	REMOCON IN	I	Remote control signal input from the remote control receiver IC
29	BU1924 CLK	I	GX25, RG220 (except AEP, UK, Russia): Not used. (Connected to ground.) RG220 (AEP, UK, Russia): Serial clock signal input
30 to 41	G12 – G1	O	FLD control signal output
42 to 45	P1 – P4	O	FLD control signal output
46	VDD3	—	Power supply pin (+3.3 V)
47 to 50	P5 – P8	O	FLD control signal output
51	VPP	—	GX25, RG220 (except AEP, UK, Russia): Ground pin RG220 (AEP, UK, Russia): Power supply pin
52 to 55	P9 – P12	O	FLD control signal output
56	SW1 (a) P13	O	FLD control signal output
57	SW2 (b) P14	O	FLD control signal output
58	SW3 (c) P15	O	FLD control signal output
59	SW4 (d) P16	O	FLD control signal output
60	SW5 P17	O	FLD control signal output
61	SW6 P18	O	FLD control signal output
62	SW7 P19	O	FLD control signal output
63	SW8 P20	O	FLD control signal output
64, 65	P21, P22	O	FLD control signal output
66	ENTER LED	O	Not used in this set. (Open)
67	MD/VIDEO LED	O	Not used in this set. (Open)
68	GAME LED	O	GAME LED (LED612) drive signal output
69	TAPE LED	O	TAPE A/B LED (LED609) drive signal output

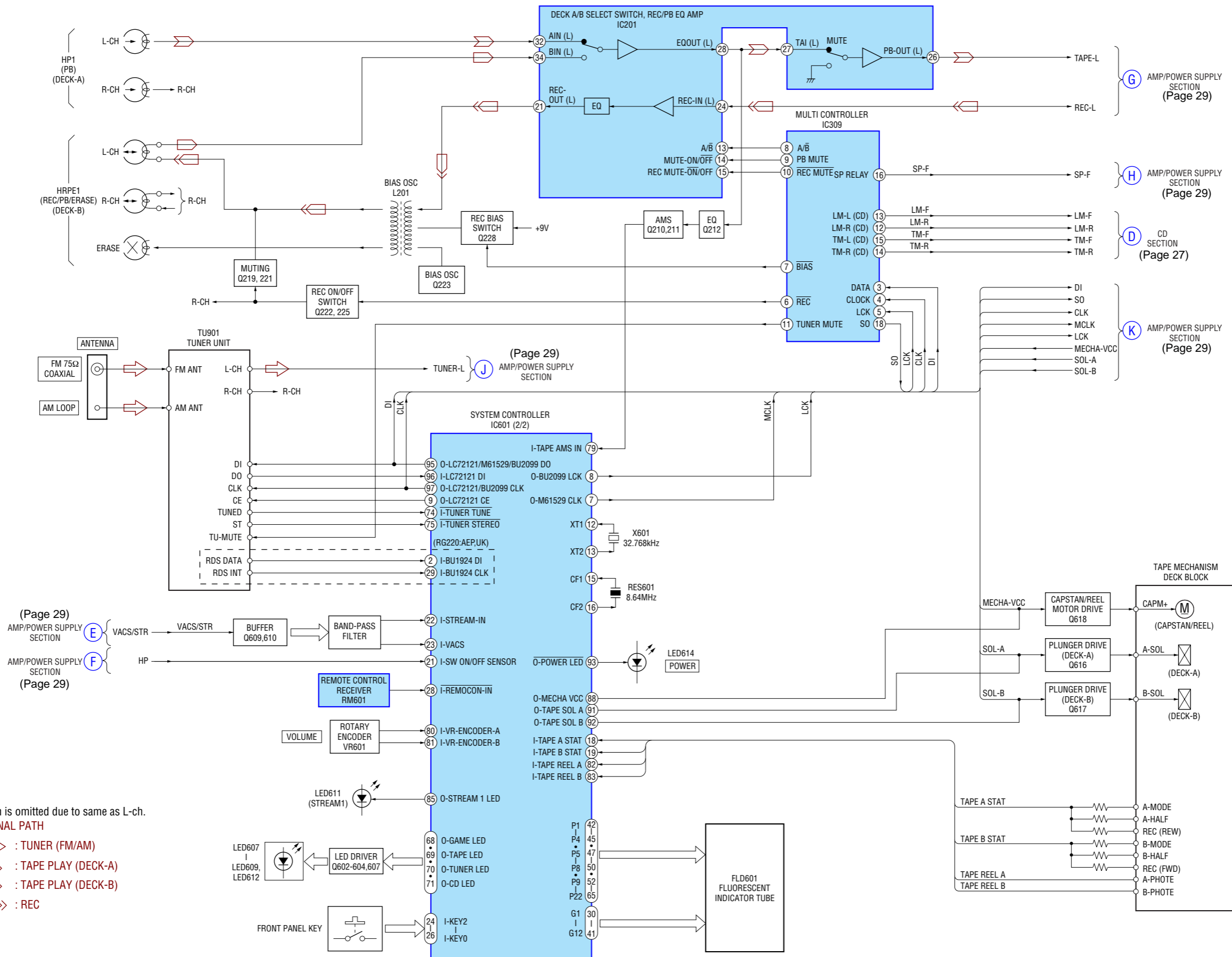
HCD-GX25/RG220

Pin No.	Pin Name	I/O	Pin Description
70	TUNER LED	O	TUNER/BAND LED (LED608) drive signal output
71	CD LED	O	CD LED (LED607) drive signal output
72	VDD4	—	Power supply pin (+3.3 V)
73	CD VDD	O	CD power control signal output
74	TUNER TUNED	I	Tuner tuning signal input from the tuner unit
75	TUNER STEREO	I	Tuner stereo signal input from the tuner unit
76	CD DRF	I	CD DRF signal input
77	CD WRQ	I	CD WRQ signal input
78	CD NUMBER SENSOR	I	CD number sensor signal input
79	TAPE AMS IN	I	Tape AMS signal input
80	VR ENCODER A	I	VR encoder (VR601) signal input
81	VR ENCODER B	I	VR encoder (VR601) signal input
82	TAPE REEL A	I	Tape reel A signal input
83	TAPE REEL B	I	Tape reel B signal input
84	MODE SW IN	I	Mode switch signal input
85	STREAM 1 LED	O	Stream LED drive signal output
86	STREAM 2 LED/CD MUTE	O	Stream LED drive signal output/CD mute signal output
87	STREAM 3 LED	O	Stream LED drive signal output Not used in this set. (Open)
88	STREAM 4 LED/ MECHA VCC	O	Stream LED drive signal output/Mechanism power control signal output
89	VSS2	—	Ground pin
90	VDD2	—	Power supply pin (+3.3 V)
91	STREAM 5 LED/ TAPE SOL A	O	Stream LED drive signal output/Tape SOL-A drive signal output
92	STREAM 6 LED/ TAPE SOL B	O	Stream LED drive signal output/Tape SOL-B drive signal output
93	POWER LED	O	POWER LED (LED614) drive signal output
94	POWER RELAY	O	Power relay signal output
95	LC72121/M61529/ BU2099FV DO	O	Serial data signal output
96	LC72121 DI	I	Serial data signal input
97	LC72121/BU2099FV CLK	O	Serial clock signal output
98	LC78646/LC78684 DO	O	Serial data signal output
99	LC78646/LC78684 DI	I	Serial data signal input
100	LC78646/LC78684 CLK	O	Serial clock signal output

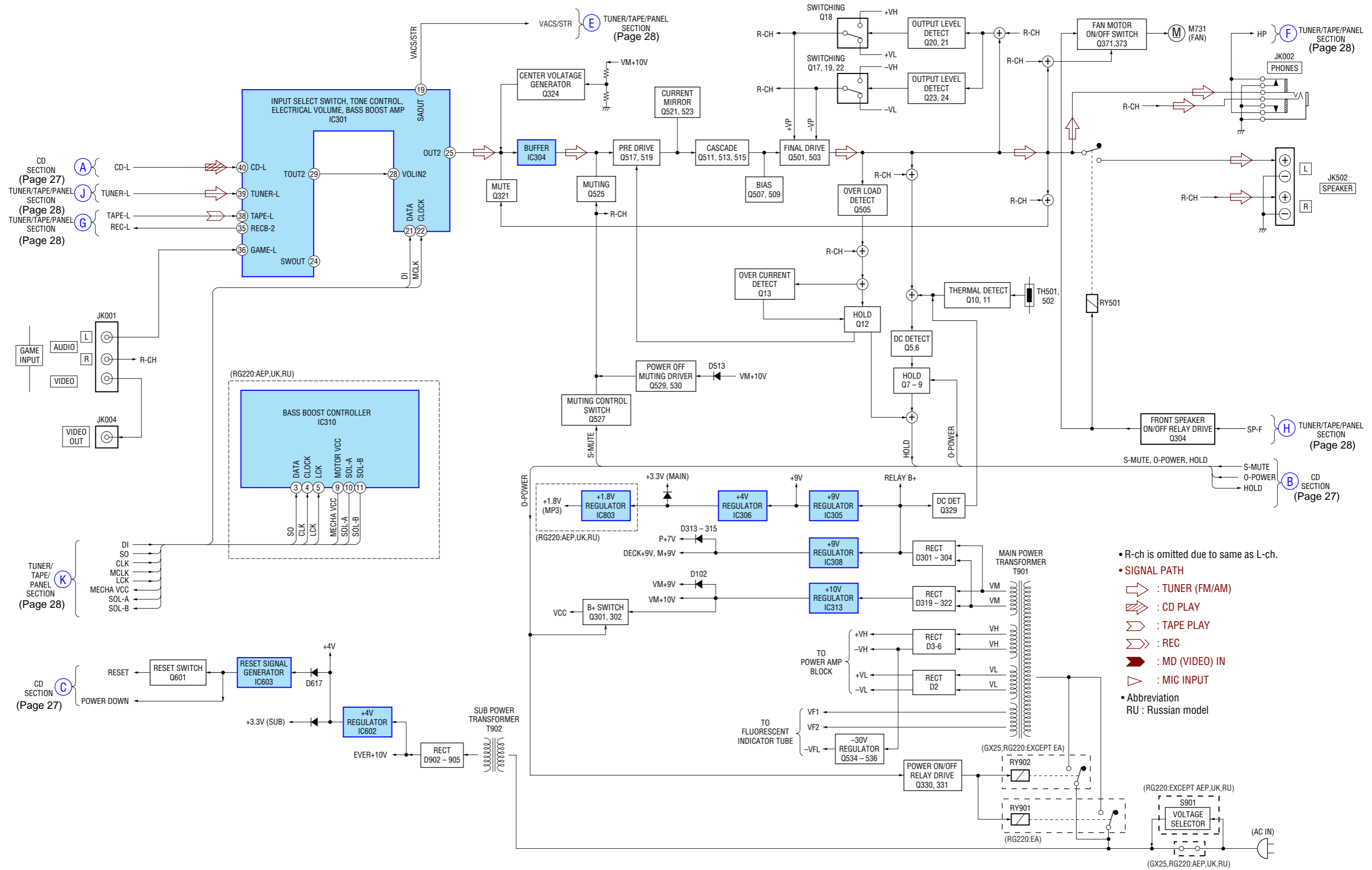
5-2. BLOCK DIAGRAM — CD SECTION —



5-3. BLOCK DIAGRAM — TUNER/TAPE/PANEL SECTION —



5-4. BLOCK DIAGRAM — AMP/POWER SUPPLY SECTION —



5-5. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

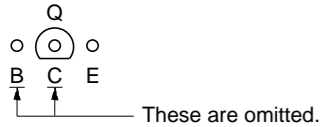
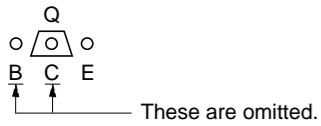
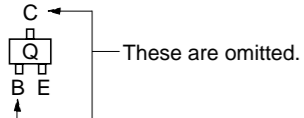
Note on Printed Wiring Board:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.
 Parts face side: Parts on the parts face side seen from (Component Side) the parts face are indicated.

Indication of transistor.



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : μF 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.
- : nonflammable resistor.
- : panel designation.

Note:

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

Note:

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line.
- : B- Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- () : CD PLAY
- [] : TAPE PLAY (DECK-A)
- { } : TAPE PLAY (DECK-B)
- << >> : REC
- * : Impossible to measure
- Voltagés are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- ⇨ : TUNER (FM/AM)
- ⇨ : CD PLAY
- ⇨ : TAPE PLAY (DECK-A)
- ⇨ : TAPE PLAY (DECK-B)
- ⇨ : REC
- ⇨ : MD (VIDEO) IN
- ⇨ : MIC INPUT
- Abbreviation
- CND : Canadian model
- AUS : Australian model
- RU : Russian model
- EA : Saudi Arabia model
- MX : Mexican model

UNLEADED SOLDER

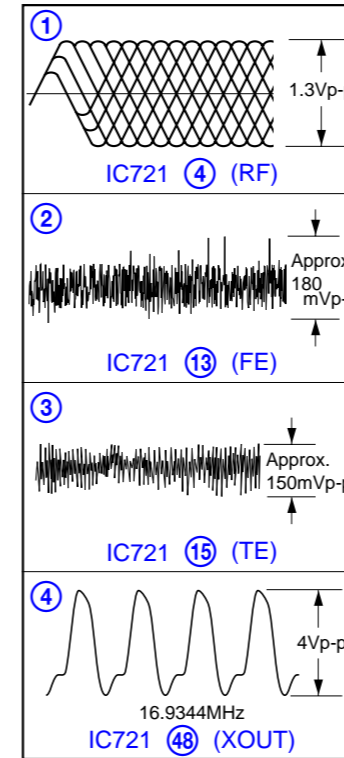
Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead. (Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

LF : LEAD FREE MARK

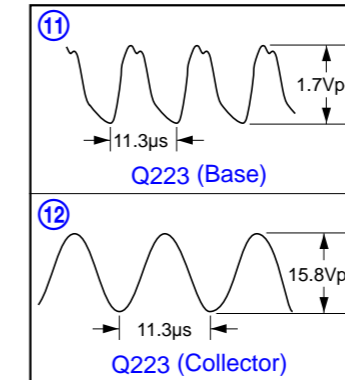
- Unleaded solder has the following characteristics.
- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder. Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time. Soldering irons using a temperature regulator should be set to about 350 °C. Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
 - Strong viscosity. Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
 - Usable with ordinary solder. It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

5-6. WAVEFORMS

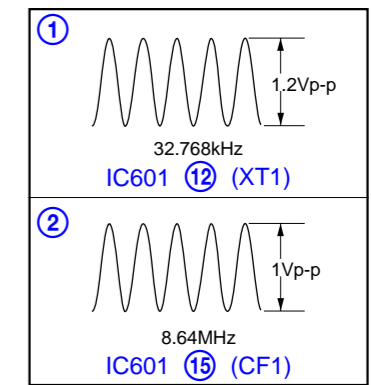
– BD Board – (CD PLAY mode)



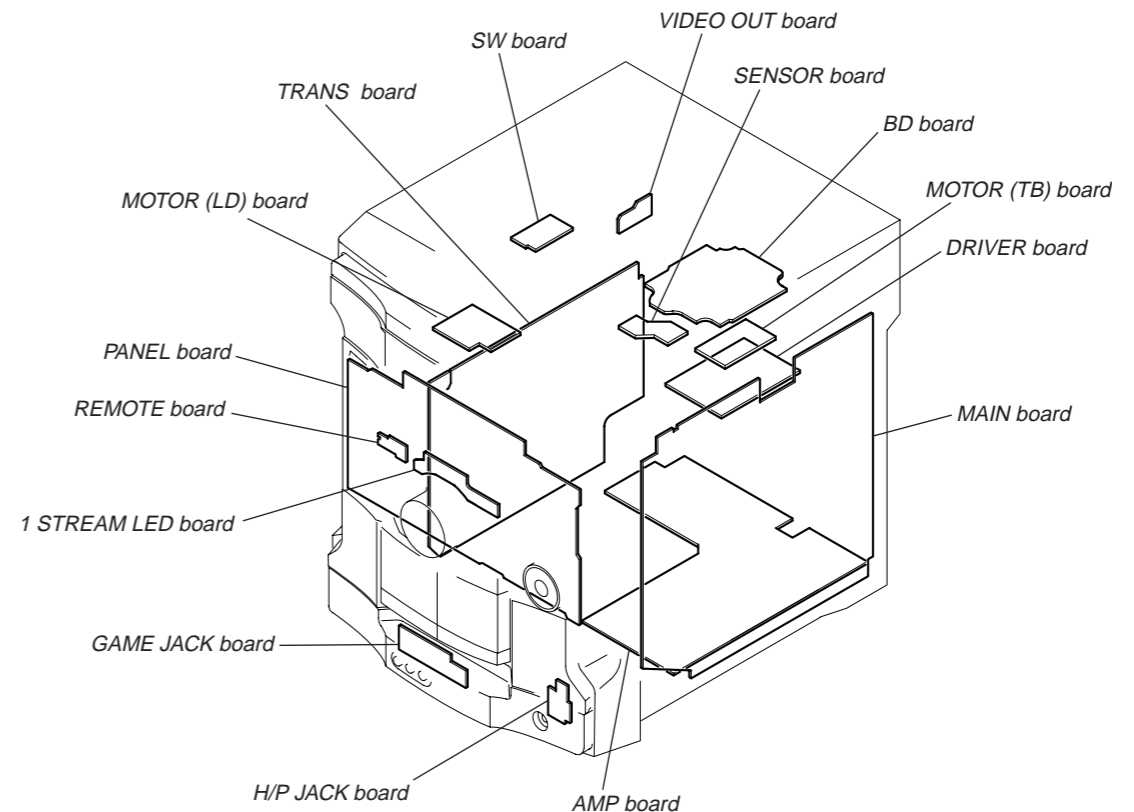
– MAIN Board – (REC mode)



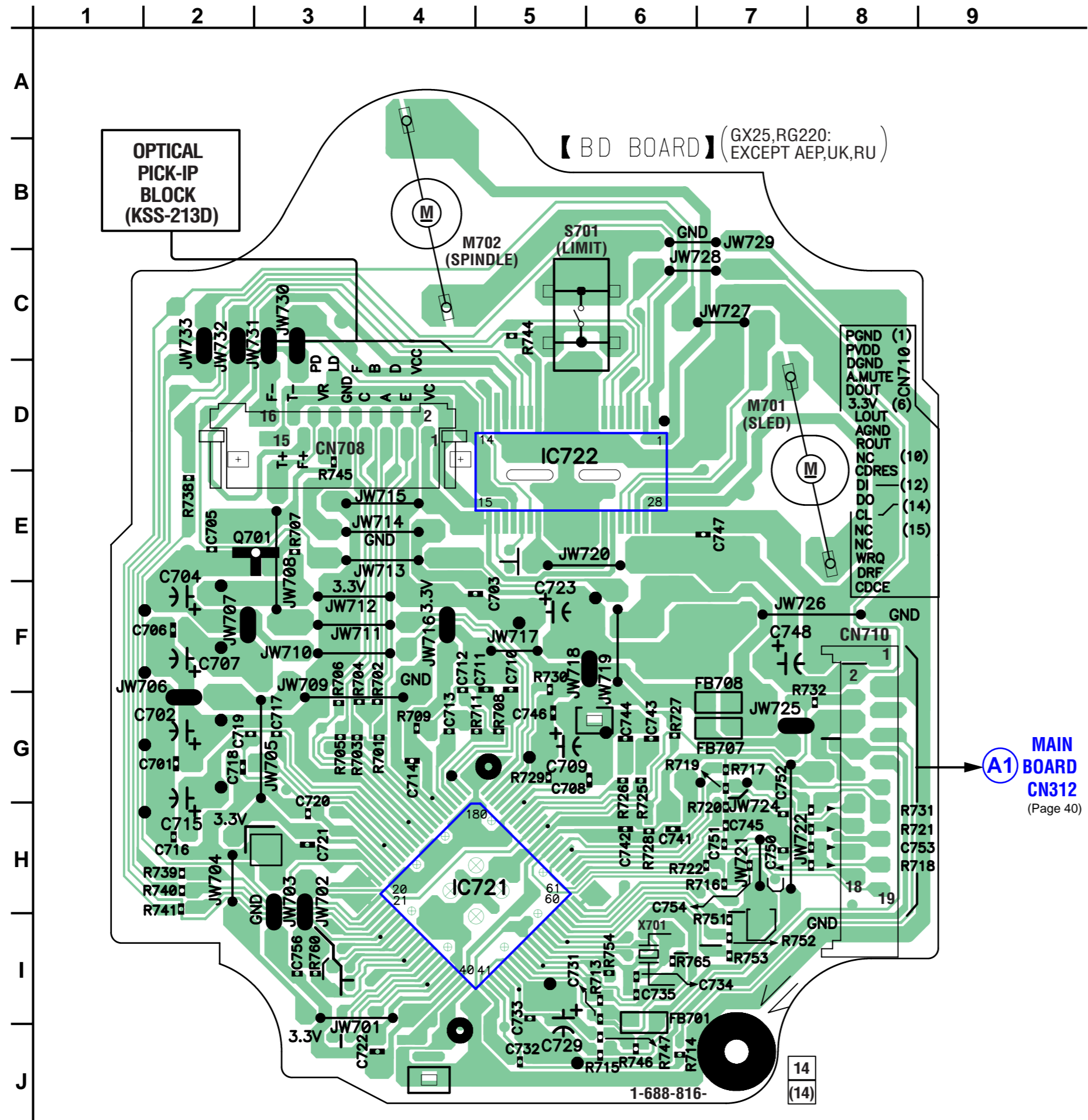
– PANEL Board –



5-7. CIRCUIT BOARDS LOCATION



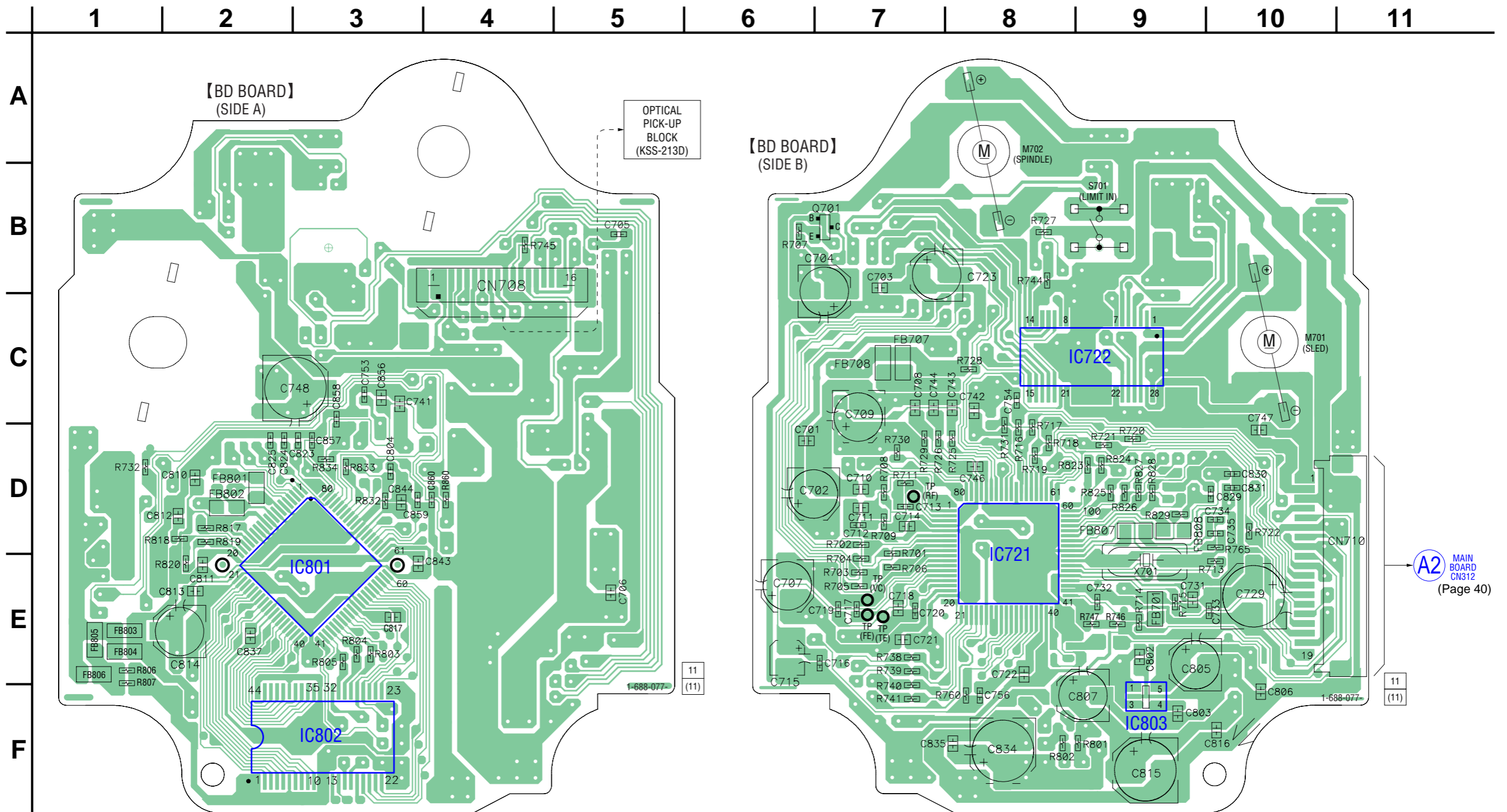
5-8. PRINTED WIRING BOARD — CD MECHANISM SECTION (1/2) (HCD-GX25/RG220: EXCEPT AEP, UK, RUSSIA MODEL) — • Refer to page 30 for Circuit Boards Location.  : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location
IC721	H-5
IC722	D-5
Q701	E-2

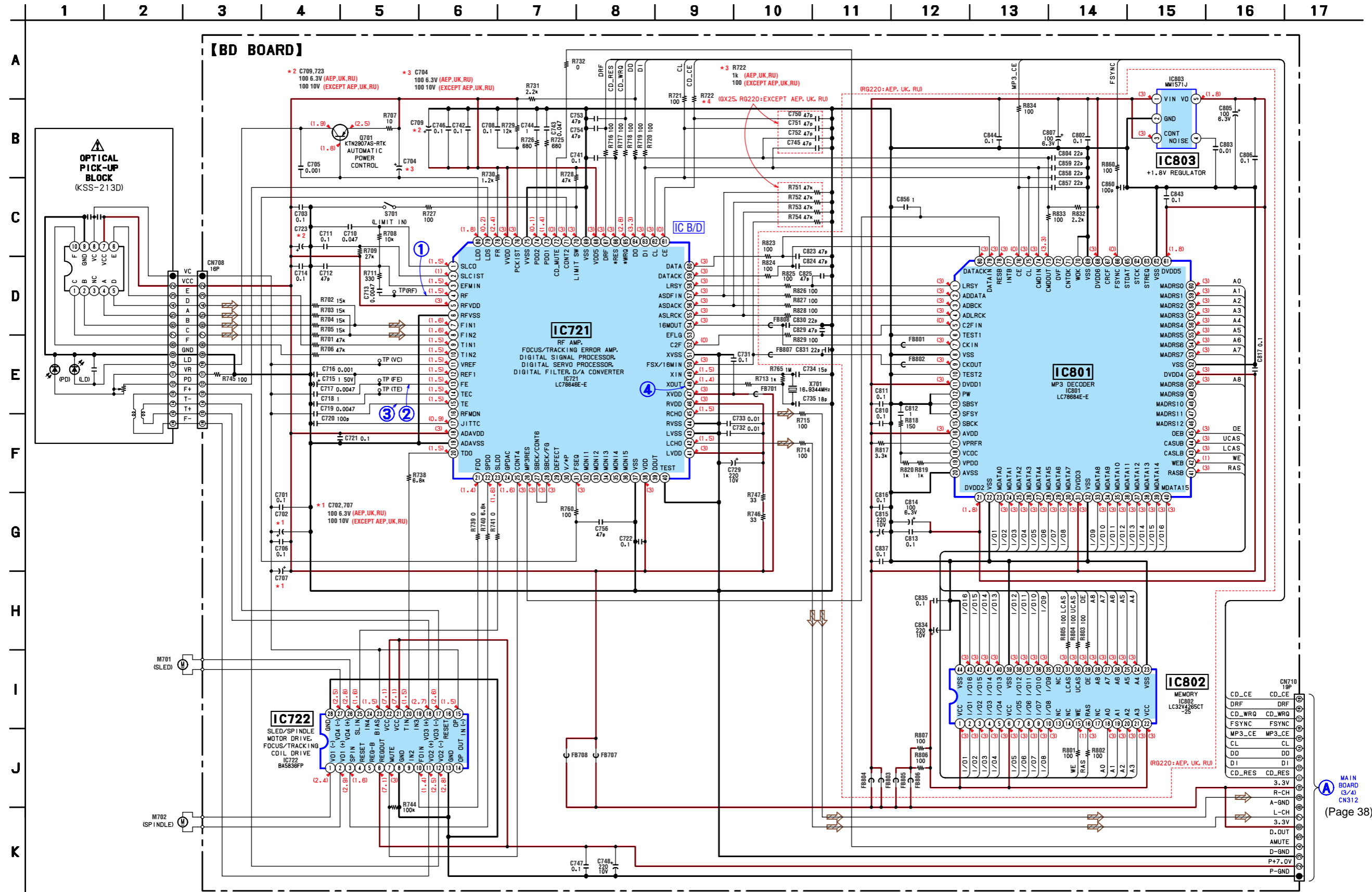
5-9. PRINTED WIRING BOARD — CD MECHANISM SECTION (1/2) (HCD-RG220: AEP, UK, RUSSIA MODEL) — • Refer to page 30 for Circuit Boards Location.  : Uses unleaded solder.



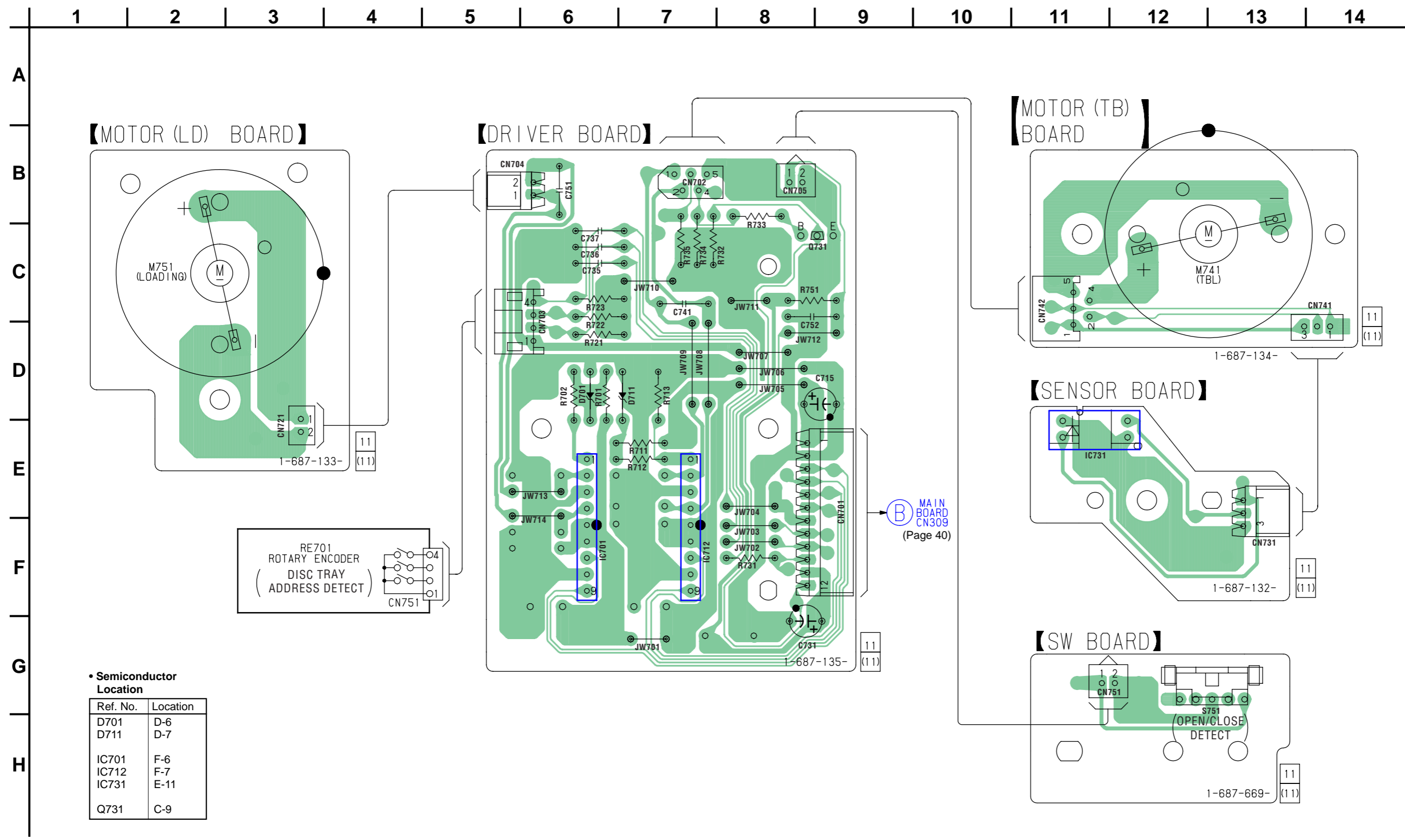
• Semiconductor Location

Ref. No.	Location
IC721	E-8
IC722	C-9
IC801	E-3
IC802	F-3
IC803	F-9
Q701	B-7

5-10. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) — • Refer to page 30 for Waveforms. • Refer to page 54 for IC Block Diagrams.



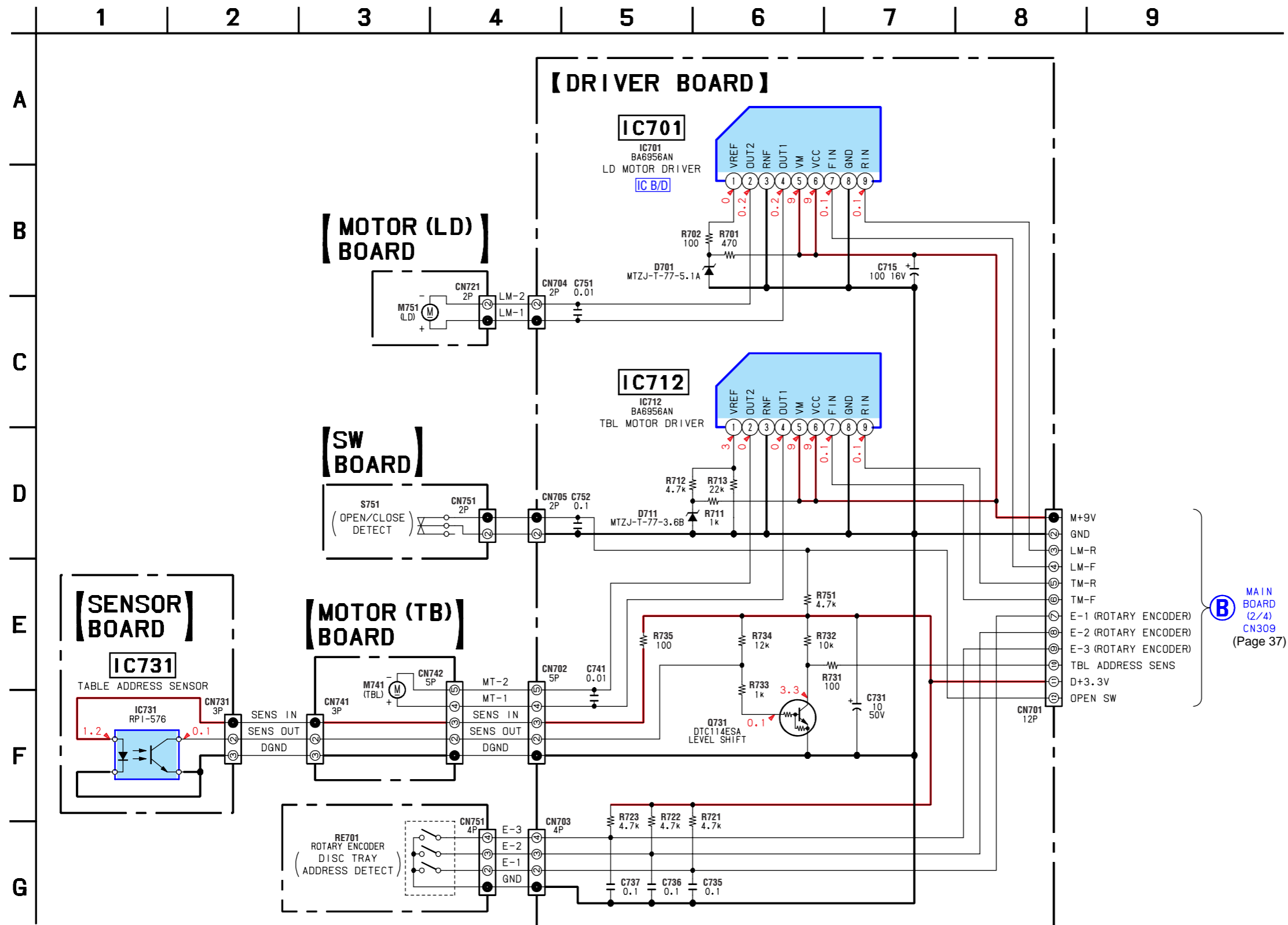
5-11. PRINTED WIRING BOARDS — CD MECHANISM SECTION (2/2) — • Refer to page 30 for Circuit Boards Location.  : Uses unleaded solder.



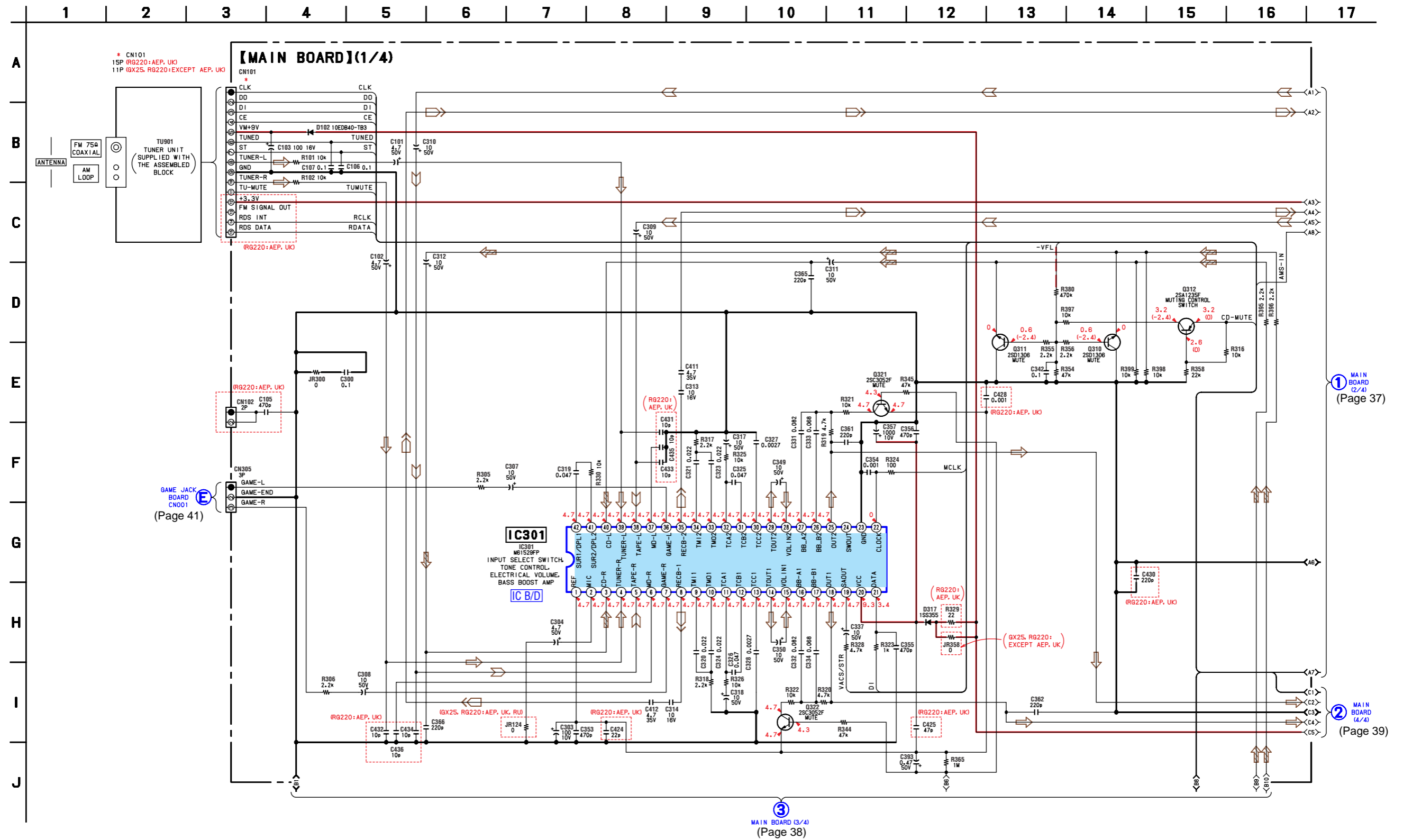
• Semiconductor Location

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

5-12. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) — • Refer to page 54 for IC Block Diagrams.

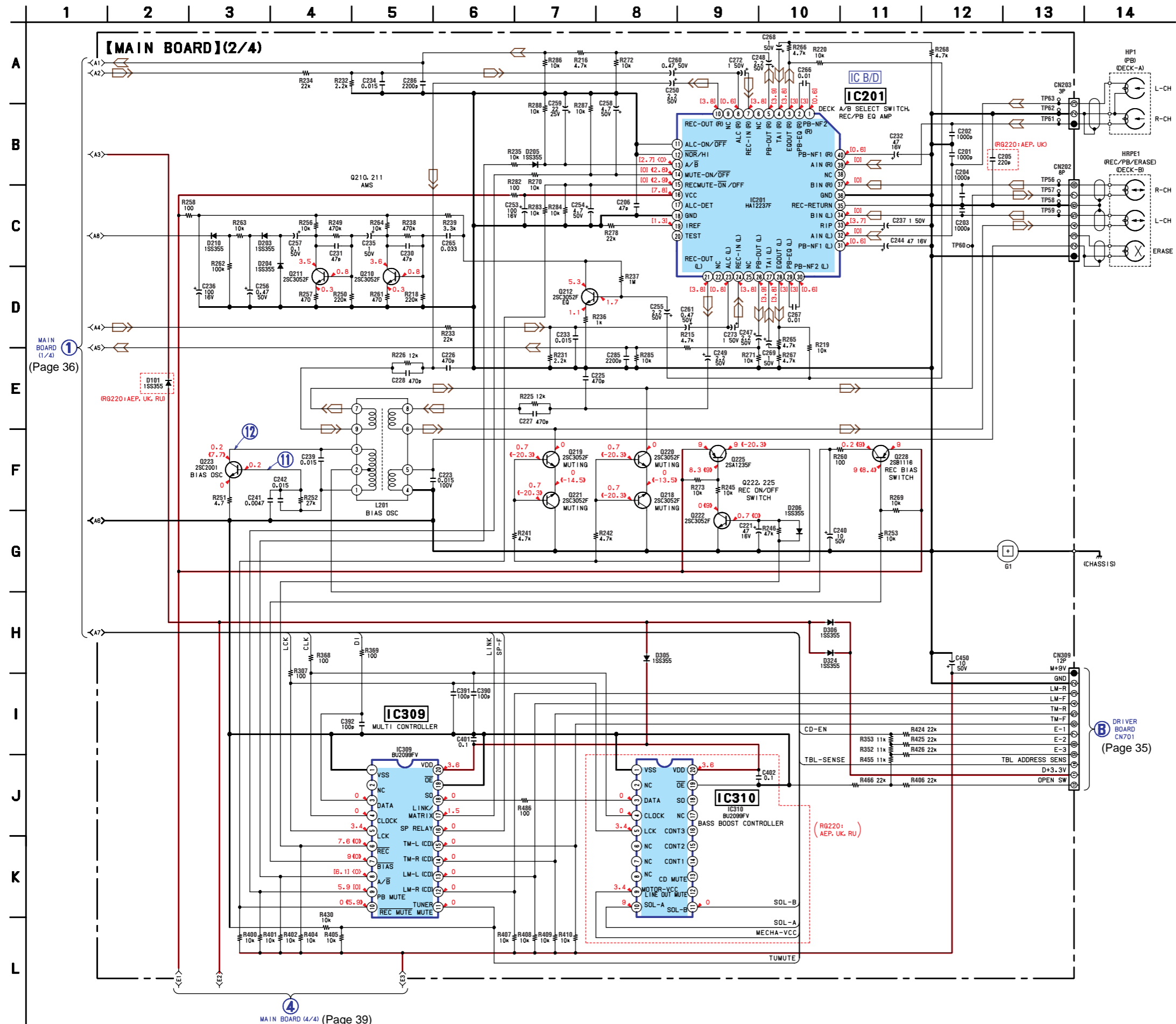


5-13. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) — • Refer to page 54 for IC Block Diagram.

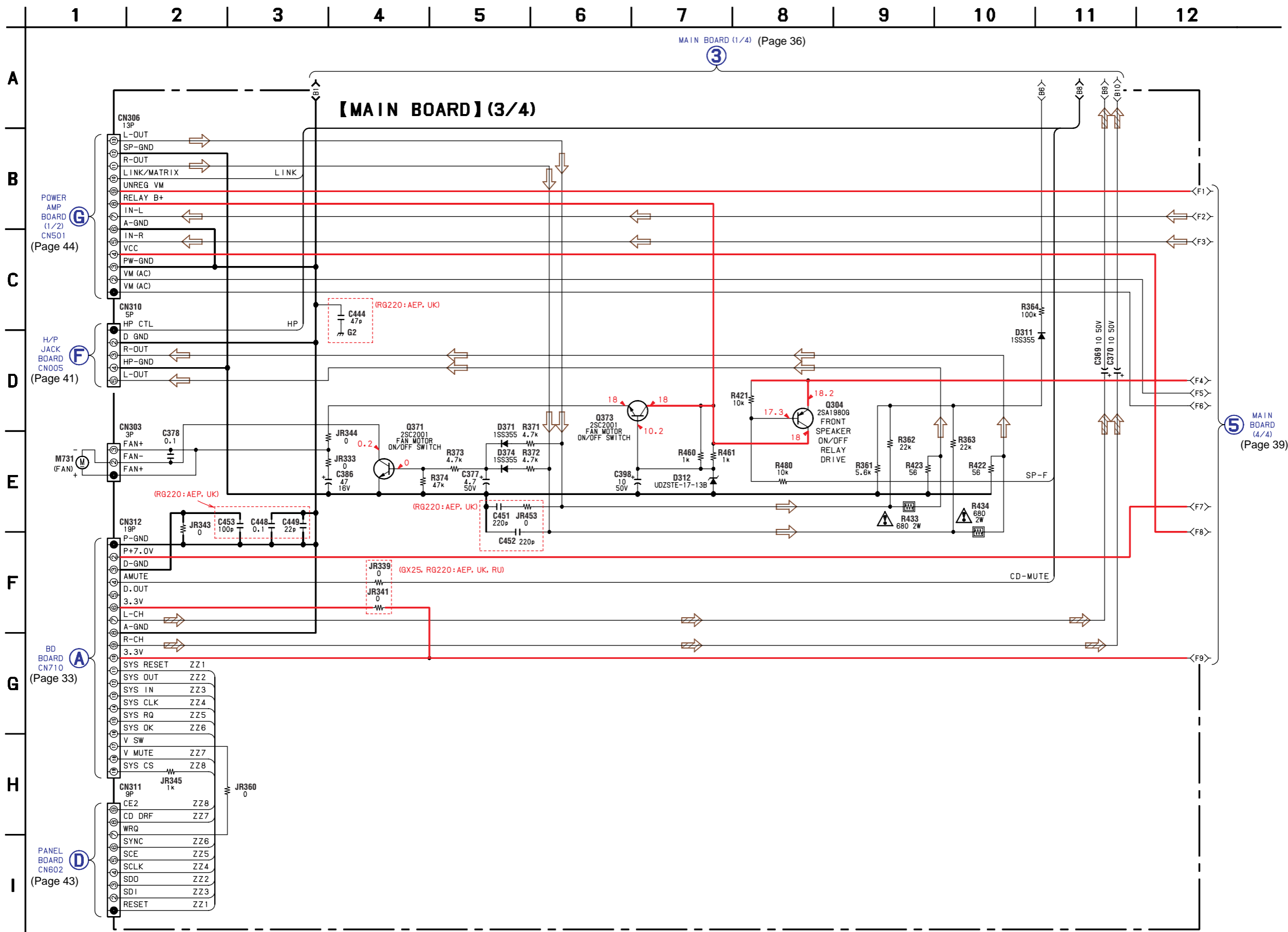


• Refer to page 30 for Waveforms.

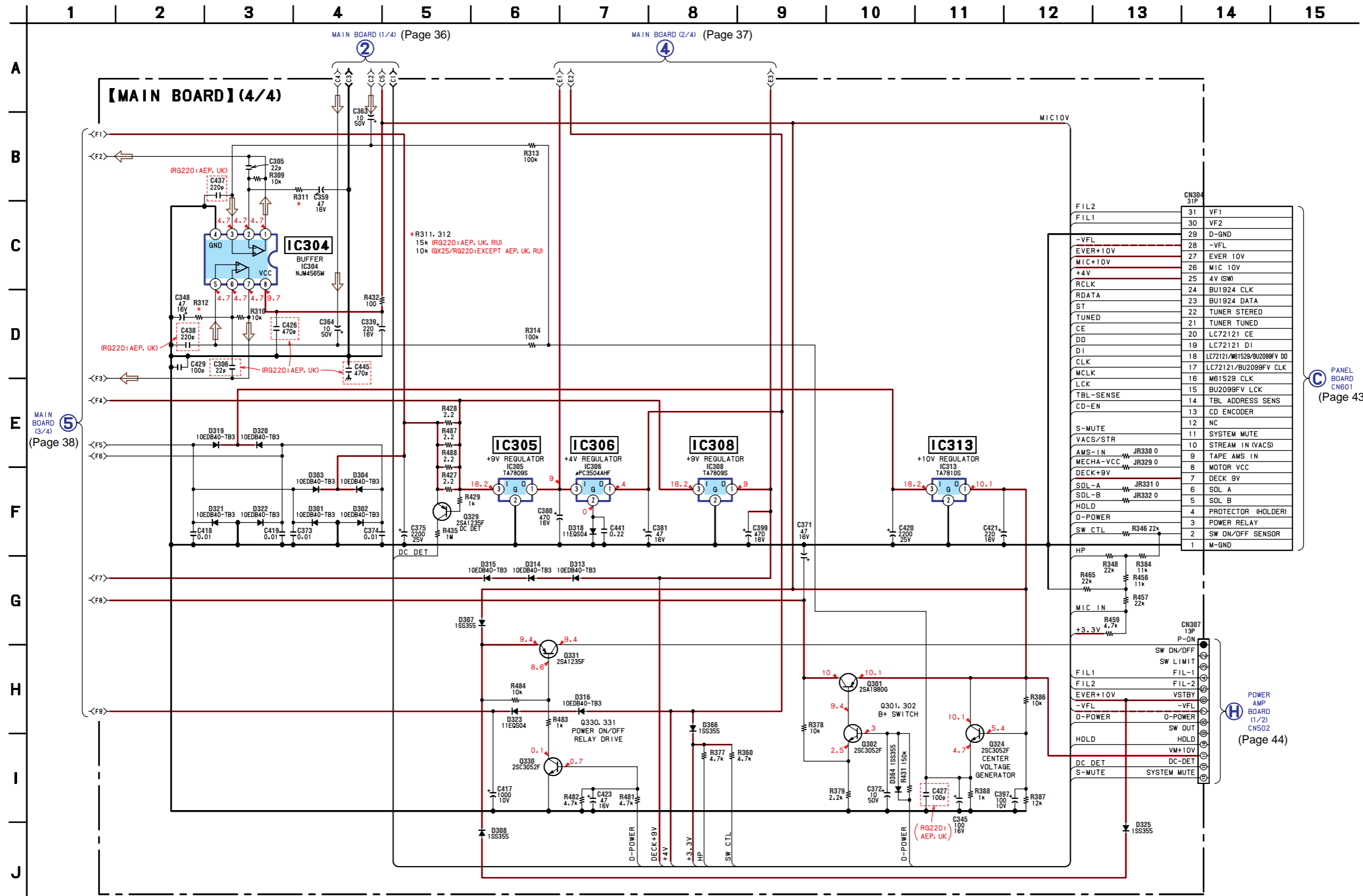
5-14. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) — • Refer to page 55 for IC Block Diagram.




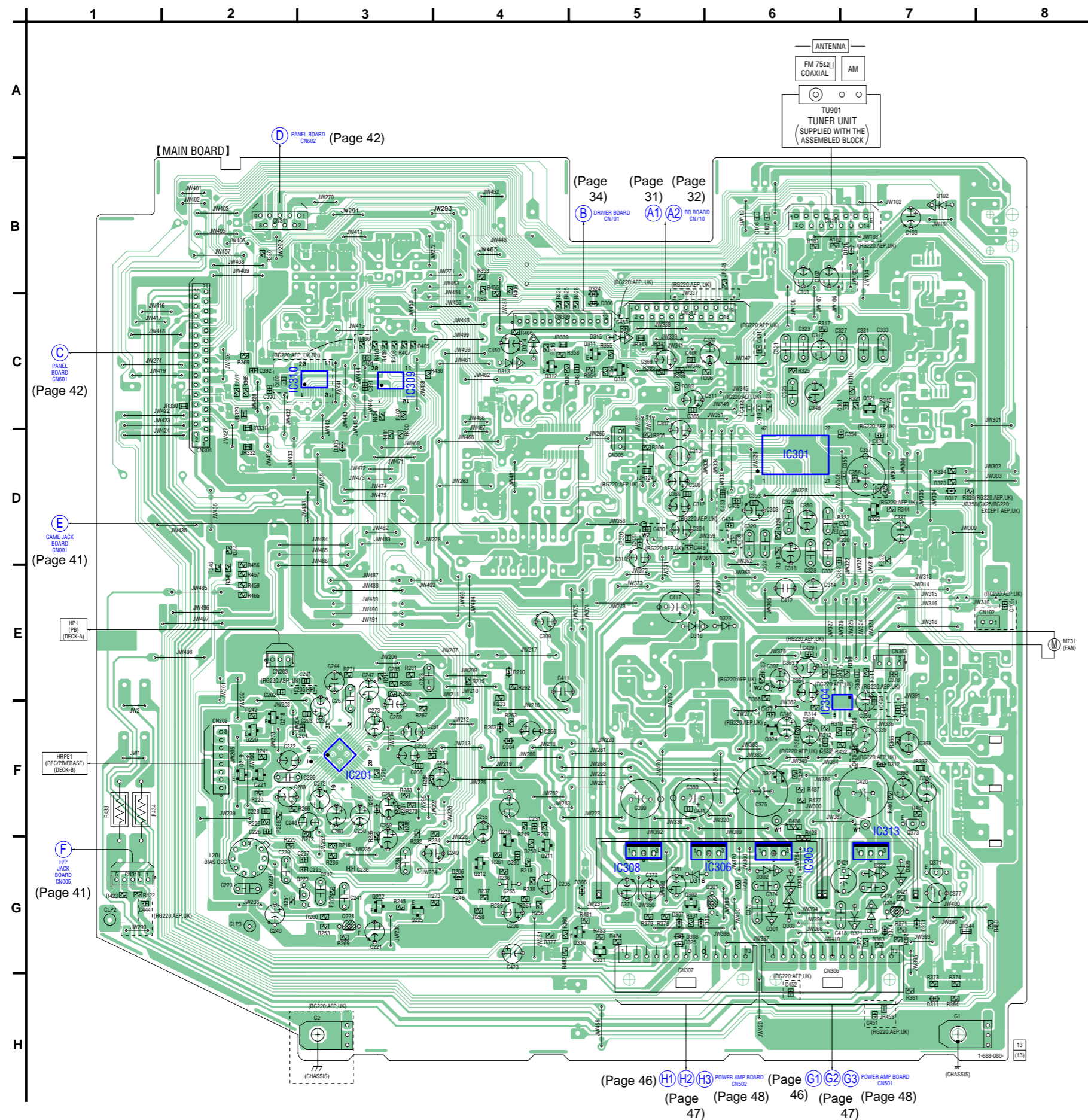
5-15. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) —



5-16. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —



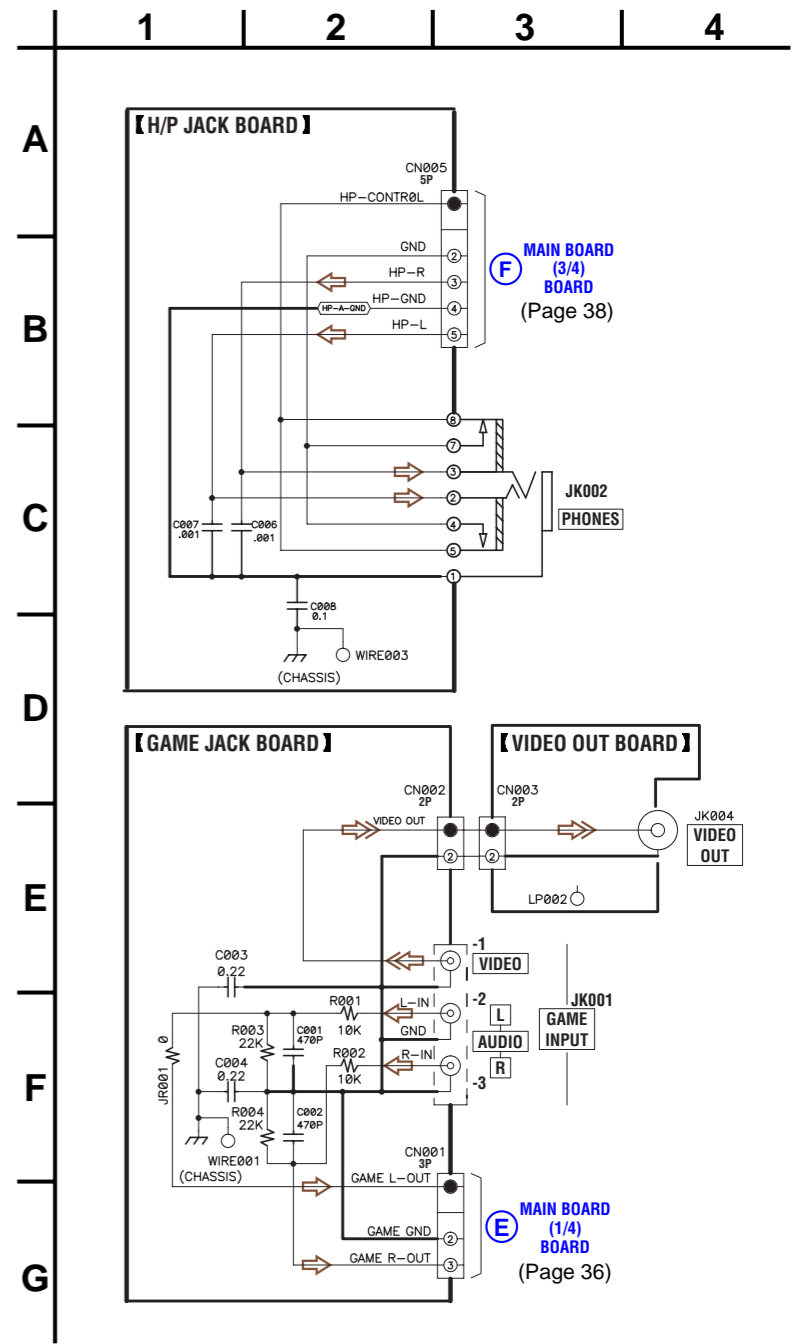
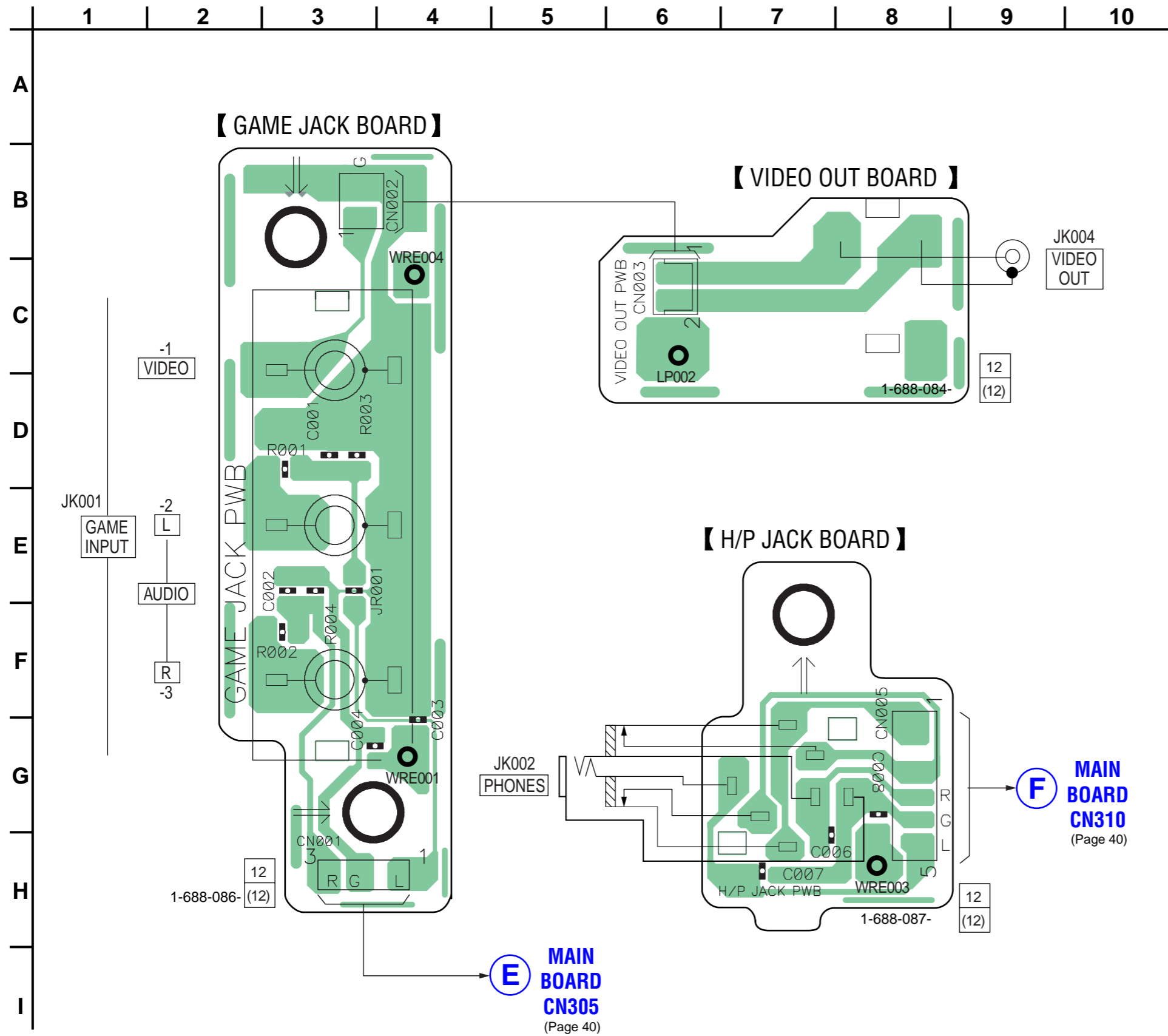
5-17. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 30 for Circuit Boards Location.  : Uses unleaded solder.

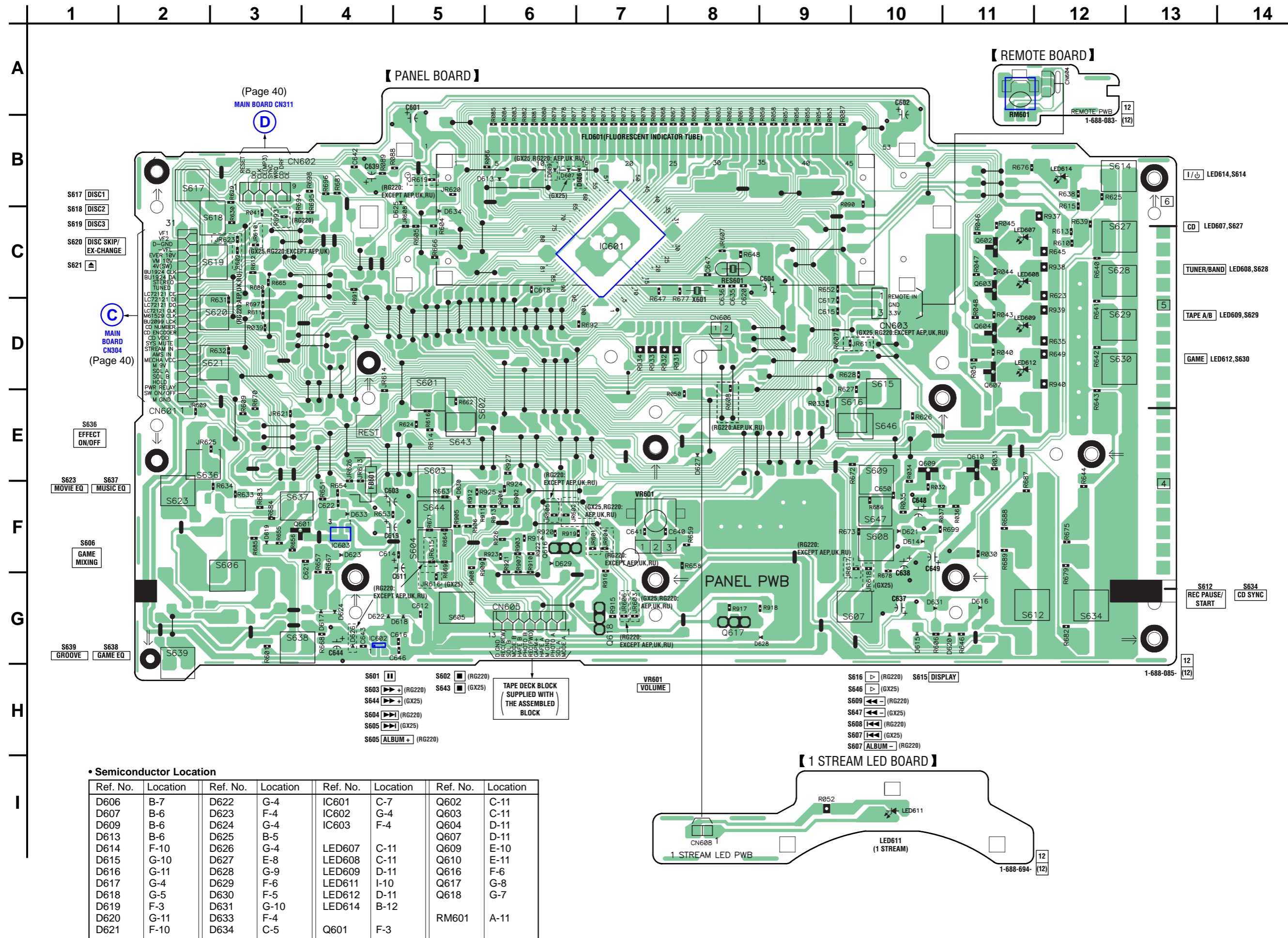


• Semiconductor Location

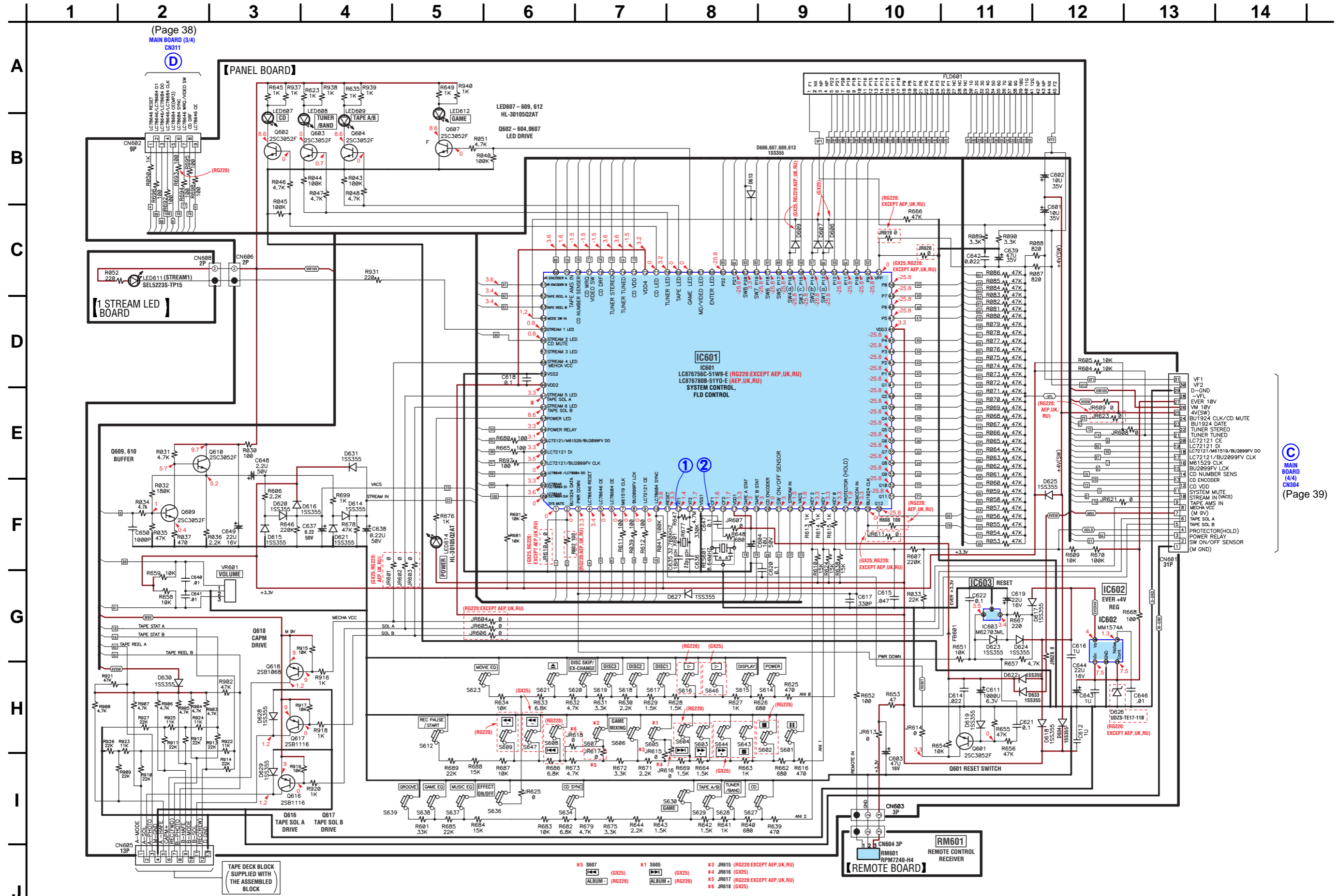
Ref. No.	Location
D101	B-7
D102	B-7
D203	F-4
D204	F-4
D205	F-3
D206	G-4
D210	E-4
D301	G-6
D302	G-6
D303	G-6
D304	G-6
D305	D-3
D306	C-5
D307	G-5
D308	G-5
D311	H-7
D312	F-7
D313	C-4
D314	C-4
D315	C-5
D316	E-5
D317	D-7
D318	G-5
D319	G-7
D320	G-7
D321	G-7
D322	G-7
D323	E-6
D324	C-5
D325	G-5
D364	G-5
D366	G-5
D371	G-7
D374	G-7
IC201	F-3
IC301	D-6
IC304	F-6
IC305	G-6
IC306	G-6
IC308	G-5
IC309	C-3
IC310	C-3
IC313	G-7
Q210	G-4
Q211	G-4
Q212	G-4
Q218	F-2
Q219	F-2
Q220	F-2
Q221	F-2
Q222	G-3
Q223	G-3
Q225	G-3
Q228	G-3
Q301	G-6
Q302	G-5
Q304	G-7
Q310	C-5
Q311	C-5
Q312	C-4
Q321	C-7
Q322	D-7
Q324	F-6
Q329	F-6
Q330	G-5
Q331	G-5
Q371	G-7
Q373	F-7

5-18. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM — JACK SECTION — • Refer to page 30 for Circuit Boards Location.

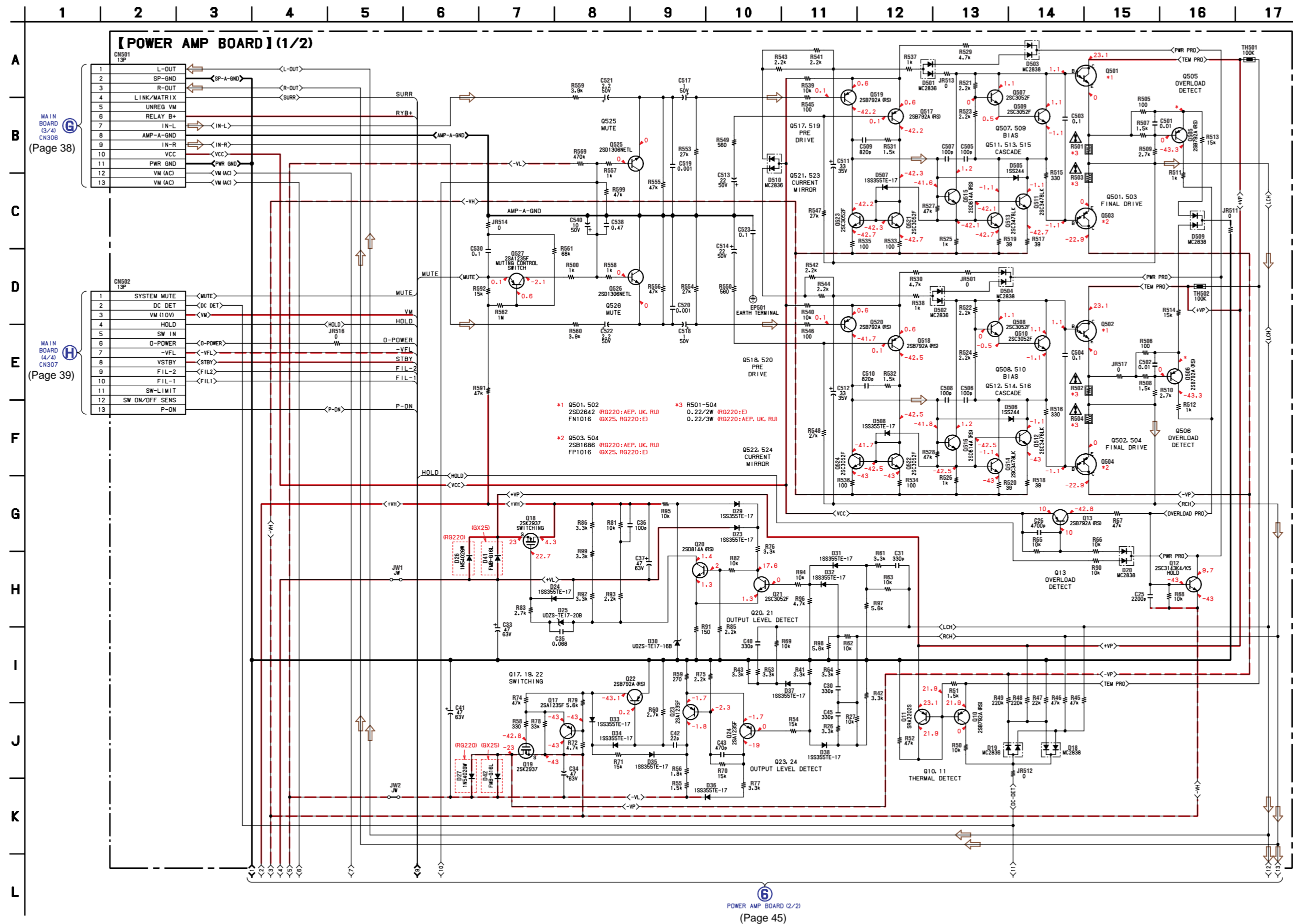




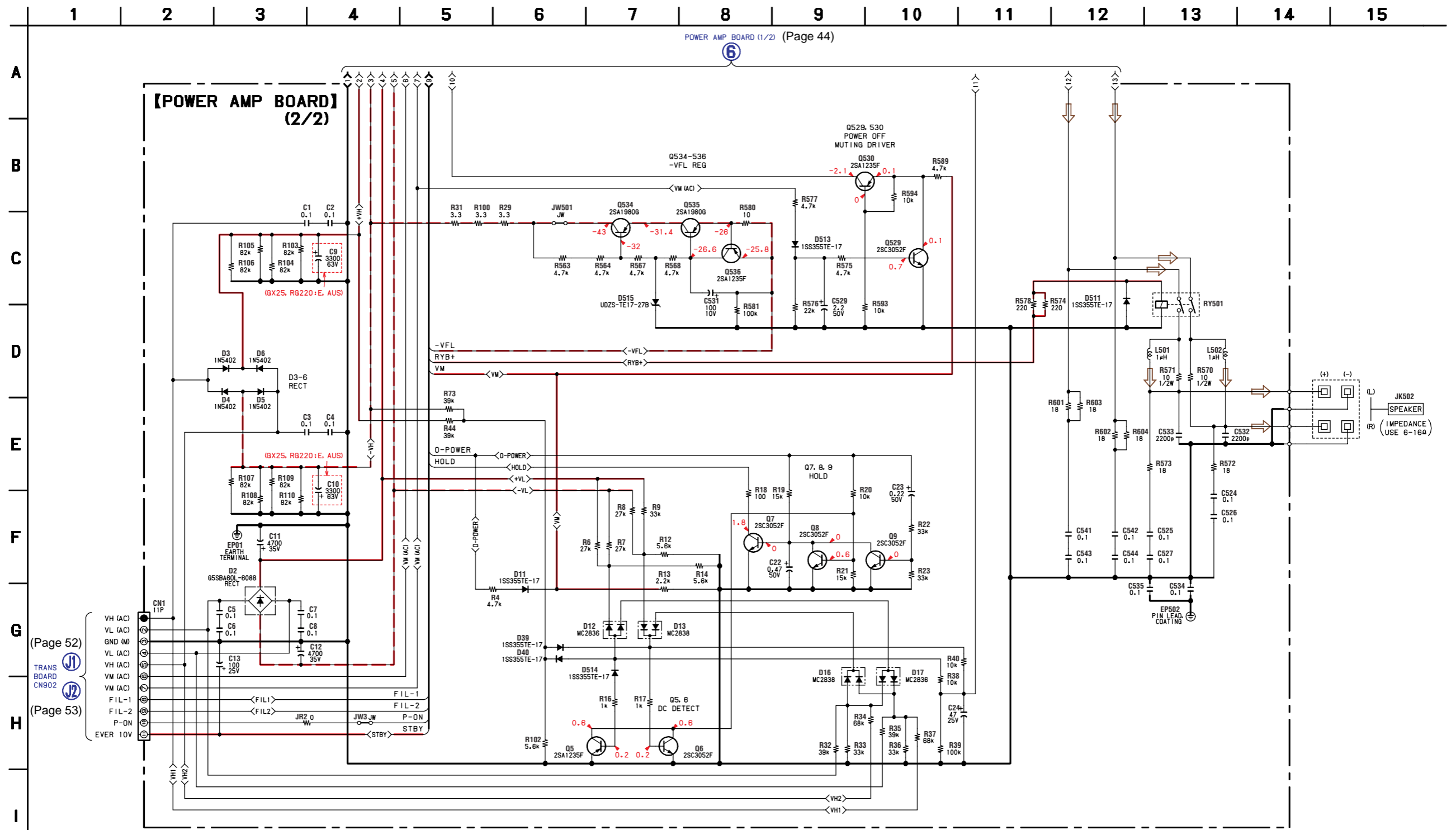
5-20. SCHEMATIC DIAGRAM — PANEL SECTION — • Refer to page 30 for Waveforms.



5-21. SCHEMATIC DIAGRAM — POWER AMP SECTION (1/2) —



5-22. SCHEMATIC DIAGRAM — POWER AMP SECTION (2/2) —

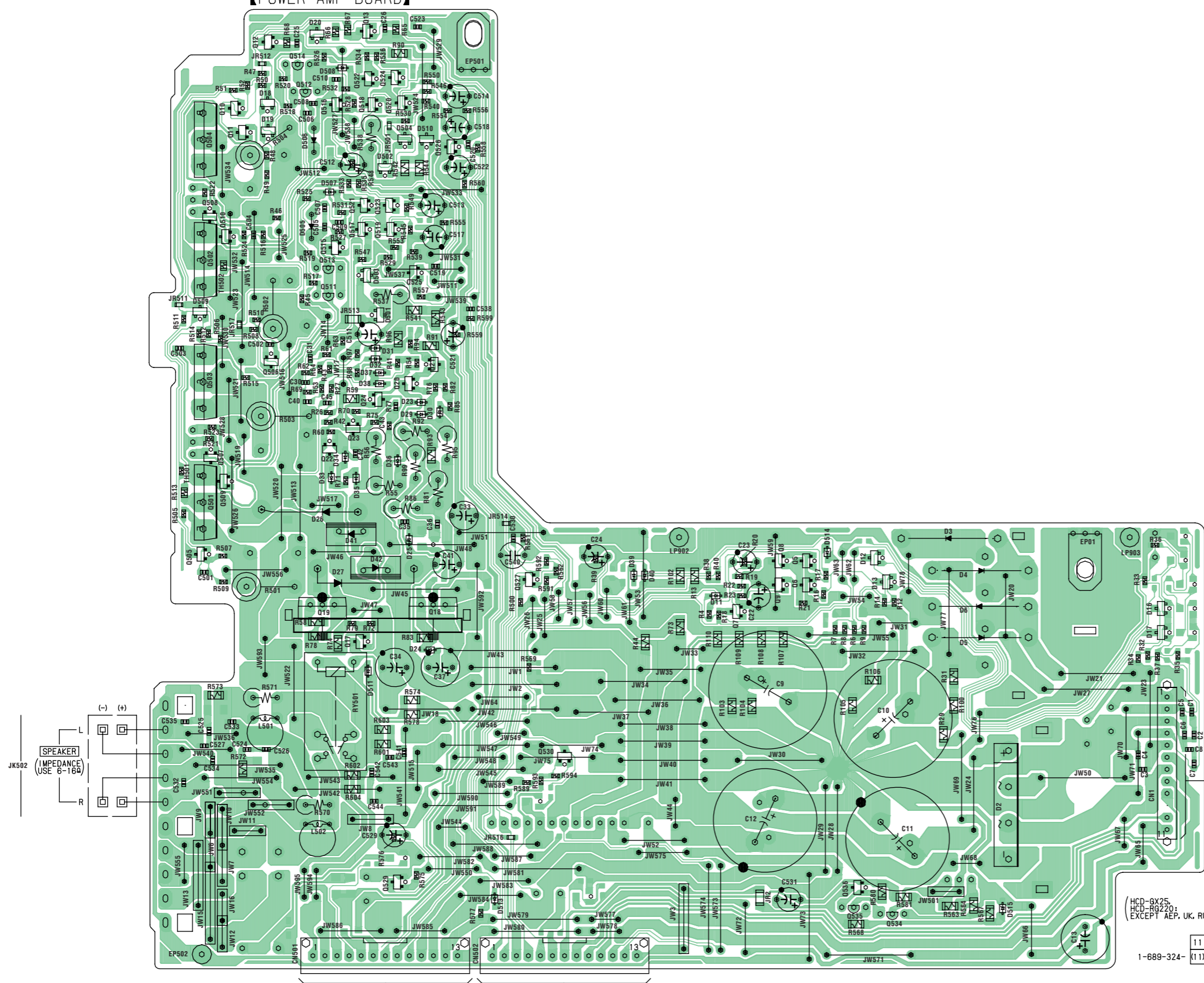


5-23. PRINTED WIRING BOARD — POWER AMP SECTION (HCD-GX25/RG220: EXCEPT AEP, UK, RUSSIA, EA MODEL) — • Refer to page 30 for Circuit Boards Location.  : Uses unleaded solder.

1 2 3 4 5 6 7 8 9 10 11 12


A
B
C
D
E
F
G
H
I
J

【POWER AMP BOARD】



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D2	H-10	Q6	F-8
D3	F-10	Q7	G-8
D4	F-10	Q8	F-8
D5	G-10	Q9	F-8
D6	G-10	Q10	B-3
D11	F-7	Q11	B-3
D12	F-9	Q12	A-3
D13	F-9	Q13	A-4
D16	G-11	Q17	G-4
D17	G-11	Q18	G-5
D18	B-3	Q19	G-4
D19	B-3	Q20	D-5
D20	A-4	Q21	D-5
D23	E-5	Q22	E-4
D24	G-5	Q23	E-4
D25	F-5	Q24	E-4
D26	F-4	Q501	F-3
D27	F-4	Q502	C-3
D29	E-5	Q503	D-3
D30	E-5	Q504	B-3
D31	D-4	Q505	F-3
D32	D-4	Q506	D-3
D33	E-4	Q507	E-3
D34	E-4	Q508	C-3
D35	E-4	Q509	E-3
D36	E-5	Q510	C-3
D37	D-4	Q511	D-4
D38	D-4	Q512	B-4
D39	F-7	Q513	C-4
D40	F-7	Q514	B-4
D41	F-4	Q515	C-4
D42	F-4	Q516	B-4
D501	D-4	Q517	C-4
D502	B-4	Q518	B-4
D503	C-4	Q519	C-4
D504	B-5	Q520	B-5
D505	C-4	Q521	C-4
D506	B-4	Q522	B-4
D507	C-4	Q523	C-4
D508	B-4	Q524	B-4
D509	D-3	Q525	D-5
D510	B-5	Q526	B-5
D511	G-4	Q527	F-6
D513	I-5	Q529	I-5
D514	F-8	Q530	H-6
D515	I-10	Q534	I-9
		Q535	I-9
Q5	F-8	Q536	I-9

 TRANS BOARD CN902 (Page 49)


(HCD-GX25, HCD-RG220: EXCEPT AEP, UK, RU, EA)

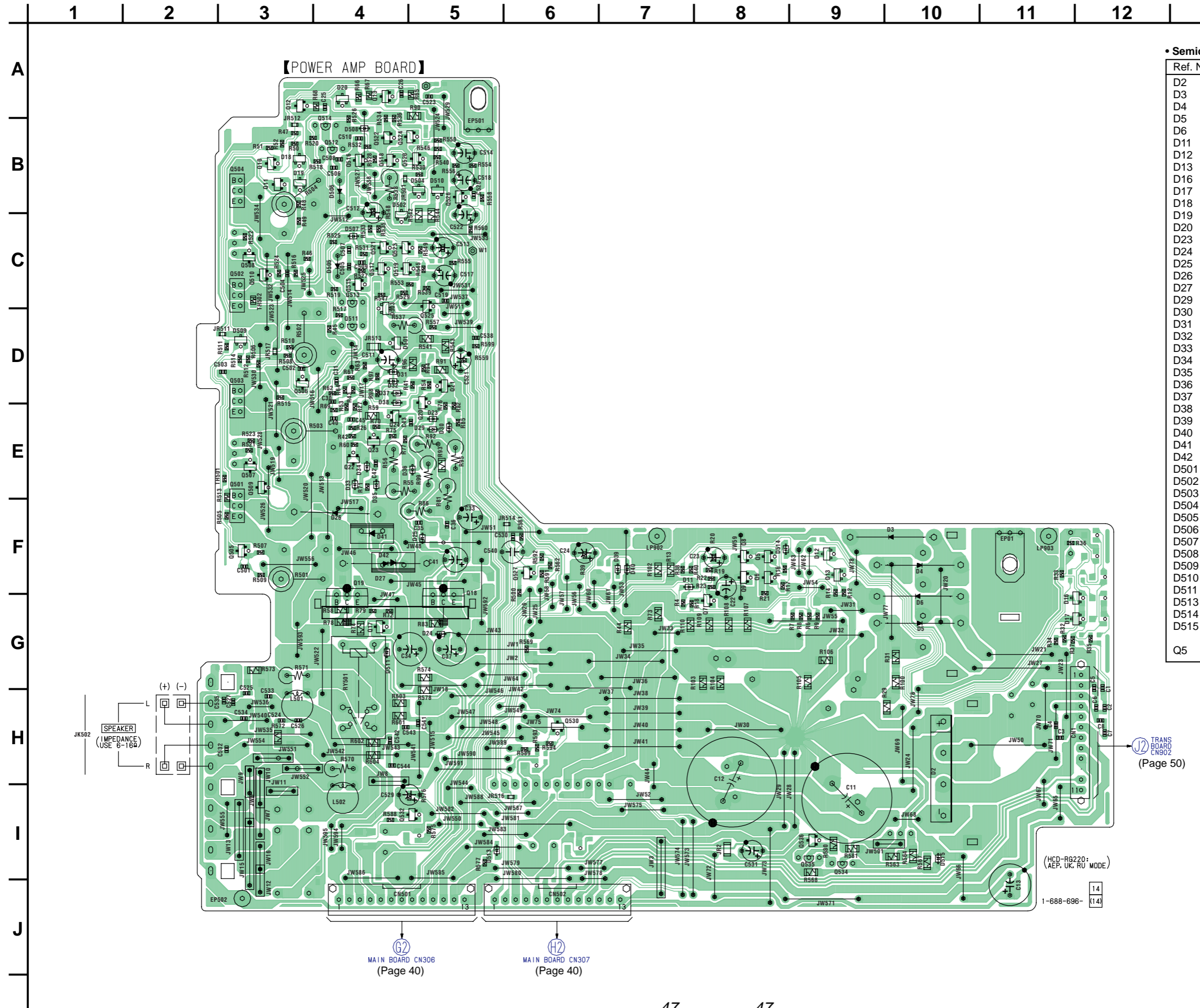
1-689-324-

11
411

 MAIN BOARD CN306 (Page 40)

 MAIN BOARD CN307 (Page 40)

5-24. PRINTED WIRING BOARD — POWER AMP SECTION (HCD-RG220: AEP, UK, RUSSIA MODEL) — • Refer to page 30 for Circuit Boards Location.  : Uses unleaded solder.





• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D2	H-10	Q6	F-8
D3	F-10	Q7	G-8
D4	F-10	Q8	F-8
D5	G-10	Q9	F-8
D6	G-10	Q10	B-3
D11	F-7	Q11	B-3
D12	F-9	Q12	A-3
D13	F-9	Q13	A-4
D16	G-11	Q17	G-4
D17	G-11	Q18	F-5
D18	B-3	Q19	F-4
D19	B-3	Q20	E-5
D20	A-4	Q21	D-5
D23	E-5	Q22	E-4
D24	G-5	Q23	E-4
D25	F-5	Q24	E-4
D26	F-4	Q501	E-3
D27	F-4	Q502	C-3
D29	E-5	Q503	D-3
D30	E-5	Q504	B-3
D31	D-4	Q505	F-3
D32	D-4	Q506	D-3
D33	E-4	Q507	E-3
D34	E-4	Q508	C-3
D35	E-4	Q509	E-3
D36	E-5	Q510	C-3
D37	D-4	Q511	D-4
D38	D-4	Q512	B-4
D39	F-7	Q513	C-4
D40	F-7	Q514	B-4
D41	F-4	Q515	C-4
D42	F-4	Q516	B-4
D501	D-4	Q517	C-4
D502	B-4	Q518	B-4
D503	D-4	Q519	C-4
D504	B-5	Q520	B-5
D505	C-4	Q521	C-4
D506	B-4	Q522	B-4
D507	C-4	Q523	C-4
D508	B-4	Q524	B-4
D509	D-3	Q525	D-5
D510	B-5	Q526	B-5
D511	G-4	Q527	F-6
D513	I-5	Q529	I-5
D514	F-8	Q530	H-6
D515	I-10	Q534	I-9
		Q535	I-9
Q5	F-8	Q536	I-9

 TRANS BOARD CN902 (Page 50)

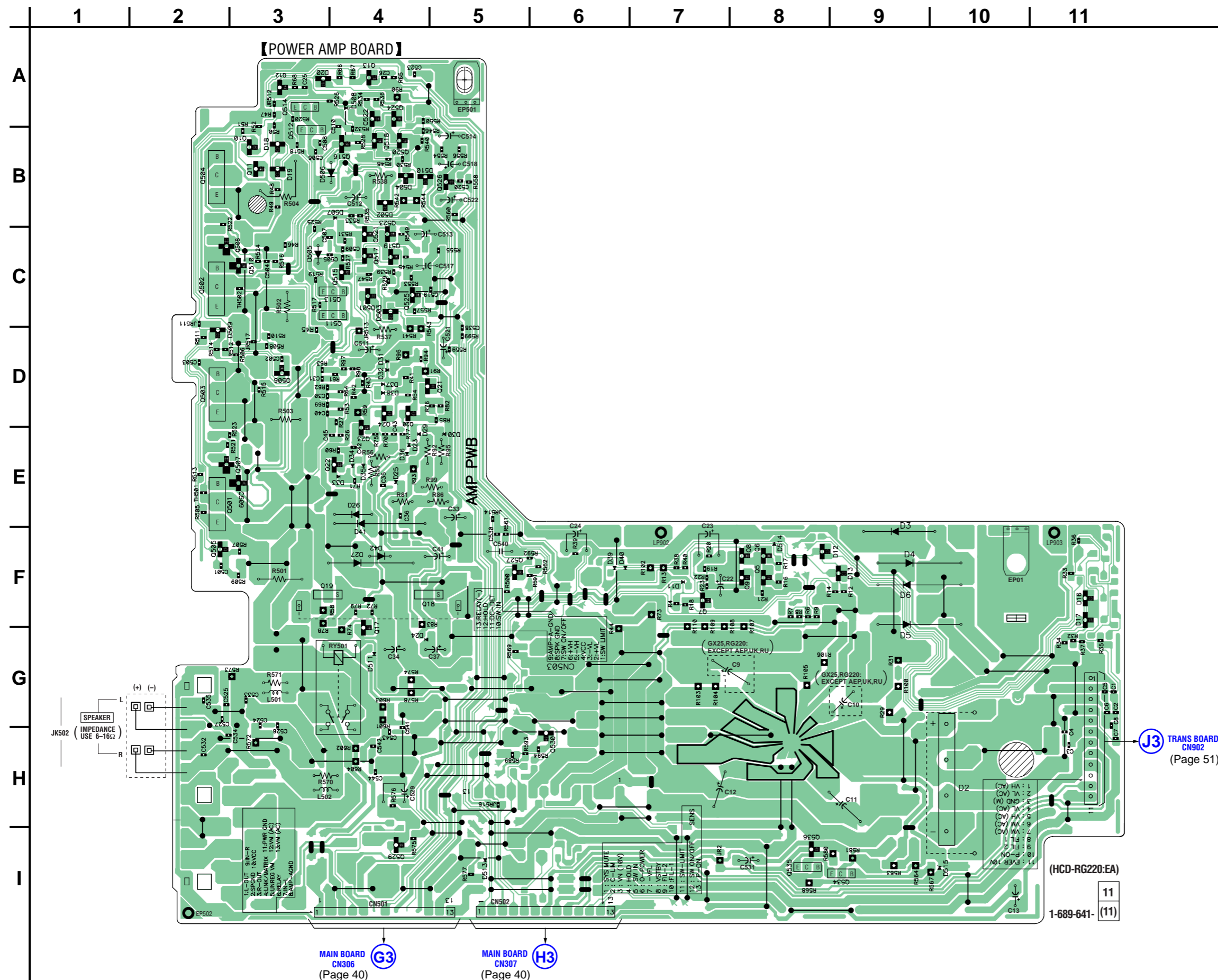
(HCD-RG220: AEP, UK, RU MODE)

1-688-696- 

 MAIN BOARD CN306 (Page 40)

 MAIN BOARD CN307 (Page 40)

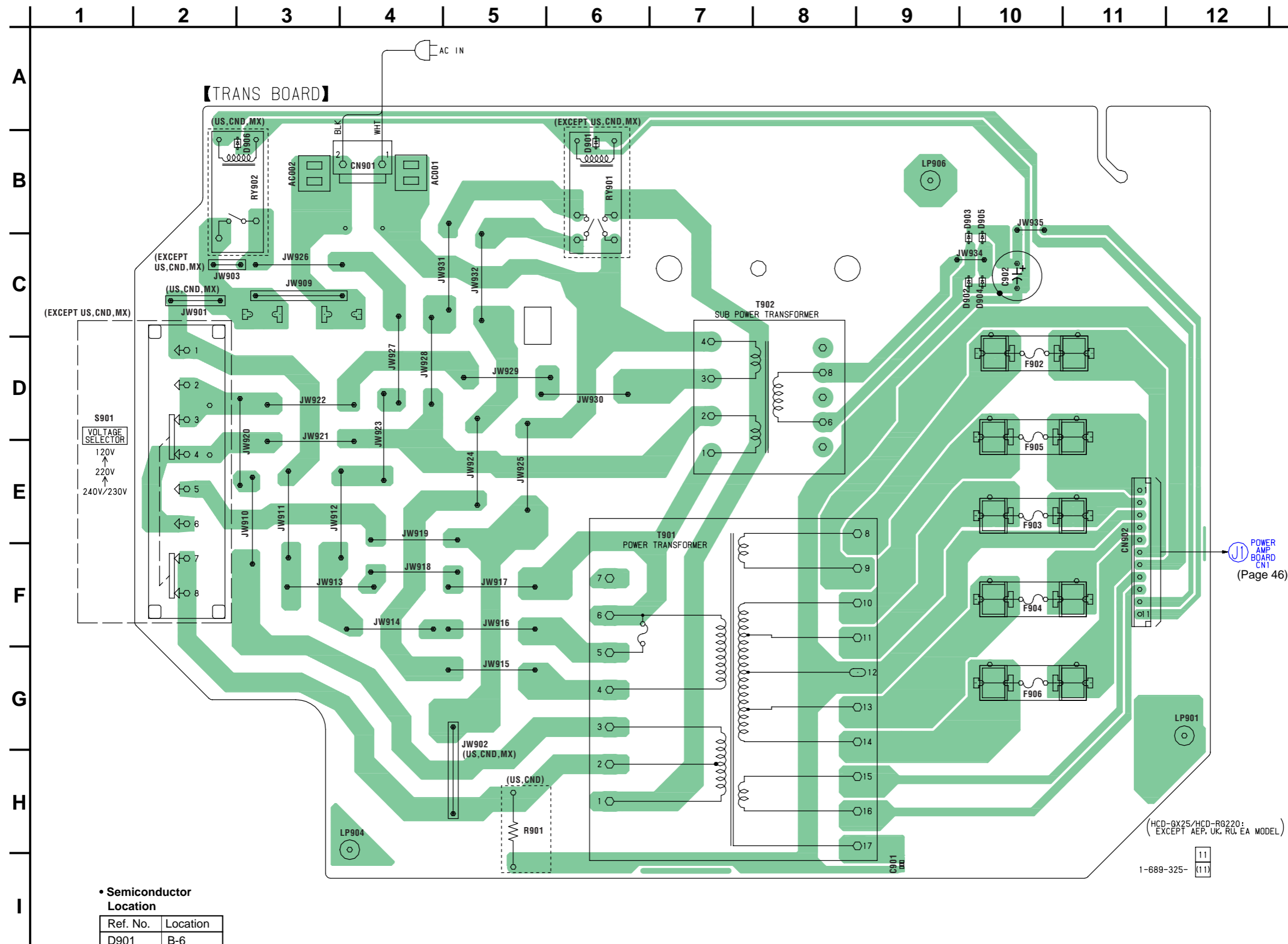
5-25. PRINTED WIRING BOARD — POWER AMP SECTION (HCD-RG220: EA MODEL) — • Refer to page 30 for Circuit Boards Location. **L** : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D2	H-10	Q6	F-8
D3	F-9	Q7	F-7
D4	F-9	Q8	F-8
D5	F-9	Q9	F-8
D6	F-9	Q10	B-3
D11	F-7	Q11	B-3
D12	F-8	Q12	A-3
D13	F-9	Q13	A-4
D16	F-11	Q17	G-4
D17	F-11	Q18	F-4
D18	B-3	Q19	F-3
D19	B-3	Q20	D-4
D20	A-3	Q21	D-5
D23	E-4	Q22	E-4
D24	G-4	Q23	E-4
D25	E-4	Q24	D-4
D26	E-4	Q501	E-2
D27	F-4	Q502	C-2
D29	E-4	Q503	D-2
D30	E-5	Q504	B-2
D31	D-4	Q505	F-2
D32	D-4	Q506	D-3
D33	E-4	Q507	E-3
D34	E-4	Q508	C-3
D35	E-4	Q509	E-3
D36	E-4	Q510	C-3
D37	D-4	Q511	C-4
D38	D-4	Q512	B-3
D39	F-6	Q513	C-4
D40	F-6	Q514	A-3
D41	F-4	Q515	C-4
D42	F-4	Q516	B-4
D501	C-4	Q517	C-4
D502	B-4	Q518	B-4
D503	C-4	Q519	C-4
D504	B-4	Q520	B-4
D505	C-3	Q521	C-4
D506	B-3	Q522	A-4
D507	B-4	Q523	C-4
D508	A-4	Q524	A-4
D509	D-2	Q525	C-4
D510	B-4	Q526	B-5
D511	G-4	Q527	F-5
D513	I-5	Q529	I-4
D514	F-8	Q530	H-6
D515	I-10	Q534	I-9
		Q535	I-8
Q5	F-8	Q536	I-8

5-26. PRINTED WIRING BOARD — TRANSFORMER SECTION (HCD-GX25/RG220: EXCEPT AEP, UK, RUSSIA, EA MODEL) — • Refer to page 30 for Circuit Boards Location.  : Uses unleaded solder.



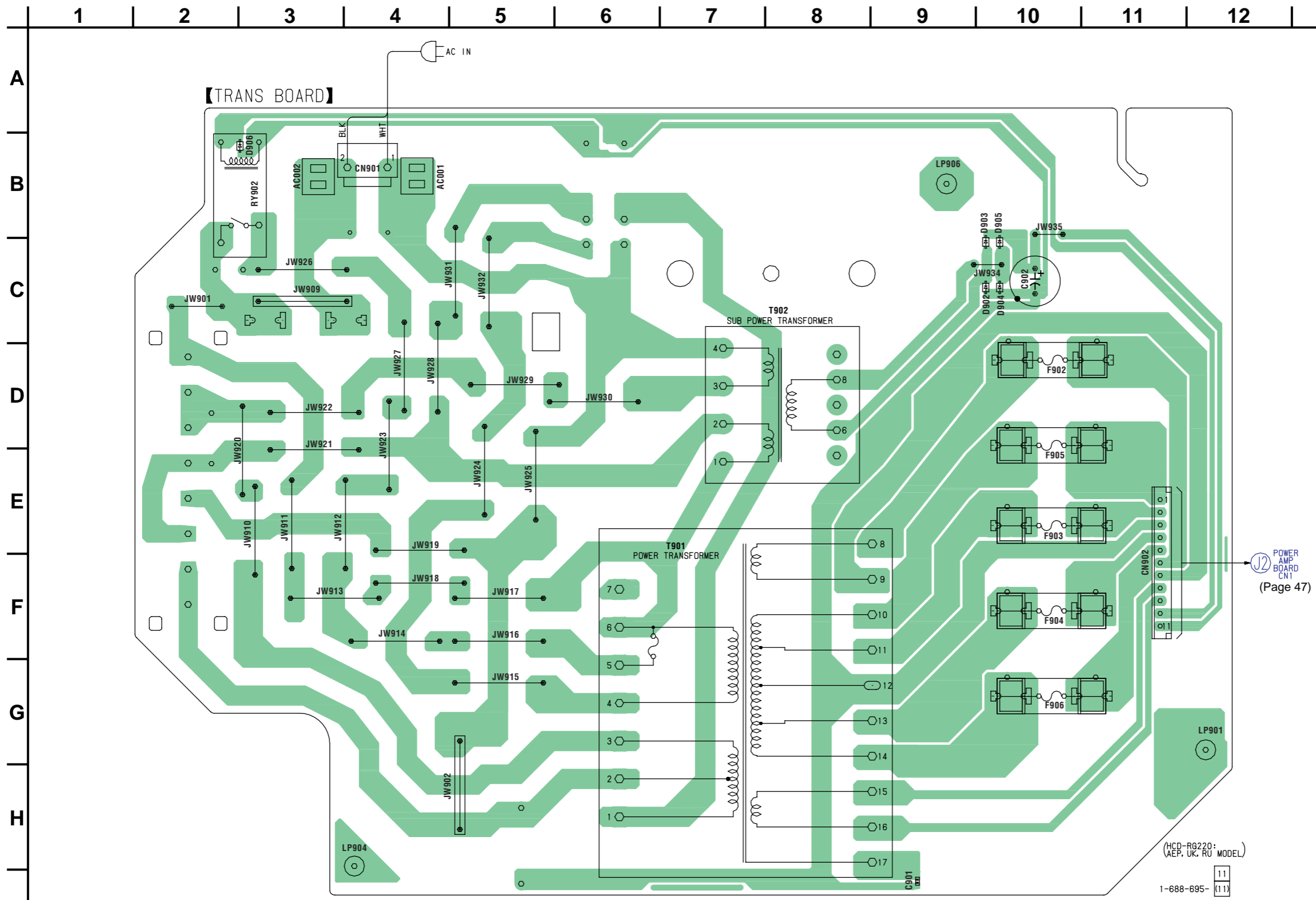
• Semiconductor Location

Ref. No.	Location
D901	B-6
D902	C-10
D903	C-10
D904	C-10
D905	C-10
D906	B-3

(HCD-GX25/HCD-RG220:
EXCEPT AEP, UK, RU, EA MODEL)
1-689-325-11
(11)

 POWER AMP BOARD CN1 (Page 46)

5-27. PRINTED WIRING BOARD — TRANSFORMER SECTION (HCD-RG220: AEP, UK, RUSSIA MODEL) — • Refer to page 30 for Circuit Boards Location. **LF** : Uses unleaded solder.

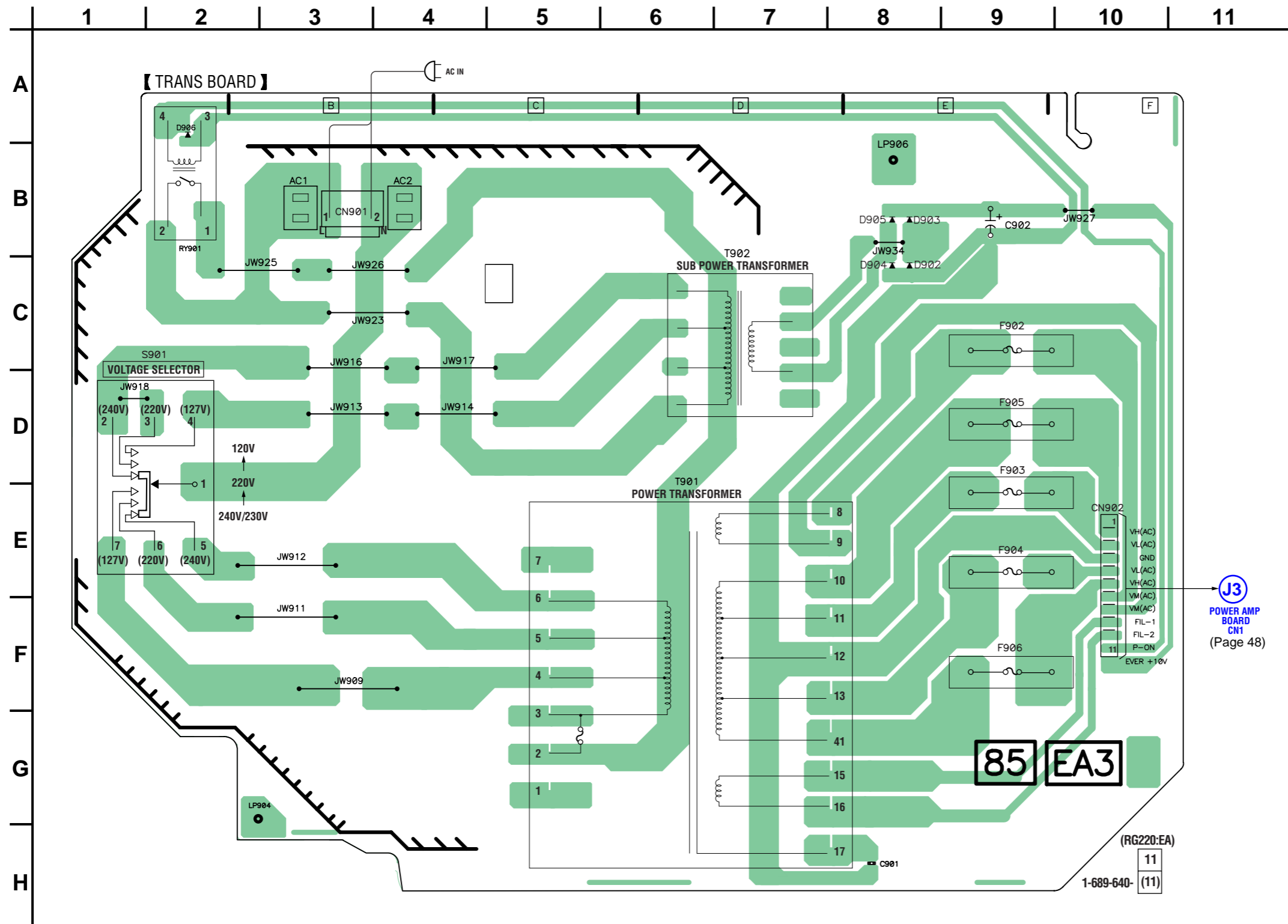


• Semiconductor Location

Ref. No.	Location
D902	C-10
D903	C-10
D904	C-10
D905	C-10
D906	B-3

(HCD-RG220:
AEP, UK, RU MODEL)
1-688-695-11
(11)

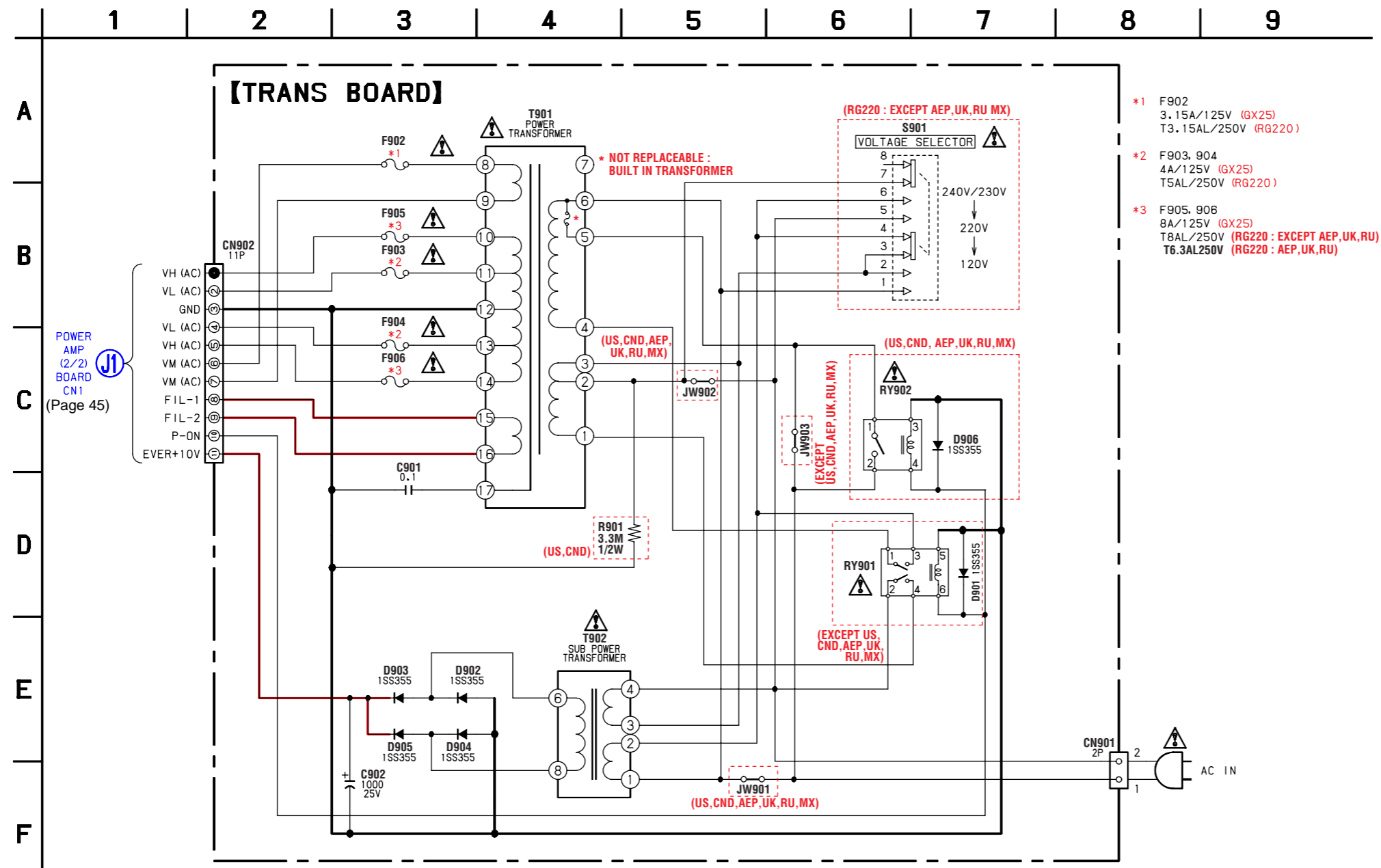
5-28. PRINTED WIRING BOARD — TRANSFORMER SECTION (HCD-RG220: EA MODEL) — • Refer to page 30 for Circuit Boards Location. **LF** : Uses unleaded solder.



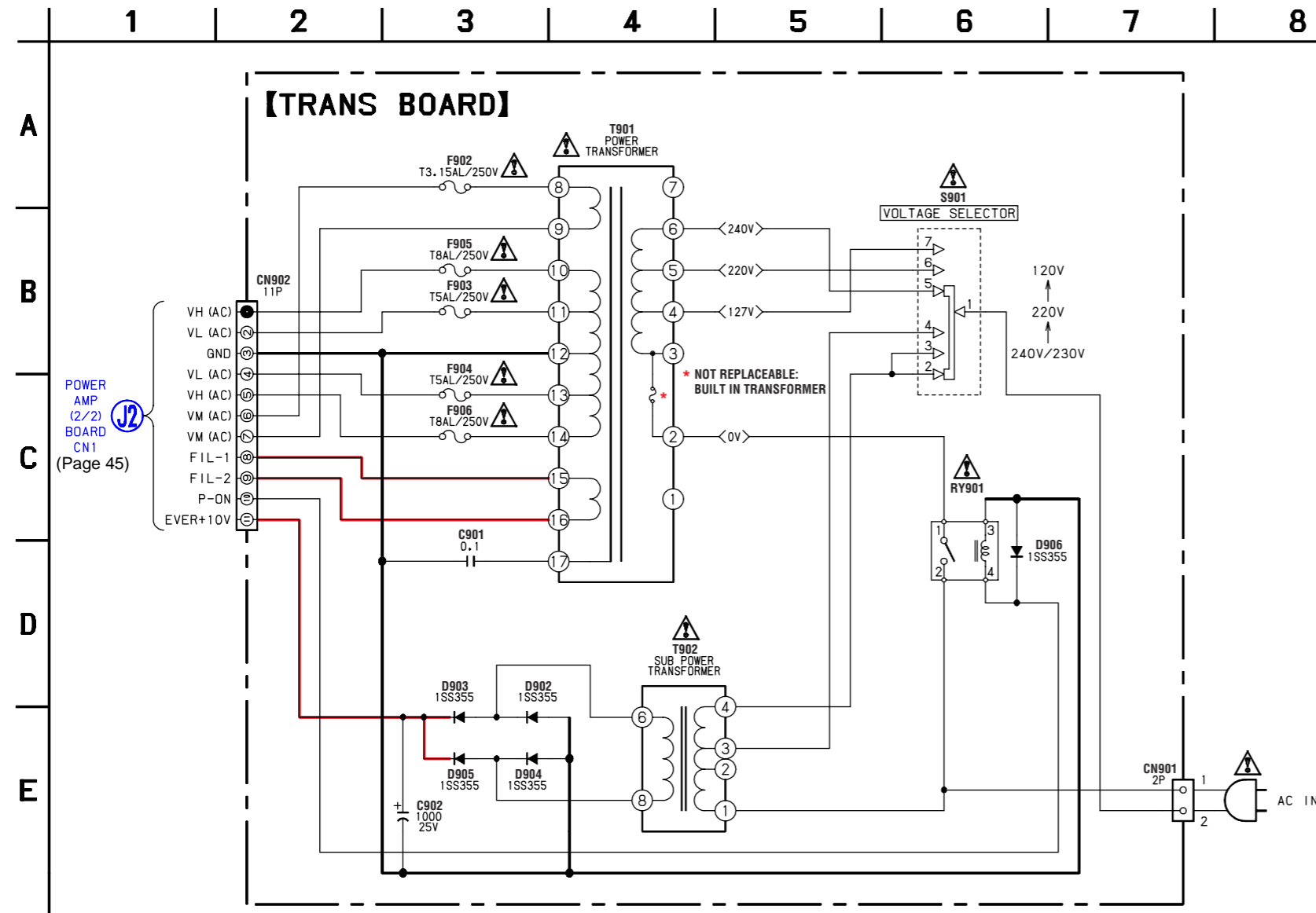
• Semiconductor Location

Ref. No.	Location
D902	C-8
D903	B-8
D904	C-8
D905	B-8
D906	A-2

5-29. SCHEMATIC DIAGRAM — TRANSFORMER SECTION (HCD-GX25/RG220: EXCEPT EA MODEL) —

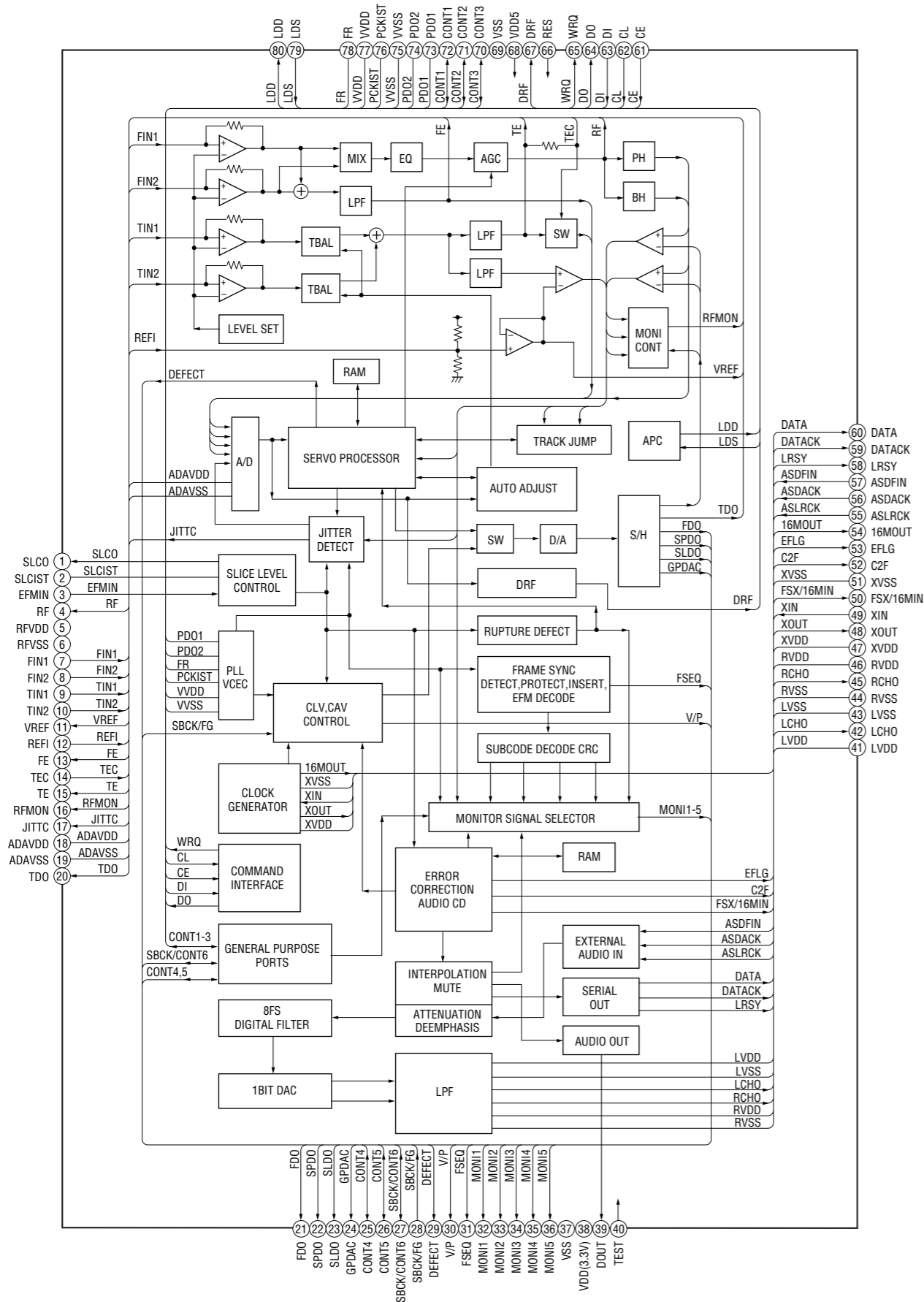


5-30. SCHEMATIC DIAGRAM — TRANSFORMER SECTION (HCD-RG220: EA MODEL) —

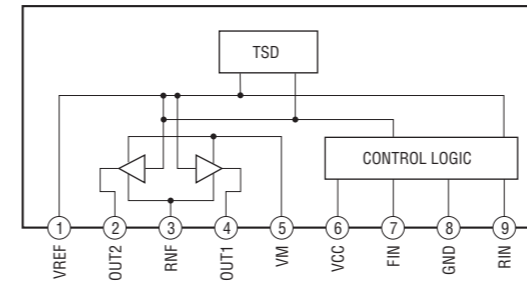


5-31. IC BLOCK DIAGRAMS

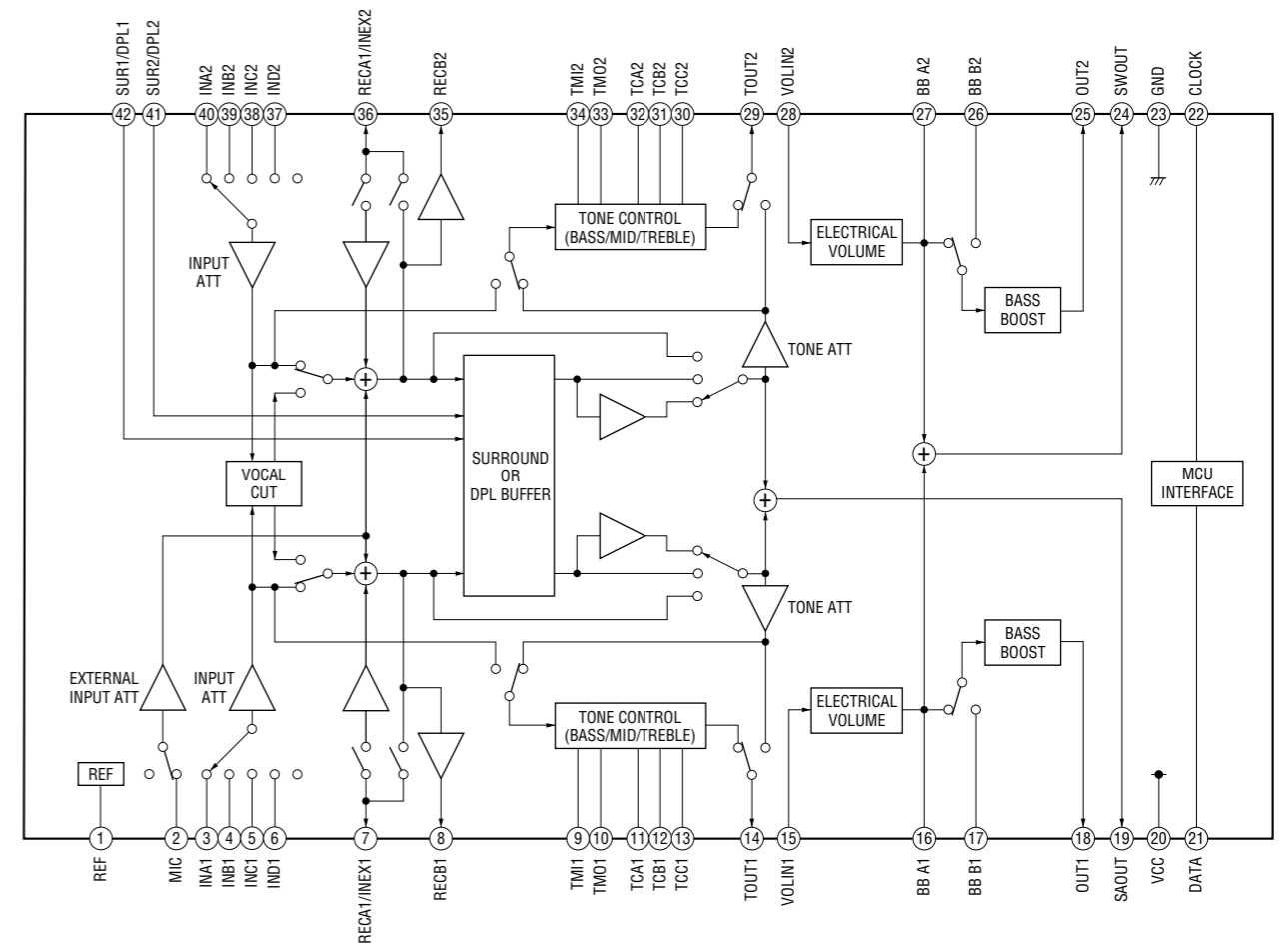
IC721 LC78646E-E (BD Board)



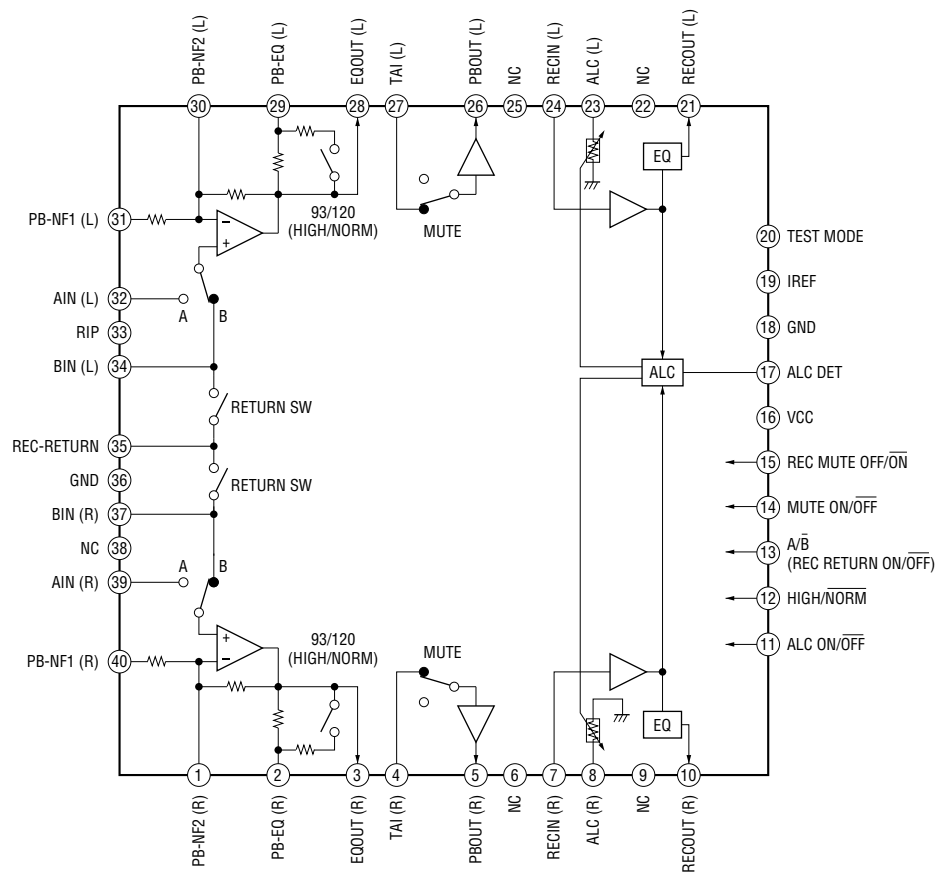
IC701, 712 BA6956AN (DRIVER Board)



IC301 M61529FP (MAIN Board)



IC201 HA12237F (MAIN Board)



SECTION 6
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- 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 this parts list.

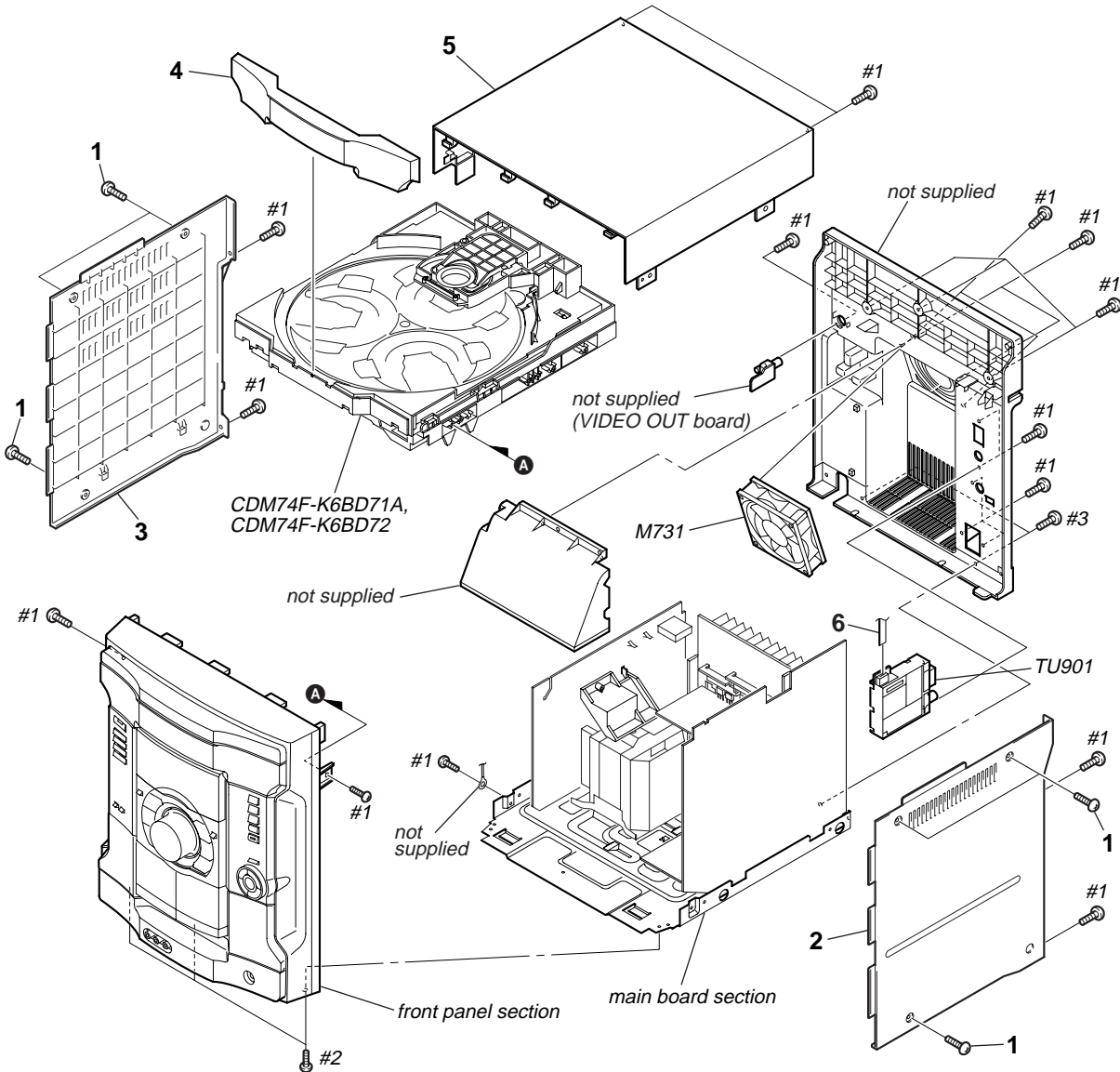
• Abbreviation

- CND : Canadian model
- E2 : 120 V AC Area in E model
- E3 : 240 V AC Area in E model
- E51 : 220 V AC Area in E model
- AUS : Australian model
- AR : Argentina model
- EA : Saudi Arabia model
- KR : Korea model
- MX : Mexican model
- RU : Russian model
- TW : Taiwan model

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

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

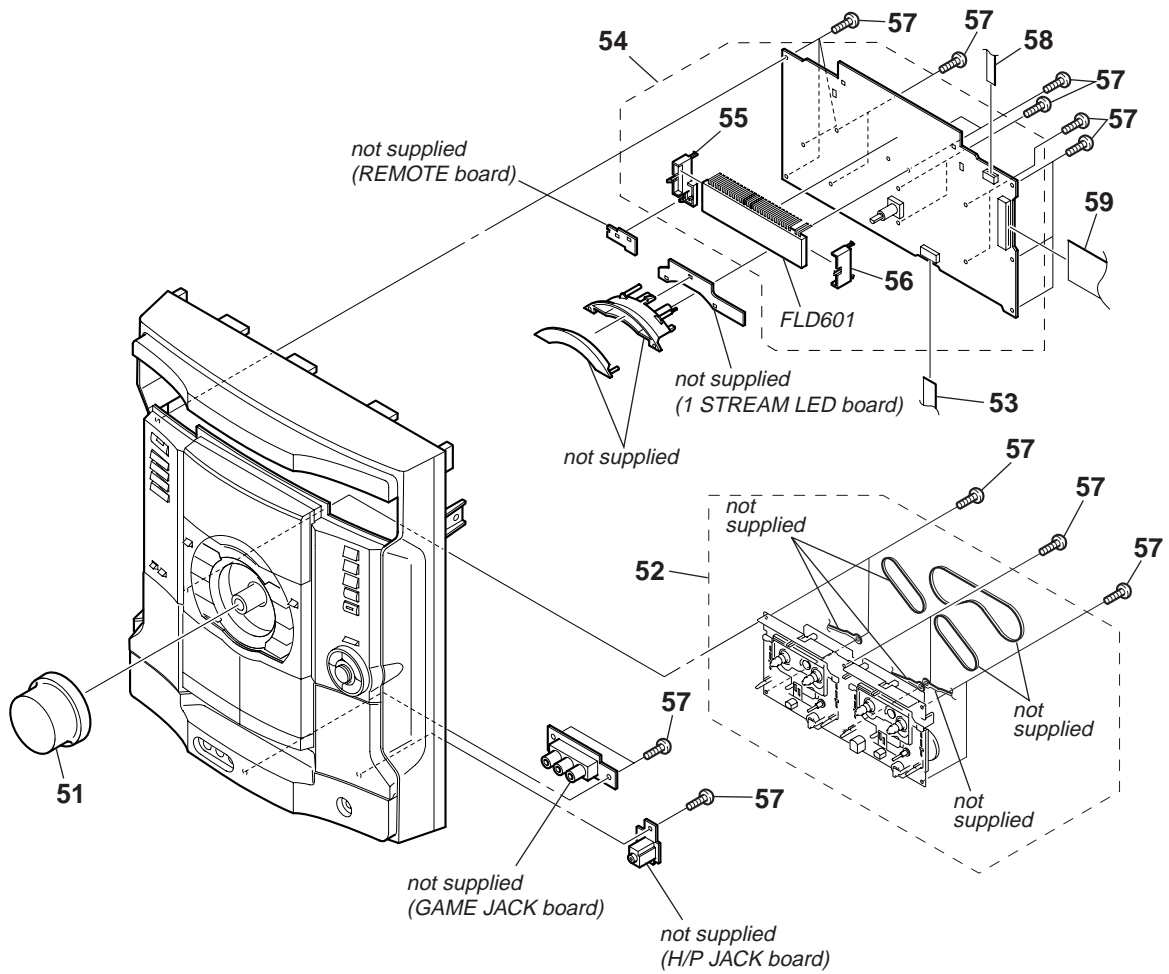
6-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	3-363-099-31	SCREW (CASE 3 TP2)	
2	4-245-184-21	CASE (SIDE-R) (EXCEPT AEP,UK,RU)	
2	4-245-184-31	CASE (SIDE-R) (AEP,UK,RU)	
3	4-245-183-21	CASE (SIDE-L) (EXCEPT AEP,UK,RU)	
3	4-245-183-31	CASE (SIDE-L) (AEP,UK,RU)	
4	4-244-662-01	CD DOOR (GX25)	
4	4-244-662-11	CD DOOR (RG220)	
5	4-244-849-01	CASE (TOP) (EXCEPT AEP,UK,RU)	
5	4-244-849-11	CASE (TOP) (AEP,UK,RU)	
6	1-769-939-11	WIRE (FLAT TYPE) (11 CORE) (EXCEPT AEP,UK)	
6	1-773-003-11	WIRE (FLAT TYPE) (15 CORE) (AEP,UK)	

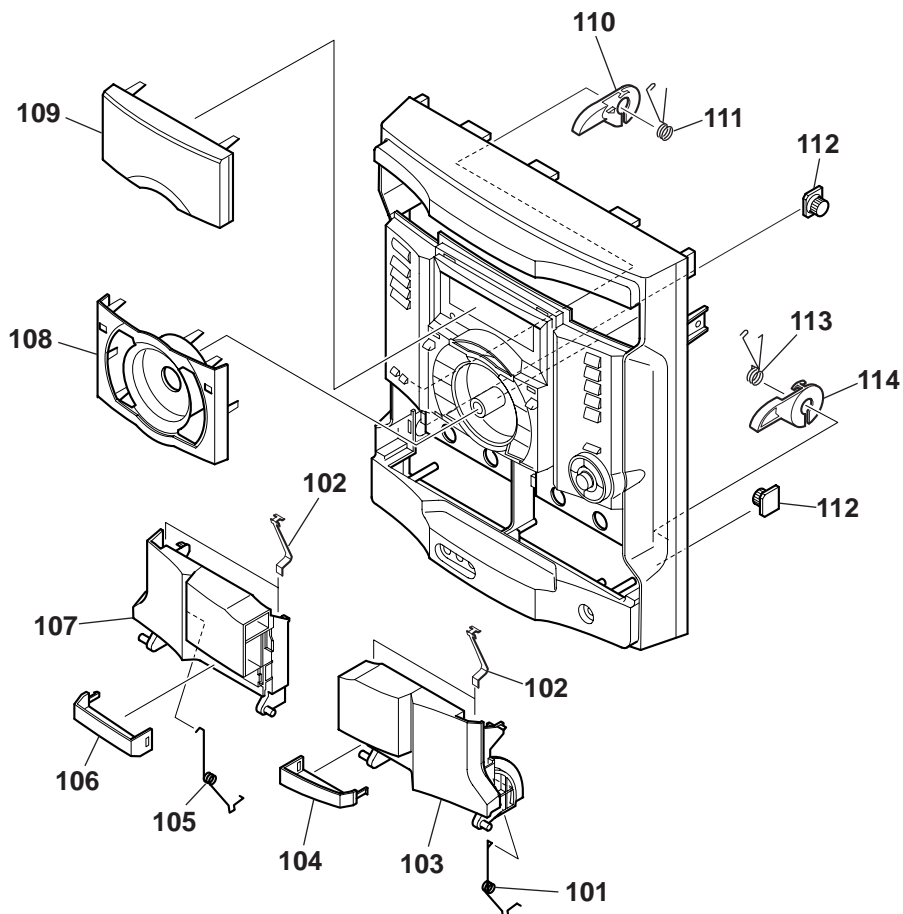
Ref. No.	Part No.	Description	Remark
M731	1-763-072-11	FAN, DC (RG220)	
TU901	1-693-625-11	TUNER PACK (FM/AM) (ANTENNA) (US,CND)	
TU901	1-693-626-11	TUNER PACK (FM/AM) (ANTENNA) (AEP,UK)	
TU901	1-693-627-11	TUNER PACK (FM/AM) (ANTENNA) (RU)	
TU901	1-693-628-11	TUNER PACK (FM/AM) (ANTENNA) (EXCEPT US,CND,AEP,UK,RU)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-872-09	SCREW +BVTT 3X8 (S)	

6-2. FRONT PANEL SECTION (1)



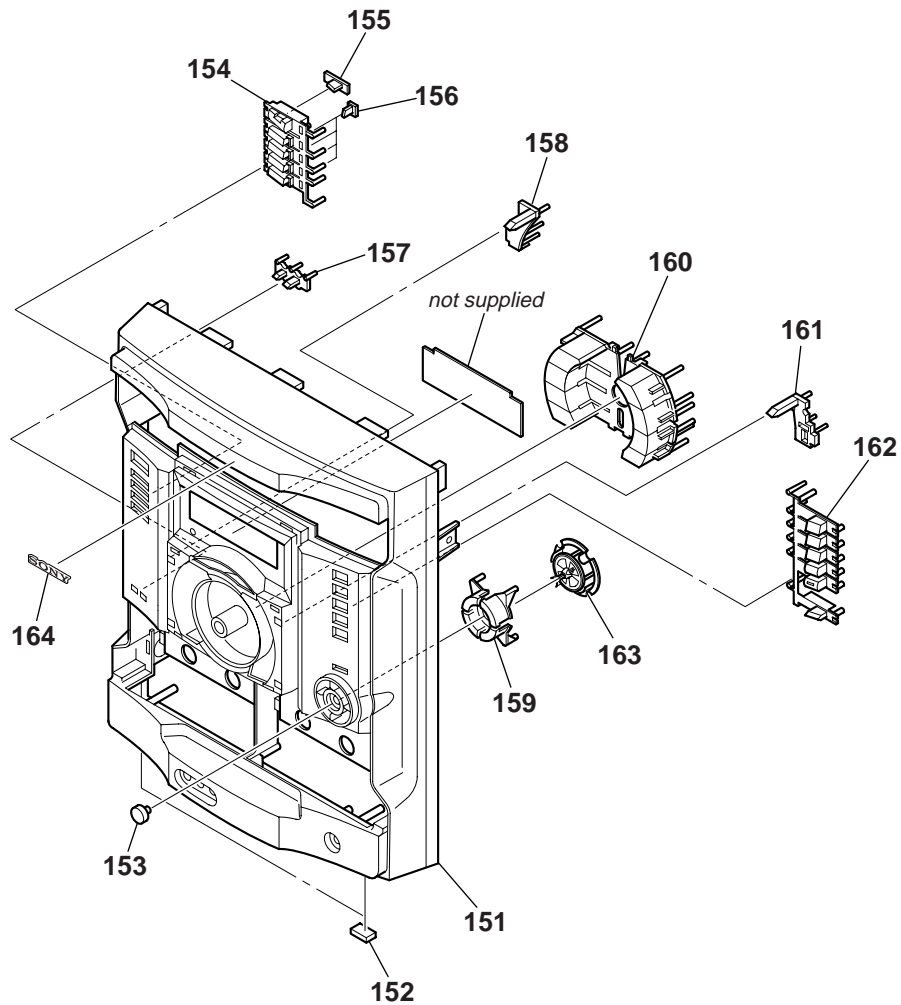
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-244-686-01	VOLUME KNOB		55	4-244-690-01	FL HOLDER (L)	
52	1-796-485-51	DECK, MECHANICAL		56	4-244-691-01	FL HOLDER (R)	
53	1-827-145-11	WIRE (FLAT TYPE) (13 CORE)		57	4-951-620-01	SCREW (2.6X8), +BVTP (EXCEPT AEP,UK,RU)	
54	A-4732-777-A	PANEL BOARD, COMPLETE (US,CND)		58	1-769-914-11	WIRE (FLAT TYPE) (9 CORE)	
54	A-4748-381-A	PANEL BOARD, COMPLETE (AEP,UK,RU)		59	1-773-322-11	WIRE (FLAT TYPE) (31 CORE)	
54	A-4748-476-A	PANEL BOARD, COMPLETE (EXCEPT US,CND,AEP,UK,RU)		FLD601	1-518-863-11	INDICATOR TUBE, FLUORESCENT	

6-3. FRONT PANEL SECTION (2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-244-701-01	CASS DOOR SPRING (B)		108	4-244-661-01	SUB PANEL	
102	4-238-631-01	TAPE SPRING		109	4-244-669-01	DISPLAY WINDOW	
103	4-244-666-01	CASS DOOR (R)		110	4-231-824-01	CAM (A), HEART	
104	4-244-668-01	CASS WINDOW (R)		111	4-231-836-01	SPRING (HEART CAM-A)	
105	4-244-700-01	CASS DOOR SPRING (A)		112	4-224-104-41	DAMPER	
106	4-244-667-01	CASS WINDOW (L)		113	4-231-841-01	SPRING (HEART CAM-B)	
107	4-244-663-01	CASS DOOR (L)		114	4-231-825-01	CAM (B), HEART	

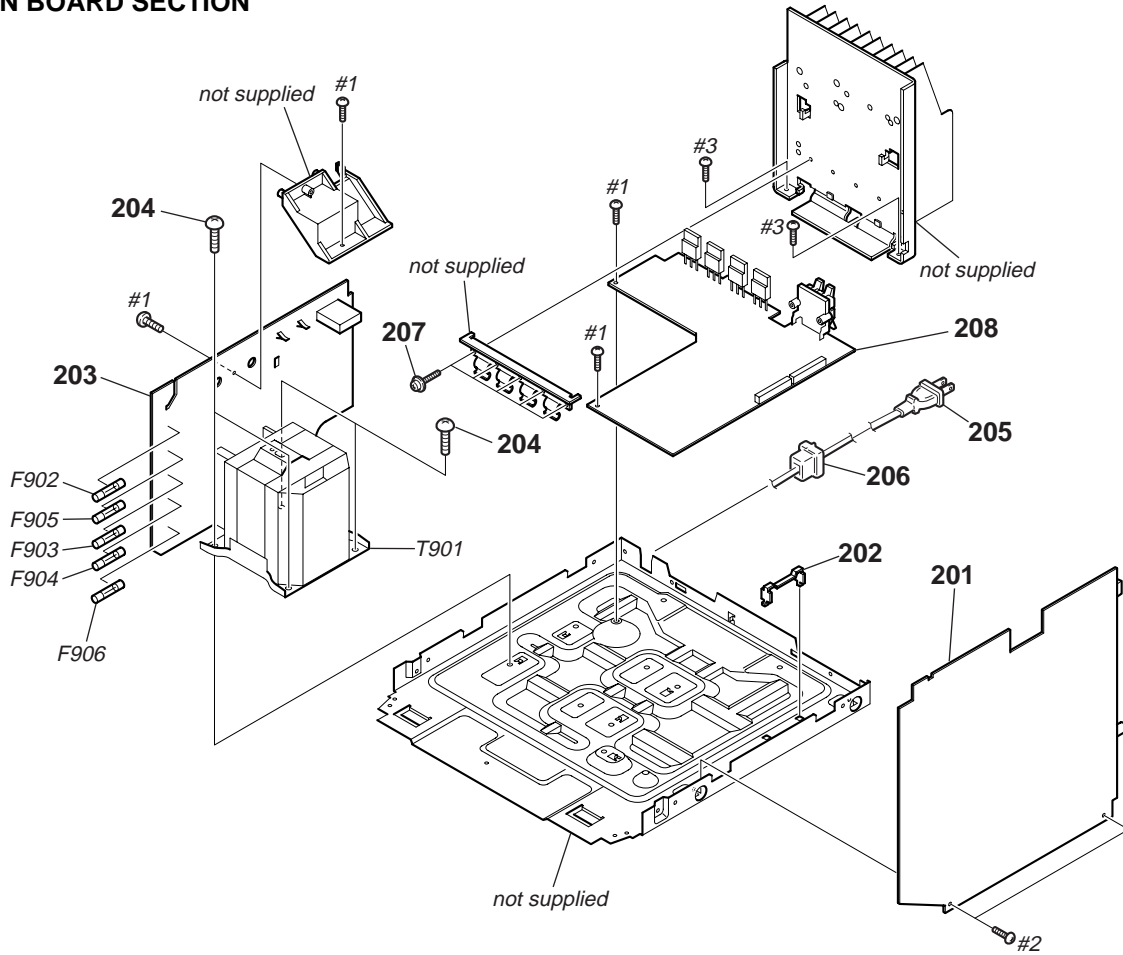
6-4. FRONT PANEL SECTION (3)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-244-660-01	FRONT PANEL (US,CND)		157	4-244-683-01	RECORD BUTTON (A)	
151	4-244-660-11	FRONT PANEL (AEP,UK,RU)		158	4-246-086-01	DISPLAY BUTTON (A)	
151	4-244-660-21	FRONT PANEL (EXCEPT US,CND,AEP,UK,RU)		159	4-244-684-01	EQ BUTTON	
152	4-225-252-01	CUSHION (FOOT) (AEP,UK,RU)		160	4-244-682-01	CONTROL BUTTON (A) (EXCEPT AEP,UK,RU)	
152	4-233-980-01	RUBBER (FOOT) (EXCEPT AEP,UK,RU)		160	4-244-906-01	CONTROL BUTTON (B) (AEP,UK,RU)	
153	4-244-680-01	GAME MIXING BUTTON		161	4-246-087-01	PAUSE BUTTON (A)	
154	4-244-676-01	FUNCTION BUTTON		162	4-244-679-01	DISC BUTTON	
155	4-244-677-01	POWER LENS		163	4-244-687-01	GAME MIXING HOLDER	
156	4-244-678-01	FUNCTION LENS		164	3-038-018-01	EMBLEM, SONY	

HCD-GX25/RG220

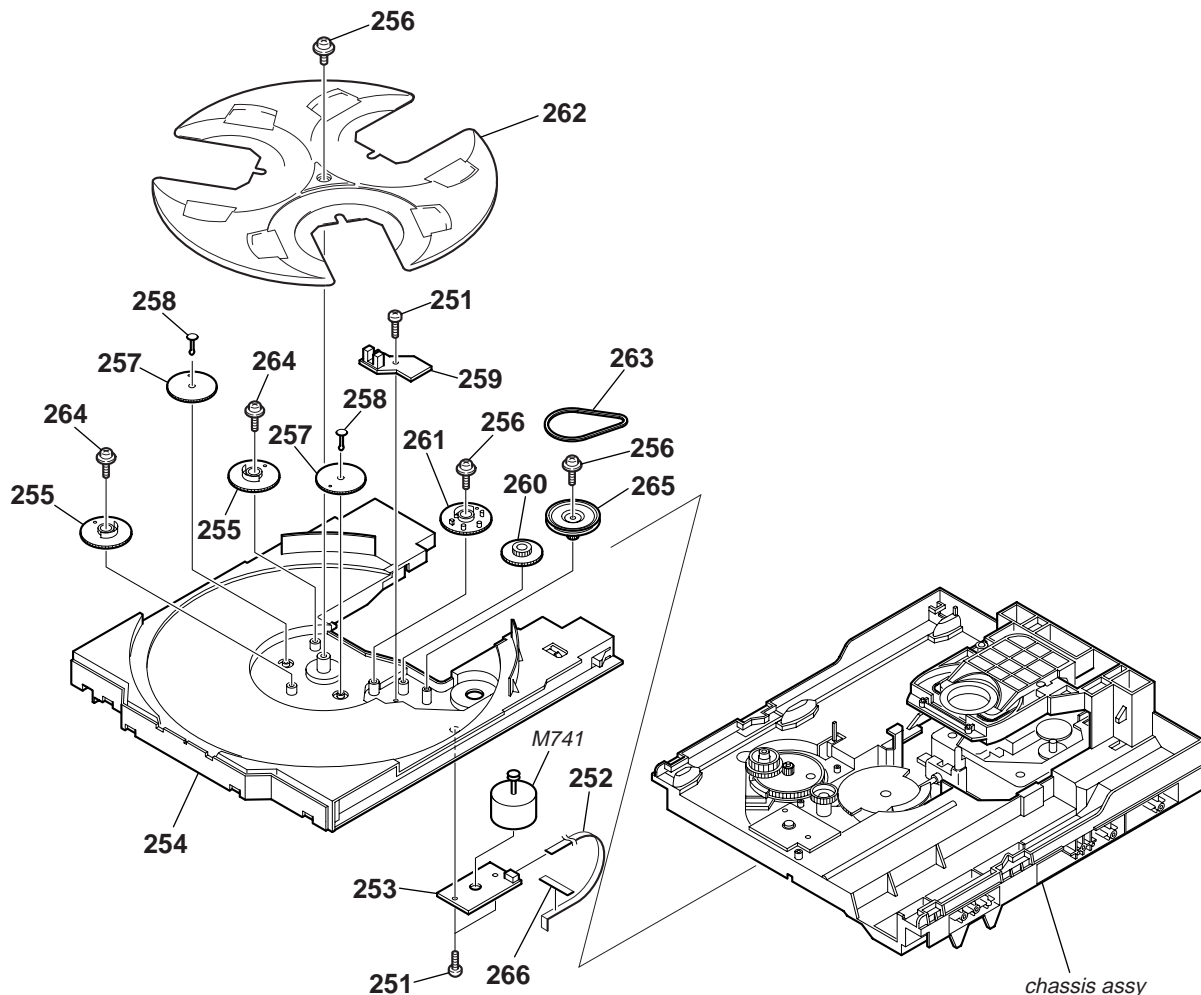
6-5. MAIN BOARD SECTION



<p>The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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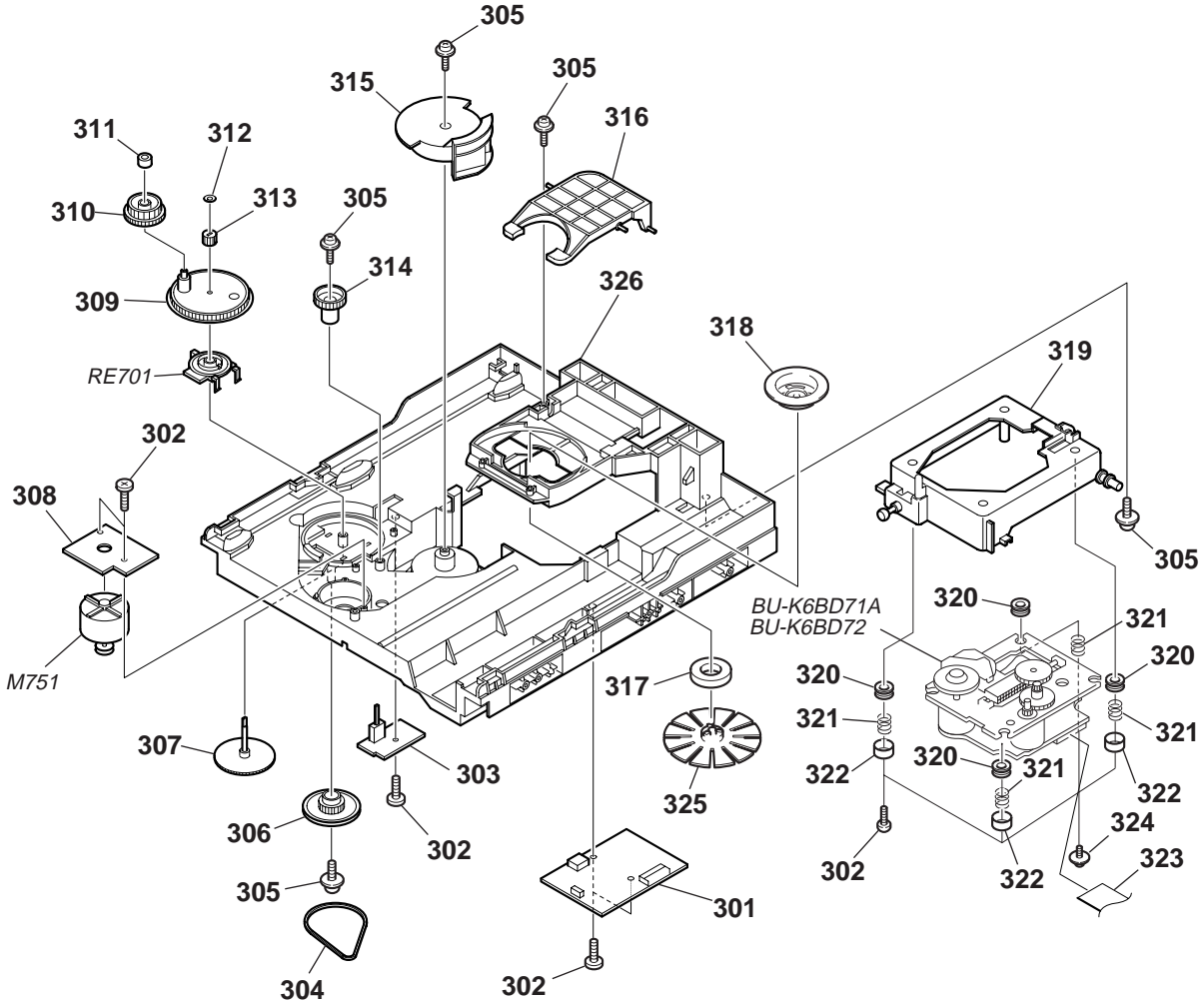
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	A-4732-773-A	MAIN BOARD, COMPLETE (GX25)		\triangle F903	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V) (GX25)	
201	A-4748-386-A	MAIN BOARD, COMPLETE (AEP,UK)		\triangle F903	1-533-472-12	FUSE, GLASS TUBE (DIA.5) (T5AL/250V)	(RG220)
201	A-4748-471-A	MAIN BOARD, COMPLETE (RU)		\triangle F904	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V) (GX25)	
201	A-4748-473-A	MAIN BOARD, COMPLETE (RG220:EXCEPT AEP,UK,RU)		\triangle F904	1-533-472-12	FUSE, GLASS TUBE (DIA.5) (T5AL/250V)	(RG220)
202	4-988-533-01	HOLDER, PWB		\triangle F905	1-533-473-12	FUSE, GLASS TUBE (DIA.5) (T6.3AL/250V)	(AEP,UK,RU)
203	1-688-088-11	TRANS BOARD (GX25)		\triangle F905	1-576-537-12	FUSE, GLASS TUBE (DIA.5) (8A/125V) (GX25)	
203	1-688-695-11	TRANS BOARD (RG220:EXCEPT EA)		\triangle F905	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V)	(RG220:EXCEPT AEP,UK,RU)
203	1-689-640-11	TRANS BOARD (EA)		\triangle F906	1-533-473-12	FUSE, GLASS TUBE (DIA.5) (T6.3AL/250V)	(AEP,UK,RU)
204	4-242-527-01	S-SCREW, ITC+4-8 R		\triangle F906	1-576-537-12	FUSE, GLASS TUBE (DIA.5) (8A/125V) (GX25)	
\triangle 205	1-690-608-11	CORD, POWER (AUS)		\triangle F906	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V)	(RG220:EXCEPT AEP,UK,RU)
\triangle 205	1-769-079-22	CORD, POWER (KR)		\triangle T901	1-439-805-11	TRANSFORMER, POWER (US,CND)	
\triangle 205	1-777-071-83	CORD, POWER (AEP,UK,RU,EA)		\triangle T901	1-439-806-11	TRANSFORMER, POWER (AEP,UK,RU)	
\triangle 205	1-783-532-11	CORD, POWER (US,CND)		\triangle T901	1-439-807-11	TRANSFORMER, POWER (E2,E3,E51,AUS,AR,KR,TW)	
\triangle 205	1-783-941-22	CORD, POWER (AR)		\triangle T901	1-439-857-11	TRANSFORMER, POWER (MX)	
\triangle 205	1-791-901-12	CORD, POWER (E2,E3,E51,TW)		\triangle T901	1-439-999-11	TRANSFORMER, POWER (EA)	
\triangle 205	1-827-226-11	CORD, POWER (MX)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
206	3-703-571-11	BUSHING (S) (4516), CORD (E2,E3,MX)		#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
* 206	3-703-244-00	BUSHING (2104), CORD (EXCEPT E2,E3,MX)		#3	7-685-872-09	SCREW +BVTT 3X8 (S)	
207	3-905-609-01	SCREW (TRANSISTOR)					
208	A-4732-781-A	POWER AMP BOARD, COMPLETE (GX25)					
208	A-4748-384-A	POWER AMP BOARD, COMPLETE (AEP,UK,RU)					
208	A-4748-479-A	POWER AMP BOARD, COMPLETE (RG220:EXCEPT AEP,UK,RU)					
\triangle F902	1-533-451-12	FUSE, GLASS TUBE (DIA.5) (3.15A/125V) (GX25)					
\triangle F902	1-533-470-12	FUSE, GLASS TUBE (DIA.5) (T3.15AL/250V) (RG220)					

6-6. CD MECHANISM DECK SECTION (1)
(CDM74F-K6BD71A) (AEP, UK, RU MODEL)
(CDM74F-K6BD72) (EXCEPT AEP, UK, RU MODEL)



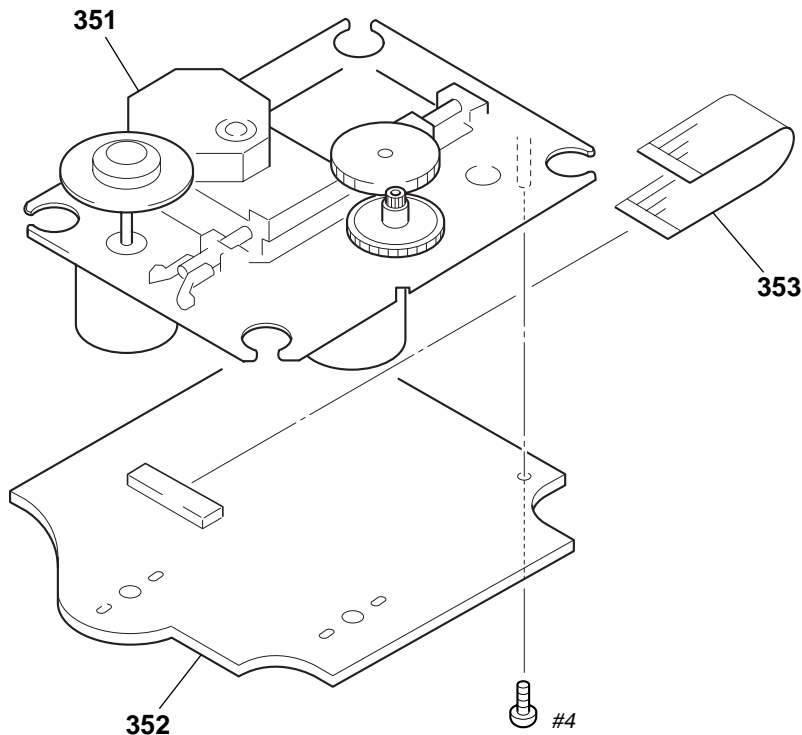
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-218-253-21	SCREW (M2.6), +BTTP		260	4-243-820-01	GEAR (TABLE)	
252	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)		261	4-243-819-01	GEAR (GENEVA)	
253	1-687-134-11	MOTOR (TB) BOARD		262	4-243-816-01	TRAY	
254	4-243-815-01	TABLE (LOADING)		263	4-243-823-01	BELT (TABLE)	
255	4-245-571-02	GEAR (STOPPER)		264	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
256	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING		265	4-243-821-01	PULLEY (TABLE)	
257	4-245-570-01	GEAR (JOINT)		266	3-231-598-01	SHEET (BA)	
258	4-245-572-01	BUSHING (GEAR)		M741	A-4723-963-A	MOTOR ASSY, TABLE (TABLE)	
259	1-687-132-11	SENSOR BOARD					

6-7. CD MECHANISM DECK SECTION (2)
 (CDM74F-K6BD71A) (AEP, UK, RU MODEL)
 (CDM74F-K6BD72) (EXCEPT AEP, UK, RU MODEL)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	1-687-135-11	DRIVER BOARD		316	4-243-822-01	LEVER (LIFTER)	
302	4-218-253-31	SCREW (M2.6), +BTTP		317	1-471-035-11	MAGNET ASSY	
303	1-687-669-11	SW BOARD		318	4-231-189-01	PULLEY (B), CHUCKING	
304	4-244-034-01	BELT (LOADING)		319	X-4955-536-1	HOLDER (213) ASSY	
305	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING		320	4-227-549-11	INSULATOR	
306	4-225-844-01	GEAR (LOADING A)		321	4-227-045-31	SPRING (INSULATOR), COIL	
307	4-224-613-01	GEAR (SHAFT)		322	4-231-151-01	STOPPER (BU)	
308	1-687-133-11	MOTOR (LD) BOARD		323	1-827-146-11	WIRE (FLAT TYPE) (19 CORE)	
309	4-244-108-01	GEAR, SWING		324	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
310	4-224-609-01	GEAR (LOADING C)		325	X-4955-707-1	PULLEY (A5) ASSY, CHUCKING	
311	4-224-608-01	COLLAR, SWING		326	4-243-817-01	CHASSIS	
312	3-016-533-11	WASHER (FR), STOPPER		M751	A-4736-655-A	MOTOR ASSY, LOADING (LOADING)	
313	4-224-611-01	GEAR (LOADING B)		RE701	1-477-680-11	ENCODER, ROTARY	(DISC TRAY ADDRESS DETECT)
314	4-224-606-01	GEAR (RV)					
315	4-243-818-01	GEAR (U/D)					

6-8. BASE UNIT SECTION
(BU-K6BD71A) (AEP, UK, RU MODEL)
(BU-K6BD72) (EXCEPT AEP, UK, RU MODEL)



<p>The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
\triangle 351	A-4735-357-A	BASE ASSY, OP		353	1-823-859-11	WIRE (FLAT TYPE) (16 CORE)	
352	A-4732-699-A	BD BOARD, COMPLETE (AEP,UK,RU)		#4	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
352	A-4734-406-A	BD BOARD, COMPLETE (EXCEPT AEP,UK,RU)					

SECTION 7
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.
- 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
CND : Canadian model
E2 : 120 V AC Area in E model
E3 : 240 V AC Area in E model
E51 : 220 V AC Area in E model
AUS : Australian model
AR : Argentina model
EA : Saudi Arabia model
KR : Korea model
MX : Mexican model
RU : Russian model
TW : Taiwan model

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

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4732-699-A	BD BOARD, COMPLETE (AEP,UK,RU)		C729	1-126-934-11	ELECT CHIP 220uF 20% 10V	(EXCEPT AEP,UK,RU)
	A-4734-406-A	BD BOARD, COMPLETE (EXCEPT AEP,UK,RU)		C729	1-128-360-11	ELECT CHIP 220uF 20% 10V	(AEP,UK,RU)
		*****		C731	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
		< CAPACITOR >		C732	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C701	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C733	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C702	1-124-584-00	ELECT 100uF	20% 10V	C734	1-162-917-11	CERAMIC CHIP 15PF 5% 50V	
			(EXCEPT AEP,UK,RU)	C735	1-162-918-11	CERAMIC CHIP 18PF 5% 50V	
C702	1-126-392-11	ELECT CHIP 100uF	20% 6.3V	C741	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
			(AEP,UK,RU)	C742	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C703	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C743	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V	
C704	1-124-589-11	ELECT 47uF	20% 16V				
			(EXCEPT AEP,UK,RU)	C744	1-125-837-11	CERAMIC CHIP 1uF 10% 6.3V	
C704	1-126-391-11	ELECT CHIP 47uF	20% 6.3V	C745	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	(EXCEPT AEP,UK,RU)
			(AEP,UK,RU)	C746	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C705	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C747	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C706	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C748	1-126-934-11	ELECT CHIP 220uF 20% 10V	(EXCEPT AEP,UK,RU)
C707	1-124-584-00	ELECT 100uF	20% 10V				
			(EXCEPT AEP,UK,RU)	C748	1-128-360-11	ELECT CHIP 220uF 20% 10V	(AEP,UK,RU)
C707	1-126-392-11	ELECT CHIP 100uF	20% 6.3V				
			(AEP,UK,RU)	C750	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	(EXCEPT AEP,UK,RU)
C708	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C751	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	(EXCEPT AEP,UK,RU)
C709	1-124-584-00	ELECT 100uF	20% 10V				
			(EXCEPT AEP,UK,RU)	C752	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	(EXCEPT AEP,UK,RU)
C709	1-126-392-11	ELECT CHIP 100uF	20% 6.3V				
			(AEP,UK,RU)	C753	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	
C710	1-165-176-11	CERAMIC CHIP 0.047uF	10% 16V				
C711	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C754	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	
				C756	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	
C712	1-162-949-11	CERAMIC CHIP 47PF	5% 50V	C802	1-164-156-11	CERAMIC CHIP 0.1uF 25V	(AEP,UK,RU)
C713	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V				
C714	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C803	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	(AEP,UK,RU)
C715	1-126-160-11	ELECT CHIP 1uF	20% 50V				
			(EXCEPT AEP,UK,RU)	C804	1-162-945-11	CERAMIC CHIP 22PF 5% 50V	(AEP,UK,RU)
C715	1-126-401-21	ELECT CHIP 1uF	20% 50V				
			(AEP,UK,RU)				
C716	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C805	1-126-392-11	ELECT CHIP 100uF 20% 6.3V	(AEP,UK,RU)
C717	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V				
C718	1-115-156-11	CERAMIC CHIP 1uF	10V	C806	1-164-156-11	CERAMIC CHIP 0.1uF 25V	(AEP,UK,RU)
C719	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V				
C720	1-162-953-11	CERAMIC CHIP 100PF	5% 50V	C807	1-126-392-11	ELECT CHIP 100uF 20% 6.3V	(AEP,UK,RU)
C721	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C810	1-164-156-11	CERAMIC CHIP 0.1uF 25V	(AEP,UK,RU)
C722	1-164-156-11	CERAMIC CHIP 0.1uF	25V				
C723	1-124-584-00	ELECT 100uF	20% 10V	C811	1-164-156-11	CERAMIC CHIP 0.1uF 25V	(AEP,UK,RU)
			(EXCEPT AEP,UK,RU)				
C723	1-126-392-11	ELECT CHIP 100uF	20% 6.3V				
			(AEP,UK,RU)				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C812	1-115-156-11	CERAMIC CHIP	1uF 10V (AEP,UK,RU)	FB806	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)	
C813	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)	FB807	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)	
C814	1-126-392-11	ELECT CHIP	100uF 20% 6.3V (AEP,UK,RU)	FB808	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)	
C815	1-128-360-11	ELECT CHIP	220uF 20% 10V (AEP,UK,RU)	IC721	6-701-796-01	IC LC78646E-E	
C816	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)	IC722	6-704-220-01	IC BA5836FP	
C817	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)	IC801	6-704-008-01	IC LC78684E-E (AEP,UK,RU)	
C823	1-162-949-11	CERAMIC CHIP	47PF 5% 50V (AEP,UK,RU)	IC802	6-704-009-01	IC LC32V4265CT-25-MPB-E (AEP,UK,RU)	
C824	1-162-949-11	CERAMIC CHIP	47PF 5% 50V (AEP,UK,RU)	IC803	6-704-007-01	IC MM1571J (AEP,UK,RU)	
C825	1-162-949-11	CERAMIC CHIP	47PF 5% 50V (AEP,UK,RU)			< IC >	
C829	1-162-949-11	CERAMIC CHIP	47PF 5% 50V (AEP,UK,RU)			< TRANSISTOR >	
C830	1-162-945-11	CERAMIC CHIP	22PF 5% 50V (AEP,UK,RU)	Q701	8-729-054-57	TRANSISTOR KTN2907AS-RTK	
C831	1-162-945-11	CERAMIC CHIP	22PF 5% 50V (AEP,UK,RU)			< RESISTOR >	
C834	1-128-360-11	ELECT CHIP	220uF 20% 10V (AEP,UK,RU)	R701	1-216-841-11	METAL CHIP 47K 5% 1/10W	
C835	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)	R702	1-216-835-11	METAL CHIP 15K 5% 1/10W	
C837	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)	R703	1-216-835-11	METAL CHIP 15K 5% 1/10W	
C843	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)	R704	1-216-835-11	METAL CHIP 15K 5% 1/10W	
C844	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)	R705	1-216-835-11	METAL CHIP 15K 5% 1/10W	
C856	1-115-156-11	CERAMIC CHIP	1uF 10V (AEP,UK,RU)	R706	1-216-841-11	METAL CHIP 47K 5% 1/10W	
C857	1-162-945-11	CERAMIC CHIP	22PF 5% 50V (AEP,UK,RU)	R707	1-216-797-11	METAL CHIP 10 5% 1/10W	
C858	1-162-945-11	CERAMIC CHIP	22PF 5% 50V (AEP,UK,RU)	R708	1-216-833-11	METAL CHIP 10K 5% 1/10W	
C859	1-162-945-11	CERAMIC CHIP	22PF 5% 50V (AEP,UK,RU)	R709	1-216-838-11	METAL CHIP 27K 5% 1/10W	
C860	1-162-953-11	CERAMIC CHIP	100PF 5% 50V (AEP,UK,RU)	R711	1-216-815-11	METAL CHIP 330 5% 1/10W	
		< CONNECTOR >		R713	1-216-821-11	METAL CHIP 1K 5% 1/10W	
CN708	1-793-907-11	CONNECTOR, FFC/FPC 16P (EXCEPT AEP,UK,RU)		R714	1-216-809-11	METAL CHIP 100 5% 1/10W	
CN708	1-817-244-11	CONNECTOR, FFC 16P (AEP,UK,RU)		R715	1-216-809-11	METAL CHIP 100 5% 1/10W	
CN710	1-778-874-11	CONNECTOR, FFC (LIF(NON-ZIF)) 19P (AEP,UK,RU)		R716	1-216-809-11	METAL CHIP 100 5% 1/10W	
CN710	1-784-741-11	CONNECTOR, FFC 19P (EXCEPT AEP,UK,RU)		R717	1-216-809-11	METAL CHIP 100 5% 1/10W	
		< FERRITE BEAD >		R718	1-216-809-11	METAL CHIP 100 5% 1/10W	
FB701	1-550-907-21	BEAD, FERRITE (CHIP)		R719	1-216-809-11	METAL CHIP 100 5% 1/10W	
FB707	1-550-907-21	BEAD, FERRITE (CHIP)		R720	1-216-809-11	METAL CHIP 100 5% 1/10W	
FB708	1-550-907-21	BEAD, FERRITE (CHIP)		R721	1-216-809-11	METAL CHIP 100 5% 1/10W	
FB801	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)		R722	1-216-809-11	METAL CHIP 100 5% 1/10W (EXCEPT AEP,UK,RU)	
FB802	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)		R722	1-216-821-11	METAL CHIP 1K 5% 1/10W (AEP,UK,RU)	
FB803	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)		R725	1-216-819-11	METAL CHIP 680 5% 1/10W	
FB804	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)		R726	1-216-819-11	METAL CHIP 680 5% 1/10W	
FB805	1-550-907-21	BEAD, FERRITE (CHIP) (AEP,UK,RU)		R727	1-216-809-11	METAL CHIP 100 5% 1/10W	
				R728	1-216-841-11	METAL CHIP 47K 5% 1/10W	
				R729	1-216-834-11	METAL CHIP 12K 5% 1/10W	
				R730	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
				R731	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
				R732	1-216-864-11	METAL CHIP 0 5% 1/10W	
				R738	1-218-867-11	METAL CHIP 6.8K 5% 1/10W	
				R739	1-216-864-11	METAL CHIP 0 5% 1/10W	
				R740	1-218-867-11	METAL CHIP 6.8K 5% 1/10W	
				R741	1-216-864-11	METAL CHIP 0 5% 1/10W	
				R744	1-216-845-11	METAL CHIP 100K 5% 1/10W	
				R745	1-216-809-11	METAL CHIP 100 5% 1/10W	
				R746	1-216-803-11	METAL CHIP 33 5% 1/10W	
				R747	1-216-803-11	METAL CHIP 33 5% 1/10W	
				R751	1-216-841-11	METAL CHIP 47K 5% 1/10W (EXCEPT AEP,UK,RU)	
				R752	1-216-841-11	METAL CHIP 47K 5% 1/10W (EXCEPT AEP,UK,RU)	

HCD-GX25/RG220

BD **DRIVER** **GAME JACK**

Ref. No.	Part No.	Description	Remark
R753	1-216-841-11	METAL CHIP	47K 5% 1/10W (EXCEPT AEP,UK,RU)
R754	1-216-841-11	METAL CHIP	47K 5% 1/10W (EXCEPT AEP,UK,RU)
R760	1-216-809-11	METAL CHIP	100 5% 1/10W
R765	1-216-857-11	METAL CHIP	1M 5% 1/10W
R801	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R802	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R803	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R804	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R805	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R806	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R807	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R817	1-216-827-11	METAL CHIP	3.3K 5% 1/10W (AEP,UK,RU)
R818	1-216-811-11	METAL CHIP	150 5% 1/10W (AEP,UK,RU)
R819	1-216-821-11	METAL CHIP	1K 5% 1/10W (AEP,UK,RU)
R820	1-216-821-11	METAL CHIP	1K 5% 1/10W (AEP,UK,RU)
R823	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R824	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R825	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R826	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R827	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R828	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R829	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R832	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (AEP,UK,RU)
R833	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R834	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
R860	1-216-809-11	METAL CHIP	100 5% 1/10W (AEP,UK,RU)
< SWITCH >			
S701	1-771-853-11	SWITCH, DETECTION (LIMIT IN)	
< VIBRATOR >			
X701	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz) (EXCEPT AEP,UK,RU)	
X701	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz) (AEP,UK,RU)	

Ref. No.	Part No.	Description	Remark
	1-687-135-11	DRIVER BOARD *****	
< CAPACITOR >			
C715	1-126-933-11	ELECT	100uF 20% 16V
C731	1-126-964-11	ELECT	10uF 20% 50V
C735	1-164-159-21	CERAMIC	0.1uF 50V
C736	1-164-159-21	CERAMIC	0.1uF 50V
C737	1-164-159-21	CERAMIC	0.1uF 50V
C741	1-162-306-11	CERAMIC	0.01uF 30% 16V
C751	1-162-306-11	CERAMIC	0.01uF 30% 16V
C752	1-164-159-21	CERAMIC	0.1uF 50V
< CONNECTOR >			
CN701	1-785-338-11	PIN, CONNECTOR (LIGHT ANGLE) 12P	
CN702	1-784-766-11	CONNECTOR, FFC 5P	
* CN703	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P	
CN704	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE) 2P	
< DIODE >			
D701	8-719-921-42	DIODE MTZJ-5.1A	
D711	8-719-109-69	DIODE RD3.6ES-B2	
< IC >			
IC701	8-759-598-69	IC BA6956AN	
IC712	8-759-598-69	IC BA6956AN	
< TRANSISTOR >			
Q731	8-729-029-66	TRANSISTOR DTC114ESA	
< RESISTOR >			
R701	1-249-413-11	CARBON	470 5% 1/4W
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
R713	1-249-433-11	CARBON	22K 5% 1/4W
R721	1-249-425-11	CARBON	4.7K 5% 1/4W
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
R732	1-249-429-11	CARBON	10K 5% 1/4W
R733	1-249-417-11	CARBON	1K 5% 1/4W
R734	1-249-430-11	CARBON	12K 5% 1/4W
R735	1-247-807-31	CARBON	100 5% 1/4W
R751	1-249-425-11	CARBON	4.7K 5% 1/4W

GAME JACK BOARD *****			
< CAPACITOR >			
C001	1-162-962-11	CERAMIC CHIP	470PF 10% 50V
C002	1-162-962-11	CERAMIC CHIP	470PF 10% 50V
C003	1-217-715-11	CERAMIC CHIP	0.22uF 10% 16V
C004	1-217-715-11	CERAMIC CHIP	0.22uF 10% 16V

GAME JACK

H/P JACK

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< JACK >					
JK001	1-815-684-11	JACK, PIN 3P (GAME INPUT VIDEO,AUDIO L/R)		C234	1-130-485-00	MYLAR 0.015uF 5%	50V
		< JUMPER RESISTOR >		C235	1-126-960-11	ELECT 1uF 20%	50V
JR001	1-216-864-11	METAL CHIP 0 5% 1/10W		C236	1-126-933-11	ELECT 100uF 20%	16V
		< RESISTOR >		C237	1-126-960-11	ELECT 1uF 20%	50V
R001	1-216-833-11	METAL CHIP 10K 5% 1/10W		C239	1-130-485-00	MYLAR 0.015uF 5%	50V
R002	1-216-833-11	METAL CHIP 10K 5% 1/10W		C240	1-126-964-11	ELECT 10uF 20%	50V
R003	1-216-837-11	METAL CHIP 22K 5% 1/10W		C241	1-130-479-00	MYLAR 0.0047uF 5%	50V
R004	1-216-837-11	METAL CHIP 22K 5% 1/10W		C242	1-130-485-00	MYLAR 0.015uF 5%	50V
*****				C244	1-126-947-11	ELECT 47uF 20%	16V
		H/P JACK BOARD		C247	1-126-961-11	ELECT 2.2uF 20%	50V
		*****		C248	1-126-961-11	ELECT 2.2uF 20%	50V
		< CAPACITOR >		C249	1-126-961-11	ELECT 2.2uF 20%	50V
C006	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V		C250	1-126-961-11	ELECT 2.2uF 20%	50V
C007	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V		C253	1-126-933-11	ELECT 100uF 20%	16V
C008	1-164-156-11	CERAMIC CHIP 0.1uF 25V		C254	1-126-963-11	ELECT 4.7uF 20%	50V
		< JACK >		C255	1-126-961-11	ELECT 2.2uF 20%	50V
JK002	1-691-293-21	JACK (PHONES)		C256	1-126-959-11	ELECT 0.47uF 20%	50V
*****				C257	1-126-956-11	ELECT 0.1uF 20%	50V
A-4732-773-A		MAIN BOARD, COMPLETE (GX25)		C258	1-126-963-11	ELECT 4.7uF 20%	50V
A-4748-386-A		MAIN BOARD, COMPLETE (AEP,UK)		C259	1-128-551-11	ELECT 22uF 20%	25V
A-4748-471-A		MAIN BOARD, COMPLETE (RU)		C260	1-126-959-11	ELECT 0.47uF 20%	50V
A-4748-473-A		MAIN BOARD, COMPLETE (RG220:EXCEPT AEP,UK,RU)		C261	1-126-959-11	ELECT 0.47uF 20%	50V
		*****		C265	1-130-489-00	MYLAR 0.033uF 5%	50V
7-685-872-09		SCREW +BVTT 3X8 (S)		C266	1-130-483-00	MYLAR 0.01uF 5%	50V
		< CAPACITOR >		C267	1-130-483-00	MYLAR 0.01uF 5%	50V
C101	1-126-963-11	ELECT 4.7uF 20% 50V		C268	1-126-960-11	ELECT 1uF 20%	50V
C102	1-126-963-11	ELECT 4.7uF 20% 50V		C269	1-126-960-11	ELECT 1uF 20%	50V
C103	1-126-933-11	ELECT 100uF 20% 16V		C272	1-126-960-11	ELECT 1uF 20%	50V
C105	1-162-962-11	CERAMIC CHIP 470PF 10% 50V (AEP,UK)		C273	1-126-960-11	ELECT 1uF 20%	50V
C106	1-164-156-11	CERAMIC CHIP 0.1uF 25V		C285	1-162-966-11	CERAMIC CHIP 0.0022uF 10%	50V
C107	1-164-156-11	CERAMIC CHIP 0.1uF 25V		C286	1-162-966-11	CERAMIC CHIP 0.0022uF 10%	50V
C201	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V		C300	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C202	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V		C303	1-104-665-11	ELECT 100uF 20% 10V	
C203	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V		C304	1-126-963-11	ELECT 4.7uF 20% 50V	
C204	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V		C305	1-162-919-11	CERAMIC CHIP 22PF 5% 50V	
C205	1-162-960-11	CERAMIC CHIP 220PF 10% 50V (AEP,UK)		C306	1-162-919-11	CERAMIC CHIP 22PF 5% 50V	
C206	1-162-923-11	CERAMIC CHIP 47PF 5% 50V		C307	1-126-964-11	ELECT 10uF 20% 50V	
C221	1-126-947-11	ELECT 47uF 20% 16V		C308	1-126-964-11	ELECT 10uF 20% 50V	
C223	1-137-350-11	MYLAR 0.015uF 5% 100V		C309	1-126-964-11	ELECT 10uF 20% 50V	
C225	1-162-962-11	CERAMIC CHIP 470PF 10% 50V		C310	1-126-964-11	ELECT 10uF 20% 50V	
C226	1-162-962-11	CERAMIC CHIP 470PF 10% 50V		C311	1-126-964-11	ELECT 10uF 20% 50V	
C227	1-162-962-11	CERAMIC CHIP 470PF 10% 50V		C312	1-126-964-11	ELECT 10uF 20% 50V	
C228	1-162-962-11	CERAMIC CHIP 470PF 10% 50V		C313	1-107-714-11	ELECT 10uF 20% 16V	
C230	1-162-949-11	CERAMIC CHIP 47PF 5% 50V		C314	1-107-714-11	ELECT 10uF 20% 16V	
C231	1-162-949-11	CERAMIC CHIP 47PF 5% 50V		C317	1-126-964-11	ELECT 10uF 20% 50V	
C232	1-126-947-11	ELECT 47uF 20% 16V		C318	1-126-964-11	ELECT 10uF 20% 50V	
C233	1-130-485-00	MYLAR 0.015uF 5% 50V		C319	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V	
				C320	1-130-487-00	MYLAR 0.022uF 5% 50V	
				C321	1-130-487-00	MYLAR 0.022uF 5% 50V	
				C323	1-130-487-00	MYLAR 0.022uF 5% 50V	
				C324	1-130-487-00	MYLAR 0.022uF 5% 50V	
				C325	1-130-491-00	MYLAR 0.047uF 5% 50V	
				C326	1-130-491-00	MYLAR 0.047uF 5% 50V	
				C327	1-130-476-00	MYLAR 0.0027uF 5% 50V	
				C328	1-130-476-00	MYLAR 0.0027uF 5% 50V	
				C331	1-130-494-11	MYLAR 0.082uF 5% 50V	
				C332	1-130-494-11	MYLAR 0.082uF 5% 50V	
				C333	1-130-493-00	MYLAR 0.068uF 5% 50V	

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MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C334	1-130-493-00	MYLAR	0.068uF 5%	50V	C428	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (AEP,UK)
C337	1-126-964-11	ELECT	10uF 20%	50V	C429	1-162-927-11	CERAMIC CHIP 100PF 5% 50V (AEP,UK)
C339	1-126-934-11	ELECT	220uF 20%	16V	C430	1-162-960-11	CERAMIC CHIP 220PF 10% 50V (AEP,UK)
C342	1-164-156-11	CERAMIC CHIP	0.1uF 25V		C431	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V (AEP,UK)
C345	1-126-933-11	ELECT	100uF 20%	16V	C432	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V (AEP,UK)
C348	1-126-947-11	ELECT	47uF 20%	16V	C433	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V (AEP,UK)
C349	1-126-964-11	ELECT	10uF 20%	50V	C434	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V (AEP,UK)
C350	1-126-964-11	ELECT	10uF 20%	50V	C435	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V (AEP,UK)
C353	1-162-962-11	CERAMIC CHIP	470PF 10%	50V	C436	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V (AEP,UK)
C354	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	C437	1-162-960-11	CERAMIC CHIP 220PF 10% 50V (AEP,UK,RU)
C355	1-162-962-11	CERAMIC CHIP	470PF 10%	50V	C438	1-162-960-11	CERAMIC CHIP 220PF 10% 50V (AEP,UK,RU)
C356	1-162-962-11	CERAMIC CHIP	470PF 10%	50V	C441	1-165-128-11	CERAMIC CHIP 0.22uF 16V
C357	1-126-926-11	ELECT	1000uF 20%	10V	C444	1-162-923-11	CERAMIC CHIP 47PF 5% 50V (AEP,UK)
C359	1-126-947-11	ELECT	47uF 20%	16V	C445	1-162-962-11	CERAMIC CHIP 470PF 10% 50V (AEP,UK)
C361	1-162-960-11	CERAMIC CHIP	220PF 10%	50V	C448	1-164-156-11	CERAMIC CHIP 0.1uF 25V (AEP,UK)
C362	1-162-960-11	CERAMIC CHIP	220PF 10%	50V	C449	1-162-919-11	CERAMIC CHIP 22PF 5% 50V (AEP,UK)
C363	1-126-964-11	ELECT	10uF 20%	50V	C450	1-126-964-11	ELECT 10uF 20% 50V
C364	1-126-964-11	ELECT	10uF 20%	50V	C451	1-162-960-11	CERAMIC CHIP 220PF 10% 50V (AEP,UK)
C365	1-162-960-11	CERAMIC CHIP	220PF 10%	50V	C452	1-162-960-11	CERAMIC CHIP 220PF 10% 50V (AEP,UK)
C366	1-162-960-11	CERAMIC CHIP	220PF 10%	50V	C453	1-162-927-11	CERAMIC CHIP 100PF 5% 50V (AEP,UK)
C369	1-126-964-11	ELECT	10uF 20%	50V	< CONNECTOR >		
C370	1-126-964-11	ELECT	10uF 20%	50V	CN101	1-568-830-11	CONNECTOR, FFC 11P (EXCEPT AEP,UK)
C371	1-126-947-11	ELECT	47uF 20%	16V	CN101	1-784-776-11	CONNECTOR, FFC 15P (AEP,UK)
C372	1-126-964-11	ELECT	10uF 20%	50V	* CN102	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
C373	1-130-483-00	MYLAR	0.01uF 5%	50V	* CN202	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P
C374	1-130-483-00	MYLAR	0.01uF 5%	50V	* CN203	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
C375	1-126-943-11	ELECT	2200uF 20%	25V	* CN303	1-564-506-11	PLUG, CONNECTOR 3P
C377	1-126-963-11	ELECT	4.7uF 20%	50V	CN304	1-784-792-11	CONNECTOR, FFC 31P
C378	1-164-156-11	CERAMIC CHIP	0.1uF 25V		* CN305	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
C380	1-126-935-11	ELECT	470uF 20%	16V	CN306	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P
C381	1-126-947-11	ELECT	47uF 20%	16V	CN307	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P
C386	1-126-947-11	ELECT	47uF 20%	16V	CN310	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
C390	1-162-953-11	CERAMIC CHIP	100PF 5%	50V	CN311	1-568-828-11	CONNECTOR, FFC 9P
C391	1-162-953-11	CERAMIC CHIP	100PF 5%	50V	CN312	1-784-780-11	CONNECTOR, FFC 19P
C392	1-162-953-11	CERAMIC CHIP	100PF 5%	50V	< DIODE >		
C393	1-126-959-11	ELECT	0.47uF 20%	50V	D101	8-719-988-61	DIODE 1SS355TE-17 (AEP,UK,RU)
C397	1-104-665-11	ELECT	100uF 20%	10V	D102	6-500-522-21	DIODE 10EDB40-TB3
C398	1-126-964-11	ELECT	10uF 20%	50V	D203	8-719-988-61	DIODE 1SS355TE-17
C399	1-126-935-11	ELECT	470uF 20%	16V	D204	8-719-988-61	DIODE 1SS355TE-17
C401	1-164-156-11	CERAMIC CHIP	0.1uF 25V		D205	8-719-988-61	DIODE 1SS355TE-17
C402	1-164-156-11	CERAMIC CHIP	0.1uF 25V (AEP,UK,RU)		D206	8-719-988-61	DIODE 1SS355TE-17
C411	1-107-713-11	ELECT	4.7uF 20%	35V			
C412	1-107-713-11	ELECT	4.7uF 20%	35V			
C417	1-126-926-11	ELECT	1000uF 20%	10V			
C418	1-130-483-00	MYLAR	0.01uF 5%	50V			
C419	1-130-483-00	MYLAR	0.01uF 5%	50V			
C420	1-126-943-11	ELECT	2200uF 20%	25V			
C421	1-126-934-11	ELECT	220uF 20%	16V			
C423	1-126-947-11	ELECT	47uF 20%	16V			
C424	1-162-919-11	CERAMIC CHIP	22PF 5%	50V (AEP,UK)			
C425	1-162-923-11	CERAMIC CHIP	47PF 5%	50V (AEP,UK)			
C426	1-162-962-11	CERAMIC CHIP	470PF 10%	50V (AEP,UK)			
C427	1-162-927-11	CERAMIC CHIP	100PF 5%	50V (AEP,UK)			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D210	8-719-988-61	DIODE 1SS355TE-17		JR345	1-216-864-11	METAL CHIP 0 5% 1/10W	
D301	6-500-522-21	DIODE 10EDB40-TB3		JR358	1-216-864-11	METAL CHIP 0 5% 1/10W	
D302	6-500-522-21	DIODE 10EDB40-TB3				(GX25,RG220:EXCEPT AEP,UK)	
D303	6-500-522-21	DIODE 10EDB40-TB3		JR360	1-216-864-11	METAL CHIP 0 5% 1/10W	
D304	6-500-522-21	DIODE 10EDB40-TB3		JR453	1-216-864-11	METAL CHIP 0 5% 1/10W	(AEP,UK)
D305	8-719-988-61	DIODE 1SS355TE-17				< COIL >	
D306	8-719-988-61	DIODE 1SS355TE-17					
D307	8-719-988-61	DIODE 1SS355TE-17					
D308	8-719-988-61	DIODE 1SS355TE-17		L201	1-424-849-11	COIL, OSCILLATION (BIAS)	
D311	8-719-988-61	DIODE 1SS355TE-17				< TRANSISTOR >	
D312	8-719-083-63	DIODE UDZS-TE17-13B					
D313	6-500-522-21	DIODE 10EDB40-TB3		Q210	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D314	6-500-522-21	DIODE 10EDB40-TB3		Q211	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D315	6-500-522-21	DIODE 10EDB40-TB3		Q212	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D316	6-500-522-21	DIODE 10EDB40-TB3	(RG220:EXCEPT AEP,UK,RU)	Q218	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q219	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D317	8-719-988-61	DIODE 1SS355TE-17		Q220	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D318	8-719-085-36	DIODE 11EQS04-TB5		Q221	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D319	6-500-522-21	DIODE 10EDB40-TB3		Q222	8-729-120-28	TRANSISTOR 2SC3052F-T1-LF	
D320	6-500-522-21	DIODE 10EDB40-TB3		Q223	8-729-142-46	TRANSISTOR 2SC2001-LK	
D321	6-500-522-21	DIODE 10EDB40-TB3		Q225	6-550-289-01	TRANSISTOR 2SA1235F	
D322	6-500-522-21	DIODE 10EDB40-TB3		Q228	8-729-140-04	TRANSISTOR 2SB1116A-L	
D323	8-719-085-36	DIODE 11EQS04-TB5		Q301	6-550-296-01	TRANSISTOR 2SA1980G	
D324	8-719-988-61	DIODE 1SS355TE-17		Q302	8-729-120-28	TRANSISTOR 2SC3052F-T1-LF	
D325	8-719-988-61	DIODE 1SS355TE-17		Q304	6-550-296-01	TRANSISTOR 2SA1980G	
D364	8-719-988-61	DIODE 1SS355TE-17		Q310	8-729-052-79	TRANSISTOR 2SD1306NETL	
D366	8-719-988-61	DIODE 1SS355TE-17		Q311	8-729-052-79	TRANSISTOR 2SD1306NETL	
D371	8-719-988-61	DIODE 1SS355TE-17		Q312	6-550-289-01	TRANSISTOR 2SA1235F	
D374	8-719-988-61	DIODE 1SS355TE-17		Q321	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		< EARTH TERMINAL >		Q322	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
* G1	1-537-738-21	TERMINAL, EARTH		Q324	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
* G2	1-537-738-21	TERMINAL, EARTH		Q329	6-550-289-01	TRANSISTOR 2SA1235F	
		< IC >		Q330	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC201	6-702-130-01	IC HA12237F		Q331	6-550-289-01	TRANSISTOR 2SA1235F	
IC301	6-703-650-11	IC M61529FP-D60G		Q371	8-729-142-46	TRANSISTOR 2SC2001-LK	
IC304	8-759-710-97	IC NJM4565M-D		Q373	8-729-142-46	TRANSISTOR 2SC2001-LK	
IC305	8-759-701-59	IC NJM78M09FA				< RESISTOR >	
IC306	6-701-760-01	IC uPC3504AHF		R101	1-216-833-11	METAL CHIP 10K 5% 1/10W	
IC308	8-759-701-59	IC NJM78M09FA		R102	1-216-833-11	METAL CHIP 10K 5% 1/10W	
IC309	6-704-046-01	IC BU2099FV		R215	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
IC310	6-704-046-01	IC BU2099FV (AEP,UK,RU)		R216	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
IC313	8-759-231-57	IC TA7810S		R218	1-216-849-11	METAL CHIP 220K 5% 1/10W	
		< JUMPER RESISTOR >		R219	1-216-833-11	METAL CHIP 10K 5% 1/10W	
JR124	1-216-864-11	METAL CHIP 0 5% 1/10W		R220	1-216-833-11	METAL CHIP 10K 5% 1/10W	
		(RG220:EXCEPT AEP,UK,RU)		R225	1-216-834-11	METAL CHIP 12K 5% 1/10W	
JR300	1-216-864-11	METAL CHIP 0 5% 1/10W		R226	1-216-834-11	METAL CHIP 12K 5% 1/10W	
JR329	1-216-864-11	METAL CHIP 0 5% 1/10W		R231	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
JR330	1-216-864-11	METAL CHIP 0 5% 1/10W		R232	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
JR331	1-216-864-11	METAL CHIP 0 5% 1/10W		R233	1-216-837-11	METAL CHIP 22K 5% 1/10W	
JR332	1-216-864-11	METAL CHIP 0 5% 1/10W		R234	1-216-837-11	METAL CHIP 22K 5% 1/10W	
JR333	1-216-864-11	METAL CHIP 0 5% 1/10W		R235	1-216-833-11	METAL CHIP 10K 5% 1/10W	
JR339	1-216-864-11	METAL CHIP 0 5% 1/10W		R236	1-216-821-11	METAL CHIP 1K 5% 1/10W	
		(RG220:EXCEPT AEP,UK,RU)		R237	1-216-857-11	METAL CHIP 1M 5% 1/10W	
JR341	1-216-864-11	METAL CHIP 0 5% 1/10W		R238	1-216-853-11	METAL CHIP 470K 5% 1/10W	
		(RG220:EXCEPT AEP,UK,RU)		R239	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
JR344	1-216-864-11	METAL CHIP 0 5% 1/10W		R241	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
		(RG220:EXCEPT AEP,UK,RU)		R242	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	

HCD-GX25/RG220

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R245	1-216-833-11	METAL CHIP	10K 5% 1/10W	R329	1-216-801-11	METAL CHIP	22 5% 1/10W (AEP,UK)
R246	1-216-841-11	METAL CHIP	47K 5% 1/10W	R330	1-216-833-11	METAL CHIP	10K 5% 1/10W
R249	1-216-853-11	METAL CHIP	470K 5% 1/10W	R344	1-216-841-11	METAL CHIP	47K 5% 1/10W
R250	1-216-849-11	METAL CHIP	220K 5% 1/10W	R345	1-216-841-11	METAL CHIP	47K 5% 1/10W
R251	1-216-793-11	METAL CHIP	4.7 5% 1/10W	R346	1-216-837-11	METAL CHIP	22K 5% 1/10W
R252	1-216-838-11	METAL CHIP	27K 5% 1/10W	R348	1-216-837-11	METAL CHIP	22K 5% 1/10W
R253	1-216-833-11	METAL CHIP	10K 5% 1/10W	R352	1-218-717-11	METAL CHIP	11K 5% 1/10W
R256	1-216-833-11	METAL CHIP	10K 5% 1/10W	R353	1-218-717-11	METAL CHIP	11K 5% 1/10W
R257	1-216-817-11	METAL CHIP	470 5% 1/10W	R354	1-216-841-11	METAL CHIP	47K 5% 1/10W
R258	1-216-809-11	METAL CHIP	100 5% 1/10W	R355	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R260	1-216-809-11	METAL CHIP	100 5% 1/10W	R356	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R261	1-216-817-11	METAL CHIP	470 5% 1/10W	R358	1-216-837-11	METAL CHIP	22K 5% 1/10W
R262	1-216-845-11	METAL CHIP	100K 5% 1/10W	R360	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R263	1-216-833-11	METAL CHIP	10K 5% 1/10W	R361	1-216-830-11	METAL CHIP	5.6K 5% 1/10W
R264	1-216-833-11	METAL CHIP	10K 5% 1/10W	R362	1-216-837-11	METAL CHIP	22K 5% 1/10W
R265	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R363	1-216-837-11	METAL CHIP	22K 5% 1/10W
R266	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R364	1-216-845-11	METAL CHIP	100K 5% 1/10W
R267	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R365	1-216-857-11	METAL CHIP	1M 5% 1/10W
R268	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R368	1-216-809-11	METAL CHIP	100 5% 1/10W
R269	1-216-833-11	METAL CHIP	10K 5% 1/10W	R369	1-216-809-11	METAL CHIP	100 5% 1/10W
R270	1-216-833-11	METAL CHIP	10K 5% 1/10W	R371	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R271	1-216-833-11	METAL CHIP	10K 5% 1/10W	R372	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R272	1-216-833-11	METAL CHIP	10K 5% 1/10W	R373	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R273	1-216-833-11	METAL CHIP	10K 5% 1/10W	R374	1-216-841-11	METAL CHIP	47K 5% 1/10W
R278	1-216-837-11	METAL CHIP	22K 5% 1/10W	R377	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R282	1-216-809-11	METAL CHIP	100 5% 1/10W	R378	1-216-833-11	METAL CHIP	10K 5% 1/10W
R283	1-216-833-11	METAL CHIP	10K 5% 1/10W	R379	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R284	1-216-833-11	METAL CHIP	10K 5% 1/10W	R380	1-216-853-11	METAL CHIP	470K 5% 1/10W
R285	1-216-833-11	METAL CHIP	10K 5% 1/10W	R384	1-218-717-11	METAL CHIP	11K 5% 1/10W
R286	1-216-833-11	METAL CHIP	10K 5% 1/10W	R386	1-216-833-11	METAL CHIP	10K 5% 1/10W
R287	1-216-833-11	METAL CHIP	10K 5% 1/10W	R387	1-216-834-11	METAL CHIP	12K 5% 1/10W
R288	1-216-833-11	METAL CHIP	10K 5% 1/10W	R388	1-216-821-11	METAL CHIP	1K 5% 1/10W
R305	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R395	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R306	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R396	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R307	1-216-809-11	METAL CHIP	100 5% 1/10W	R397	1-216-833-11	METAL CHIP	10K 5% 1/10W
R309	1-216-833-11	METAL CHIP	10K 5% 1/10W	R398	1-216-833-11	METAL CHIP	10K 5% 1/10W
R310	1-216-833-11	METAL CHIP	10K 5% 1/10W	R399	1-216-833-11	METAL CHIP	10K 5% 1/10W
R311	1-216-833-11	METAL CHIP	10K 5% 1/10W	R400	1-216-833-11	METAL CHIP	10K 5% 1/10W
R311	1-216-835-11	METAL CHIP	15K 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R401	1-216-833-11	METAL CHIP	10K 5% 1/10W
R311	1-216-835-11	METAL CHIP	15K 5% 1/10W (GX25,RG220:AEP,UK,RU)	R402	1-216-833-11	METAL CHIP	10K 5% 1/10W
R312	1-216-833-11	METAL CHIP	10K 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R404	1-216-833-11	METAL CHIP	10K 5% 1/10W
R312	1-216-835-11	METAL CHIP	15K 5% 1/10W (GX25,RG220:AEP,UK,RU)	R405	1-216-833-11	METAL CHIP	10K 5% 1/10W
R313	1-216-845-11	METAL CHIP	100K 5% 1/10W	R406	1-216-837-11	METAL CHIP	22K 5% 1/10W
R314	1-216-845-11	METAL CHIP	100K 5% 1/10W	R407	1-216-833-11	METAL CHIP	10K 5% 1/10W
R316	1-216-833-11	METAL CHIP	10K 5% 1/10W	R408	1-216-833-11	METAL CHIP	10K 5% 1/10W
R317	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R409	1-216-833-11	METAL CHIP	10K 5% 1/10W
R318	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R410	1-216-833-11	METAL CHIP	10K 5% 1/10W
R319	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R421	1-216-833-11	METAL CHIP	10K 5% 1/10W
R320	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R422	1-216-806-11	METAL CHIP	56 5% 1/10W
R321	1-216-833-11	METAL CHIP	10K 5% 1/10W	R423	1-216-806-11	METAL CHIP	56 5% 1/10W
R322	1-216-833-11	METAL CHIP	10K 5% 1/10W	R424	1-216-837-11	METAL CHIP	22K 5% 1/10W
R323	1-216-821-11	METAL CHIP	1K 5% 1/10W	R425	1-216-837-11	METAL CHIP	22K 5% 1/10W
R324	1-216-809-11	METAL CHIP	100 5% 1/10W	R426	1-216-837-11	METAL CHIP	22K 5% 1/10W
R325	1-216-833-11	METAL CHIP	10K 5% 1/10W	R427	1-216-134-00	METAL CHIP	2.2 5% 1/8W
R326	1-216-833-11	METAL CHIP	10K 5% 1/10W	R428	1-216-134-00	METAL CHIP	2.2 5% 1/8W
R328	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R429	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R430	1-216-833-11	METAL CHIP	10K 5% 1/10W

MAIN

MOTOR (LD)

MOTOR (TB)

PANEL

Ref. No.	Part No.	Description	Remark
R431	1-216-847-11	METAL CHIP	150K 5% 1/10W
R432	1-216-809-11	METAL CHIP	100 5% 1/10W
△ R433	1-215-891-11	METAL OXIDE	680 5% 2W F
△ R434	1-215-891-11	METAL OXIDE	680 5% 2W F
R435	1-216-857-11	METAL CHIP	1M 5% 1/10W
R455	1-218-717-11	METAL CHIP	11K 5% 1/10W
R456	1-218-717-11	METAL CHIP	11K 5% 1/10W
R457	1-216-837-11	METAL CHIP	22K 5% 1/10W
R459	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R460	1-216-821-11	METAL CHIP	1K 5% 1/10W
R461	1-216-821-11	METAL CHIP	1K 5% 1/10W
R465	1-216-837-11	METAL CHIP	22K 5% 1/10W
R466	1-216-837-11	METAL CHIP	22K 5% 1/10W
R480	1-216-833-11	METAL CHIP	10K 5% 1/10W
R481	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R482	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R483	1-216-821-11	METAL CHIP	1K 5% 1/10W
R484	1-216-833-11	METAL CHIP	10K 5% 1/10W
R486	1-216-809-11	METAL CHIP	100 5% 1/10W
R487	1-216-134-00	METAL CHIP	2.2 5% 1/8W
R488	1-216-134-00	METAL CHIP	2.2 5% 1/8W

1-687-133-11	MOTOR (LD) BOARD	*****	

1-687-134-11	MOTOR (TB) BOARD	*****	
< CONNECTOR >			
CN742	1-784-727-11	CONNECTOR, FFC 5P	

A-4732-777-A	PANEL BOARD, COMPLETE (US,CND)		
A-4748-381-A	PANEL BOARD, COMPLETE (AEP,UK,RU)		
A-4748-476-A	PANEL BOARD, COMPLETE (EXCEPT US,CND,AEP,UK,RU)		

4-244-690-01	FL HOLDER (L)		
4-244-691-01	FL HOLDER (R)		
< CAPACITOR >			
C601	1-124-247-11	ELECT	10uF 20% 35V
C602	1-124-247-11	ELECT	10uF 20% 35V
C603	1-124-589-11	ELECT	47uF 20% 16V
C604	1-124-261-00	ELECT	10uF 20% 50V
C611	1-126-916-11	ELECT	1000uF 20% 6.3V
C612	1-115-156-11	CERAMIC CHIP	1uF 10V
C614	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V
C615	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V
C616	1-115-156-11	CERAMIC CHIP	1uF 10V
C617	1-162-961-11	CERAMIC CHIP	330PF 10% 50V
C618	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C619	1-124-234-00	ELECT	22uF 20% 16V
C620	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C621	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C622	1-164-156-11	CERAMIC CHIP	0.1uF 25V

Ref. No.	Part No.	Description	Remark
C635	1-162-918-11	CERAMIC CHIP	18PF 5% 50V
C636	1-162-919-11	CERAMIC CHIP	22PF 5% 50V
C637	1-124-464-11	ELECT	0.22uF 20% 50V
C638	1-124-464-11	ELECT	0.22uF 20% 50V
C639	1-126-947-11	ELECT	47uF 20% 35V
C640	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C641	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C642	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V
C643	1-115-156-11	CERAMIC CHIP	1uF 10V
C644	1-124-234-00	ELECT	22uF 20% 16V
C646	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C647	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C648	1-124-257-00	ELECT	2.2uF 20% 50V
C649	1-124-234-00	ELECT	22uF 20% 16V
C650	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
< CONNECTOR >			
CN601	1-784-753-11	CONNECTOR, FFC 31P	
CN602	1-784-731-11	CONNECTOR, FFC 9P	
CN603	1-816-422-11	PIN, CONNECTOR 3P	
CN605	1-784-735-11	CONNECTOR, FFC 13P	
* CN606	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P	
< DIODE >			
D606	8-719-988-61	DIODE 1SS355TE-17 (GX25)	
D607	8-719-988-61	DIODE 1SS355TE-17 (GX25)	
D609	8-719-988-61	DIODE 1SS355TE-17 (RG220:EXCEPT AEP,UK,RU)	
D613	8-719-988-61	DIODE 1SS355TE-17	
D614	8-719-988-61	DIODE 1SS355TE-17	
D615	8-719-988-61	DIODE 1SS355TE-17	
D616	8-719-988-61	DIODE 1SS355TE-17	
D617	8-719-988-61	DIODE 1SS355TE-17	
D618	8-719-988-61	DIODE 1SS355TE-17	
D619	8-719-988-61	DIODE 1SS355TE-17	
D620	8-719-988-61	DIODE 1SS355TE-17	
D621	8-719-988-61	DIODE 1SS355TE-17	
D622	8-719-988-61	DIODE 1SS355TE-17	
D623	8-719-988-61	DIODE 1SS355TE-17	
D624	8-719-988-61	DIODE 1SS355TE-17	
D625	8-719-988-61	DIODE 1SS355TE-17	
D626	8-719-083-61	DIODE UDZS-TE17-11B (RG220:EXCEPT AEP,UK,RU)	
D627	8-719-988-61	DIODE 1SS355TE-17	
D628	8-719-988-61	DIODE 1SS355TE-17	
D629	8-719-988-61	DIODE 1SS355TE-17	
D630	8-719-988-61	DIODE 1SS355TE-17	
D631	8-719-988-61	DIODE 1SS355TE-17	
D633	8-719-988-61	DIODE 1SS355TE-17	
D634	8-719-988-61	DIODE 1SS355TE-17	
< COIL >			
FB601	1-412-473-21	INDUCTOR (SMALL TYPE)	
< FLUORESCENT INDICATOR >			
FLD601	1-518-863-11	INDICATOR TUBE, FLUORESCENT	

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

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

HCD-GX25/RG220

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< IC >							
IC601	6-803-326-01	IC LC876756C-51W9-E (EXCEPT AEP,UK,RU)		Q610	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC601	6-803-327-01	IC LC876780B-51Y0-E (AEP,UK,RU)		Q616	8-729-140-04	TRANSISTOR 2SB1116A-L	
IC602	6-704-045-01	IC MM1574A		Q617	8-729-140-04	TRANSISTOR 2SB1116A-L	
IC603	8-759-533-04	IC M62703ML-E1		Q618	8-729-116-56	TRANSISTOR 2SB1068-L	
< JUMPER RESISTOR >				< RESISTOR >			
JR601	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R030	1-216-809-11	METAL CHIP	100 5% 1/10W
JR602	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R031	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JR603	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R032	1-216-848-11	METAL CHIP	180K 5% 1/10W
JR604	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R033	1-216-837-11	METAL CHIP	22K 5% 1/10W
JR605	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R034	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JR606	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R035	1-216-841-11	METAL CHIP	47K 5% 1/10W
JR607	1-216-864-11	METAL CHIP	0 5% 1/10W	R036	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
JR608	1-216-864-11	METAL CHIP	0 5% 1/10W	R037	1-216-817-11	METAL CHIP	470 5% 1/10W
JR609	1-216-864-11	METAL CHIP	0 5% 1/10W	R039	1-216-809-11	METAL CHIP	100 5% 1/10W
JR610	1-216-864-11	METAL CHIP	0 5% 1/10W (EXCEPT AEP,UK,RU)	R040	1-216-845-11	METAL CHIP	100K 5% 1/10W
JR611	1-216-864-11	METAL CHIP	0 5% 1/10W (EXCEPT AEP,UK,RU)	R041	1-216-845-11	METAL CHIP	100K 5% 1/10W
JR613	1-216-864-11	METAL CHIP	0 5% 1/10W	R043	1-216-845-11	METAL CHIP	100K 5% 1/10W
JR614	1-216-864-11	METAL CHIP	0 5% 1/10W	R044	1-216-845-11	METAL CHIP	100K 5% 1/10W
JR615	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R045	1-216-845-11	METAL CHIP	100K 5% 1/10W
JR616	1-216-864-11	METAL CHIP	0 5% 1/10W (GX25)	R046	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JR617	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R047	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JR618	1-216-864-11	METAL CHIP	0 5% 1/10W (GX25)	R048	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JR619	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R050	1-216-821-11	METAL CHIP	1K 5% 1/10W
JR620	1-216-864-11	METAL CHIP	0 5% 1/10W (RG220:EXCEPT AEP,UK,RU)	R051	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JR621	1-216-864-11	METAL CHIP	0 5% 1/10W	R052	1-216-182-00	RES-CHIP	220 5% 1/8W
JR623	1-216-864-11	METAL CHIP	0 5% 1/10W (AEP,UK,RU)	R053	1-216-841-11	METAL CHIP	47K 5% 1/10W
JR625	1-216-864-11	METAL CHIP	0 5% 1/10W	R054	1-216-841-11	METAL CHIP	47K 5% 1/10W
JR626	1-216-864-11	METAL CHIP	0 5% 1/10W	R055	1-216-841-11	METAL CHIP	47K 5% 1/10W
< DIODE >				R056	1-216-841-11	METAL CHIP	47K 5% 1/10W
LED607	6-500-414-01	LED HL-30105Q2AT (CD)		R057	1-216-841-11	METAL CHIP	47K 5% 1/10W
LED608	6-500-414-01	LED HL-30105Q2AT (TUNER/BAND)		R058	1-216-841-11	METAL CHIP	47K 5% 1/10W
LED609	6-500-414-01	LED HL-30105Q2AT (TAPE A/B)		R059	1-216-841-11	METAL CHIP	47K 5% 1/10W
LED612	6-500-414-01	LED HL-30105Q2AT (GAME)		R060	1-216-841-11	METAL CHIP	47K 5% 1/10W
LED614	6-500-414-01	LED HL-30105Q2AT (POWER)		R061	1-216-841-11	METAL CHIP	47K 5% 1/10W
< TRANSISTOR >				R062	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R063	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q602	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R064	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q603	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R065	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q604	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R066	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q607	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R067	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q609	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R068	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R069	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R070	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R071	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R072	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R073	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R074	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R075	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R076	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R077	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R078	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R079	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R080	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R081	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R082	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R083	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R084	1-216-841-11	METAL CHIP	47K 5% 1/10W

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R085	1-216-841-11	METAL CHIP	47K	5%	1/10W	R663	1-216-821-11	METAL CHIP	1K	5%	1/10W
R086	1-216-841-11	METAL CHIP	47K	5%	1/10W	R664	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R087	1-216-820-11	METAL CHIP	820	5%	1/10W	R665	1-216-809-11	METAL CHIP	100	5%	1/10W
R088	1-216-820-11	METAL CHIP	820	5%	1/10W	R666	1-216-841-11	METAL CHIP	47K	5%	1/10W
R089	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R667	1-216-813-11	METAL CHIP	220	5%	1/10W
R090	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R668	1-216-809-11	METAL CHIP	100	5%	1/10W
R601	1-216-839-11	METAL CHIP	33K	5%	1/10W	R669	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R602	1-216-809-11	METAL CHIP	100	5%	1/10W	R670	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(AEP,UK,RU)	R671	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R604	1-216-833-11	METAL CHIP	10K	5%	1/10W	R672	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R605	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R606	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R673	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R607	1-216-849-11	METAL CHIP	220K	5%	1/10W	R675	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R608	1-216-809-11	METAL CHIP	100	5%	1/10W	R676	1-216-821-11	METAL CHIP	1K	5%	1/10W
					(AEP,UK,RU)	R677	1-216-851-11	METAL CHIP	330K	5%	1/10W
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W	R678	1-216-841-11	METAL CHIP	47K	5%	1/10W
R610	1-216-835-11	METAL CHIP	15K	5%	1/10W	R679	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R611	1-216-809-11	METAL CHIP	100	5%	1/10W	R680	1-216-809-11	METAL CHIP	100	5%	1/10W
R612	1-216-809-11	METAL CHIP	100	5%	1/10W	R681	1-216-833-11	METAL CHIP	10K	5%	1/10W
R613	1-216-821-11	METAL CHIP	1K	5%	1/10W	R682	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R614	1-216-821-11	METAL CHIP	1K	5%	1/10W	R683	1-216-833-11	METAL CHIP	10K	5%	1/10W
R615	1-216-821-11	METAL CHIP	1K	5%	1/10W	R684	1-216-835-11	METAL CHIP	15K	5%	1/10W
R616	1-216-817-11	METAL CHIP	470	5%	1/10W	R685	1-216-837-11	METAL CHIP	22K	5%	1/10W
R623	1-216-198-11	RES-CHIP	1K	5%	1/8W	R686	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R624	1-216-835-11	METAL CHIP	15K	5%	1/10W	R687	1-216-833-11	METAL CHIP	10K	5%	1/10W
R625	1-216-817-11	METAL CHIP	470	5%	1/10W	R688	1-216-835-11	METAL CHIP	15K	5%	1/10W
R626	1-216-819-11	METAL CHIP	680	5%	1/10W	R689	1-216-837-11	METAL CHIP	22K	5%	1/10W
R627	1-216-821-11	METAL CHIP	1K	5%	1/10W	R691	1-216-833-11	METAL CHIP	10K	5%	1/10W
R628	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R692	1-216-809-11	METAL CHIP	100	5%	1/10W
R629	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R693	1-216-809-11	METAL CHIP	100	5%	1/10W
R630	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						(RG220)
R631	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R694	1-216-809-11	METAL CHIP	100	5%	1/10W
R632	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R695	1-216-809-11	METAL CHIP	100	5%	1/10W
R633	1-218-867-11	METAL CHIP	6.8K	5%	1/10W	R696	1-216-809-11	METAL CHIP	100	5%	1/10W
R634	1-216-833-11	METAL CHIP	10K	5%	1/10W	R697	1-216-809-11	METAL CHIP	100	5%	1/10W
R635	1-216-198-11	RES-CHIP	1K	5%	1/8W	R698	1-216-809-11	METAL CHIP	100	5%	1/10W
R638	1-216-835-11	METAL CHIP	15K	5%	1/10W	R699	1-216-821-11	METAL CHIP	1K	5%	1/10W
R639	1-216-817-11	METAL CHIP	470	5%	1/10W	R902	1-216-841-11	METAL CHIP	47K	5%	1/10W
R640	1-216-819-11	METAL CHIP	680	5%	1/10W	R903	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R641	1-216-821-11	METAL CHIP	1K	5%	1/10W	R904	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R642	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R905	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R643	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R906	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R644	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R907	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R645	1-216-198-11	RES-CHIP	1K	5%	1/8W	R908	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R646	1-216-849-11	METAL CHIP	220K	5%	1/10W	R909	1-216-837-11	METAL CHIP	22K	5%	1/10W
R647	1-220-397-11	METAL CHIP	4.7M	5%	1/10W	R910	1-216-837-11	METAL CHIP	22K	5%	1/10W
R648	1-216-819-11	METAL CHIP	680	5%	1/10W	R911	1-216-837-11	METAL CHIP	22K	5%	1/10W
R649	1-216-198-11	RES-CHIP	1K	5%	1/8W	R912	1-216-837-11	METAL CHIP	22K	5%	1/10W
R651	1-216-833-11	METAL CHIP	10K	5%	1/10W	R913	1-216-837-11	METAL CHIP	22K	5%	1/10W
R652	1-216-809-11	METAL CHIP	100	5%	1/10W	R914	1-216-837-11	METAL CHIP	22K	5%	1/10W
R653	1-216-805-11	METAL CHIP	47	5%	1/10W	R915	1-216-833-11	METAL CHIP	10K	5%	1/10W
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W	R916	1-216-821-11	METAL CHIP	1K	5%	1/10W
R655	1-216-841-11	METAL CHIP	47K	5%	1/10W	R917	1-216-833-11	METAL CHIP	10K	5%	1/10W
R656	1-216-841-11	METAL CHIP	47K	5%	1/10W	R918	1-216-821-11	METAL CHIP	1K	5%	1/10W
R657	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R919	1-216-833-11	METAL CHIP	10K	5%	1/10W
R658	1-216-833-11	METAL CHIP	10K	5%	1/10W	R920	1-216-821-11	METAL CHIP	1K	5%	1/10W
R659	1-216-833-11	METAL CHIP	10K	5%	1/10W	R921	1-216-841-11	METAL CHIP	47K	5%	1/10W
R662	1-216-819-11	METAL CHIP	680	5%	1/10W	R922	1-218-717-11	METAL CHIP	11K	5%	1/10W
						R923	1-218-717-11	METAL CHIP	11K	5%	1/10W

HCD-GX25/RG220

PANEL	POWER AMP
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Ref. No.	Part No.	Description	Remark
R924	1-218-717-11	METAL CHIP 11K 5%	1/10W
R925	1-218-717-11	METAL CHIP 11K 5%	1/10W
R926	1-216-837-11	METAL CHIP 22K 5%	1/10W
R927	1-216-837-11	METAL CHIP 22K 5%	1/10W
R931	1-216-182-00	RES-CHIP 220 5%	1/8W
R937	1-216-198-11	RES-CHIP 1K 5%	1/8W
R938	1-216-198-11	RES-CHIP 1K 5%	1/8W
R939	1-216-198-11	RES-CHIP 1K 5%	1/8W
R940	1-216-198-11	RES-CHIP 1K 5%	1/8W
< VIBRATOR >			
RES601	1-795-880-11	VIBRATOR, CERAMIC (8.64MHz)	
< SWITCH >			
S601	1-762-875-21	SWITCH, KEYBOARD (■)	
S602	1-762-875-21	SWITCH, KEYBOARD (■) (RG220)	
S603	1-762-875-21	SWITCH, KEYBOARD (▶▶ +) (RG220)	
S604	1-762-875-21	SWITCH, KEYBOARD (▶▶▶) (RG220)	
S605	1-762-875-21	SWITCH, KEYBOARD (▶▶) (GX25)	
S605	1-762-875-21	SWITCH, KEYBOARD (ALBUM +) (RG220)	
S606	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)	
S607	1-762-875-21	SWITCH, KEYBOARD (◀◀) (GX25)	
S607	1-762-875-21	SWITCH, KEYBOARD (ALBUM -) (RG220)	
S608	1-762-875-21	SWITCH, KEYBOARD (◀◀) (RG220)	
S609	1-762-875-21	SWITCH, KEYBOARD (◀◀-) (RG220)	
S612	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)	
S614	1-762-875-21	SWITCH, KEYBOARD (POWER)	
S615	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
S616	1-762-875-21	SWITCH, KEYBOARD (▷) (RG220)	
S617	1-762-875-21	SWITCH, KEYBOARD (DISC 1)	
S618	1-762-875-21	SWITCH, KEYBOARD (DISC 2)	
S619	1-762-875-21	SWITCH, KEYBOARD (DISC 3)	
S620	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)	
S621	1-762-875-21	SWITCH, KEYBOARD (▲)	
S623	1-762-875-21	SWITCH, KEYBOARD (MOVIE EQ)	
S627	1-762-875-21	SWITCH, KEYBOARD (CD)	
S628	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)	
S629	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)	
S630	1-762-875-21	SWITCH, KEYBOARD (GAME)	
S634	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	
S636	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)	
S637	1-762-875-21	SWITCH, KEYBOARD (MUSIC EQ)	
S638	1-762-875-21	SWITCH, KEYBOARD (GAME EQ)	
S639	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
S643	1-762-875-21	SWITCH, KEYBOARD (■) (GX25)	
S644	1-762-875-21	SWITCH, KEYBOARD (▶▶ +) (GX25)	
S646	1-762-875-21	SWITCH, KEYBOARD (▷) (GX25)	
S647	1-762-875-21	SWITCH, KEYBOARD (◀◀-) (GX25)	
< ROTARY ENCODER >			
VR601	1-477-194-11	ENCODER, ROTARY (12 TYPE) (VOLUME)	
< VIBRATOR >			
X601	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	

Ref. No.	Part No.	Description	Remark
	A-4732-781-A	POWER AMP BOARD, COMPLETE (GX25)	
	A-4748-384-A	POWER AMP BOARD, COMPLETE (AEP,UK,RU)	
	A-4748-479-A	POWER AMP BOARD, COMPLETE (RG220:EXCEPT AEP,UK,RU)	

< CAPACITOR >			
C1	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C2	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C3	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C4	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C5	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C6	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C7	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C8	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C9	1-135-516-11	ELECT 3300uF 20%	63V (EXCEPT AEP,UK,RU)
C10	1-135-516-11	ELECT 3300uF 20%	63V (EXCEPT AEP,UK,RU)
C11	1-126-955-11	ELECT 4700uF 20%	35V
C12	1-126-955-11	ELECT 4700uF 20%	35V
C13	1-104-665-11	ELECT 100uF 20%	25V
C22	1-126-959-11	ELECT 0.47uF 20%	50V
C23	1-126-957-11	ELECT 0.22uF 20%	50V
C24	1-126-947-11	ELECT 47uF 20%	25V
C25	1-162-966-11	CERAMIC CHIP 0.0022uF 10%	50V
C26	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
C30	1-162-961-11	CERAMIC CHIP 330PF 10%	50V
C31	1-162-961-11	CERAMIC CHIP 330PF 10%	50V
C33	1-128-552-51	ELECT 47uF 20%	63V
C34	1-128-552-51	ELECT 47uF 20%	63V
C35	1-164-344-11	CERAMIC CHIP 0.068uF 10%	25V
C36	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C37	1-128-552-51	ELECT 47uF 20%	63V
C40	1-162-961-11	CERAMIC CHIP 330PF 10%	50V
C41	1-128-552-51	ELECT 47uF 20%	63V
C42	1-162-945-11	CERAMIC CHIP 22PF 5%	50V
C43	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
C45	1-162-961-11	CERAMIC CHIP 330PF 10%	50V
C501	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C502	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C503	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C504	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C505	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C506	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C507	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C508	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C509	1-164-733-11	CERAMIC CHIP 820PF 10%	50V
C510	1-164-733-11	CERAMIC CHIP 820PF 10%	50V
C511	1-126-966-11	ELECT 33uF 20%	35V
C512	1-126-966-11	ELECT 33uF 20%	35V
C513	1-126-965-11	ELECT 22uF 20%	50V
C514	1-126-965-11	ELECT 22uF 20%	50V
C517	1-126-960-11	ELECT 1uF 20%	50V
C518	1-126-960-11	ELECT 1uF 20%	50V
C519	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C520	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C521	1-126-961-11	ELECT 2.2uF 20%	50V
C522	1-126-961-11	ELECT 2.2uF 20%	50V

POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
C523	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D503	6-500-335-01	DIODE MC2838	
C524	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D504	6-500-335-01	DIODE MC2838	
C525	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D505	8-719-970-83	DIODE HSS82-TJ	
C526	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D506	8-719-970-83	DIODE HSS82-TJ	
C527	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D507	8-719-988-61	DIODE 1SS355TE-17	
C529	1-126-961-11	ELECT	2.2uF	20%	50V	D508	8-719-988-61	DIODE 1SS355TE-17
C530	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D509	6-500-335-01	DIODE MC2838	
C531	1-104-665-11	ELECT	100uF	20%	10V	D510	6-500-334-01	DIODE MC2836
C532	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	D511	8-719-988-61	DIODE 1SS355TE-17
C533	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	D513	8-719-988-61	DIODE 1SS355TE-17
C534	1-165-319-11	CERAMIC CHIP	0.1uF	50V	D514	8-719-988-61	DIODE 1SS355TE-17	
C535	1-165-319-11	CERAMIC CHIP	0.1uF	50V	D515	8-719-083-70	DIODE UDZS-TE17-27B	
C538	1-164-005-11	CERAMIC CHIP	0.47uF	25V			< EARTH TERMINAL >	
C540	1-126-964-11	ELECT	10uF	20%	50V			
C541	1-165-319-11	CERAMIC CHIP	0.1uF	50V				
C542	1-165-319-11	CERAMIC CHIP	0.1uF	50V	* EP01	1-537-738-21	TERMINAL, EARTH	
C543	1-165-319-11	CERAMIC CHIP	0.1uF	50V	* EP501	1-537-738-21	TERMINAL, EARTH	
C544	1-165-319-11	CERAMIC CHIP	0.1uF	50V	* EP502	1-537-738-21	TERMINAL, EARTH	
		< CONNECTOR >					< TERMINAL BOARD >	
CN501	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			JK502	1-694-884-11	TERMINAL BOARD (4P) (SPEAKER)	
CN502	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P					< JUMPER RESISTOR >	
		< DIODE >			JR2	1-216-864-11	METAL CHIP 0 5% 1/10W	
D2	6-500-340-01	DIODE G5SBA60L-6088			JR501	1-216-864-11	METAL CHIP 0 5% 1/10W	
D3	6-500-378-01	DIODE 1N5402GW(F20)			JR511	1-216-864-11	METAL CHIP 0 5% 1/10W	
D4	6-500-378-01	DIODE 1N5402GW(F20)			JR512	1-216-864-11	METAL CHIP 0 5% 1/10W	
D5	6-500-378-01	DIODE 1N5402GW(F20)			JR513	1-216-864-11	METAL CHIP 0 5% 1/10W	
D6	6-500-378-01	DIODE 1N5402GW(F20)			JR514	1-216-864-11	METAL CHIP 0 5% 1/10W	
D11	8-719-988-61	DIODE 1SS355TE-17			JR516	1-216-864-11	METAL CHIP 0 5% 1/10W	
D12	6-500-334-01	DIODE MC2836			JR517	1-216-864-11	METAL CHIP 0 5% 1/10W	
D13	6-500-335-01	DIODE MC2838					< COIL >	
D16	6-500-335-01	DIODE MC2838			L501	1-422-009-13	COIL, AIR-CORE	
D17	6-500-334-01	DIODE MC2836			L502	1-422-009-13	COIL, AIR-CORE	
D18	6-500-335-01	DIODE MC2838					< TRANSISTOR >	
D19	6-500-334-01	DIODE MC2836			Q5	6-550-289-01	TRANSISTOR 2SA1235F	
D20	6-500-335-01	DIODE MC2838			Q6	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D23	8-719-988-61	DIODE 1SS355TE-17			Q7	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D24	8-719-988-61	DIODE 1SS355TE-17			Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D25	8-719-083-67	DIODE UDZS-TE17-20B			Q9	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D26	6-500-378-01	DIODE 1N5402GW(F20) (RG220)			Q10	6-550-316-01	TRANSISTOR 2SB792A(RS)	
D27	6-500-378-01	DIODE 1N5402GW(F20) (RG220)			Q11	8-729-055-91	TRANSISTOR SRA2202SF	
D29	8-719-988-61	DIODE 1SS355TE-17			Q12	6-550-645-01	TRANSISTOR 2SC3143K4-TB	
D30	8-719-083-52	DIODE UDZS-TE17-16B			Q13	6-550-316-01	TRANSISTOR 2SB792A(RS)	
D31	8-719-988-61	DIODE 1SS355TE-17			Q17	6-550-289-01	TRANSISTOR 2SA1235F	
D32	8-719-988-61	DIODE 1SS355TE-17			Q18	6-550-293-01	FET 2SK2937	
D33	8-719-988-61	DIODE 1SS355TE-17			Q19	6-550-293-01	FET 2SK2937	
D34	8-719-988-61	DIODE 1SS355TE-17			Q20	6-550-317-01	TRANSISTOR 2SD814A(RS)	
D35	8-719-988-61	DIODE 1SS355TE-17			Q21	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D36	8-719-988-61	DIODE 1SS355TE-17			Q22	6-550-316-01	TRANSISTOR 2SB792A(RS)	
D37	8-719-988-61	DIODE 1SS355TE-17			Q23	6-550-289-01	TRANSISTOR 2SA1235F	
D38	8-719-988-61	DIODE 1SS355TE-17			Q24	6-550-289-01	TRANSISTOR 2SA1235F	
D39	8-719-988-61	DIODE 1SS355TE-17			Q501	6-550-291-01	TRANSISTOR FN1016 (EXCEPT AEP,UK,RU)	
D40	8-719-988-61	DIODE 1SS355TE-17			Q501	6-550-311-01	TRANSISTOR 2SD2642 (AEP,UK,RU)	
D41	8-719-312-08	DIODE FMB-G16L (GX25)			Q502	6-550-291-01	TRANSISTOR FN1016 (EXCEPT AEP,UK,RU)	
D42	8-719-312-08	DIODE FMB-G16L (GX25)			Q502	6-550-311-01	TRANSISTOR 2SD2642 (AEP,UK,RU)	
D501	6-500-334-01	DIODE MC2836						
D502	6-500-334-01	DIODE MC2836						

HCD-GX25/RG220

POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q503	6-550-292-01	TRANSISTOR FP1016 (EXCEPT AEP,UK,RU)		R36	1-216-839-11	METAL CHIP 33K	5% 1/10W
Q503	6-550-309-01	TRANSISTOR 2SB1686 (AEP,UK,RU)		R37	1-216-843-11	METAL CHIP 68K	5% 1/10W
Q504	6-550-292-01	TRANSISTOR FP1016 (EXCEPT AEP,UK,RU)		R38	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q504	6-550-309-01	TRANSISTOR 2SB1686 (AEP,UK,RU)		R39	1-216-845-11	METAL CHIP 100K	5% 1/10W
Q505	6-550-316-01	TRANSISTOR 2SB792A(RS)		R40	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q506	6-550-316-01	TRANSISTOR 2SB792A(RS)		R41	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R42	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q508	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R43	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q509	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R44	1-216-236-11	RES-CHIP 39K	5% 1/8W
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R45	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q511	6-550-696-01	TRANSISTOR 2SC3249E-TP		R46	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q512	6-550-696-01	TRANSISTOR 2SC3249E-TP		R47	1-216-837-11	METAL CHIP 22K	5% 1/10W
Q513	6-550-696-01	TRANSISTOR 2SC3249E-TP		R48	1-216-849-11	METAL CHIP 220K	5% 1/10W
Q514	6-550-696-01	TRANSISTOR 2SC3249E-TP		R49	1-216-849-11	METAL CHIP 220K	5% 1/10W
Q515	6-550-317-01	TRANSISTOR 2SD814A(RS)		R50	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q516	6-550-317-01	TRANSISTOR 2SD814A(RS)		R51	1-216-823-11	METAL CHIP 1.5K	5% 1/10W
Q517	6-550-316-01	TRANSISTOR 2SB792A(RS)		R52	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q518	6-550-316-01	TRANSISTOR 2SB792A(RS)		R53	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q519	6-550-316-01	TRANSISTOR 2SB792A(RS)		R54	1-216-835-11	METAL CHIP 15K	5% 1/10W
Q520	6-550-316-01	TRANSISTOR 2SB792A(RS)		R55	1-260-330-11	CARBON 1.5K	5% 1/2W F
Q521	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R56	1-249-420-11	CARBON 1.8K	5% 1/4W
Q522	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R58	1-216-186-00	RES-CHIP 330	5% 1/8W
Q523	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R59	1-216-184-00	RES-CHIP 270	5% 1/8W
Q524	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R60	1-216-826-11	METAL CHIP 2.7K	5% 1/10W
Q525	8-729-052-79	TRANSISTOR 2SD1306NETL		R61	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q526	8-729-052-79	TRANSISTOR 2SD1306NETL		R62	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q527	6-550-289-01	TRANSISTOR 2SA1235F		R63	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q529	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R64	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q530	6-550-289-01	TRANSISTOR 2SA1235F		R65	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q534	6-550-296-01	TRANSISTOR 2SA1980G		R66	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q535	6-550-296-01	TRANSISTOR 2SA1980G		R67	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q536	6-550-289-01	TRANSISTOR 2SA1235F		R68	1-216-833-11	METAL CHIP 10K	5% 1/10W
		< RESISTOR >		R69	1-216-833-11	METAL CHIP 10K	5% 1/10W
R4	1-216-829-11	METAL CHIP 4.7K	5% 1/10W	R70	1-216-835-11	METAL CHIP 15K	5% 1/10W
R6	1-216-838-11	METAL CHIP 27K	5% 1/10W	R71	1-216-835-11	METAL CHIP 15K	5% 1/10W
R7	1-216-838-11	METAL CHIP 27K	5% 1/10W	R72	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
R8	1-216-838-11	METAL CHIP 27K	5% 1/10W	R73	1-216-236-11	RES-CHIP 39K	5% 1/8W
R9	1-216-839-11	METAL CHIP 33K	5% 1/10W	R74	1-216-238-11	RES-CHIP 47K	5% 1/8W
R12	1-216-830-11	METAL CHIP 5.6K	5% 1/10W	R75	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R13	1-216-206-00	RES-CHIP 2.2K	5% 1/8W	R76	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
R14	1-216-830-11	METAL CHIP 5.6K	5% 1/10W	R77	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
R16	1-216-821-11	METAL CHIP 1K	5% 1/10W	R78	1-216-234-00	RES-CHIP 33K	5% 1/8W
R17	1-216-821-11	METAL CHIP 1K	5% 1/10W	R79	1-216-830-11	METAL CHIP 5.6K	5% 1/10W
R18	1-216-809-11	METAL CHIP 100	5% 1/10W	R81	1-260-111-11	CARBON 10K	5% 1/2W F
R19	1-216-835-11	METAL CHIP 15K	5% 1/10W	R82	1-216-833-11	METAL CHIP 10K	5% 1/10W
R20	1-216-833-11	METAL CHIP 10K	5% 1/10W	R83	1-216-208-00	RES-CHIP 2.7K	5% 1/8W
R21	1-216-835-11	METAL CHIP 15K	5% 1/10W	R85	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R22	1-216-839-11	METAL CHIP 33K	5% 1/10W	R86	1-247-843-11	CARBON 3.3K	5% 1/2W F
R23	1-216-839-11	METAL CHIP 33K	5% 1/10W	R90	1-216-222-00	RES-CHIP 10K	5% 1/8W
R26	1-216-827-11	METAL CHIP 3.3K	5% 1/10W	R91	1-216-178-00	RES-CHIP 150	5% 1/8W
R27	1-216-833-11	METAL CHIP 10K	5% 1/10W	R92	1-247-843-11	CARBON 3.3K	5% 1/2W F
R29	1-216-138-00	METAL CHIP 3.3	5% 1/8W	R93	1-216-206-00	RES-CHIP 2.2K	5% 1/8W
R31	1-216-138-00	METAL CHIP 3.3	5% 1/8W	R94	1-216-833-11	METAL CHIP 10K	5% 1/10W
R32	1-216-840-11	METAL CHIP 39K	5% 1/10W	R95	1-260-111-11	CARBON 10K	5% 1/2W F
R33	1-216-839-11	METAL CHIP 33K	5% 1/10W	R96	1-216-214-00	RES-CHIP 4.7K	5% 1/8W
R34	1-216-843-11	METAL CHIP 68K	5% 1/10W	R97	1-216-830-11	METAL CHIP 5.6K	5% 1/10W
R35	1-216-840-11	METAL CHIP 39K	5% 1/10W	R98	1-216-830-11	METAL CHIP 5.6K	5% 1/10W
				R99	1-247-843-11	CARBON 3.3K	5% 1/2W F

POWER AMP

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R100	1-216-138-00	METAL CHIP	3.3	5%	1/8W	R537	1-260-328-11	CARBON	1K	5%	1/2W F
R102	1-216-216-00	RES-CHIP	5.6K	5%	1/8W	R538	1-260-328-11	CARBON	1K	5%	1/2W F
R103	1-216-244-00	RES-CHIP	82K	5%	1/8W	R539	1-216-833-11	METAL CHIP	10K	5%	1/10W
R104	1-216-244-00	RES-CHIP	82K	5%	1/8W	R540	1-216-833-11	METAL CHIP	10K	5%	1/10W
R105	1-216-244-00	RES-CHIP	82K	5%	1/8W	R541	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R106	1-216-244-00	RES-CHIP	82K	5%	1/8W	R542	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R107	1-216-244-00	RES-CHIP	82K	5%	1/8W	R543	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R108	1-216-244-00	RES-CHIP	82K	5%	1/8W	R544	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R109	1-216-244-00	RES-CHIP	82K	5%	1/8W	R545	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-244-00	RES-CHIP	82K	5%	1/8W	R546	1-216-809-11	METAL CHIP	100	5%	1/10W
R500	1-216-821-11	METAL CHIP	1K	5%	1/10W	R547	1-216-838-11	METAL CHIP	27K	5%	1/10W
△ R501	1-245-235-21	METAL OXIDE	0.22	10%	2W F (RG220:EXCEPT AEP,UK,RU)	R548	1-216-838-11	METAL CHIP	27K	5%	1/10W
△ R501	1-245-545-11	METAL OXIDE	0.22	5%	3W F (AEP,UK,RU)	R549	1-216-818-11	METAL CHIP	560	5%	1/10W
△ R502	1-245-235-21	METAL OXIDE	0.22	10%	2W F (RG220:EXCEPT AEP,UK,RU)	R550	1-216-818-11	METAL CHIP	560	5%	1/10W
△ R502	1-245-545-11	METAL OXIDE	0.22	5%	3W F (AEP,UK,RU)	R553	1-216-838-11	METAL CHIP	27K	5%	1/10W
△ R503	1-245-235-21	METAL OXIDE	0.22	10%	2W F (RG220:EXCEPT AEP,UK,RU)	R554	1-216-838-11	METAL CHIP	27K	5%	1/10W
△ R503	1-245-545-11	METAL OXIDE	0.22	5%	3W F (AEP,UK,RU)	R555	1-216-841-11	METAL CHIP	47K	5%	1/10W
△ R504	1-245-235-21	METAL OXIDE	0.22	10%	2W F (RG220:EXCEPT AEP,UK,RU)	R556	1-216-841-11	METAL CHIP	47K	5%	1/10W
△ R504	1-245-545-11	METAL OXIDE	0.22	5%	3W F (AEP,UK,RU)	R557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R505	1-216-809-11	METAL CHIP	100	5%	1/10W	R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R506	1-216-809-11	METAL CHIP	100	5%	1/10W	R559	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R507	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R560	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R508	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R561	1-216-843-11	METAL CHIP	68K	5%	1/10W
R509	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R562	1-216-857-11	METAL CHIP	1M	5%	1/10W
R510	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R563	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R511	1-216-821-11	METAL CHIP	1K	5%	1/10W	R564	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R512	1-216-821-11	METAL CHIP	1K	5%	1/10W	R567	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R513	1-216-835-11	METAL CHIP	15K	5%	1/10W	R568	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R514	1-216-835-11	METAL CHIP	15K	5%	1/10W	R569	1-216-853-11	METAL CHIP	470K	5%	1/10W
R515	1-216-815-11	METAL CHIP	330	5%	1/10W	R570	1-260-076-21	CARBON	10	5%	1/2W F
R516	1-216-815-11	METAL CHIP	330	5%	1/10W	R571	1-260-076-21	CARBON	10	5%	1/2W F
R517	1-216-804-11	METAL CHIP	39	5%	1/10W	R572	1-216-800-11	METAL CHIP	18	5%	1/10W
R518	1-216-804-11	METAL CHIP	39	5%	1/10W	R573	1-216-800-11	METAL CHIP	18	5%	1/10W
R519	1-216-804-11	METAL CHIP	39	5%	1/10W	R574	1-216-182-00	RES-CHIP	220	5%	1/8W
R520	1-216-804-11	METAL CHIP	39	5%	1/10W	R575	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R576	1-216-837-11	METAL CHIP	22K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R577	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R523	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R578	1-216-182-00	RES-CHIP	220	5%	1/8W
R524	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R580	1-216-150-11	RES-CHIP	10	5%	1/8W
R525	1-216-821-11	METAL CHIP	1K	5%	1/10W	R581	1-216-246-00	RES-CHIP	100K	5%	1/8W
R526	1-216-821-11	METAL CHIP	1K	5%	1/10W	R589	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R527	1-216-841-11	METAL CHIP	47K	5%	1/10W	R591	1-216-841-11	METAL CHIP	47K	5%	1/10W
R528	1-216-841-11	METAL CHIP	47K	5%	1/10W	R592	1-216-835-11	METAL CHIP	15K	5%	1/10W
R529	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R593	1-216-833-11	METAL CHIP	10K	5%	1/10W
R530	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R594	1-216-833-11	METAL CHIP	10K	5%	1/10W
R531	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R599	1-216-841-11	METAL CHIP	47K	5%	1/10W
R532	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R601	1-216-156-00	RES-CHIP	18	5%	1/8W
R533	1-216-809-11	METAL CHIP	100	5%	1/10W	R602	1-216-156-00	RES-CHIP	18	5%	1/8W
R534	1-216-809-11	METAL CHIP	100	5%	1/10W	R603	1-216-156-00	RES-CHIP	18	5%	1/8W
R535	1-216-809-11	METAL CHIP	100	5%	1/10W	R604	1-216-156-00	RES-CHIP	18	5%	1/8W
R536	1-216-809-11	METAL CHIP	100	5%	1/10W			< RELAY >			
						RY501	1-755-373-11	RELAY			
								< THERMISTOR >			
						TH501	1-805-217-11	THERMISTOR (1012)			
						TH502	1-805-217-11	THERMISTOR (1012)			

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HCD-GX25/RG220

REMOTE	SENSOR	SW	TRANS	VIDEO OUT	1 STREAM LED
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Ref. No.	Part No.	Description	Remark
		REMOTE BOARD *****	
		< CONNECTOR >	
CN604	1-816-423-11	SOCKET, CONNECTOR 3P	
		< IC >	
RM601	6-600-174-01	IC RPM7240-H4 (IR)	

	1-687-132-11	SENSOR BOARD *****	
		< CONNECTOR >	
CN731	1-785-329-21	PIN, CONNECTOR (LIGHT ANGLE) 3P	
		< IC >	
IC731	6-600-022-01	IC RPI-576	

	1-687-669-11	SW BOARD *****	
		< SWITCH >	
S751	1-786-514-11	SWITCH, LEVER (SLIDE) (OPEN/CLOSE DETECT)	

	1-688-088-11	TRANS BOARD (GX25)	
	1-688-695-11	TRANS BOARD (RG220:EXCEPT EA)	
	1-689-640-11	TRANS BOARD (EA) *****	
*	1-533-213-31	HOLDER, FUSE (EXCEPT EA)	
	1-533-217-31	HOLDER, FUSE (EA)	
		< CAPACITOR >	
C901	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C902	1-126-942-61	ELECT 1000uF	20% 25V
		< CONNECTOR >	
CN901	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P	
* CN902	1-764-334-11	PLUG, CONNECTOR 11P	
		< DIODE >	
D901	8-719-988-61	DIODE 1SS355TE-17 (EXCEPT US,CND,AEP,UK,EA,RU,MX)	
D902	8-719-988-61	DIODE 1SS355TE-17	
D903	8-719-988-61	DIODE 1SS355TE-17	
D904	8-719-988-61	DIODE 1SS355TE-17	
D905	8-719-988-61	DIODE 1SS355TE-17	
D906	8-719-988-61	DIODE 1SS355TE-17 (US,CND,AEP,UK,EA,RU,MX)	
		< RESISTOR >	
△R901	1-219-237-11	SOLID 3.3M	20% 1/2W F (GX25)

Ref. No.	Part No.	Description	Remark
		< RELAY >	
△RY901	1-755-276-11	RELAY, POWER (EA)	
△RY901	1-755-496-11	RELAY (EXCEPT US,CND,AEP,UK,EA,RU,MX)	
△RY902	1-755-276-11	RELAY, POWER (US,CND,AEP,UK,RU,MX)	
		< SWITCH >	
△S901	1-786-055-21	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (EA)	
△S901	1-786-408-11	SW, SL 1-2-3 SWS2301 (VOLTAGE SELECTOR) (E2,E3,E51,TW)	
		< TRANSFORMER >	
△T902	1-439-735-11	TRANSFORMER, POWER (AEP,UK,RU)	
△T902	1-439-736-11	TRANSFORMER, POWER (RG220:EXCEPT AEP,UK,RU,EA)	
△T902	1-439-977-11	TRANSFORMER, POWER (STAND-BY) (EA)	

		VIDEO OUT BOARD *****	
		< CONNECTOR >	
* CN003	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P	
		< JACK >	
JK004	1-774-227-11	JACK, PIN 1P (VIDEO OUT)	

		1 STREAM LED BOARD *****	
		< DIODE >	
LED611	8-719-058-04	LED SEL5223S-TP15 (STREAM 1)	
		< RESISTOR >	
R052	1-216-182-00	RES-CHIP 220	5% 1/8W

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
6	1-769-939-11	WIRE (FLAT TYPE) (11 CORE) (EXCEPT AEP,UK)	
6	1-773-003-11	WIRE (FLAT TYPE) (15 CORE) (AEP,UK)	
52	1-796-485-51	DECK, MECHANICAL	
53	1-827-145-11	WIRE (FLAT TYPE) (13 CORE)	
58	1-769-914-11	WIRE (FLAT TYPE) (9 CORE)	
59	1-773-322-11	WIRE (FLAT TYPE) (31 CORE)	
△ 205	1-690-608-11	CORD, POWER (AUS)	
△ 205	1-769-079-22	CORD, POWER (KR)	
△ 205	1-777-071-83	CORD, POWER (AEP,UK,RU,EA)	
△ 205	1-783-532-11	CORD, POWER (US,CND)	
△ 205	1-783-941-22	CORD, POWER (AR)	
△ 205	1-791-901-12	CORD, POWER (E2,E3,E51,TW)	
△ 205	1-827-226-11	CORD, POWER (MX)	
252	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
317	1-471-035-11	MAGNET ASSY	
323	1-827-146-11	WIRE (FLAT TYPE) (19 CORE)	
△ 351	A-4735-357-A	BASE ASSY, OP	
353	1-823-859-11	WIRE (FLAT TYPE) (16 CORE)	
△ F902	1-533-451-12	FUSE, GLASS TUBE (DIA.5) (3.15A/125V)	(GX25)
△ F902	1-533-470-12	FUSE, GLASS TUBE (DIA.5) (T3.15AL/250V)	(RG220)
△ F903	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V)	(GX25)
△ F903	1-533-472-12	FUSE, GLASS TUBE (DIA.5) (T5AL/250V)	(RG220)
△ F904	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V)	(GX25)
△ F904	1-533-472-12	FUSE, GLASS TUBE (DIA.5) (T5AL/250V)	(RG220)
△ F905	1-533-473-12	FUSE, GLASS TUBE (DIA.5) (T6.3AL/250V)	(AEP,UK,RU)
△ F905	1-576-537-12	FUSE, GLASS TUBE (DIA.5) (8A/125V)	(GX25)
△ F905	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V)	(RG220:EXCEPT AEP,UK,RU)
△ F906	1-533-473-12	FUSE, GLASS TUBE (DIA.5) (T6.3AL/250V)	(AEP,UK,RU)
△ F906	1-576-537-12	FUSE, GLASS TUBE (DIA.5) (8A/125V)	(GX25)
△ F906	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V)	(RG220:EXCEPT AEP,UK,RU)
M731	1-763-072-11	FAN, DC (RG220)	
M741	A-4723-963-A	MOTOR ASSY, TABLE (TABLE)	
M751	A-4736-655-A	MOTOR ASSY, LOADING (LOADING)	
RE701	1-477-680-11	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	
△ T901	1-439-805-11	TRANSFORMER, POWER (US,CND)	
△ T901	1-439-806-11	TRANSFORMER, POWER (AEP,UK,RU)	
△ T901	1-439-807-11	TRANSFORMER, POWER (E2,E3,E51,AUS,AR,KR,TW)	
△ T901	1-439-857-11	TRANSFORMER, POWER (MX)	
△ T901	1-439-999-11	TRANSFORMER, POWER (EA)	
TU901	1-693-625-11	TUNER PACK (FM/AM) (ANTENNA) (US,CND)	
TU901	1-693-626-11	TUNER PACK (FM/AM) (ANTENNA) (AEP,UK)	
TU901	1-693-627-11	TUNER PACK (FM/AM) (ANTENNA) (RU)	
TU901	1-693-628-11	TUNER PACK (FM/AM) (ANTENNA) (EXCEPT US,CND,AEP,UK,RU)	

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