

# CX-JN3

## SERVICE MANUAL

Ver 1.1 2004.08

US Model  
AEP Model  
UK Model  
E Model



CX-JN3 is the amplifier, CD player, tape deck and tuner section in JAX-N3/PK3.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM74-K6BD71A, CDM74S-K6BD71A, CDM74S-K6BD72
	Base Unit Name	BU-K6BD71A, BU-K6BD72
	Optical Block Name	KSM-213DCP
	Optical Pick-up Name	KSS-213D
Tape deck Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	CWM43FF13, CWM43FF25

### SPECIFICATIONS

#### TUNER

FM tuning range 87.5 MHz to 108 MHz  
FM usable sensitivity (IHF) 13.2 dBf  
FM antenna terminal 75 ohms (unbalanced)  
AM tuning range 530 kHz to 1710 kHz (10 kHz step)  
531 kHz to 1710 kHz (9 kHz step)  
AM usable sensitivity 350  $\mu$ V/m  
AM antenna Loop antenna

#### AMPLIFIER

Power output 40 W + 40 W (40 Hz - 20 kHz, THD less than 1 %, 6 ohms)  
50 W + 50 W (1 kHz, THD less than 10 %, 6 ohms)  
Total harmonic distortion 0.08 % (20 W, 1 kHz, 6 ohms)  
Input VIDEO/AUX: 400 mV  
Outputs SPEAKERS: 6 ohms or more  
PHONES: 32 ohms or more

#### CASSETTE DECK

Track format 4 tracks, 2 channels stereo  
Frequency response 50 Hz - 8 kHz  
Recording system AC bias  
Heads Deck A: playback x 1  
Deck B: recording/playback x 1, erase x 1

#### CD PLAYER

Laser Semiconductor laser ( $\lambda = 780$  nm)  
Emission duration: continuous  
1 bit dual  
D/A converter 85 dB (1 kHz, 0 dB)  
Signal-to-noise ratio 0.05 % (1 kHz, 0 dB)  
Harmonic distortion

#### GENERAL

Power requirements 120 V AC, 60 Hz  
Power consumption 65 W  
Power consumption With ECO mode on: 0.25 W  
in standby mode With ECO mode off: 15 W  
Dimensions (W x H x D) 280 x 330 x 392.5 mm  
(11  $\frac{1}{8}$  x 13 x 15  $\frac{1}{2}$  in.)  
Weight 6.7 kg (14 lbs 12 oz)

Specifications and external appearance are subject to change without notice.

#### COPYRIGHT

Check copyright laws relevant to recordings from discs, or tape for the country where the unit is to be used.

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## COMPACT DISC DECK RECEIVER

9-877-248-02

2004H05-1

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**Sony Corporation**

**Personal Audio Company**

**Published by Sony Engineering Corporation**



Notes on chip component replacement

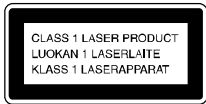
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

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

CAUTION

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



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

The following caution label is located inside the unit.



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 2 V AC range are suitable. (See Fig. A)

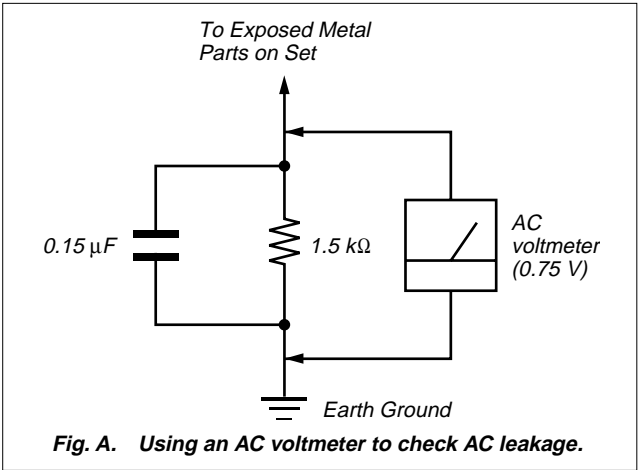


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

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

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SECTION 1  
SERVICING NOTES

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

LASER DIODE AND FOCUS SEARCH OPERATION  
CHECK

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

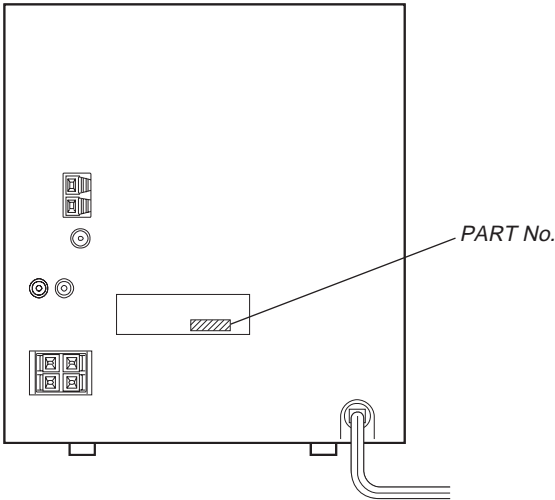
UNLEADED SOLDER

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.

• MODEL IDENTIFICATION  
– Back Panel –

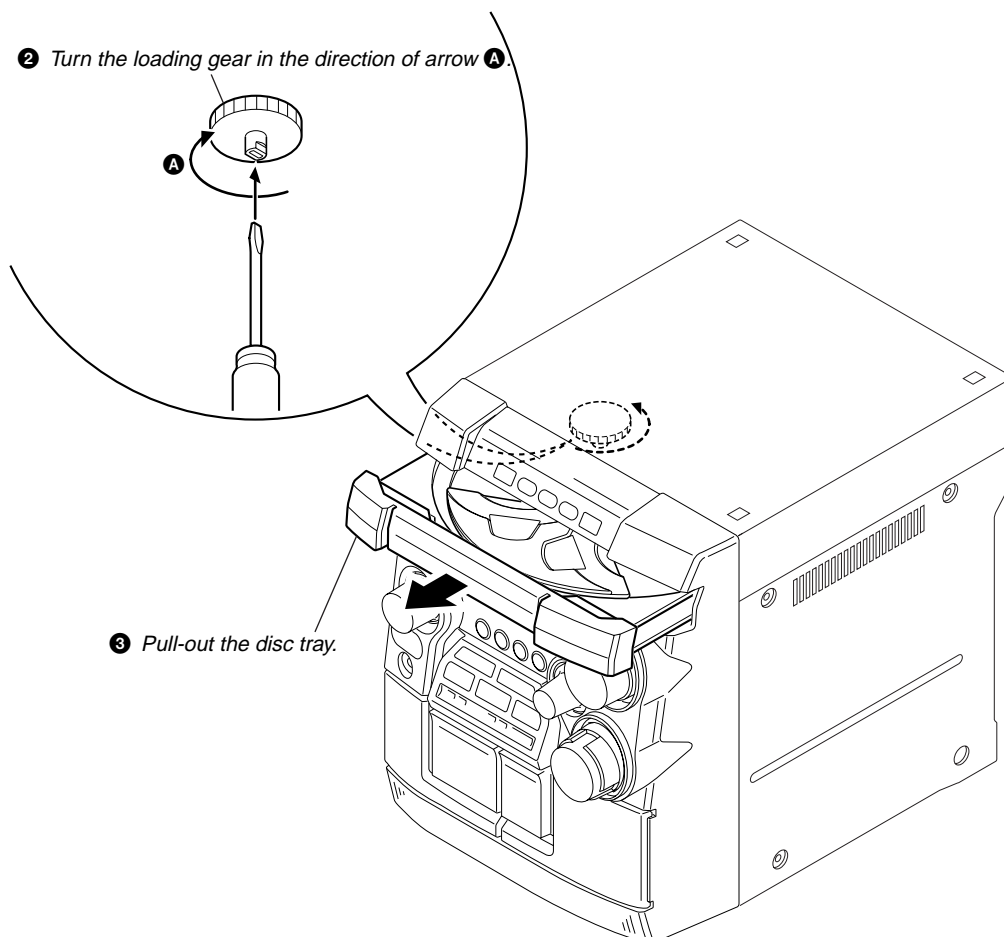


MODEL	PART No.
US model	4-245-162-0□
Chilean and Peruvian models	4-245-162-2□
AEP, UK and CIS models	4-245-162-3□
Mexican model (MADE IN Mexico)	4-245-162-7□
Mexican model (MADE IN China)	4-245-162-8□

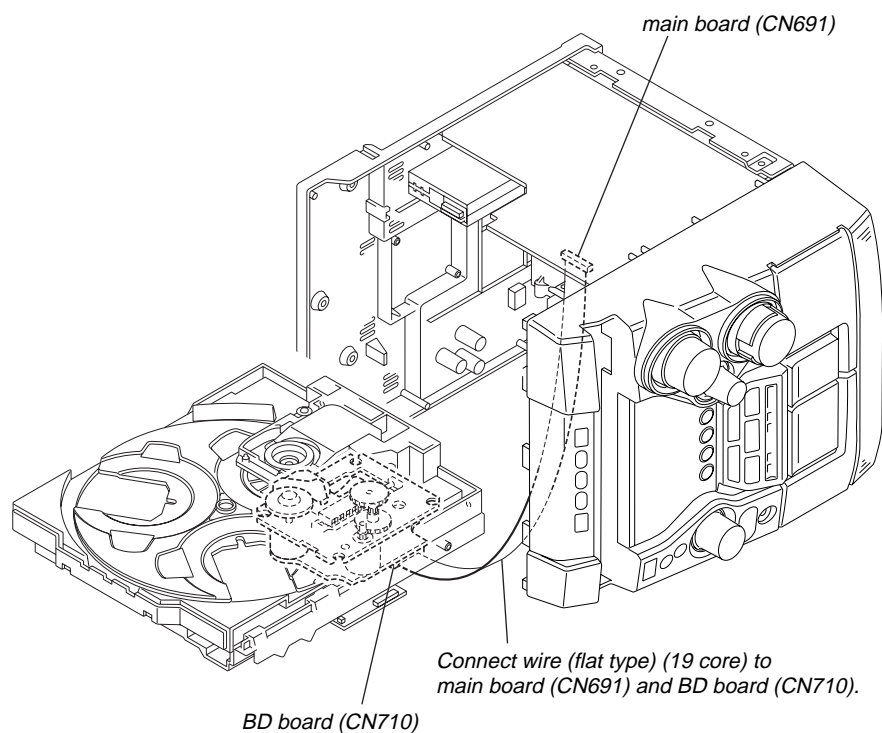
## HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF.

❶ Remove the case (side-L).

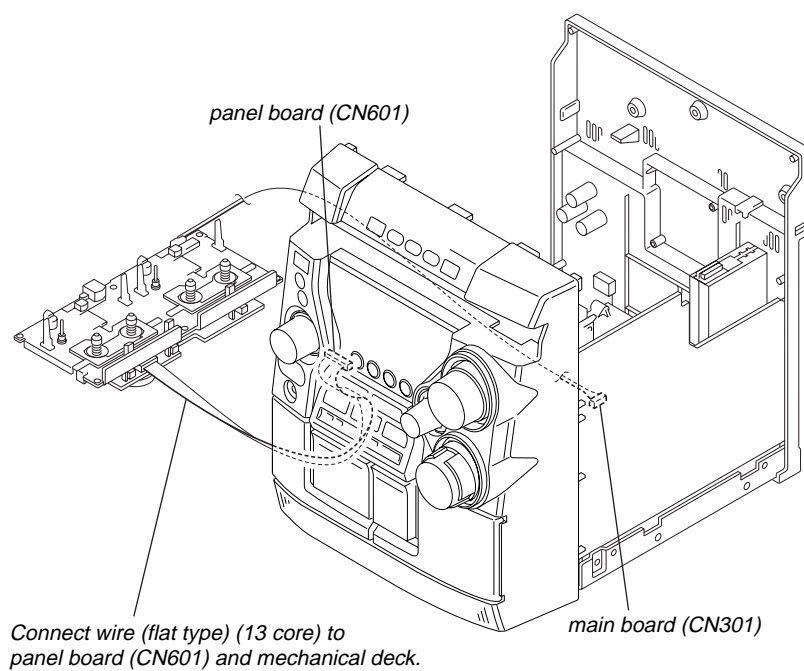
❷ Turn the loading gear in the direction of arrow A.



## SERVICE POSITION – CD mechanism deck –



## – Tape mechanism deck –

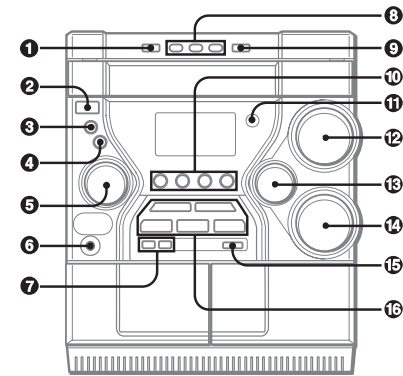


SECTION 2  
GENERAL

This section is extracted from  
instruction manual.

• LOCATION OF CONTROLS

Main unit: front

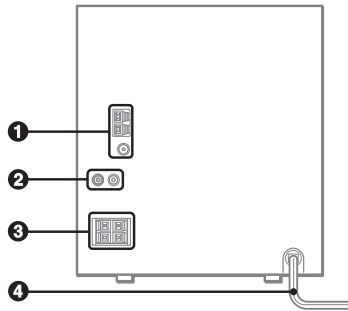


- 1 **DISC CHANGE**  
Rotates the CD trays.
- 2 **POWER 6 STANDBY/ON**  
Switches the unit on and off (standby).  
The red indicator flashes when receiving a signal from the remote.
- 3 **MODE**  
Selects various modes (ECO and Repeat/Shuffle/Programed playback, etc.) when used in combination with ENTER and MULTI JOG.
- 4 **ENTER**  
Fixes the modes and the time (ECO, Repeat/Shuffle/Programed playback, clock, and timer, etc.) when used in combination with ENTER and MULTI JOG.

- 5 **MULTI JOG**  
When used in combination with ENTER and MULTI JOG, CD: selects a track and Repeat/Shuffle/Programed playback.  
Tuner: selects a preset station.  
Tape: specifies tape length.  
Clock and Timer: sets the time.  
i-Bass: selects a frequency range.  
Spectrum analyzer, ECO and Dimmer: selects the mode.
- 6 **PHONES jack**  
Plug in here an optional headphones set with a mini stereo plug (ø3.5 mm). Speaker output is canceled.
- 7 **SYNC DUB**  
Starts dubbing a whole tape.
- w **REC/REC MUTING**  
Starts recording.
- 8 **DISC DIRECT PLAY 1-3**  
Selects a disc.
- 9 **z OPEN/CLOSE**  
Opens or closes the disc compartment.
- 0 **TAPE A/B**  
Selects Tape function, and deck A or B.
- TUNER/BAND**  
Selects Tuner function and the radio band.
- VIDEO/AUX**  
Selects the function of external equipment connected to VIDEO/AUX jacks.
- CD**  
Selects CD function.

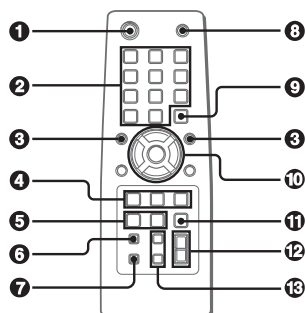
- ! **Remote sensor**  
Receives a signal from the remote.
- @ **VOLUME**  
Adjusts the volume.
- # **TREBLE**  
Enhances high frequency sound.
- \$ **BASS**  
Emphasizes low frequency sound.
- % **i-Bass**  
Produces rich and clear low frequency sound.
- ^ c **PLAY/PRESET**  
When the unit is turned off: activates or deactivates DEMO.  
CD and Tape: starts playback.  
Tuner: tunes into a preset station.
- s **STOP/CLEAR**  
CD and Tape: stops playback.  
Tuner: clears a station preset.
- f **TUNING DOWN, g TUNING UP**  
CD: searches a track in fast forward or fast reverse playback when held down.  
Tape: fast forwards or rewinds the tape.  
Tuner: manually tunes down or up within the band.
- a **PAUSE/SET**  
CD and Tape: pauses playback.  
Tuner: stores the received station in to preset.

Main unit: rear



- 1 **AM LOOP, Y FM 75  $\Omega$  terminals**  
Plug in the supplied AM and FM antennas here.
- 2 **VIDEO/AUX jacks**  
Accepts analog sound signals from external equipment.  
Connect using an optional connecting cable with RCA phono plugs (red plug to R jack, white plug to L jack).  
Refer also to the operating instructions of your equipment.  
To switch function to external input, press VIDEO/AUX.
- Tip:**  
To change the displayed name for this function, turn the unit on, then hold down VIDEO/AUX and press POWER on the unit. Repeat the procedure to select "VIDEO", "AUX" or "TV".
- 3 **# SPEAKER terminals**  
Connect the speaker cord of the supplied front speakers here.
- 4 **AC power cord**

## Remote control



Buttons with the same or similar names with the main unit basically have the same function.

### 1 POWER

### 2 1-0/10, +10

CD: selects a CD track of the specified number.  
Tuner: tunes in to the station with the specified preset number.

*The numbered buttons take on these functions below when pressed together with SHIFT held down:*

### EDIT

Enters AI Edit/Recording or Programed Edit/Recording mode when pressed in stop mode.

### BAND

Selects Tuner function and the radio band.

## TAPE A/B

### SPECTRUM

Changes the spectrum analyzer display.

### TUNER MODE

Switches between stereo or monaural FM reception.

- 3  $\text{r}$ ,  $\text{t}$   
CD: selects a track.  
Tuner: selects a preset station.  
Tape: specifies tape length.  
BASS and TREBLE: adjusts the level.  
Clock and Timer: sets the time.

### 4 PLAY MODE

Selects Shuffle or Programed playback in CD function.

### REPEAT

Enters CD repeat playback mode.

### ENTER

- 5 **CLOCK/TIMER/SET**  
Enters timer setting mode.

### CLOCK/TIMER/SELECT

Selects timer playback, timer recording or timer off.

- 6 **DISPLAY**

Displays the time and the remaining time for CD.

- 7 **SHIFT**

Hold down when pressing a numbered button to change its function to that printed above the number.  
*e.g.)*

"Press **SHIFT+BAND** on the remote" indicates "Hold down SHIFT and press '2' (BAND)". Doing so makes you be able to select Tuner function and the radio band.

## 8 FUNCTION

Switches the active function among CD, TAPE, TUNER and VIDEO (AUX or TV).

## 9 DISC SKIP

Select a disc.

## 0 $\text{c}$ / $\text{d}$

When the unit is turned off: activates or deactivates DEMO.  
CD and Tape: starts playback.

## $\text{s}$

CD and Tape: stops playback.

## $\text{f}$ , $\text{g}$

CD: searches a track in fast forward or fast reverse playback when held down.  
Tape: fast forwards or rewinds the tape.  
Tuner: manually tunes down or up within the band.

## $\text{a}$

CD and Tape: pauses playback.

## ! SLEEP

Switches the sleep-timer on/off and selects the duration.

## @ VOLUME (+, -)

Adjusts the volume.

## # SOUND

Selects BASS or TREBLE setting mode.

## CLEAR

Clears a track of the CD programed playback and a Radio preset station.

### Note

The buttons not explained above (**ALBUM** N, M and **KARAOKE**) do not operate for this unit.

## Setting the clock

Use the remote.

### 1 Press CLOCK/TIMER/SET.

Go to step 3 when the time appears and the 'hour' flashes.

### 2 Press $\text{r}$ or $\text{t}$ repeatedly until "CLOCK SET" appears in the display and then press ENTER.

### 3 Press $\text{r}$ or $\text{t}$ repeatedly to set the hour and then press ENTER.

### 4 Press $\text{r}$ or $\text{t}$ repeatedly to set the minute and then press ENTER.

The time display stops flashing and the clock starts from 00 seconds.

- MULTI JOG is also available in place of  $\text{r}$  or  $\text{t}$ .

### To display the time

Press DISPLAY on the remote. The time will be displayed 6 seconds.

### Tip:

"AM 12:00" indicates midnight and "PM 12:00" noon.


### If "-:--" appears when the unit is turned off

There has been a power interruption. Re-set the clock.

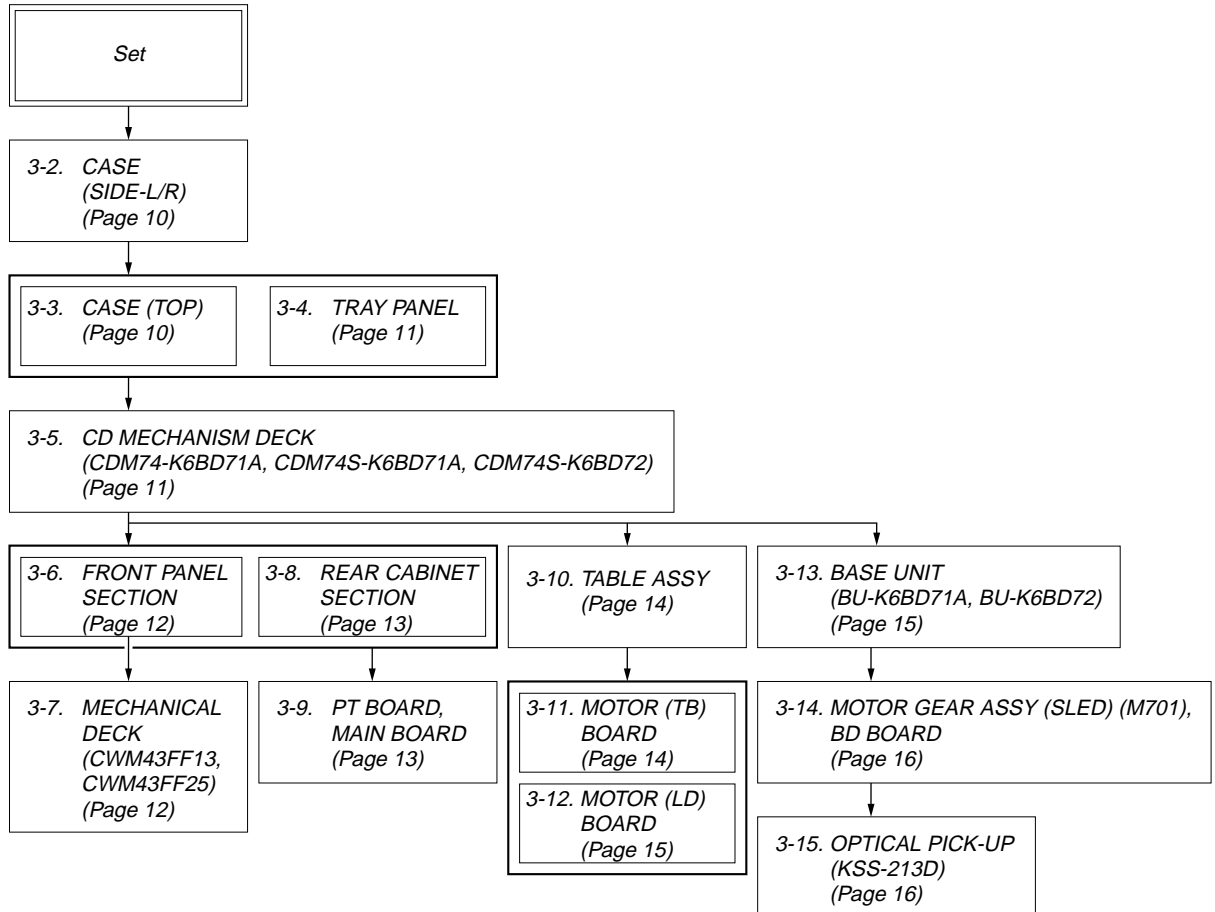
## SECTION 3 DISASSEMBLY

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

### 3-1. DISASSEMBLY FLOW

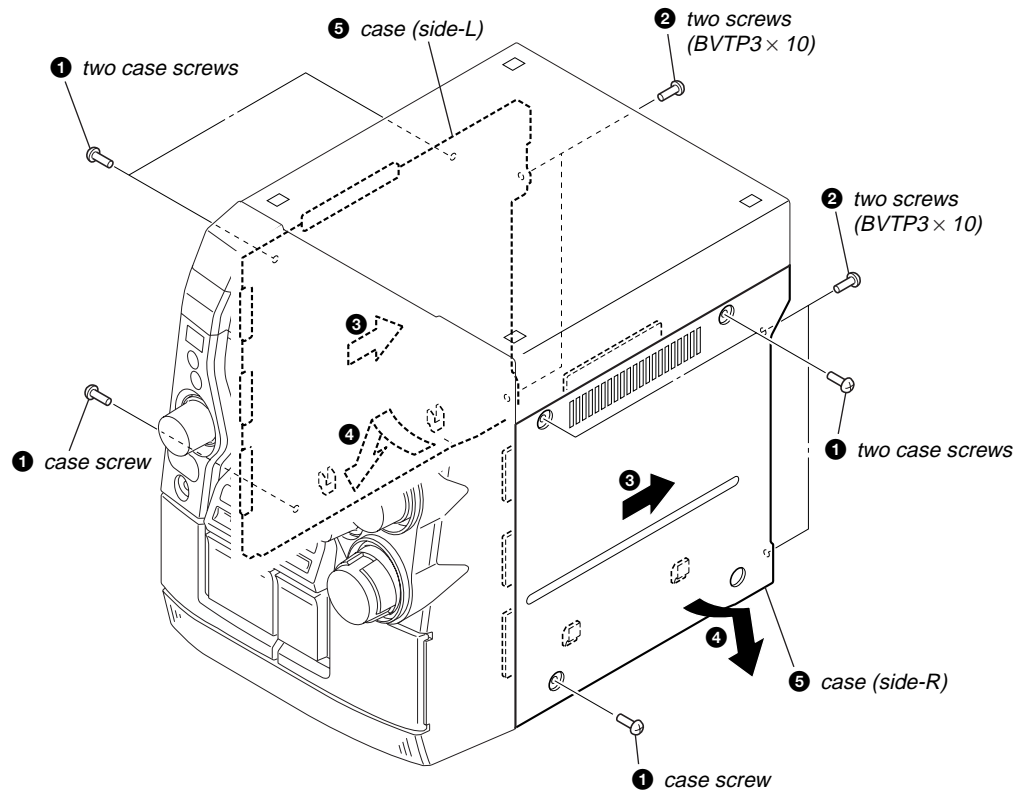
**Note 1:** The process described in  can be performed in any order.

**Note 2:** Without completing the process described in , the next process can not be performed.

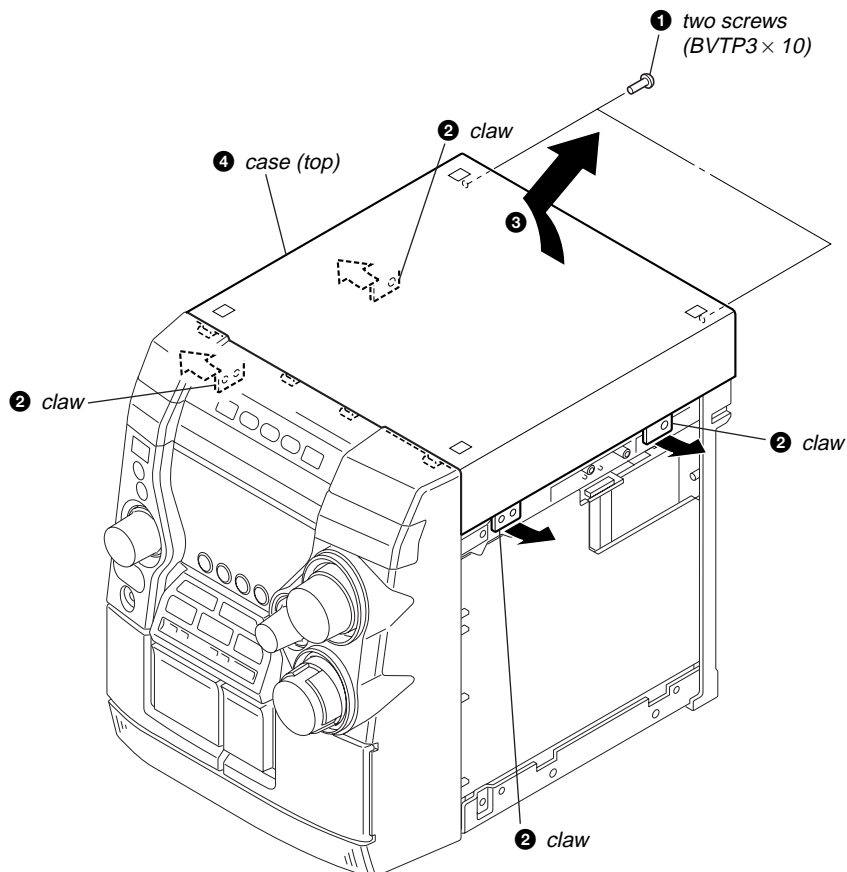


**Note:** Follow the disassembly procedure in the numerical order given.

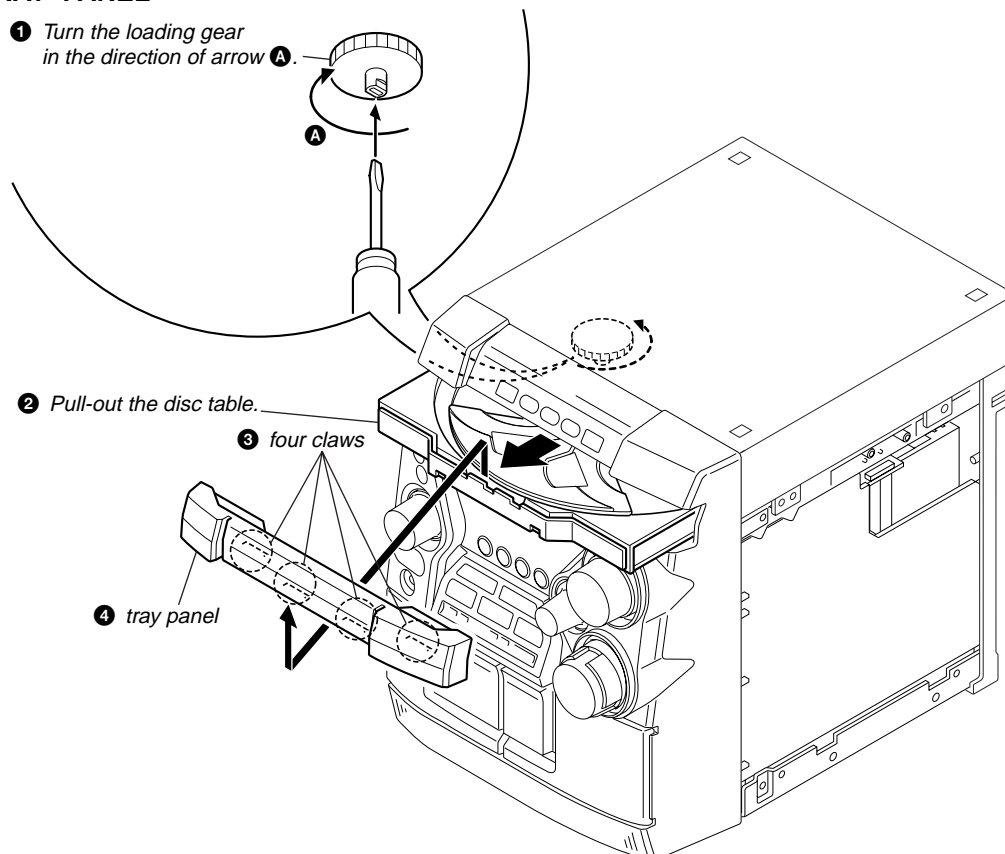
## 3-2. CASE (SIDE-L/R)



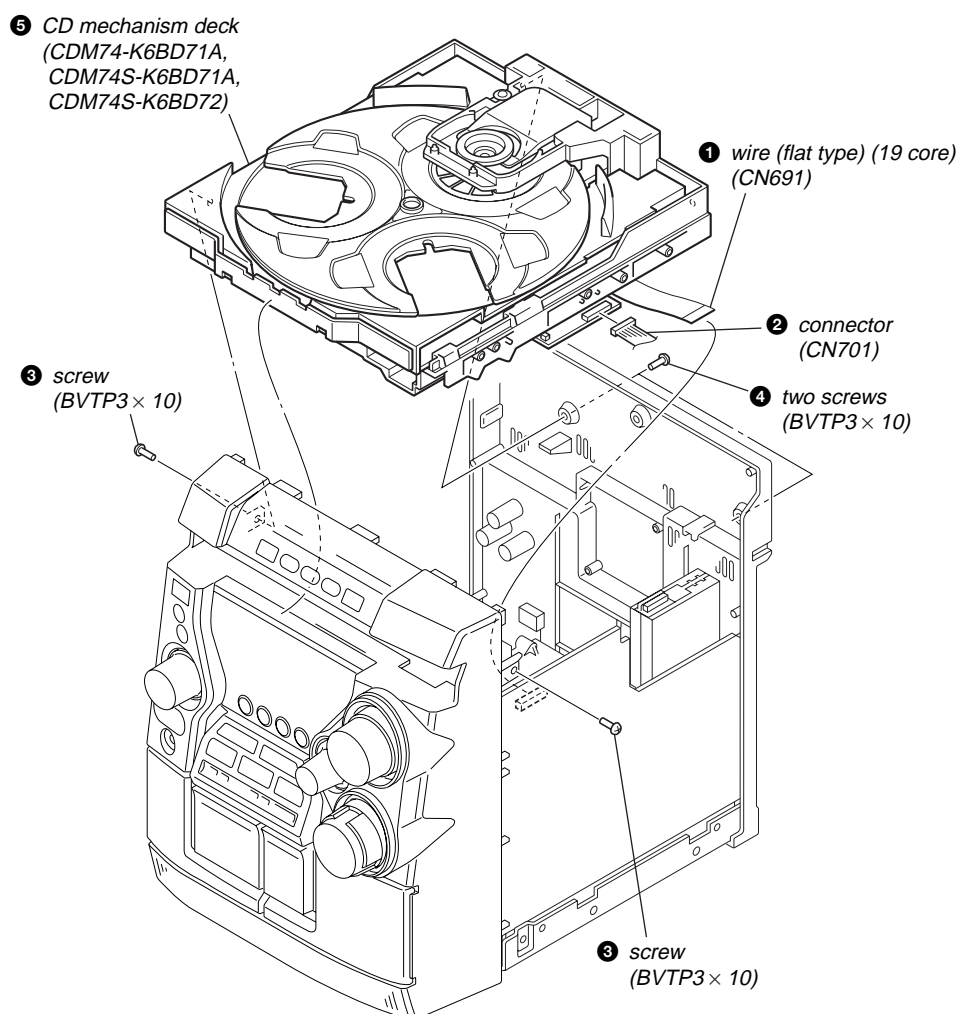
## 3-3. CASE (TOP)



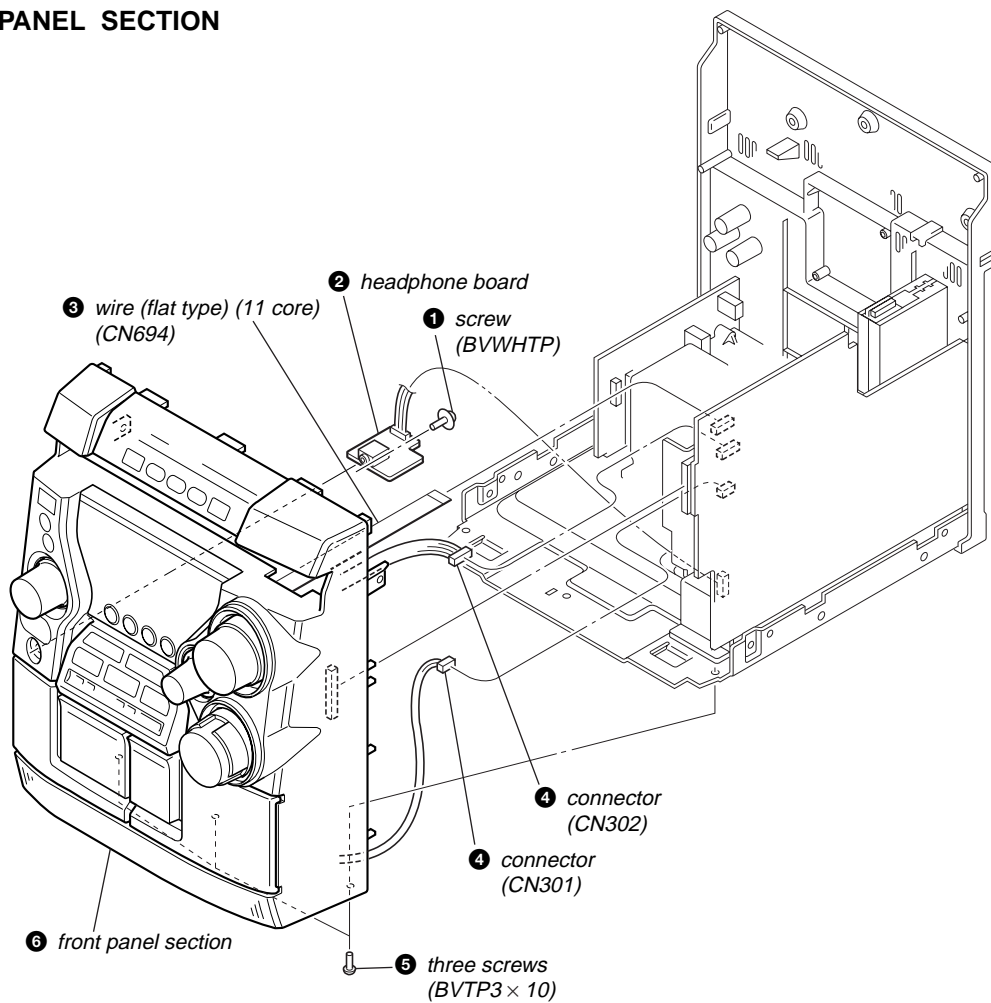
### 3-4. TRAY PANEL



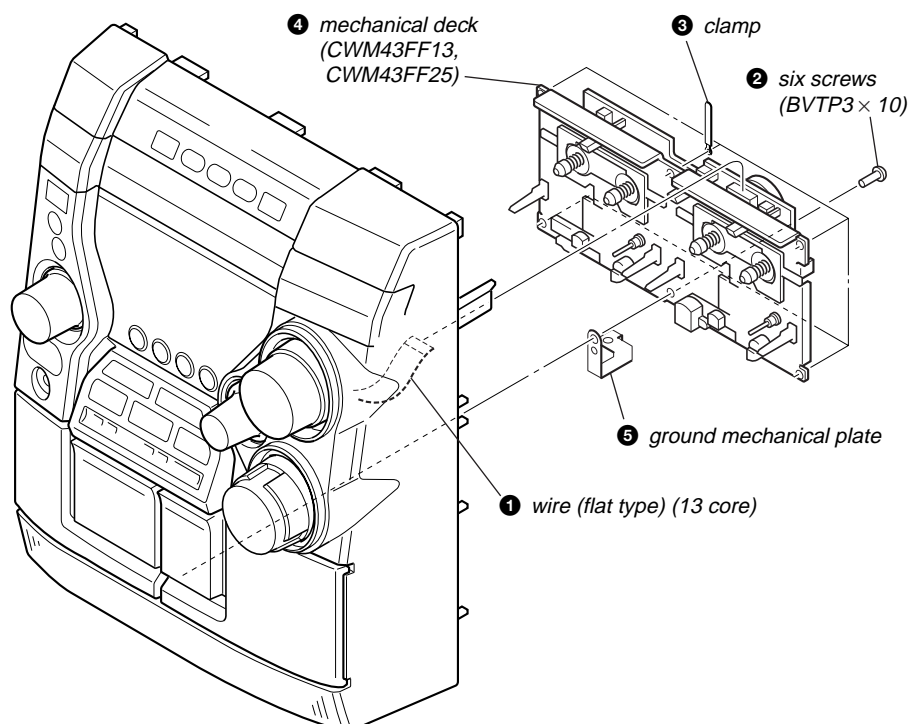
### 3-5. CD MECHANISM DECK (CDM74-K6BD71A, CDM74S-K6BD71A, CDM74S-K6BD72)



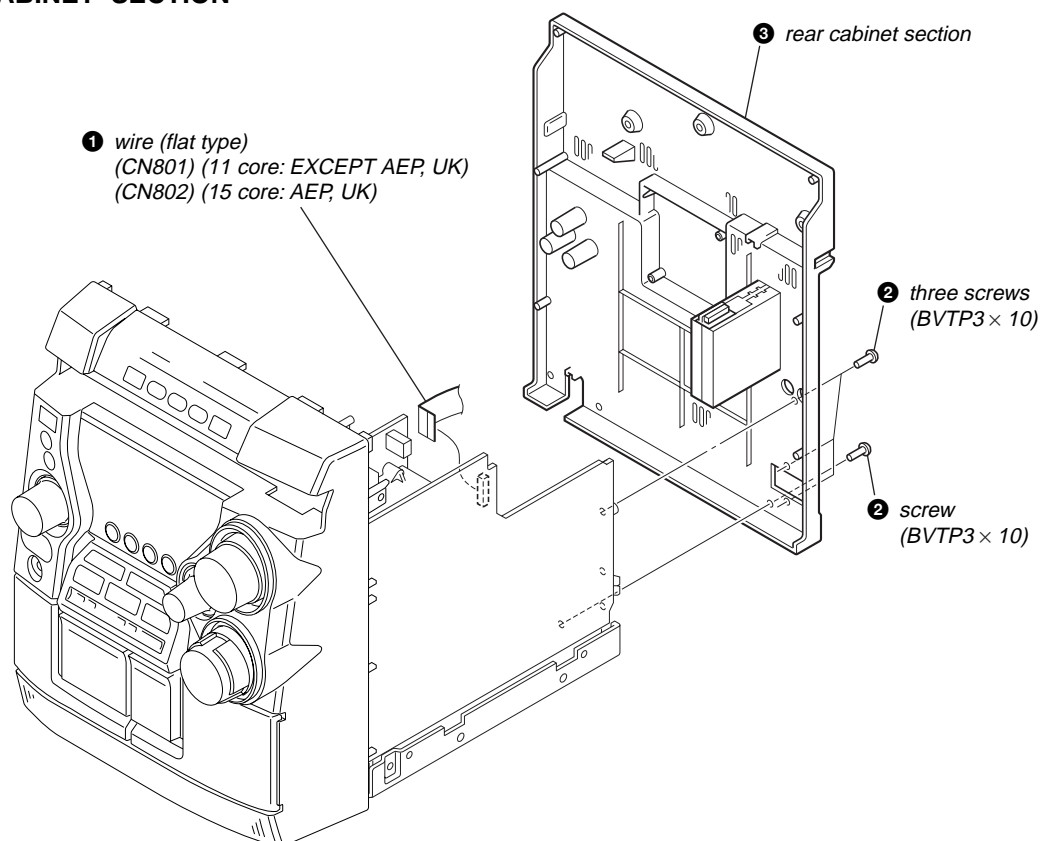
### 3-6. FRONT PANEL SECTION



### 3-7. MECHANICAL DECK (CWM43FF13, CWM43FF25)

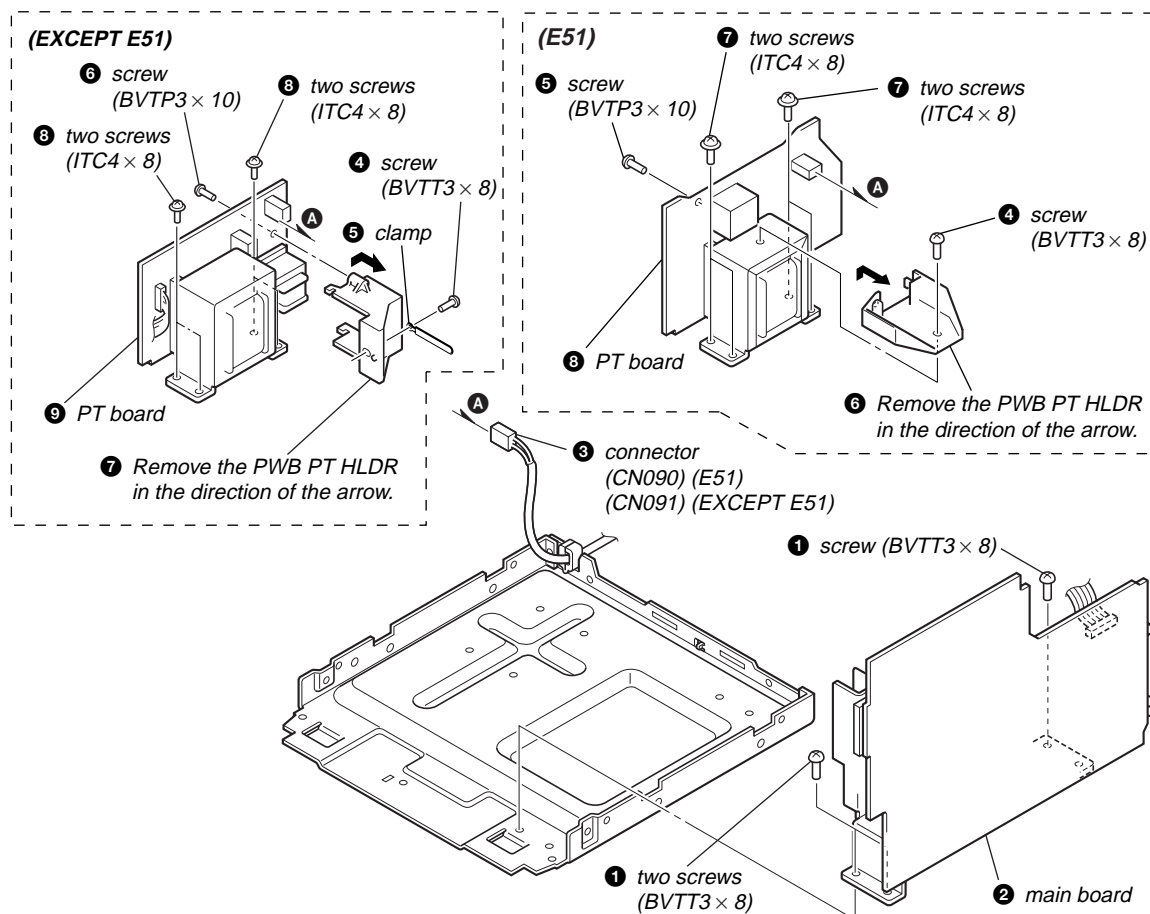


### 3-8. REAR CABINET SECTION

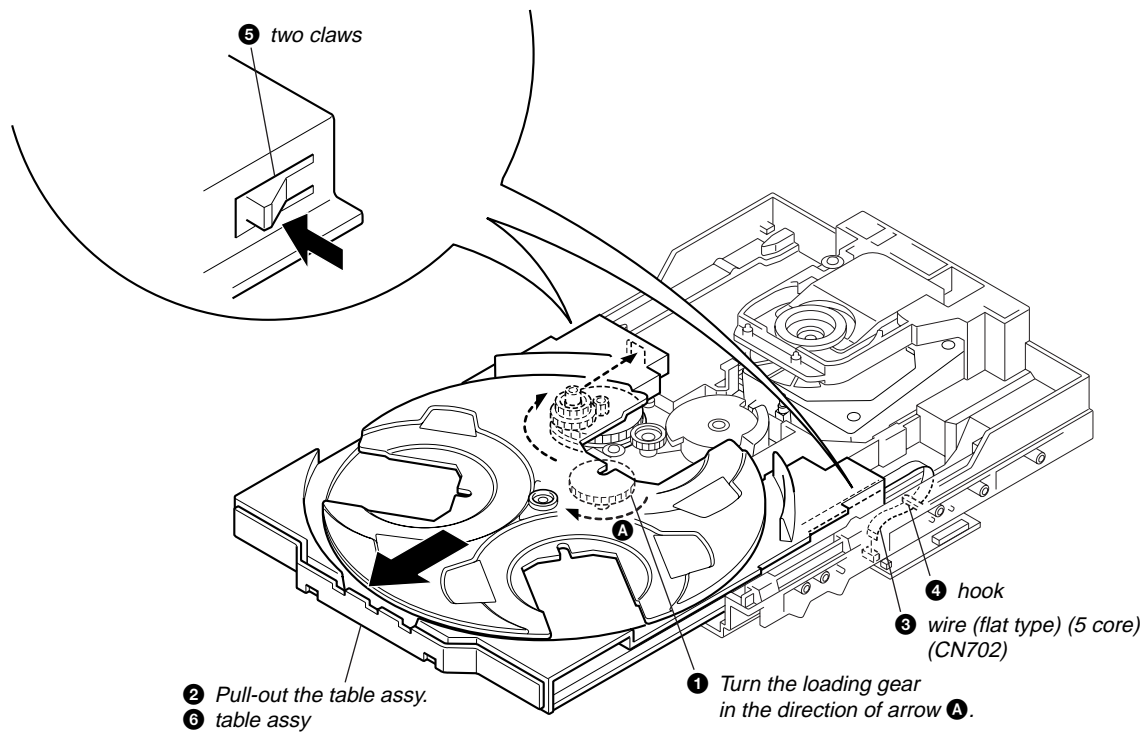


### 3-9. PT BOARD, MAIN BOARD

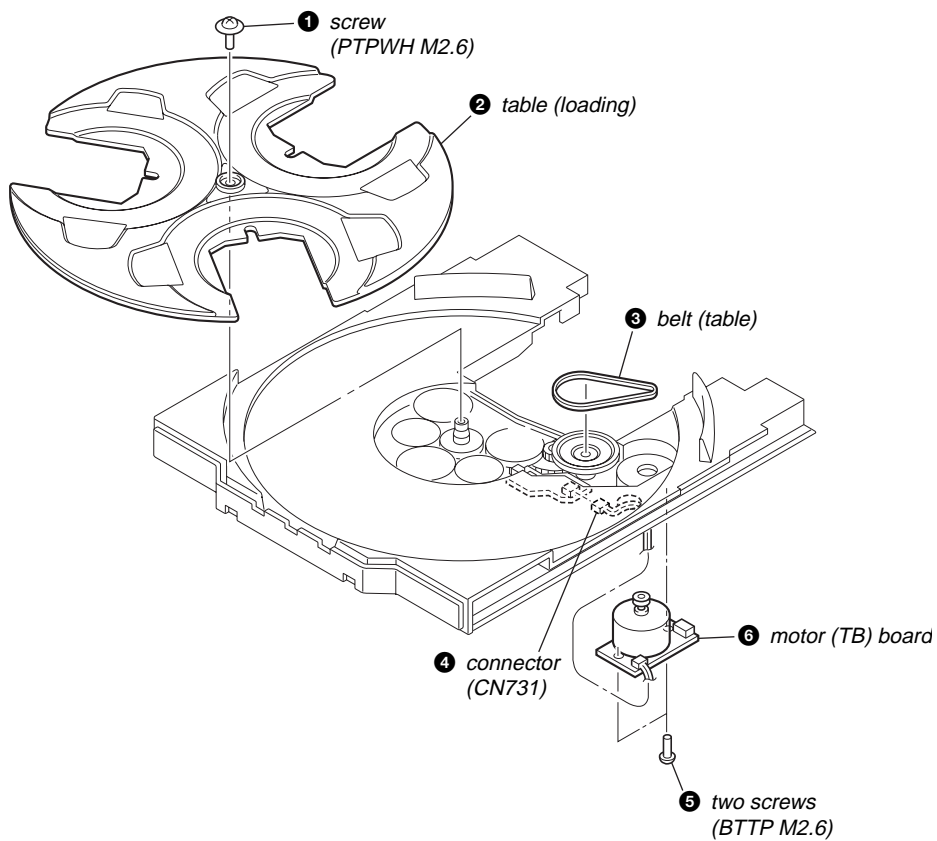
- Abbreviation  
E51 : Chilean and Peruvian models



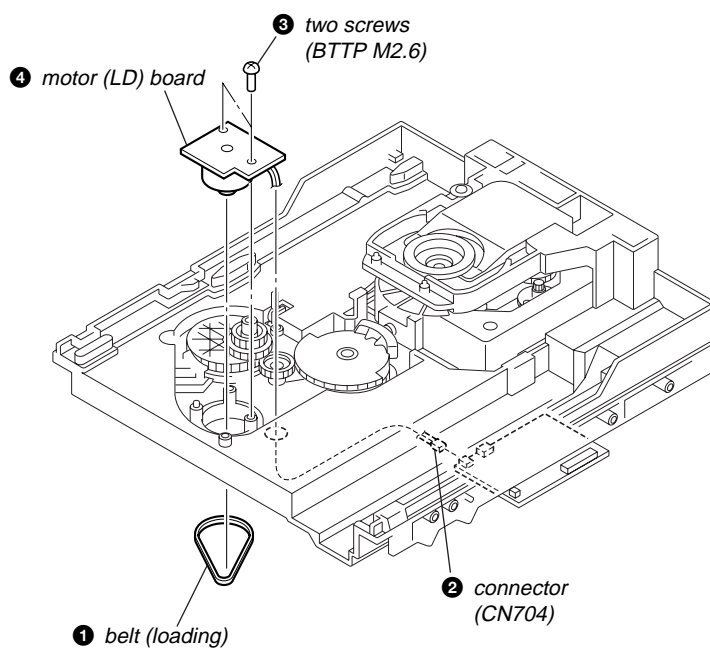
### 3-10. TABLE ASSY



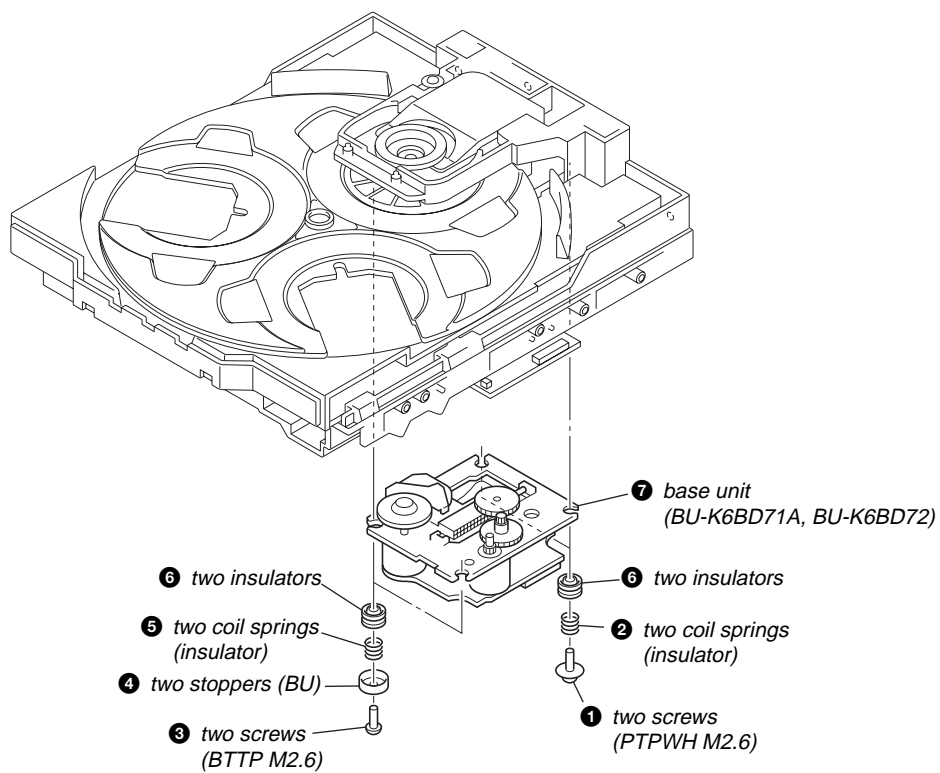
### 3-11. MOTOR (TB) BOARD



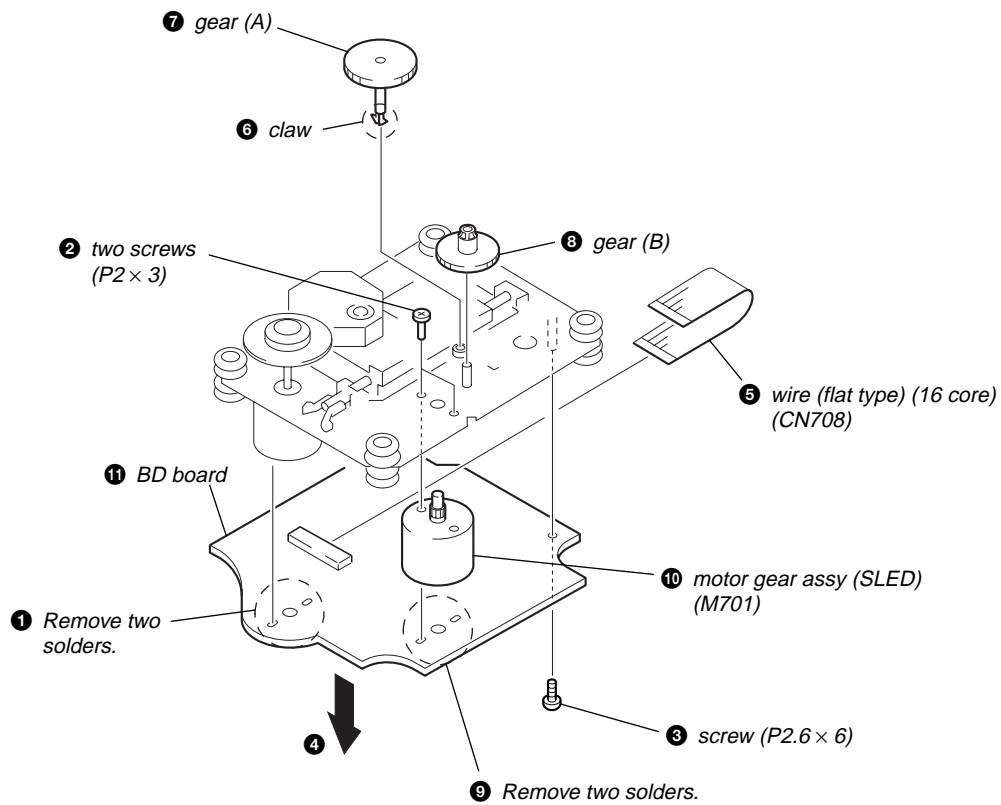
## 3-12. MOTOR (LD) BOARD



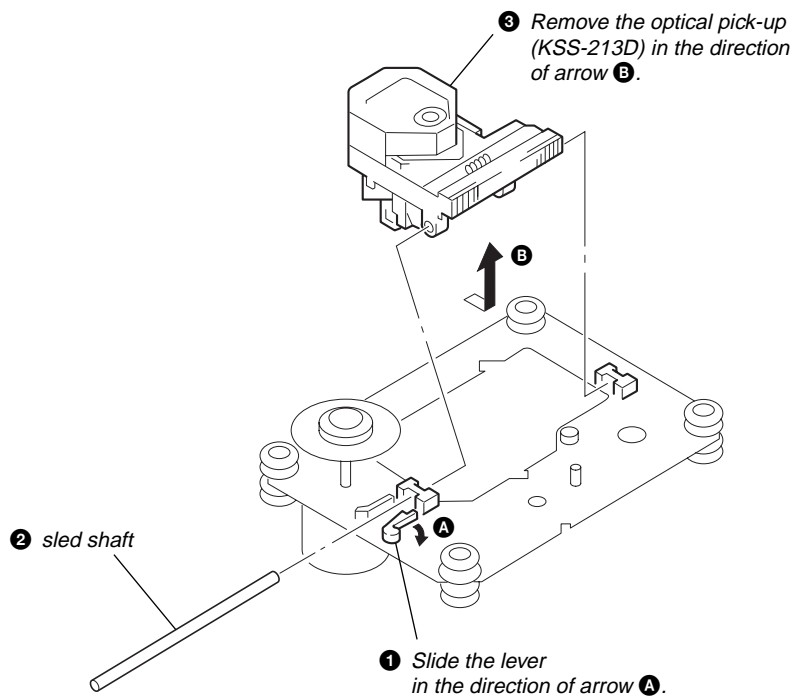
## 3-13. BASE UNIT (BU-K6BD71A, BU-K6BD72)



### 3-14. MOTOR GEAR ASSY (SLED) (M701), BD BOARD



### 3-15. OPTICAL PICK-UP (KSS-213D)



## SECTION 4

### TEST MODE

#### MC 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:

- In the standby status, while pressing the **[MUTE]** button, press the **[POWER]** button.
- The set is reset, then becomes standby status.

#### GC TEST MODE

##### Procedure:

- Press the **[POWER]** button to turn the power on.
- While pressing the **[MUTE]** button, press the **[POWER]** button for 5 seconds.
- It change displays in order of model type, version and suffix at 2 seconds interval, then the display is back to normal status.

#### AMP TEST MODE

##### Procedure:

- In the status where AC plug is disconnected, while pressing the **[VIDEO/AUX]** button, connect the AC plug to turn the power on. Then enter the AMP test mode and display "AMP TEST".
- If turn the **[VOLUME]** knob clockwise, it displays "VOLUME MAX", and if turn the knob counterclockwise, it displays "VOLUME 0".
- If the **[TREBLE]** and **[BASS]** knobs are turned clockwise or counterclockwise, it change displays in order of "EQ MAX", "EQ MIN" and "EQ FLAT".
- To release from this mode, disconnect the AC plug and turn the power off.

#### DISC TRAY LOCK

##### Procedure:

- Press the **[POWER]** button to turn the power on.
- While pressing the **[MUTE]** button, press the **[▲ OPEN/CLOSE]** button for 5 seconds.
- The message "LOCKED" is displayed and the tray is locked. (Even if exiting from this mode, the tray is still locked)
- To release this lock, while pressing the **[MUTE]** button, press the **[▲ OPEN/CLOSE]** button for 5 again.
- The message "UNLOCKED" is displayed and the tray is unlocked.

#### CD REPEAT 5 LIMIT CANCEL MODE

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

##### Procedure:

- Press the **[POWER]** button to turn the power on.
- In the repeat on status, while pressing the **[MUTE]** button, press the **[CD]** button to enter the CD repeat 5 limit cancel mode and repeat mark blinks on the fluorescent indicator tube.
- To release this mode, press the **[POWER]** button to turn the power off.

#### CHANGE-OVER OF AM TUNER STEP BETWEEN 9 kHz AND 10 kHz

##### (Except AEP, UK and CIS models)

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

##### Procedure:

- Press the **[POWER]** button to turn the power on.
- While pressing the **[TUNER]** button, press the **[POWER]** button to the display on fluorescent indicator tube changes to "AM 530 kHz" (10 kHz step) or "AM 531 kHz" (9 kHz step), and thus the channel step is changed over.

#### FUNCTION CHANGE MODE

- Select either TV, VIDEO or AUX (MD) of the external function input.

##### Procedure:

- Press the **[POWER]** button to turn the power on.
- While pressing the **[VIDEO/AUX]** button, press the **[POWER]** button.
- Each time this operation is operated, it change displays in order of "TV", "VIDEO" and "AUX".

## CD TEST MODE

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

### Procedure:

1. In the status where AC plug is disconnected, while pressing the **[CD]** button, connect the AC plug to turn the power on.
2. When enter this mode, it displays “CD TEST” and few seconds later, all segments turn on of the fluorescent indicator tube.
3. To release from this mode, disconnect the AC plug and turn the power off.

In this mode, it operates as following table.

Button	Operation	Purpose of use
▶▶	Move the pick-up to outside track	Sled circuit check
◀◀	Move the pick-up to inside track	Tracking circuit check Mechanism operation check Optical pick-up check
▶	Playback a CD If it cannot focus on, it continuous focus search	Servo block check
■	When playback a CD: stop playback When stop a CD: display “READING” (blink) continuous laser diode on continuous focus search (not made focus on)	APC circuit check Laser current measure Focus search waveform check Tracking balance check
	Pause, Tracking servo off (ignore CLV error)	

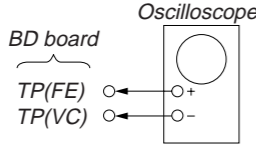
# SECTION 5 ELECTRICAL ADJUSTMENTS

## CD SECTION

### Note:

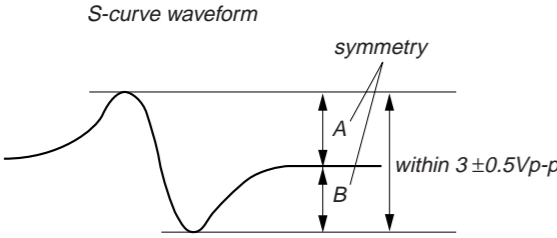
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal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

## S-CURVE CHECK



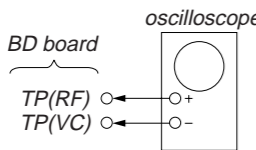
### Procedure :

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  $3 \pm 0.5$  Vp-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.

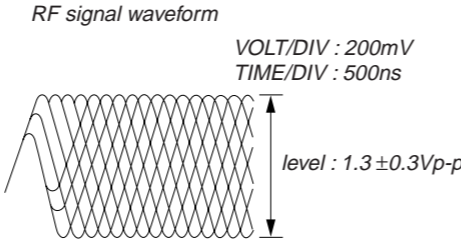
## RF LEVEL CHECK



### Procedure :

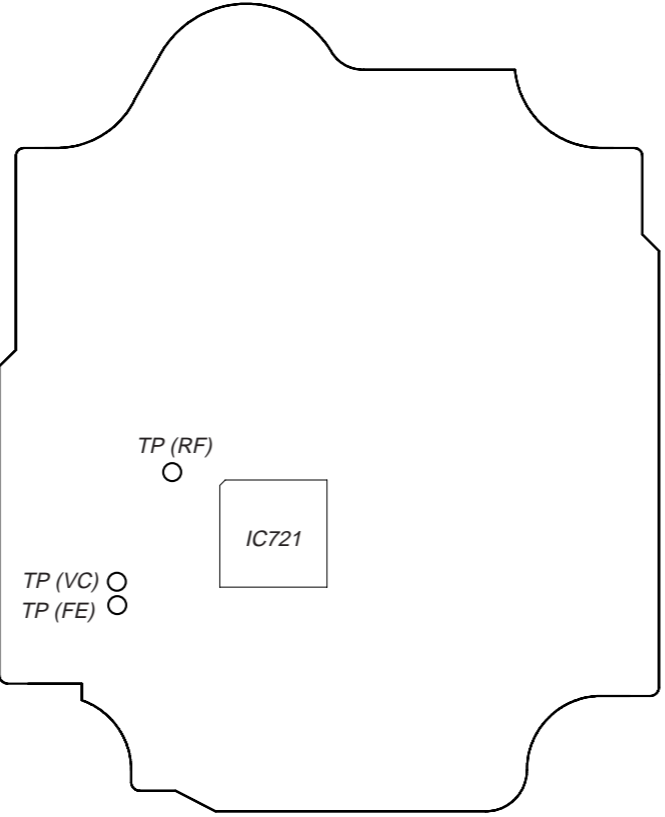
1. Connect an oscilloscope to TP (RF) and TP (VC).
2. Turn the power on.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

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

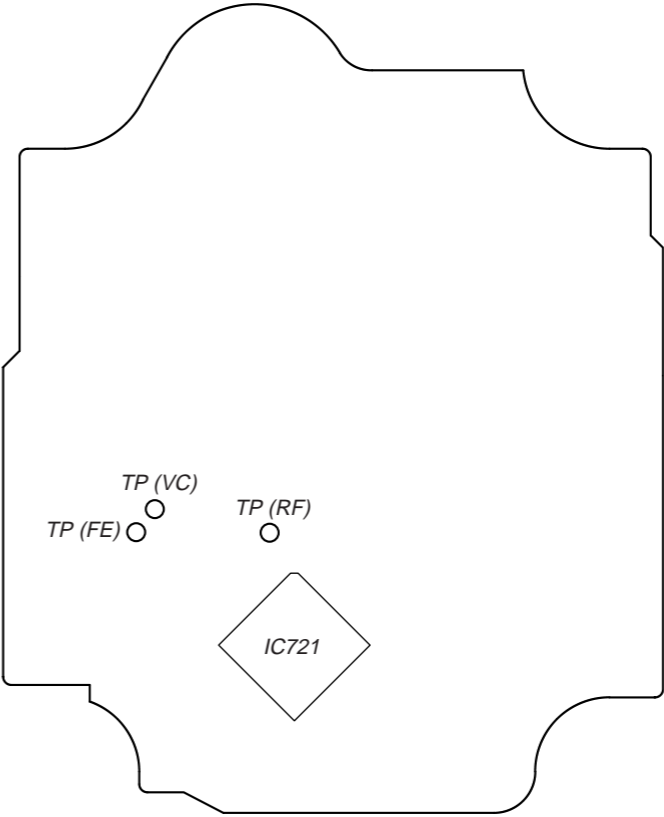


**Connecting Location:** BD board

– BD Board (Conductor side) – (EXCEPT US model)



– BD Board (Conductor side) – (US model)



The diagram illustrates the internal circuitry of a CD player, organized into several functional blocks:

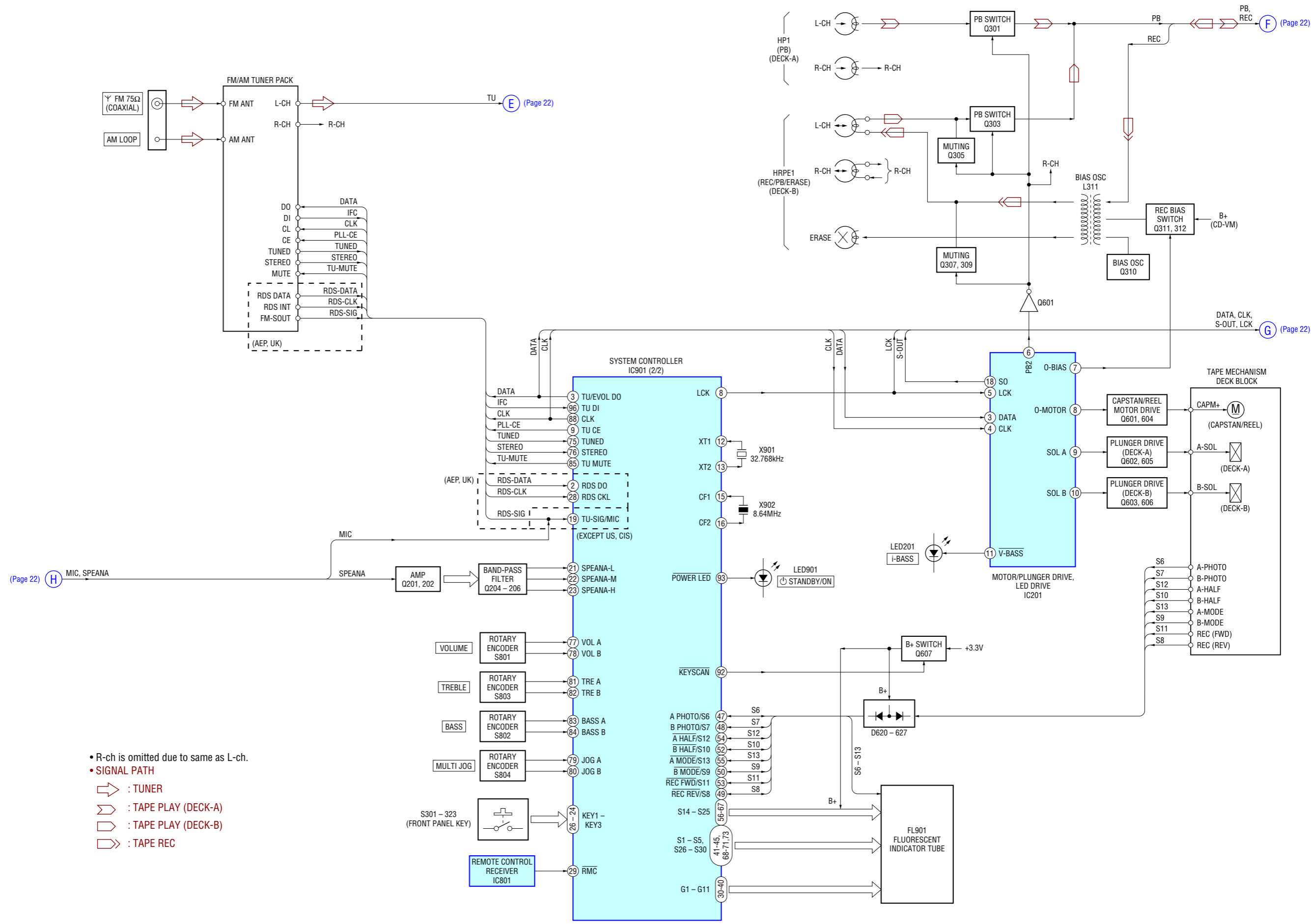
- Optical Pick-up Block (KSM-213DCP):** Contains a DETECTOR, I-V AMP, LASER DIODE (LD, PD), and AUTOMATIC POWER CONTROL (Q701).
- CD DSP IC721 (EXCEPT US):** The central processing unit for the optical signal, including RF AMP, EQ, AGC, RF, PH, BH, A/D CONVERTER, SERVO PROCESSOR, and D/A CONVERTER.
- MP3 Decoder IC801 (EXCEPT US):** Processes digital audio data, including ADDATA, ADBCK, ADLRCK, DATA, DATAACK, LRSY, EFLG, C2F, FSX/16MIN, MP3RES, 16MOUT, XIN, XOUT, CMDOUT, CMDIN, CL, and MP3 SYNC.
- System Controller IC901 (1/2):** Manages system operations, including MUTE, POWER HOLD, RESET, P-DOWN, CD DO, CD DI, CD CLK, CD CE, CD WRQ, CD DRF, CD RESET, CD NUMBER SENS, and CD BUSY.
- Peripheral Components:** Includes a LASER DIODE, PD, LD, APC, S701 (LIMIT), TID0, FID0, SLD0, SPD0, CONT4, M701 (SLED), M702 (SPINDLE), M751 (LOADING), M741 (TABLE), and various sensors like the LEVEL SHIFT (Q731) and TABLE ADDRESS SENSOR (IC731).
- Motor Drives:** Includes a LOADING MOTOR DRIVE (IC701) and a TABLE MOTOR DRIVE (IC712), both with OUT1, OUT2, FIN, and RIN pins.

**Legend:**

- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
- ⇒ : CD

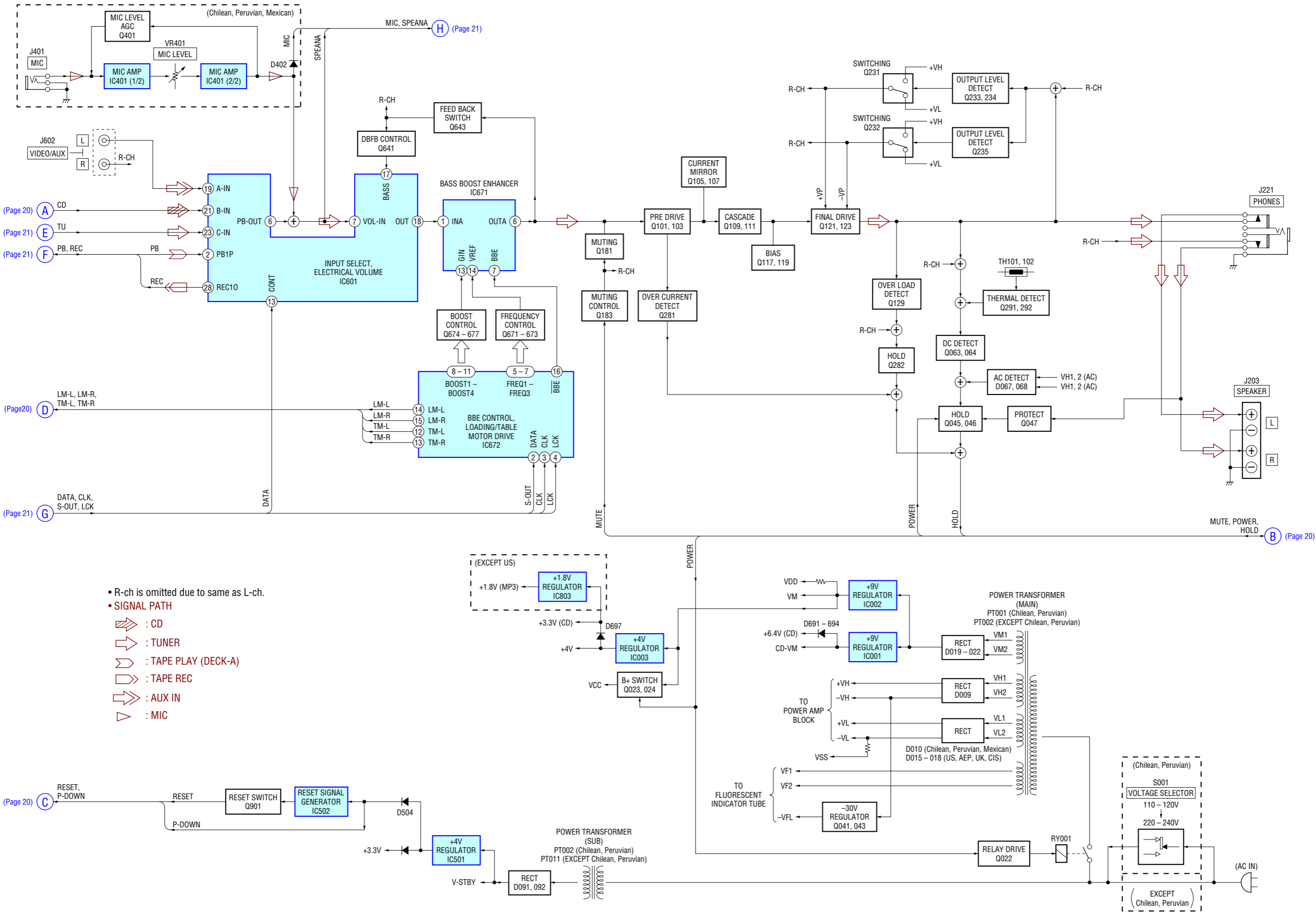
**Page Navigation:** The diagram is part of a multi-page document, with references to (Page 22) at various points (A, B, C, D).

6-2. BLOCK DIAGRAM – TUNER/TAPE/PANEL Section –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
- ➡ : TUNER
- ➡ : TAPE PLAY (DECK-A)
- ➡ : TAPE PLAY (DECK-B)
- ➡ : TAPE REC

6-3. BLOCK DIAGRAM – AMP/POWER SUPPLY Section –



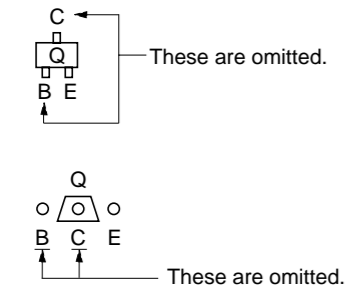
6-4. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

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 layers' 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.



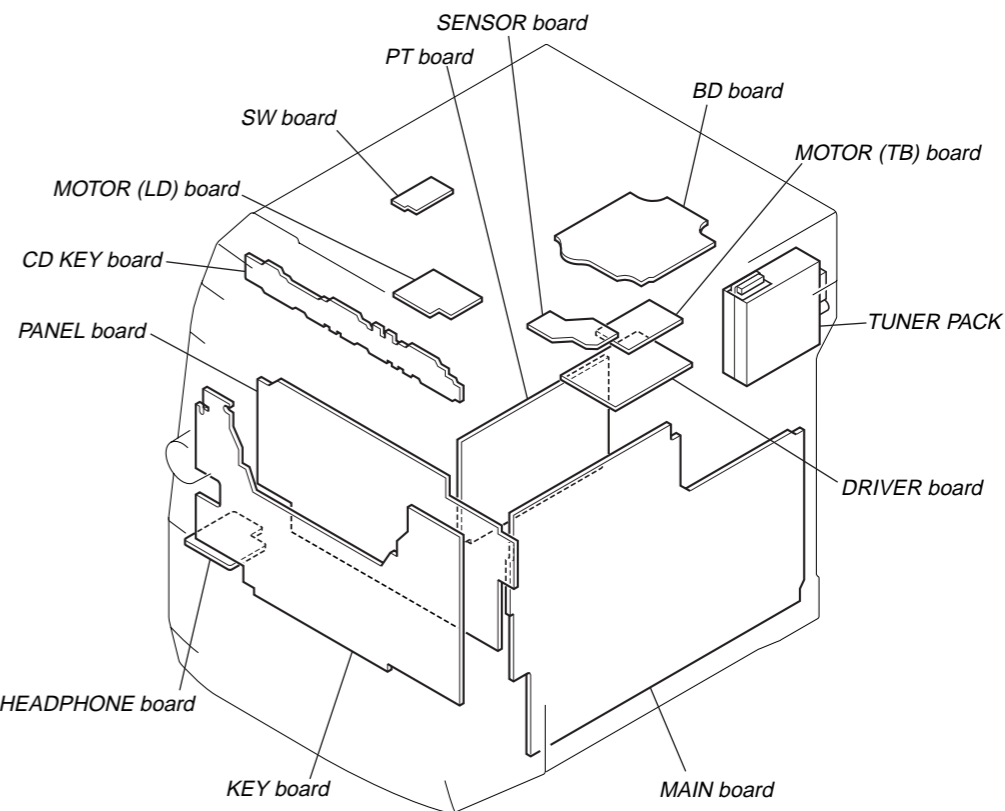
Note on Schematic Diagram:


- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- $\Delta$  : internal component.
- $\text{---}\text{---}\text{---}$  : nonflammable resistor.
- $\text{---}\text{---}\text{---}$  : fusible resistor.
- $\text{---}\text{---}\text{---}$  : panel designation.

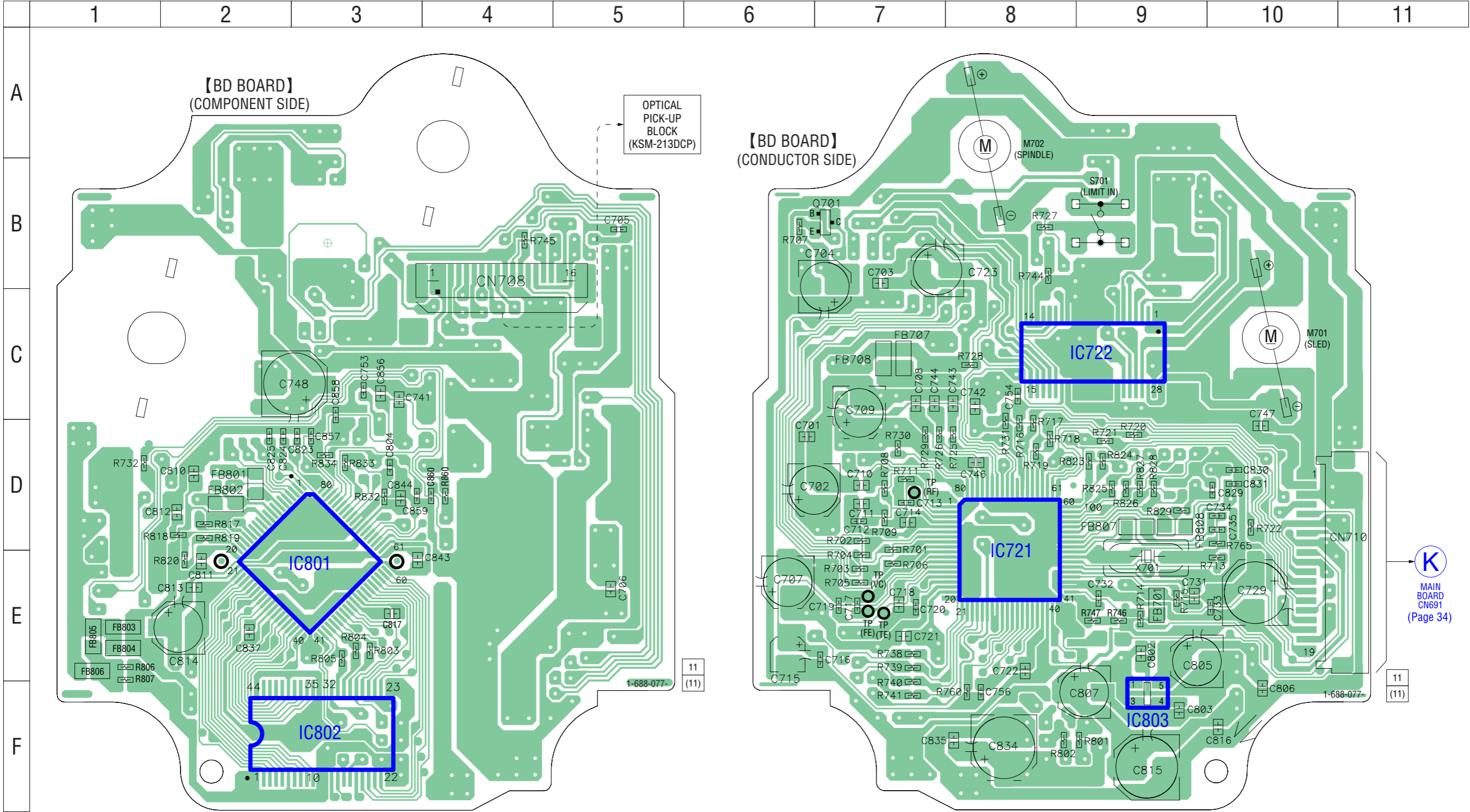
**Note:** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

- $\text{---}$  : B+ Line.
- $\text{---}$  : B- Line.
- Voltagess and waveforms are dc with respect to ground under no-signal conditions.
  - BD Section –  
no mark : CD PLAY
  - Other Sections –  
no mark : FM
  - \* : Impossible to measure
- Voltagess are taken with a VOM (Input impedance 10 M $\Omega$ ).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - $\text{---}$  : TUNER (FM/AM)
  - $\text{---}$  : TAPE PLAY (DECK A)
  - $\text{---}$  : TAPE PLAY (DECK B)
  - $\text{---}$  : REC
  - $\text{---}$  : CD PLAY
  - $\text{---}$  : AUX IN
  - $\text{---}$  : MIC INPUT
- Abbreviation
  - E51 : Chilean and Peluvian models
  - MX : Mexican model

• Circuit Boards Location



6-5. PRINTED WIRING BOARD – BD Section – (EXCEPT US model) • See page 23 for Circuit Boards Location.  :Uses unleaded solder.



• Semiconductor Location

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

**[BD BOARD]**

**OPTICAL PICK-UP BLOCK (KSM-213DCP)**

**IC701** UPO411800SO AUTOMATIC POWER CONTROL

**IC721** CD DSP LC78644E-E

**IC722** SLED/SPINDLE MOTOR DRIVE, FOCUS/TRACKING COIL DRIVE IC722 BA5836FP

**IC801** MP3 DECODER IC801 LC78684E-E

**IC802** MEMORY IC802 LC32V4285GT-25

**IC803** MM1571J +1.8V REGULATOR

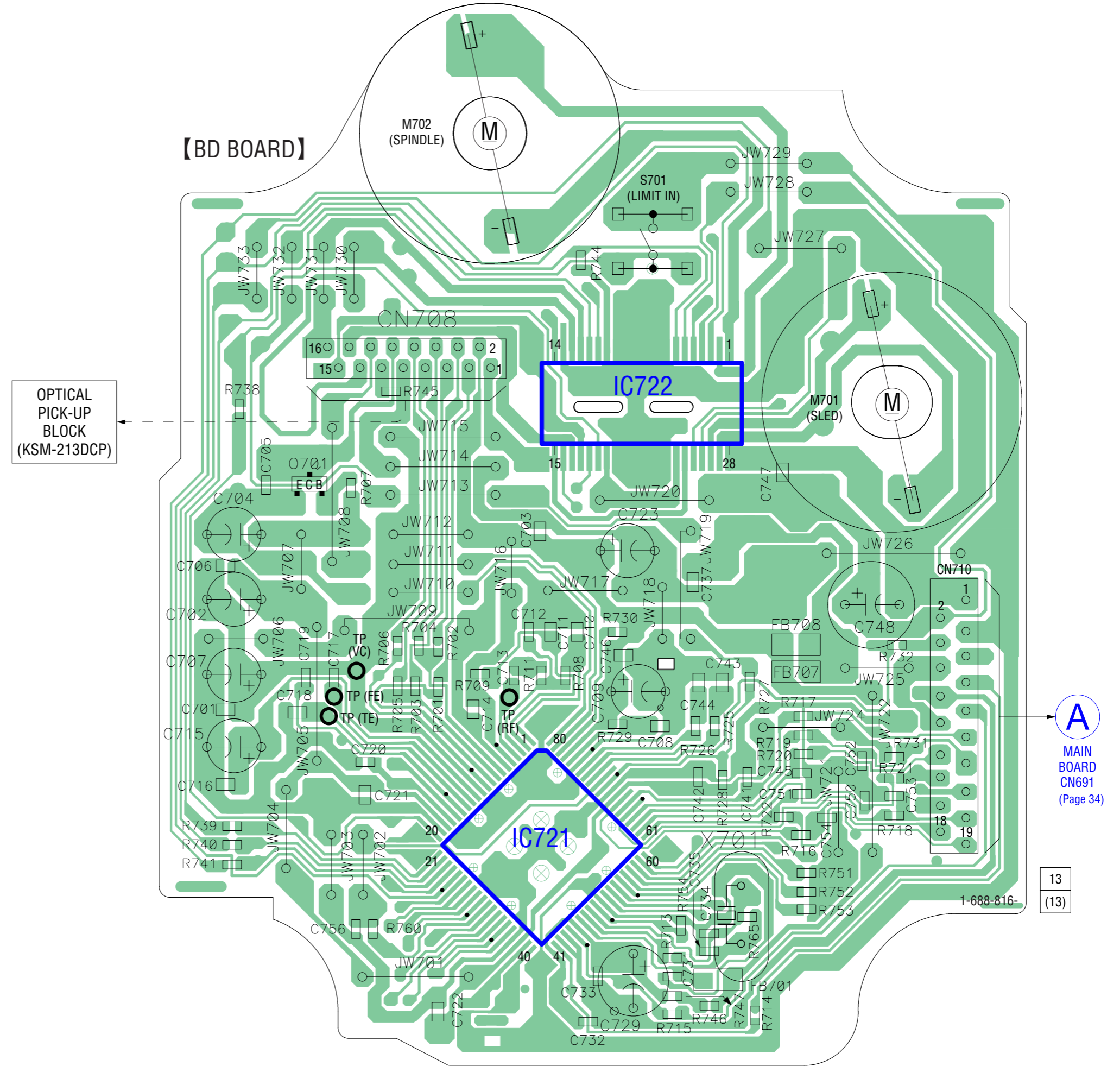
**CONNECTORS:** CN708, CN710, M701 (SLED), M702 (SPINDLE)

**RESISTORS:** R701, R702, R703, R704, R705, R706, R707, R708, R709, R710, R711, R712, R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R739, R740, R741, R742, R743, R744, R745, R746, R747, R748, R749, R750, R751, R752, R753, R754, R755, R756, R757, R758, R759, R760, R761, R762, R763, R764, R765, R766, R767, R768, R769, R770, R771, R772, R773, R774, R775, R776, R777, R778, R779, R780, R781, R782, R783, R784, R785, R786, R787, R788, R789, R790, R791, R792, R793, R794, R795, R796, R797, R798, R799, R800, R801, R802, R803, R804, R805, R806, R807, R808, R809, R810, R811, R812, R813, R814, R815, R816, R817, R818, R819, R820, R821, R822, R823, R824, R825, R826, R827, R828, R829, R830, R831, R832, R833, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R844, R845, R846, R847, R848, R849, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R864, R865, R866, R867, R868, R869, R870, R871, R872, R873, R874, R875, R876, R877, R878, R879, R880, R881, R882, R883, R884, R885, R886, R887, R888, R889, R890, R891, R892, R893, R894, R895, R896, R897, R898, R899, R900, R901, R902, R903, R904, R905, R906, R907, R908, R909, R910, R911, R912, R913, R914, R915, R916, R917, R918, R919, R920, R921, R922, R923, R924, R925, R926, R927, R928, R929, R930, R931, R932, R933, R934, R935, R936, R937, R938, R939, R940, R941, R942, R943, R944, R945, R946, R947, R948, R949, R950, R951, R952, R953, R954, R955, R956, R957, R958, R959, R960, R961, R962, R963, R964, R965, R966, R967, R968, R969, R970, R971, R972, R973, R974, R975, R976, R977, R978, R979, R980, R981, R982, R983, R984, R985, R986, R987, R988, R989, R990, R991, R992, R993, R994, R995, R996, R997, R998, R999, R1000.

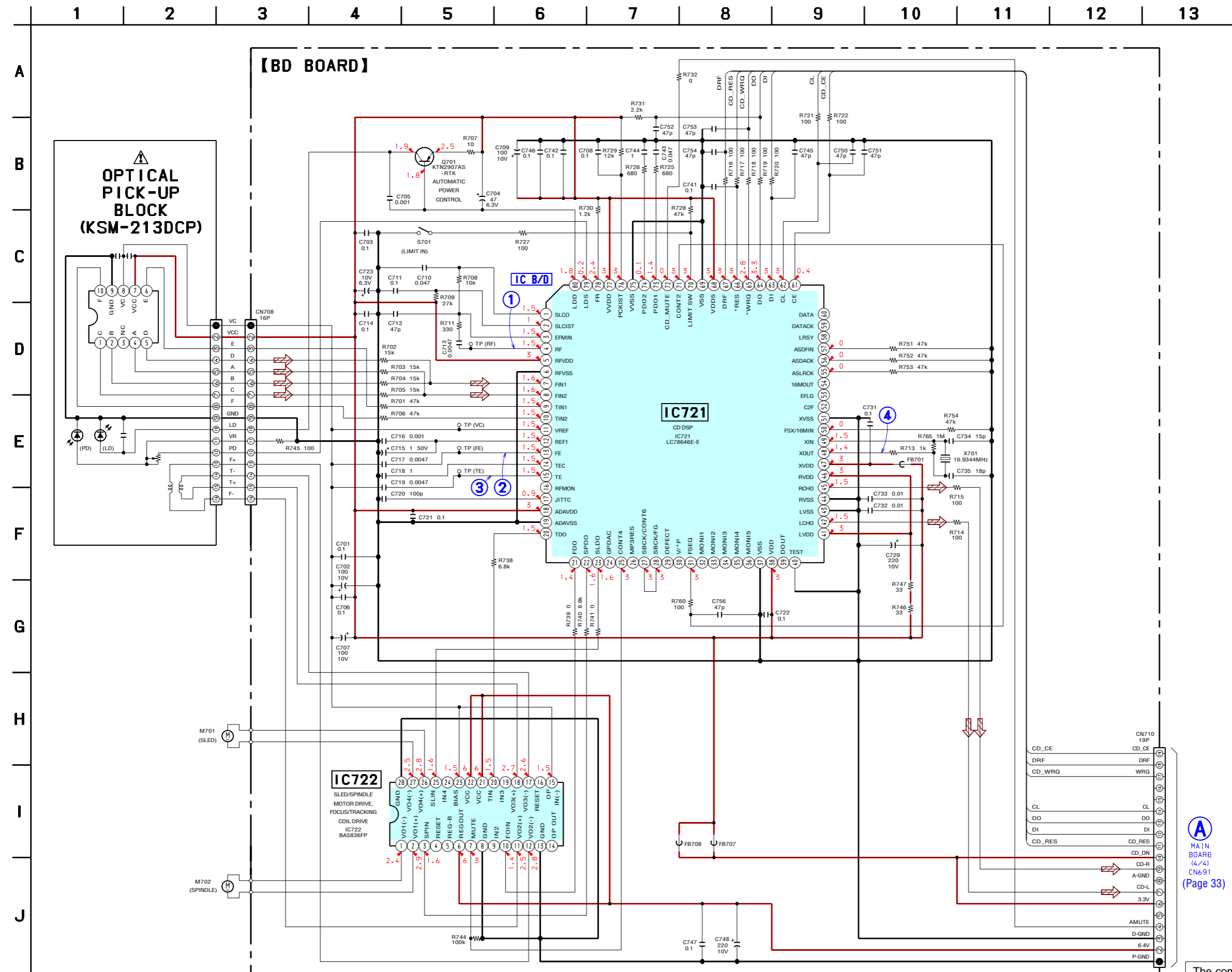
**CAPACITORS:** C701, C702, C703, C704, C705, C706, C707, C708, C709, C710, C711, C712, C713, C714, C715, C716, C717, C718, C719, C720, C721, C722, C723, C724, C725, C726, C727, C728, C729, C730, C731, C732, C733, C734, C735, C736, C737, C738, C739, C740, C741, C742, C743, C744, C745, C746, C747, C748, C749, C750, C751, C752, C753, C754, C755, C756, C757, C758, C759, C760, C761, C762, C763, C764, C765, C766, C767, C768, C769, C770, C771, C772, C773, C774, C775, C776, C777, C778, C779, C780, C781, C782, C783, C784, C785, C786, C787, C788, C789, C790, C791, C792, C793, C794, C795, C796, C797, C798, C799, C800, C801, C802, C803, C804, C805, C806, C807, C808, C809, C810, C811, C812, C813, C814, C815, C816, C817, C818, C819, C820, C821, C822, C823, C824, C825, C826, C827, C828, C829, C830, C831, C832, C833, C834, C835, C836, C837, C838, C839, C840, C841, C842, C843, C844, C845, C846, C847, C848, C849, C850, C851, C852, C853, C854, C855, C856, C857, C858, C859, C860, C861, C862, C863, C864, C865, C866, C867, C868, C869, C870, C871, C872, C873, C874, C875, C876, C877, C878, C879, C880, C881, C882, C883, C884, C885, C886, C887, C888, C889, C890, C891, C892, C893, C894, C895, C896, C897, C898, C899, C900, C901, C902, C903, C904, C905, C906, C907, C908, C909, C910, C911, C912, C913, C914, C915, C916, C917, C918, C919, C920, C921, C922, C923, C924, C925, C926, C927, C928, C929, C930, C931, C932, C933, C934, C935, C936, C937, C938, C939, C940, C941, C942, C943, C944, C945, C946, C947, C948, C949, C950, C951, C952, C953, C954, C955, C956, C957, C958, C959, C960, C961, C962, C963, C964, C965, C966, C967, C968, C969, C970, C971, C972, C973, C974, C975, C976, C977, C978, C979, C980, C981, C982, C983, C984, C985, C986, C987, C988, C989, C990, C991, C992, C993, C994, C995, C996, C997, C998, C999, C1000.

**DIODES:** D701, D702, D703, D704, D705, D706, D707, D708, D709, D710, D711, D712, D713, D714, D715, D716, D717, D718, D719, D720, D721, D722, D723, D724, D725, D726, D727, D728, D729, D730, D731, D732, D733, D734, D735, D736, D737, D738, D739, D740, D741, D742, D743, D744, D745, D746, D747, D748, D749, D750, D751, D752, D753, D754, D755, D756, D757, D758, D759, D760, D761, D762, D763, D764, D765, D766, D767, D768, D769, D770, D771, D772, D773, D774, D775, D776, D777, D778, D779, D780, D781, D782, D783, D784, D785, D786, D787, D788, D789, D790, D791, D792, D793, D794, D795, D796, D797, D798, D799, D800, D801, D802, D803, D804, D805, D806, D807, D808, D809, D810, D811, D812, D813, D814, D815, D816, D817, D818, D819, D820, D821, D822, D823, D824, D825, D826, D827, D828, D829, D830, D831, D832, D833, D834, D83

25 25



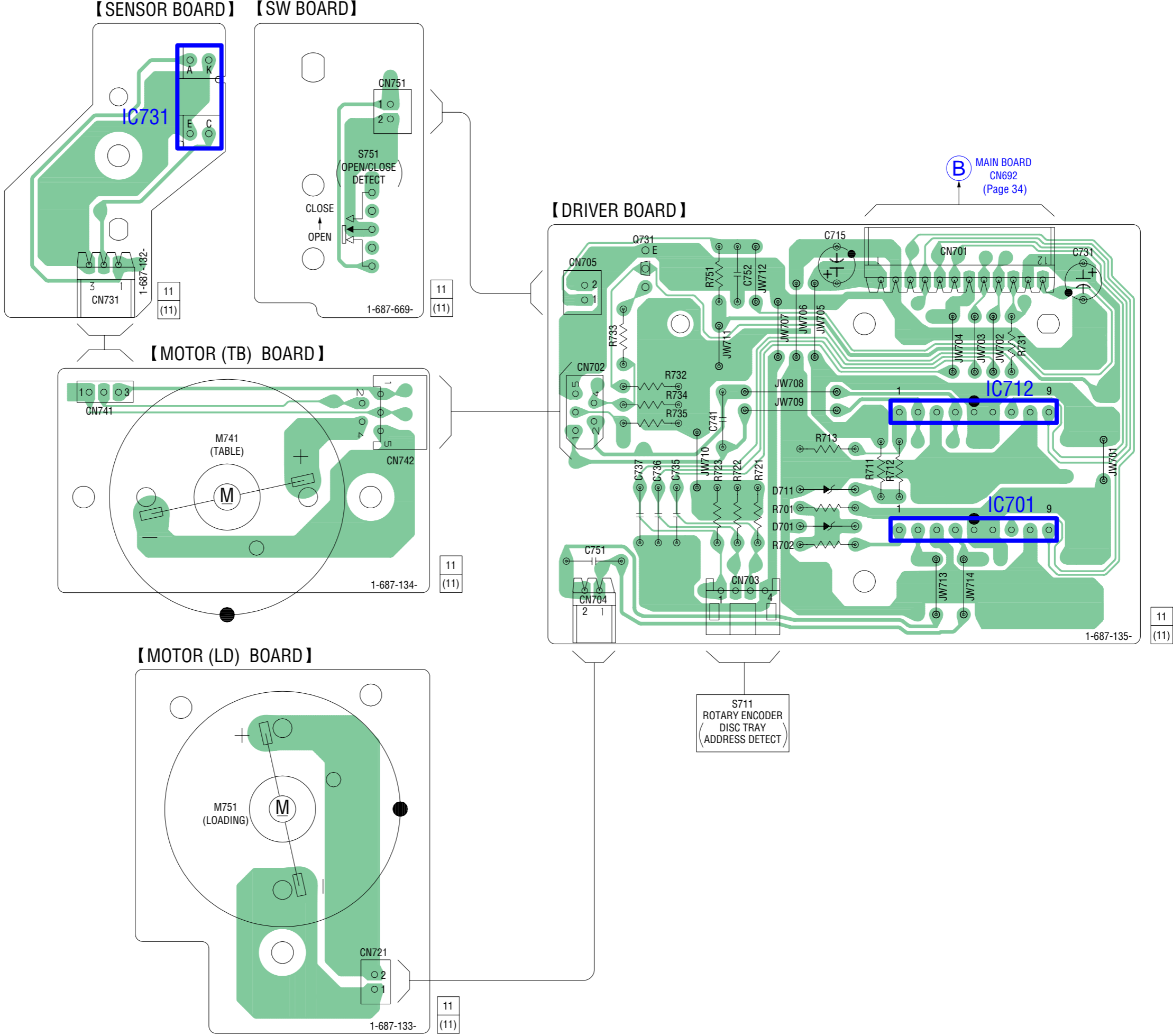
6-8. SCHEMATIC DIAGRAM – BD Section – (US model) • See page 44 for IC Block Diagrams. • See page 44 for Waveforms.



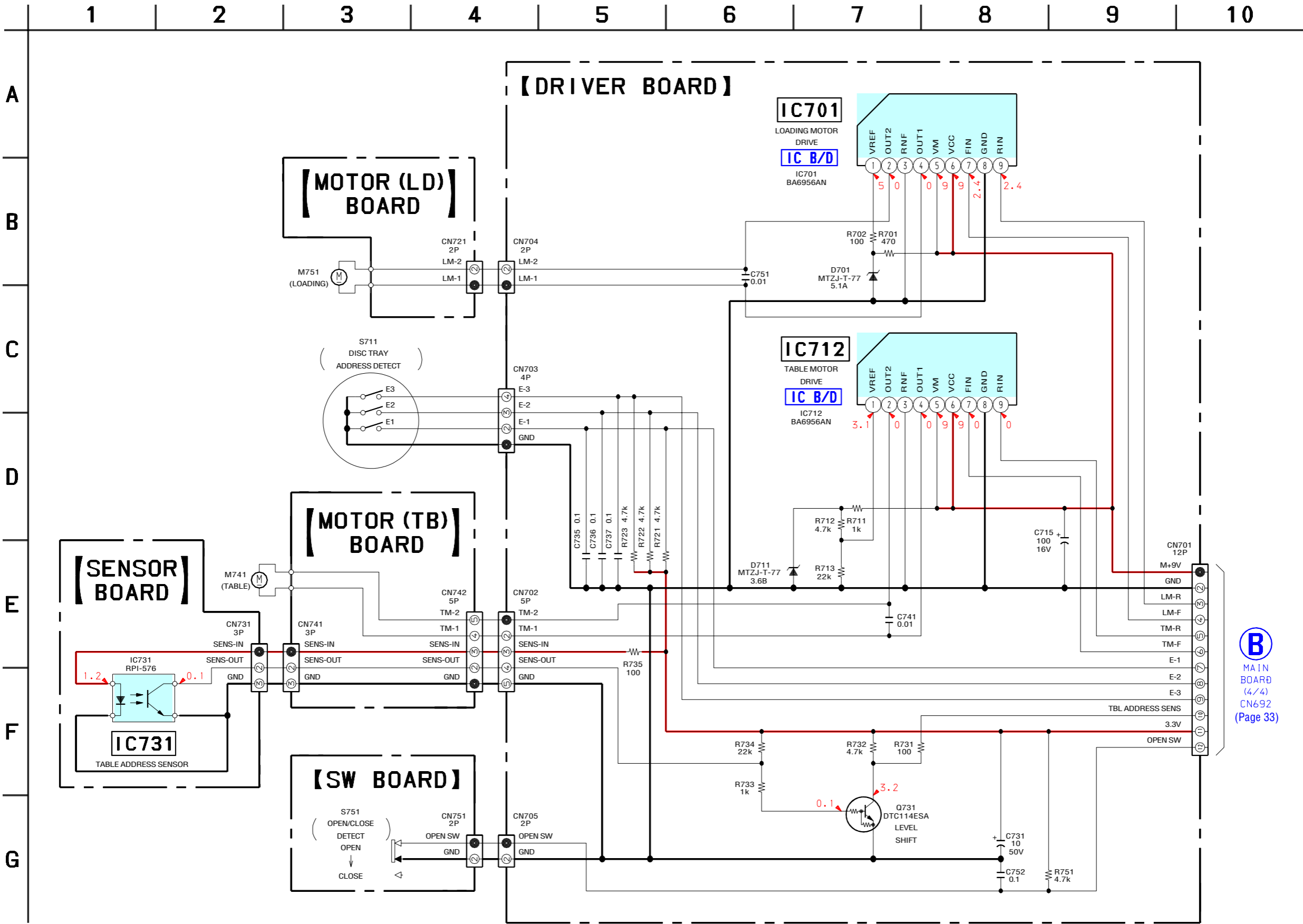
**A**  
MAIN BOARD  
(4/4)  
CN691  
(Page 33)

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

6-9. PRINTED WIRING BOARDS – CHANGER Section – • See page 23 for Circuit Boards Location.  :Uses unleaded solder.

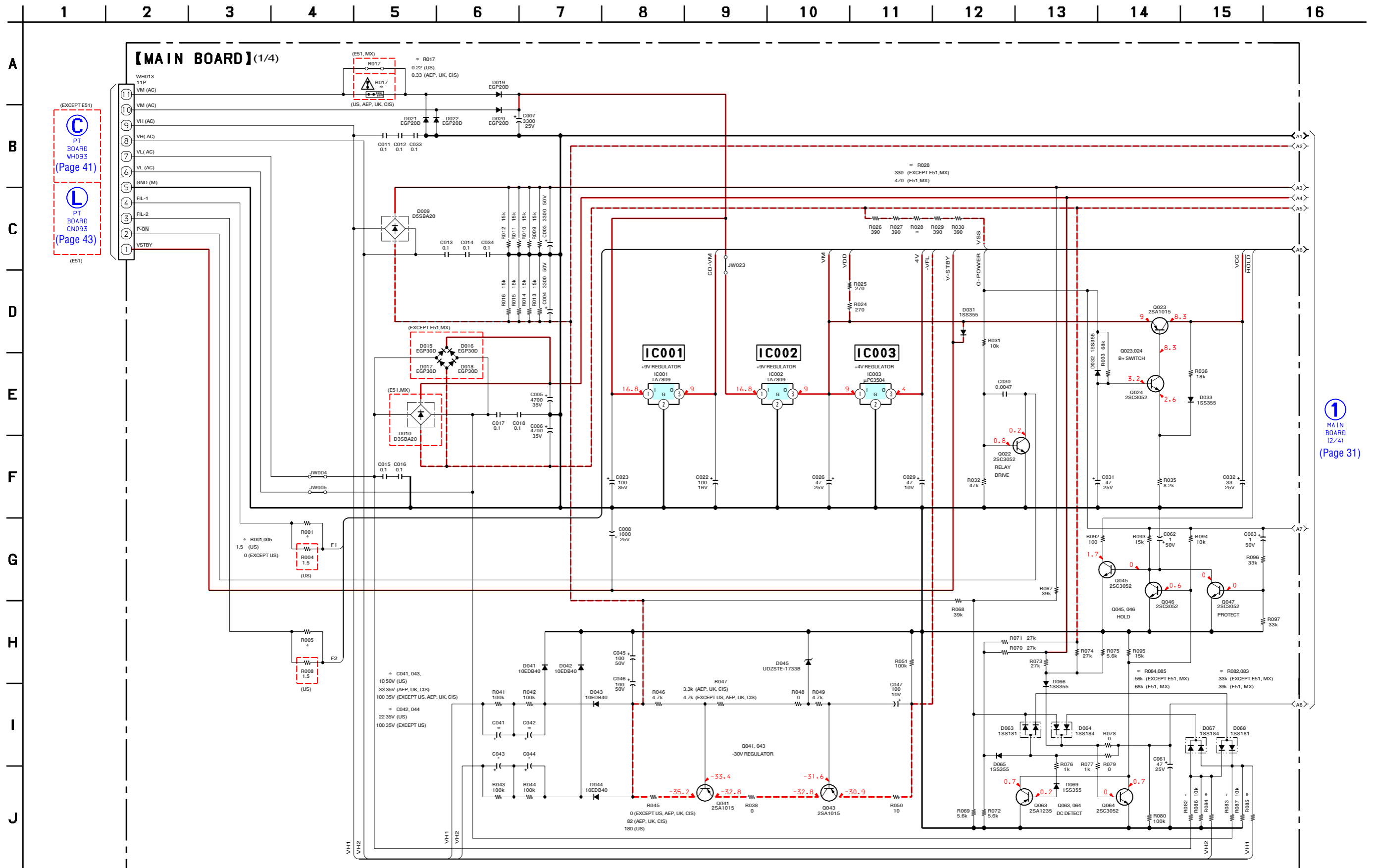




6-10. SCHEMATIC DIAGRAM – CHANGER Section – • See page 44 for IC Block Diagrams.



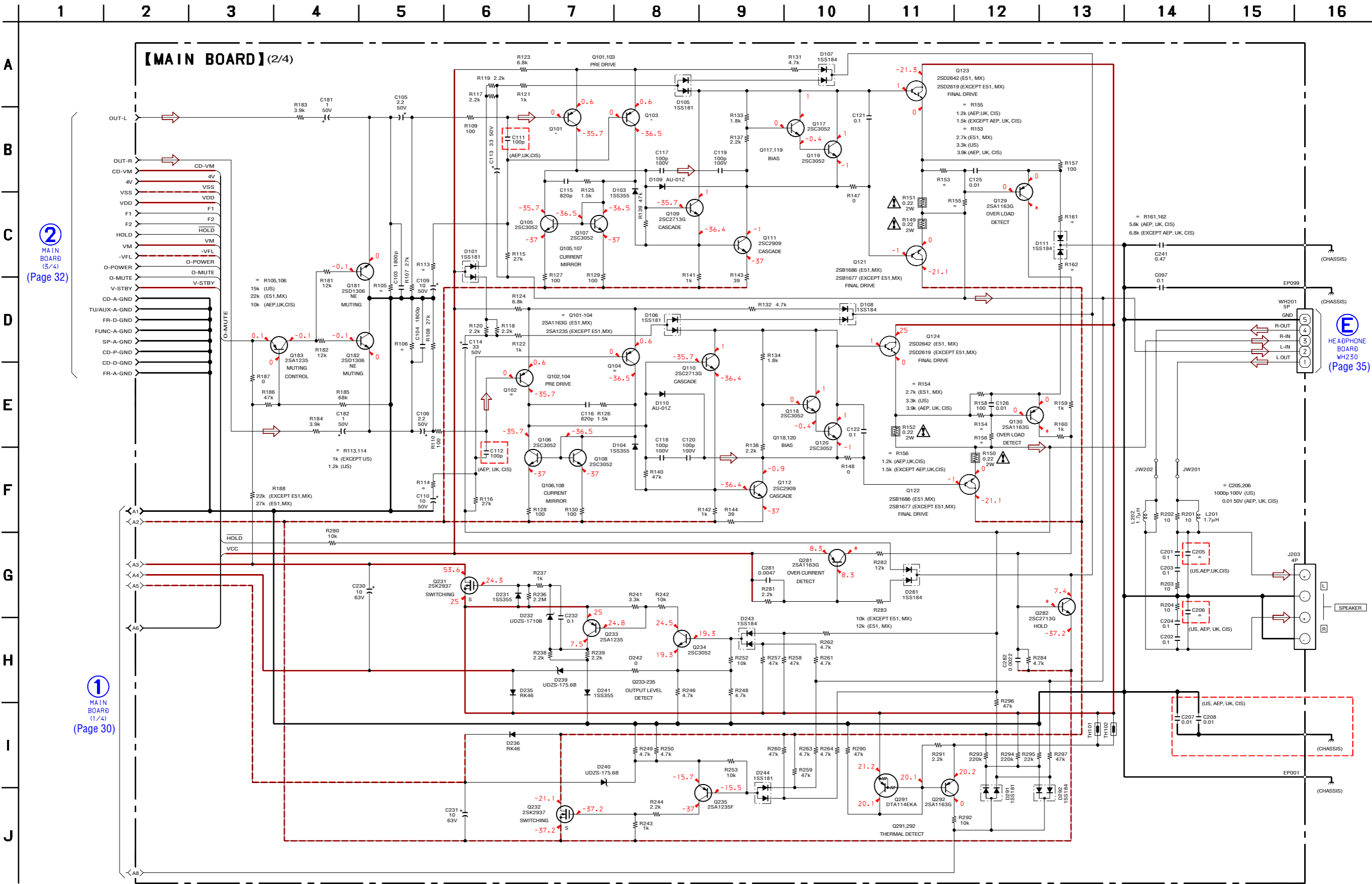
**B**  
MAIN  
BOARD  
(4/4)  
CN692  
(Page 33)

**6-11. SCHEMATIC DIAGRAM – MAIN Section (1/4) –**

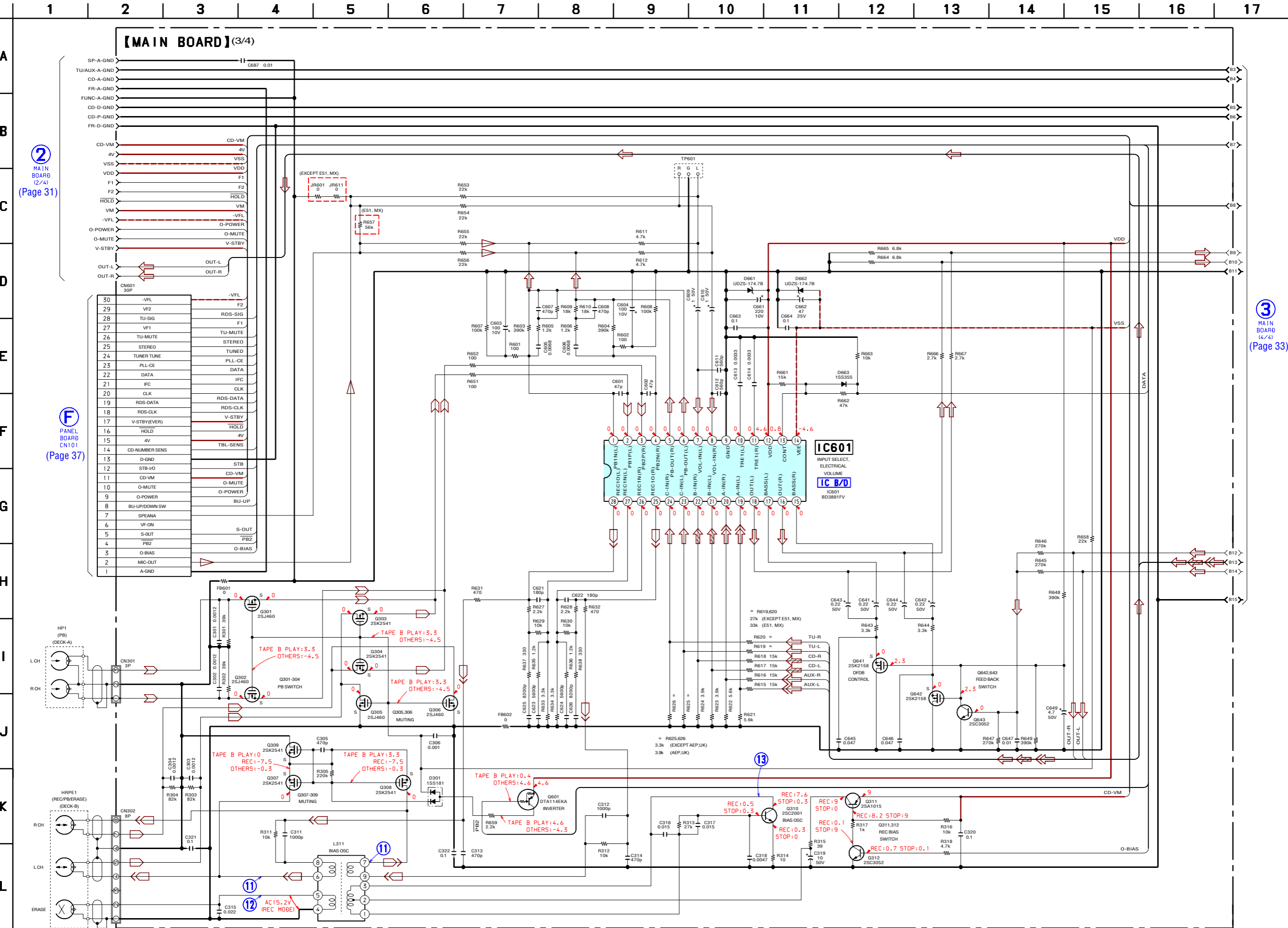


The components identified by mark  or dotted line with mark  are critical for safety.  
Replace only with part number specified.

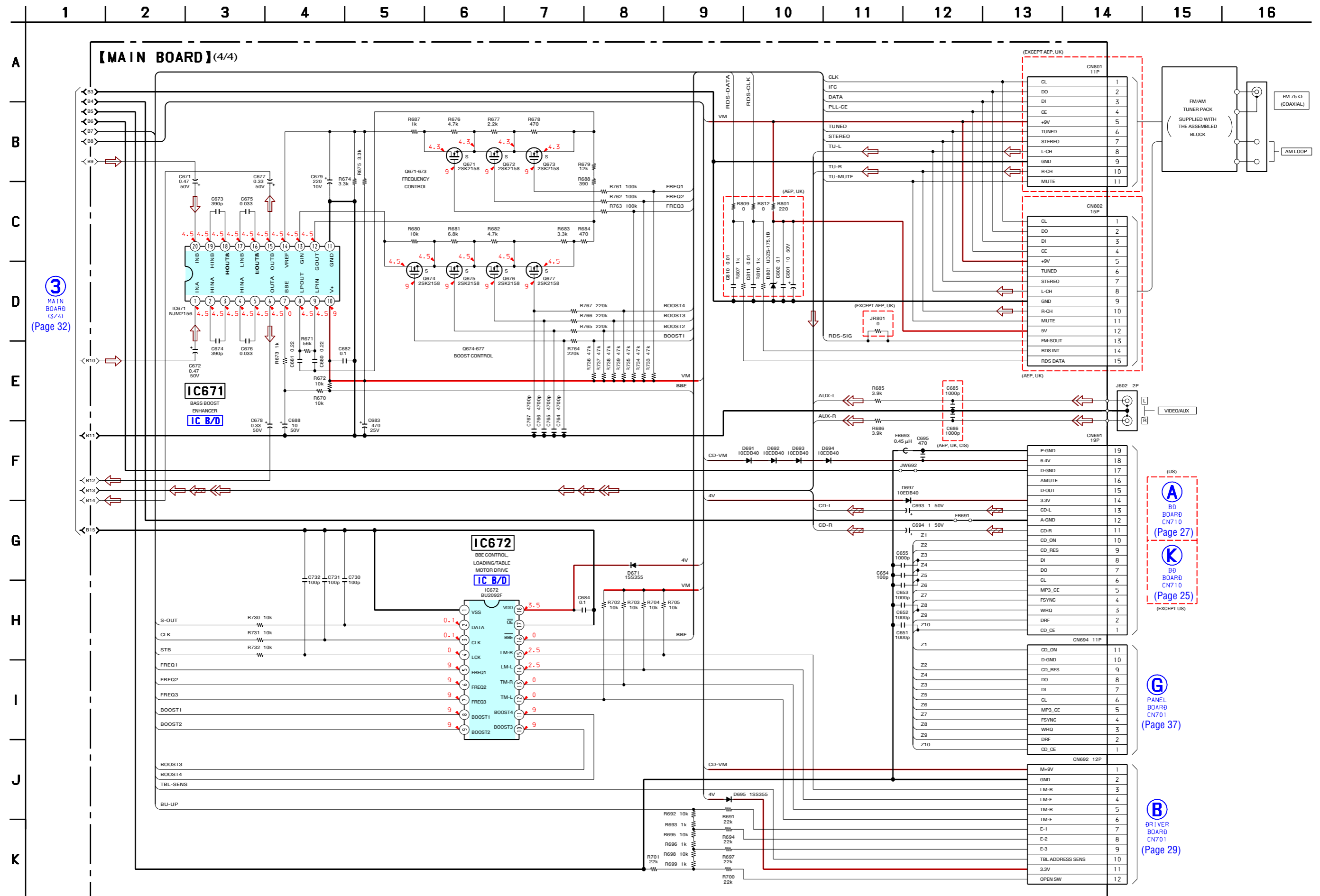
6-12. SCHEMATIC DIAGRAM – MAIN Section (2/4) –



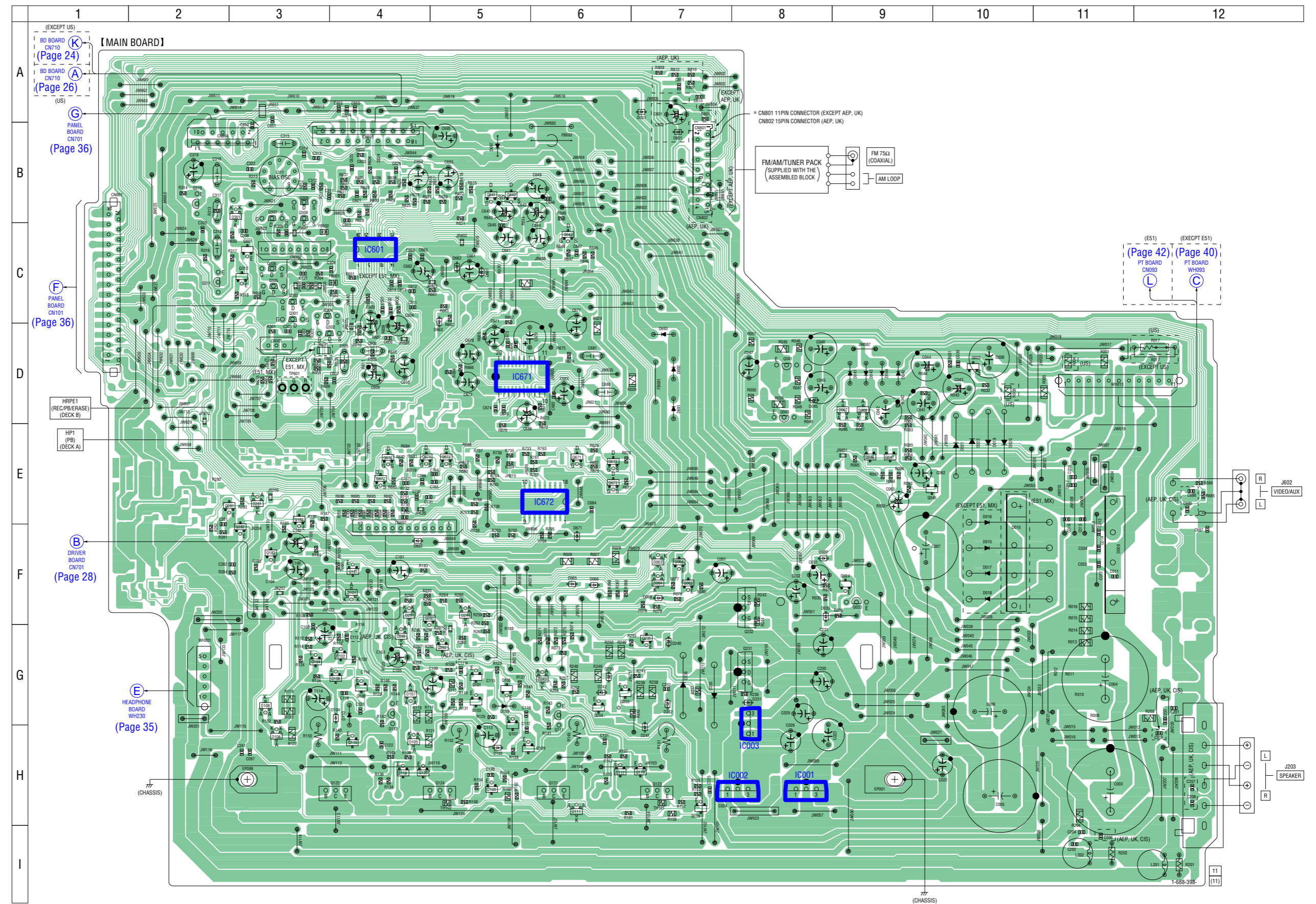
6-13. SCHEMATIC DIAGRAM – MAIN Section (3/4) – • See page 44 for IC Block Diagram. • See page 44 for Waveforms.



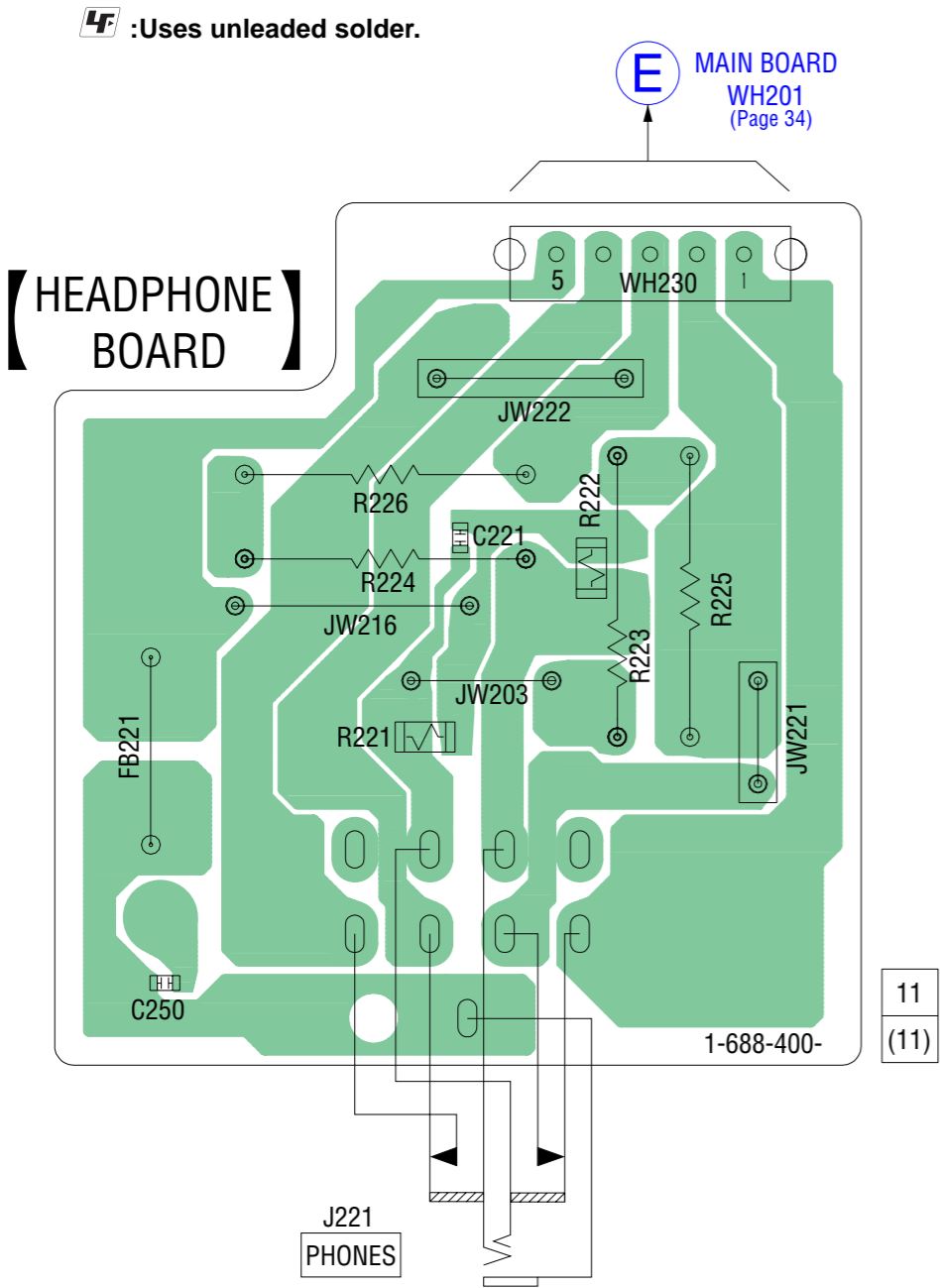
**6-14. SCHEMATIC DIAGRAM – MAIN Section (4/4) – • See page 44 for IC Block Diagrams.**



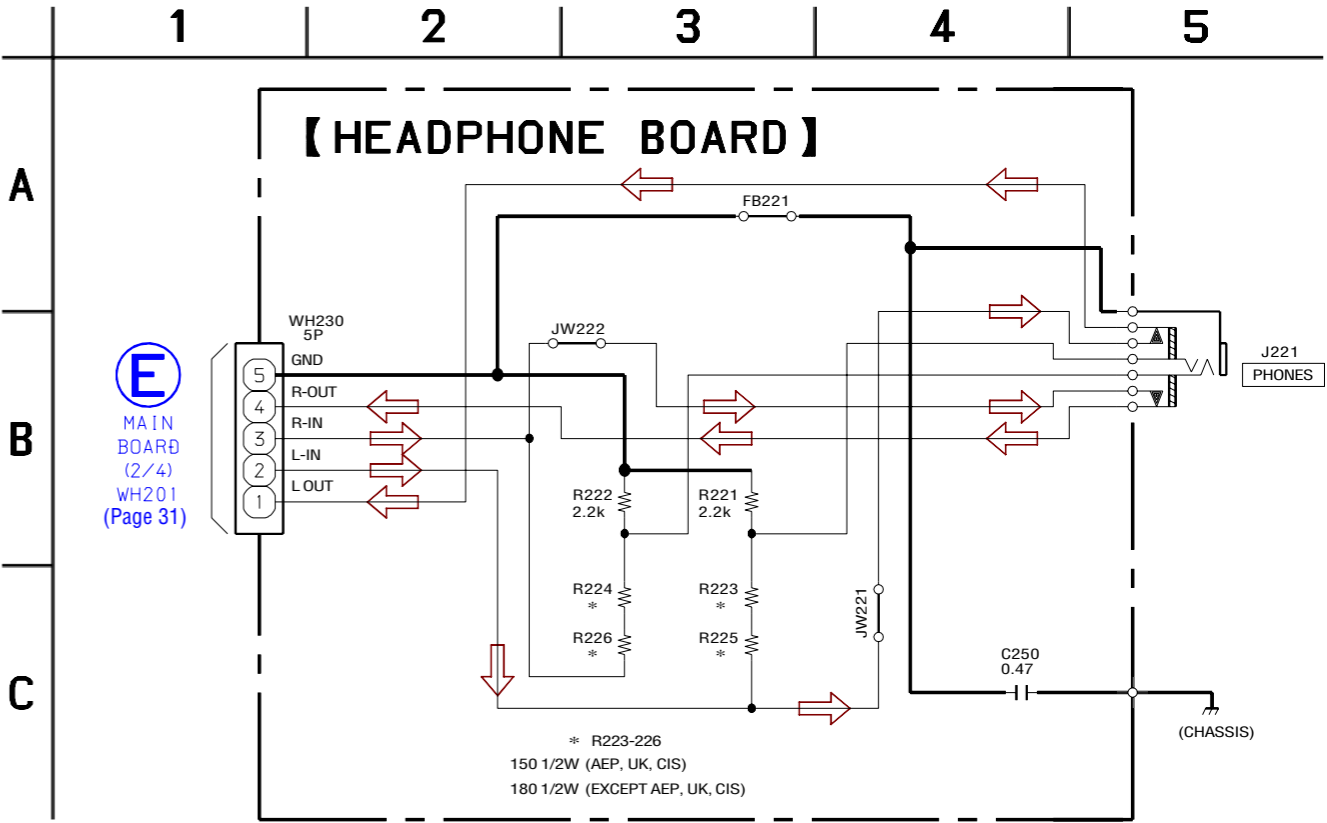
**6-15. PRINTED WIRING BOARD – MAIN Section – • See page 23 for Circuit Boards Location.  :Uses unleaded solder.**



6-16. PRINTED WIRING BOARD – HP Section – • See page 23 for Circuit Boards Location.



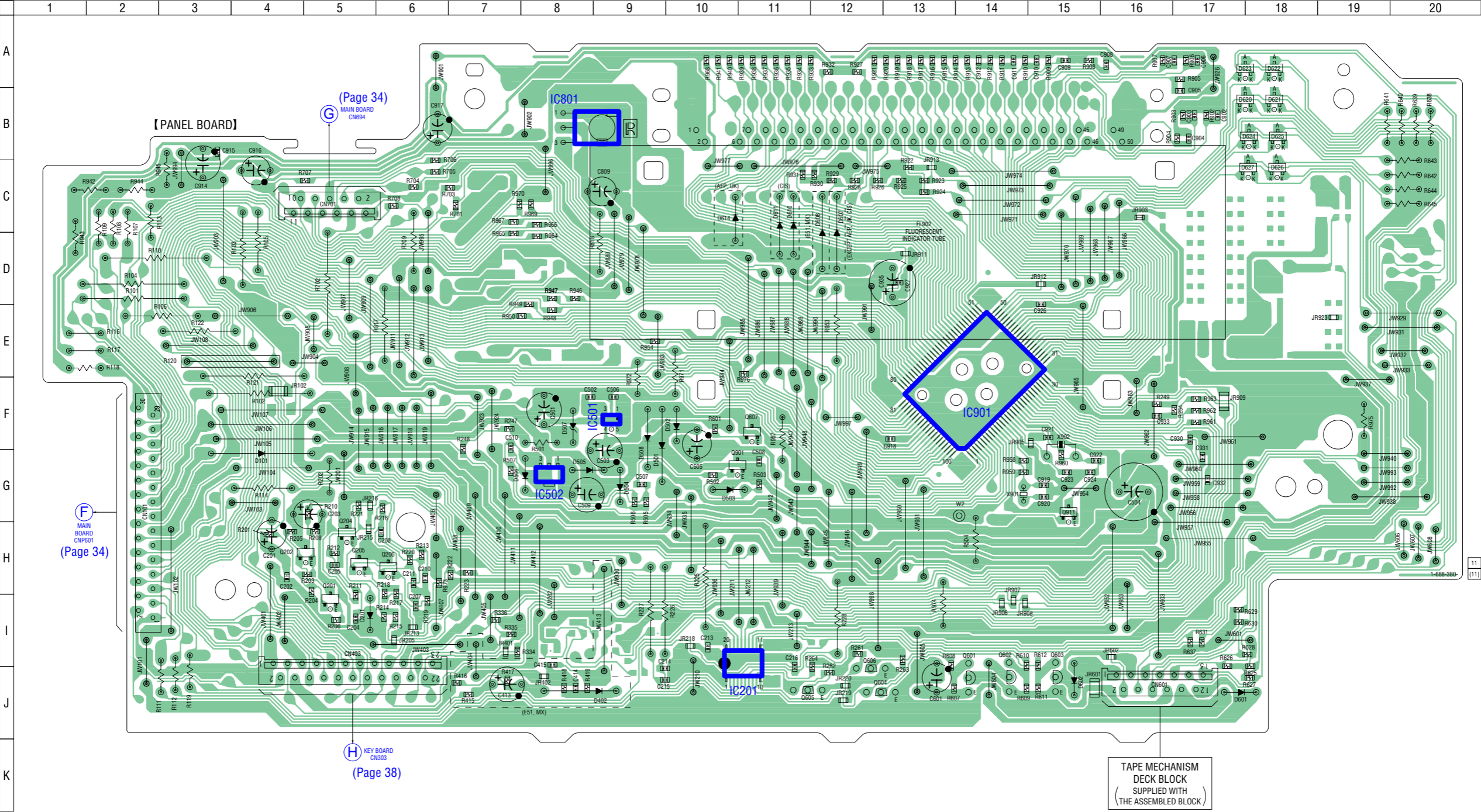
6-17. SCHEMATIC DIAGRAM – HP Section –



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D009	F-11	D065	F-6	D240	G-7	IC001	H-8	Q103	G-5	Q181	F-4	Q309	B-3
D010	F-10	D066	F-6	D241	H-7	IC002	H-8	Q104	G-3	Q182	F-3	Q310	B-2
D015	F-10	D067	D-9	D242	G-6	IC003	G-8	Q105	G-5	Q183	E-3	Q311	C-2
D016	E-10	D068	D-9	D243	G-6	IC601	C-4	Q106	G-4	Q231	G-8	Q312	C-3
D017	F-10	D069	F-7	D244	F-5	IC671	D-5	Q107	H-5	Q232	F-8	Q601	C-3
D018	F-10	D101	F-4	D281	E-3	IC672	E-5	Q108	G-4	Q233	G-6	Q641	B-3
D019	E-10	D103	H-5	D291	F-4			Q109	H-5	Q234	G-6	Q642	B-3
D020	E-10	D104	G-4	D292	G-4			Q110	H-4	Q235	G-7	Q643	C-6
D021	E-10	D105	H-4	D301	B-3	Q022	D-10	Q111	G-6	Q281	E-3	Q671	E-6
D022	E-10	D106	H-3	D661	C-5	Q023	F-9	Q112	G-4	Q282	F-3	Q672	E-6
D031	A-7	D107	G-4	D662	C-5	Q024	F-9	Q117	H-6	Q291	F-4	Q673	E-6
D032	F-8	D108	G-3	D663	C-5	Q041	D-8	Q118	H-4	Q292	G-5	Q674	E-5
D033	F-8	D109	G-5	D671	F-6	Q043	D-8	Q119	H-7	Q301	C-3	Q675	E-4
D041	D-9	D110	G-4	D691	D-7	Q045	E-9	Q120	H-4	Q302	D-3	Q676	E-4
D042	D-9	D111	H-6	D692	D-7	Q046	E-9	Q121	H-6	Q303	C-3	Q677	E-4
D043	D-9	D231	G-8	D693	D-7	Q047	E-9	Q122	H-4	Q304	C-3		
D044	D-9	D232	G-7	D694	C-6	Q063	F-7	Q123	H-7	Q305	C-3		
D045	D-8	D235	G-7	D695	F-4	Q064	F-7	Q124	H-5	Q306	C-3		
D063	F-7	D236	G-7	D697	B-5	Q101	G-5	Q129	H-7	Q307	B-3		
D064	F-7	D239	G-6	D801	B-7	Q102	G-4	Q130	H-5	Q308	B-3		

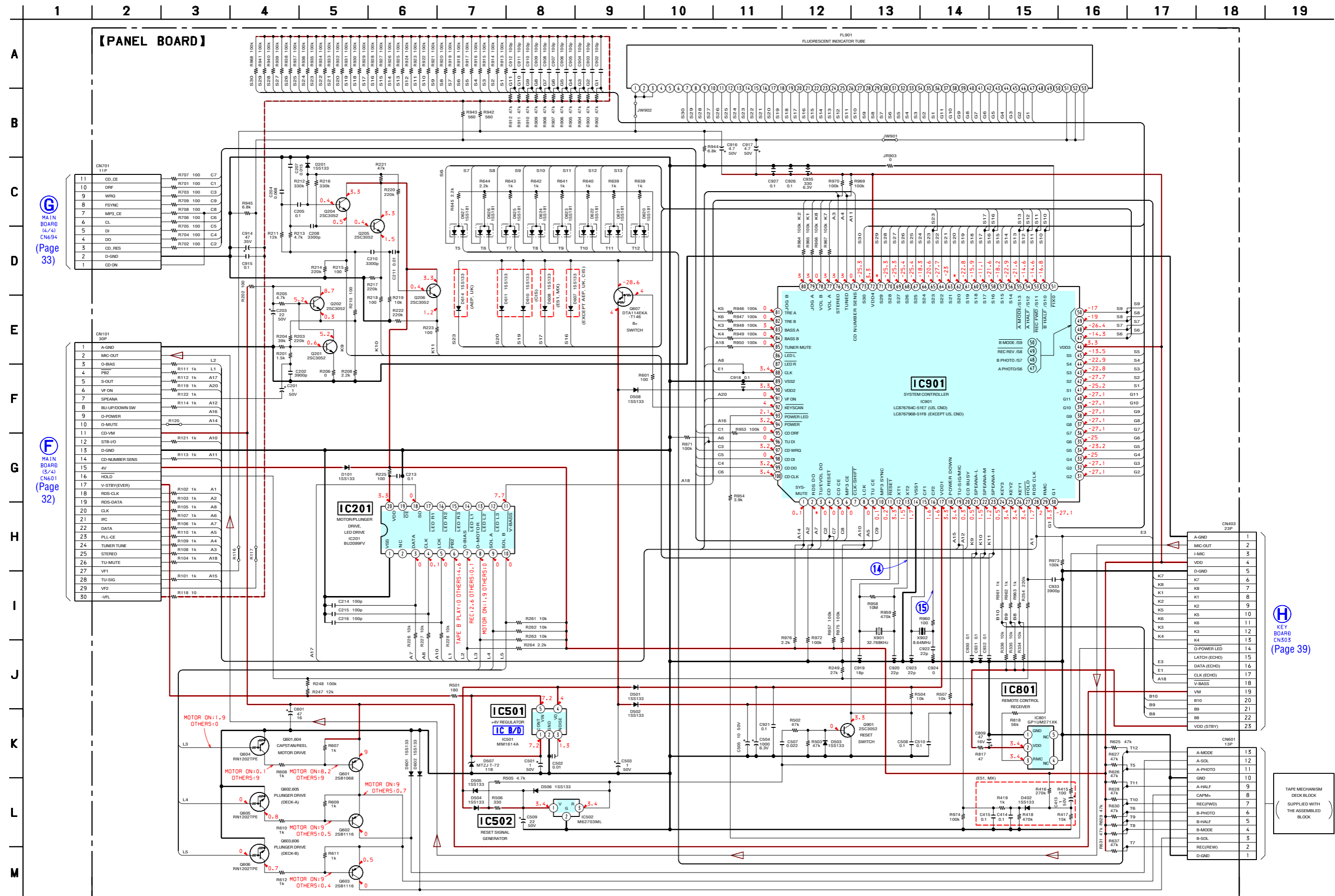
6-18. PRINTED WIRING BOARD – PANEL Section – • See page 23 for Circuit Boards Location.  :Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	G-4	D602	J-15	D626	C-18	Q205	H-5
D201	I-5	D607	D-12	D627	C-18	Q206	H-6
D402	J-8	D608	D-12			Q601	J-14
D501	F-9	D610	C-11	IC201	I-11	Q602	J-14
D502	F-10	D611	C-11	IC501	F-9	Q603	J-15
D503	G-10	D614	C-10	IC502	G-8	Q604	J-12
D504	G-9	D620	B-18	IC801	B-9	Q605	J-11
D505	G-8	D621	B-18	IC901	F-14	Q606	J-12
D506	G-8	D622	A-18			Q607	F-11
D507	F-8	D623	A-18	Q201	I-5	Q901	G-10
D508	F-9	D624	B-18	Q202	H-5		
D601	J-17	D625	B-18	Q204	H-5		

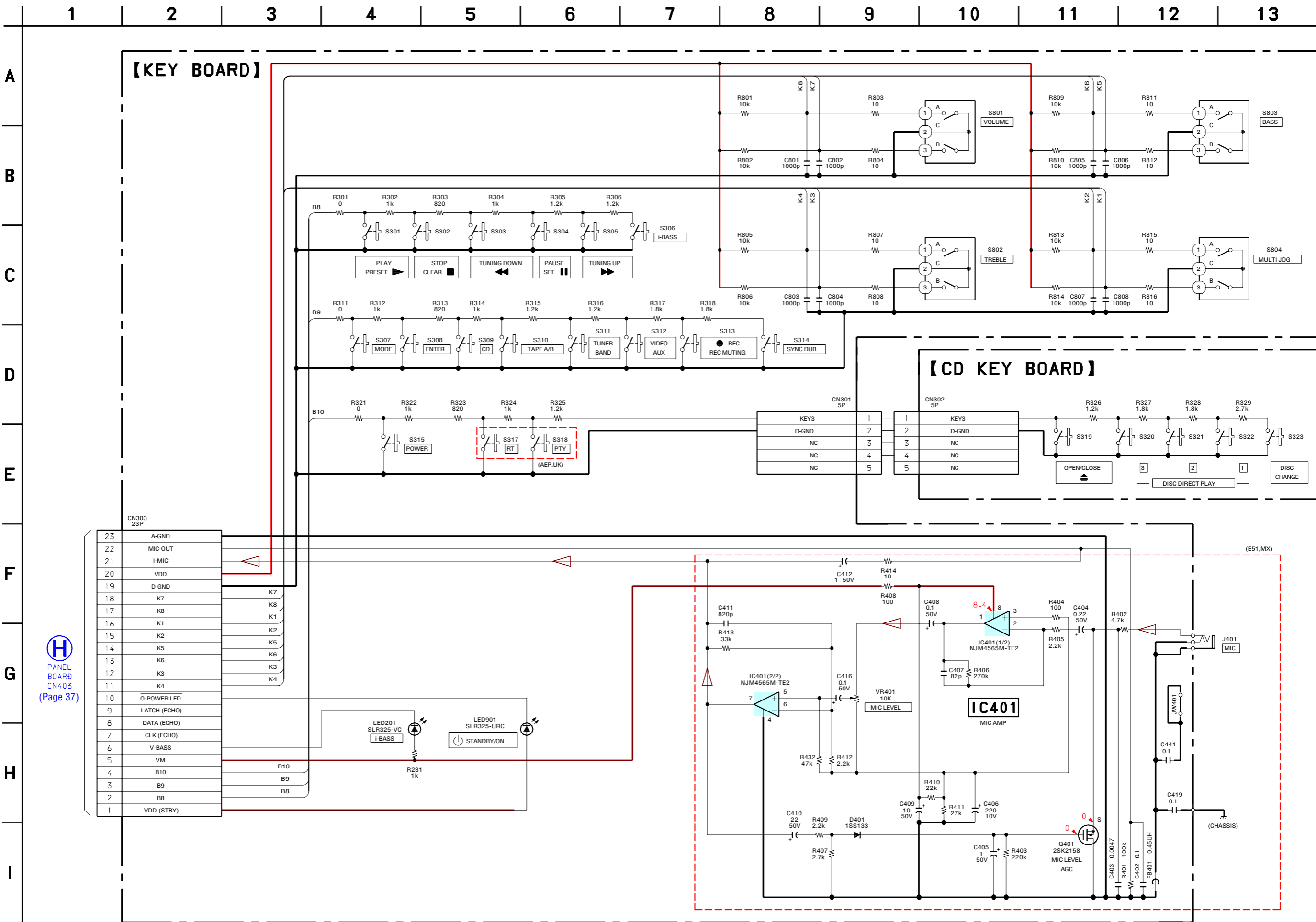
6-19. SCHEMATIC DIAGRAM – PANEL Section – • See page 44 for IC Block Diagram. • See page 44 for Waveforms.



The front panel layout includes the following components from left to right:

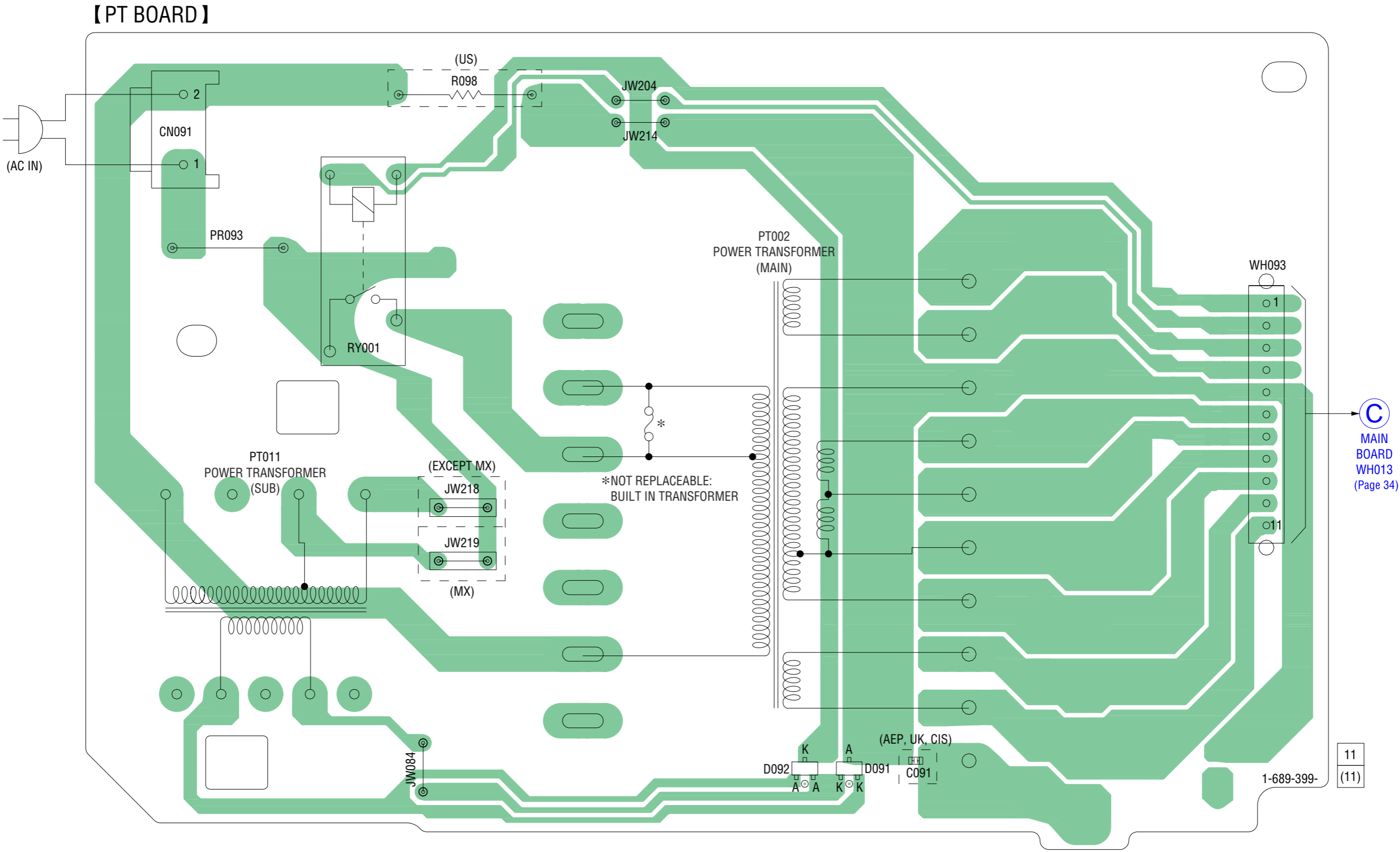
- S319 OPEN/CLOSE**: A button with an upward-pointing triangle icon.
- S320 3**: A circular indicator with the number 3 inside.
- S321 2**: A circular indicator with the number 2 inside.
- S322 1**: A circular indicator with the number 1 inside.
- S323 DISC CHANGE**: A button with a circular arrow icon.
- DISC DIRECT PLAY**: A rectangular button.
- CONNECTOR CN302**: A multi-pin connector on the right side.
- 1-688-379**: A reference number at the bottom right.

6-21. SCHEMATIC DIAGRAM – KEY Section –

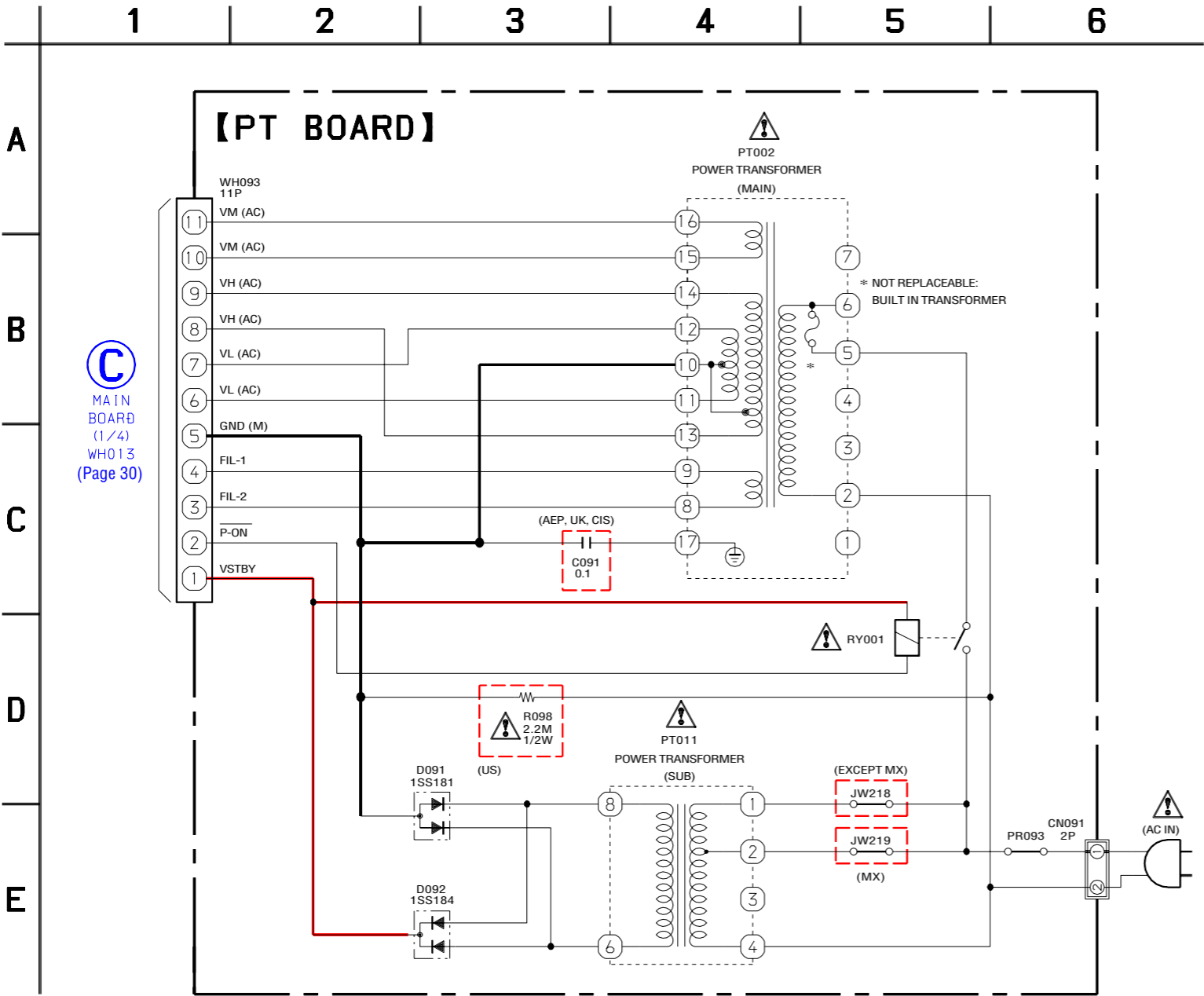


**H**  
PANEL BOARD  
CN403  
(Page 37)

6-22. PRINTED WIRING BOARD – PT Section – (EXCEPT Chilean and Peruvian models) • See page 23 for Circuit Boards Location.  :Uses unleaded solder.

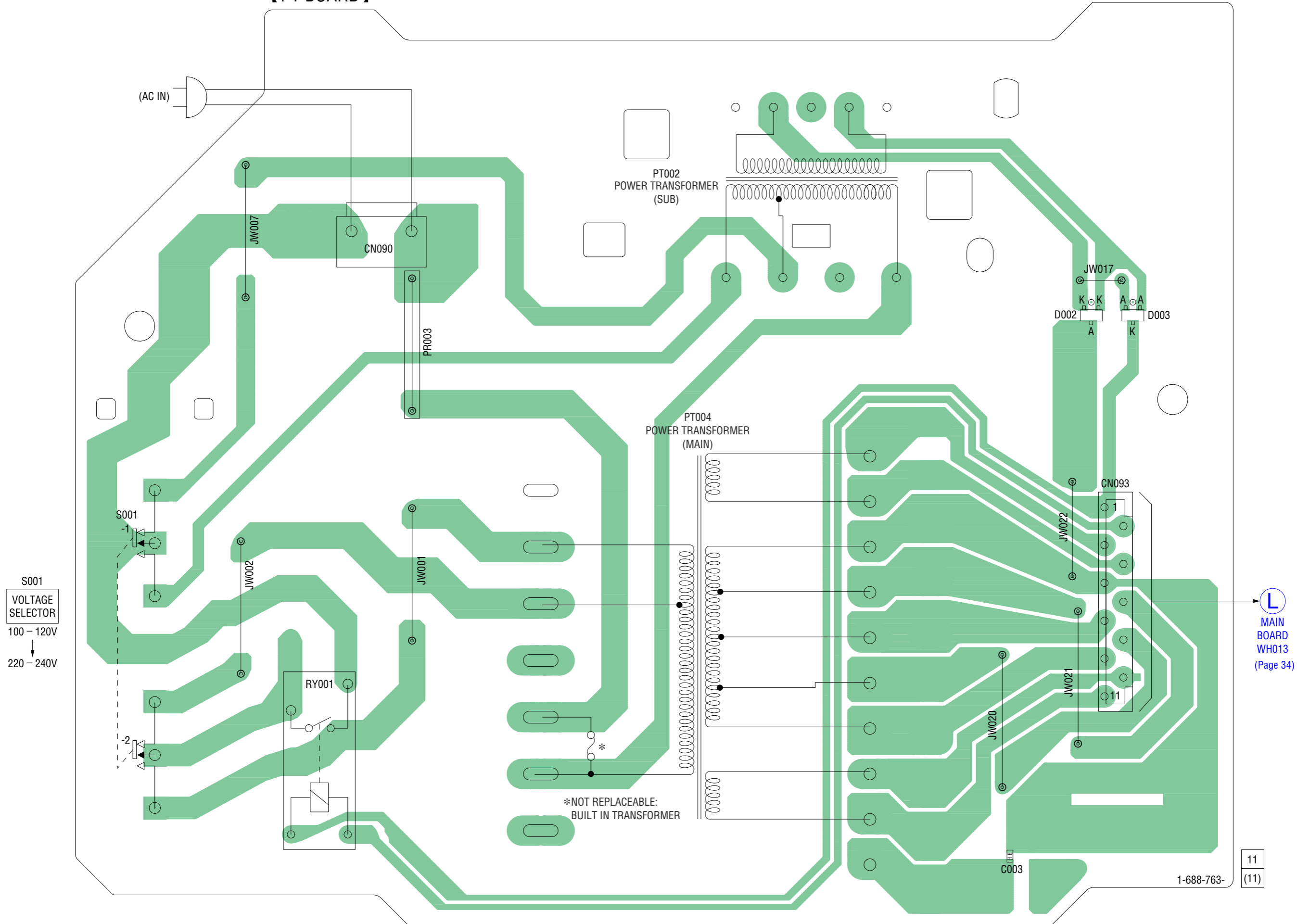


6-23. SCHEMATIC DIAGRAM – PT Section – (EXCEPT Chilean and Peruvian models)

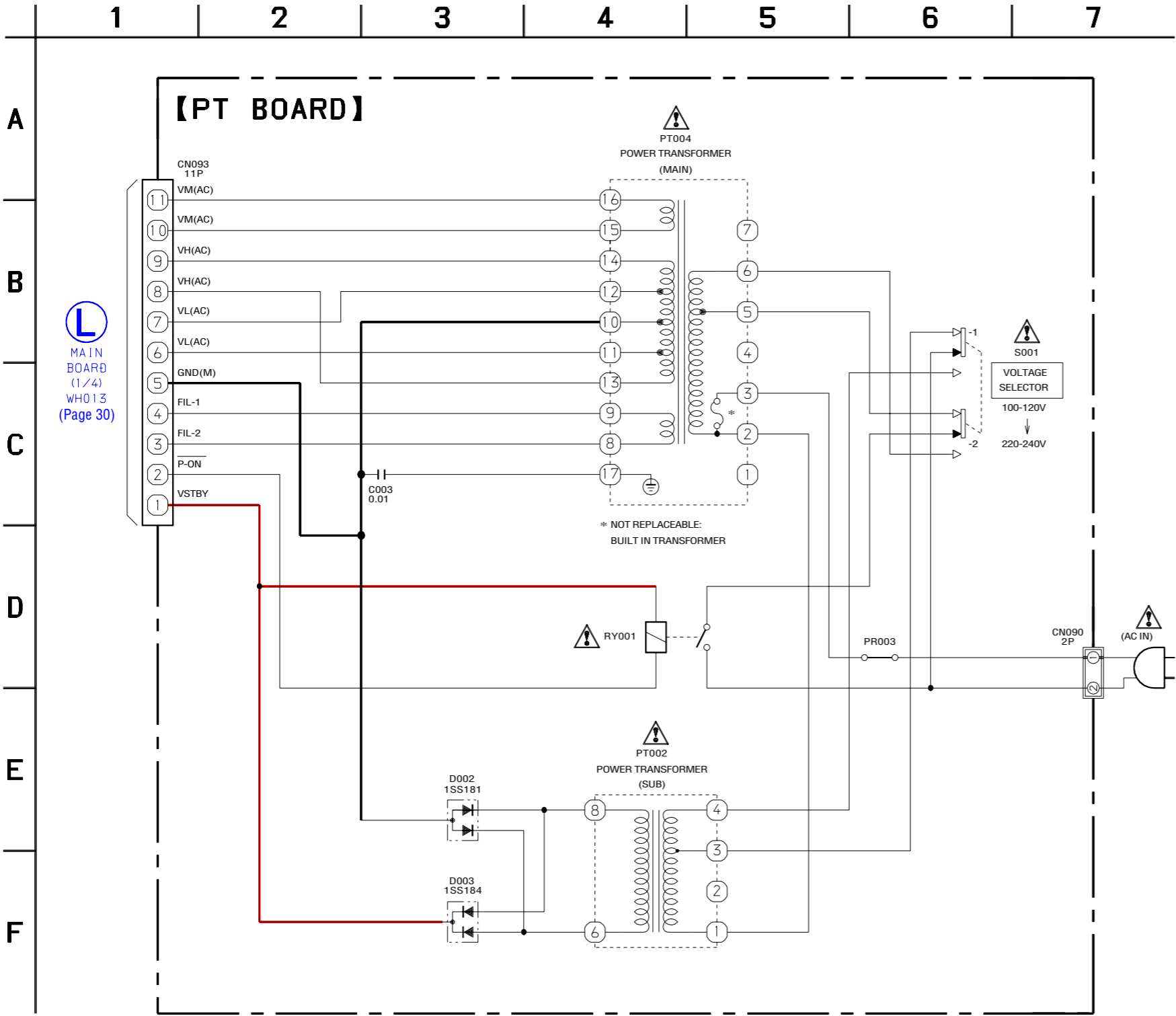


The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

【 PT BOARD 】



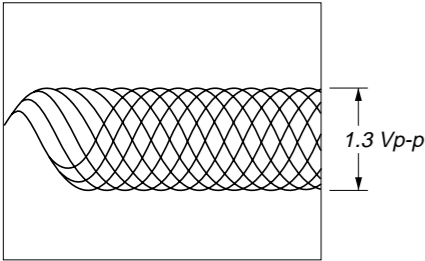
6-25. SCHEMATIC DIAGRAM – PT Section – (Chilean and Peruvian models)



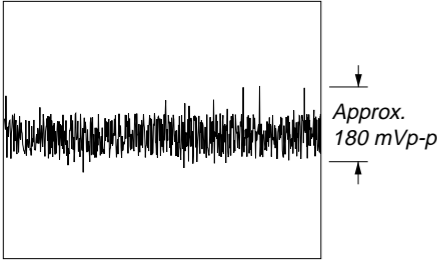
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

• Waveforms  
– BD Board –

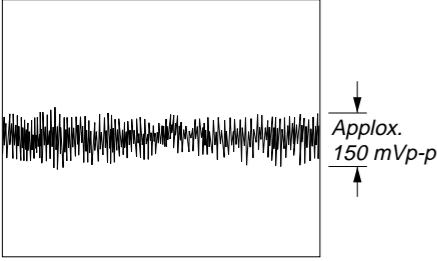
① IC721 ④ (RF) (CD Play Mode)



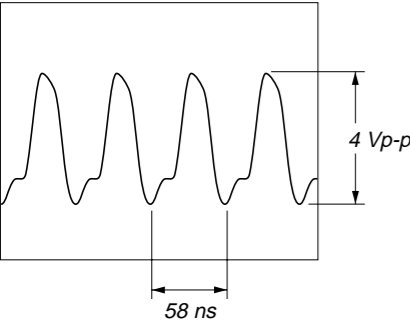
② IC721 ⑬ (TE) (CD Play Mode)



③ IC721 ⑮ (TE) (CD Play Mode)

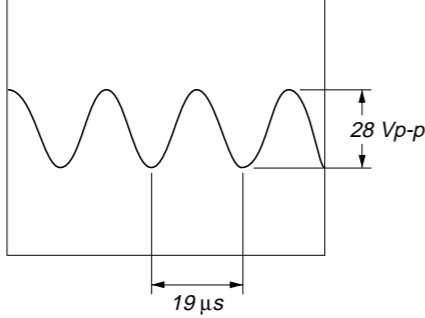


④ IC721 ④⑧ (XOUT)

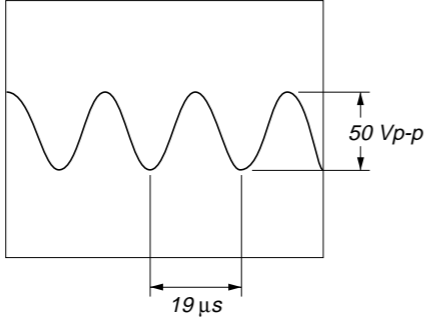


– MAIN Board –

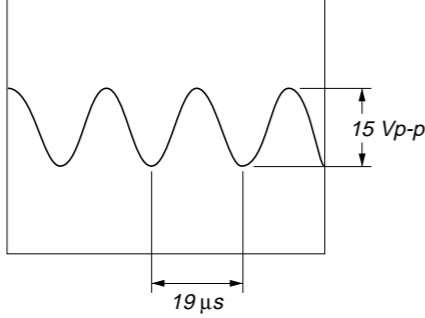
⑪ L311 ⑥ , ⑦ (REC Mode)



⑫ L311 ⑤ (REC Mode)

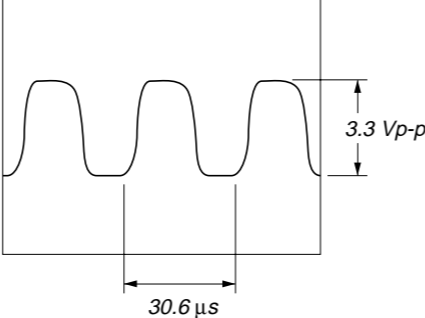


⑬ Q310 Collector (REC Mode)

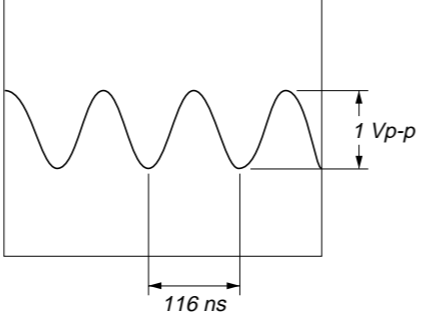


– PANEL Board –

⑭ IC901 ⑬ (XT2)

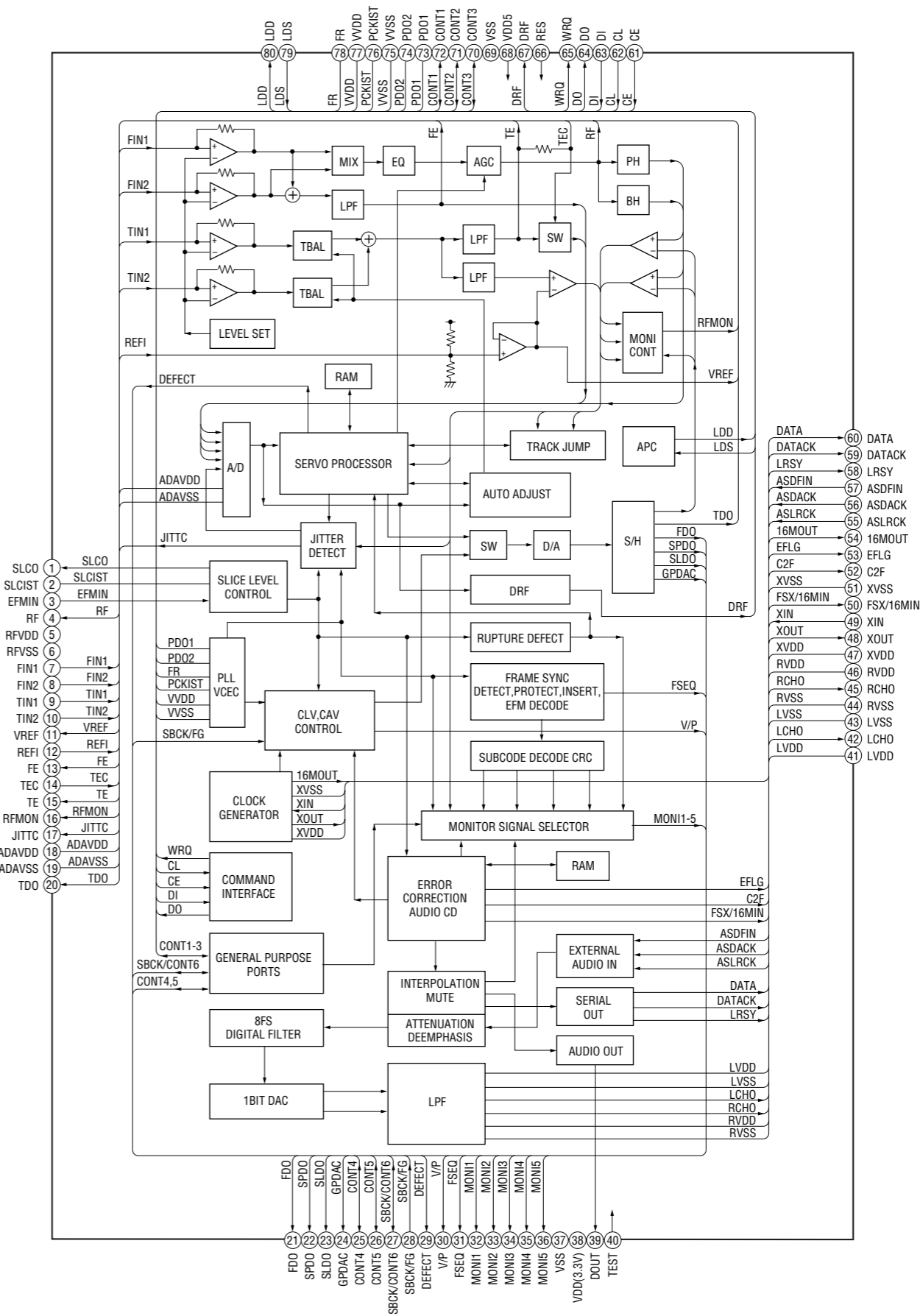


⑮ IC901 ⑮ (CF2)



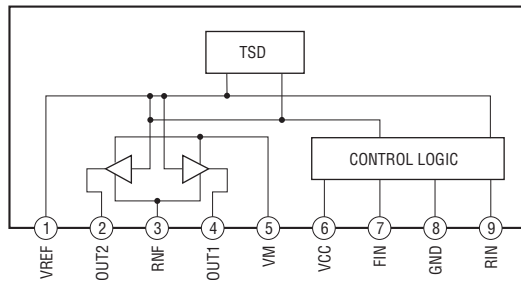
• IC Block Diagrams  
– BD Board –

IC721 LC78646E-E



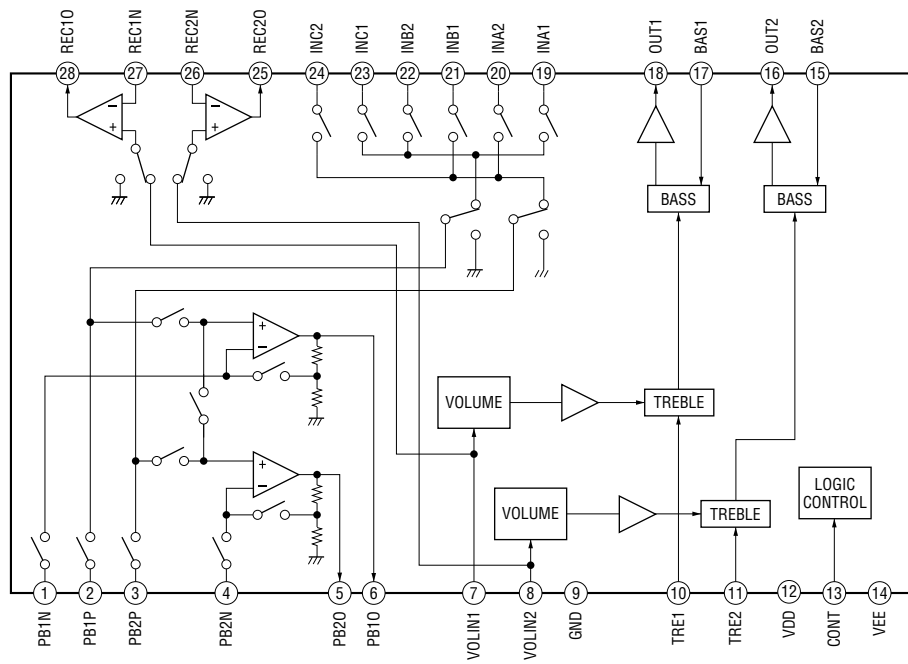
## – DRIVER Board –

IC701, 712 BA6956AN

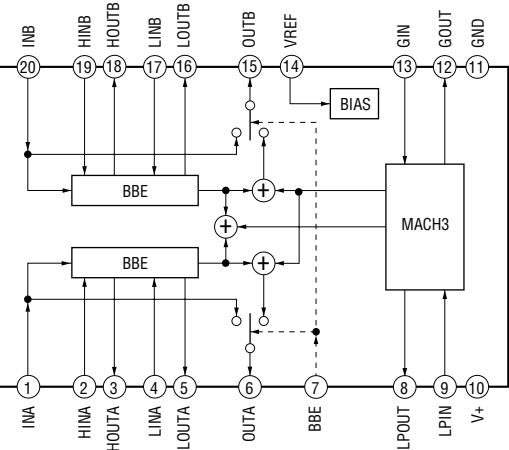


## – MAIN Board –

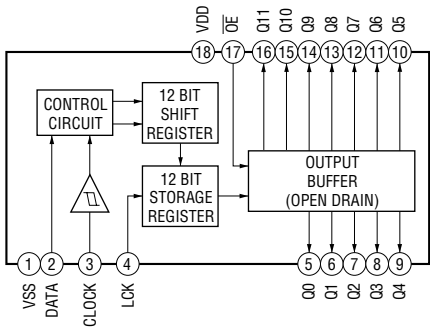
IC601 BD3881FV



IC671 NJM2156M (TE2)

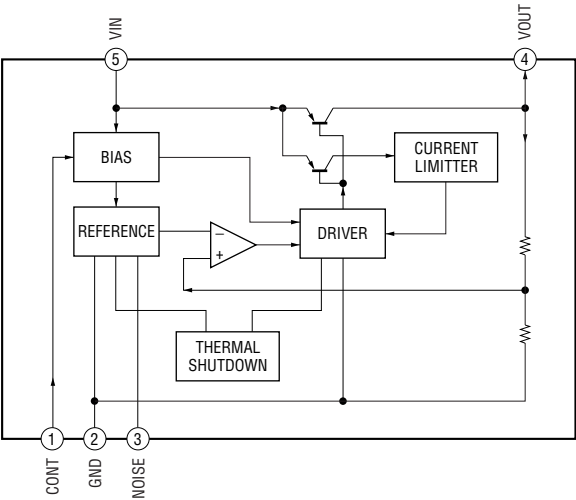


IC672 BU2092F-E2



– PANEL Board –

IC501 MM1614A



## 6-24. IC PIN FUNCTION DESCRIPTION

## • PANEL BOARD IC901 (SYSTEM CONTROLLER)

LC876764C-51E7 (US model), LC876796B-51F8 (EXCEPT US model)

Pin No.	Pin Name	I/O	Description
1	SYS-MUTE	O	Line muting on/off control signal output terminal
2	RDS DO	I	RDS serial data input from the FM/AM tuner unit
3	TU/EVOL DO	O	Serial data output to the FM/AM tuner unit, motor/plunger driver and electrical volume
4	CD RESET	O	Reset signal output to the CD DSP
5	CD CE	O	Chip enable signal output to the CD DSP
6	MP3 CE	O	Chip enable signal output to the MP3 decoder (Except US model)
7	CLK-SHIFT	O	Shift clock signal output terminal Not used
8	LCK	O	Latch clock signal output to the motor/plunger driver
9	TU CE	O	Chip enable signal output to the FM/AM tuner unit
10	MP3 SYNC	I	SYNC signal input from the MP3 decoder (Except US model)
11	RESET	I	System reset signal input from the reset signal generator “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
12	XT1	I	System clock input terminal (32.768 kHz)
13	XT2	O	System clock output terminal (32.768 kHz)
14	VSS1	—	Ground terminal
15	CF1	I	System clock input terminal (8.64 MHz)
16	CF2	O	System clock output terminal (8.64 MHz)
17	VDD1	—	Power supply terminal (+3.3V)
18	POWER DOWN	I	Power down detection signal input terminal
19	TU-SIG/MIC	I	RDS signal input (AEP and UK models) and MIC signal input (Chilean, Peruvian and Mexican models) terminal
20	CD BUSY	I	Optical pick-up up/down detection and tray open/close detection signal input terminal
21	SPEANA-L	I	Spectrum analyzer drive signal input terminal (low band)
22	SPEANA-M	I	Spectrum analyzer drive signal input terminal (middle band)
23	SPEANA-H	I	Spectrum analyzer drive signal input terminal (high band)
24	KEY3	I	Front panel key input terminal (A/D input)
25	KEY2	I	Front panel key input terminal (A/D input)
26	KEY1	I	Front panel key input terminal (A/D input)
27	HOLD	I	System malfunction signal (hold signal) input from the power amplifier circuit
28	RDS CLK	I	RDS serial data transfer clock signal input from the tuner unit
29	RMC	I	Remote control signal input terminal
30 to 40	G1 to G11	O	Grid drive signal output to the fluorescent indicator tube
41 to 45	S1 to S5	O	Segment drive signal output to the fluorescent indicator tube
46	VDD3	—	Power supply terminal (+3.3V)
47	A PHOTO/S6	I/O	Deck-A tape reel rotating detection signal input and segment drive signal output to the fluorescent indicator tube
48	B PHOTO/S7	I/O	Deck-B tape reel rotating detection signal input and segment drive signal output to the fluorescent indicator tube
49	REC REV/S8	I/O	Recording (reverse direction) detection signal input and segment drive signal output to the fluorescent indicator tube
50	B MODE/S9	I/O	Deck-B mode detection signal input and segment drive signal output to the fluorescent indicator tube
51	FIX0	I/O	Not used
52	B HALF/S10	I/O	Deck-B cassette detection signal input and segment drive signal output to the fluorescent indicator tube

Pin No.	Pin Name	I/O	Description
53	$\overline{\text{REC FWD}}/\text{S11}$	I/O	Recording (forward direction) detection signal input and segment drive signal output to the fluorescent indicator tube
54	$\overline{\text{A HALF}}/\text{S12}$	I/O	Deck-A cassette detection signal input and segment drive signal output to the fluorescent indicator tube
55	$\overline{\text{A MODE}}/\text{S13}$	I/O	Deck-A mode detection signal input and segment drive signal output to the fluorescent indicator tube
56 to 67	S14 to S25	O	Segment drive signal output to the fluorescent indicator tube
68 to 71	S26 to S29	O	Segment drive signal output to the fluorescent indicator tube
72	VDD4	—	Power supply terminal (+3.3V)
73	S30	O	Segment drive signal output to the fluorescent indicator tube
74	CD NUMBER SENS	I	CD table address detection signal input terminal
75	TUNED	I	Tuning detection signal input from the tuner unit
76	STEREO	I	FM stereo detection signal input from the tuner unit
77	VOL A	I	Jog dial pulse input terminal (VOLUME)
78	VOL B	I	Jog dial pulse input terminal (VOLUME)
79	JOG A	I	Jog dial pulse input terminal (JOG)
80	JOG B	I	Jog dial pulse input terminal (JOG)
81	TRE A	I	Jog dial pulse input terminal (TREBLE)
82	TRE B	I	Jog dial pulse input terminal (TREBLE)
83	BASS A	I	Jog dial pulse input terminal (BASS)
84	BASS B	I	Jog dial pulse input terminal (BASS)
85	TUNER MUTE	O	Tuner muting on/off control signal output terminal
86	$\overline{\text{LED L}}$	O	LED drive signal output terminal
87	$\overline{\text{LED R}}$	O	LED drive signal output terminal
88	CLK	O	Serial data transfer clock signal output to the FM/AM tuner unit, motor/plunger driver and BBE controller
89	VSS2	—	Ground terminal
90	VDD2	—	Power supply terminal (+3.3V)
91	VF ON	O	Not used
92	$\overline{\text{KEYSCAN}}$	O	Scan signal output for switches in the tape deck section and segment drive signal (S14 to S25)
93	$\overline{\text{POWER LED}}$	O	LED drive signal output terminal
94	$\overline{\text{POWER}}$	O	Power on/off control signal output terminal
95	CD DRF	I	Focus on detection signal input from the CD DSP
96	TU DI	I	Serial data input from the FM/AM tuner unit
97	CD WRQ	I	Interrupt request signal input from the CD DSP
98	CD DI	I	Serial data input from the CD DSP
99	CD DO	O	Serial data output to the CD DSP
100	CD CLK	O	Serial data transfer clock signal output to the CD DSP

## SECTION 7

### EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts  
Example:  
KNOB, BALANCE (WHITE) . . . (RED)  

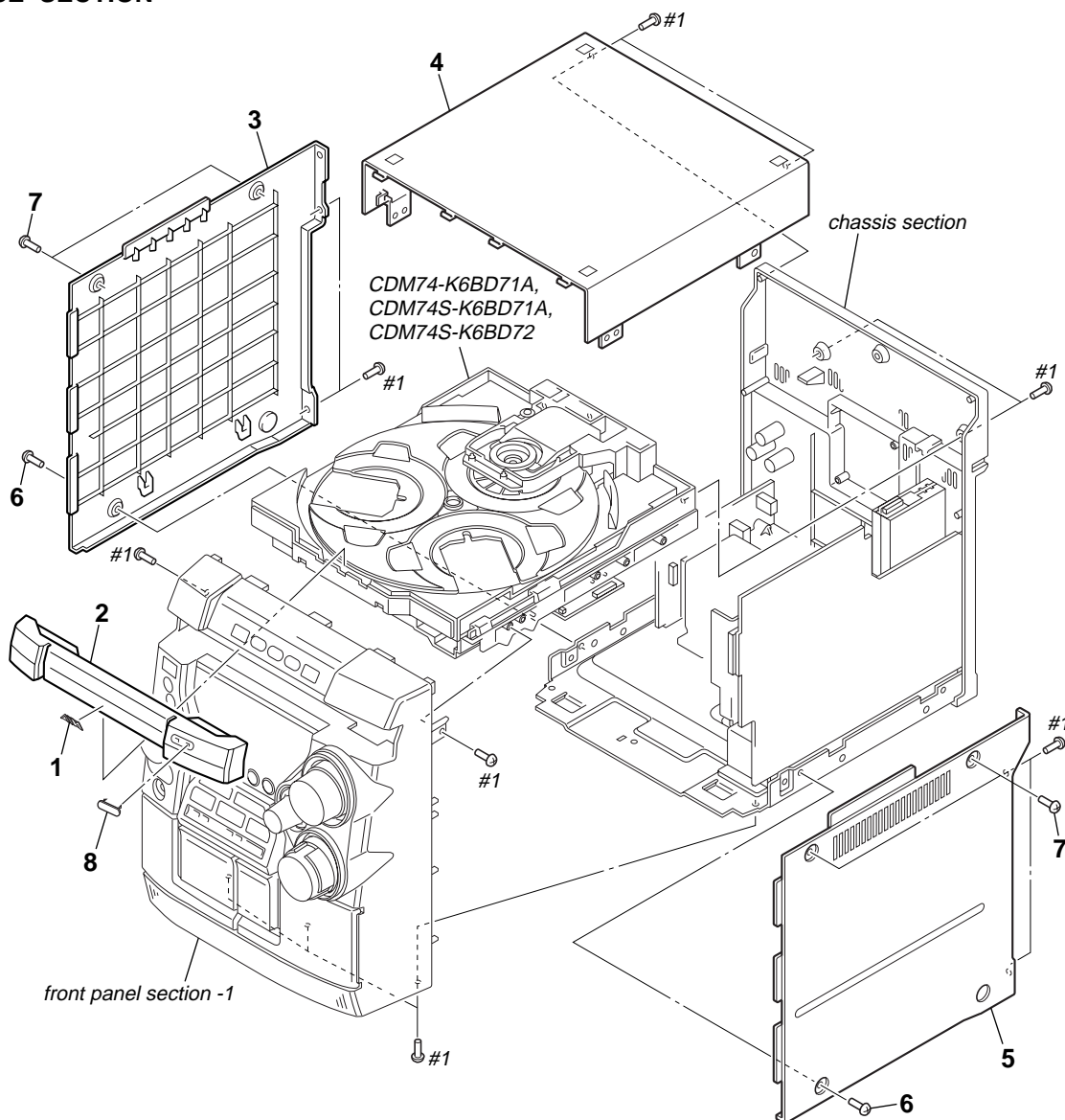
↑  
Parts Color

↑  
Cabinet's Color
- Abbreviation  
E51 : Chilean and Peruvian models  
MX : Mexican model

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

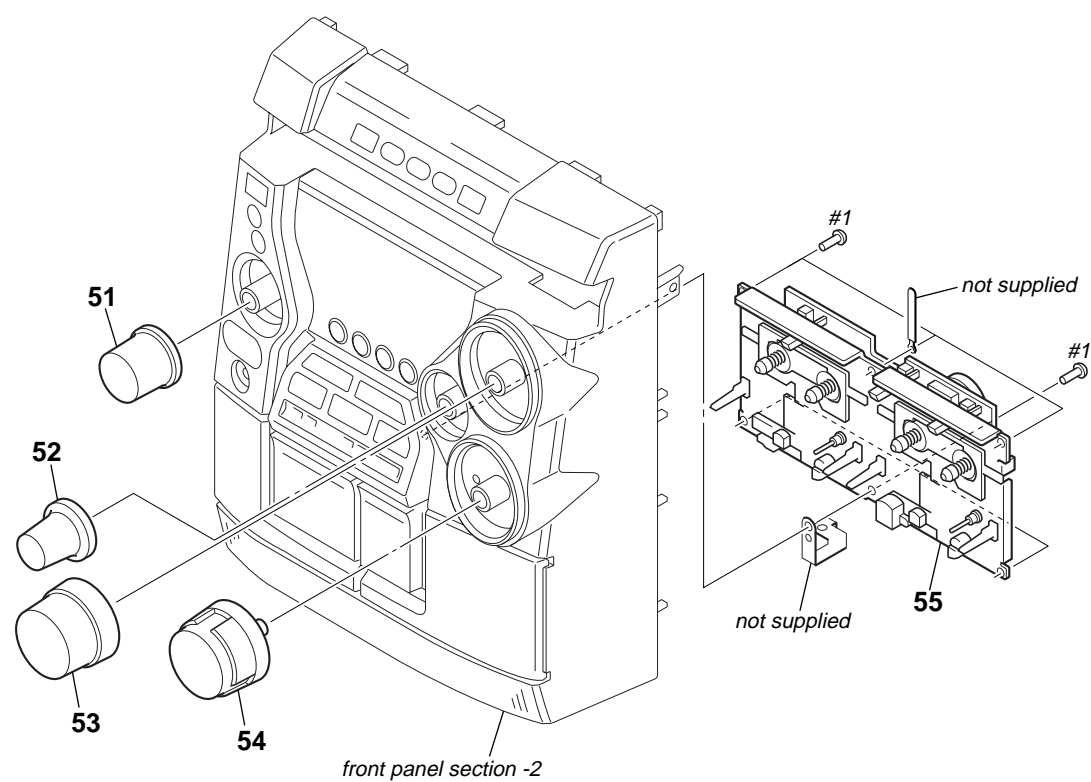
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

## 7-1. CASE SECTION



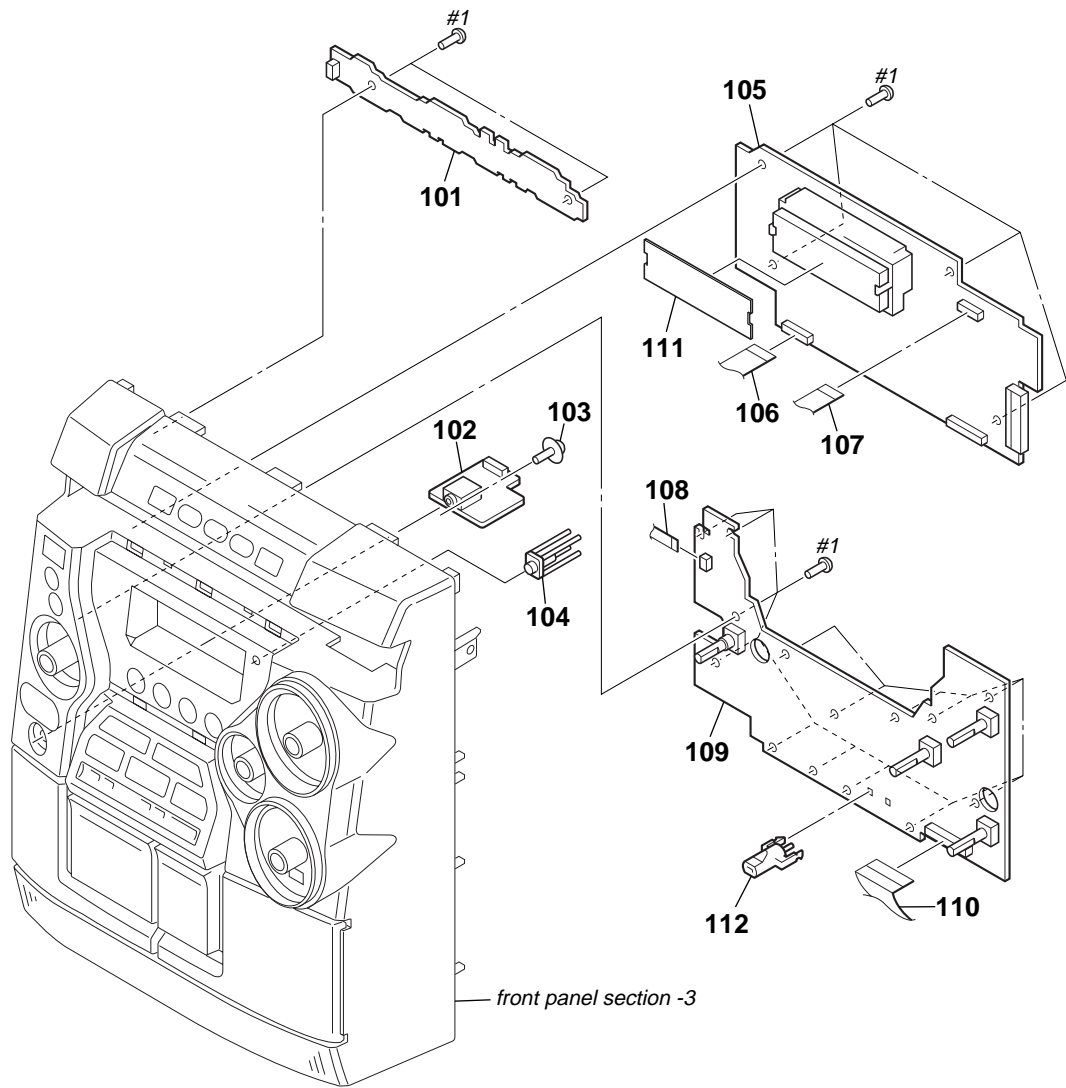
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-245-158-01	EMBLEM		5	4-245-184-01	CASE (SIDE-R) (US)	
2	4-245-186-01	PANEL, TRAY (US)		5	4-245-184-11	CASE (SIDE-R) (EXCEPT US)	
2	4-245-186-11	PANEL, TRAY (EXCEPT US)		6	3-363-099-01	SCREW (CASE 3 TP2)	
3	4-245-183-01	CASE (SIDE-L) (US)		7	3-363-099-41	SCREW (CASE 3 TP2)	
3	4-245-183-11	CASE (SIDE-L) (EXCEPT US)		8	4-246-682-01	EMBLEM (30), MP3 (AEP, UK, CIS, E51, MX)	
4	4-244-849-21	CASE (TOP) (US)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
4	4-244-849-31	CASE (TOP) (EXCEPT US)					

7-2. FRONT PANEL SECTION-1



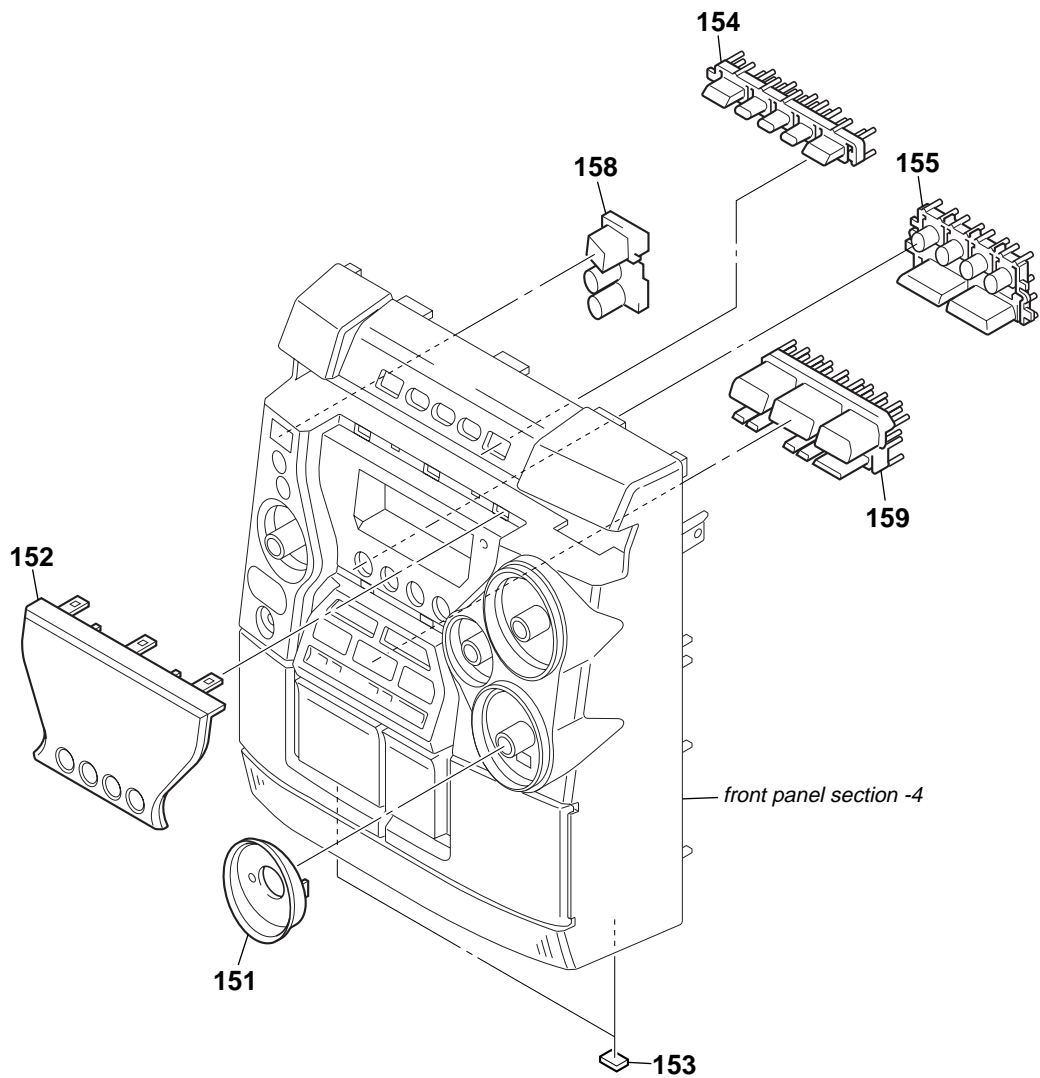
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-245-177-01	ROTARY (JOG), KNOB		55	1-796-485-51	DECK, MECHANICAL (CWM43FF13)	
52	4-245-179-01	ROTARY (TRE), KNOB				(EXCEPT MX)	
53	4-245-182-01	PLATING, KNOB ROTARY (VOL)		55	1-796-485-61	DECK, MECHANICAL (CWM43FF25) (MX)	
54	4-245-176-01	PLATING, KNOB ROTARY (BASS)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

7-3. FRONT PANEL SECTION-2



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	1-688-379-11	CD KEY BOARD		107	1-769-944-11	WIRE (FLAT TYPE) (11 CORE)	
102	1-688-400-11	HEADPHONE BOARD		108	1-769-857-11	WIRE (FLAT TYPE) (5 CORE)	
103	3-229-336-01	SCREW, +BVWH TAPPING		109	A-4732-732-A	KEY BOARD, COMPLETE (US)	
104	4-245-189-01	REFLECTOR, REMOTE CONTROL		109	A-4732-920-A	KEY BOARD, COMPLETE (E51)	
105	A-4732-731-A	PANEL BOARD, COMPLETE (US)		109	A-4732-924-A	KEY BOARD, COMPLETE (AEP, UK, CIS)	
105	A-4732-992-A	PANEL BOARD, COMPLETE (AEP, UK)		109	A-4734-521-A	KEY BOARD, COMPLETE (MX)	
105	A-4733-008-A	PANEL BOARD, COMPLETE (E51)		110	1-773-182-11	WIRE (FLAT TYPE) (23 CORE)	
105	A-4734-523-A	PANEL BOARD, COMPLETE (MX)		111	4-245-194-01	SHEET, FL	
105	A-4747-737-A	PANEL BOARD, COMPLETE (CIS)		112	4-245-264-01	GUIDE (I BASS)	
106	1-751-688-11	WIRE (FLAT TYPE) (13 CORE)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

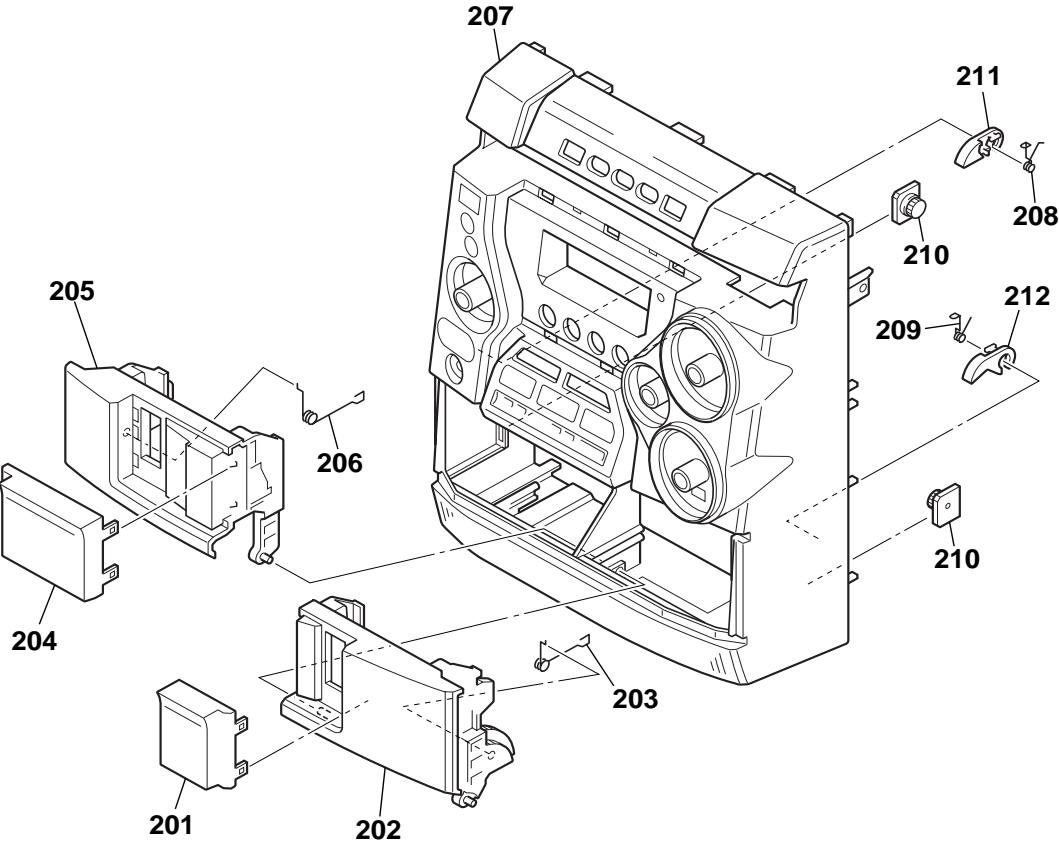
7-4. FRONT PANEL SECTION-3



Ref. No.	Part No.	Description	Remark
151	4-245-193-01	RING (BASS)	
152	4-245-199-01	WINDOW, DISPLAY (US, CIS)	
152	4-245-199-21	WINDOW, DISPLAY E51, MX)	
152	4-245-199-31	WINDOW, DISPLAY (AEP, UK)	
153	4-233-980-01	RUBBER FOOT	
154	4-245-171-01	KEY (CD) (DISC CHANGE. 1. 2. 3. ▲)	

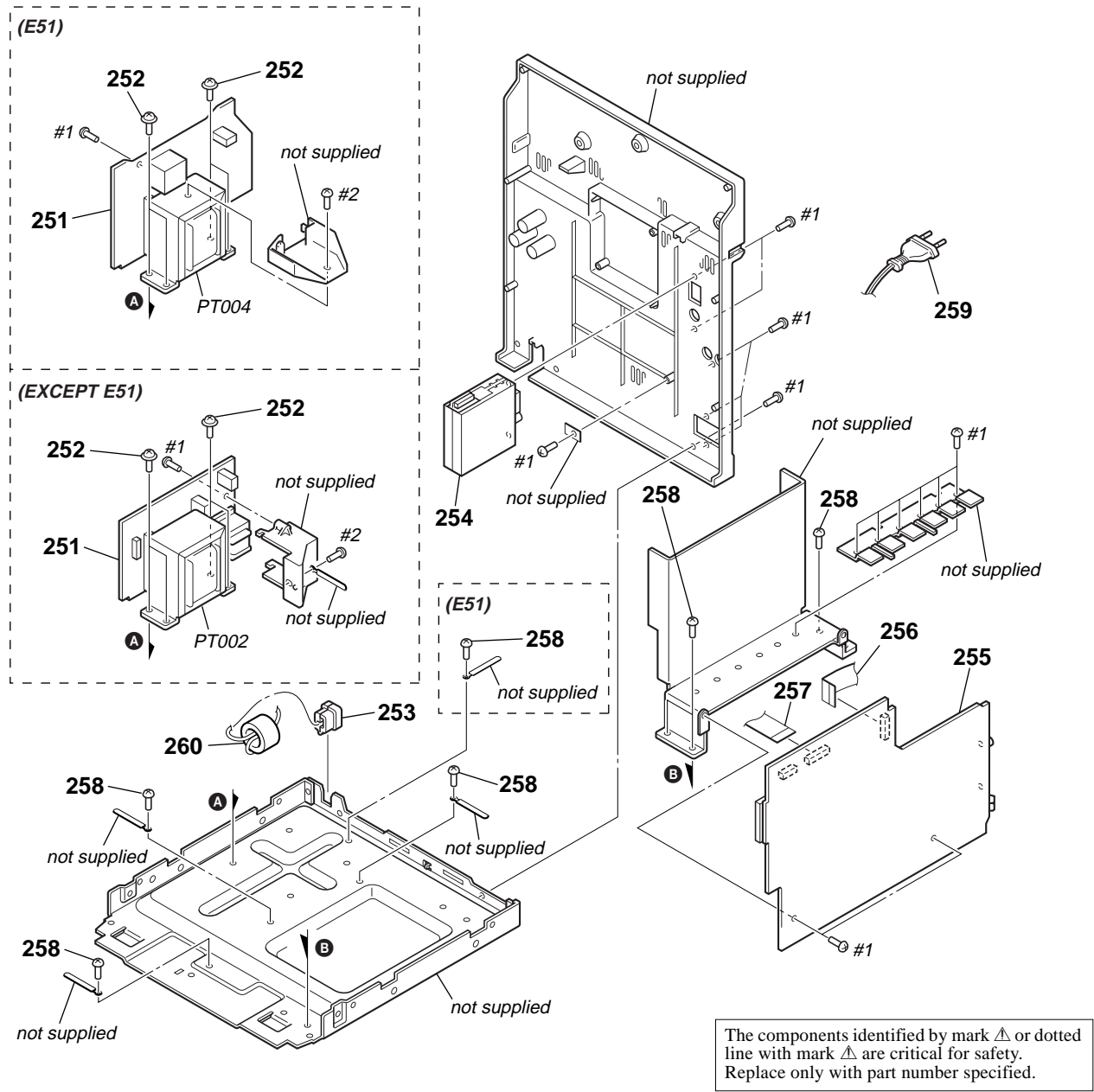
Ref. No.	Part No.	Description	Remark
155	4-245-172-01	KEY (FUN) (TAPE A/B. TUNER BAND. VIDEO/AUX. CD. ►. ■)	
158	X-4955-560-1	KEY ASSY (POWER)	
159	X-4955-571-1	KEY ASSY (OPE) (◀◀.   . ▶▶. SYNC DUB. ● REC/REC MUTE. i-BASS) (US)	
159	X-4955-572-1	KEY ASSY (MP3) (◀◀.   . ▶▶. SYNC DUB. ● REC/REC MUTE. PTY. PT. i-BASS) (EXCEPT US)	

7-5. FRONT PANEL SECTION-4



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-245-198-01	WINDOW (2), CASSETTE		207	4-245-161-21	CABINET, FRONT (E51, MX)	
202	4-245-160-01	BOX, CASSETTE (2)		207	4-245-161-31	CABINET, FRONT (AEP, UK)	
203	4-245-196-01	SPRING (R), TORSION COIL		208	4-231-836-01	SPRING (HEART CAM-A)	
204	4-245-197-01	WINDOW (1), CASSETTE		209	4-231-841-01	SPRING (HEART CAM-B)	
205	4-245-159-01	BOX, CASSETTE (1)		210	4-224-104-41	DAMPER	
206	4-245-195-01	SPRING (L), TORSION COIL		211	4-231-824-01	CAM (A), HEART	
207	4-245-161-01	CABINET, FRONT (US)		212	4-231-825-01	CAM (B), HEART	
207	4-245-161-11	CABINET, FRONT (CIS)					

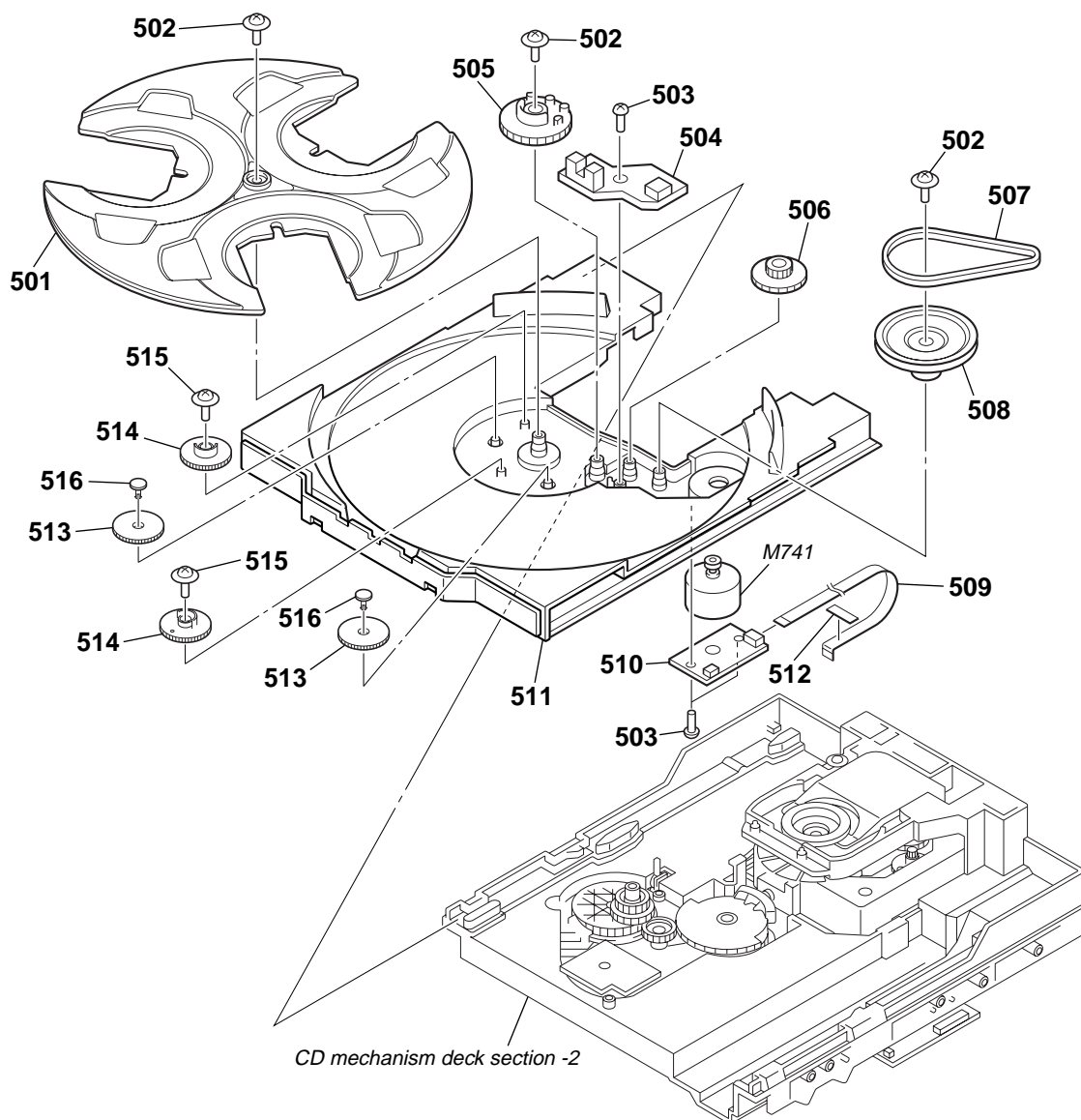
7-6. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	1-688-399-11	PT BOARD (EXCEPT E51)		256	1-773-007-11	WIRE (FLAT TYPE) (15 CORE) (AEP, UK)	
251	1-688-763-11	PT BOARD (E51)		257	1-827-222-11	WIRE (FLAT TYPE) (19 CORE)	
252	4-242-527-01	S-SCREW, ITC+4-8 R		258	4-242-539-01	BVIT3B+3-8R W/O SLOT	
253	3-703-244-11	BUSHING (2104), CORD		$\triangle$ 259	1-757-140-11	CORD, POWER (AEP, UK, CIS, E51)	
254	1-693-615-11	TUNER PACK (E51, MX)		$\triangle$ 259	1-757-813-12	CORD, POWER (MX)	
254	1-693-616-11	TUNER PACK (AEP, UK)		$\triangle$ 259	1-823-597-11	CORD, POWER (US)	
254	1-693-618-11	TUNER PACK (CIS)		260	1-400-285-11	F-BEAD, E2515MRT	
254	1-693-631-11	TUNER PACK (US)		$\triangle$ PT002	1-439-763-11	TRANSFORMER, POWER (US)	
255	A-4732-866-A	MAIN BOARD, COMPLETE (US)		$\triangle$ PT002	1-439-925-11	TRANSFORMER, POWER (AEP, UK, CIS)	
255	A-4733-001-A	MAIN BOARD, COMPLETE (AEP, UK)		$\triangle$ PT002	1-439-927-11	TRANSFORMER, POWER (MX)	
255	A-4733-023-A	MAIN BOARD, COMPLETE (E51)		$\triangle$ PT004	1-439-926-11	TRANSFORMER, POWER (E51)	
255	A-4734-544-A	MAIN BOARD, COMPLETE (MX)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
255	A-4747-733-A	MAIN BOARD, COMPLETE (CIS)		#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
256	1-769-943-11	WIRE (FLAT TYPE) (11 CORE)	(EXCEPT AEP, UK)				

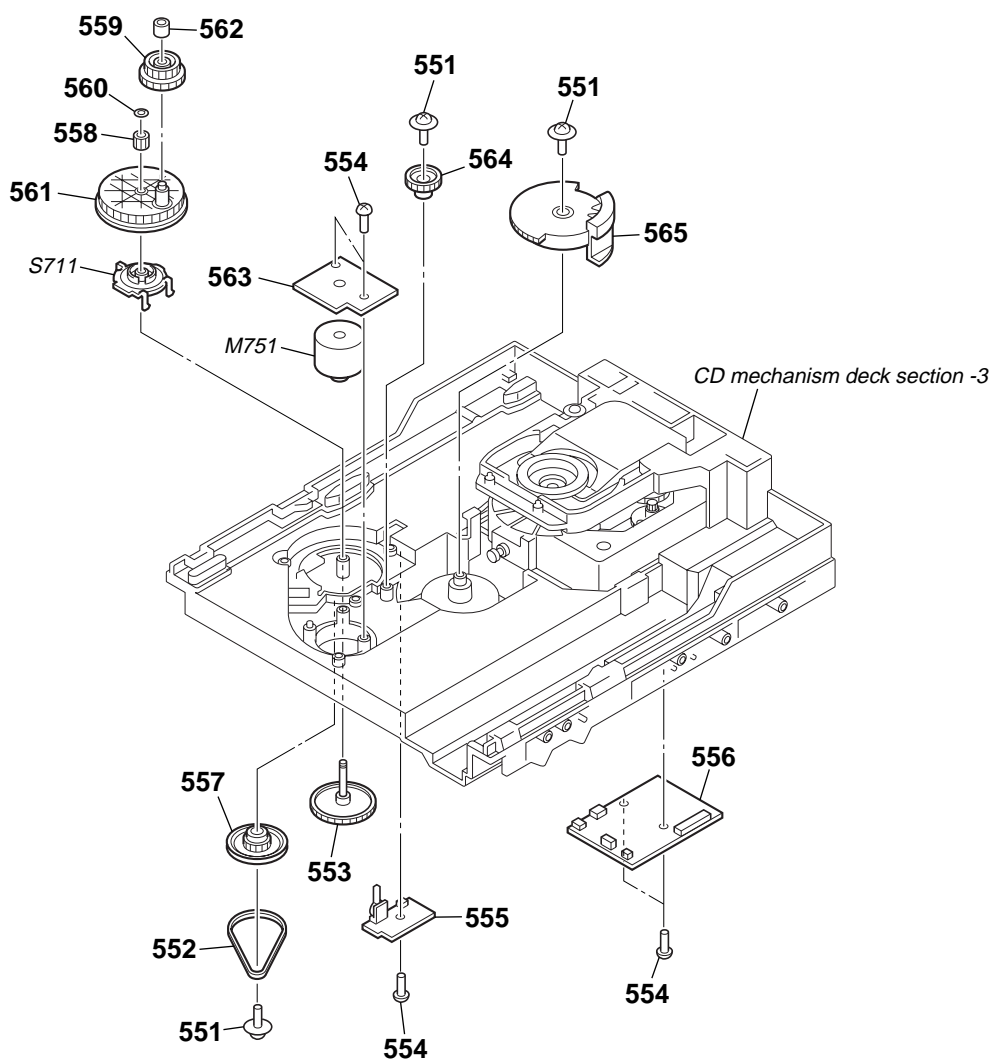
## 7-7. CD MECHANISM DECK SECTION-1

( CDM74-K6BD71A: MX  
 CDM74S-K6BD71A: AEP, UK, CIS, E51  
 CDM74S-K6BD72: US )



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
501	4-243-815-01	TABLE (LOADING)		510	1-687-134-11	MOTOR (TB) BOARD	
502	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING		511	4-243-816-01	TRAY	
503	4-218-253-21	SCREW (M2.6), +BTTP		512	3-321-598-01	SHEET (BA)	
504	1-687-132-11	SENSOR BOARD		513	4-245-570-01	GEAR (JOINT)	
505	4-243-819-01	GEAR (GENEVA)		514	4-245-571-01	GEAR (STOPPER)	
506	4-243-820-01	GEAR (TABLE)		515	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
507	4-243-823-01	BELT (TABLE)		516	4-245-572-01	BUSHING (GEAR)	
508	4-243-821-01	PULLEY (TABLE)		M741	A-4723-963-A	MOTOR ASSY, TABLE	
509	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)					

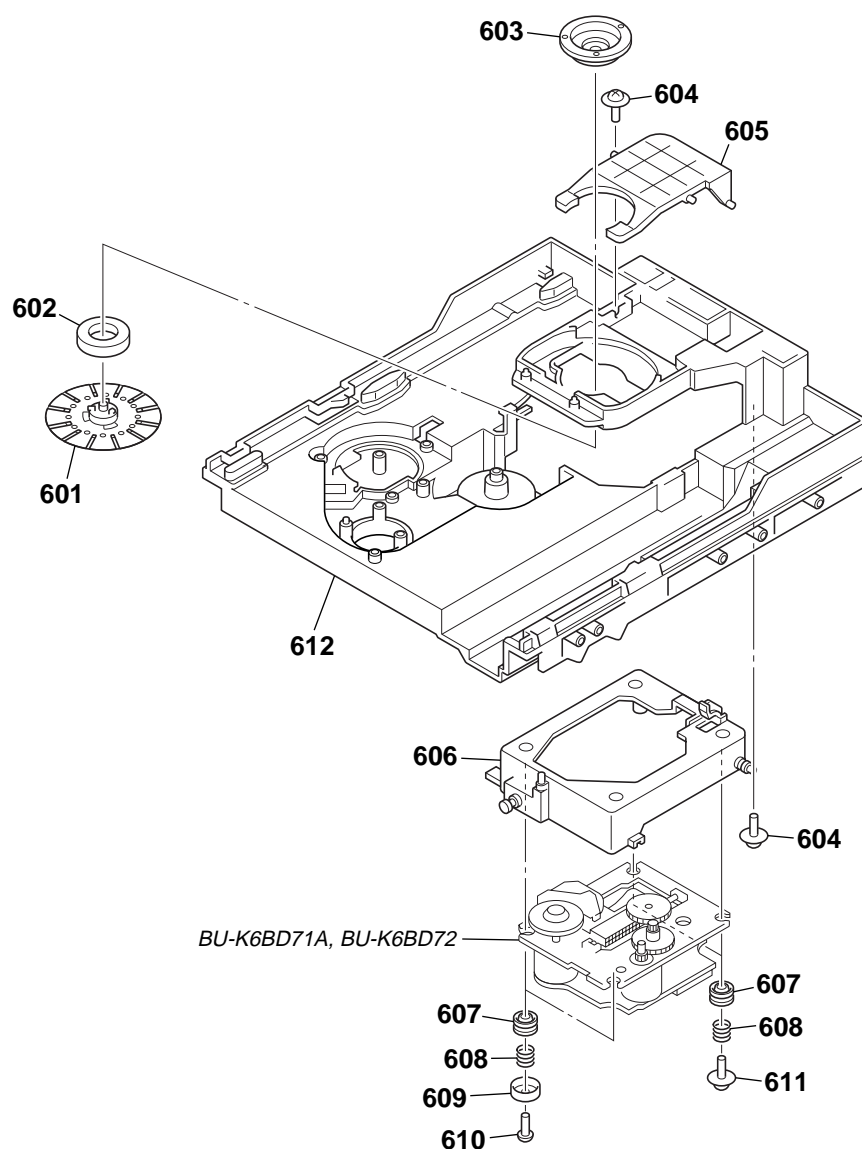
7-8. CD MECHANISM DECK SECTION-2  
( CDM74-K6BD71A: MX  
CDM74S-K6BD71A: AEP, UK, CIS, E51  
CDM74S-K6BD72: US )



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
551	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING		560	3-016-533-11	WASHER (FR), STOPPER (EXCEPT MX)	
552	4-244-034-01	BELT (LOADING)		561	4-244-108-01	GEAR, SWING	
553	4-224-613-01	GEAR (SHAFT)		562	4-224-608-01	COLLAR, SWING	
554	4-218-253-31	SCREW (M2.6), +BTTP		563	1-687-133-11	MOTOR (LD) BOARD	
555	1-687-669-11	SW BOARD		564	4-224-606-01	GEAR (RV)	
556	1-687-135-11	DRIVER BOARD		565	4-243-818-01	GEAR (U/D)	
557	4-225-844-01	GEAR (LOADING A)		M751	A-4736-655-A	MOTOR ASSY, LOADING (EXCEPT MX)	
558	4-224-611-01	GEAR (LOADING B)		M751	A-4737-553-A	MOTOR ASSY, LOADING (MX)	
559	4-224-609-01	GEAR (LOADING C)		S711	1-477-680-11	ENCODER, ROTARY	
560	3-016-533-01	WASHER (FR), STOPPER (MX)				(DISC TRAY ADDRESS DETECT)	

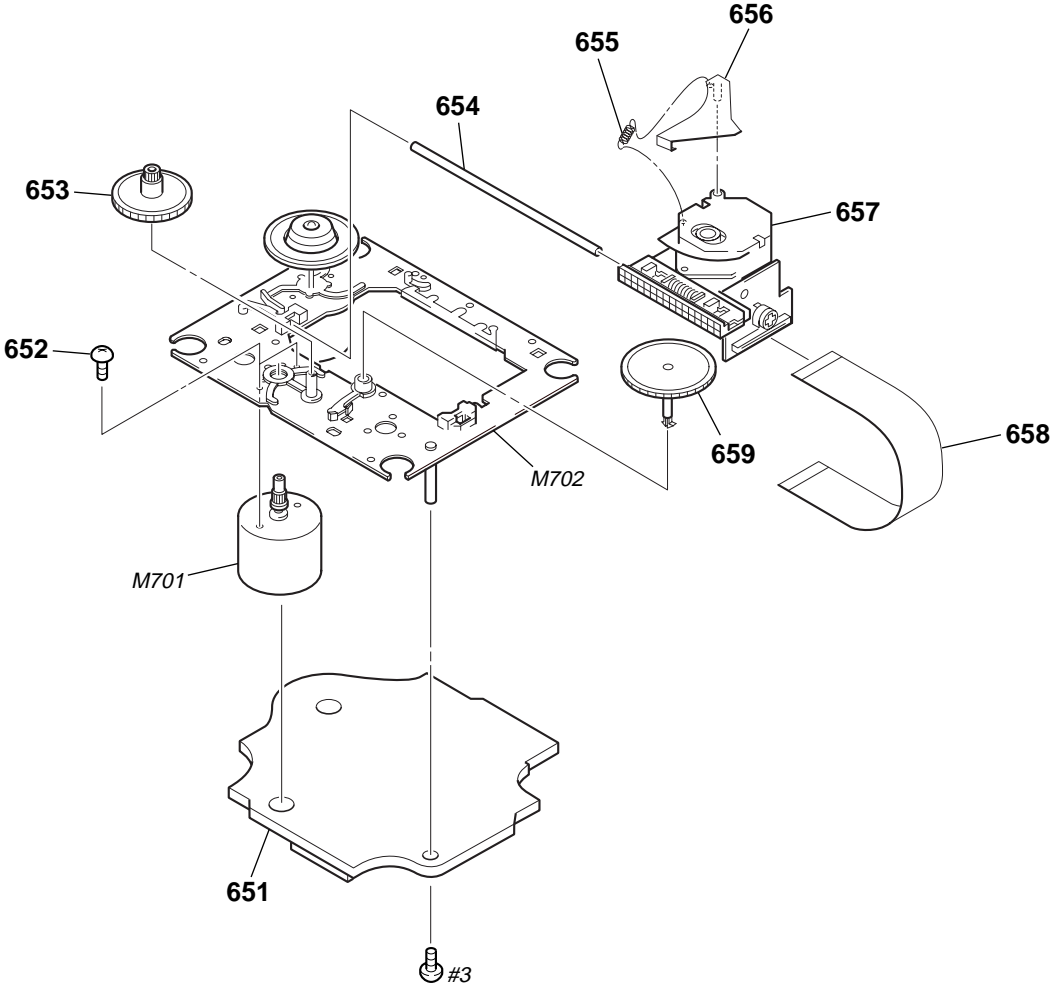
## 7-9. CD MECHANISM DECK SECTION-3

CDM74-K6BD71A: MX  
 CDM74S-K6BD71A: AEP, UK, CIS, E51  
 CDM74S-K6BD72: US



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
601	X-4955-707-1	PULLEY (A5) ASSY, CHUCKING (EXCEPT MX)		606	X-4955-536-1	HOLDER (213) ASSY	
601	X-4955-791-1	PULLEY (SI) ASSY, CHUCKING (MX)		607	4-227-549-11	INSULATOR	
602	1-471-035-11	MAGNET ASSY		608	4-227-045-31	SPRING (INSULATOR), COIL	
603	4-221-688-01	PULLEY (B), CHUCKING (MX)		609	4-231-151-01	STOPPER (BU)	
603	4-231-189-01	PULLEY (B), CHUCKING (EXCEPT MX)		610	4-218-253-31	SCREW (M2.6), +BTTP	
604	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING		611	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
605	4-243-822-01	LEVER (LIFTER)		612	4-243-817-01	CHASSIS	

7-10. BASE UNIT SECTION  
(BU-K6BD71A: AEP, UK, CIS, MX, E51)  
(BU-K6BD72: US)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
651	A-4732-699-A	BD BOARD, COMPLETE (EXCEPT US)		$\triangle$ 657	8-820-020-11	OPTICAL PICK-UP KSS-213D/Z-RP	
651	A-4734-406-A	BD BOARD, COMPLETE (US)		658	1-823-859-11	WIRE (FLAT TYPE) (16 CORE)	
652	3-713-786-51	SCREW +P 2X3		659	2-625-188-02	GEAR (A)	
653	2-627-003-01	GEAR (B) (RP)		M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	
654	2-626-908-51	SHAFT, SLED		M702	X-2161-802-1	CHASSIS ASSY (DCP), T. T (SPINDLE)	
655	2-646-702-01	SPRING, EXTENSION		#3	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
656	2-646-697-02	SHUTTER (F), LENS					

## SECTION 8

### ELECTRICAL PARTS LIST

BD

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable
- Abbreviation  
E51 : Chilean and Peruvian models  
MX : Mexican model

- 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:  $\mu$ , for example:  
uA. . :  $\mu$ A. .      uPA. . :  $\mu$ PA. .  
uPB. . :  $\mu$ PB. .    uPC. . :  $\mu$ PC. .  
uPD. . :  $\mu$ PD. .
- **CAPACITORS**  
uF:  $\mu$ F
- **COILS**  
uH:  $\mu$ H

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

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

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
	A-4732-699-A	BD BOARD, COMPLETE (EXCEPT US)	*****								
		< CAPACITOR >									
C701	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C803	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C702	1-126-392-11	ELECT CHIP	100uF	20%	6.3V	C804	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C703	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C805	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C704	1-126-391-11	ELECT CHIP	47uF	20%	6.3V	C806	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C705	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C807	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C706	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C810	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C707	1-126-392-11	ELECT CHIP	100uF	20%	6.3V	C811	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C708	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C812	1-115-156-11	CERAMIC CHIP	1uF		10V
C709	1-126-392-11	ELECT CHIP	100uF	20%	6.3V	C813	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C710	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C814	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C711	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C815	1-128-360-11	ELECT CHIP	220uF	20%	10V
C712	1-162-949-11	CERAMIC CHIP	47PF	5%	50V	C816	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C713	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	C817	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C714	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C823	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C715	1-126-401-21	ELECT CHIP	1uF	20%	50V	C824	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C716	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C825	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C717	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	C829	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C718	1-115-156-11	CERAMIC CHIP	1uF		10V	C830	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C719	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	C831	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C720	1-162-953-11	CERAMIC CHIP	100PF	5%	50V	C834	1-126-392-11	ELECT CHIP	100uF	20%	6.3V
C721	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C835	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C722	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C837	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C723	1-126-392-11	ELECT CHIP	100uF	20%	6.3V	C843	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C729	1-128-360-11	ELECT CHIP	220uF	20%	10V	C844	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C731	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C856	1-115-156-11	CERAMIC CHIP	1uF		10V
C732	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C857	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C733	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C858	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C734	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	C859	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C735	1-162-918-11	CERAMIC CHIP	18PF	5%	50V	C860	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C741	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< CONNECTOR >			
C742	1-164-156-11	CERAMIC CHIP	0.1uF		25V	CN708	1-817-244-11	CONNECTOR, FFC 16P			
C743	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	CN710	1-778-874-11	CONNECTOR, FFC (LIF (NON-ZIF)) 19P			
C744	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V			< FERRITE BEAD >			
C746	1-164-156-11	CERAMIC CHIP	0.1uF		25V	FB701	1-550-907-21	FERRITE	0uH		
C747	1-164-156-11	CERAMIC CHIP	0.1uF		25V	FB707	1-550-907-21	FERRITE	0uH		
C748	1-128-360-11	ELECT CHIP	220uF	20%	10V	FB708	1-550-907-21	FERRITE	0uH		
C753	1-162-949-11	CERAMIC CHIP	47PF	5%	50V	FB801	1-550-907-21	FERRITE	0uH		
C754	1-162-949-11	CERAMIC CHIP	47PF	5%	50V	FB802	1-550-907-21	FERRITE	0uH		
C756	1-162-949-11	CERAMIC CHIP	47PF	5%	50V	FB803	1-550-907-21	FERRITE	0uH		
C802	1-164-156-11	CERAMIC CHIP	0.1uF		25V	FB804	1-550-907-21	FERRITE	0uH		
						FB805	1-550-907-21	FERRITE	0uH		

Ref. No.	Part No.	Description	Remark		
FB806	1-550-907-21	FERRITE	0uH		
FB807	1-550-907-21	FERRITE	0uH		
FB808	1-550-907-21	FERRITE	0uH		
< IC >					
IC721	6-701-796-01	IC LC78646E-E			
IC722	6-704-220-01	IC BA5836FP			
IC801	6-704-008-01	IC LC78684E-E			
IC802	6-704-009-01	IC LC32V4265CT-25-MPB-E			
IC803	6-704-007-01	IC MM1571J			
< TRANSISTOR >					
Q701	8-729-054-51	TRANSISTOR	UP04116008S0		
< RESISTOR >					
R701	1-216-841-11	METAL CHIP	47K	5%	1/10W
R702	1-216-835-11	METAL CHIP	15K	5%	1/10W
R703	1-216-835-11	METAL CHIP	15K	5%	1/10W
R704	1-216-835-11	METAL CHIP	15K	5%	1/10W
R705	1-216-835-11	METAL CHIP	15K	5%	1/10W
R706	1-216-841-11	METAL CHIP	47K	5%	1/10W
R707	1-216-797-11	METAL CHIP	10	5%	1/10W
R708	1-216-833-11	METAL CHIP	10K	5%	1/10W
R709	1-216-838-11	METAL CHIP	27K	5%	1/10W
R711	1-216-815-11	METAL CHIP	330	5%	1/10W
R713	1-216-821-11	METAL CHIP	1K	5%	1/10W
R714	1-216-809-11	METAL CHIP	100	5%	1/10W
R715	1-216-809-11	METAL CHIP	100	5%	1/10W
R716	1-216-809-11	METAL CHIP	100	5%	1/10W
R717	1-216-809-11	METAL CHIP	100	5%	1/10W
R718	1-216-809-11	METAL CHIP	100	5%	1/10W
R719	1-216-809-11	METAL CHIP	100	5%	1/10W
R720	1-216-809-11	METAL CHIP	100	5%	1/10W
R721	1-216-809-11	METAL CHIP	100	5%	1/10W
R722	1-216-821-11	METAL CHIP	1K	5%	1/10W
R725	1-216-819-11	METAL CHIP	680	5%	1/10W
R726	1-216-819-11	METAL CHIP	680	5%	1/10W
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
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
R802	1-216-809-11	METAL CHIP	100	5%	1/10W
R803	1-216-809-11	METAL CHIP	100	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description	Remark		
R805	1-216-809-11	METAL CHIP	100	5%	1/10W
R806	1-216-809-11	METAL CHIP	100	5%	1/10W
R807	1-216-809-11	METAL CHIP	100	5%	1/10W
R817	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R818	1-216-811-11	METAL CHIP	150	5%	1/10W
R819	1-216-821-11	METAL CHIP	1K	5%	1/10W
R820	1-216-821-11	METAL CHIP	1K	5%	1/10W
R823	1-216-809-11	METAL CHIP	100	5%	1/10W
R824	1-216-809-11	METAL CHIP	100	5%	1/10W
R825	1-216-809-11	METAL CHIP	100	5%	1/10W
R826	1-216-809-11	METAL CHIP	100	5%	1/10W
R827	1-216-809-11	METAL CHIP	100	5%	1/10W
R828	1-216-809-11	METAL CHIP	100	5%	1/10W
R829	1-216-809-11	METAL CHIP	100	5%	1/10W
R832	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R833	1-216-809-11	METAL CHIP	100	5%	1/10W
R834	1-216-809-11	METAL CHIP	100	5%	1/10W
R860	1-216-809-11	METAL CHIP	100	5%	1/10W
< SWITCH >					
S701	1-771-853-11	SWITCH, DETECTION (LIMIT IN)			
< VIBRATOR >					
X701	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
*****					
A-4734-406-A BD BOARD, COMPLETE (US)					
*****					
< CAPACITOR >					
C701	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C702	1-104-665-11	ELECT	100uF	20%	10V
C703	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C704	1-126-513-11	ELECT	47uF	20%	6.3V
C705	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C706	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C707	1-104-665-11	ELECT	100uF	20%	10V
C708	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C709	1-104-665-11	ELECT	100uF	20%	10V
C710	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C711	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C712	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C713	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C714	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C715	1-115-871-11	ELECT	1uF	20%	50V
C716	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C717	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C718	1-115-156-11	CERAMIC CHIP	1uF		10V
C719	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C720	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C721	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C722	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C723	1-104-665-11	ELECT	100uF	20%	10V
C729	1-126-934-11	ELECT	220uF	20%	10V
C731	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C732	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C733	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C734	1-162-917-11	CERAMIC CHIP	15PF	5%	50V

BD

CD KEY

DRIVER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C735	1-162-918-11	CERAMIC CHIP	18PF 5% 50V	R729	1-216-834-11	METAL CHIP	12K 5% 1/10W
C741	1-164-156-11	CERAMIC CHIP	0.1uF 25V	R730	1-216-822-11	METAL CHIP	1.2K 5% 1/10W
C742	1-164-156-11	CERAMIC CHIP	0.1uF 25V	R731	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
C743	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V	R732	1-216-864-11	METAL CHIP	0 5% 1/10W
C744	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	R738	1-218-867-11	METAL CHIP	6.8K 5% 1/10W
C745	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	R739	1-216-864-11	METAL CHIP	0 5% 1/10W
C746	1-164-156-11	CERAMIC CHIP	0.1uF 25V	R740	1-218-867-11	METAL CHIP	6.8K 5% 1/10W
C747	1-164-156-11	CERAMIC CHIP	0.1uF 25V	R741	1-216-864-11	METAL CHIP	0 5% 1/10W
C748	1-126-934-11	ELECT	220uF 20% 10V	R744	1-216-845-11	METAL CHIP	100K 5% 1/10W
C750	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	R745	1-216-809-11	METAL CHIP	100 5% 1/10W
C751	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	R746	1-216-803-11	METAL CHIP	33 5% 1/10W
C752	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	R747	1-216-803-11	METAL CHIP	33 5% 1/10W
C753	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	R751	1-216-841-11	METAL CHIP	47K 5% 1/10W
C754	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	R752	1-216-841-11	METAL CHIP	47K 5% 1/10W
C756	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	R753	1-216-841-11	METAL CHIP	47K 5% 1/10W
< CONNECTOR >				R754	1-216-841-11	METAL CHIP	47K 5% 1/10W
CN708	1-793-907-11	CONNECTOR, FFC/FPC 16P		R760	1-216-809-11	METAL CHIP	100 5% 1/10W
CN710	1-784-741-11	CONNECTOR, FFC 19P		R765	1-216-857-11	METAL CHIP	1M 5% 1/10W
< FERRITE BEAD >				< SWITCH >			
FB701	1-550-907-21	FERRITE	0uH	S701	1-771-853-11	SWITCH, DETECTION (LIMIT IN)	
FB707	1-550-907-21	FERRITE	0uH	< VIBRATOR >			
FB708	1-550-907-21	FERRITE	0uH	X701	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)	
< IC >				*****			
IC721	6-701-796-01	IC LC78646E-E		1-688-379-11	CD KEY BOARD		
IC722	6-704-220-01	IC BA5836FP		*****			
< TRANSISTOR >				< CONNECTOR >			
Q701	8-729-054-57	TRANSISTOR	KTN2907AS-RTK	CN302	1-784-766-11	CONNECTOR, FFC 5P	
< RESISTOR >				< RESISTOR >			
R701	1-216-841-11	METAL CHIP	47K 5% 1/10W	R326	1-216-822-11	METAL CHIP	1.2K 5% 1/10W
R702	1-216-835-11	METAL CHIP	15K 5% 1/10W	R327	1-216-824-11	METAL CHIP	1.8K 5% 1/10W
R703	1-216-835-11	METAL CHIP	15K 5% 1/10W	R328	1-216-824-11	METAL CHIP	1.8K 5% 1/10W
R704	1-216-835-11	METAL CHIP	15K 5% 1/10W	R329	1-216-826-11	METAL CHIP	2.7K 5% 1/10W
R705	1-216-835-11	METAL CHIP	15K 5% 1/10W	< SWITCH >			
R706	1-216-841-11	METAL CHIP	47K 5% 1/10W	S319	1-762-875-21	SWITCH, KEYBOARD (OPEN/CLOSE ▲)	
R707	1-216-797-11	METAL CHIP	10 5% 1/10W	S320	1-762-875-21	SWITCH, KEYBOARD (DISC DIRECT PLAY 3)	
R708	1-216-833-11	METAL CHIP	10K 5% 1/10W	S321	1-762-875-21	SWITCH, KEYBOARD (DISC DIRECT PLAY 2)	
R709	1-216-838-11	METAL CHIP	27K 5% 1/10W	S322	1-762-875-21	SWITCH, KEYBOARD (DISC DIRECT PLAY 1)	
R711	1-216-815-11	METAL CHIP	330 5% 1/10W	S323	1-762-875-21	SWITCH, KEYBOARD (DISC CHANGE)	
R713	1-216-821-11	METAL CHIP	1K 5% 1/10W	*****			
R714	1-216-809-11	METAL CHIP	100 5% 1/10W	1-687-135-11	DRIVER BOARD		
R715	1-216-809-11	METAL CHIP	100 5% 1/10W	*****			
R716	1-216-809-11	METAL CHIP	100 5% 1/10W	< CAPACITOR >			
R717	1-216-809-11	METAL CHIP	100 5% 1/10W	C715	1-126-933-11	ELECT	100uF 20% 16V
R718	1-216-809-11	METAL CHIP	100 5% 1/10W	C731	1-126-964-11	ELECT	10uF 20% 50V
R719	1-216-809-11	METAL CHIP	100 5% 1/10W	C735	1-164-159-21	CERAMIC	0.1uF 50V
R720	1-216-809-11	METAL CHIP	100 5% 1/10W	C736	1-164-159-21	CERAMIC	0.1uF 50V
R721	1-216-809-11	METAL CHIP	100 5% 1/10W	C737	1-164-159-21	CERAMIC	0.1uF 50V
R722	1-216-809-11	METAL CHIP	100 5% 1/10W	C741	1-162-306-11	CERAMIC	0.01uF 20% 16V
R725	1-216-819-11	METAL CHIP	680 5% 1/10W	C751	1-162-306-11	CERAMIC	0.01uF 20% 16V
R726	1-216-819-11	METAL CHIP	680 5% 1/10W	C752	1-164-159-21	CERAMIC	0.1uF 50V
R727	1-216-809-11	METAL CHIP	100 5% 1/10W				
R728	1-216-841-11	METAL CHIP	47K 5% 1/10W				

DRIVER

HEADPHONE

KEY

Ref. No.	Part No.	Description	Remark
< 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 ANGRE) 2P	
< DIODE >			
D701	8-719-921-42	DIODE MTZJ-T-77-5.1A	
D711	8-719-109-69	DIODE MTZJ-T-77-3.6B	
< IC >			
IC701	8-759-598-69	IC BA6956AN	
IC712	8-759-598-69	IC BA6956AN	
< TRANSISTOR >			
Q731	8-729-029-67	TRANSISTOR DTC114ESA-TP	
< 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	1-249-425-11	CARBON 4.7K 5% 1/4W	
R733	1-249-417-11	CARBON 1K 5% 1/4W	
R734	1-249-433-11	CARBON 22K 5% 1/4W	
R735	1-247-807-31	CARBON 100 5% 1/4W	
R751	1-249-425-11	CARBON 4.7K 5% 1/4W	
*****			
	1-688-400-11	HEADPHONE BOARD	
*****			
< CAPACITOR >			
C250	1-125-891-11	CERAMIC CHIP 0.47uF 10% 10V	
< JACK >			
J221	1-785-448-21	JACK (PHONES)	
< RESISTOR >			
R221	1-216-206-00	RES-CHIP 2.2K 5% 1/8W	
R222	1-216-206-00	RES-CHIP 2.2K 5% 1/8W	
R223	1-260-089-11	CARBON 150 5% 1/2W	
		(AEP, UK, CIS)	
R223	1-260-090-61	CARBON 180 5% 1/2W	
		(EXCEPT AEP, UK, CIS)	
R224	1-260-089-11	CARBON 150 5% 1/2W	
		(AEP, UK, CIS)	
R224	1-260-090-61	CARBON 180 5% 1/2W	
		(EXCEPT AEP, UK, CIS)	
R225	1-260-089-11	CARBON 150 5% 1/2W	
		(AEP, UK, CIS)	

Ref. No.	Part No.	Description	Remark
R225	1-260-090-61	CARBON 180 5% 1/2W	
		(EXCEPT AEP, UK, CIS)	
R226	1-260-089-11	CARBON 150 5% 1/2W	
		(AEP, UK, CIS)	
R226	1-260-090-61	CARBON 180 5% 1/2W	
		(EXCEPT AEP, UK, CIS)	
< CONNECTOR >			
WH230	1-816-818-11	HLDR, WIRE 2.5-5P	
*****			
A-4732-732-A		KEY BOARD, COMPLETE (US)	
A-4732-920-A		KEY BOARD, COMPLETE (E51)	
A-4732-924-A		KEY BOARD, COMPLETE (AEP, UK, CIS)	
A-4734-521-A		KEY BOARD, COMPLETE (MX)	
*****			
< CAPACITOR >			
C402	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
		(E51, MX)	
C403	1-162-968-11	CERAMIC CHIP 0.0047uF 10% 50V	
		(E51, MX)	
C404	1-126-957-11	ELECT 0.22uF 20% 50V	
		(E51, MX)	
C405	1-126-960-11	ELECT 1uF 20% 50V	
		(E51, MX)	
C406	1-126-934-11	ELECT 220uF 20% 10V	
		(E51, MX)	
C407	1-162-926-11	CERAMIC CHIP 82PF 5% 50V	
		(E51, MX)	
C408	1-126-956-11	ELECT 0.1uF 20% 50V	
		(E51, MX)	
C409	1-126-964-11	ELECT 10uF 20% 50V	
		(E51, MX)	
C410	1-126-965-11	ELECT 22uF 20% 50V	
		(E51, MX)	
C411	1-164-473-11	CERAMIC CHIP 820PF 5% 50V	
		(E51, MX)	
C412	1-126-960-11	ELECT 1uF 20% 50V	
		(E51, MX)	
C416	1-126-956-11	ELECT 0.1uF 20% 50V	
		(E51, MX)	
C419	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
		(E51, MX)	
C441	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C801	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C802	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C803	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C804	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C805	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C806	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C807	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C808	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
< CONNECTOR >			
CN301	1-784-766-11	CONNECTOR, FFC 5P	
CN303	1-784-784-11	CONNECTOR, FFC 23P	
< DIODE >			
D401	8-719-991-34	DIODE 1SS133T-72 (E51, MX)	

## KEY

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
< FERRITE BEAD >						R401	1-216-845-11	METAL CHIP	100K	5%	1/10W (E51, MX)
FB401	1-410-396-41	FERRITE	0.45uH (E51, MX)			R402	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (E51, MX)
< IC >						R403	1-216-849-11	METAL CHIP	220K	5%	1/10W (E51, MX)
IC401	8-759-710-97	IC NJM4565M (TE2) (E51, MX)				R404	1-216-809-11	METAL CHIP	100	5%	1/10W (E51, MX)
< JACK >						R405	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (E51, MX)
J401	1-816-860-11	JACK, 6.3 BLK MONO W/SW V MSC (MIC) (E51, MX)				R406	1-216-850-11	METAL CHIP	270K	5%	1/10W (E51, MX)
< SHORT >						R407	1-216-826-11	METAL CHIP	2.7K	5%	1/10W (E51, MX)
JR403	1-216-864-11	METAL CHIP	0	5%	1/10W (E51, MX)	R408	1-216-809-11	METAL CHIP	100	5%	1/10W (E51, MX)
JR404	1-216-864-11	METAL CHIP	0	5%	1/10W (E51, MX)	R409	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (E51, MX)
JR803	1-216-864-11	METAL CHIP	0	5%	1/10W	R410	1-216-837-11	METAL CHIP	22K	5%	1/10W (E51, MX)
JR805	1-216-864-11	METAL CHIP	0	5%	1/10W (US)	R411	1-216-838-11	METAL CHIP	27K	5%	1/10W (E51, MX)
JR807	1-216-864-11	METAL CHIP	0	5%	1/10W (AEP)	R412	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (E51, MX)
JR808	1-216-864-11	METAL CHIP	0	5%	1/10W (UK)	R413	1-216-839-11	METAL CHIP	33K	5%	1/10W (E51, MX)
JR809	1-216-864-11	METAL CHIP	0	5%	1/10W (CIS)	R414	1-216-797-11	METAL CHIP	10	5%	1/10W (E51, MX)
JR822	1-216-864-11	METAL CHIP	0	5%	1/10W (E51)	R432	1-216-841-11	METAL CHIP	47K	5%	1/10W (E51, MX)
JR823	1-216-864-11	METAL CHIP	0	5%	1/10W (MX)	R801	1-216-833-11	METAL CHIP	10K	5%	1/10W
< LED >						R802	1-216-833-11	METAL CHIP	10K	5%	1/10W
LED201	8-719-053-43	LED SLR-325VCT31 (i-BASS)				R803	1-216-797-11	METAL CHIP	10	5%	1/10W
LED901	6-500-641-01	LED SLI-325URC (⏻ STANDBY/ON)				R804	1-216-797-11	METAL CHIP	10	5%	1/10W
< TRANSISTOR >						R805	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q401	8-729-045-62	FET 2SK2158-T2B (E51, MX)				R806	1-216-833-11	METAL CHIP	10K	5%	1/10W
< RESISTOR >						R807	1-216-797-11	METAL CHIP	10	5%	1/10W
R231	1-216-198-00	RES-CHIP	1K	5%	1/8W	R808	1-216-797-11	METAL CHIP	10	5%	1/10W
R301	1-216-864-11	METAL CHIP	0	5%	1/10W	R809	1-216-833-11	METAL CHIP	10K	5%	1/10W
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W	R810	1-216-833-11	METAL CHIP	10K	5%	1/10W
R303	1-216-820-11	METAL CHIP	820	5%	1/10W	R811	1-216-797-11	METAL CHIP	10	5%	1/10W
R304	1-216-821-11	METAL CHIP	1K	5%	1/10W	R812	1-216-797-11	METAL CHIP	10	5%	1/10W
R305	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	R813	1-216-833-11	METAL CHIP	10K	5%	1/10W
R306	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	R814	1-216-833-11	METAL CHIP	10K	5%	1/10W
R311	1-216-864-11	METAL CHIP	0	5%	1/10W	R815	1-216-797-11	METAL CHIP	10	5%	1/10W
R312	1-216-821-11	METAL CHIP	1K	5%	1/10W	R816	1-216-797-11	METAL CHIP	10	5%	1/10W
R313	1-216-820-11	METAL CHIP	820	5%	1/10W	< SWITCH >					
R314	1-216-821-11	METAL CHIP	1K	5%	1/10W	S301	1-762-875-21	SWITCH, KEYBOARD (PLAY/PRESET ▶)			
R315	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	S302	1-762-875-21	SWITCH, KEYBOARD (STOP/CLEAR ■)			
R316	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	S303	1-762-875-21	SWITCH, KEYBOARD (TUNING DOWN, ◀◀)			
R317	1-216-824-11	METAL CHIP	1.8K	5%	1/10W	S304	1-762-875-21	SWITCH, KEYBOARD (PAUSE/SET ■■)			
R318	1-216-824-11	METAL CHIP	1.8K	5%	1/10W	S305	1-762-875-21	SWITCH, KEYBOARD (TUNING UP, ▶▶)			
R321	1-216-864-11	METAL CHIP	0	5%	1/10W	S306	1-762-875-21	SWITCH, KEYBOARD (i-BASS)			
R322	1-216-821-11	METAL CHIP	1K	5%	1/10W	S307	1-762-875-21	SWITCH, KEYBOARD (MODE)			
R323	1-216-820-11	METAL CHIP	820	5%	1/10W	S308	1-762-875-21	SWITCH, KEYBOARD (ENTER)			
R324	1-216-821-11	METAL CHIP	1K	5%	1/10W	S309	1-762-875-21	SWITCH, KEYBOARD (CD)			
R325	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	S310	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)			
						S311	1-762-875-21	SWITCH, KEYBOARD (TUNER BAND)			
						S312	1-762-875-21	SWITCH, KEYBOARD (VIDEO/AUX)			

# CX-JN3

KEY	MAIN
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Ref. No.	Part No.	Description	Remark
S313	1-762-875-21	SWITCH, KEYBOARD (● REC/REC MUTING)	
S314	1-762-875-21	SWITCH, KEYBOARD (SYNC DUB)	
S315	1-762-875-21	SWITCH, KEYBOARD (POWER)	
S316	1-762-875-21	SWITCH, KEYBOARD (EXCEPT US)	
S317	1-762-875-21	SWITCH, KEYBOARD (RT) (AEP, UK)	
S318	1-762-875-21	SWITCH, KEYBOARD (PTY) (AEP, UK)	
S801	1-786-396-11	SW, RTRY EC12E24604-30MM (VOLUME)	
S802	1-786-396-11	SW, RTRY EC12E24604-30MM (i-BASS)	
S803	1-477-824-11	ENCODER, ROTARY (TREBLE)	
S804	1-786-418-11	SW, RTRY RE0123PVB30F (MULTI JOG)	
< VARIABLE RESISTOR >			
VR401	1-227-502-11	RES, VAR, CARBON 10K (MIC LEVEL)	(E51, MX)
*****			
A-4732-866-A		MAIN BOARD, COMPLETE (US)	
A-4733-001-A		MAIN BOARD, COMPLETE (AEP, UK)	
A-4733-023-A		MAIN BOARD, COMPLETE (E51)	
A-4734-544-A		MAIN BOARD, COMPLETE (MX)	
A-4747-735-A		MAIN BOARD, COMPLETE (CIS)	
*****			
7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		(EXCEPT AEP, UK)
< CAPACITOR >			
C003	1-126-974-21	ELECT	3300uF 20% 50V (EXCEPT E51, MX)
C003	1-127-811-11	ELECT	3300uF 20% 50V (E51, MX)
C004	1-126-974-21	ELECT	3300uF 20% 50V (EXCEPT E51, MX)
C004	1-127-811-11	ELECT	3300uF 20% 50V (E51, MX)
C005	1-126-955-21	ELECT	4700uF 20% 35V
C006	1-126-955-21	ELECT	4700uF 20% 35V
C007	1-126-944-11	ELECT	3300uF 20% 25V
C008	1-126-942-61	ELECT	1000uF 20% 25V
C011	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C012	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C013	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C014	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C015	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C016	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C017	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C018	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C022	1-126-933-11	ELECT	100uF 20% 16V
C023	1-126-948-11	ELECT	100uF 20% 35V
C026	1-126-947-11	ELECT	47uF 20% 25V
C029	1-126-947-11	ELECT	47uF 20% 10V
C030	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V
C031	1-126-947-11	ELECT	47uF 20% 25V
C032	1-104-663-11	ELECT	33uF 20% 25V
C033	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C034	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C041	1-126-948-11	ELECT	100uF 20% 35V (EXCEPT US, AEP, UK, CIS)
C041	1-126-964-11	ELECT	10uF 20% 50V (US)

Ref. No.	Part No.	Description	Remark
C041	1-126-966-11	ELECT	33uF 20% 35V (AEP, UK, CIS)
C042	1-126-948-11	ELECT	100uF 20% 35V (EXCEPT US)
C042	1-126-965-11	ELECT	22uF 20% 35V (US)
C043	1-126-948-11	ELECT	100uF 20% 35V (EXCEPT US, AEP, UK, CIS)
C043	1-126-964-11	ELECT	10uF 20% 50V (US)
C043	1-126-966-11	ELECT	33uF 20% 35V (AEP, UK, CIS)
C044	1-126-948-11	ELECT	100uF 20% 35V (EXCEPT US)
C044	1-126-965-11	ELECT	22uF 20% 35V (US)
C045	1-126-968-11	ELECT	100uF 20% 50V
C046	1-126-968-11	ELECT	100uF 20% 50V
C047	1-104-665-11	ELECT	100uF 20% 10V
C061	1-126-947-11	ELECT	47uF 20% 25V
C062	1-126-960-11	ELECT	1uF 20% 50V
C063	1-126-960-11	ELECT	1uF 20% 50V
C097	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C103	1-164-649-11	CERAMIC CHIP	0.0018uF 10% 50V
C104	1-164-649-11	CERAMIC CHIP	0.0018uF 10% 50V
C105	1-126-961-11	ELECT	2.2uF 20% 50V
C106	1-126-961-11	ELECT	2.2uF 20% 50V
C109	1-126-964-11	ELECT	10uF 20% 50V
C110	1-126-964-11	ELECT	10uF 20% 50V
C111	1-162-927-11	CERAMIC CHIP	100PF 5% 50V (AEP, UK, CIS)
C112	1-162-927-11	CERAMIC CHIP	100PF 5% 50V (AEP, UK, CIS)
C113	1-126-966-11	ELECT	33uF 20% 50V
C114	1-126-966-11	ELECT	33uF 20% 50V
C115	1-163-139-00	CERAMIC CHIP	820PF 5% 50V
C116	1-163-139-00	CERAMIC CHIP	820PF 5% 50V
C117	1-100-152-11	CERAMIC CHIP	100PF 5% 100V
C118	1-100-152-11	CERAMIC CHIP	100PF 5% 100V
C119	1-100-152-11	CERAMIC CHIP	100PF 5% 100V
C120	1-100-152-11	CERAMIC CHIP	100PF 5% 100V
C121	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C122	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C125	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C126	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C181	1-126-960-11	ELECT	1uF 20% 50V
C182	1-126-960-11	ELECT	1uF 20% 50V
C201	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C202	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C203	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C204	1-165-621-11	CERAMIC CHIP	0.1uF 50V
C205	1-100-158-11	CERAMIC CHIP	1000PF 5% 100V (US)
C205	1-162-974-11	CERAMIC CHIP	0.01uF 50V (AEP, UK, CIS)
C206	1-100-158-11	CERAMIC CHIP	1000PF 5% 100V (US)
C206	1-162-974-11	CERAMIC CHIP	0.01uF 50V (AEP, UK, CIS)

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## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D015	8-719-979-50	DIODE EGP30DL-6085 (EXCEPT E51, MX)		D801	8-719-069-54	DIODE UDZSTE-175.1B (AEP, UK)	
D016	8-719-979-50	DIODE EGP30DL-6085 (EXCEPT E51, MX)				< GROUND TERMINAL >	
D017	8-719-979-50	DIODE EGP30DL-6085 (EXCEPT E51, MX)		* EP001	1-537-738-21	TERMINAL, EARTH	
				* EP099	1-537-738-21	TERMINAL, EARTH	
D018	8-719-979-50	DIODE EGP30DL-6085 (EXCEPT E51, MX)				< FERRITE BEAD/SHORT >	
D019	8-719-048-61	DIODE EGP20DL-6349		FB601	1-216-295-00	SHORT CHIP 0	
D020	8-719-048-61	DIODE EGP20DL-6349		FB602	1-216-295-00	SHORT CHIP 0	
D021	8-719-048-61	DIODE EGP20DL-6349		FB693	1-410-396-71	FERRITE 0.45uH	
D022	8-719-048-61	DIODE EGP20DL-6349				< IC >	
D031	8-719-991-34	DIODE 1SS133T-72		IC001	8-759-701-59	IC TA7809S	
D032	8-719-988-61	DIODE 1SS355TE-17		IC002	8-759-701-59	IC TA7809S	
D033	8-719-988-61	DIODE 1SS355TE-17		IC003	6-701-760-01	IC uPC3504AHF	
D041	6-500-522-21	DIODE 10EDB40-TB3		IC601	6-702-895-01	IC BD3881FV	
D042	6-500-522-21	DIODE 10EDB40-TB3		IC671	6-704-074-01	IC NJM2156M (TE2)	
D043	6-500-522-21	DIODE 10EDB40-TB3		IC672	8-759-396-78	IC BU2092F-E2	
D044	6-500-522-21	DIODE 10EDB40-TB3				< JACK >	
D045	8-719-083-87	DIODE UDZS-TE17-33B		J203	1-694-635-12	TERMINAL BOARD (4P) (SPEAKER)	
D063	8-719-820-05	DIODE 1SS181-TE85L		J602	1-793-987-11	JACK, PIN 2P (VIDEO/AUX)	
D064	8-719-801-78	DIODE 1SS184-TE85L				< SHORT >	
D065	8-719-988-61	DIODE 1SS355TE-17		JR001	1-216-864-11	METAL CHIP 0 5% 1/10W	
D066	8-719-988-61	DIODE 1SS355TE-17		JR201	1-216-864-11	METAL CHIP 0 5% 1/10W	
D067	8-719-801-78	DIODE 1SS184-TE85L		JR202	1-216-864-11	METAL CHIP 0 5% 1/10W	
D068	8-719-820-05	DIODE 1SS181-TE85L		JR203	1-216-864-11	METAL CHIP 0 5% 1/10W	
D069	8-719-988-61	DIODE 1SS355TE-17		JR204	1-216-864-11	METAL CHIP 0 5% 1/10W	
D101	8-719-820-05	DIODE 1SS181-TE85L		JR601	1-216-864-11	METAL CHIP 0 5% 1/10W	
D103	8-719-988-61	DIODE 1SS355TE-17				(EXCEPT E51, MX)	
D104	8-719-988-61	DIODE 1SS355TE-17		JR602	1-216-864-11	METAL CHIP 0 5% 1/10W	
D105	8-719-820-05	DIODE 1SS181-TE85L		JR603	1-216-864-11	METAL CHIP 0 5% 1/10W	
D106	8-719-820-05	DIODE 1SS181-TE85L		JR604	1-216-864-11	METAL CHIP 0 5% 1/10W	
D107	8-719-801-78	DIODE 1SS184-TE85L		JR605	1-216-864-11	METAL CHIP 0 5% 1/10W	
D108	8-719-801-78	DIODE 1SS184-TE85L		JR606	1-216-864-11	METAL CHIP 0 5% 1/10W	
D109	8-719-046-74	DIODE AU-01Z-WS		JR607	1-216-864-11	METAL CHIP 0 5% 1/10W	
D110	8-719-046-74	DIODE AU-01Z-WS		JR608	1-216-864-11	METAL CHIP 0 5% 1/10W	
D111	8-719-801-78	DIODE 1SS184-TE85L		JR611	1-216-296-11	SHORT CHIP 0 (EXCEPT E51, MX)	
D231	8-719-988-61	DIODE 1SS355TE-17		JR612	1-216-864-11	METAL CHIP 0 5% 1/10W	
D232	8-719-977-28	DIODE UDZSTE-1710B		JR615	1-216-864-11	METAL CHIP 0 5% 1/10W	
D235	8-719-059-21	DIODE RK46LF-T2		JR616	1-216-864-11	METAL CHIP 0 5% 1/10W	
D236	8-719-059-21	DIODE RK46LF-T2		JR618	1-216-864-11	METAL CHIP 0 5% 1/10W	
D239	8-719-069-55	DIODE UDZSTE-175.6B		JR619	1-216-864-11	METAL CHIP 0 5% 1/10W	
D240	8-719-069-55	DIODE UDZSTE-175.6B		JR620	1-216-864-11	METAL CHIP 0 5% 1/10W	
D241	8-719-988-61	DIODE 1SS355TE-17		JR621	1-216-864-11	METAL CHIP 0 5% 1/10W	
D242	1-216-295-00	SHORT CHIP 0		JR622	1-216-864-11	METAL CHIP 0 5% 1/10W	
D243	8-719-801-78	DIODE 1SS184-TE85L		JR651	1-216-296-11	SHORT CHIP 0	
D244	8-719-820-05	DIODE 1SS181-TE85L		JR801	1-216-864-11	METAL CHIP 0 5% 1/10W	
D281	8-719-801-78	DIODE 1SS184-TE85L				(EXCEPT AEP, UK)	
D291	8-719-820-05	DIODE 1SS181-TE85L				< COIL >	
D292	8-719-801-78	DIODE 1SS184-TE85L		L201	1-422-009-13	COIL, AIR-CORE	
D301	8-719-820-05	DIODE 1SS181-TE85L		L202	1-422-009-13	COIL, AIR-CORE	
D661	8-719-083-60	DIODE UDZSTE-174.7B		L311	1-424-849-11	COIL, OSCILLATION (BIAS)	
D662	8-719-083-60	DIODE UDZSTE-174.7B					
D663	8-719-988-61	DIODE 1SS355TE-17					
D671	8-719-988-61	DIODE 1SS355TE-17					
D691	6-500-522-21	DIODE 10EDB40-TB3					
D692	6-500-522-21	DIODE 10EDB40-TB3					
D693	6-500-522-21	DIODE 10EDB40-TB3					
D694	6-500-522-21	DIODE 10EDB40-TB3					
D695	8-719-988-61	DIODE 1SS355TE-17					
D697	6-500-522-21	DIODE 10EDB40-TB3					
D698	8-719-991-34	DIODE 1SS133T-34					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< TRANSISTOR >				Q302	6-550-290-01	FET	2SJ460
Q022	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q303	8-729-048-99	FET	2SK2541-T
Q023	8-729-201-53	TRANSISTOR	2SA1015TP-GR	Q304	8-729-048-99	FET	2SK2541-T
Q024	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q305	6-550-290-01	FET	2SJ460
Q041	8-729-201-53	TRANSISTOR	2SA1015TP-GR	Q306	6-550-290-01	FET	2SJ460
Q043	8-729-201-53	TRANSISTOR	2SA1015TP-GR	Q307	8-729-048-99	FET	2SK2541-T
Q045	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q308	8-729-048-99	FET	2SK2541-T
Q046	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q309	8-729-048-99	FET	2SK2541-T
Q047	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q310	8-729-011-92	TRANSISTOR	2SC2001TP-K1K2
Q063	8-729-600-22	TRANSISTOR	2SA1235TP-1EF	Q311	8-729-201-53	TRANSISTOR	2SA1015TP-GR
Q064	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q312	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF
Q101	8-729-216-31	TRANSISTOR	2SA1163G-TE85L (E51, MX)	Q601	8-729-027-23	TRANSISTOR	DTA114EKA-T146
Q101	8-729-600-22	TRANSISTOR	2SA1235TP-1EF (EXCEPT E51, MX)	Q641	8-729-045-62	FET	2SK2158-T2B
Q102	8-729-216-31	TRANSISTOR	2SA1163G-TE85L (E51, MX)	Q642	8-729-045-62	FET	2SK2158-T2B
Q102	8-729-600-22	TRANSISTOR	2SA1235TP-1EF (EXCEPT E51, MX)	Q643	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF
Q103	8-729-216-31	TRANSISTOR	2SA1163G-TE85L (E51, MX)	Q671	8-729-045-62	FET	2SK2158-T2B
Q103	8-729-600-22	TRANSISTOR	2SA1235TP-1EF (EXCEPT E51, MX)	Q672	8-729-045-62	FET	2SK2158-T2B
Q104	8-729-216-31	TRANSISTOR	2SA1163G-TE85L (E51, MX)	Q673	8-729-045-62	FET	2SK2158-T2B
Q104	8-729-600-22	TRANSISTOR	2SA1235TP-1EF (EXCEPT E51, MX)	Q674	8-729-045-62	FET	2SK2158-T2B
Q105	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q675	8-729-045-62	FET	2SK2158-T2B
Q106	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q676	8-729-045-62	FET	2SK2158-T2B
Q107	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	Q677	8-729-045-62	FET	2SK2158-T2B
Q108	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	< RESISTOR >			
Q109	8-729-271-31	TRANSISTOR	2SC2713G-TE85L	R001	1-216-296-11	SHORT CHIP	0 (EXCEPT US)
Q110	8-729-271-31	TRANSISTOR	2SC2713G-TE85L	R001	1-219-107-11	RES-CHIP	1.5 5% 1/8W (US)
Q111	8-729-823-99	TRANSISTOR	2SC2909-AA	R004	1-219-107-11	RES-CHIP	1.5 5% 1/8W (US)
Q112	8-729-823-99	TRANSISTOR	2SC2909-AA	R005	1-216-296-11	SHORT CHIP	0 (EXCEPT US)
Q117	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	R005	1-219-107-11	RES-CHIP	1.5 5% 1/8W (US)
Q118	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	R008	1-219-107-11	RES-CHIP	1.5 5% 1/8W
Q119	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	R009	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q120	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	R010	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q121	6-550-309-01	TRANSISTOR	2SB1686 (E51, MX)	R011	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q121	6-550-331-01	TRANSISTOR	2SB1677 (EXCEPT E51, MX)	R012	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q122	6-550-309-01	TRANSISTOR	2SB1686 (E51, MX)	R013	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q122	6-550-331-01	TRANSISTOR	2SB1677 (EXCEPT E51, MX)	R014	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q123	6-550-311-01	TRANSISTOR	2SD2642 (E51, MX)	R015	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q123	6-550-332-01	TRANSISTOR	2SD2619 (EXCEPT E51, MX)	R016	1-216-226-00	RES-CHIP	15K 5% 1/8W
Q124	6-550-311-01	TRANSISTOR	2SD2642 (E51, MX)	△R017	1-219-121-11	FUSIBLE	0.22 5% 1/4W (US)
Q124	6-550-332-01	TRANSISTOR	2SD2619 (EXCEPT E51, MX)	△R017	1-219-122-11	FUSIBLE	0.33 5% 1/4W (AEP, UK, CIS)
Q129	8-729-216-31	TRANSISTOR	2SA1163G-TE85L	R024	1-216-184-00	RES-CHIP	270 5% 1/8W
Q130	8-729-216-31	TRANSISTOR	2SA1163G-TE85L	R025	1-216-184-00	RES-CHIP	270 5% 1/8W
Q181	8-729-052-79	TRANSISTOR	2SD1306NETL	R026	1-216-188-00	RES-CHIP	390 5% 1/8W
Q182	8-729-052-79	TRANSISTOR	2SD1306NETL	R027	1-216-188-00	RES-CHIP	390 5% 1/8W
Q183	8-729-600-22	TRANSISTOR	2SA1235TP-1EF	R028	1-216-186-00	RES-CHIP	330 5% 1/8W (EXCEPT E51, MX)
Q231	6-550-293-01	FET	2SK2937	R028	1-216-190-00	RES-CHIP	470 5% 1/8W (E51, MX)
Q232	6-550-293-01	FET	2SK2937	R029	1-216-188-00	RES-CHIP	390 5% 1/8W
Q233	8-729-600-22	TRANSISTOR	2SA1235TP-1EF	R030	1-216-188-00	RES-CHIP	390 5% 1/8W
Q234	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF	R031	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q235	8-729-600-22	TRANSISTOR	2SA1235TP-1EF	R032	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q281	8-729-216-31	TRANSISTOR	2SA1163G-TE85L	R033	1-216-843-11	METAL CHIP	68K 5% 1/10W
Q282	8-729-271-31	TRANSISTOR	2SC2713G-TE85L	R035	1-216-832-11	METAL CHIP	8.2K 5% 1/10W
Q291	8-729-027-23	TRANSISTOR	DTA114EKA-T146				
Q292	8-729-216-31	TRANSISTOR	2SA1163G-TE85L				
Q301	6-550-290-01	FET	2SJ460				

MAIN

Ref. No.	Part No.	Description	Remark		
R036	1-216-836-11	METAL CHIP	18K	5%	1/10W
R038	1-216-296-11	SHORT CHIP	0		
R041	1-216-845-11	METAL CHIP	100K	5%	1/10W
R042	1-216-845-11	METAL CHIP	100K	5%	1/10W
R043	1-216-845-11	METAL CHIP	100K	5%	1/10W
R044	1-216-845-11	METAL CHIP	100K	5%	1/10W
R045	1-216-172-00	METAL CHIP	82	5%	1/8W
R045	1-216-180-00	RES-CHIP	180	5%	1/8W
R045	1-216-296-11	SHORT CHIP	0		
R046	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R047	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R047	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R048	1-216-864-11	METAL CHIP	0	5%	1/10W
R049	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R050	1-216-001-00	METAL CHIP	10	5%	1/10W
R051	1-216-097-11	RES-CHIP	100K	5%	1/10W
R067	1-216-840-11	METAL CHIP	39K	5%	1/10W
R068	1-216-840-11	METAL CHIP	39K	5%	1/10W
R069	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R070	1-216-838-11	METAL CHIP	27K	5%	1/10W
R071	1-216-838-11	METAL CHIP	27K	5%	1/10W
R072	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R073	1-216-838-11	METAL CHIP	27K	5%	1/10W
R074	1-216-838-11	METAL CHIP	27K	5%	1/10W
R075	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R076	1-216-821-11	METAL CHIP	1K	5%	1/10W
R077	1-216-821-11	METAL CHIP	1K	5%	1/10W
R078	1-216-864-11	METAL CHIP	0	5%	1/10W
R079	1-216-864-11	METAL CHIP	0	5%	1/10W
R080	1-216-845-11	METAL CHIP	100K	5%	1/10W
R082	1-216-839-11	METAL CHIP	33K	5%	1/10W
R082	1-216-840-11	METAL CHIP	39K	5%	1/10W
R083	1-216-839-11	METAL CHIP	33K	5%	1/10W
R083	1-216-840-11	METAL CHIP	39K	5%	1/10W
R084	1-216-842-11	METAL CHIP	56K	5%	1/10W
R084	1-216-843-11	METAL CHIP	68K	5%	1/10W
R085	1-216-842-11	METAL CHIP	56K	5%	1/10W
R085	1-216-843-11	METAL CHIP	68K	5%	1/10W
R086	1-216-833-11	METAL CHIP	10K	5%	1/10W
R087	1-216-833-11	METAL CHIP	10K	5%	1/10W
R092	1-216-809-11	METAL CHIP	100	5%	1/10W
R093	1-216-835-11	METAL CHIP	15K	5%	1/10W
R094	1-216-833-11	METAL CHIP	10K	5%	1/10W
R095	1-216-835-11	METAL CHIP	15K	5%	1/10W
R096	1-216-839-11	METAL CHIP	33K	5%	1/10W
R097	1-216-839-11	METAL CHIP	33K	5%	1/10W

Ref. No.	Part No.	Description	Remark		
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R105	1-216-835-11	METAL CHIP	15K	5%	1/10W
R105	1-216-837-11	METAL CHIP	22K	5%	1/10W
R106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-835-11	METAL CHIP	15K	5%	1/10W
R106	1-216-837-11	METAL CHIP	22K	5%	1/10W
R107	1-216-838-11	METAL CHIP	27K	5%	1/10W
R108	1-216-838-11	METAL CHIP	27K	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R113	1-216-821-11	METAL CHIP	1K	5%	1/10W
R113	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R114	1-216-821-11	METAL CHIP	1K	5%	1/10W
R114	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R115	1-216-083-00	METAL CHIP	27K	5%	1/10W
R116	1-216-083-00	METAL CHIP	27K	5%	1/10W
R117	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R118	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R119	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R120	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R121	1-216-198-00	RES-CHIP	1K	5%	1/8W
R122	1-216-198-00	RES-CHIP	1K	5%	1/8W
R123	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R124	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R125	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R126	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R127	1-216-809-11	METAL CHIP	100	5%	1/10W
R128	1-216-809-11	METAL CHIP	100	5%	1/10W
R129	1-216-809-11	METAL CHIP	100	5%	1/10W
R130	1-216-809-11	METAL CHIP	100	5%	1/10W
R131	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R132	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R133	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R134	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R137	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R138	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R139	1-216-841-11	METAL CHIP	47K	5%	1/10W
R140	1-216-841-11	METAL CHIP	47K	5%	1/10W
R141	1-216-821-11	METAL CHIP	1K	5%	1/10W
R142	1-216-821-11	METAL CHIP	1K	5%	1/10W
R143	1-216-804-11	METAL CHIP	39	5%	1/10W
R144	1-216-804-11	METAL CHIP	39	5%	1/10W
R147	1-216-864-11	METAL CHIP	0	5%	1/10W
R148	1-216-864-11	METAL CHIP	0	5%	1/10W
△R149	1-216-361-31	METAL OXIDE	0.22	5%	2W F
△R150	1-216-361-31	METAL OXIDE	0.22	5%	2W F
△R151	1-216-361-31	METAL OXIDE	0.22	5%	2W F
△R152	1-216-361-31	METAL OXIDE	0.22	5%	2W F
R153	1-216-826-11	METAL CHIP	2.7K	5%	1/10W

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

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R153	1-216-827-11	METAL CHIP	3.3K	5%	1/10W (US)	R258	1-216-841-11	METAL CHIP	47K	5%	1/10W
R153	1-216-828-11	METAL CHIP	3.9K	5%	1/10W (AEP, UK, CIS)	R259	1-216-841-11	METAL CHIP	47K	5%	1/10W
R154	1-216-826-11	METAL CHIP	2.7K	5%	1/10W (E51, MX)	R260	1-216-841-11	METAL CHIP	47K	5%	1/10W
R154	1-216-827-11	METAL CHIP	3.3K	5%	1/10W (US)	R261	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R154	1-216-828-11	METAL CHIP	3.9K	5%	1/10W (AEP, UK, CIS)	R262	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R155	1-216-822-11	METAL CHIP	1.2K	5%	1/10W (AEP, UK, CIS)	R263	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R155	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (EXCEPT AEP, UK, CIS)	R264	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R156	1-216-822-11	METAL CHIP	1.2K	5%	1/10W (AEP, UK, CIS)	R280	1-216-073-00	RES-CHIP	10K	5%	1/10W
R156	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (EXCEPT AEP, UK, CIS)	R281	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R157	1-216-809-11	METAL CHIP	100	5%	1/10W	R282	1-216-834-11	METAL CHIP	12K	5%	1/10W
R158	1-216-809-11	METAL CHIP	100	5%	1/10W	R283	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT E51, MX)
R159	1-216-049-11	RES-CHIP	1K	5%	1/10W	R283	1-216-834-11	METAL CHIP	12K	5%	1/10W (E51, MX)
R160	1-216-049-11	RES-CHIP	1K	5%	1/10W	R284	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R161	1-216-830-11	METAL CHIP	5.6K	5%	1/10W (AEP, UK, CIS)	R290	1-216-841-11	METAL CHIP	47K	5%	1/10W
R161	1-218-867-11	METAL CHIP	6.8K	5%	1/10W (EXCEPT AEP, UK, CIS)	R291	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R162	1-216-830-11	METAL CHIP	5.6K	5%	1/10W (AEP, UK, CIS)	R292	1-216-833-11	METAL CHIP	10K	5%	1/10W
R162	1-218-867-11	METAL CHIP	6.8K	5%	1/10W (EXCEPT AEP, UK, CIS)	R293	1-216-849-11	METAL CHIP	220K	5%	1/10W
R181	1-216-834-11	METAL CHIP	12K	5%	1/10W	R294	1-216-849-11	METAL CHIP	220K	5%	1/10W
R182	1-216-834-11	METAL CHIP	12K	5%	1/10W	R295	1-216-837-11	METAL CHIP	22K	5%	1/10W
R183	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	R296	1-216-841-11	METAL CHIP	47K	5%	1/10W
R184	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	R297	1-216-841-11	METAL CHIP	47K	5%	1/10W
R185	1-216-843-11	METAL CHIP	68K	5%	1/10W	R301	1-216-840-11	METAL CHIP	39K	5%	1/10W
R186	1-216-841-11	METAL CHIP	47K	5%	1/10W	R302	1-216-840-11	METAL CHIP	39K	5%	1/10W
R187	1-216-864-11	METAL CHIP	0	5%	1/10W	R303	1-216-844-11	METAL CHIP	82K	5%	1/10W
R188	1-216-081-00	METAL CHIP	22K	5%	1/10W (EXCEPT E51, MX)	R304	1-216-844-11	METAL CHIP	82K	5%	1/10W
R188	1-216-083-00	METAL CHIP	27K	5%	1/10W (E51, MX)	R305	1-216-849-11	METAL CHIP	220K	5%	1/10W
R201	1-249-393-11	CARBON	10	5%	1/4W	R311	1-216-833-11	METAL CHIP	10K	5%	1/10W
R202	1-249-393-11	CARBON	10	5%	1/4W	R312	1-216-833-11	METAL CHIP	10K	5%	1/10W
R203	1-216-150-11	RES-CHIP	10	5%	1/8W	R313	1-216-838-11	METAL CHIP	27K	5%	1/10W
R204	1-216-150-11	RES-CHIP	10	5%	1/8W	R314	1-216-797-11	METAL CHIP	10	5%	1/10W
R236	1-216-861-11	METAL CHIP	2.2M	5%	1/10W	R315	1-216-804-11	METAL CHIP	39	5%	1/10W
R237	1-216-049-11	RES-CHIP	1K	5%	1/10W	R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
R238	1-216-206-00	RES-CHIP	2.2K	5%	1/8W	R317	1-216-821-11	METAL CHIP	1K	5%	1/10W
R239	1-216-206-00	RES-CHIP	2.2K	5%	1/8W	R318	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R241	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R601	1-216-809-11	METAL CHIP	100	5%	1/10W
R242	1-216-073-00	RES-CHIP	10K	5%	1/10W	R602	1-216-809-11	METAL CHIP	100	5%	1/10W
R243	1-216-049-11	RES-CHIP	1K	5%	1/10W	R603	1-216-852-11	METAL CHIP	390K	5%	1/10W
R244	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R604	1-216-852-11	METAL CHIP	390K	5%	1/10W
R246	1-216-214-00	RES-CHIP	4.7K	5%	1/8W	R605	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R248	1-216-214-00	RES-CHIP	4.7K	5%	1/8W	R606	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R249	1-216-214-00	RES-CHIP	4.7K	5%	1/8W	R607	1-216-845-11	METAL CHIP	100K	5%	1/10W
R250	1-216-214-00	RES-CHIP	4.7K	5%	1/8W	R608	1-216-845-11	METAL CHIP	100K	5%	1/10W
R252	1-216-833-11	METAL CHIP	10K	5%	1/10W	R609	1-216-836-11	METAL CHIP	18K	5%	1/10W
R253	1-216-833-11	METAL CHIP	10K	5%	1/10W	R610	1-216-836-11	METAL CHIP	18K	5%	1/10W
R257	1-216-841-11	METAL CHIP	47K	5%	1/10W	R611	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R612	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R615	1-216-835-11	METAL CHIP	15K	5%	1/10W
						R616	1-216-835-11	METAL CHIP	15K	5%	1/10W
						R617	1-216-835-11	METAL CHIP	15K	5%	1/10W
						R618	1-216-835-11	METAL CHIP	15K	5%	1/10W
						R619	1-216-838-11	METAL CHIP	27K	5%	1/10W (EXCEPT E51, MX)
						R619	1-216-839-11	METAL CHIP	33K	5%	1/10W (E51, MX)

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

## MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R620	1-216-838-11	METAL CHIP	27K	5%	1/10W (EXCEPT E51, MX)	R677	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R620	1-216-839-11	METAL CHIP	33K	5%	1/10W (E51, MX)	R678	1-216-817-11	METAL CHIP	470	5%	1/10W
R621	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R679	1-216-834-11	METAL CHIP	12K	5%	1/10W
R622	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R680	1-216-833-11	METAL CHIP	10K	5%	1/10W
R623	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	R681	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R624	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	R682	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R625	1-216-827-11	METAL CHIP	3.3K	5%	1/10W (EXCEPT AEP, UK)	R683	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R625	1-216-828-11	METAL CHIP	3.9K	5%	1/10W (AEP, UK)	R684	1-216-817-11	METAL CHIP	470	5%	1/10W
R626	1-216-827-11	METAL CHIP	3.3K	5%	1/10W (EXCEPT AEP, UK)	R685	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R626	1-216-828-11	METAL CHIP	3.9K	5%	1/10W (AEP, UK)	R686	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R627	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R687	1-216-821-11	METAL CHIP	1K	5%	1/10W
R628	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R688	1-216-816-11	METAL CHIP	390	5%	1/10W
R629	1-216-833-11	METAL CHIP	10K	5%	1/10W	R691	1-216-837-11	METAL CHIP	22K	5%	1/10W
R630	1-216-833-11	METAL CHIP	10K	5%	1/10W	R692	1-216-833-11	METAL CHIP	10K	5%	1/10W
R631	1-216-817-11	METAL CHIP	470	5%	1/10W	R693	1-216-821-11	METAL CHIP	1K	5%	1/10W
R632	1-216-817-11	METAL CHIP	470	5%	1/10W	R694	1-216-837-11	METAL CHIP	22K	5%	1/10W
R633	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R695	1-216-833-11	METAL CHIP	10K	5%	1/10W
R634	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R696	1-216-821-11	METAL CHIP	1K	5%	1/10W
R635	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	R697	1-216-837-11	METAL CHIP	22K	5%	1/10W
R636	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	R698	1-216-833-11	METAL CHIP	10K	5%	1/10W
R637	1-216-815-11	METAL CHIP	330	5%	1/10W	R699	1-216-821-11	METAL CHIP	1K	5%	1/10W
R638	1-216-815-11	METAL CHIP	330	5%	1/10W	R700	1-216-837-11	METAL CHIP	22K	5%	1/10W
R643	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R701	1-216-837-11	METAL CHIP	22K	5%	1/10W
R644	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R702	1-216-833-11	METAL CHIP	10K	5%	1/10W
R645	1-216-850-11	METAL CHIP	270K	5%	1/10W	R703	1-216-833-11	METAL CHIP	10K	5%	1/10W
R646	1-216-850-11	METAL CHIP	270K	5%	1/10W	R704	1-216-833-11	METAL CHIP	10K	5%	1/10W
R647	1-216-850-11	METAL CHIP	270K	5%	1/10W	R705	1-216-833-11	METAL CHIP	10K	5%	1/10W
R648	1-216-852-11	METAL CHIP	390K	5%	1/10W	R730	1-216-833-11	METAL CHIP	10K	5%	1/10W
R649	1-216-852-11	METAL CHIP	390K	5%	1/10W	R731	1-216-833-11	METAL CHIP	10K	5%	1/10W
R651	1-216-809-11	METAL CHIP	100	5%	1/10W	R732	1-216-833-11	METAL CHIP	10K	5%	1/10W
R652	1-216-809-11	METAL CHIP	100	5%	1/10W	R733	1-216-841-11	METAL CHIP	47K	5%	1/10W
R653	1-216-837-11	METAL CHIP	22K	5%	1/10W	R734	1-216-841-11	METAL CHIP	47K	5%	1/10W
R654	1-216-837-11	METAL CHIP	22K	5%	1/10W	R735	1-216-841-11	METAL CHIP	47K	5%	1/10W
R655	1-216-837-11	METAL CHIP	22K	5%	1/10W	R736	1-216-841-11	METAL CHIP	47K	5%	1/10W
R656	1-216-837-11	METAL CHIP	22K	5%	1/10W	R737	1-216-841-11	METAL CHIP	47K	5%	1/10W
R657	1-216-842-11	METAL CHIP	56K	5%	1/10W (E51, MX)	R738	1-216-841-11	METAL CHIP	47K	5%	1/10W
R658	1-216-837-11	METAL CHIP	22K	5%	1/10W	R739	1-216-841-11	METAL CHIP	47K	5%	1/10W
R659	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R761	1-216-845-11	METAL CHIP	100K	5%	1/10W
R661	1-216-835-11	METAL CHIP	15K	5%	1/10W	R762	1-216-845-11	METAL CHIP	100K	5%	1/10W
R662	1-216-841-11	METAL CHIP	47K	5%	1/10W	R763	1-216-845-11	METAL CHIP	100K	5%	1/10W
R663	1-216-833-11	METAL CHIP	10K	5%	1/10W	R764	1-216-849-11	METAL CHIP	220K	5%	1/10W
R664	1-218-867-11	METAL CHIP	6.8K	5%	1/10W	R765	1-216-849-11	METAL CHIP	220K	5%	1/10W
R665	1-218-867-11	METAL CHIP	6.8K	5%	1/10W	R766	1-216-849-11	METAL CHIP	220K	5%	1/10W
R666	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R767	1-216-849-11	METAL CHIP	220K	5%	1/10W
R667	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R801	1-216-813-11	METAL CHIP	220	5%	1/10W (AEP, UK)
R670	1-216-833-11	METAL CHIP	10K	5%	1/10W	R807	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R671	1-216-842-11	METAL CHIP	56K	5%	1/10W	R809	1-216-864-11	METAL CHIP	0	5%	1/10W (AEP, UK)
R672	1-216-833-11	METAL CHIP	10K	5%	1/10W	R810	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R673	1-216-821-11	METAL CHIP	1K	5%	1/10W	R812	1-216-864-11	METAL CHIP	0	5%	1/10W (AEP, UK)
R674	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	< THERMISTOR >					
R675	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	TH101	1-803-790-21	THERMISTOR			
R676	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	TH102	1-803-790-21	THERMISTOR			

MAIN						MOTOR (LD)			MOTOR (TB)			PANEL	
Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
< CONNECTOR >						C906	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		
						C907	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		
						C908	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		
						C909	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		
						C910	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		
*****						C911	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		
						C912	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		
						C914	1-126-947-11	ELECT	47uF	20%	35V		
						C915	1-131-992-11	CERAMIC CHIP	0.1uF		35V		
						C916	1-126-163-11	ELECT	4.7uF	20%	50V		
*****						C917	1-126-163-11	ELECT	4.7uF	20%	50V		
						C918	1-164-156-11	CERAMIC CHIP	0.1uF		25V		
						C919	1-162-918-11	CERAMIC CHIP	18PF	5%	50V		
						C920	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		
						C921	1-164-156-11	CERAMIC CHIP	0.1uF		25V		
						C922	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		
						C923	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		
						C924	1-216-864-11	METAL CHIP	0	5%	1/10W		
						C926	1-164-156-11	CERAMIC CHIP	0.1uF		25V		
						C927	1-164-156-11	CERAMIC CHIP	0.1uF		25V		
						C930	1-164-156-11	CERAMIC CHIP	0.1uF		25V		
						C931	1-164-156-11	CERAMIC CHIP	0.1uF		25V		
						C932	1-164-156-11	CERAMIC CHIP	0.1uF		25V		
						C933	1-164-173-11	CERAMIC CHIP	0.0039uF	10%	50V		
						C935	1-128-057-11	ELECT	330uF	20%	6.3V		
						< CONNECTOR >							
						CN101	1-793-767-11	CONNECTOR, BOARD TO BOARD 30P					
						CN403	1-784-784-11	CONNECTOR, FFC 23P					
						CN601	1-784-774-11	CONNECTOR, FFC 13P					
						CN701	1-784-772-11	CONNECTOR, FFC 11P					
						< DIODE >							
						D101	8-719-991-34	DIODE	1SS133T-72				
						D201	8-719-991-34	DIODE	1SS133T-72				
						D402	8-719-991-34	DIODE	1SS133T-72 (E51, MX)				
						D501	8-719-991-34	DIODE	1SS133T-72				
						D502	8-719-991-34	DIODE	1SS133T-72				
						D503	8-719-991-34	DIODE	1SS133T-72				
						D504	8-719-991-34	DIODE	1SS133T-72				
						D505	8-719-991-34	DIODE	1SS133T-72				
						D506	8-719-991-34	DIODE	1SS133T-72				
						D507	8-719-921-80	DIODE	MTZJ-T-72-11B				
						D508	8-719-991-34	DIODE	1SS133T-72				
						D601	8-719-991-34	DIODE	1SS133T-72				
						D602	8-719-991-34	DIODE	1SS133T-72				
						D607	8-719-991-34	DIODE	1SS133T-72 (EXCEPT AEP, UK, CIS)				
						D608	8-719-991-34	DIODE	1SS133T-72 (E51, MX)				
						D610	8-719-991-34	DIODE	1SS133T-72 (CIS)				
						D611	8-719-991-34	DIODE	1SS133T-72 (CIS)				
						D614	8-719-991-34	DIODE	1SS133T-72 (AEP, UK)				
						D620	8-719-820-05	DIODE	1SS181-TE85L				
						D621	8-719-820-05	DIODE	1SS181-TE85L				
						D622	8-719-820-05	DIODE	1SS181-TE85L				
						D623	8-719-820-05	DIODE	1SS181-TE85L				
						D624	8-719-820-05	DIODE	1SS181-TE85L				
						D625	8-719-820-05	DIODE	1SS181-TE85L				
						D626	8-719-820-05	DIODE	1SS181-TE85L				
< CAPACITOR/SHORT >													
C201	1-126-960-11	ELECT	1uF	20%	50V								
C202	1-164-173-11	CERAMIC CHIP	0.0039uF	10%	50V								
C203	1-126-965-11	ELECT	22uF	20%	50V								
C204	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V								
C207	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V								
C208	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V								
C210	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V								
C211	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V								
C213	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C214	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C215	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C413	1-126-960-11	ELECT	1uF	20%	50V								
C414	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C415	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C501	1-126-960-11	ELECT	1uF	20%	50V								
C502	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V								
C503	1-126-960-11	ELECT	1uF	20%	50V								
C504	1-126-916-11	ELECT	1000uF	20%	6.3V								
C505	1-126-964-11	ELECT	10uF	20%	50V								
C507	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V								
C508	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C509	1-126-965-11	ELECT	22uF	20%	50V								
C510	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C601	1-126-947-11	ELECT	47uF	20%	16V								
C809	1-126-947-11	ELECT	47uF	20%	16V								
C902	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C903	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C904	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C905	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								

PANEL

Ref. No.	Part No.	Description	Remark			
D627	8-719-820-05	DIODE 1SS181-TE85L				
< FILTER >						
FL901	1-518-894-11	INDICATOR TUBE, FLUORESCENT				
< IC >						
IC201	6-704-046-01	IC BU2099FV				
IC501	6-704-135-01	IC MM1614A				
IC502	8-759-533-04	IC M62703ML-E1				
IC801	6-600-213-01	IC GP1UE271XK				
IC901	6-803-018-01	IC LC876764C-51E7 (US)				
IC901	6-803-022-01	IC LC876796B-51F8 (AEP, UK, E51, MX)				
< SHORT >						
JR102	1-216-296-11	SHORT CHIP	0			
JR205	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR213	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR215	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR216	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR218	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR219	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR220	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR401	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR402	1-216-864-11	METAL CHIP	0	5%	1/10W	(E51, MX)
JR601	1-216-296-11	SHORT CHIP	0			
JR602	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR903	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR905	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR906	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR907	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR908	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR909	1-216-296-11	SHORT CHIP	0			
JR910	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR911	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR912	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR913	1-216-864-11	METAL CHIP	0	5%	1/10W	
JR923	1-216-864-11	METAL CHIP	0	5%	1/10W	
< TRANSISTOR >						
Q201	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF			
Q202	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF			
Q204	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF			
Q205	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF			
Q206	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF			
Q601	8-729-116-57	TRANSISTOR	2SB1068TP-K			
Q602	8-729-140-04	TRANSISTOR	2SB1116-TP-LK			
Q603	8-729-140-04	TRANSISTOR	2SB1116-TP-LK			
Q604	8-729-900-80	TRANSISTOR	RN1202TPE4			
Q605	8-729-900-80	TRANSISTOR	RN1202TPE4			
Q606	8-729-900-80	TRANSISTOR	RN1202TPE4			
Q607	8-729-027-23	TRANSISTOR	DTA114EKA-T146			
Q901	8-729-120-28	TRANSISTOR	2SC3052EF-T1-LEF			
< RESISTOR >						
R101	1-249-417-11	CARBON	1K	5%	1/4W	
R102	1-249-417-11	CARBON	1K	5%	1/4W	

Ref. No.	Part No.	Description	Remark			
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-417-11	CARBON	1K	5%	1/4W	
R105	1-249-417-11	CARBON	1K	5%	1/4W	
R106	1-249-417-11	CARBON	1K	5%	1/4W	
R107	1-249-417-11	CARBON	1K	5%	1/4W	
R108	1-249-417-11	CARBON	1K	5%	1/4W	
R109	1-249-417-11	CARBON	1K	5%	1/4W	
R110	1-249-417-11	CARBON	1K	5%	1/4W	
R111	1-249-417-11	CARBON	1K	5%	1/4W	
R112	1-249-417-11	CARBON	1K	5%	1/4W	
R113	1-249-417-11	CARBON	1K	5%	1/4W	
R114	1-249-417-11	CARBON	1K	5%	1/4W	
R118	1-249-393-11	CARBON	10	5%	1/4W	
R119	1-249-417-11	CARBON	1K	5%	1/4W	
R121	1-249-417-11	CARBON	1K	5%	1/4W	
R122	1-249-417-11	CARBON	1K	5%	1/4W	
R201	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
R202	1-247-807-31	CARBON	100	5%	1/4W	
R203	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R204	1-216-840-11	METAL CHIP	39K	5%	1/10W	
R205	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R206	1-216-864-11	METAL CHIP	0	5%	1/10W	
R208	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R210	1-216-809-11	METAL CHIP	100	5%	1/10W	
R211	1-216-834-11	METAL CHIP	12K	5%	1/10W	
R212	1-216-851-11	METAL CHIP	330K	5%	1/10W	
R213	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R214	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R215	1-216-809-11	METAL CHIP	100	5%	1/10W	
R216	1-216-851-11	METAL CHIP	330K	5%	1/10W	
R217	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R218	1-216-809-11	METAL CHIP	100	5%	1/10W	
R219	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R220	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R221	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R222	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R223	1-216-809-11	METAL CHIP	100	5%	1/10W	
R225	1-247-807-31	CARBON	100	5%	1/4W	
R226	1-249-429-11	CARBON	10K	5%	1/4W	
R227	1-249-429-11	CARBON	10K	5%	1/4W	
R228	1-249-429-11	CARBON	10K	5%	1/4W	
R247	1-216-834-11	METAL CHIP	12K	5%	1/10W	
R248	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R249	1-216-838-11	METAL CHIP	27K	5%	1/10W	
R254	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R261	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R262	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R263	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R264	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R334	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R335	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R336	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R415	1-216-809-11	METAL CHIP	100	5%	1/10W	(E51, MX)
R416	1-216-850-11	METAL CHIP	270K	5%	1/10W	(E51, MX)
R417	1-216-835-11	METAL CHIP	15K	5%	1/10W	(E51, MX)

## PANEL

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R418	1-216-853-11	METAL CHIP	470K	5%	1/10W (E51, MX)	R915	1-216-845-11	METAL CHIP	100K	5%	1/10W
R419	1-216-821-11	METAL CHIP	1K	5%	1/10W (E51, MX)	R916	1-216-845-11	METAL CHIP	100K	5%	1/10W
R501	1-249-408-11	CARBON	180	5%	1/4W	R917	1-216-845-11	METAL CHIP	100K	5%	1/10W
R502	1-216-841-11	METAL CHIP	47K	5%	1/10W	R918	1-216-845-11	METAL CHIP	100K	5%	1/10W
R503	1-216-841-11	METAL CHIP	47K	5%	1/10W	R919	1-216-845-11	METAL CHIP	100K	5%	1/10W
R504	1-249-429-11	CARBON	10K	5%	1/4W	R920	1-216-845-11	METAL CHIP	100K	5%	1/10W
R505	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R921	1-216-845-11	METAL CHIP	100K	5%	1/10W
R506	1-216-815-11	METAL CHIP	330	5%	1/10W	R922	1-216-845-11	METAL CHIP	100K	5%	1/10W
R507	1-216-833-11	METAL CHIP	10K	5%	1/10W	R923	1-216-845-11	METAL CHIP	100K	5%	1/10W
R601	1-216-809-11	METAL CHIP	100	5%	1/10W	R924	1-216-845-11	METAL CHIP	100K	5%	1/10W
R607	1-216-821-11	METAL CHIP	1K	5%	1/10W	R925	1-216-845-11	METAL CHIP	100K	5%	1/10W
R608	1-216-821-11	METAL CHIP	1K	5%	1/10W	R926	1-216-845-11	METAL CHIP	100K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W	R927	1-216-845-11	METAL CHIP	100K	5%	1/10W
R610	1-216-821-11	METAL CHIP	1K	5%	1/10W	R928	1-216-845-11	METAL CHIP	100K	5%	1/10W
R611	1-216-821-11	METAL CHIP	1K	5%	1/10W	R929	1-216-845-11	METAL CHIP	100K	5%	1/10W
R612	1-216-821-11	METAL CHIP	1K	5%	1/10W	R930	1-216-845-11	METAL CHIP	100K	5%	1/10W
R625	1-216-841-11	METAL CHIP	47K	5%	1/10W	R931	1-216-845-11	METAL CHIP	100K	5%	1/10W
R626	1-216-841-11	METAL CHIP	47K	5%	1/10W	R932	1-216-845-11	METAL CHIP	100K	5%	1/10W
R627	1-216-841-11	METAL CHIP	47K	5%	1/10W	R933	1-216-845-11	METAL CHIP	100K	5%	1/10W
R628	1-216-841-11	METAL CHIP	47K	5%	1/10W	R934	1-216-845-11	METAL CHIP	100K	5%	1/10W
R629	1-216-841-11	METAL CHIP	47K	5%	1/10W	R935	1-216-845-11	METAL CHIP	100K	5%	1/10W
R630	1-216-841-11	METAL CHIP	47K	5%	1/10W	R936	1-216-845-11	METAL CHIP	100K	5%	1/10W
R631	1-216-841-11	METAL CHIP	47K	5%	1/10W	R937	1-216-845-11	METAL CHIP	100K	5%	1/10W
R637	1-216-841-11	METAL CHIP	47K	5%	1/10W	R938	1-216-845-11	METAL CHIP	100K	5%	1/10W
R638	1-249-417-11	CARBON	1K	5%	1/4W	R939	1-216-845-11	METAL CHIP	100K	5%	1/10W
R639	1-249-417-11	CARBON	1K	5%	1/4W	R940	1-216-845-11	METAL CHIP	100K	5%	1/10W
R640	1-249-417-11	CARBON	1K	5%	1/4W	R941	1-216-845-11	METAL CHIP	100K	5%	1/10W
R641	1-249-417-11	CARBON	1K	5%	1/4W	R942	1-249-414-11	CARBON	560	5%	1/4W
R642	1-249-417-11	CARBON	1K	5%	1/4W	R943	1-249-414-11	CARBON	560	5%	1/4W
R643	1-249-417-11	CARBON	1K	5%	1/4W	R944	1-249-427-11	CARBON	6.8K	5%	1/4W
R644	1-249-421-11	CARBON	2.2K	5%	1/4W	R945	1-249-427-11	CARBON	6.8K	5%	1/4W
R645	1-249-421-11	CARBON	2.2K	5%	1/4W	R946	1-216-845-11	METAL CHIP	100K	5%	1/10W
R701	1-216-809-11	METAL CHIP	100	5%	1/10W	R947	1-216-845-11	METAL CHIP	100K	5%	1/10W
R702	1-247-807-31	CARBON	100	5%	1/4W	R948	1-216-845-11	METAL CHIP	100K	5%	1/10W
R703	1-216-809-11	METAL CHIP	100	5%	1/10W	R949	1-216-845-11	METAL CHIP	100K	5%	1/10W
R704	1-216-809-11	METAL CHIP	100	5%	1/10W	R950	1-216-845-11	METAL CHIP	100K	5%	1/10W
R705	1-216-809-11	METAL CHIP	100	5%	1/10W	R953	1-249-441-11	CARBON	100K	5%	1/4W
R706	1-216-809-11	METAL CHIP	100	5%	1/10W	R954	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R707	1-216-809-11	METAL CHIP	100	5%	1/10W	R957	1-249-441-11	CARBON	100K	5%	1/4W
R708	1-216-809-11	METAL CHIP	100	5%	1/10W	R958	1-219-570-11	METAL CHIP	10M	5%	1/10W
R709	1-247-807-31	CARBON	100	5%	1/4W	R959	1-216-853-11	METAL CHIP	470K	5%	1/10W
R817	1-249-401-11	CARBON	47	5%	1/4W	R960	1-216-809-11	METAL CHIP	100	5%	1/10W
R818	1-249-438-11	CARBON	56K	5%	1/4W	R961	1-216-821-11	METAL CHIP	1K	5%	1/10W
R902	1-216-841-11	METAL CHIP	47K	5%	1/10W	R962	1-216-821-11	METAL CHIP	1K	5%	1/10W
R903	1-216-841-11	METAL CHIP	47K	5%	1/10W	R963	1-216-821-11	METAL CHIP	1K	5%	1/10W
R904	1-216-841-11	METAL CHIP	47K	5%	1/10W	R964	1-216-845-11	METAL CHIP	100K	5%	1/10W
R905	1-216-841-11	METAL CHIP	47K	5%	1/10W	R965	1-216-845-11	METAL CHIP	100K	5%	1/10W
R906	1-216-841-11	METAL CHIP	47K	5%	1/10W	R966	1-216-845-11	METAL CHIP	100K	5%	1/10W
R907	1-216-841-11	METAL CHIP	47K	5%	1/10W	R967	1-216-845-11	METAL CHIP	100K	5%	1/10W
R908	1-216-841-11	METAL CHIP	47K	5%	1/10W	R968	1-216-845-11	METAL CHIP	100K	5%	1/10W
R909	1-216-841-11	METAL CHIP	47K	5%	1/10W	R969	1-216-845-11	METAL CHIP	100K	5%	1/10W
R910	1-216-841-11	METAL CHIP	47K	5%	1/10W	R970	1-216-845-11	METAL CHIP	100K	5%	1/10W
R911	1-216-841-11	METAL CHIP	47K	5%	1/10W	R971	1-249-441-11	CARBON	100K	5%	1/4W
R912	1-216-841-11	METAL CHIP	47K	5%	1/10W	R972	1-249-441-11	CARBON	100K	5%	1/4W
R913	1-216-845-11	METAL CHIP	100K	5%	1/10W	R973	1-216-845-11	METAL CHIP	100K	5%	1/10W
R914	1-216-845-11	METAL CHIP	100K	5%	1/10W	R974	1-249-441-11	CARBON	100K	5%	1/4W
						R975	1-249-441-11	CARBON	100K	5%	1/4W

CX-JN3  
Ver 1.1

PANEL	PT	SENSOR	SW
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Ref. No.	Part No.	Description	Remark
R976	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
< VIBRATOR >			
X901	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
X902	1-795-880-11	VIBRATOR, CERAMIC (8.64MHz)	
*****			
	1-688-399-11	PT BOARD (EXCEPT E51)	
	1-688-763-11	PT BOARD (E51)	
*****			
< CAPACITOR >			
C091	1-165-621-11	CERAMIC CHIP 0.1uF	50V (AEP, UK, CIS)
< CONNECTOR >			
* CN091	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	(EXCEPT E51)
CN093	1-817-542-11	CONNECTOR 11P (E51)	
< DIODE >			
D002	8-719-820-05	DIODE 1SS181-TE85L (E51)	
D003	8-719-801-78	DIODE 1SS184-TE85L (E51)	
D091	8-719-820-05	DIODE 1SS181-TE85L (EXCEPT E51)	
D092	8-719-801-78	DIODE 1SS184-TE85L (EXCEPT E51)	
< TRANSFORMER >			
△ PT002	1-439-976-11	TRANSFORMER, POWER (E51)	
△ PT011	1-439-734-11	TRANSFORMER, POWER (US)	
△ PT011	1-439-735-11	TRANSFORMER, POWER (AEP, UK, CIS)	
△ PT011	1-439-944-11	TRANSFORMER, POWER (MX)	
< RESISTOR >			
△ R098	1-202-723-00	SOLID 2.2M 20%	1/2W (US)
< RELAY >			
△ RY001	1-755-276-11	RELAY, POWER	
< SWITCH >			
△ S001	1-786-404-11	SW, SL 1-2-2 SWS2201 (VOLTAGE SELECTOR)	(E51)
< CONNECTOR >			
WH093	1-817-363-11	HOLDER, WIRE 11P (EXCEPT E51)	
*****			
	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	
*****			

Ref. No.	Part No.	Description	Remark
	1-687-669-11	SW BOARD	*****
< SWITCH >			
S751	1-786-514-11	SWITCH, LEVER (SLIDE)	(OPEN/CLOSE DETECT)
*****			
MISCELLANEOUS			
*****			
55	1-796-485-51	DECK, MECHANICAL (CWM43FF13)	(EXCEPT MX)
55	1-796-485-61	DECK, MECHANICAL (CWM43FF25) (MX)	
106	1-751-688-11	WIRE (FLAT TYPE) (13 CORE)	
107	1-769-944-11	WIRE (FLAT TYPE) (11 CORE)	
108	1-769-857-11	WIRE (FLAT TYPE) (5 CORE)	
110	1-773-182-11	WIRE (FLAT TYPE) (23 CORE)	
254	1-693-615-11	TUNER PACK (E51, MX)	
254	1-693-616-11	TUNER PACK (AEP, UK)	
254	1-693-618-11	TUNER PACK (CIS)	
254	1-693-631-11	TUNER PACK (US)	
256	1-769-943-11	WIRE (FLAT TYPE) (11 CORE)	(EXCEPT AEP, UK)
256	1-773-007-11	WIRE (FLAT TYPE) (15 CORE) (AEP, UK)	
257	1-827-222-11	WIRE (FLAT TYPE) (19 CORE)	
△ 259	1-757-140-11	CORD, POWER (AEP, UK, CIS, E51)	
△ 259	1-757-813-12	CORD, POWER (MX)	
△ 259	1-823-597-11	CORD, POWER (US)	
260	1-400-285-11	F-BEAD, E2515MRT	
509	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
602	1-471-035-11	MAGNET ASSY	
△ 657	8-820-020-11	OPTICAL PICK-UP KSS-213D/Z-RP	
658	1-823-859-11	WIRE (FLAT TYPE) (16 CORE)	
M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	
M702	X-2161-802-1	CHASSIS ASSY (DCP), T. T (SPINDLE)	
M741	A-4723-963-A	MOTOR ASSY, TABLE	
M751	A-4736-655-A	MOTOR ASSY, LOADING (EXCEPT MX)	
M751	A-4737-533-A	MOTOR ASSY, LOADING (MX)	
△ PT002	1-439-763-11	TRANSFORMER, POWER (US)	
△ PT002	1-439-925-11	TRANSFORMER, POWER (AEP, UK, CIS)	
△ PT002	1-439-927-11	TRANSFORMER, POWER (MX)	
△ PT004	1-439-926-11	TRANSFORMER, POWER (E51)	
S711	1-477-680-11	ENCODER, ROTARY	(DISC TRAY ADDRESS DETECT)
M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	
*****			
ACCESSORIES			
*****			
△	1-770-019-51	ADAPTOR, CONVERSION PLUG (UK)	
△	1-569-008-32	ADAPTOR, CONVERSION PLUG (E51)	

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

MEMO

## REVISION HISTORY

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

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

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