

# HCD-H551


## SERVICE MANUAL

*AEP Model  
UK Model  
E Model  
Tourist Model*



Photo: E model

HCD-H551 is the tuner, deck, CD and amplifier section in MHC-G55/551.

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CD SECTION	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM28-5BD19
	Base Unit Type	BU-5BD19
	Optical Pick-up Type	KSS-213BA/F-NP
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-H501
	Tape Transport Mechanism Type	TCM-220WR2E

### CD player section

System	Compact disc and digital audio system
Laser	Semiconductor ( $\lambda = 780\text{nm}$ ) Emission duration: continuous
Laser output	Max 44.6 $\mu\text{W}$ * *This output is the value measured at a distance of 200mm from the objective lens surface on the Optical Pick-up Block with 7mm aperture.
Wavelength	780 – 790 nm
Frequency response	2 Hz – 20 kHz ( $\pm 0.5$ dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

### Tuner section

FM stereo, FM/AM superheterodyne tuner

#### FM tuner section

East European model:  
65.0 – 78.0 MHz,  
87.5 – 108.0 MHz

### SPECIFICATIONS

Tourist model:

76.0 – 108.0 MHz

Other models:

87.5 – 108.0 MHz

Aerial FM lead aerial  
Aerial terminals 75 ohm unbalanced  
Intermediate frequency 10.7 MHz

#### AM tuner section

Tuning range

German, Italian models:

AM: 531 – 1,602 kHz (with the interval set at 9 kHz)

AEP, UK, East European models:

MW: 531 – 1,602 kHz (with the interval set at 9 kHz)  
LW: 153 – 279 kHz (with the interval set at 3 kHz)

Other models:

MW: 531 – 1,602 kHz (with the interval set at 9 kHz)  
530 – 1,710 kHz (with the interval set at 10 kHz)  
SW: 5.95 – 17.90 MHz

— Continue on next page —

# COMPACT DISC DECK RECEIVER

# SONY®



Aerial AM loop aerial,  
External aerial terminals  
Intermediate frequency  
450 kHz

### Amplifier section

AEP, UK, German, Italian, East European models:

DIN power output  
20 W + 20 W (6 ohms, at  
1 kHz, DIN)

Continuous RMS power output  
30W+30W (6 ohms, at  
1kHz, 10% THD)

Music power output  
40 W + 40 W (6 ohms, at  
1 kHz, 10% THD)

E, Saudi Arabia, Hong Kong, Singapore,  
Malaysia, Taiwan, Tourist, Thailand, Indonesian models:

Peak music power output  
400 W

Continuous RMS power output  
30 W + 30 W (6 ohms at  
1 kHz, 10% THD)

### Inputs

VIDEO IN (phono jacks):  
Voltage 250 mV,  
impedance 47 kilohms

MIX MIC (phone jacks):  
ensitivity 1 mV,  
impedance 10 kilohms

### Outputs

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

SPEAKER: accepts impedance of 6 to  
16 ohms.

E, Saudi Arabia, Hong Kong,  
Singapore, Malaysia, Taiwan, Tourist,  
Thailand, Indonesian models:

SUPPER WOOFER:  
Voltage 1 V, impedance  
1 kilohms

### Tape player section

Recording system

4-track 2-channel stereo

Frequency response

(DOLBY NR OFF)  
40 – 13,000 Hz ( $\pm 3$  dB),  
using Sony TYPE I cassette  
40 – 14,000 Hz ( $\pm 3$  dB),  
using Sony TYPE II cassette

Wow and flutter

$\pm 0.15\%$  W.Peak (IEC)  
0.1% W.RMS (NAB)  
 $\pm 0.2\%$  W.Peak (DIN)

### General

Power requirements

AEP, UK, German, Italian, East European models:

220 – 230 V AC, 50/60 Hz

Malaysia model:

220 – 240 V AC, 50/60 Hz

Thailand model:

220 V AC, 50/60 Hz

Other models:

110 – 120 V or 220 – 240 V  
AC, 50/60 Hz

Adjustable with the voltage  
selector

Power consumption

67 W

Dimensions Approx. 280 x 325 x 360 mm

(11 1/8 x 12 7/8 x 14 1/4 in)

(w/h/d)

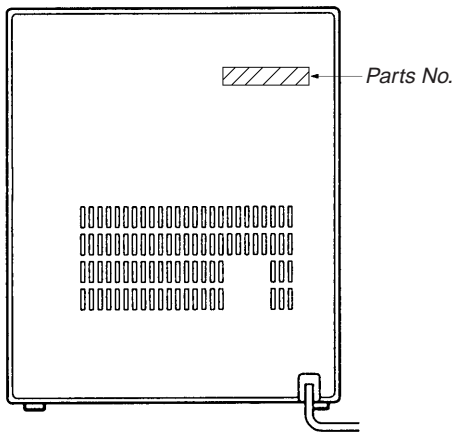
incl. projecting parts and  
controls

Mass

Approx. 7.5 kg (16 lb 9 oz)

Design and specifications are subject to  
change without notice.

**MODEL IDENTIFICATION**  
— BACK PANEL —



MODEL	PARTS No.
AEP model	4-979-273-0□
UK model	4-979-273-1□
German model	4-979-273-2□
Italian model	4-979-273-3□
East European model	4-979-273-4□
E model	4-979-274-0□
Saudi Arabia, Taiwan model	4-979-274-1□
Malaysia model	4-979-274-2□
Singapore model	4-979-274-3□
Hong Kong model	4-979-274-4□
Tourist model	4-979-274-5□
Indonesian model	4-979-274-6□
Thailand model	4-979-274-7□

**CAUTION**

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

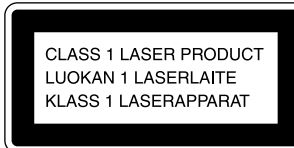
**Notes on chip component replacement**

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

**Flexible Circuit Board Repairing**

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

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



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

CAUTION	; INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.
ADVARSEL	; USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO!	; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA DLET ALTIINA LASERSATELYLLE.
VARNING	; LASERSTRÅLING NÅR DENNA DEL ÅR ÖPPNÅD OCH SPÅRREÅN ÅR URKOPPLAD.
ADVARSEL	; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

**SAFETY-RELATED COMPONENT WARNING !!**

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

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## SECTION 1 SERVICING NOTE

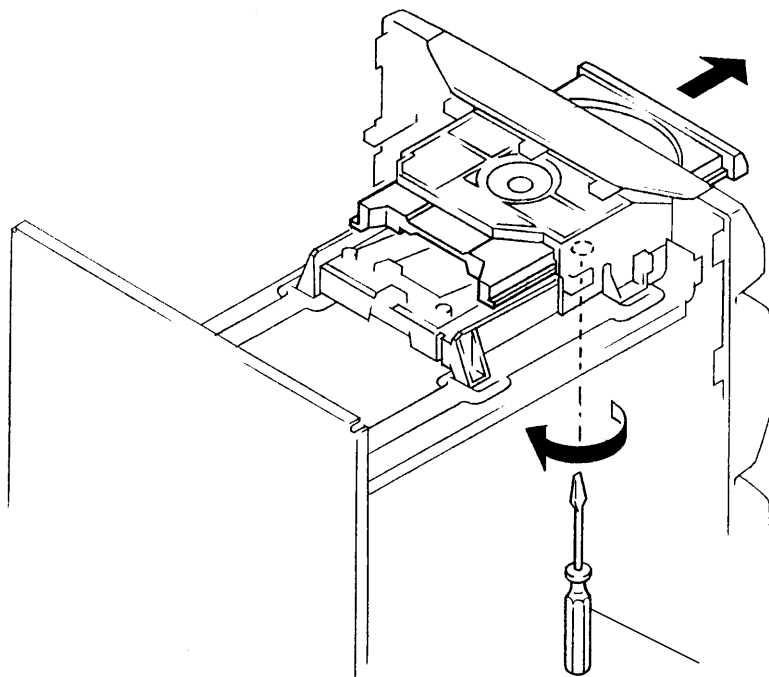
### NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

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

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

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

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



Insert a tapering driver into the aperture of the unit bottom, and turn in the direction of arrow.

\* To close the disc tray, turn the driver in the reverse direction.

### 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.

### [Switching the channel step 9 KHz/10 KHz]

Press **ENTER/NEXT** button and **POWER** button simultaneously to switch the AM channel step 9 KHz and 10 KHz. Be sure not to change with carelessness.

### [FL Display Tube, LED All Lit and Key Check mode]

When the **TUNER/BAND**, **DISPLAY/DEMO**, and **MENU 2** buttons are pressed simultaneously, the FL display tube and LEDs will all light up. Press any button to enter the key check mode.

When the key check mode is entered, the FL display tube displays "K 1 J0 V0". Each time a button is pressed, the counter increases in the following order, K 2 → K 3 → K 4.

If buttons already pressed once are pressed again, the counter will not increase. When the **VOLUME** knob is rotated in the + direction, the count increases in the following order.

V1 → V2 → V3.

When rotated in the -direction, it decreases in the following order.

V0 → V9 → V8.

When the AMS dial is rotated in the clockwise direction, the count increases in the following order.

J1 → J2 → J3.

When rotated in the counterclockwise direction, it decreases in the following order.

J0 → J9 → J8.

To exit form the test mode, press the **TUNER/BAND**, **DISPLAY/DEMO**, **MENU 2** buttons simultaneously again.

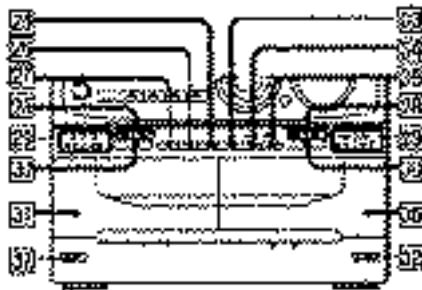
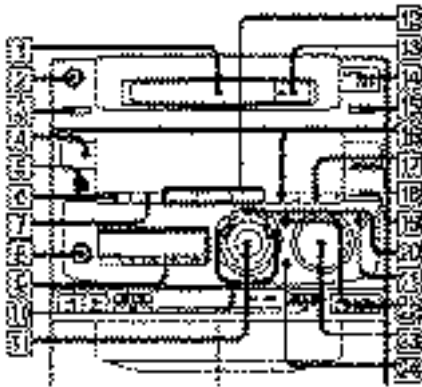
## SECTION 2 GENERAL

This section is extracted from instruction manual.

### Index to Parts and Controls

Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

#### Front Panel



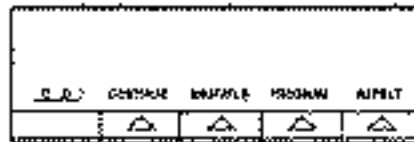
- 1 Cassette (7)
- 2 POWER switch (7)
- 3 LOOP button (8)
- 4 TIMER button (8)
- 5 PHONES jack (10)
- 6 DISPLAY/VIDEO button (6)
- 7 SURROUND button (18)
- 8 MIX/MC jack (21)
- 9 MULTI-PURPOSE CONTROL buttons (26)
- 10 FREQUENCY +/- buttons (38)
- 11 JOG dial (7)
- 12 MENU 1-2 button (37)
- 13 OPEN/CLOSE button (7)
- 14 PLAY/PAUSE button\* (7)
- 15 STOP button (7)
- 16 STILL button (14)
- 17 EFFECT (REV/OFF) button\* (17)
- 18 LISTEN/BAND button\* (39)
- 19 FUNCTION button (8)
- 20 EJECT/NEXT button (8)
- 21 CROCI, button (17)
- 22 OPEN button (17)
- 23 VOLUME control (17)
- 24 KARAOKE/ON/MIX button (23)
- 25 HIGH SPEED DUBBING button (36)

- 26 DIRECTION button (12)
- 27 EJECT NR button (12)
- 28 <←/→ (rewind/fast forward) button (12)
- 29 <|> (reverse side play/first safe prog) button\* (32)
- 30 STOP button (12)
- 31 Deck A (12)
- 32 ALL EJECT button (12)
- 33 C1 SYNCHRO button (12)
- 34 STOP button\* (12)
- 35 PAUSE button\* (12)
- 36 Deck B (12)

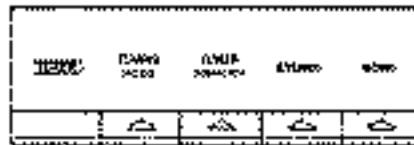
#### MULTI FUNCTION CONTROL buttons

The buttons you can operate the CD player, tuner, and the timer light up.

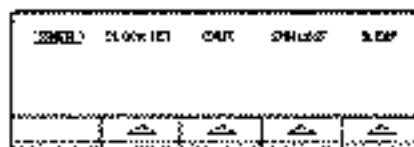
##### CD player



##### Tuner

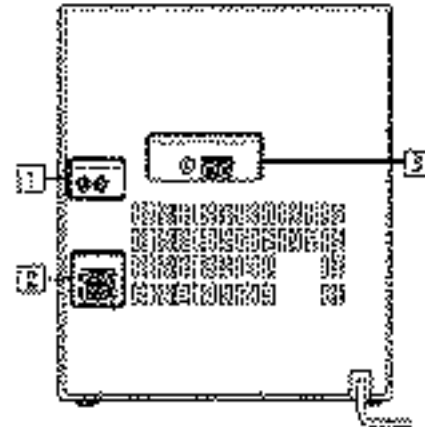


##### Tuner



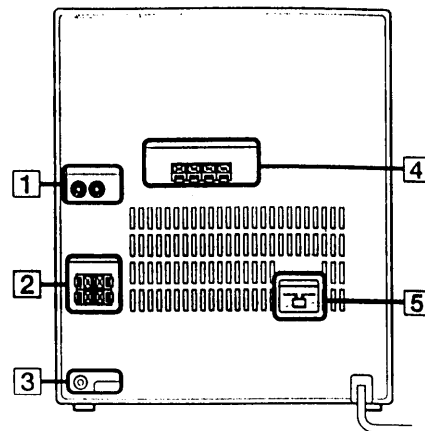
#### Rear panel

(AEP, UK, German, Italian, East European models)



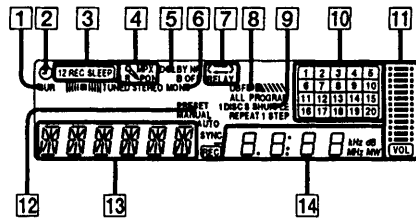
- 1 VIDEO IN jacks (22)
- 2 SPEAKER L/R connectors (4)
- 3 ANTENNA terminals (4)

(E, Saudi Arabia, Hong Kong, Malaysia, Singapore, Taiwan, Tourist, Thailand, Indonesian models)



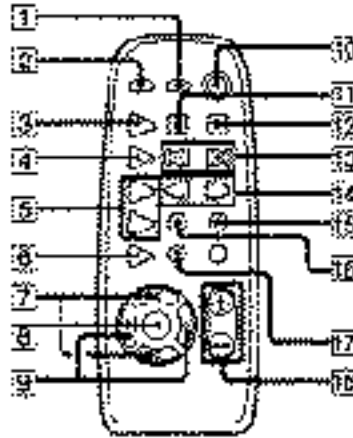
- 1 VIDEO IN jacks (22)
- 2 SPEAKER L/R connectors (4)
- 3 SUPER WOOFER jack (22)
- 4 ANTENNA terminals (4)
- 5 Voltage selector (Except Malaysia, Thailand models) (5)

## Display Window



- 1 SUR indicators (18)
- 2 ⊙ indicator (19)
- 3 Timer indicators (19)
- 4 Karaoke PON/MPX indicators (21)
- 5 DOLBY NR indicator (12)
- 6 Tuning indicator (10)
- 7 Direction mode indicators (12)
- 8 DBFB indicator (17)
- 9 CD playback indicators (7)
- 10 Music calendar (7)
- 11 VOLUME indicators
- 12 Tuner indicators (10)
- 13 Multi display
- 14 Radio frequency/playing time/sound frequency level indications

## Remote



- 1 SLEEP button (13)
- 2 LOOP button (9)
- 3 CD button (3)
- 4 TUNER/BAND button (10)
- 5 DECK A / DECK B button (12)
- 6 FUNCTION button (6)
- 7 button (7)
- 8 buttons (17, 18)
- 9 POWER switch (9)
- 10 (pause) button (7)
- 11 (stop) button (7)
- 12 ADJUST buttons (7)
- 13 (rewind/ fast forward) buttons (7)
- 14 EJECT button (13)
- 15 CHECK button (8)
- 16 CLEAR button (8)
- 17 VOL (+/-) button (17)

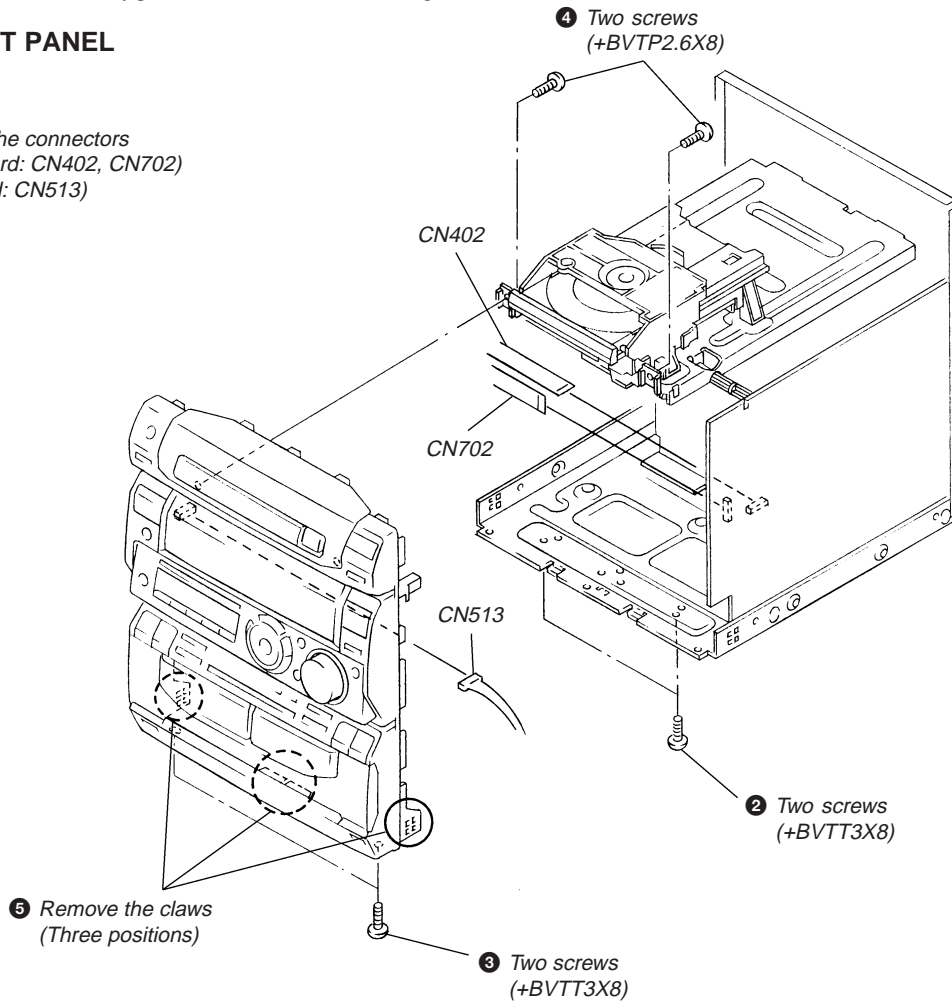
\* AMS: Anti Motion Sensor

## SECTION 3 DISASSEMBLY

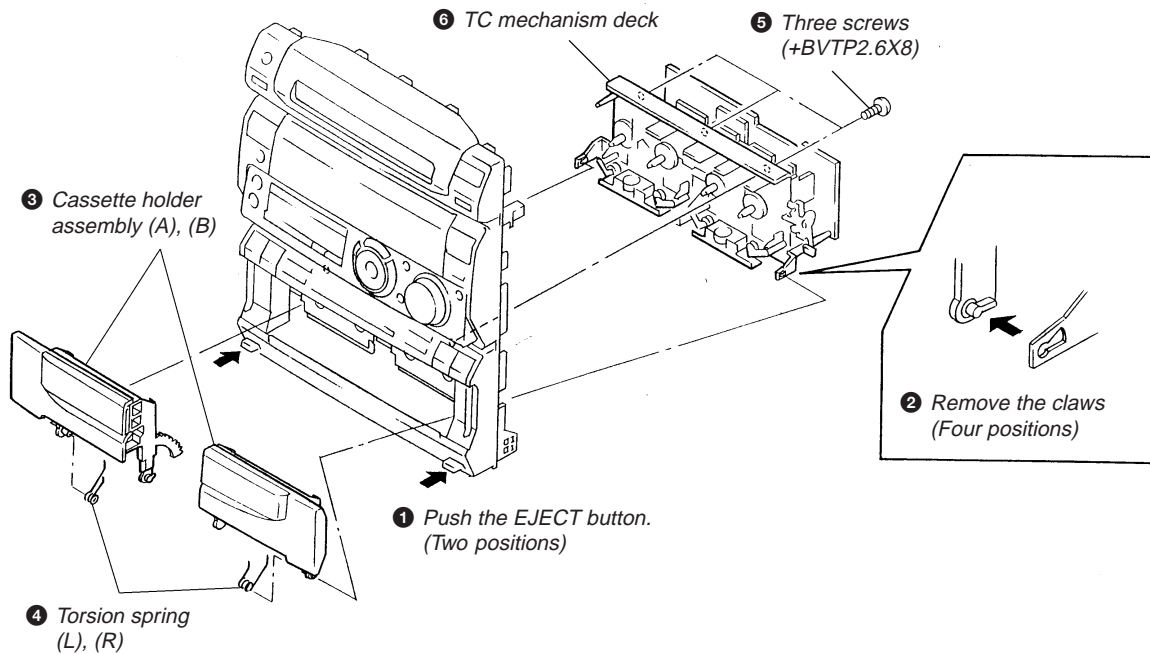
**Note:** Follow the disassembly procedure in the numerical order given.

### 3-1. FRONT PANEL

- 1 Remove the connectors  
(Main board: CN402, CN702)  
(HP board: CN513)



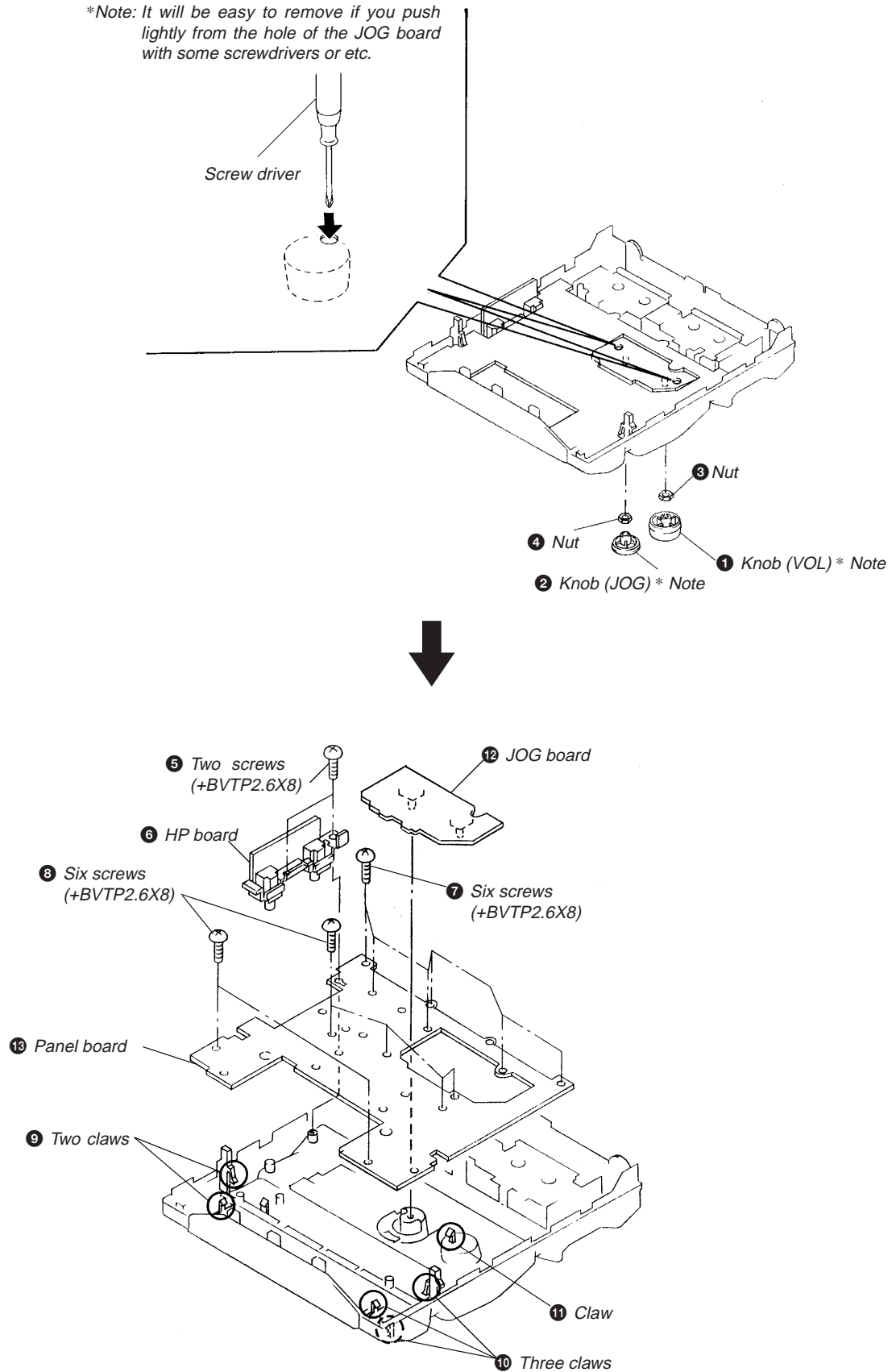
### 3-2. TC MECHANISM DECK





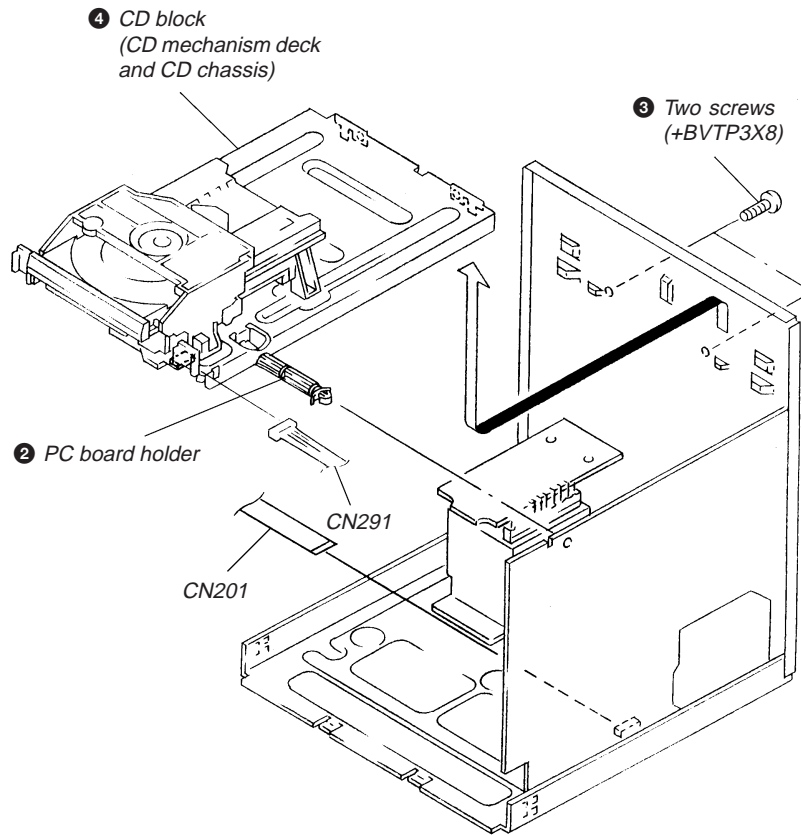
### 3-3. HP BOARD, JOG BOARD AND PANEL BOARD

*\*Note: It will be easy to remove if you push lightly from the hole of the JOG board with some screwdrivers or etc.*

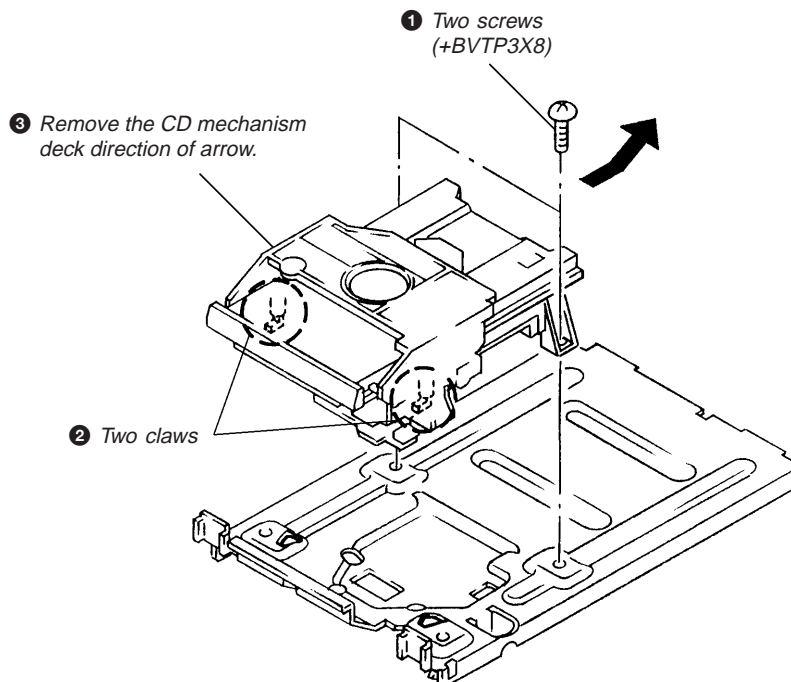


### 3-4. CD BLOCK

- 1 Remove the connectors  
(Main board: CN201)  
(Loading board: CN291)



### 3-5. CD MECHANISM DECK



## SECTION 4 MECHANICAL ADJUSTMENTS

### Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
 

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

### Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	36 to 61 g • cm (0.5 - 0.84 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 - 0.08 oz • inch)
REV	CQ-102RC	36 to 61 g • cm (0.5 - 0.84 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 - 0.08 oz • inch)
FF/REW	CQ-201B	61 to 143 g • cm (0.85 - 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

## SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775V

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

DOLBY NR switch: OFF

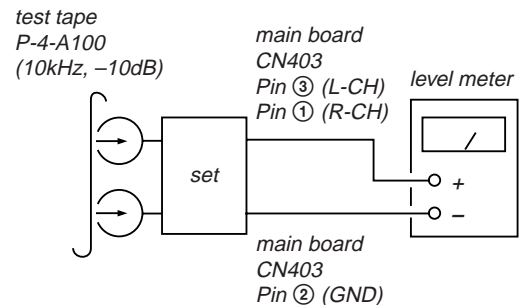
Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

### Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

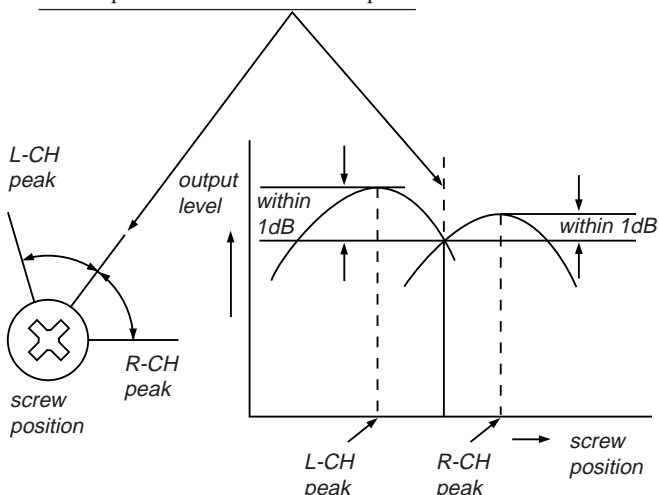
**Note:** Perform this adjustments for both decks.

#### Procedure:

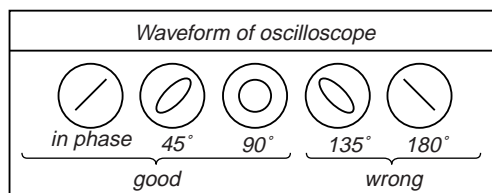
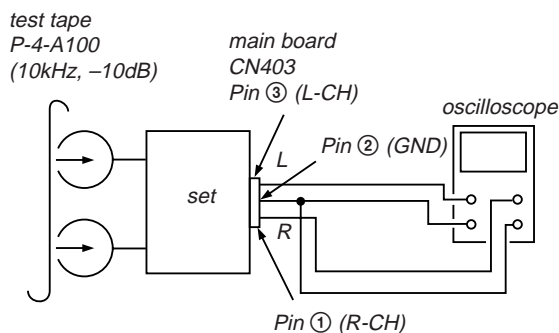
1. Mode : Playback



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

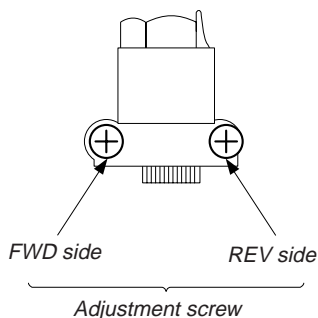


- Mode: Playback



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

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



## Tape Speed Adjustment (Deck A)

**Note:** Start the Tape Speed adjustment as below after setting the test mode.

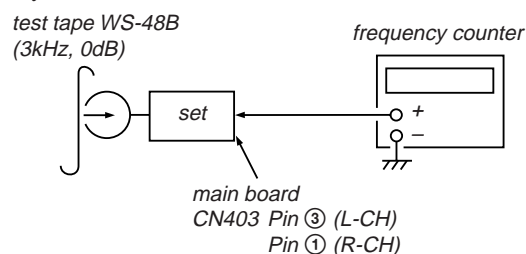
The tape speed can be changed with the **HIGH SPEED DUBBING** button during the test mode.

### Method :

- Turn the power switch on.
- Press the **DISPLAY/DEMO** button, **MENU 1** button and **TUNER/BAND** button simultaneously.

### Procedure :

Mode: Playback



- Insert the WS-48B into the deck A to playback.
- Press the **HIGH SPEED DUBBING** button. Then at HIGH SPEED mode.
- Adjust the RV652 on the MD board so that the frequency counter reading becomes  $6,000 \pm 30$  Hz.
- Press the **HIGH SPEED DUBBING** button again to be set the NORMAL SPEED mode.
- Set to the playback mode.
- Adjust the RV651 on the MD board so that the frequency counter reading becomes  $3,000 \pm 15$  Hz.

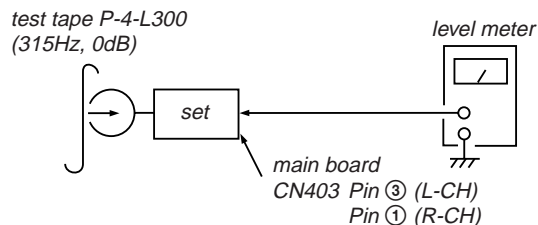
Frequency difference between deck A and deck B the beginning of the tape should be within  $\pm 1.5\%$ .

**Adjustment Location:** MD board

## Playback Level Adjustment (Deck A, Deck B)

### Procedure:

Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH)

so that adjustment within the following adjustment level.

### Adjustment level:

CN403 playback level: 301.5 to 338.3 mV ( $-8.2$  to  $-7.2$  dB)

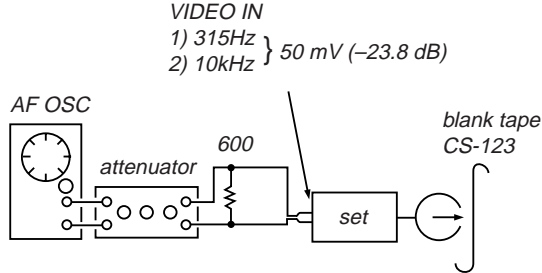
level difference between the channels: within  $\pm 0.5$  dB

**Adjustment Location:** MD board

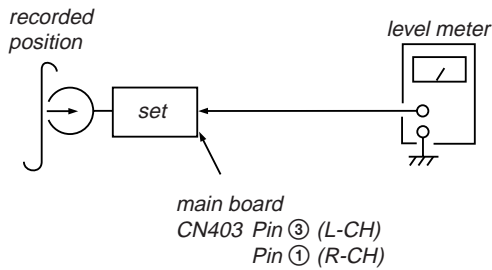
## Record Bias Adjustment (Deck B)

### Procedure:

1. Press **FUNCTION** button to Select VIDEO.
2. Mode: record



3. Mode: Playback



4. Confirm playback the signal recorded in step 2 become adjustment level as follows.  
If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the MD board to repeat steps 2 and 3.

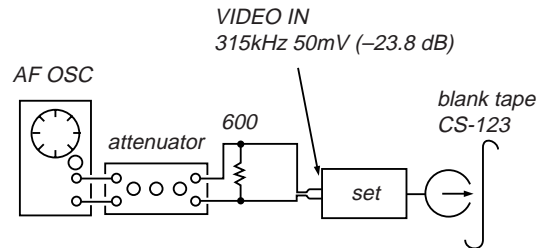
**Adjustment level:** The playback output of 10 kHz level difference against 315 Hz reference should be  $\pm 0.5$  dB.

**Adjustment Location:** MD board

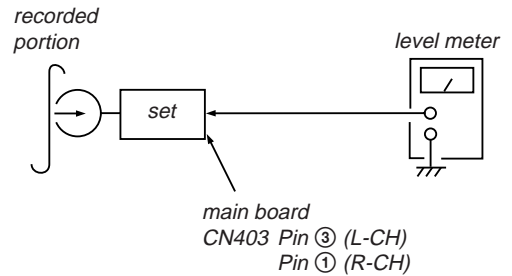
## Record Level Adjustment (Deck B)

### Procedure:

1. Press **FUNCTION** button to Select VIDEO.
2. Mode: record



3. Mode: Playback



4. Confirm playback the signal recorded in step 2 become adjustment level as follows.  
If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the main board to repeat steps 2 and 3.

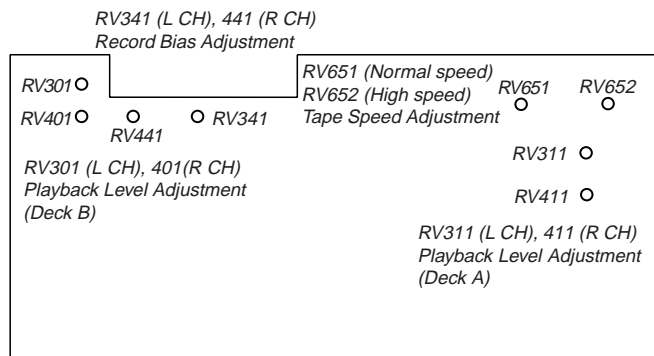
**Adjustment level:**

CN403 PB level: 47.3 to 53.1 mV (-24.3 to -23.3 dB)

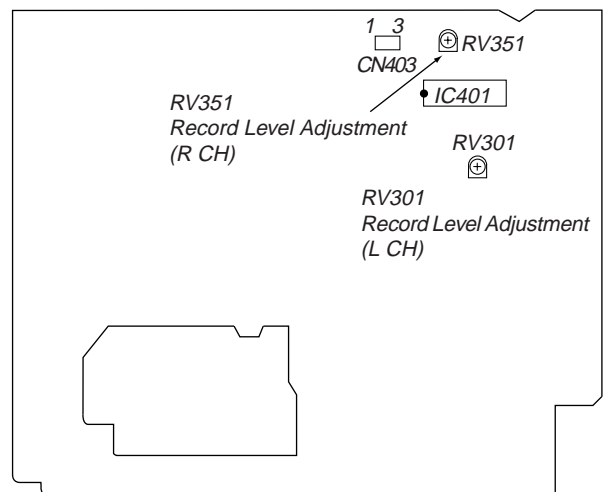
**Adjustment Location:** MAIN board

### Adjustment Location:

**[MD BOARD]** (Conductor Side)



**[MAIN BOARD]** (Component Side)



## TUNER SECTION

0dB=1μV

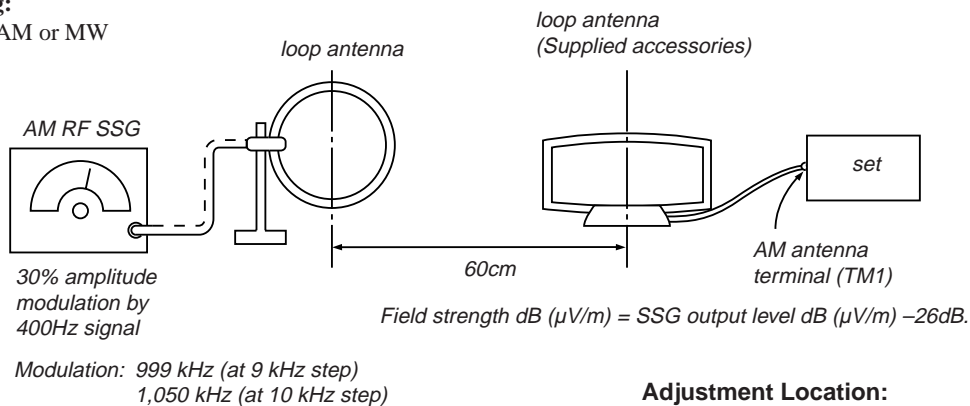
**Note:** As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

### AM Tuned Level Adjustment

**Note:** FM Tuned Level adjustment should be performed after this AM Tuned Level Adjustment.

#### Setting:

Band: AM or MW



#### Procedure:

1. Set the output of SSG so that the input level of the set becomes 55 dB.
2. Tune the set to 999 kHz or 1,050 kHz.
3. Adjust RV41 (EXCEPT Thailand model), RV42 (Thailand model) to the point (moment) when the TUNED indicator will change from going off to going on.

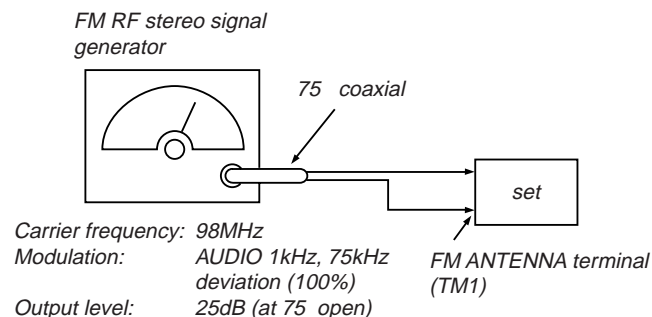
**Adjustment Location:** TCB board

### FM Tuned Level Adjustment

**Note:** This adjustment should be after AM Tuned Level Adjustment.

#### Setting:

Band: FM



#### Procedure:

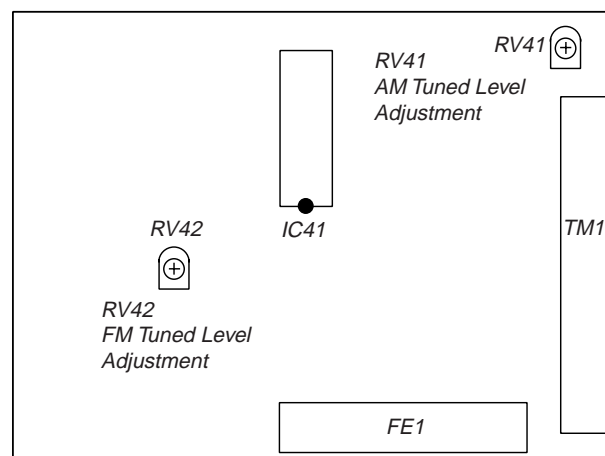
1. Supply a 25 dB 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV42 (EXCEPT Thailand model), RV41 (Thailand model) to the point (moment) when the TUNED indicator will change from going off to going on.

**Adjustment Location:** TCB board

#### Adjustment Location:

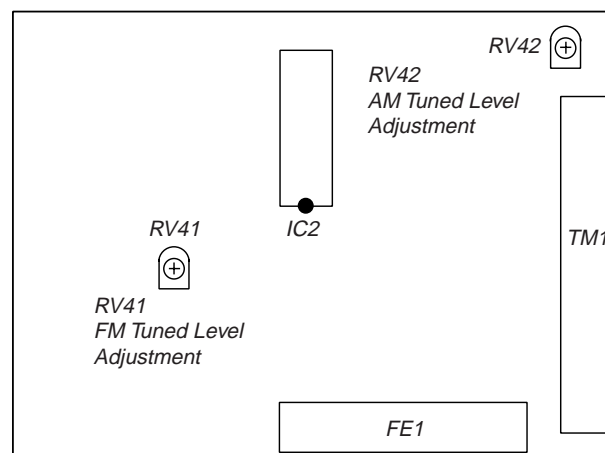
**EXCEPT Thailand model**

[TCB BOARD] (Component Side)



#### Thailand model

[TCB BOARD] (Component Side)



**SW OSC Voltage Adjustment**  
(E, EA, MY, SP, HK, TW, IA model)

**Setting:**  
Band: SW

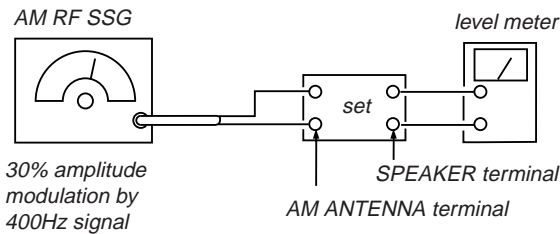
**Procedure:**

1. Connect digital Voltmeter to diode D1 center lead and ground.
2. Adjust for a following value reading on digital voltmeter.

	Set frequency	Adjustment part	Reading on digital voltmeter
SW	5.95 MHz	T2	$1.2 \pm 0.1$ V
	17.9 MHz	CV2	$8.5 \pm 0.2$ V

**SW Tracking Adjustment**  
(E, EA, MY, SP, HK, TW, IA model)

**Setting:**  
Band: SW



**Procedure:**

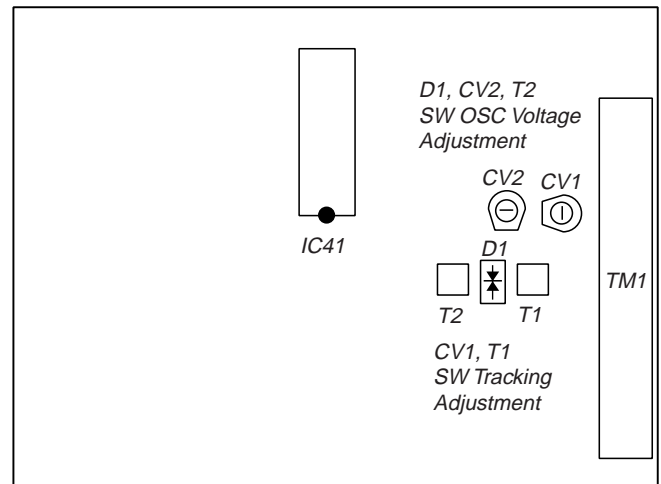
Adjust for maximum reading on level meter.

	Set frequency	Adjustment part
SW	7 MHz	T1
	17 MHz	CV1

- Repeat the procedures is each adjustment several times, and the frequency coverage and tracking adjustment should be finally done by the trimmer capacitors.

**Adjustment Location:**

[TCB BOARD] — Component Side —



• Abbreviation

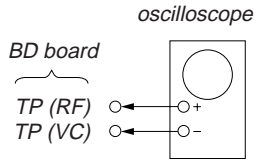
- EA: Saudi Arabia model.
- MY: Malaysia model.
- SP: Singapore model.
- HK: Hong Kong model.
- TW: Taiwan model.
- IA: Indonesian model.

## CD SECTION

### Note:

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M 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.
5. Adjust the focus bias adjustment when optical block is replaced.

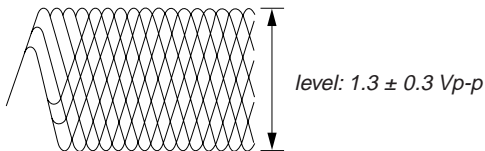
### Focus Bias Adjustment



### Procedure:

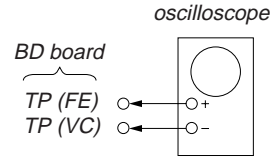
1. Connect oscilloscope to test point TP (RF). (Ground terminal : TP (VC))
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV101 so that the waveform is clear. (Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.)
5. After adjustment, check the RF signal level.

- RF signal  
VOLT/DIV: 200 mV  
TIME/DIV: 500 nS



### S Curve Check

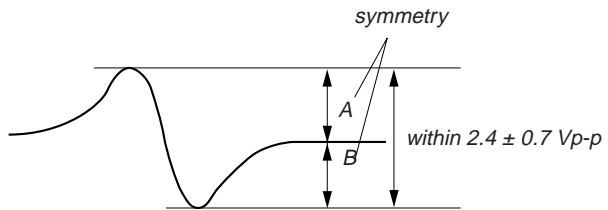
#### Procedure :



1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and Ground by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within  $2.4 \pm 0.7$  Vp-p.

#### S-curve waveform

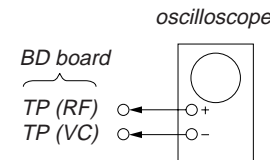
6. After check, remove the lead wire connected in step 2.



- 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

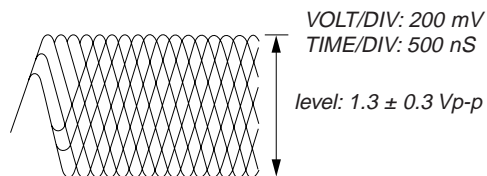
#### Procedure :



1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

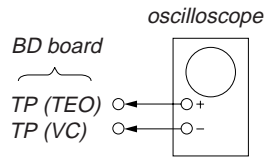
**Note:** Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.

#### RF signal waveform



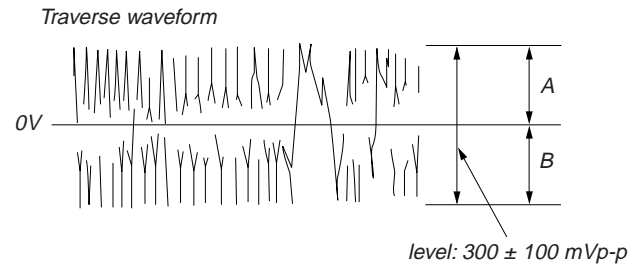


## E-F Balance Check



### Procedure:

1. Connect test point TP701 (ADJ) on Main board to Ground with a lead wire.
2. Connect oscilloscope to test point TP (TEO).
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.



Specified level: •  $\frac{A-B}{2(A+B)} \times 100 = \text{less than } \pm 7\%$   
•  $A + B = 300 \pm 100 \text{ mVp-p}$

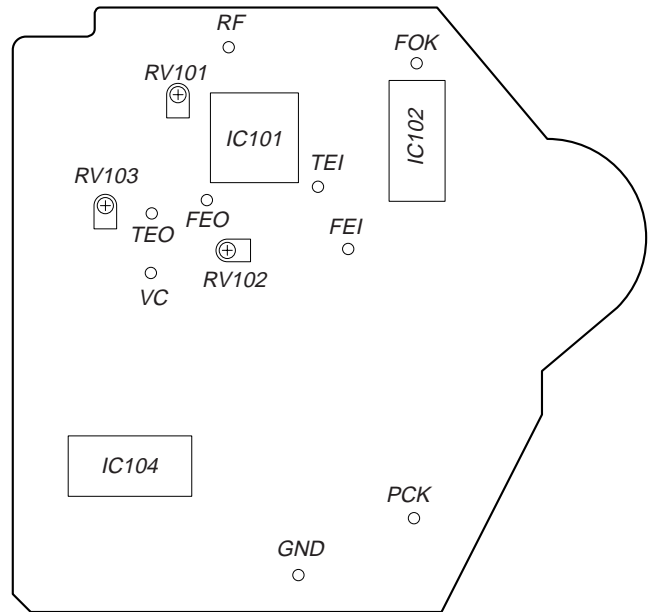
6. Remove the lead wire connected in step 1.

### Focus/Tracking Gain Adjustment (RV102, RV103)

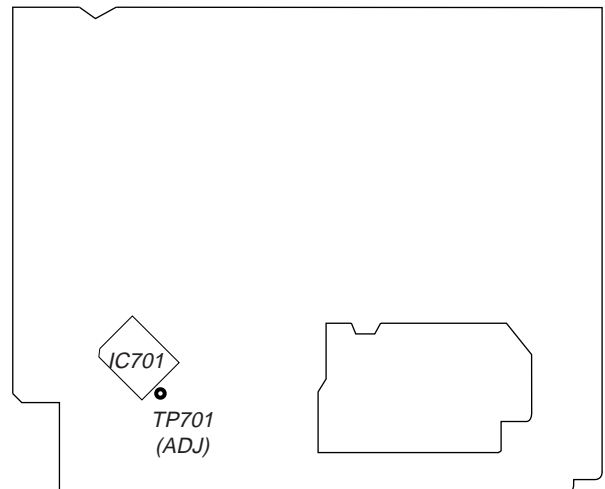
This gain has a margin, so even if it is slightly off. There is no problem. Therefore, do not perform this adjustment. Please note that it should be fixed to mechanical center position when you moved and do not know original position.

## Adjustment Location:

### [BD BOARD] — Component Side —

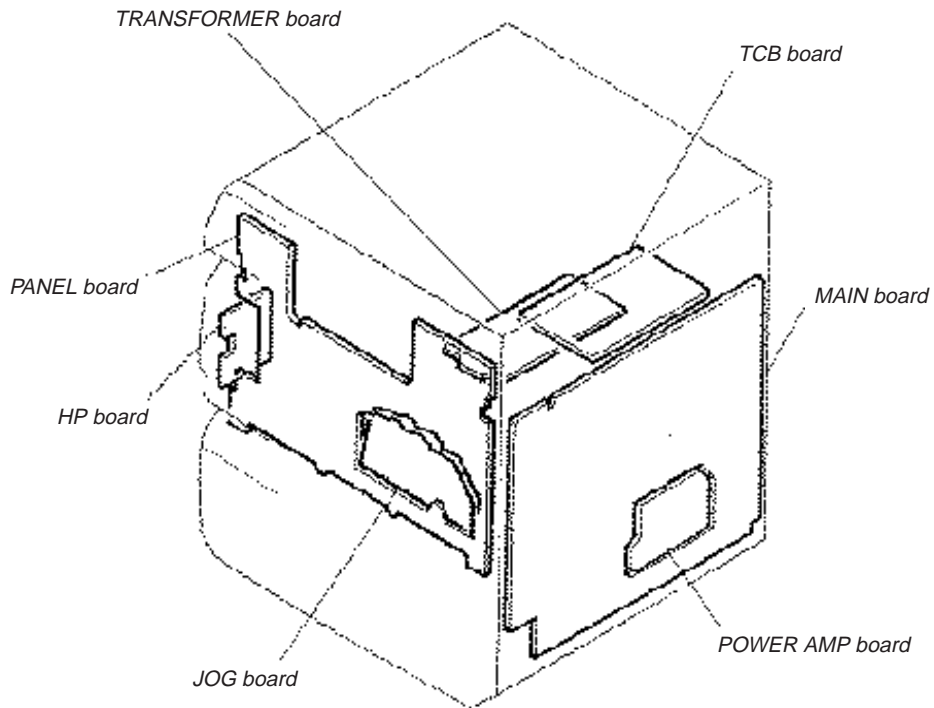


### [MAIN BOARD] — Conductor Side —

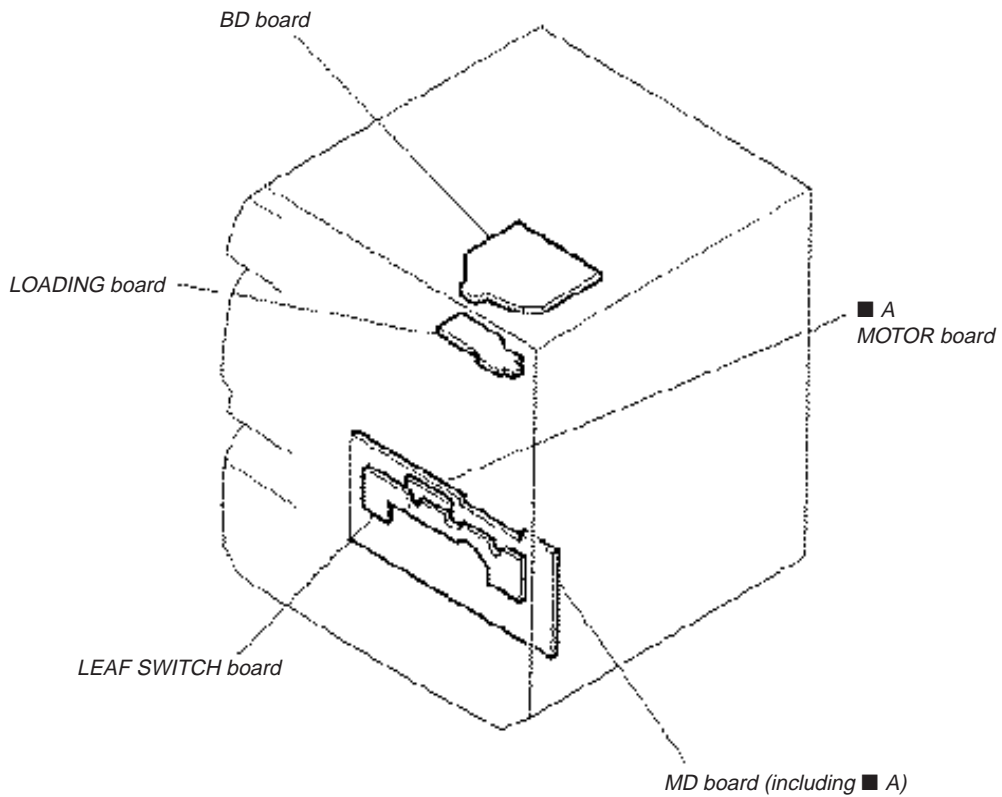


# SECTION 6 DIAGRAMS

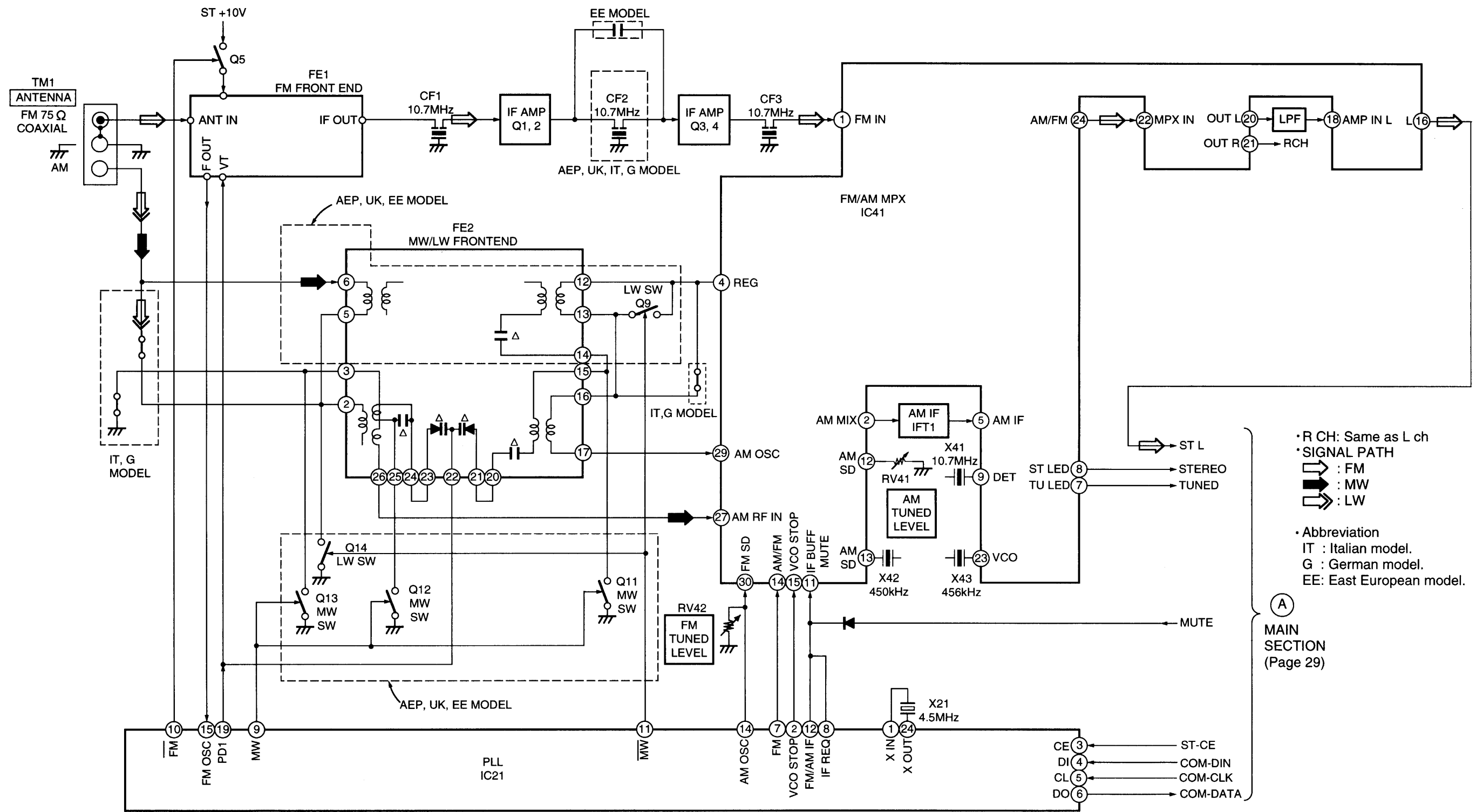
## 6-1. CIRCUIT BOARDS LOCATION



Note: ■ A is including in MD board.

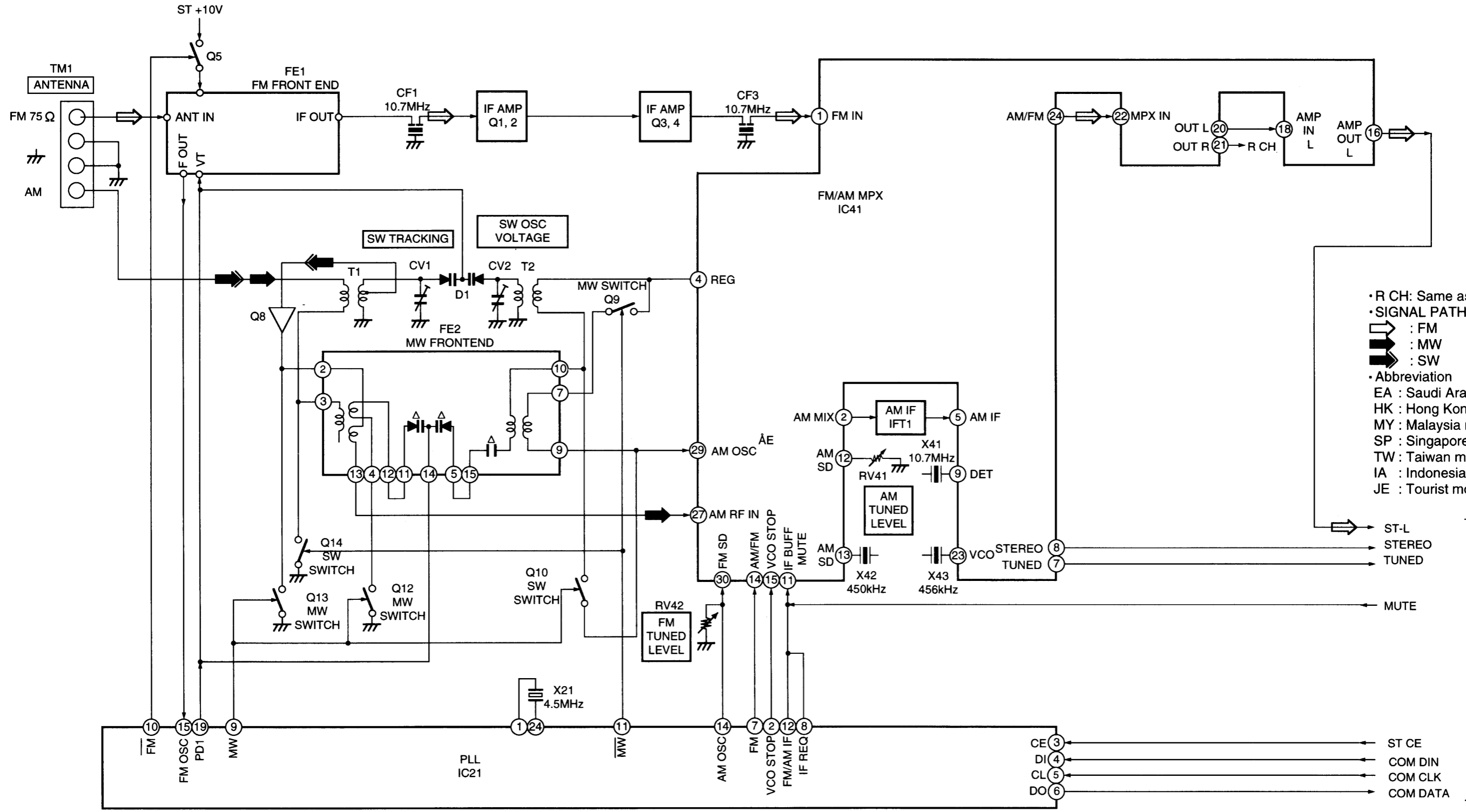


6-2. BLOCK DIAGRAMS  
— TUNER SECTION — (AEP, UK, G, IT, EE MODEL)



09

— TUNER SECTION — (E, EA, SP, MY, TW, HK, IA, JE MODEL)

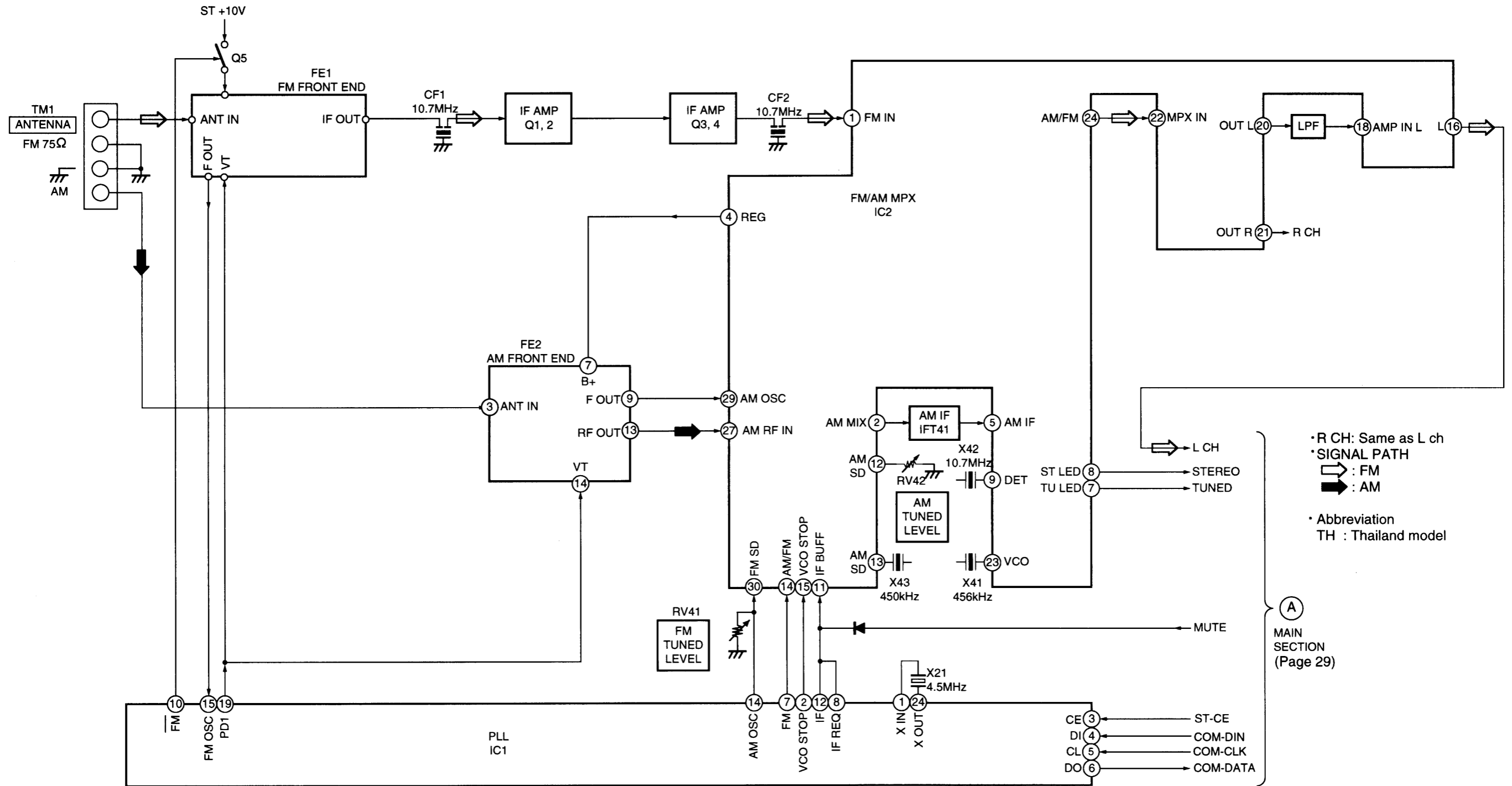


- R CH: Same as L ch
- SIGNAL PATH
- ⇨ : FM
- ⇨ : MW
- ⇨ : SW
- Abbreviation
- EA : Saudi Arabia model.
- HK : Hong Kong model.
- MY : Malaysia model.
- SP : Singapore model.
- TW : Taiwan model.
- IA : Indonesian model.
- JE : Tourist model.

(A)  
MAIN SECTION  
(Page 29)

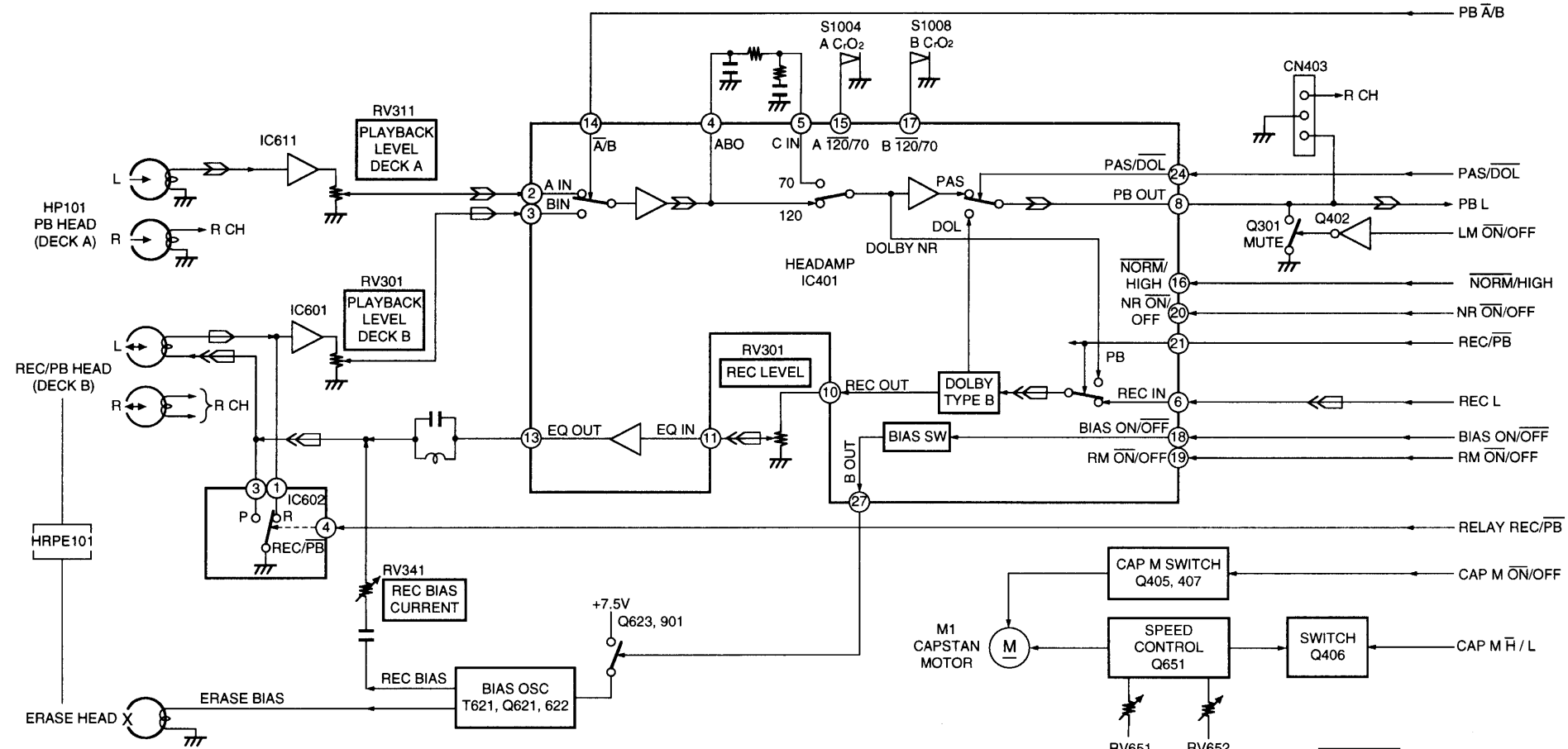
09

— TUNER SECTION — (TH MODEL)



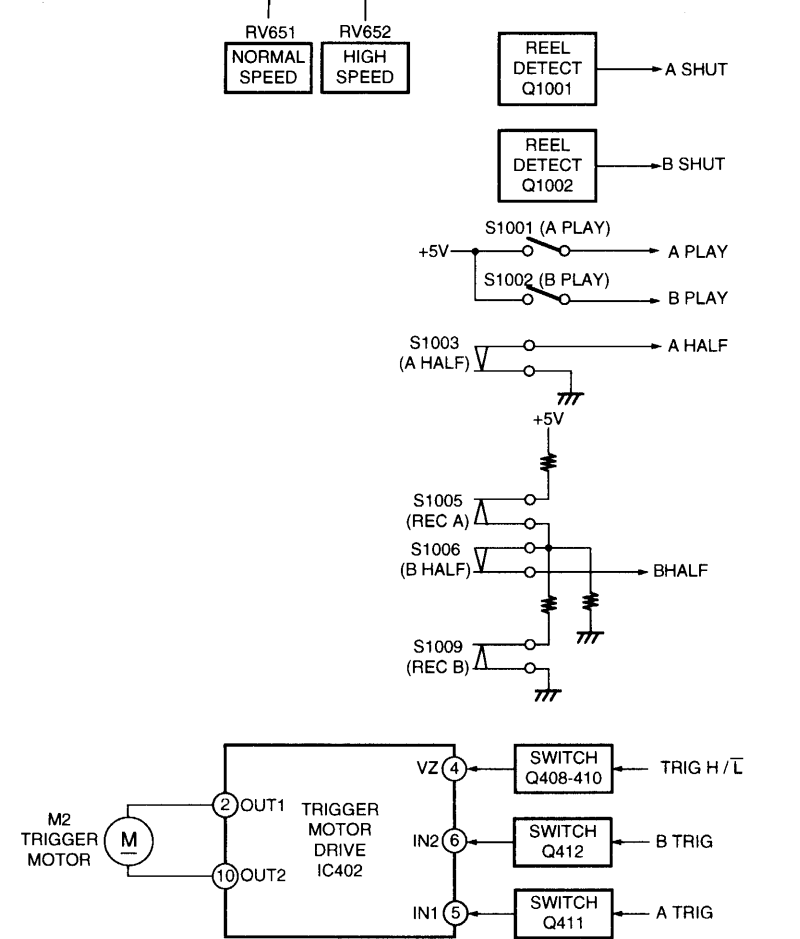
09

— DECK SECTION —



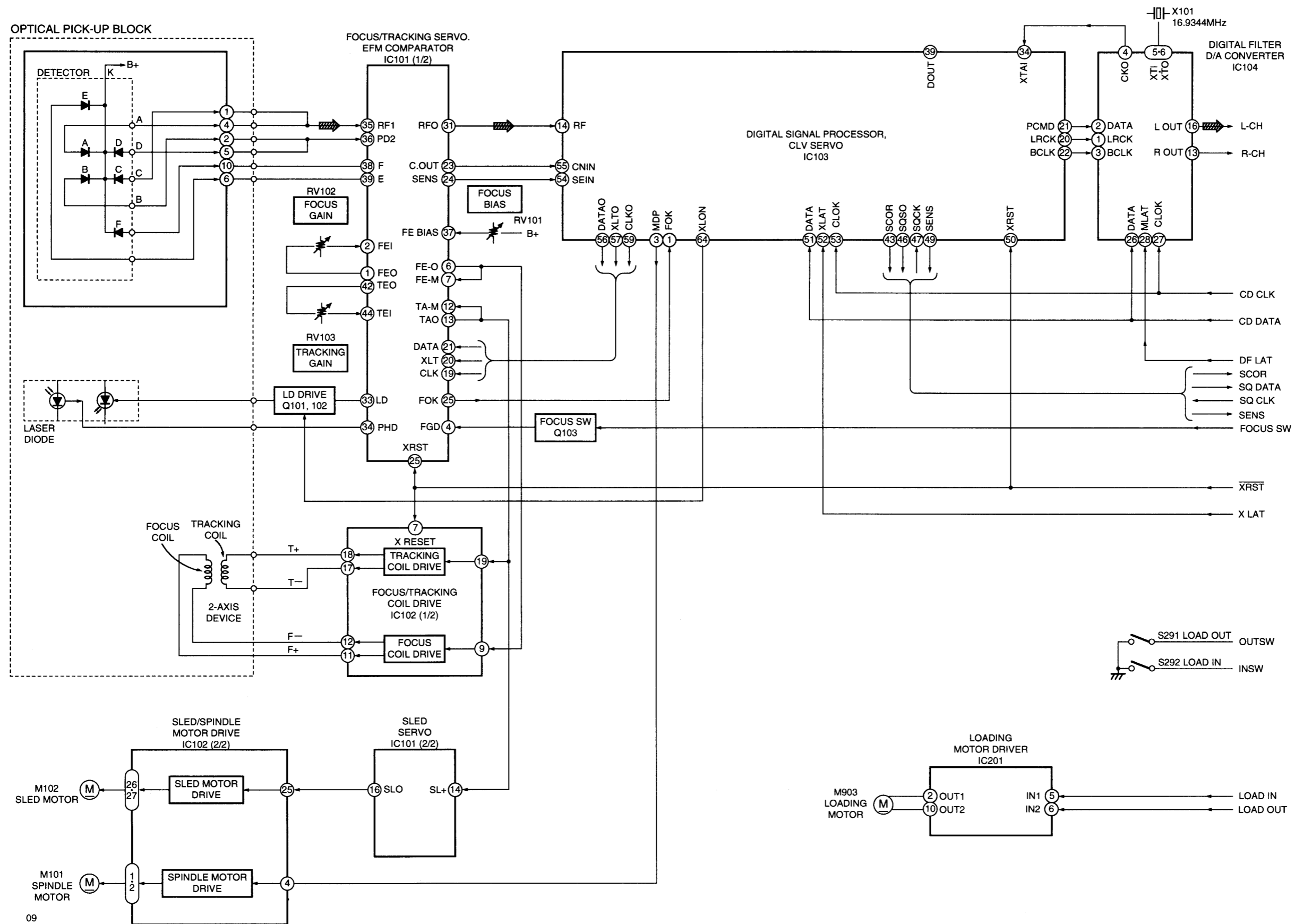
• R CH: Same as L ch  
 • SIGNAL PATH  
 >> :PB (DECK A)  
 >> :PB (DECK B)  
 >> :REC (DECK B)

09



(B) MAIN SECTION (Page 29)

— CD SECTION —



(C)  
MAIN SECTION  
(Page 29)

· R CH: Same as Lch  
· SIGNAL PATH

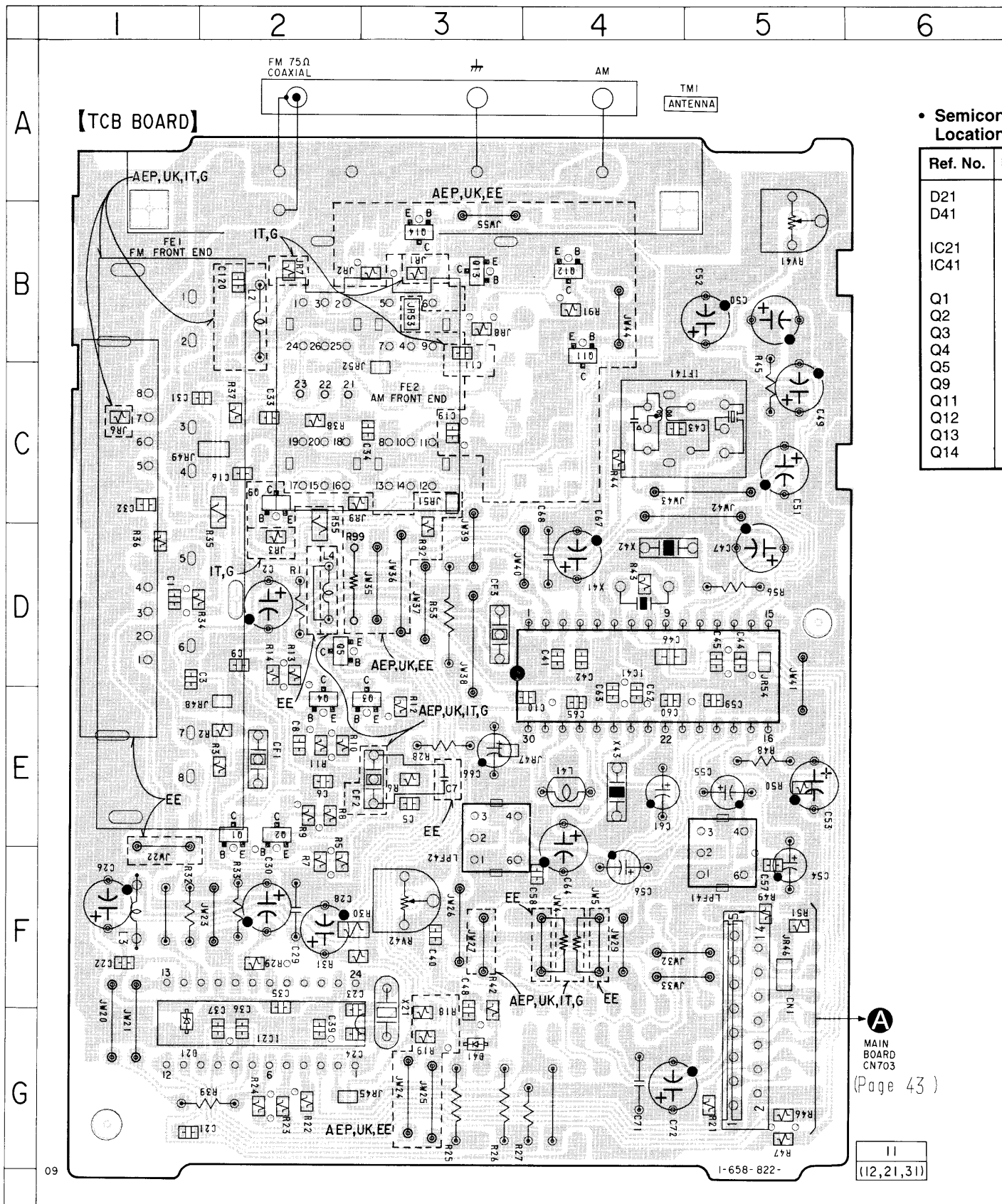
▬ : CD





6-3. PRINTED WIRING BOARD — TUNER SECTION —  
(AEP, UK, G, IT, EE MODEL)

• See page 18 for Circuit Boards Location.

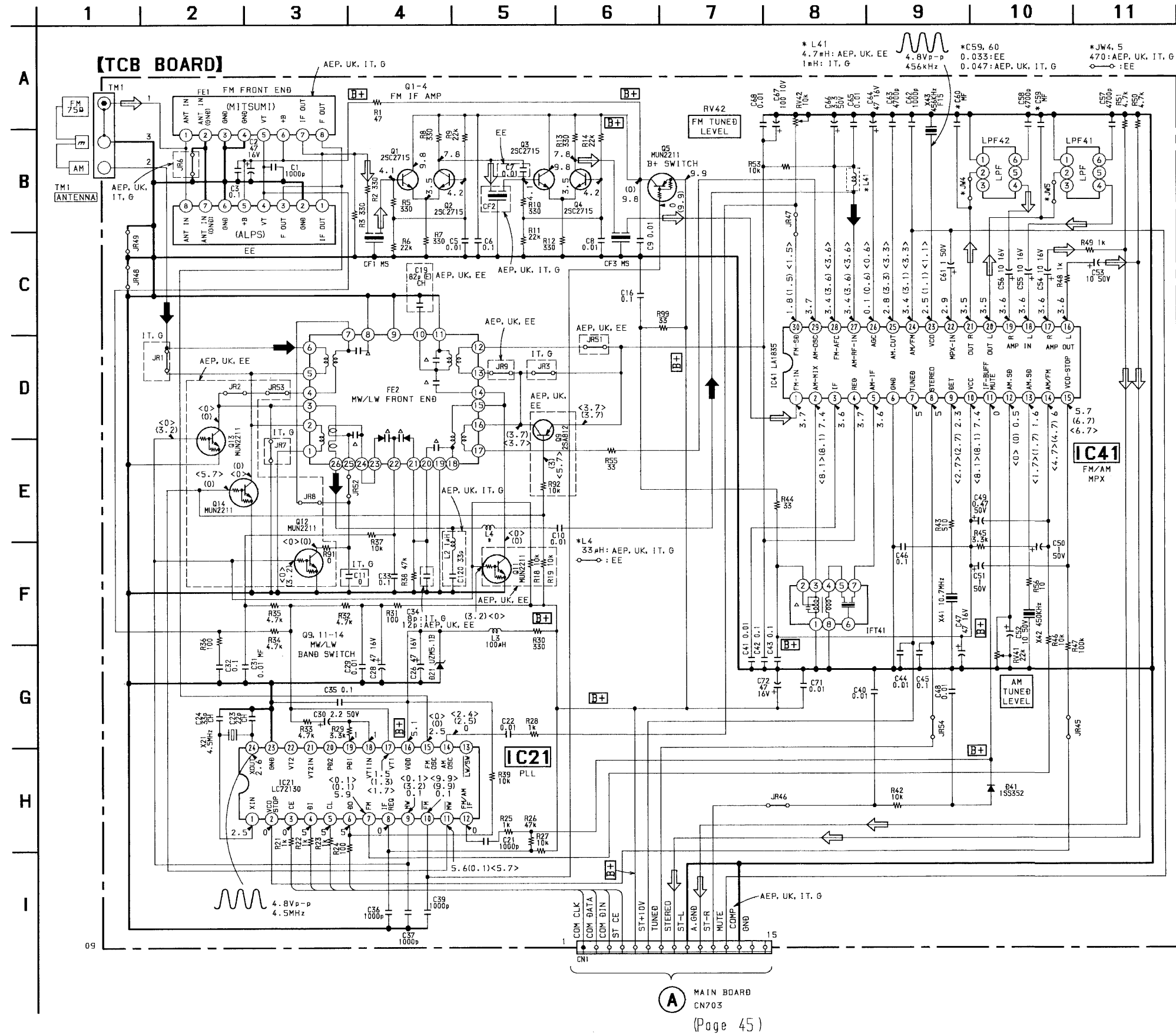


• Semiconductor Location

Ref. No.	Location
D21	G-1
D41	G-3
IC21	G-2
IC41	D-4
Q1	F-2
Q2	F-2
Q3	F-3
Q4	F-3
Q5	D-2
Q9	C-4
Q11	B-2
Q12	B-3
Q13	B-3
Q14	D-3

6-4. SCHEMATIC DIAGRAM — TUNER SECTION —  
(AEP, UK, G, IT, EE MODEL)

• See page 40 for IC Block Diagrams.



NOTE

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\mu\text{F}$ :  $\mu\text{F}$ , 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- $\Delta$  : internal component.
- $\square$  : panel designation.
- $\text{B+}$  : B+ Line.
- $\square$  : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- ( ) : MW
- < > : LW
- Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Abbreviation  
G : German model.  
IT : Italian model.  
EE : East European model.
- Signal path.  
 $\Rightarrow$  : FM  
 $\Rightarrow$  : AM

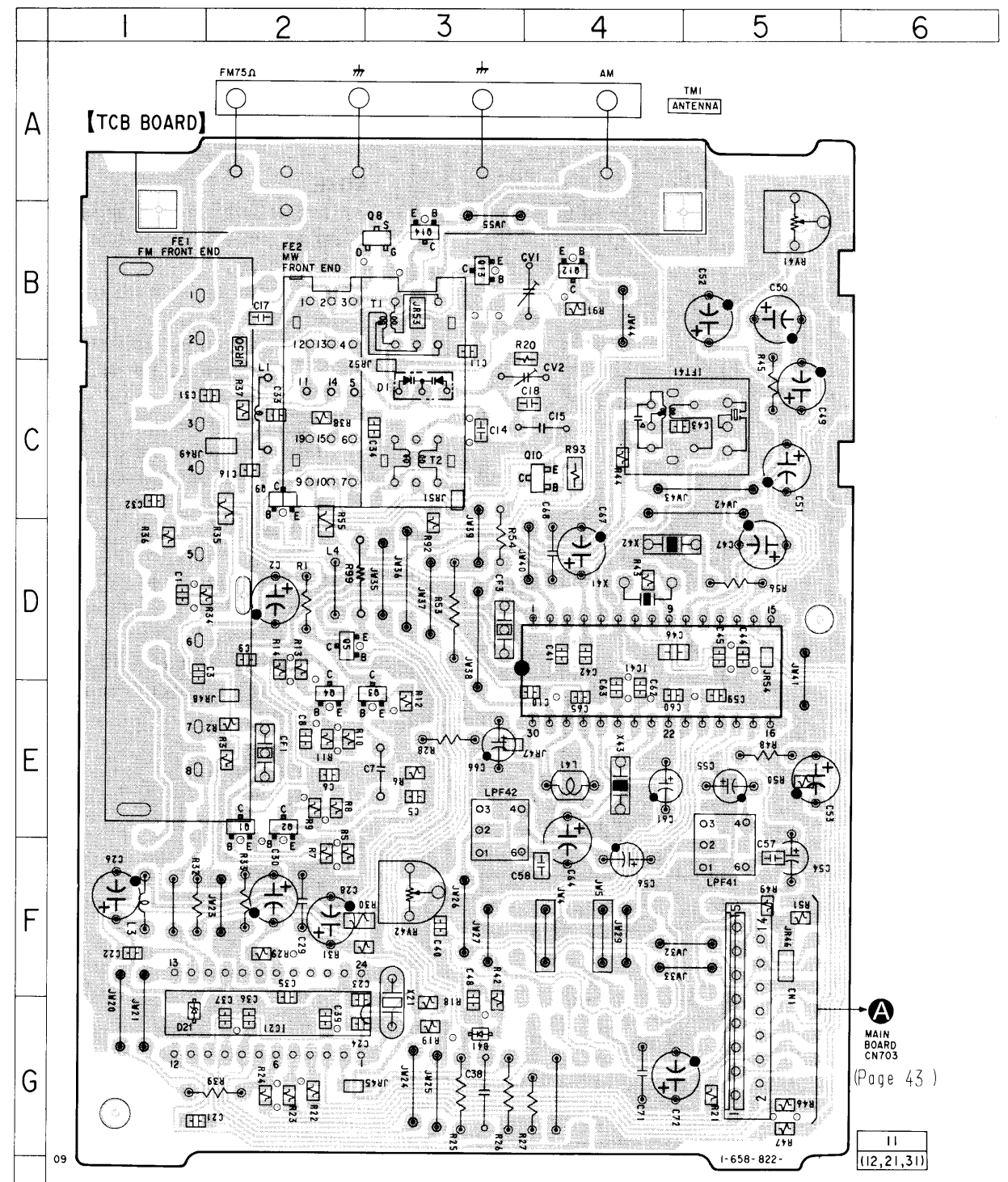
- Note:
- $\circ$  : parts extracted from the component side.
  - $\Delta$  : Internal component.
  - $\square$  : Pattern from the side which enable seeing.

- Abbreviation  
G : German model.  
IT : Italian model.  
EE : East European model.

6-5. PRINTED WIRING BOARD — TUNER SECTION —  
(E, EA, SP, MY, TW, HK, IA, JE MODEL)  
• See page 18 for Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location
D1	C-3
D21	G-2
D41	G-4
D42	H-4
D43	H-4
IC21	G-2
IC41	F-5
Q1	F-2
Q2	F-3
Q3	F-3
Q4	F-3
Q5	F-3
Q8	B-3
Q9	D-3
Q10	D-4
Q12	B-5
Q13	B-4
Q14	B-3



Note:

- : parts extracted from the component side.
- △ : Internal component.
- ▨ : Pattern from the side which enable seeing.

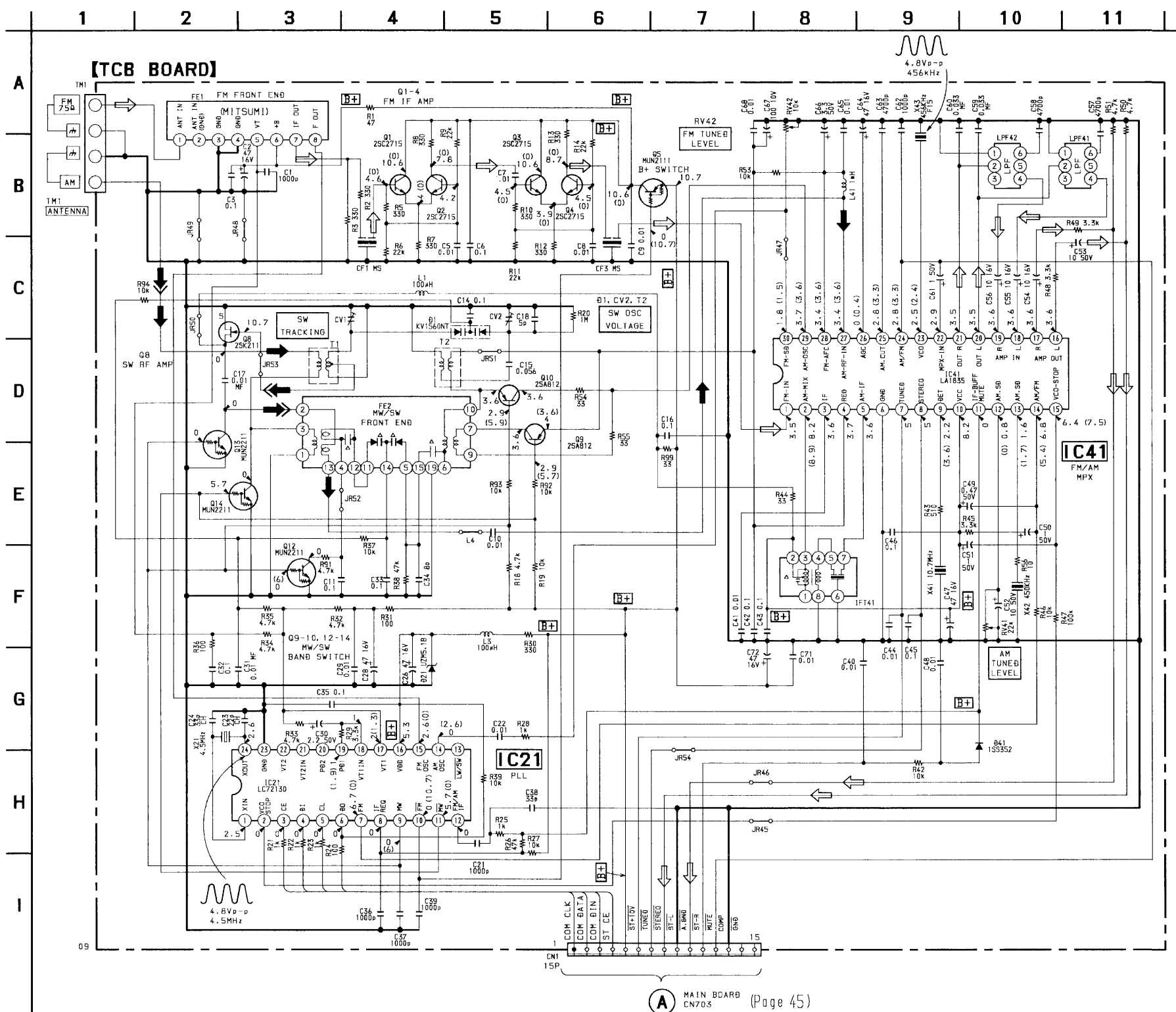
• Abbreviation

- EA : Saudi Arabia model.
- SP : Singapore model.
- MY : Malaysia model.

TW : Taiwan model.

- HK : Hong Kong model.
- IA : Indonesian model.
- JE : Tourist model.

6-6. SCHEMATIC DIAGRAM — TUNER SECTION —  
(E, EA, SP, MY, TW, HK, IA, JE MODEL)



NOTE

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF} = \mu\mu\text{F}$  50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- $\Delta$  : internal component.
- $\square$  : panel designation.
- $B+$  : B+ Line.
- $\square$  : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions, no mark:FM ( ) : AM
- Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Abbreviation  
EA : Saudi Arabia model.  
HK : Hong Kong model.  
SP : Singapore model.  
MY : Malaysia model.  
TW : Taiwan model.  
IA : Indonesian model.  
JE : Tourist model.
- Signal path.  
↗ : FM  
↘ : MW  
↕ : SW



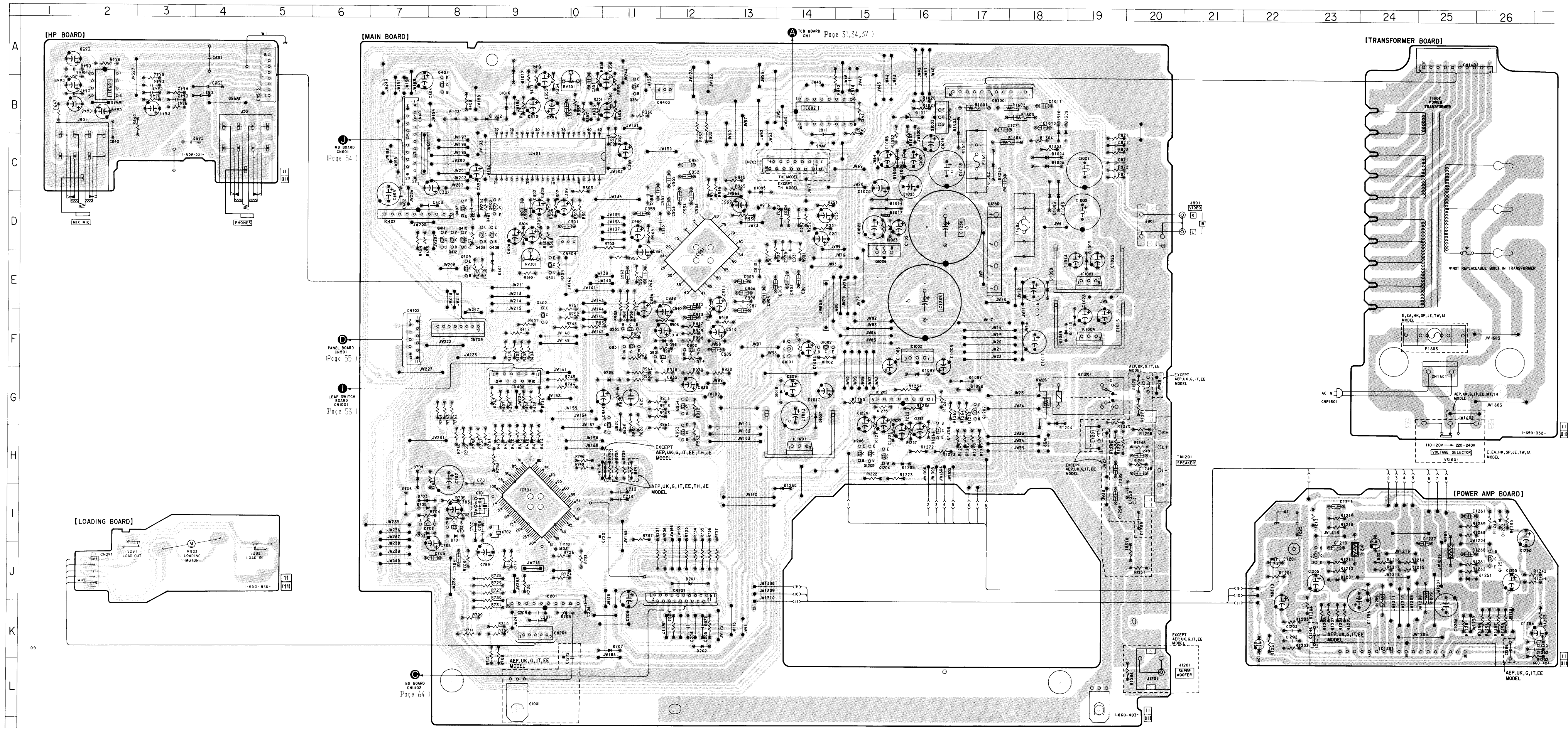
6-9. PRINTED WIRING BOARD — MAIN SECTION —  
 • See page 18 for Circuit Boards Location. • See page 49 for Schematic Diagram. (MAIN BOARD (2/2))

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D201	J-12	IC201	J-10
D202	K-12	IC401	C-9
D205	K-10	IC402	D-7
D401	E-9	IC601	B-2
D701	I-8	IC701	I-9
D702	I-7	IC702	I-7
D703	I-7	IC802	B-14
D704	H-7	IC901	D-12
D705	I-7	IC1001	H-14
D706	H-7	IC1002	F-16
D707	K-11	IC1003	E-19
D708	G-11	IC1004	F-19
D1001	C-17	IC1201	K-24
D1002	C-17	IC1202	G-15
D1003	D-18		
D1004	C-18	Q301	E-10
D1005	D-18	Q351	B-11
D1006	C-18	Q401	A-8
D1007	G-14	Q402	E-9
D1008	C-15	Q403	D-9
D1009	D-19	Q406	D-9
D1010	F-19	Q407	D-8
D1011	B-16	Q408	D-8
D1013	D-15	Q409	E-8
D1014	D-15	Q410	D-8
D1016	B-9	Q411	D-8
D1017	A-9	Q412	D-8
D1018	G-13	Q701	I-8
D1021	B-8	Q820	G-11
D1022	B-9	Q901	F-11
D1023	D-15	Q902	F-12
D1059	E-18	Q951	F-11
D1069	F-18	Q952	F-11
D1095	C-13	Q953	G-12
D1096	F-12	Q954	G-12
D1097	G-17	Q1001	F-14
D1098	G-17	Q1002	F-14
D1099	F-16	Q1003	B-16
D1201	J-23	Q1006	E-15
D1202	I-26	Q1201	J-23
D1204	G-18	Q1204	H-15
D1205	H-16	Q1205	H-15
D1230	H-14	Q1206	H-16
D1250	D-17	Q1207	G-17
D1251	J-26	Q1208	H-16
D1309	B-18	Q1251	J-26
D1310	B-18		

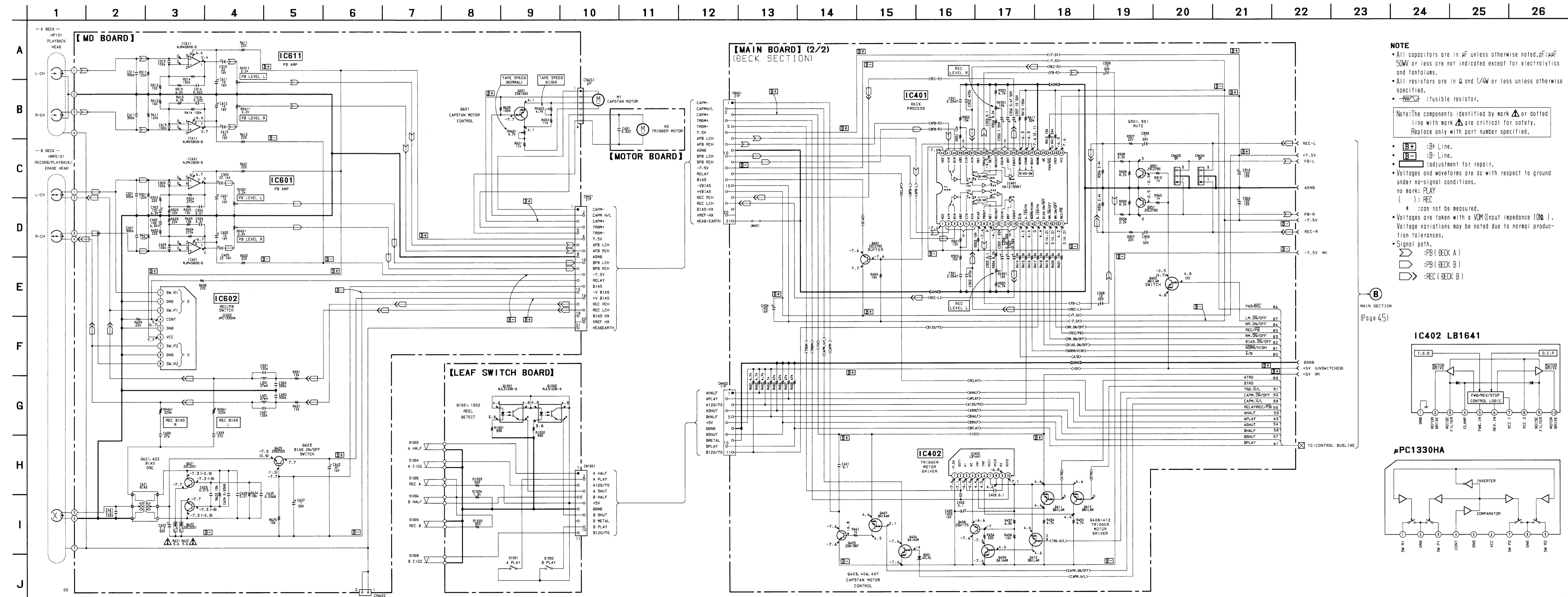
**Note:**

- : parts extracted from the component side.
- △ : Internal component.
- ▒ : Pattern from the side which enable seeing.
- Abbreviation
  - G : German model.
  - IT : Italian model.
  - EE : East European model.
  - EA : Saudi Arabia model.
  - SP : Singapore model.
  - MY : Malaysia model.
  - TW : Taiwan model.
  - HK : Hong Kong model.
  - TH : Thailand model.
  - IA : Indonesian model.
  - JE : Tourist model.





6-11. SCHEMATIC DIAGRAM — DECK SECTION —  
• See page 42 for Printed Wiring Board. (MAIN BOARD)



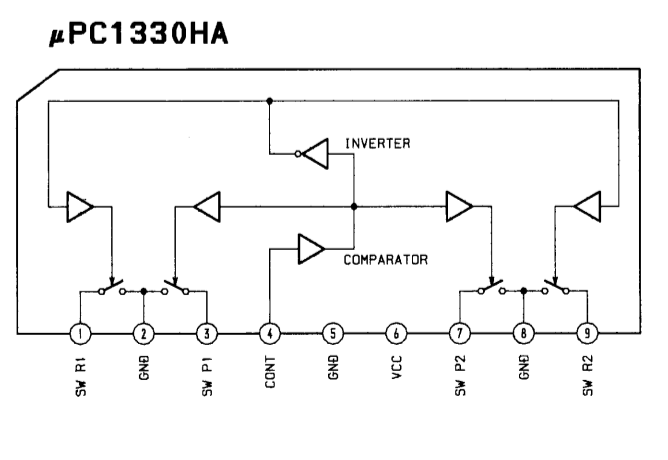
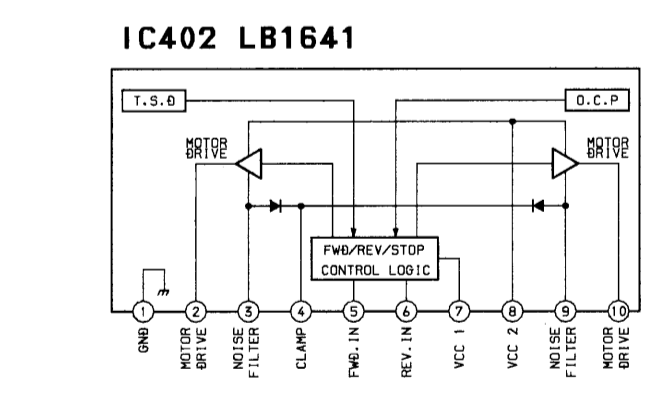
**NOTE**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\mu\text{F}$ :  $\mu\text{F}$ , 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- $\text{R}_{\text{fus}}$ : fusible resistor.

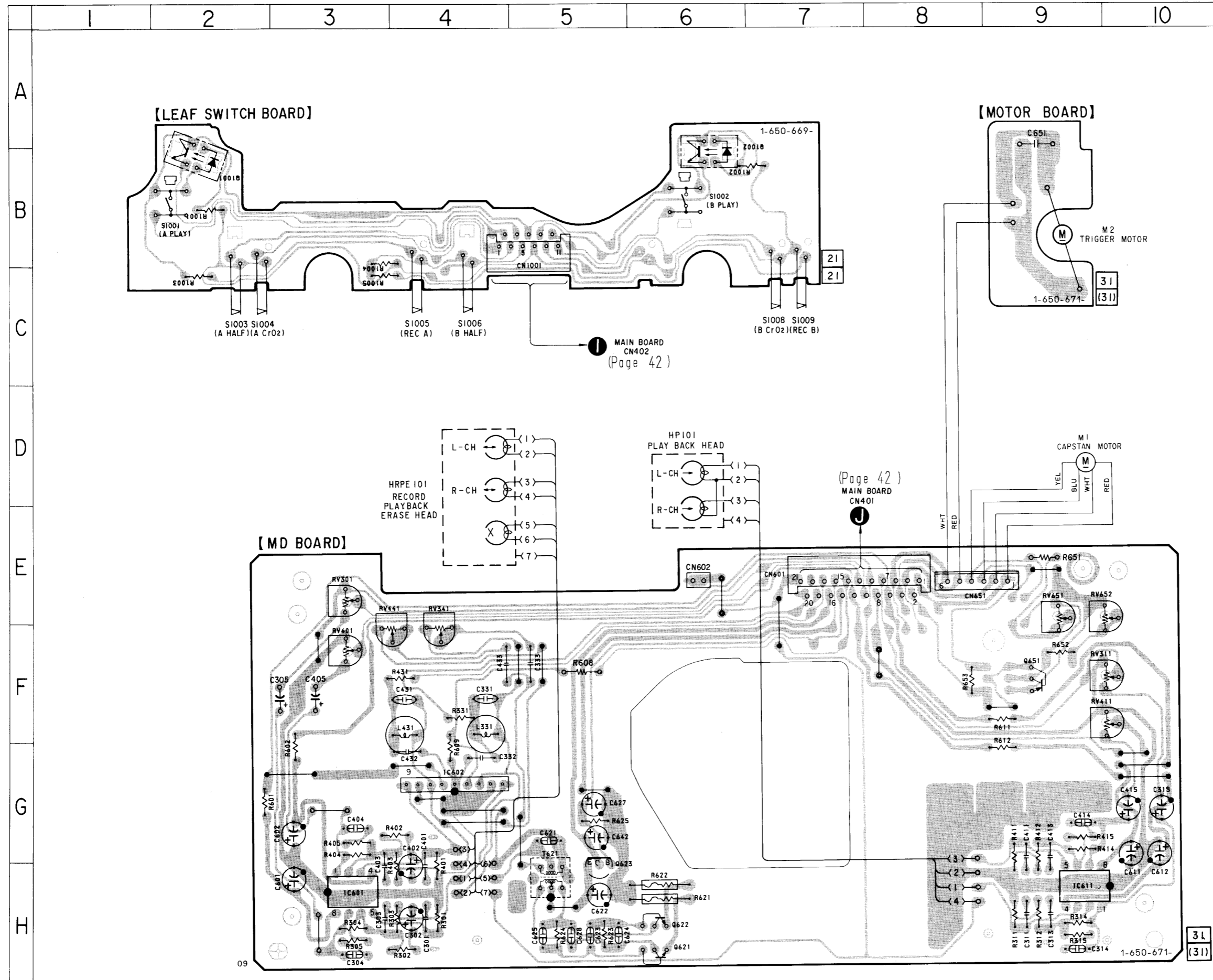
Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

- $\text{B}+$ : B+ Line.
- $\text{B}-$ : B- Line.
- $\text{B}$ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- no mark: PLAY
- ( ): REC
- \* : can not be measured.
- Voltages are taken with a VOM (input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\text{B}+$ : B+ (DECK A)
- $\text{B}$ : B+ (DECK B)
- $\text{B}$ : REC (DECK B)

(Page 45)



6-12. PRINTED WIRING BOARD — DECK SECTION —  
• See page 18 for Circuit Boards Location.



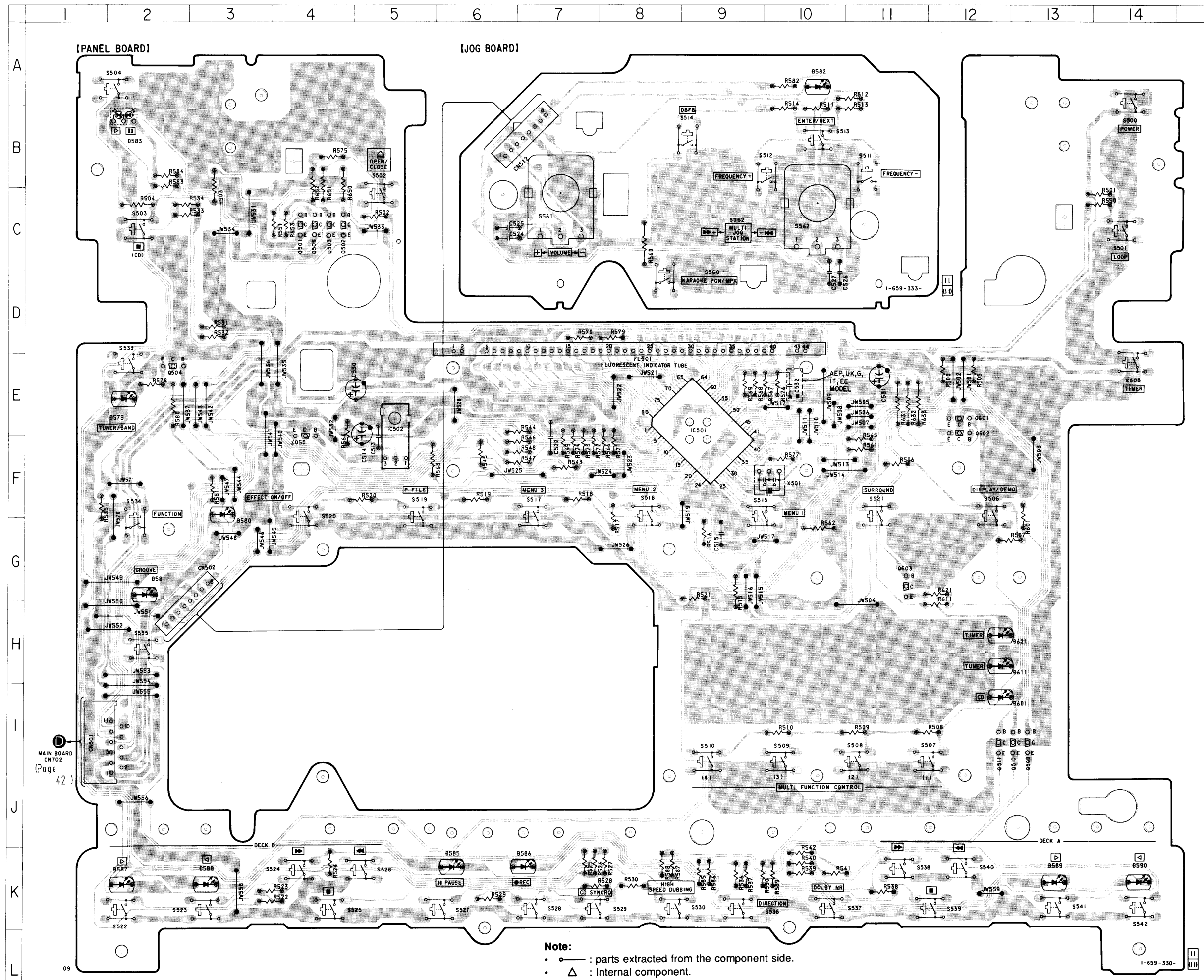
• Semiconductor Location

Ref. No.	Location
IC601	H-3
IC602	G-4
IC611	H-9
Q621	I-6
Q622	H-6
Q623	H-5
Q651	F-9
Q1001	B-2
Q1002	B-6

Note:  
• : parts extracted from the component side.  
• : Pattern from the side which enable seeing.

• Semiconductor Location

Ref. No.	Location
D579	E-2
D580	F-3
D581	G-2
D582	A-10
D583	B-2
D585	K-6
D586	K-6
D587	K-2
D588	K-3
D589	K-13
D590	K-14
D601	I-12
D611	H-12
D621	H-12
IC501	E-9
IC502	E-5
Q501	C-4
Q502	C-4
Q503	C-4
Q504	E-2
Q507	F-4
Q508	C-4
Q509	I-13
Q510	I-12
Q511	I-12
Q601	E-12
Q602	E-12
Q603	G-11

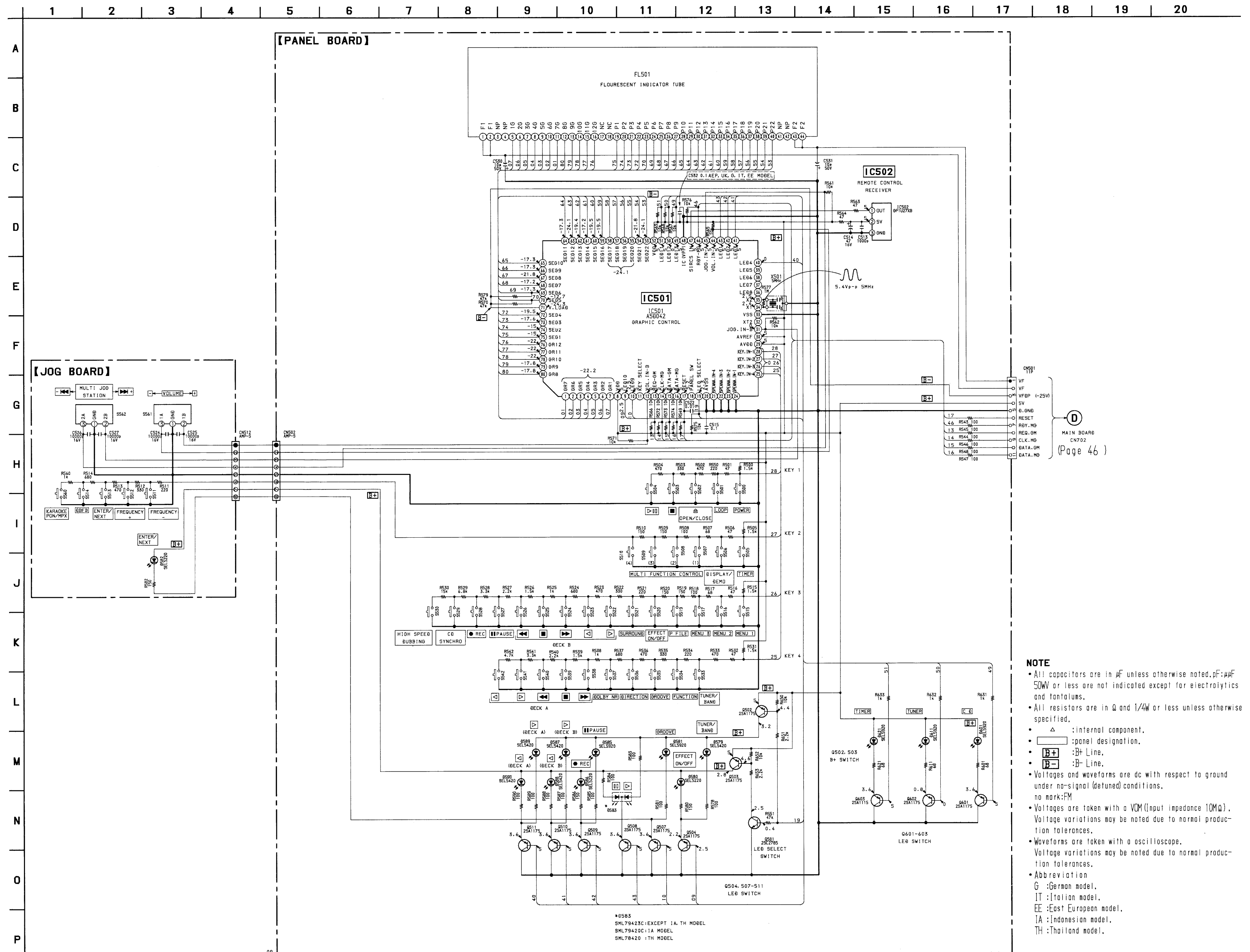


MAIN BOARD CN702  
(Page 42)

**Note:**  
 • — : parts extracted from the component side.  
 • △ : internal component.  
 • ▨ : Pattern from the side which enable seeing.

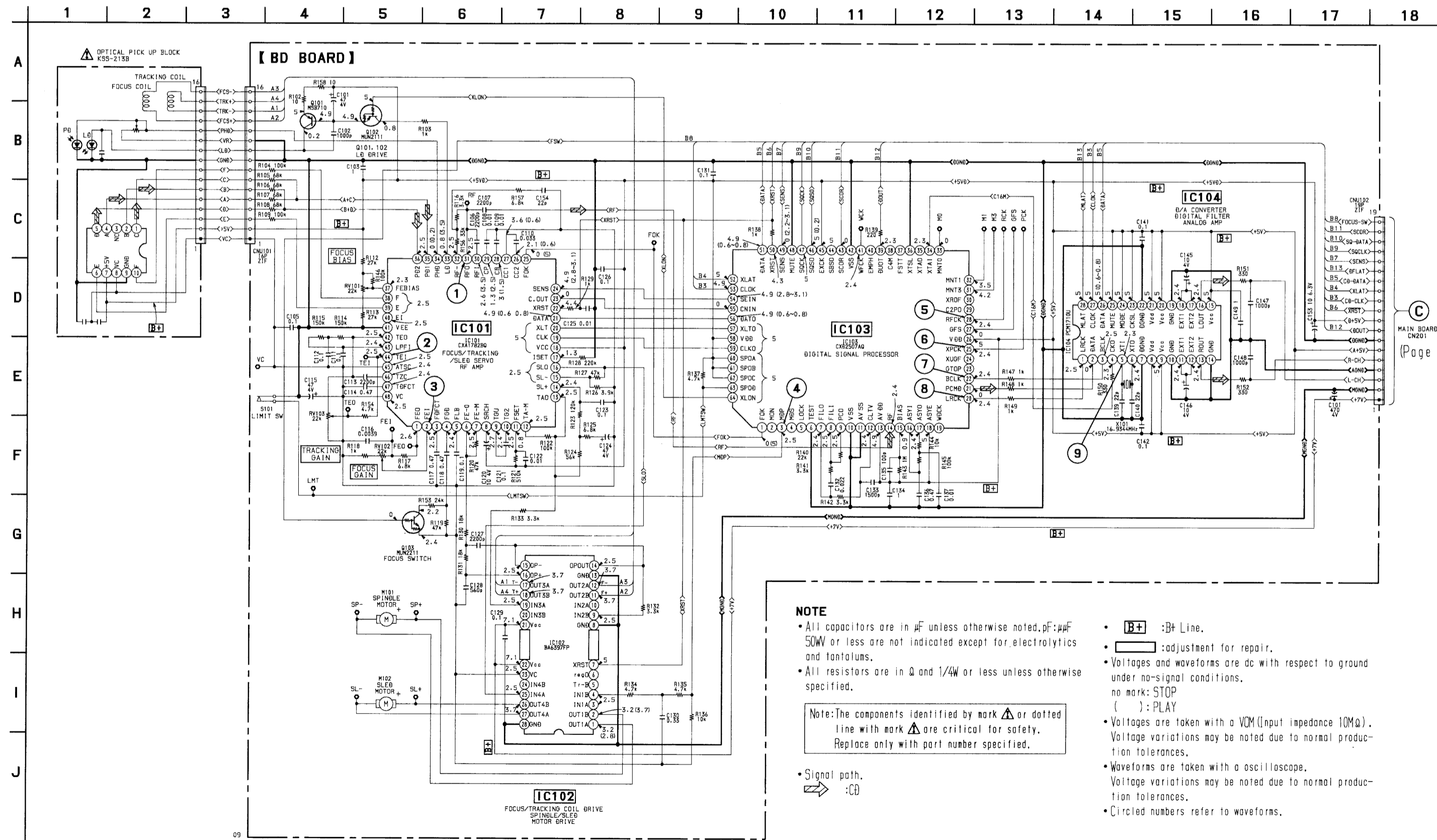
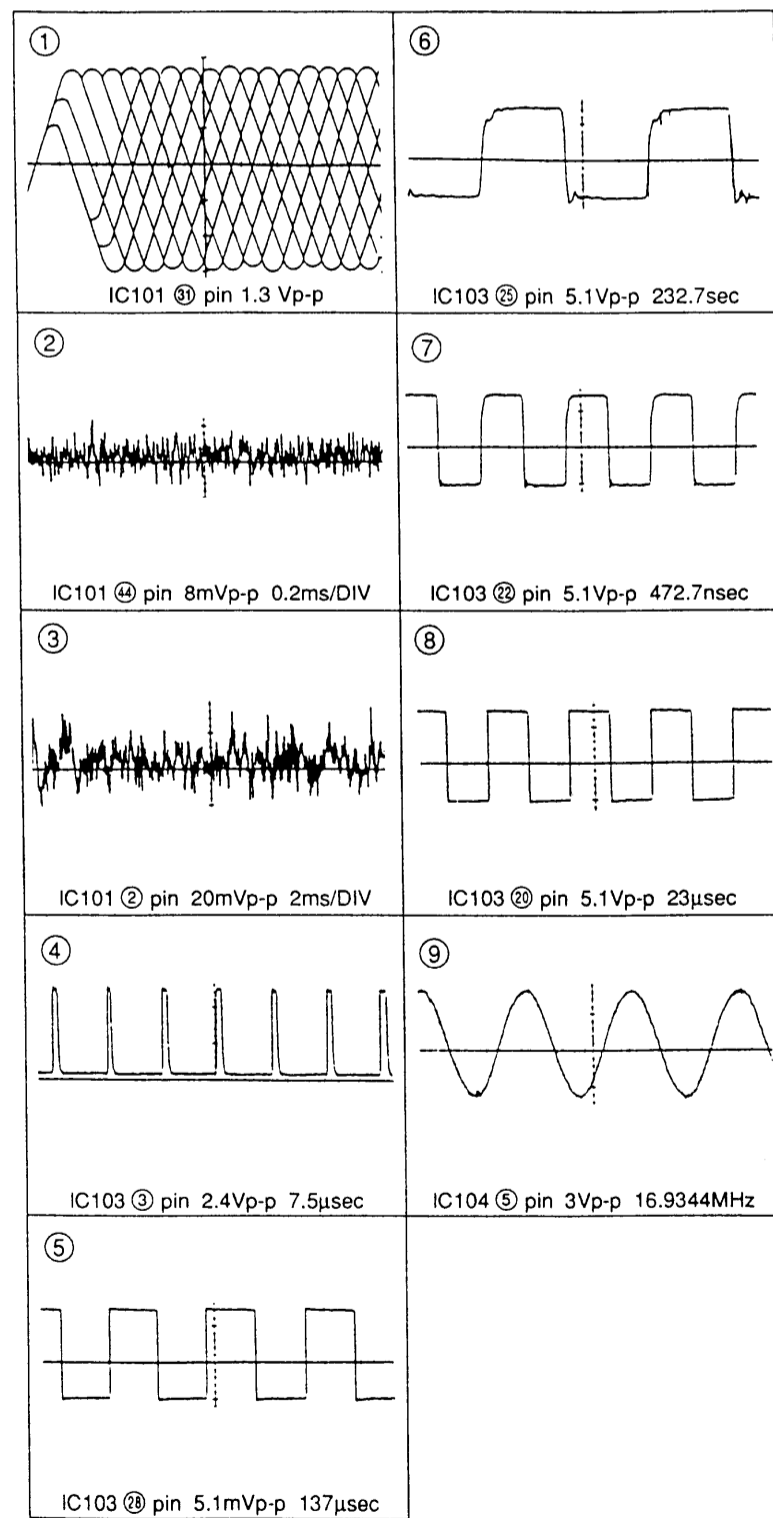


6-14. SCHEMATIC DIAGRAM — PANEL SECTION —  
• See page 67 for IC Pin Function. (IC501)



6-15. SCHEMATIC DIAGRAM — CD SECTION —  
 • See page 65 for IC Block Diagrams.

• Waveforms



**NOTE**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted, pF: pF
- 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.

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

- Signal path:  $\Rightarrow$
- CD:  $\Rightarrow$
- $\square$ : B+ Line.
- $\square$ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- no mark: STOP
- ( ): PLAY
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

(Page 45)

6-16. PRINTED WIRING BOARD — CD SECTION —  
 • See page 18 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
IC101	E-9
IC102	C-9
IC103	E-3
IC104	F-11
Q101	D-7
Q102	D-8
Q103	F-6

**Note:**  
 • ○ : parts extracted from the component side.  
 • ● : Through hole.  
 • [Pattern] : Pattern from the side which enable seeing.  
 (The other layer's patterns are not indicated.)



## 6-18. IC PIN FUNCTIONS

### • IC501 GRAPHIC CONTROL (ASD042)

Pin No.	Pin Name	I/O	Function
1 to 7	GR7-1	O	Fluorescent indicator tube grid signal output.
8	V <sub>DD</sub>	–	+5V
9, 10	LED9, 10	O	LED drive signal output
11	KEY SELECT	O	Not used. (Open)
12	VOL IN B	I	Volume encoder signal input.
13	REQ GM	I/O	Request signal from/to master control.
14	CLK MG	I	Serial clock input.
15	DATA GM	O	Serial data output to master control.
16	DATA MG	I	Serial data input from master control.
17	RESET	I	Reset signal input.
18	PANEL SW	I	CD door open detection input. (Not used) (Open)
19	LED SELECT	O	LED select signal output.
20	AV <sub>SS</sub>	–	Ground
21 to 24	SPEANA IN1-4	I	Spectram analyzer signal input. (Connected to ground)
25 to 28	KEY IN1-4	I	Key matrix input.
29	AV <sub>DD</sub>	–	+5V
30	AV <sub>REF</sub>	–	
31	JOG IN B	I	Jog dial encoder signal input.
32	XT2	I	Not used. (open)
33	V <sub>SS</sub>	–	Ground
34	X1	I	X'tal (5 MHz).
35	X2	O	
36 to 39	LED8-5	O	LED drive signal output. (Not used) (open)
40, 41	LED4,3	O	LED drive signal output.
42, 43	LED2,1	O	
44	VOL IN A	I	Volume encoder signal input.
45	JOG IN A	I	Jog dial encoder signal input.
46	RDY MG	I	Ready signal from master control.
47	SIRCS IN	I	SIRCS signal input.
48	IC (VPP)	–	Ground
49, 50	LED12, 13	O	LED drive signal output.
51	LED11	O	
52	V <sub>DD</sub>	–	+5V
53 to 70	SEG22-5	O	Fluorescent indicator tube segment signal output.
71	V. LOAD	–	–25V for Fluorescent indicator tube.
72 to 75	SEG4-1	O	Fluorescent indicator tube segment signal output.
76 to 80	GR12-8	O	Fluorescent indicator tube grid signal output.

• IC701 MASTER CONTROL (TMP87CP64YF)

Pin No.	Pin Name	I/O	Function
1	V <sub>SS</sub>	–	Ground
2	XOUT	O	X'tal (10 MHz).
3	XIN	I	
4	$\overline{\text{RESET}}$	I	Reset signal input.
5	XOUT	O	X'tal for clock (32.768 MHz).
6	XIN	I	
7	GND (test)	–	Ground
8	$\overline{\text{AC CUT}}$	I	Back up signal input.
9	SUPER WOOFER ON	O	Not used. (Connected to ground)
10	ST-MUTE ON	O	Mute signal output for tuner.
11	$\overline{\text{I80-A-PLAY}}$	I	Tape detection signal input. (Not used) (Connected to ground)
12	$\overline{\text{I80-B-PLAY}}$	I	
13	$\overline{\text{I80-B-REC}}$	I	
14	CLK CHK	I	Not used. (pull up)
15	UP-SW	I	Disc table up detect. (Not used) (Connected to ground)
16	IN-SW	I	Loading in detection signal input.
17	ENCODER-0	I	Disctray address detect encoder input. (Not used) (Connected to ground)
18	ENCODER-1	I	
19	ENCODER-2	I	
20	$\overline{\text{OUT SW OPEN}}$	I	Loading out detection signal input.
21	LOAD IN	O	Loading motor control signal output.
22	LOAD OUT	O	
23	TBL-L	O	Table motor control signal output. (Not used) (Open)
24	TBL-R	O	
25	SCOR	I	Sub-code sync signal input.
26	TBL-SENS	I	CD Table sensor signal input. (Not used) (Connected to ground)
27	RDS INT	I	RDS data start input. (Not used) (Connected to ground)
28	RDS DATA	I	RDS data start output. (Not used) (Connected to ground)
29	DF LAT	O	Latch signal for digital filter.
30	SENS	I	Table sence signal input.
31	$\overline{\text{XRST}}$	O	Reset signal output for CD.
32	MG-RDY	O	Ready signal to graphic control.
33	ADJ	I	Test mode input.
34	$\overline{\text{GM-REQ}}$	I	Request signal from graphic control.
35	MG-CLK	O	Clock signal to graphic control.
36	GM-DATA	I	Data input from graphic control.
37	MG-DATA	O	Data output to graphic control.
38	CD-CLK	O	Clock output. Serial bus line.
39	ADJ-2	I	Test mode input.
40	CD-DATA	O	Data output. Serial bus line.

Pin No.	Pin Name	I/O	Function
41	AUB IN	I	Audio bus in/output. (Not used) (Open)
42	AUB OUT	O	
43	FOCUS SW	O	Focus switching signal output.
44	SQ-CLK	O	Subcode Q data read clock output.
45	SQ-DATA	I	Subcode Q data input.
46	X-LAT	O	Latch signal digital signal processor.
47	TEST	I	Test land.
48	VAREF	I	Analog reference voltage input.
49	V <sub>Ass</sub>	-	Ground
50	V <sub>ss</sub>	-	
51	V <sub>DD</sub>	-	+5V
52	SPEC	I	Destination detection setting input.
53	DESTINATION	I	
54	DISC SENS	I	Not used. (Connected to ground)
55	TC RELAY	O	REC/PB select signal output.
56	A-SHUT	I	Control signal input from deck.
57	B-SHUT	I	
58	B-HALF	I	
59	A-HALF	I	
60	220-A-PLAY	I	
61	220-B-PLAY	I	
62	62427 LAT	O	PLL latch output.
63	K-CON-LAT	O	Not used. (Open)
64	VOL LAT (AV)	O	Latch signal for electrical volume. (Not used) (Open)
65	REAR SP RELAY B	O	Not used. (Open)
66	FRONT SP RELAY C	O	
67	POWER ON	O	Power on signal output.
68	CD POWER	O	CD power control signal output.
69	PROLOG LAT	O	Not used. (Open)
70	MUTE	O	Mute signal for AMP.
71	COM CLK	O	PLL clock output.
72	COM DIN	I	PLL data input.
73	COM DATA	O	PLL data output.
74	K CON ON	O	Not used. (Open)
75	LIDDED LED	O	Disc No. LED drive signal output. (Not used) (Open)
76	PROLOG ON	O	PRO LOGIC control output. (Not used) (Open)
77	DBFB-HIGH	O	DBFB switching signal output.
78	URG STB STDBY	I	Not used. (Pull-down)
79	URG STB ON	O	Not used (Open)
80	TC A	O	Deck A, B select output.

Pin No.	Pin Name	I/O	Function
81	$\overline{\text{NORM}}$	O	NORMAL/HIGH control signal output.
82	$\overline{\text{BIAS OFF}}$	O	Bias oscillation output.
83	$\overline{\text{REC MUTE}}$	O	Mute output.
84	$\overline{\text{NR OFF}}$	O	Dolby ON/OFF signal output.
85	PB	O	REC/PB control signal output.
86	$\overline{\text{PASS. AMP/DOLBY}}$	O	Dolby switching signal output.
87	$\overline{\text{LINE MUTE ON}}$	O	Mute signal output for deck.
88	$\overline{\text{CAP. M-HIGH}}$	O	Capstan motor control signal output.
89	A-TRG	O	Trigger motor control signal output.
90	B-TRG	O	
91	$\overline{\text{TRG LOW}}$	O	Trigger motor high/low control signal output.
92	$\overline{\text{CAP M ON}}$	O	Capstan motor ON/OFF control signal output.
93	$\overline{\text{STEREO}}$	I	Stereo detection signal from tuner.
94	$\overline{\text{TUNED}}$	I	Tuned detection signal from tuner.
95	ST-CE	O	Latch signal output for tuner.
96	$\overline{\text{DELAY SEL MIC}}$	O	Not used. (Connected to ground)
97	$\overline{\text{DELAY ON}}$	O	
98	DELAY LEVEL A	O	
99	DELAY LEVEL B	O	
100	V <sub>DD</sub>	–	+5V



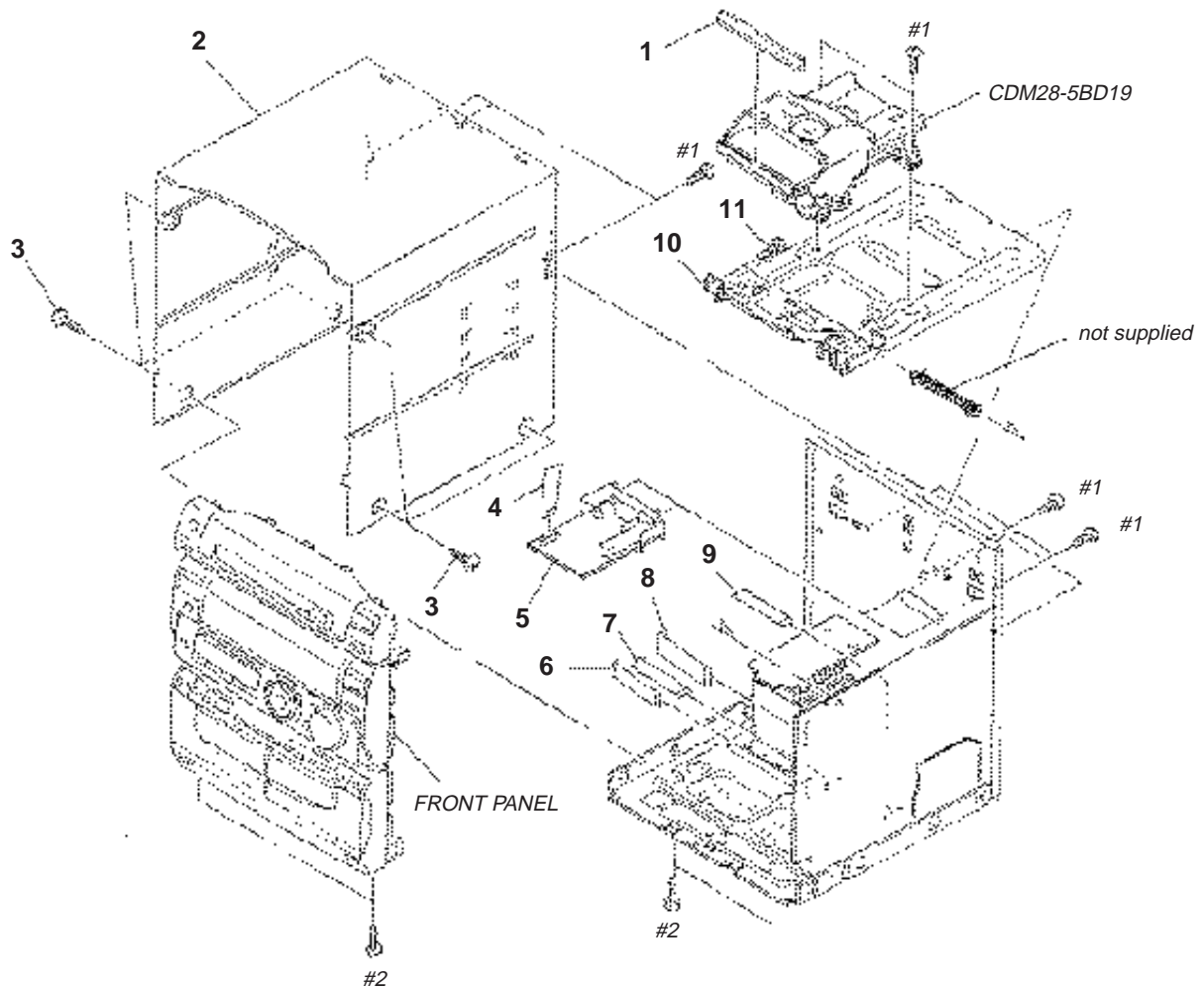
**NOTE:**

- 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.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- Abbreviation  
 G: German model  
 IT: Italian model  
 EE: East European model  
 EA: Saudi Arabia model  
 HK: Hong Kong model  
 SP: Singapore model  
 MY: Malaysia model  
 TW: Taiwan model  
 JE: Tourist model  
 TH: Thailand model  
 IA: Indonesian model

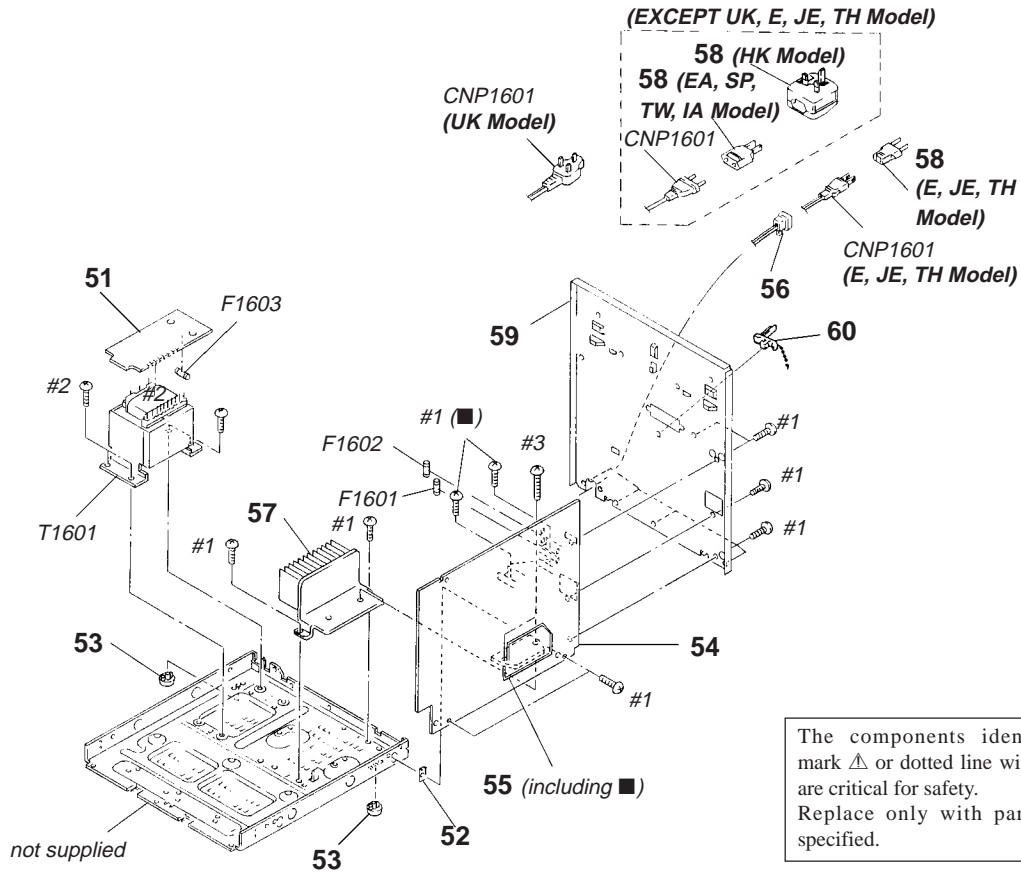
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

**7-1. CASE SECTION**



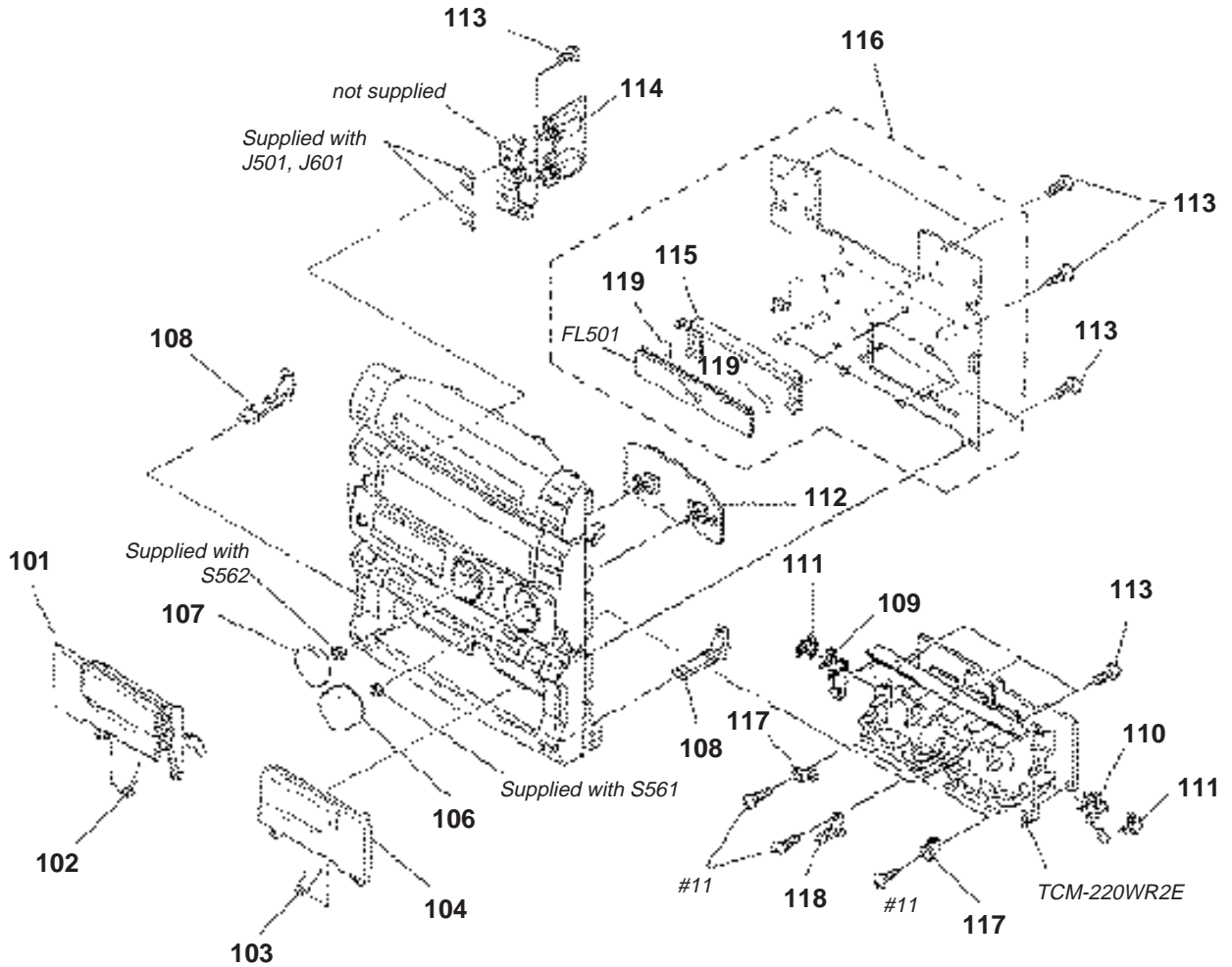
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-978-836-01	PANEL, LOADING		* 5	A-4303-518-A	TCB BOARD (E,EA,HK,MY,SP,TW)	
2	4-978-748-21	CASE (EXCEPT IA)		* 5	A-4303-520-A	TCB BOARD (JE)	
2	4-983-000-01	CASE (IA)		* 5	A-4303-537-A	TCB BOARD (TH)	
3	3-363-099-01	SCREW (CASE 3 TP2)		6	1-769-946-11	WIRE (FLAT TYPE)(11 CORE)	
4	1-751-086-11	WIRE (FLAT TYPE)(13 CORE)(TH)		7	1-769-940-11	WIRE (FLAT TYPE)(11 CORE)	
4	1-773-012-11	WIRE (FLAT TYPE)(15 CORE)(EXCEPT TH)		8	1-773-158-11	WIRE (FLAT TYPE)(21 CORE)	
* 5	A-4303-506-A	TCB BOARD (IA)		9	1-776-166-11	WIRE (FLAT TYPE)(19 CORE)	
* 5	A-4303-514-A	TCB BOARD (AEP,UK)		* 10	4-978-853-01	CHASSIS, CDM	
* 5	A-4303-515-A	TCB BOARD (G,IT)		* 11	4-951-620-01	SCREW (2.6X8), +BVTP	
* 5	A-4303-516-A	TCB BOARD (EE)					

## 7-2. BACK PANEL SECTION



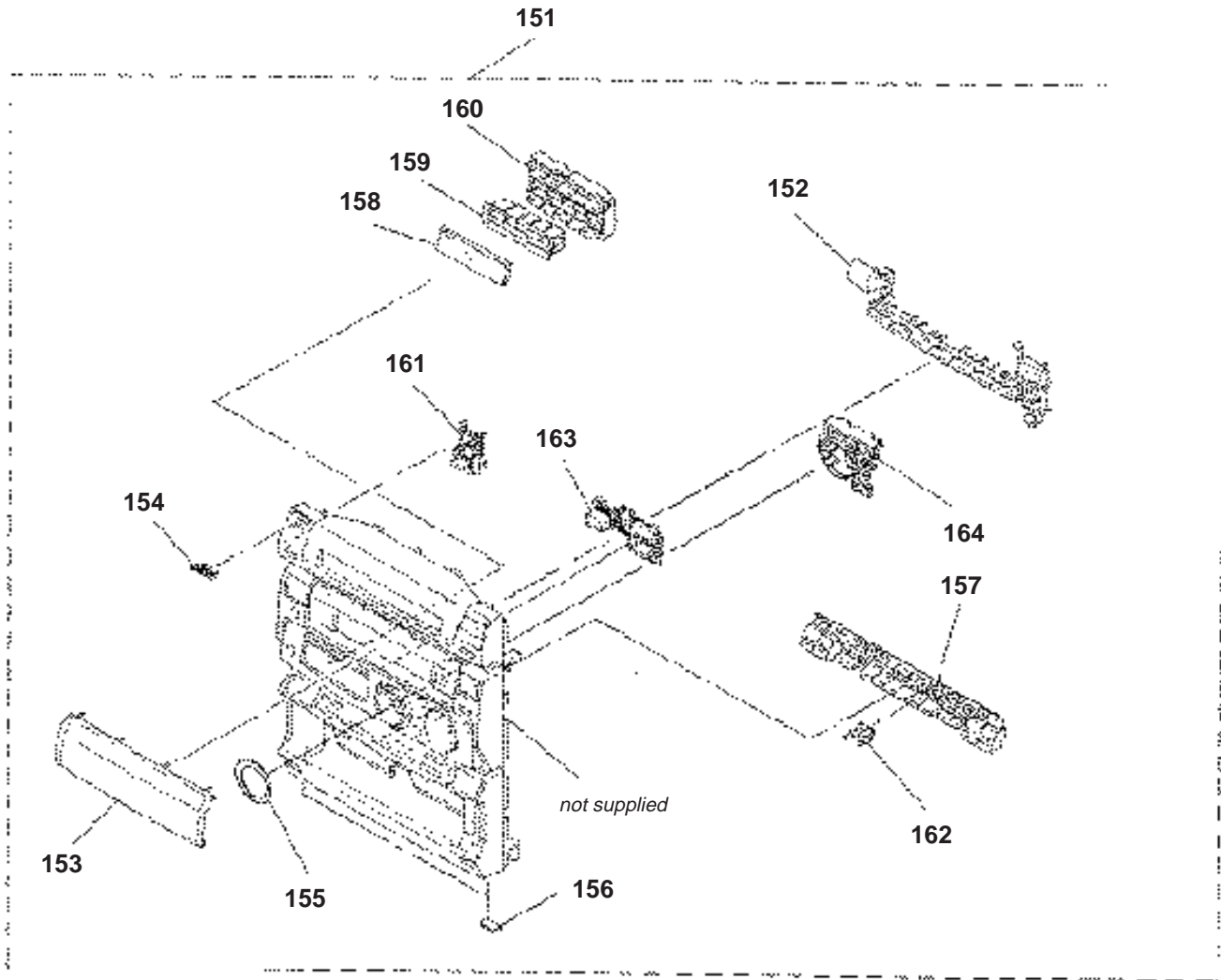
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	1-659-332-11	TRANSFORMER BOARD		* 59	4-979-273-11	PANEL, BACK (UK)	
52	1-537-770-21	TERMINAL BOARD, GROUND		* 59	4-979-273-21	PANEL, BACK (G)	
53	4-965-822-01	FOOT		* 59	4-979-273-31	PANEL, BACK (IT)	
* 54	A-4389-425-A	MAIN BOARD, COMPLETE (AEP,UK)		* 59	4-979-273-41	PANEL, BACK (EE)	
* 54	A-4389-426-A	MAIN BOARD, COMPLETE (G,IT)		* 59	4-979-274-01	PANEL, BACK (E)	
* 54	A-4389-427-A	MAIN BOARD, COMPLETE (EE)		* 59	4-979-274-11	PANEL, BACK (EA,TW)	
* 54	A-4389-428-A	MAIN BOARD, COMPLETE (E,EA,HK,MY,SP,TW)		* 59	4-979-274-21	PANEL, BACK (MY)	
* 54	A-4389-429-A	MAIN BOARD, COMPLETE (JE)		* 59	4-979-274-31	PANEL, BACK (SP)	
* 54	A-4390-120-A	MAIN BOARD, COMPLETE (TH)		* 59	4-979-274-41	PANEL, BACK (HK)	
* 54	A-4390-506-A	MAIN BOARD, COMPLETE (IA)		* 59	4-979-274-51	PANEL, BACK (JE)	
* 55	A-4389-444-A	POWER AMP BOARD, COMPLETE	(AEP,UK,G,IT,EE)	* 59	4-979-274-61	PANEL, BACK (IA)	
* 55	A-4389-445-A	POWER AMP BOARD, COMPLETE	(E,JE,EA,HK,MY,SP,TW,IA)	* 59	4-979-274-71	PANEL, BACK (TH)	
* 55	A-4390-127-A	POWER AMP BOARD, COMPLETE (TH)		60	4-956-370-12	BAND, PLUG FIXED (UK, HK)	
* 55	A-4390-513-A	POWER AMP BOARD, COMPLETE (IA)		Δ CNP1601	1-575-651-11	CORD, POWER (EXCEPT UK,E,JE,TH)	
* 56	3-703-244-00	BUSHING (2104), CORD (EXCEPT E,JE,TH,IA)		Δ CNP1601	1-575-653-11	CORD, POWER (E,JE)	
56	3-703-571-11	BUSHING (S)(4516), CORD (E,JE,TH)		Δ CNP1601	1-751-326-31	CORD, POWER (TH)	
56	4-966-266-01	BUSHING (S)(FBS002), CORD (IA)		Δ CNP1601	1-751-520-21	CORD, POWER (UK)	
* 57	4-979-520-01	HEAT SINK		Δ F1601	1-532-504-31	FUSE, TIME LAG (4.0A 250V)	
Δ 58	1-569-007-11	ADAPTER, CONVERSION 2P (E,JE)		Δ F1602	1-532-504-31	FUSE, TIME LAG (4.0A 250V)	
Δ 58	1-569-008-11	ADAPTER, CONVERSION 2P (EA,SP,TW,IA)		Δ F1603	1-532-503-31	FUSE, TIME LAG (1.6A 250V)	(E,JE,EA,HK,SP,TW,IA)
Δ 58	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)		Δ T1601	1-429-438-11	TRANSFORMER, POWER (AEP,UK,G,IT,EE)	
* 59	4-979-273-01	PANEL, BACK (AEP)		Δ T1601	1-429-465-11	TRANSFORMER, POWER	(E,JE,EA,HK,MY,SP,TW,IA,TH)

### 7-3. FRONT PANEL SECTION 1



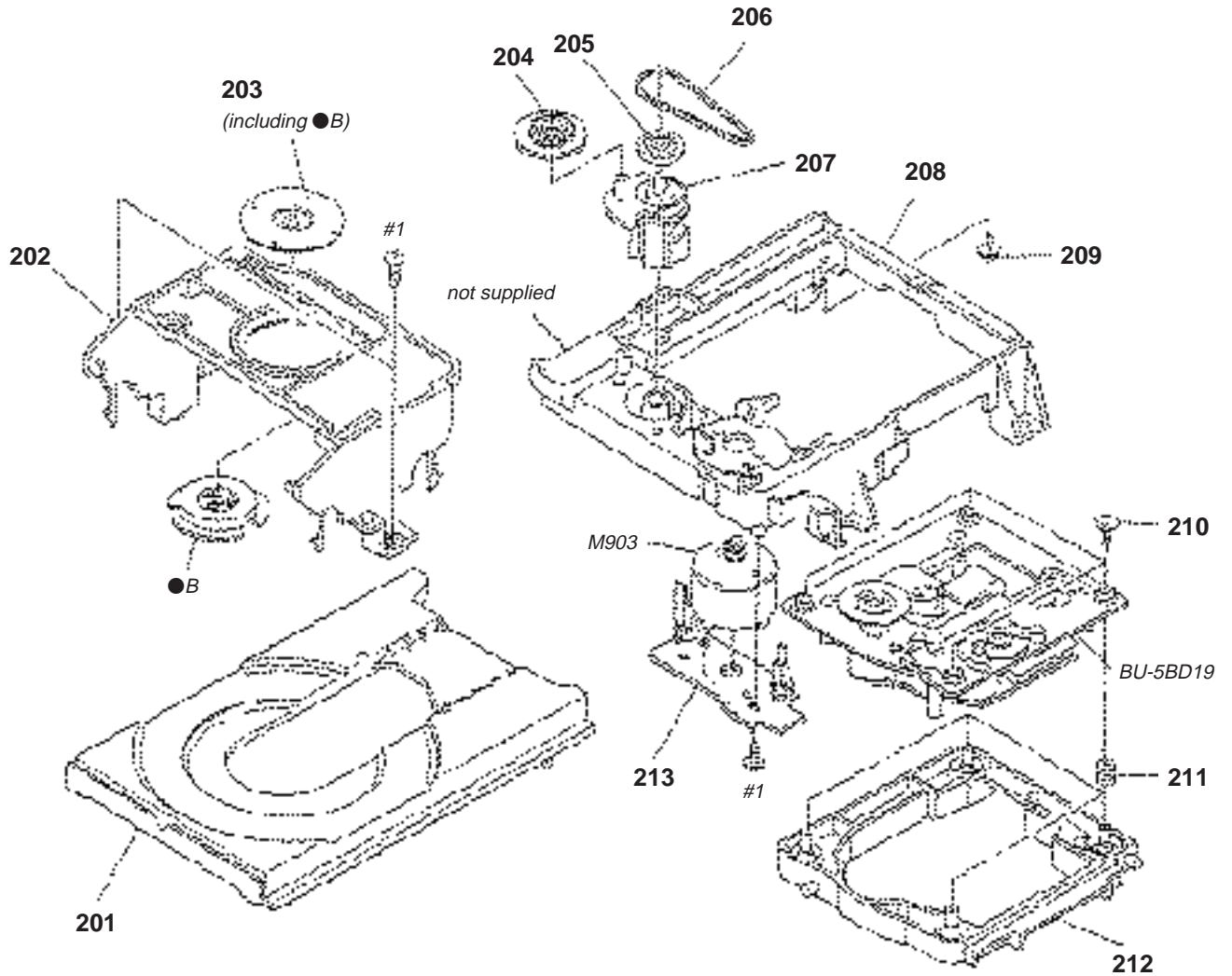
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-4946-727-1	HOLDER (A) ASSY, CASSETTE (EXCEPT IA)		111	3-354-957-01	JOINT (LOCK LEVER)	
101	X-4947-193-1	HOLDER (A) ASSY, CASSETTE (IA)		* 112	1-659-333-11	JOG BOARD	
102	4-959-231-11	SPRING (L), TORSION		113	4-951-620-01	SCREW (2.6X8), +BVTP	
103	4-959-232-11	SPRING (R), TORSION		* 114	1-659-331-11	HP BOARD	
104	X-4946-728-1	HOLDER (B) ASSY, CASSETTE (EXCEPT IA)		* 115	4-978-168-01	HOLDER, FL TUBE	
104	X-4947-194-1	HOLDER (B) ASSY, CASSETTE (IA)		* 116	A-4389-446-A	PANEL BOARD, COMPLETE (AEP,UK,G,IT,EE)	
106	4-978-733-01	KNOB, VOL (EXCEPT IA)		* 116	A-4389-447-A	PANEL BOARD, COMPLETE	(E,JE,EA,HK,MY,SP,TW)
106	4-978-733-11	KNOB, VOL (IA)		* 116	A-4390-128-A	PANEL BOARD, COMPLETE (TH)	
107	4-978-732-01	KNOB, JOG (EXCEPT IA)		* 116	A-4390-514-A	PANEL BOARD, COMPLETE (IA)	
107	4-978-732-11	KNOB, JOG (IA)		117	3-354-963-01	DAMPER	
108	4-980-219-01	BUTTON (EJECT)(E5)		* 118	4-980-439-01	FULCRUM, HOLDER	
* 109	3-354-953-01	LEVER (LOCK LEVER L)		* 119	4-932-810-11	CUSHION (FL)	
* 110	3-354-954-01	LEVER (LOCK LEVER R)		FL501	1-517-489-11	INDICATOR TUBE, FLUORESCENT	

## 7-4. FRONT PANEL SECTION 2



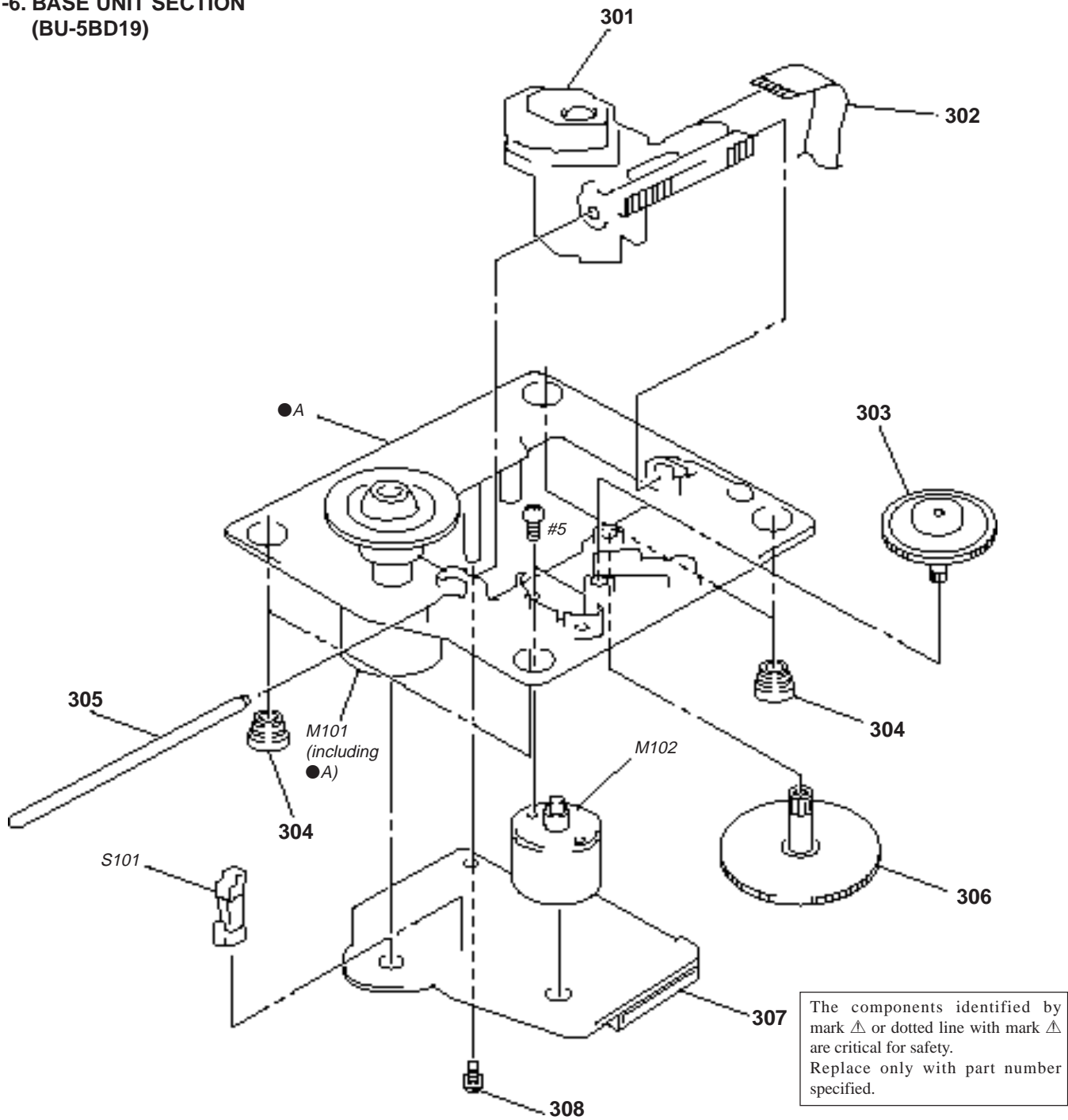
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-4946-712-1	PANEL ASSY, FRONT (AEP,UK,G,IT,EE)		157	X-4946-707-1	BUTTON (TC-PLAY) ASSY	
151	X-4946-714-1	PANEL ASSY, FRONT (E,JE,EA,HK,MY,SP,TW,TH)		158	4-978-744-31	PLATE, ORNAMENTAL, MULTI	
151	X-4947-189-1	PANEL ASSY, FRONT (IA)		159	4-978-742-01	HOLDER, MULTI LED	
152	X-4946-706-1	BUTTON (T/B) ASSY		160	4-978-839-01	BUTTON, MULTI	
153	4-978-716-01	WINDOW, FL		161	4-978-837-01	BUTTON, POWER	
154	4-962-708-11	EMBLEM (4-A), SONY		162	4-978-851-01	INDICATOR, REC	
155	4-978-745-11	PLATE, ORNAMENTAL, JOG		163	X-4946-713-1	BUTTON (CD-PLAY) ASSY	
156	4-930-336-61	FOOT (FELT)		164	X-4946-801-1	BUTTON (ENTER/NEXT)(E5) ASSY	

### 7-5. CD MECHANISM SECTION (CDM28-5BD19)



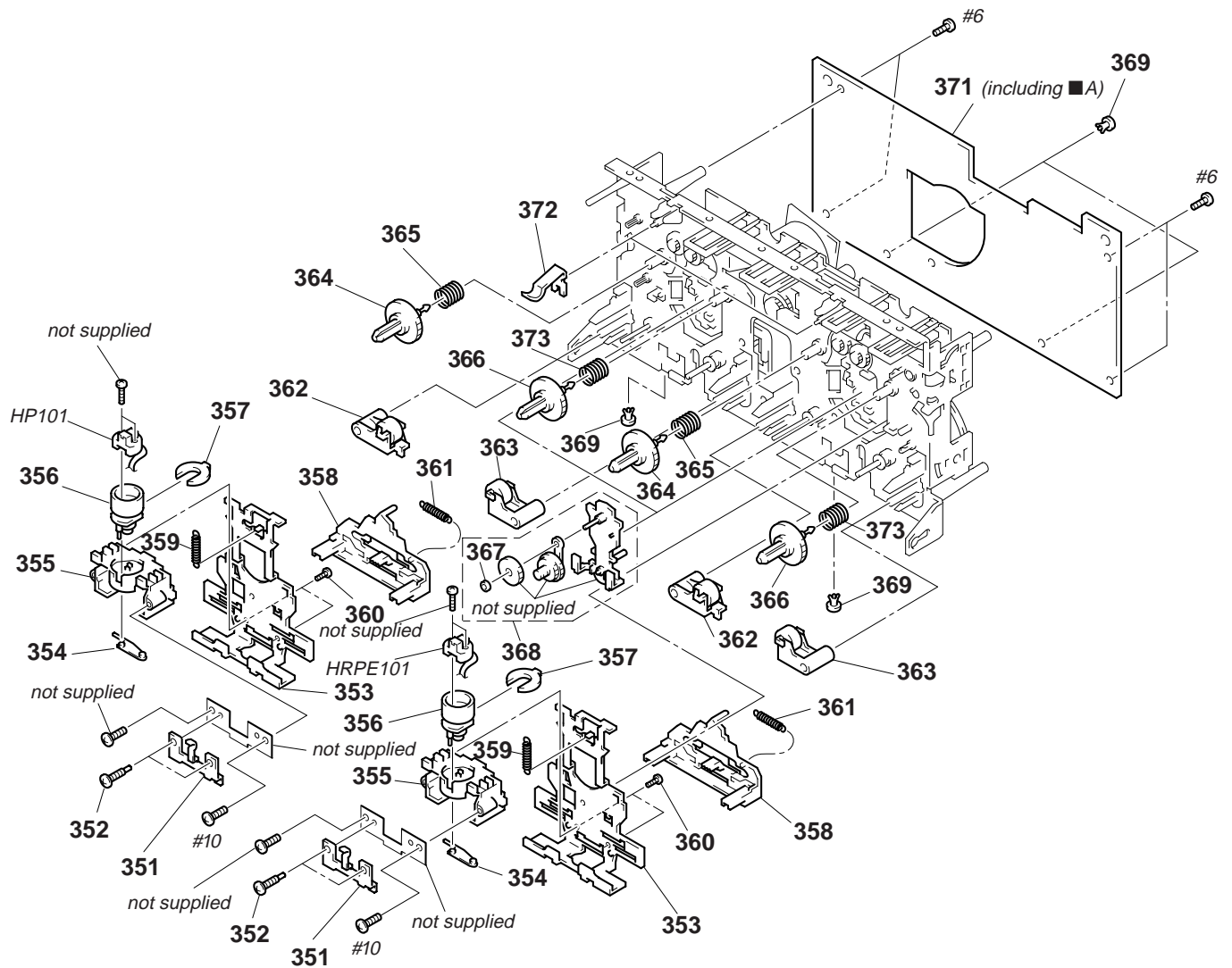
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-960-836-01	TABLE, DISC		* 207	4-960-839-01	CAM	
202	4-960-835-01	HOLDER (M)		208	4-960-838-03	BASE (MD)	
203	1-452-719-11	MAGNET ASSY		209	4-917-583-21	BRACKET, YOKE	
204	4-960-842-01	GEAR (P)		210	4-933-134-01	SCREW (+PTPWH M2.6X6)	
205	4-960-841-01	PULLEY (S)		211	4-959-996-01	SPRING (932), COMPRESSION	
206	4-927-649-01	BELT		212	4-960-834-01	HOLDER (BU)	
				* 213	1-650-836-11	LOADING BOARD	
				M903	A-4604-363-A	MOTOR (L) ASSY (LOADING)	

7-6. BASE UNIT SECTION  
(BU-5BD19)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△ 301	8-848-367-11	OPTICAL PICK-UP KSS-213BA/F-NP		306	4-917-564-01	GEAR (P), FLATNESS	
302	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)		* 307	A-4673-402-A	BD BOARD, COMPLETE	
303	4-917-567-01	GEAR (M)		308	4-951-620-01	SCREW (2.6X8), +BVTP	
304	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
305	4-917-565-01	SHAFT, SLED		M102	X-4917-504-1	MOTOR ASSY (SLED)	
				S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

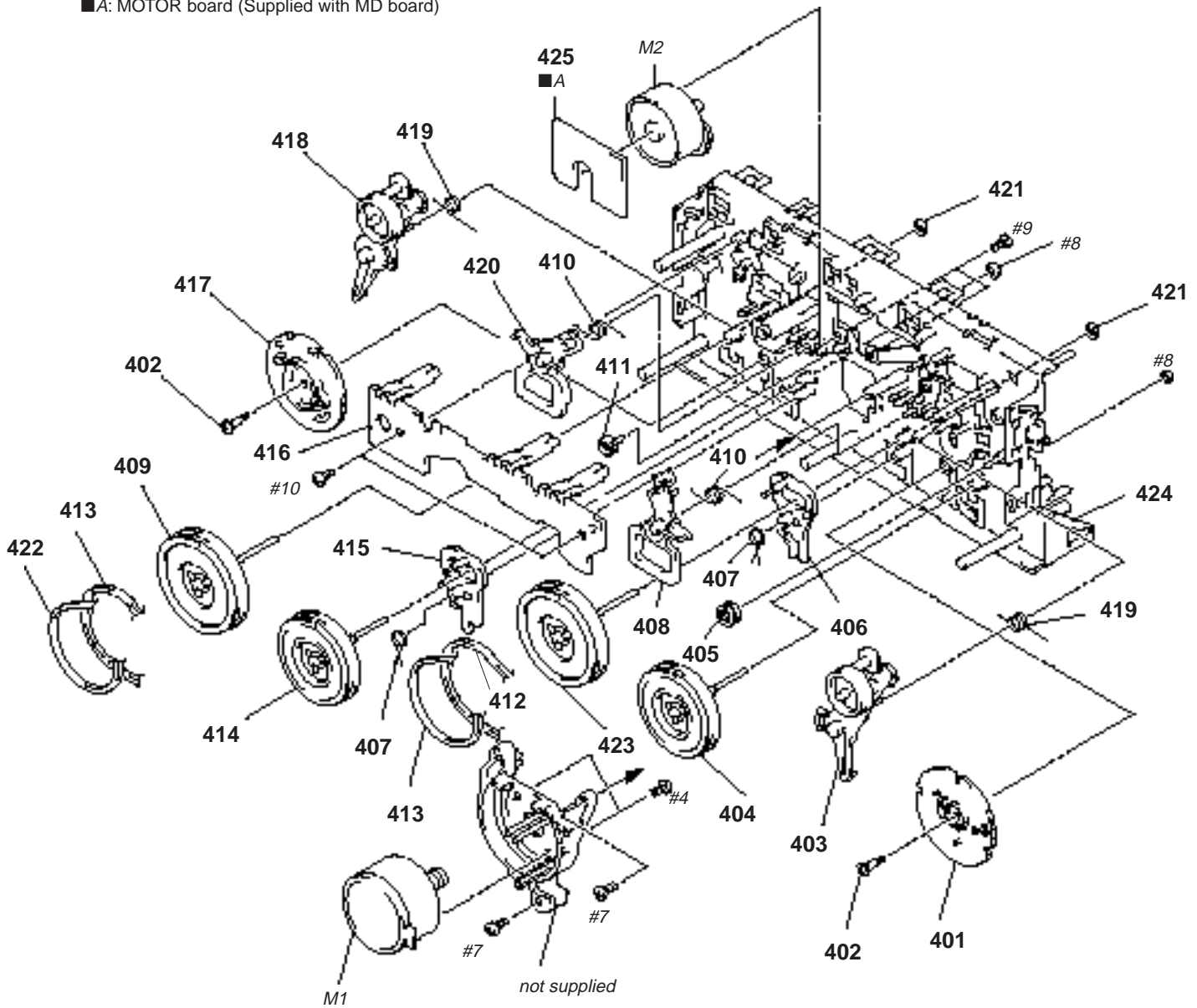
**7-7. TC MECHANISM SECTION 1  
(TCM-220WR2E)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT		362	X-3370-643-1	PINCH LEVER (REV) ASSY	
352	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT		363	X-3367-588-1	PINCH LEVER (FWD) ASSY	
* 353	X-3367-584-2	SLIDER (HEAD) ASSY		364	3-908-613-01	GEAR (S), REEL	
354	3-908-556-01	SPRING, HEAD TOGGLE		365	3-917-141-01	SPRING, COMPRESSION	
355	3-908-558-02	FITTING BLOCK, HEAD		366	X-3371-305-1	REEL (T) ASSY	
356	3-908-557-02	ROTARY BLOCK, HEAD		367	3-669-465-01	WASHER (1.5), STOPPER	
* 357	3-908-559-01	STOPPER, AZIMUTH		368	X-3370-173-1	TU ASSY	
358	3-908-555-01	SLIDER (REV SLIDER)		369	3-911-116-21	RIVET, PUSH	
359	3-917-143-11	SPRING, TENSION		* 371	A-2007-435-A	MD BOARD, COMPLETE	
360	3-388-848-01	SCREW (P2X6)(B TIGHT)		372	3-930-972-01	DETENT, HALF	
361	3-911-113-01	SPRING, TENSION		373	3-917-142-01	SPRING, COMPRESSION	
				HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
				HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	

## 7-8. TC MECHANISM SECTION 2 (TCM-220WR2E)

■A: MOTOR board (Supplied with MD board)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	3-908-597-01	CAM (A)		414	X-3370-171-1	FLYWHEEL (BR) ASSY	
402	3-908-608-11	SCREW, STEP		415	3-908-600-01	LEVER (REV-B)	
403	X-3367-590-2	ARM (A) ASSY, FR		* 416	1-650-669-11	LEAF SWITCH BOARD	
404	X-3370-169-1	FLYWHEEL (AR) ASSY		417	3-908-598-01	CAM (B)	
405	3-928-047-01	PULLEY, TENSION		418	X-3369-849-2	ARM (B) ASSY, FR	
406	3-908-599-01	LEVER (REV-A)		419	3-914-111-01	SPRING (FR), TORSION	
407	3-908-601-01	SPRING (REV LEVER), TORSION		420	3-908-604-01	LEVER (TRIGGER B)	
408	3-908-603-01	LEVER (TRIGGER A)		421	3-911-115-01	WASHER, STOPPER	
409	X-3370-170-1	FLYWHEEL (BF) ASSY		422	3-917-176-11	BELT (B)	
410	3-908-605-01	SPRING (TRIGGER), TORSION		423	X-3370-172-1	FLYWHEEL (AF) ASSY	
411	3-908-609-01	GEAR, TRIGGER		424	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
412	3-913-845-11	BELT (A)		* 425	A-2007-435-A	MD BOARD, COMPLETE	
413	3-913-846-11	BELT (FR)		M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
				M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	



## SECTION 8 ELECTRICAL PARTS LIST

BD

**Note:**

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

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

- 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.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS  
All resistors are in ohms  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F : nonflammable
- 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
- Abbreviation  
G: German model  
IT: Italian model  
EE: East European model  
EA: Saudi Arabia model  
HK: Hong Kong model  
SP: Singapore model  
MY: Malaysia model  
TW: Taiwan model  
JE: Tourist model  
TH: Thailand model  
IA: Indonesian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4673-402-A	BD BOARD, COMPLETE *****		C137	1-164-232-11	CERAMIC CHIP 0.01uF	50V
		< CAPACITOR >		C139	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C101	1-126-607-11	ELECT CHIP 47uF	20% 4V	C140	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C102	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V	C141	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C103	1-164-346-11	CERAMIC CHIP 1uF	16V	C142	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C105	1-163-038-91	CERAMIC CHIP 0.1uF	25V	C145	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C106	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	C146	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C107	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	C147	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V
C108	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C148	1-163-275-11	CERAMIC CHIP 0.001uF	5% 50V
C109	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C149	1-164-346-11	CERAMIC CHIP 1uF	16V
C110	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V	C153	1-135-259-11	TANTAL. CHIP 10uF	20% 6.3V
C111	1-163-038-91	CERAMIC CHIP 0.1uF	25V	C154	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C112	1-163-038-91	CERAMIC CHIP 0.1uF	25V			< CONNECTOR >	
C113	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P	
C114	1-164-005-11	CERAMIC CHIP 0.47uF	25V	CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P	
C115	1-126-607-11	ELECT CHIP 47uF	20% 4V			< IC >	
C116	1-163-016-00	CERAMIC CHIP 0.0039uF	10% 50V	IC101	8-752-069-56	IC CXA1782BQ	
C117	1-164-005-11	CERAMIC CHIP 0.47uF	25V	IC102	8-759-291-06	IC BA6397FP	
C118	1-107-823-11	CERAMIC CHIP 0.47uF	10% 16V	IC103	8-752-372-94	IC CXD2507AQ	
C119	1-163-038-91	CERAMIC CHIP 0.1uF	25V	IC104	8-759-185-29	IC PCM1710U-B	
C120	1-135-201-11	TANTALUM CHIP 10uF	20% 4V			< TRANSISTOR >	
C121	1-163-038-91	CERAMIC CHIP 0.1uF	25V	Q101	8-729-010-08	TRANSISTOR MSB710-R	
C122	1-164-232-11	CERAMIC CHIP 0.01uF	50V	Q102	8-729-424-08	TRANSISTOR UN2111	
C123	1-163-038-91	CERAMIC CHIP 0.1uF	25V	Q103	8-729-421-22	TRANSISTOR UN2211	
C124	1-126-607-11	ELECT CHIP 47uF	20% 4V			< RESISTOR >	
C125	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R102	1-216-001-00	METAL CHIP 10	5% 1/10W
C126	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R103	1-216-049-91	METAL GLAZE 1K	5% 1/10W
C127	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	R104	1-216-097-91	METAL GLAZE 100K	5% 1/10W
C128	1-163-135-00	CERAMIC CHIP 560PF	5% 50V	R105	1-216-093-00	METAL CHIP 68K	5% 1/10W
C129	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R106	1-216-093-00	METAL CHIP 68K	5% 1/10W
C130	1-164-336-11	CERAMIC CHIP 0.33uF	25V	R107	1-216-093-00	METAL CHIP 68K	5% 1/10W
C131	1-163-038-91	CERAMIC CHIP 0.1uF	25V	R108	1-216-093-00	METAL CHIP 68K	5% 1/10W
C132	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	R109	1-216-097-91	METAL GLAZE 100K	5% 1/10W
C133	1-163-145-00	CERAMIC CHIP 0.0015uF	5% 50V	R112	1-216-083-00	METAL CHIP 27K	5% 1/10W
C134	1-164-346-11	CERAMIC CHIP 1uF	16V	R113	1-216-083-00	METAL CHIP 27K	5% 1/10W
C135	1-163-251-11	CERAMIC CHIP 100PF	5% 50V				
C136	1-164-005-11	CERAMIC CHIP 0.47uF	25V				

Ref. No.	Part No.	Description	Remark
R114	1-216-101-00	METAL CHIP 150K 5%	1/10W
R115	1-216-101-00	METAL CHIP 150K 5%	1/10W
R116	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R117	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R118	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R119	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R120	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R121	1-216-114-00	METAL GLAZE 510K 5%	1/10W
R122	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R123	1-216-099-00	METAL CHIP 120K 5%	1/10W
R124	1-216-091-00	METAL CHIP 56K 5%	1/10W
R125	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R126	1-216-063-91	METAL GLAZE 3.9K 5%	1/10W
R127	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R128	1-216-105-91	METAL GLAZE 220K 5%	1/10W
R129	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R130	1-216-079-00	METAL CHIP 18K 5%	1/10W
R131	1-216-079-00	METAL CHIP 18K 5%	1/10W
R132	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R133	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R134	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R135	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R136	1-216-073-00	METAL CHIP 10K 5%	1/10W
R137	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R138	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R139	1-216-033-00	METAL CHIP 220 5%	1/10W
R140	1-216-081-00	METAL CHIP 22K 5%	1/10W
R141	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R142	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R143	1-216-121-91	METAL GLAZE 1M 5%	1/10W
R144	1-216-073-00	METAL CHIP 10K 5%	1/10W
R145	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R146	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R147	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R148	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R149	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R150	1-216-037-00	METAL CHIP 330 5%	1/10W
R151	1-216-037-00	METAL CHIP 330 5%	1/10W
R152	1-216-037-00	METAL CHIP 330 5%	1/10W
R153	1-216-082-00	METAL GLAZE 24K 5%	1/10W
R154	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R156	1-216-085-00	METAL CHIP 33K 5%	1/10W
R157	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R158	1-216-001-00	METAL CHIP 10 5%	1/10W
		< VARIABLE RESISTOR >	
RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K	

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
		< VIBRATOR >	
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHZ)	
*****			
*	1-659-331-11	HP BOARD	
		*****	
		< CAPACITOR >	
C520	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C521	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C640	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C641	1-124-257-00	ELECT 2.2uF 20% 50V	
C642	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C643	1-162-282-31	CERAMIC 100PF 10% 50V	
C644	1-162-290-31	CERAMIC 470PF 10% 50V	
C645	1-124-465-00	ELECT 0.47uF 20% 50V	
C646	1-162-282-31	CERAMIC 100PF 10% 50V	
C647	1-162-282-31	CERAMIC 100PF 10% 50V	
C648	1-124-257-00	ELECT 2.2uF 20% 50V	
C649	1-124-589-11	ELECT 47uF 20% 16V	
C650	1-124-589-11	ELECT 47uF 20% 16V	
C651	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C652	1-162-306-11	CERAMIC 0.01uF 30% 16V	
		< CONNECTOR >	
* CN513	1-568-935-11	PIN, CONNECTOR 8P	
		< IC >	
IC601	8-759-634-51	IC M5218AP	
		< JACK >	
J501	1-770-226-11	JACK (LARGE TYPE)(PHONES)	
J601	1-770-226-11	JACK (LARGE TYPE)(MIX MIC)	
		< RESISTOR >	
R640	1-249-429-11	CARBON 10K 5% 1/4W	
R641	1-249-441-11	CARBON 100K 5% 1/4W	
R642	1-249-417-11	CARBON 1K 5% 1/4W	F
R643	1-249-417-11	CARBON 1K 5% 1/4W	F
R644	1-249-435-11	CARBON 33K 5% 1/4W	
R645	1-249-429-11	CARBON 10K 5% 1/4W	
R646	1-247-881-00	CARBON 120K 5% 1/4W	
R647	1-247-807-31	CARBON 100 5% 1/4W	

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Ref. No.	Part No.	Description	Remark			
*	1-659-333-11	JOG BOARD *****				
		< CAPACITOR >				
C524	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C525	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C526	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C527	1-162-306-11	CERAMIC	0.01uF	30%	16V	
		< DIODE >				
D582	8-719-812-44	DIODE TLO124 (ENTER/NEXT)				
		< RESISTOR >				
R511	1-249-409-11	CARBON	220	5%	1/4W	F
R512	1-249-411-11	CARBON	330	5%	1/4W	
R513	1-249-413-11	CARBON	470	5%	1/4W	F
R514	1-249-415-11	CARBON	680	5%	1/4W	F
R560	1-249-417-11	CARBON	1K	5%	1/4W	F
R582	1-249-407-11	CARBON	150	5%	1/4W	F
		< SWITCH >				
S511	1-554-303-21	SWITCH, TACTILE (FREQUENCY -)				
S512	1-554-303-21	SWITCH, TACTILE (FREQUENCY +)				
S513	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)				
S514	1-554-303-21	SWITCH, TACTILE (DBFB)				
S560	1-554-303-21	SWITCH, TACTILE (KARAOKE PON/MPX)				
S561	1-467-869-11	ENCODER, ROTARY (VOLUME)				
S562	1-467-968-11	ENCODER, ROTARY (MULTI FUNCTION CONTROL)				
*****						
*	1-650-669-11	LEAF SWITCH BOARD *****				
		< CONNECTOR >				
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P				
		< TRANSISTOR >				
Q1001	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H				
Q1002	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H				
		< RESISTOR >				
R1001	1-249-412-11	CARBON	390	5%	1/4W	F
R1002	1-249-412-11	CARBON	390	5%	1/4W	F
R1003	1-249-414-11	CARBON	560	5%	1/4W	F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W	
R1005	1-247-818-11	CARBON	300	5%	1/4W	
		< SWITCH >				
S1001	1-692-832-11	SWITCH, PUSH (1 KEY)(A PLAY)				

Ref. No.	Part No.	Description	Remark			
S1002	1-692-832-11	SWITCH, PUSH (1 KEY)(B PLAY)				
S1003	1-572-248-11	SWITCH, LEAF (A HALF)				
S1004	1-571-281-21	SWITCH, LEAF (A CrO2)				
S1005	1-571-281-21	SWITCH, LEAF (REC A)				
S1006	1-572-248-11	SWITCH, LEAF (B HALF)				
S1008	1-571-281-21	SWITCH, LEAF (B CrO2)				
S1009	1-571-281-21	SWITCH, LEAF (REC B)				
*****						
*	1-650-836-11	LOADING BOARD *****				
		< CONNECTOR >				
* CN291	1-568-943-11	PIN, CONNECTOR 5P				
		< SWITCH >				
S291	1-572-086-11	SWITCH, LEAF (LOAD OUT)				
S292	1-572-086-11	SWITCH, LEAF (LOAD IN)				
*****						
*	A-4389-425-A	MAIN BOARD, COMPLETE (AEP,UK) *****				
*	A-4389-426-A	MAIN BOARD, COMPLETE (G,IT) *****				
*	A-4389-427-A	MAIN BOARD, COMPLETE (EE) *****				
*	A-4389-428-A	MAIN BOARD, COMPLETE (E,EA,HK,MY,SP,TW) *****				
*	A-4389-429-A	MAIN BOARD, COMPLETE (JE) *****				
*	A-4390-120-A	MAIN BOARD, COMPLETE (TH) *****				
*	A-4390-506-A	MAIN BOARD, COMPLETE (IA) *****				
	1-537-770-21	TERMINAL BOARD, GROUND				
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S				
		< CAPACITOR >				
C201	1-126-961-11	ELECT	2.2uF	20%	50V	
C202	1-162-600-11	CERAMIC	0.0047uF	30%	16V	
C203	1-124-472-11	ELECT	470uF	20%	10V	
C204	1-162-282-31	CERAMIC	100PF	10%	50V	
C205	1-162-282-31	CERAMIC	100PF	10%	50V	
C206	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C207	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C208	1-162-306-11	CERAMIC	0.01uF	30%	16V	

**MAIN**

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C209	1-126-952-11	ELECT	1000uF	20%	16V	C908	1-130-479-00	MYLAR	0.0047uF	5%	50V
C251	1-126-961-11	ELECT	2.2uF	20%	50V	C909	1-130-474-00	MYLAR	0.0018uF	5%	50V
C252	1-162-600-11	CERAMIC	0.0047uF	30%	16V	C910	1-126-964-11	ELECT	10uF	20%	50V
C301	1-130-479-00	MYLAR	0.0047uF	5%	50V	C911	1-126-964-11	ELECT	10uF	20%	50V
C302	1-162-290-31	CERAMIC	470PF	10%	50V	C912	1-136-165-00	FILM	0.1uF	5%	50V
C303	1-164-159-11	CERAMIC	0.1uF		50V	C913	1-136-165-00	FILM	0.1uF	5%	50V
C305	1-124-903-11	ELECT	1uF	20%	50V	C914	1-126-964-11	ELECT	10uF	20%	50V
C306	1-124-902-00	ELECT	0.47uF	20%	50V	C915	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C307	1-126-964-11	ELECT	10uF	20%	50V	C930	1-164-159-11	CERAMIC	0.1uF		50V
C308	1-126-964-11	ELECT	10uF	20%	50V	C931	1-136-153-00	FILM	0.01uF	5%	50V
C309	1-124-903-11	ELECT	1uF	20%	50V	C933	1-124-902-00	ELECT	0.47uF	20%	50V
C310	1-126-933-11	ELECT	100uF	20%	10V	C935	1-164-159-11	CERAMIC	0.1uF		50V
C351	1-130-479-00	MYLAR	0.0047uF	5%	50V	C936	1-126-964-11	ELECT	10uF	20%	50V
C352	1-162-290-31	CERAMIC	470PF	10%	50V	C938	1-162-290-31	CERAMIC	470PF	10%	50V
C353	1-164-159-11	CERAMIC	0.1uF		50V	C939	1-126-967-11	ELECT	47uF	20%	10V
C355	1-124-903-11	ELECT	1uF	20%	50V	C940	1-126-967-11	ELECT	47uF	20%	10V
C356	1-124-902-00	ELECT	0.47uF	20%	50V	C951	1-136-169-00	FILM	0.22uF	5%	50V
C357	1-126-964-11	ELECT	10uF	20%	50V	C952	1-136-169-00	FILM	0.22uF	5%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V	C953	1-136-495-11	FILM	0.068uF	5%	50V
C359	1-124-903-11	ELECT	1uF	20%	50V	C954	1-136-495-11	FILM	0.068uF	5%	50V
C360	1-126-933-11	ELECT	100uF	20%	10V	C955	1-136-156-00	FILM	0.018uF	5%	50V
C401	1-164-159-11	CERAMIC	0.1uF		50V	C956	1-136-156-00	FILM	0.018uF	5%	50V
C402	1-164-159-11	CERAMIC	0.1uF		50V	C957	1-130-480-00	MYLAR	0.0056uF	5%	50V
C403	1-164-159-11	CERAMIC	0.1uF		50V	C958	1-130-479-00	MYLAR	0.0047uF	5%	50V
C404	1-126-933-11	ELECT	100uF	20%	16V	C959	1-130-474-00	MYLAR	0.0018uF	5%	50V
C405	1-126-952-11	ELECT	1000uF	20%	35V	C960	1-126-964-11	ELECT	10uF	20%	50V
C701	1-162-306-11	CERAMIC	0.01uF	30%	16V	C961	1-126-964-11	ELECT	10uF	20%	50V
C702	1-126-926-11	ELECT	1000uF	20%	10V	C962	1-136-165-00	FILM	0.1uF	5%	50V
C703	1-126-964-11	ELECT	10uF	20%	50V	C963	1-136-165-00	FILM	0.1uF	5%	50V
C704	1-164-159-11	CERAMIC	0.1uF		50V	C964	1-126-964-11	ELECT	10uF	20%	50V
C705	1-136-165-00	FILM	0.1uF	5%	50V	C965	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C706	1-126-965-11	ELECT	22uF	20%	50V	C1001	1-126-768-11	ELECT	2200uF	20%	16V
C707	1-162-206-31	CERAMIC	20PF	5%	50V	C1002	1-126-768-11	ELECT	2200uF	20%	16V
C708	1-162-206-31	CERAMIC	20PF	5%	50V	C1003	1-126-964-11	ELECT	10uF	20%	50V
C710	1-162-306-11	CERAMIC	0.01uF	30%	16V	C1005	1-126-964-11	ELECT	10uF	20%	50V
C713	1-162-306-11	CERAMIC	0.01uF	30%	16V	C1006	1-126-933-11	ELECT	100uF	20%	10V
C720	1-164-159-11	CERAMIC	0.1uF		50V	C1007	1-126-933-11	ELECT	100uF	20%	16V
C789	1-126-923-11	ELECT	220uF	20%	10V	C1008	1-126-933-11	ELECT	100uF	20%	16V
C810	1-136-153-00	FILM	0.01uF	5%	50V	C1009	1-162-306-11	CERAMIC	0.01uF	30%	16V
C811	1-136-153-00	FILM	0.01uF	5%	50V	C1010	1-136-165-00	FILM	0.1uF	5%	50V
C821	1-162-286-31	CERAMIC	220PF	10%	50V	C1011	1-136-165-00	FILM	0.1uF	5%	50V
C825	1-109-889-11	ELECT	1uF	20%	50V	C1012	1-126-964-11	ELECT	10uF	20%	50V
C871	1-162-286-31	CERAMIC	220PF	10%	50V	C1013	1-126-916-11	ELECT	1000uF	20%	6.3V
C901	1-136-169-00	FILM	0.22uF	5%	50V	C1014	1-126-964-11	ELECT	10uF	20%	50V
C902	1-136-169-00	FILM	0.22uF	5%	50V	C1015	1-126-964-11	ELECT	10uF	20%	50V
C903	1-136-495-11	FILM	0.068uF	5%	50V	C1016	1-126-952-11	ELECT	1000uF	20%	16V
C904	1-136-495-11	FILM	0.068uF	5%	50V	C1017	1-126-925-11	ELECT	470uF	20%	10V
C905	1-136-156-00	FILM	0.018uF	5%	50V	C1018	1-126-943-11	ELECT	2200uF	20%	25V
C906	1-136-156-00	FILM	0.018uF	5%	50V	C1019	1-126-934-11	ELECT	220uF	20%	16V
C907	1-130-480-00	MYLAR	0.0056uF	5%	50V	C1020	1-126-947-11	ELECT	47uF	20%	35V
						C1021	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description	Remark
C1022	1-126-968-11	ELECT	100uF 20% 50V
C1023	1-126-968-11	ELECT	100uF 20% 50V
C1025	1-126-925-11	ELECT	470uF 20% 10V
C1026	1-126-925-11	ELECT	470uF 20% 10V
C1221	1-126-933-11	ELECT	100uF 20% 10V
C1222	1-126-923-11	ELECT	220uF 20% 10V
C1223	1-126-923-11	ELECT	220uF 20% 10V
C1224	1-124-925-11	ELECT	2.2uF 20% 100V
C1230	1-126-974-11	ELECT	3300uF 20% 50V
C1235	1-126-974-11	ELECT	3300uF 20% 50V
C1248	1-136-495-11	FILM	0.068uF 5% 50V (AEP,UK,G,IT,EE)
C1249	1-136-495-11	FILM	0.068uF 5% 50V (AEP,UK,G,IT,EE)
C1250	1-162-306-11	CERAMIC	0.01uF 20% 50V (AEP,UK,G,IT,EE)
C1270	1-130-781-00	FILM	0.22uF 10% 100V
C1271	1-130-781-00	FILM	0.22uF 10% 100V
C1272	1-164-159-11	CERAMIC	0.1uF 50V (AEP,UK,G,IT,EE)
C1298	1-136-495-11	FILM	0.068uF 5% 50V (AEP,UK,G,IT,EE)
C1299	1-136-495-11	FILM	0.068uF 5% 50V (AEP,UK,G,IT,EE)
C1300	1-162-306-11	CERAMIC	0.01uF 20% 50V (AEP,UK,G,IT,EE)
< CONNECTOR >			
CN201	1-770-067-11	CONNECTOR, FFC/FPC 19P	
CN401	1-568-838-11	SOCKET, CONNECTOR 21P	
* CN402	1-568-830-11	SOCKET, CONNECTOR 11P	
* CN403	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
* CN404	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
* CN702	1-568-830-11	SOCKET, CONNECTOR 11P	
* CN703	1-568-832-11	SOCKET, CONNECTOR 13P (TH)	
* CN703	1-568-834-11	SOCKET, CONNECTOR 15P (EXCEPT TH)	
< DIODE >			
D201	8-719-987-63	DIODE 1N4148M	
D202	8-719-987-63	DIODE 1N4148M	
D205	8-719-010-33	DIODE UZ-4.7BSB	
D401	8-719-933-54	DIODE HZS9A2L	
D701	8-719-987-63	DIODE 1N4148M	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-987-63	DIODE 1N4148M	
D705	8-719-987-63	DIODE 1N4148M	
D706	8-719-200-82	DIODE 11ES2 (IA)	
D706	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D707	8-719-987-63	DIODE 1N4148M	
D708	8-719-987-63	DIODE 1N4148M	
D1001	8-719-200-82	DIODE 11ES2 (IA)	

Ref. No.	Part No.	Description	Remark
D1001	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1002	8-719-200-82	DIODE 11ES2 (IA)	
D1002	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1003	8-719-200-82	DIODE 11ES2 (IA)	
D1003	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1004	8-719-200-82	DIODE 11ES2 (IA)	
D1004	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1005	8-719-200-82	DIODE 11ES2 (IA)	
D1005	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1006	8-719-200-82	DIODE 11ES2 (IA)	
D1006	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1007	8-719-987-63	DIODE 1N4148M	
D1008	8-719-001-43	DIODE UZL-11M1-TA (IA,TH)	
D1008	8-719-001-42	DIODE UZL-11M1 (EXCEPT IA,TH)	
D1009	8-719-987-63	DIODE 1N4148M	
D1010	8-719-987-63	DIODE 1N4148M	
D1011	8-719-010-43	DIODE UZ-5.6BSC	
D1013	8-719-200-82	DIODE 11ES2 (IA)	
D1013	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1014	8-719-200-82	DIODE 11ES2 (IA)	
D1014	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1016	8-719-200-82	DIODE 11ES2 (IA)	
D1016	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1017	8-719-200-82	DIODE 11ES2 (IA)	
D1017	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1018	8-719-200-82	DIODE 11ES2 (IA)	
D1018	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1021	8-719-200-82	DIODE 11ES2 (IA)	
D1021	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1022	8-719-200-82	DIODE 11ES2 (IA)	
D1022	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1023	8-719-011-05	DIODE UZ-27BS	
D1059	8-719-987-63	DIODE 1N4148M	
D1069	8-719-987-63	DIODE 1N4148M	
D1095	8-719-987-63	DIODE 1N4148M	
D1096	8-719-987-63	DIODE 1N4148M	
D1097	8-719-200-82	DIODE 11ES2 (IA)	
D1097	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1098	8-719-200-82	DIODE 11ES2 (IA)	
D1098	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1099	8-719-200-82	DIODE 11ES2 (IA)	
D1099	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT IA)	
D1204	8-719-987-63	DIODE 1N4148M	
D1205	8-719-987-63	DIODE 1N4148M	
D1230	8-719-987-63	DIODE 1N4148M	
D1250	8-719-028-23	DIODE D3SBA20-4101	
D1309	8-719-987-63	DIODE 1N4148M	
D1310	8-719-987-63	DIODE 1N4148M	

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< FUSE >					
△F1601	1-532-504-31	FUSE,TIME-LAG (4.0A 250V)		Q902	8-729-119-78	TRANSISTOR 2SC403SP-51	
△F1602	1-532-504-31	FUSE,TIME-LAG (4.0A 250V)		Q951	8-729-119-78	TRANSISTOR 2SC403SP-51	
		< FUSE HOLDER >		Q952	8-729-119-78	TRANSISTOR 2SC403SP-51	
FH1001	1-533-217-31	HOLDER, FUSE		Q953	8-729-141-26	TRANSISTOR 2SC3622A-LK	
FH1002	1-533-217-31	HOLDER, FUSE		Q954	8-729-141-26	TRANSISTOR 2SC3622A-LK	
FH1003	1-533-217-31	HOLDER, FUSE					
FH1004	1-533-217-31	HOLDER, FUSE		Q1001	8-729-118-01	TRANSISTOR 2SB1116	
		< IC >		Q1002	8-729-900-36	TRANSISTOR DTC124ES	
IC201	8-759-822-09	IC LB1641		Q1003	8-729-030-18	TRANSISTOR 2SD2525	
IC401	8-759-289-38	IC HA12195NT		Q1006	8-729-030-19	TRANSISTOR 2SB1640	
IC402	8-759-822-09	IC LB1641		Q1204	8-729-900-63	TRANSISTOR DTA124ES	
IC701	8-759-392-42	IC TMP87CS64YF-6397					
IC702	8-759-165-80	IC PST600C-T		Q1205	8-729-900-36	TRANSISTOR DTC124ES	
		< RESISTOR >		Q1206	8-729-900-80	TRANSISTOR DTC114ES	
IC802	8-759-000-48	IC MC14052BCP		Q1207	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC901	8-759-331-39	IC M62427FP		Q1208	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC1001	8-759-231-53	IC TA7805S					
IC1002	8-759-604-86	IC M5F7807		R201	1-249-415-11	CARBON 680 5% 1/4W	F
IC1003	8-759-604-86	IC M5F7807		R202	1-249-435-11	CARBON 33K 5% 1/4W	
		< JACK >		R203	1-249-425-11	CARBON 4.7K 5% 1/4W	F
J801	1-774-725-11	JACK, PIN 2P (VIDEO (AUDIO))		R206	1-249-425-11	CARBON 4.7K 5% 1/4W	F
J1201	1-774-785-11	JACK, PIN 1P (SUPER WOOFER) (E,EA,HK,MY,SP,TW,IA,TH)		R207	1-249-425-11	CARBON 4.7K 5% 1/4W	F
		< COIL >					
L1201	1-420-872-00	COIL, AIR-CORE (AEP,UK,G,IT,EE)		R208	1-249-425-11	CARBON 4.7K 5% 1/4W	F
L1251	1-420-872-00	COIL, AIR-CORE (AEP,UK,G,IT,EE)		R209	1-249-413-11	CARBON 470 5% 1/4W	F
		< TRANSISTOR >		R210	1-249-413-11	CARBON 470 5% 1/4W	F
Q301	8-729-119-78	TRANSISTOR 2SC403SP-51		R251	1-249-415-11	CARBON 680 5% 1/4W	F
Q351	8-729-119-78	TRANSISTOR 2SC403SP-51		R252	1-249-435-11	CARBON 33K 5% 1/4W	
Q401	8-729-119-78	TRANSISTOR 2SC403SP-51					
Q402	8-729-900-65	TRANSISTOR DTA144ES		R301	1-249-430-11	CARBON 12K 5% 1/4W	
Q403	8-729-801-93	TRANSISTOR 2SD1387		R302	1-249-431-11	CARBON 15K 5% 1/4W	
		< TRANSISTOR >		R303	1-249-432-11	CARBON 18K 5% 1/4W	
Q406	8-729-900-80	TRANSISTOR DTC114ES		R304	1-249-428-11	CARBON 8.2K 5% 1/4W	F
Q407	8-729-422-57	TRANSISTOR UN4111		R305	1-249-425-11	CARBON 4.7K 5% 1/4W	F
Q408	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q409	8-729-900-80	TRANSISTOR DTC114ES		R306	1-247-840-00	CARBON 2.4K 5% 1/4W	
Q410	8-729-900-65	TRANSISTOR DTA144ES		R307	1-249-433-11	CARBON 22K 5% 1/4W	
		< TRANSISTOR >		R308	1-249-421-11	CARBON 2.2K 5% 1/4W	F
Q411	8-729-900-65	TRANSISTOR DTA144ES		R309	1-249-428-11	CARBON 8.2K 5% 1/4W	F
Q412	8-729-900-65	TRANSISTOR DTA144ES		R310	1-249-417-11	CARBON 1K 5% 1/4W	F
Q701	8-729-119-78	TRANSISTOR 2SC403SP-51					
Q820	8-729-422-57	TRANSISTOR UN4111		R351	1-249-430-11	CARBON 12K 5% 1/4W	
Q901	8-729-119-78	TRANSISTOR 2SC403SP-51		R352	1-249-431-11	CARBON 15K 5% 1/4W	
		< TRANSISTOR >		R354	1-249-428-11	CARBON 8.2K 5% 1/4W	F
		< TRANSISTOR >		R355	1-249-425-11	CARBON 4.7K 5% 1/4W	F
		< TRANSISTOR >		R356	1-247-840-00	CARBON 2.4K 5% 1/4W	
		< TRANSISTOR >					
		< TRANSISTOR >		R357	1-249-433-11	CARBON 22K 5% 1/4W	
		< TRANSISTOR >		R358	1-249-421-11	CARBON 2.2K 5% 1/4W	F
		< TRANSISTOR >		R359	1-249-428-11	CARBON 8.2K 5% 1/4W	F
		< TRANSISTOR >		R360	1-249-417-11	CARBON 1K 5% 1/4W	F
		< TRANSISTOR >		R401	1-249-425-11	CARBON 4.7K 5% 1/4W	F
		< TRANSISTOR >					
		< TRANSISTOR >		R402	1-249-425-11	CARBON 4.7K 5% 1/4W	F
		< TRANSISTOR >		R403	1-249-425-11	CARBON 4.7K 5% 1/4W	F
		< TRANSISTOR >		R404	1-249-417-11	CARBON 1K 5% 1/4W	F
		< TRANSISTOR >		R405	1-249-437-11	CARBON 47K 5% 1/4W	
		< TRANSISTOR >		R406	1-249-437-11	CARBON 47K 5% 1/4W	

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	
R407	1-249-437-11	CARBON	47K	5%	1/4W	R740	1-249-427-11	CARBON	6.8K	5%	1/4W F	
R408	1-249-437-11	CARBON	47K	5%	1/4W						(G,IT)	
R409	1-249-429-11	CARBON	10K	5%	1/4W	R740	1-249-435-11	CARBON	33K	5%	1/4W (EE)	
R410	1-247-882-11	CARBON	130K	5%	1/4W							
R411	1-247-866-11	CARBON	30K	5%	1/4W	R740	1-249-429-11	CARBON	10K	5%	1/4W (AEP,UK)	
											(TH)	
R412	1-249-429-11	CARBON	10K	5%	1/4W	R741	1-249-429-11	CARBON	10K	5%	1/4W (JE)	
R413	1-247-864-11	CARBON	24K	5%	1/4W							
R414	1-249-429-11	CARBON	10K	5%	1/4W	R741	1-249-431-11	CARBON	15K	5%	1/4W F	
R415	1-249-429-11	CARBON	10K	5%	1/4W						(EE)	
R416	1-249-429-11	CARBON	10K	5%	1/4W	R741	1-249-427-11	CARBON	6.8K	5%	1/4W F	
											(EE)	
R417	1-249-429-11	CARBON	10K	5%	1/4W							
R418	1-249-429-11	CARBON	10K	5%	1/4W	R741	1-249-423-11	CARBON	3.3K	5%	1/4W F	
R419	1-249-429-11	CARBON	10K	5%	1/4W						(AEP,UK,G,IT)	
R420	1-249-429-11	CARBON	10K	5%	1/4W	R743	1-249-413-11	CARBON	470	5%	1/4W F	
R421	1-249-429-11	CARBON	10K	5%	1/4W	R744	1-247-807-31	CARBON	100	5%	1/4W	
						R745	1-247-807-31	CARBON	100	5%	1/4W	
R454	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R746	1-249-429-11	CARBON	10K	5%	1/4W
R455	1-249-425-11	CARBON	4.7K	5%	1/4W	F						
R456	1-249-411-11	CARBON	330	5%	1/4W		R747	1-249-429-11	CARBON	10K	5%	1/4W
R457	1-249-427-11	CARBON	6.8K	5%	1/4W	F	R748	1-249-429-11	CARBON	10K	5%	1/4W
R458	1-249-429-11	CARBON	10K	5%	1/4W		R749	1-249-429-11	CARBON	10K	5%	1/4W
							R751	1-247-807-31	CARBON	100	5%	1/4W
R461	1-249-417-11	CARBON	1K	5%	1/4W	F	R752	1-247-807-31	CARBON	100	5%	1/4W
R701	1-249-429-11	CARBON	10K	5%	1/4W							
R702	1-249-437-11	CARBON	47K	5%	1/4W		R753	1-247-807-31	CARBON	100	5%	1/4W
R703	1-249-437-11	CARBON	47K	5%	1/4W		R756	1-249-429-11	CARBON	10K	5%	1/4W
R704	1-249-429-11	CARBON	10K	5%	1/4W		R757	1-247-807-31	CARBON	100	5%	1/4W
							R758	1-247-807-31	CARBON	100	5%	1/4W
R705	1-249-429-11	CARBON	10K	5%	1/4W		R759	1-247-807-31	CARBON	100	5%	1/4W
R708	1-249-429-11	CARBON	10K	5%	1/4W							
R709	1-249-429-11	CARBON	10K	5%	1/4W		R760	1-247-807-31	CARBON	100	5%	1/4W
R711	1-249-429-11	CARBON	10K	5%	1/4W		R761	1-247-807-31	CARBON	100	5%	1/4W
R715	1-249-429-11	CARBON	10K	5%	1/4W		R762	1-249-429-11	CARBON	10K	5%	1/4W
							R763	1-249-429-11	CARBON	10K	5%	1/4W
R716	1-247-807-31	CARBON	100	5%	1/4W		R764	1-249-429-11	CARBON	10K	5%	1/4W
R717	1-247-807-31	CARBON	100	5%	1/4W							
R720	1-247-807-31	CARBON	100	5%	1/4W		R821	1-249-417-11	CARBON	1K	5%	1/4W F
R724	1-247-807-31	CARBON	100	5%	1/4W		R822	1-249-441-11	CARBON	100K	5%	1/4W
R725	1-247-807-31	CARBON	100	5%	1/4W		R825	1-247-887-00	CARBON	220K	5%	1/4W
							R826	1-249-441-11	CARBON	100K	5%	1/4W
R726	1-247-807-31	CARBON	100	5%	1/4W		R830	1-249-429-11	CARBON	10K	5%	1/4W
R727	1-247-807-31	CARBON	100	5%	1/4W							
R728	1-247-807-31	CARBON	100	5%	1/4W		R871	1-249-417-11	CARBON	1K	5%	1/4W F
R729	1-247-807-31	CARBON	100	5%	1/4W		R872	1-249-441-11	CARBON	100K	5%	1/4W
R730	1-247-807-31	CARBON	100	5%	1/4W		R901	1-249-421-11	CARBON	2.2K	5%	1/4W F
							R902	1-249-421-11	CARBON	2.2K	5%	1/4W F
R731	1-247-807-31	CARBON	100	5%	1/4W		R905	1-249-441-11	CARBON	100K	5%	1/4W
R732	1-247-807-31	CARBON	100	5%	1/4W							
R733	1-247-807-31	CARBON	100	5%	1/4W		R906	1-247-891-00	CARBON	330K	5%	1/4W
R734	1-247-807-31	CARBON	100	5%	1/4W		R907	1-247-887-00	CARBON	220K	5%	1/4W
R735	1-247-807-31	CARBON	100	5%	1/4W		R908	1-249-433-11	CARBON	22K	5%	1/4W
							R909	1-249-419-11	CARBON	1.5K	5%	1/4W F
R736	1-247-807-31	CARBON	100	5%	1/4W		R910	1-249-429-11	CARBON	10K	5%	1/4W
R737	1-247-807-31	CARBON	100	5%	1/4W							
R738	1-249-427-11	CARBON	6.8K	5%	1/4W	F	R911	1-249-421-11	CARBON	2.2K	5%	1/4W F
R739	1-249-435-11	CARBON	33K	5%	1/4W		R912	1-249-441-11	CARBON	100K	5%	1/4W
R740	1-249-415-11	CARBON	680	5%	1/4W	(JE)	R913	1-249-429-11	CARBON	10K	5%	1/4W
							R914	1-249-437-11	CARBON	47K	5%	1/4W
R740	1-249-423-11	CARBON	3.3K	5%	1/4W	F (TH)	R915	1-249-441-11	CARBON	100K	5%	1/4W

**MAIN**

Ref. No.	Part No.	Description	Remark
R917	1-247-903-00	CARBON	1M 5% 1/4W
R918	1-249-431-11	CARBON	15K 5% 1/4W
R920	1-249-441-11	CARBON	100K 5% 1/4W
R930	1-249-429-11	CARBON	10K 5% 1/4W
R931	1-249-429-11	CARBON	10K 5% 1/4W
R932	1-249-425-11	CARBON	4.7K 5% 1/4W F
R935	1-249-437-11	CARBON	47K 5% 1/4W
R938	1-247-807-31	CARBON	100 5% 1/4W
R940	1-249-429-11	CARBON	10K 5% 1/4W
R941	1-249-429-11	CARBON	10K 5% 1/4W
R942	1-249-429-11	CARBON	10K 5% 1/4W
R945	1-249-421-11	CARBON	2.2K 5% 1/4W F
R951	1-249-421-11	CARBON	2.2K 5% 1/4W F
R952	1-249-421-11	CARBON	2.2K 5% 1/4W F
R955	1-249-441-11	CARBON	100K 5% 1/4W
R956	1-247-891-00	CARBON	330K 5% 1/4W
R957	1-247-887-00	CARBON	220K 5% 1/4W
R958	1-249-433-11	CARBON	22K 5% 1/4W
R959	1-249-419-11	CARBON	1.5K 5% 1/4W F
R960	1-249-429-11	CARBON	10K 5% 1/4W
R961	1-249-421-11	CARBON	2.2K 5% 1/4W F
R962	1-249-441-11	CARBON	100K 5% 1/4W
R963	1-249-429-11	CARBON	10K 5% 1/4W
R964	1-249-437-11	CARBON	47K 5% 1/4W
R965	1-249-441-11	CARBON	100K 5% 1/4W
R967	1-247-903-00	CARBON	1M 5% 1/4W
R968	1-249-431-11	CARBON	15K 5% 1/4W
R970	1-247-903-00	CARBON	1M 5% 1/4W
R1001	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1002	1-249-409-11	CARBON	220 5% 1/4W F
R1003	1-249-417-11	CARBON	1K 5% 1/4W F
R1007	1-249-417-11	CARBON	1K 5% 1/4W F
R1020	1-249-409-11	CARBON	220 5% 1/4W F
R1021	1-249-409-11	CARBON	220 5% 1/4W F
R1022	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1023	1-249-417-11	CARBON	1K 5% 1/4W F
R1220	1-249-389-11	CARBON	4.7 5% 1/4W F (AEP,UK,G,IT,EE)
R1221	1-249-389-11	CARBON	4.7 5% 1/4W F (AEP,UK,G,IT,EE)
R1222	1-249-407-11	CARBON	150 5% 1/4W F
R1223	1-249-407-11	CARBON	150 5% 1/4W F (TH)
△R1226	1-215-864-00	METAL OXIDE	150 5% 1W F
R1231	1-249-437-11	CARBON	47K 5% 1/4W (E,JE,EA,HK,MY,SP,TW,IA,TH)
R1233	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1234	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1235	1-249-435-11	CARBON	33K 5% 1/4W
R1236	1-249-441-11	CARBON	100K 5% 1/4W
R1237	1-249-429-11	CARBON	10K 5% 1/4W

Ref. No.	Part No.	Description	Remark
R1238	1-249-419-11	CARBON	1.5K 5% 1/4W
R1240	1-249-438-11	CARBON	56K 5% 1/4W
R1241	1-249-397-11	CARBON	22 5% 1/4W F
R1245	1-249-433-11	CARBON	22K 5% 1/4W
R1249	1-249-389-11	CARBON	4.7 5% 1/4W F (AEP,UK,G,IT,EE)
R1250	1-249-429-11	CARBON	10K 5% 1/4W
R1264	1-249-429-11	CARBON	10K 5% 1/4W
R1265	1-249-429-11	CARBON	10K 5% 1/4W
R1266	1-249-429-11	CARBON	10K 5% 1/4W
R1267	1-249-429-11	CARBON	10K 5% 1/4W
R1270	1-249-389-11	CARBON	4.7 5% 1/4W F (AEP,UK,G,IT,EE)
R1271	1-249-389-11	CARBON	4.7 5% 1/4W F (AEP,UK,G,IT,EE)
R1272	1-249-407-11	CARBON	150 5% 1/4W F
R1273	1-249-407-11	CARBON	150 5% 1/4W F
R1281	1-249-437-11	CARBON	47K 5% 1/4W (E,JE,EA,HK,MY,SP,TW,IA,TH)
R1290	1-249-437-11	CARBON	47K 5% 1/4W
R1295	1-249-433-11	CARBON	22K 5% 1/4W
R1296	1-249-421-11	CARBON	2.2K 5% 1/4W F (E,JE,EA,HK,MY,SP,TW,IA,TH)
R1299	1-249-389-11	CARBON	4.7 5% 1/4W F (AEP,UK,G,IT,EE)
R1303	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1304	1-249-425-11	CARBON	4.7K 5% 1/4W F
△R1601	1-217-637-00	FUSIBLE	1 5% 1/4W F
△R1602	1-219-122-91	FUSIBLE	0.33 5% 1/4W F
△R1603	1-219-122-91	FUSIBLE	0.33 5% 1/4W F
△R1604	1-217-637-00	FUSIBLE	1 5% 1/4W F
< VARIABLE RESISTOR >			
RV301	1-238-600-11	RES, ADJ, CARBON 10K	
RV351	1-238-600-11	RES, ADJ, CARBON 10K	
< RELAY >			
RY1201	1-515-920-11	RELAY (24V)	
< TERMINAL >			
G1001	1-537-770-21	TERMINAL BOARD,GROUND (AEP,UK,G,IT,EE)	
TM1201	1-537-240-31	TERMINAL BOARD (CHECKER PIN)(SPEAKER)	
< VIBRATOR >			
X701	1-579-175-11	VIBRATOR, CERAMIC (10MHz)	
X702	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)	

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



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-435-A	MD BOARD, COMPLETE ***** (including MOTOR board)		IC611	8-759-710-59	IC NJM4580D-D	
		< CAPACITOR >				< COIL >	
C301	1-162-289-31	CERAMIC	390PF 10% 50V	L331	1-410-780-11	INDUCTOR 27mH	
C302	1-126-968-11	ELECT	100uF 20% 6.3V	L431	1-410-780-11	INDUCTOR 27mH	
C303	1-162-282-31	CERAMIC	100PF 10% 50V			< TRANSISTOR >	
C304	1-107-715-11	ELECT	22uF 20% 16V	Q621	8-729-142-46	TRANSISTOR 2SC2001-LK	
C304	1-130-483-00	MYLAR	0.01uF 5% 50V	Q622	8-729-142-46	TRANSISTOR 2SC2001-LK	
				Q623	8-729-030-18	TRANSISTOR 2SD2525	
C305	1-107-715-11	ELECT	22uF 20% 16V	Q651	8-729-900-65	TRANSISTOR DTA144ES	
C311	1-162-289-31	CERAMIC	390PF 10% 50V			< RESISTOR >	
C313	1-162-282-31	CERAMIC	100PF 10% 50V	R301	1-247-881-00	CARBON 120K 5%	1/4W
C314	1-130-487-00	MYLAR	0.022uF 5% 50V	R302	1-249-409-11	CARBON 220 5%	1/4W F
C315	1-126-233-11	ELECT	22uF 20% 50V	R303	1-249-433-11	CARBON 22K 5%	1/4W
				R304	1-247-889-00	CARBON 270K 5%	1/4W
C331	1-137-427-11	FILM	120PF 5% 50V	R305	1-247-858-11	CARBON 13K 5%	1/4W
C332	1-162-288-31	CERAMIC	330PF 10% 50V				
C333	1-162-209-31	CERAMIC	27PF 5% 50V	R311	1-247-881-00	CARBON 120K 5%	1/4W
C401	1-162-289-31	CERAMIC	390PF 10% 50V	R312	1-247-807-31	CARBON 100 5%	1/4W
C402	1-126-968-11	ELECT	100uF 20% 6.3V	R314	1-247-882-11	CARBON 130K 5%	1/4W
				R315	1-247-850-11	CARBON 6.2K 5%	1/4W
C403	1-162-282-31	CERAMIC	100PF 10% 50V	R331	1-249-430-11	CARBON 12K 5%	1/4W
C404	1-130-483-00	MYLAR	0.01uF 5% 50V				
C411	1-162-289-31	CERAMIC	390PF 10% 50V	R401	1-247-881-00	CARBON 120K 5%	1/4W
C413	1-162-282-31	CERAMIC	100PF 10% 50V	R402	1-249-409-11	CARBON 220 5%	1/4W F
C414	1-130-487-00	MYLAR	0.022uF 5% 50V	R403	1-249-433-11	CARBON 22K 5%	1/4W
				R404	1-247-889-00	CARBON 270K 5%	1/4W
C415	1-126-233-11	ELECT	22uF 20% 50V	R405	1-247-858-11	CARBON 13K 5%	1/4W
C431	1-137-427-11	FILM	120PF 5% 50V				
C432	1-162-288-31	CERAMIC	330PF 10% 50V	R411	1-247-881-00	CARBON 120K 5%	1/4W
C433	1-162-209-31	CERAMIC	27PF 5% 50V	R412	1-247-807-31	CARBON 100 5%	1/4W
C601	1-126-157-11	ELECT	10uF 20% 16V	R414	1-247-882-11	CARBON 130K 5%	1/4W
				R415	1-247-850-11	CARBON 6.2K 5%	1/4W
C602	1-126-157-11	ELECT	10uF 20% 16V	R431	1-249-430-11	CARBON 12K 5%	1/4W
C611	1-124-907-11	ELECT	10uF 20% 50V				
C612	1-124-907-11	ELECT	10uF 20% 50V	R601	1-249-409-11	CARBON 220 5%	1/4W F
C621	1-137-150-11	FILM	0.01uF 5% 100V	R602	1-249-409-11	CARBON 220 5%	1/4W F
C622	1-126-961-11	ELECT	2.2uF 20% 50V	R608	1-249-409-11	CARBON 220 5%	1/4W F
				R609	1-249-433-11	CARBON 22K 5%	1/4W
C623	1-136-155-00	FILM	0.015uF 5% 50V	R611	1-249-409-11	CARBON 220 5%	1/4W F
C624	1-130-481-00	MYLAR	0.0068uF 5% 50V				
C625	1-130-481-00	MYLAR	0.0068uF 5% 50V	R612	1-249-409-11	CARBON 220 5%	1/4W F
C627	1-124-903-11	ELECT	1uF 20% 50V	△R621	1-212-851-00	FUSIBLE 5.6 5%	1/4W F
C628	1-136-153-00	FILM	0.01uF 5% 50V	△R622	1-212-851-00	FUSIBLE 5.6 5%	1/4W F
				R623	1-249-432-11	CARBON 18K 5%	1/4W
C642	1-104-664-11	ELECT	47uF 20% 16V	R624	1-249-432-11	CARBON 18K 5%	1/4W
C651	1-161-494-00	CERAMIC	0.022uF 25V				
		< CONNECTOR >					
* CN601	1-568-864-11	SOCKET, CONNECTOR 21P		R625	1-249-429-11	CARBON 10K 5%	1/4W
* CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P		R651	1-247-856-00	CARBON 11K 5%	1/4W
* CN651	1-564-521-11	PLUG, CONNECTOR 6P		R652	1-247-856-00	CARBON 11K 5%	1/4W
		< IC >		R653	1-249-441-11	CARBON 100K 5%	1/4W
IC601	8-759-710-59	IC NJM4580D-D				< VARIABLE RESISTOR >	
IC602	8-759-143-54	IC uPC1330HA		RV301	1-238-598-11	RES, ADJ, CARBON 2.2K	

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
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K	
RV341	1-238-551-11	RES, ADJ, CARBON 220K	
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K	
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K	
RV441	1-238-551-11	RES, ADJ, CARBON 220K	
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K	
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K	
		< TRANSFORMER >	
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION	
*****			
*	A-4389-446-A	PANEL BOARD, COMPLETE (AEP,UK,G,IT,EE) *****	
*	A-4389-447-A	PANEL BOARD, COMPLETE ***** (E,JE,EA,HK,MY,SP,TW)	
*	A-4390-128-A	PANEL BOARD, COMPLETE (TH) *****	
*	A-4390-514-A	PANEL BOARD, COMPLETE (IA) *****	
*	4-932-810-11	CUSHION (FL)	
*	4-978-168-01	HOLDER, FL TUBE	
		< CAPACITOR >	
C513	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C514	1-124-589-11	ELECT 47uF 20% 16V	
C515	1-164-159-11	CERAMIC 0.1uF 50V	
C522	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C530	1-124-261-00	ELECT 10uF 20% 50V	
C531	1-124-261-00	ELECT 10uF 20% 50V	
C532	1-164-159-11	CERAMIC 0.1uF 50V (AEP, UK, G, IT, EE)	
		< CONNECTOR >	
* CN501	1-568-854-11	SOCKET, CONNECTOR 11P	
		< DIODE >	
D579	8-719-032-87	DIODE SEL5420S-TP (TUNER/BAND)	
D580	8-719-812-44	DIODE TLO124 (EFFECT ON/OFF)	
D581	8-719-033-06	DIODE SEL5920A (GROOVE)	
D583	8-719-057-28	DIODE SML78420-TP4 (▶▶▶)(TH)	
D583	8-719-056-12	DIODE SML79420C-TP4 (▶▶▶)(IA)	
D583	8-719-056-13	DIODE SML79423C-TP15 (▶▶▶) (EXCEPT IA,TH)	
D585	8-719-033-06	DIODE SEL5920A (■ PAUSE)	
D586	8-719-812-44	DIODE TLO124 (● REC)	
D587	8-719-032-87	DIODE SEL5420S-TP (▶▶)(DECK B)	
D588	8-719-032-87	DIODE SEL5420S-TP (◀◀)(DECK B)	

Ref. No.	Part No.	Description	Remark
D589	8-719-032-87	DIODE SEL5420S-TP (▶▶)(DECK A)	
D590	8-719-032-87	DIODE SEL5420S-TP (◀◀)(DECK A)	
D601	8-719-033-06	DIODE SEL5920A (CD)	
D611	8-719-033-06	DIODE SEL5920A (TUNER)	
D621	8-719-033-06	DIODE SEL5920A (TIMER)	
		< FLUORESCENT INDICATOR >	
FL501	1-517-489-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC501	8-759-375-45	IC ASD042	
IC502	8-759-332-18	IC GP1U27XB	
		< TRANSISTOR >	
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q507	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q508	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q510	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q603	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< RESISTOR >	
R500	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R501	1-249-401-11	CARBON 47 5% 1/4W F	
R502	1-249-413-11	CARBON 470 5% 1/4W F	
R503	1-249-411-11	CARBON 330 5% 1/4W F	
R504	1-249-413-11	CARBON 470 5% 1/4W F	
R505	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R506	1-249-401-11	CARBON 47 5% 1/4W F	
R507	1-249-403-11	CARBON 68 5% 1/4W F	
R508	1-247-807-31	CARBON 100 5% 1/4W F	
R509	1-249-407-11	CARBON 150 5% 1/4W F	
R510	1-249-407-11	CARBON 150 5% 1/4W F	
R515	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R516	1-249-401-11	CARBON 47 5% 1/4W F	
R517	1-249-403-11	CARBON 68 5% 1/4W F	
R518	1-247-807-31	CARBON 100 5% 1/4W F	
R519	1-249-407-11	CARBON 150 5% 1/4W F	
R520	1-249-407-11	CARBON 150 5% 1/4W F	
R521	1-249-409-11	CARBON 220 5% 1/4W F	
R522	1-249-411-11	CARBON 330 5% 1/4W F	
R523	1-249-413-11	CARBON 470 5% 1/4W F	
R524	1-249-415-11	CARBON 680 5% 1/4W F	
R525	1-249-417-11	CARBON 1K 5% 1/4W F	

**PANEL**

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R526	1-249-419-11	CARBON	1.5K	5%	1/4W F	R586	1-249-407-11	CARBON	150	5%	1/4W F
R527	1-249-421-11	CARBON	2.2K	5%	1/4W F	R587	1-247-807-31	CARBON	100	5%	1/4W
R528	1-249-423-11	CARBON	3.3K	5%	1/4W F	R588	1-247-807-31	CARBON	100	5%	1/4W
R529	1-249-427-11	CARBON	6.8K	5%	1/4W F	R589	1-247-807-31	CARBON	100	5%	1/4W
R530	1-249-431-11	CARBON	15K	5%	1/4W	R590	1-247-807-31	CARBON	100	5%	1/4W
R531	1-249-419-11	CARBON	1.5K	5%	1/4W F	R601	1-249-403-11	CARBON	68	5%	1/4W F
R532	1-249-401-11	CARBON	47	5%	1/4W F	R611	1-249-403-11	CARBON	68	5%	1/4W F
R533	1-249-413-11	CARBON	470	5%	1/4W F	R621	1-249-403-11	CARBON	68	5%	1/4W F
R534	1-249-409-11	CARBON	220	5%	1/4W F	R631	1-249-417-11	CARBON	1K	5%	1/4W F
R535	1-249-411-11	CARBON	330	5%	1/4W	R632	1-249-417-11	CARBON	1K	5%	1/4W F
R536	1-249-413-11	CARBON	470	5%	1/4W F	R633	1-249-417-11	CARBON	1K	5%	1/4W F
R537	1-249-415-11	CARBON	680	5%	1/4W F	R650	1-249-429-11	CARBON	10K	5%	1/4W
R538	1-249-417-11	CARBON	1K	5%	1/4W F	R651	1-249-421-11	CARBON	2.2K	5%	1/4W F
R539	1-249-419-11	CARBON	1.5K	5%	1/4W F	R652	1-249-429-11	CARBON	10K	5%	1/4W
R540	1-249-421-11	CARBON	2.2K	5%	1/4W F	R653	1-249-421-11	CARBON	2.2K	5%	1/4W F
R541	1-249-423-11	CARBON	3.3K	5%	1/4W F			< SWITCH >			
R542	1-249-425-11	CARBON	4.7K	5%	1/4W F	S500	1-554-303-21	SWITCH, TACTILE (POWER)			
R543	1-247-807-31	CARBON	100	5%	1/4W	S501	1-554-303-21	SWITCH, TACTILE (LOOP)			
R544	1-247-807-31	CARBON	100	5%	1/4W	S502	1-554-303-21	SWITCH, TACTILE (≡ OPEN/CLOSE)			
R545	1-247-807-31	CARBON	100	5%	1/4W	S503	1-554-303-21	SWITCH, TACTILE (■)			
R546	1-247-807-31	CARBON	100	5%	1/4W	S504	1-554-303-21	SWITCH, TACTILE (▷◁)			
R547	1-247-807-31	CARBON	100	5%	1/4W	S505	1-554-303-21	SWITCH, TACTILE (TIMER)			
R548	1-247-807-31	CARBON	100	5%	1/4W	S506	1-554-303-21	SWITCH, TACTILE (DISPLAY/DEMO)			
R549	1-249-429-11	CARBON	10K	5%	1/4W	S507	1-554-303-21	SWITCH, TACTILE			(MULTI FUNCTION CONTROL 1)
R550	1-249-409-11	CARBON	220	5%	1/4W F	S508	1-554-303-21	SWITCH, TACTILE			(MULTI FUNCTION CONTROL 2)
R551	1-249-437-11	CARBON	47K	5%	1/4W	S509	1-554-303-21	SWITCH, TACTILE			(MULTI FUNCTION CONTROL 3)
R556	1-249-429-11	CARBON	10K	5%	1/4W	S510	1-554-303-21	SWITCH, TACTILE			(MULTI FUNCTION CONTROL 4)
R557	1-249-429-11	CARBON	10K	5%	1/4W	S515	1-554-303-21	SWITCH, TACTILE (MENU 1)			
R558	1-249-429-11	CARBON	10K	5%	1/4W	S516	1-554-303-21	SWITCH, TACTILE (MENU 2)			
R559	1-249-429-11	CARBON	10K	5%	1/4W	S517	1-554-303-21	SWITCH, TACTILE (MENU 3)			
R560	1-249-429-11	CARBON	10K	5%	1/4W	S519	1-554-303-21	SWITCH, TACTILE (P FILE)			
R561	1-249-429-11	CARBON	10K	5%	1/4W	S520	1-554-303-21	SWITCH, TACTILE (EFFECT ON/OFF)			
R562	1-249-429-11	CARBON	10K	5%	1/4W	S521	1-554-303-21	SWITCH, TACTILE (SURROUND)			
R563	1-249-401-11	CARBON	47	5%	1/4W F	S522	1-554-303-21	SWITCH, TACTILE (▷)(DECK B)			
R564	1-249-401-11	CARBON	47	5%	1/4W F	S523	1-554-303-21	SWITCH, TACTILE (◁)(DECK B)			
R565	1-249-429-11	CARBON	10K	5%	1/4W	S524	1-554-303-21	SWITCH, TACTILE (▶▶)(DECK B)			
R566	1-249-429-11	CARBON	10K	5%	1/4W	S525	1-554-303-21	SWITCH, TACTILE (■)(DECK B)			
R567	1-249-429-11	CARBON	10K	5%	1/4W	S526	1-554-303-21	SWITCH, TACTILE (◀◀)(DECK B)			
R568	1-249-429-11	CARBON	10K	5%	1/4W	S527	1-554-303-21	SWITCH, TACTILE (⏸ PAUSE)			
R569	1-249-429-11	CARBON	10K	5%	1/4W	S528	1-554-303-21	SWITCH, TACTILE (● REC)			
R570	1-249-437-11	CARBON	47K	5%	1/4W	S529	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)			
R571	1-249-429-11	CARBON	10K	5%	1/4W	S530	1-554-303-21	SWITCH, TACTILE (HIGH SPEED DUBBING)			
R572	1-249-429-11	CARBON	10K	5%	1/4W	S533	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)			
R573	1-249-429-11	CARBON	10K	5%	1/4W	S534	1-554-303-21	SWITCH, TACTILE (FUNCTION)			
R574	1-249-429-11	CARBON	10K	5%	1/4W	S535	1-554-303-21	SWITCH, TACTILE (GROOVE)			
R575	1-249-429-11	CARBON	10K	5%	1/4W	S536	1-554-303-21	SWITCH, TACTILE (DIRECTION)			
R576	1-249-429-11	CARBON	10K	5%	1/4W						
R577	1-247-903-00	CARBON	1M	5%	1/4W						
R578	1-247-807-31	CARBON	100	5%	1/4W						
R579	1-249-437-11	CARBON	47K	5%	1/4W						
R580	1-249-407-11	CARBON	150	5%	1/4W F						
R581	1-247-807-31	CARBON	100	5%	1/4W						
R583	1-247-807-31	CARBON	100	5%	1/4W						
R584	1-247-807-31	CARBON	100	5%	1/4W						
R585	1-247-807-31	CARBON	100	5%	1/4W						

**PANEL**

**POWER AMP**

Ref. No.	Part No.	Description	Remark
S537	1-554-303-21	SWITCH, TACTILE (DOLBY NR)	
S538	1-554-303-21	SWITCH, TACTILE (▶▶)(DECK A)	
S539	1-554-303-21	SWITCH, TACTILE (■)(DECK A)	
S540	1-554-303-21	SWITCH, TACTILE (◀◀)(DECK A)	
S541	1-554-303-21	SWITCH, TACTILE (▷)(DECK A)	
S542	1-554-303-21	SWITCH, TACTILE (◁)(DECK A)	
		< VIBRATOR >	
X501	1-760-489-11	VIBRATOR, CERAMIC (5MHz)	
*****			
*	A-4389-444-A	POWER AMP BOARD, COMPLETE ***** (AEP, UK, G, IT, EE)	
*	A-4389-445-A	POWER AMP BOARD, COMPLETE ***** (E, JE, EA, HK, MY, SP, TW)	
*	A-4390-127-A	POWER AMP BOARD, COMPLETE (TH) *****	
*	A-4390-513-A	POWER AMP BOARD, COMPLETE (IA) *****  < CAPACITOR >	
C1201	1-126-963-11	ELECT	4.7uF 20% 50V
C1202	1-162-288-31	CERAMIC	330PF 10% 50V
C1203	1-162-286-31	CERAMIC	220PF 10% 50V
C1204	1-126-967-11	ELECT	47uF 20% 10V
C1205	1-126-967-11	ELECT	47uF 20% 50V
C1206	1-126-968-11	ELECT	100uF 20% 50V
C1208	1-126-965-11	ELECT	22uF 20% 50V
C1210	1-136-495-11	FILM	0.068uF 5% 50V
C1211	1-136-495-11	FILM	0.068uF 5% 50V
C1220	1-126-925-11	ELECT	470uF 20% 10V
C1225	1-162-284-31	CERAMIC	150PF 10% 50V
C1227	1-164-159-21	CERAMIC	0.1uF 50V
C1246	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
C1251	1-126-963-11	ELECT	4.7uF 20% 50V
C1252	1-162-288-31	CERAMIC	330PF 10% 50V
C1253	1-162-286-31	CERAMIC	220PF 10% 50V
C1254	1-126-967-11	ELECT	47uF 20% 10V
C1255	1-126-967-11	ELECT	47uF 20% 50V
C1256	1-126-968-11	ELECT	100uF 20% 50V
C1260	1-136-495-11	FILM	0.068uF 5% 50V
C1261	1-136-495-11	FILM	0.068uF 5% 50V
C1296	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D1201	8-719-987-63	DIODE 1N4148M	
D1202	8-719-987-63	DIODE 1N4148M	
D1251	8-719-987-63	DIODE 1N4148M	
		< IC >	
IC1201	8-749-920-13	IC STK-4132MK2 (E, JE, EA, HK, MY, SP, TW, IA, TH)	
IC1201	8-749-920-19	IC STK-4122-2-K (AEP, UK, G, IT, EE)	
		< TRANSISTOR >	
Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
		< RESISTOR >	
R1201	1-249-417-11	CARBON	1K 5% 1/4W F
R1202	1-249-437-11	CARBON	47K 5% 1/4W
R1203	1-249-415-11	CARBON	680 5% 1/4W F
R1204	1-249-437-11	CARBON	47K 5% 1/4W
R1205	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1206	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1207	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1208	1-249-425-11	CARBON	4.7K 5% 1/4W F
△R1209	1-212-881-11	FUSIBLE	100 5% 1/4W F
△R1210	1-208-602-11	WIREWOUND	0.22 10% 2W F
R1211	1-249-417-11	CARBON	1K 5% 1/4W F
R1212	1-249-431-11	CARBON	15K 5% 1/4W
R1213	1-249-441-11	CARBON	100K 5% 1/4W
R1214	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1215	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1216	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1217	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1218	1-249-397-11	CARBON	22 5% 1/4W F
R1219	1-249-397-11	CARBON	22 5% 1/4W F
R1228	1-247-887-00	CARBON	220K 5% 1/4W
R1230	1-249-429-11	CARBON	10K 5% 1/4W
R1242	1-249-435-11	CARBON	33K 5% 1/4W
R1251	1-249-417-11	CARBON	1K 5% 1/4W F
R1252	1-249-437-11	CARBON	47K 5% 1/4W
R1253	1-249-415-11	CARBON	680 5% 1/4W F
R1254	1-249-437-11	CARBON	47K 5% 1/4W
R1255	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1256	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1257	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1258	1-249-425-11	CARBON	4.7K 5% 1/4W F
△R1259	1-212-881-11	FUSIBLE	100 5% 1/4W F
△R1260	1-208-602-11	WIREWOUND	0.22 10% 2W F
R1261	1-249-417-11	CARBON	1K 5% 1/4W F
R1262	1-249-431-11	CARBON	15K 5% 1/4W
R1263	1-249-441-11	CARBON	100K 5% 1/4W

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
R1268	1-249-397-11	CARBON	22 5% 1/4W F	C46	1-163-077-00	CERAMIC CHIP	0.1uF 10% 25V
R1269	1-249-397-11	CARBON	22 5% 1/4W F	C47	1-126-967-11	ELECT	47uF 20% 16V
*****							
*	A-4303-514-A	TCB BOARD, COMPLETE (AEP,UK)	*****	C48	1-163-031-11	CERAMIC CHIP	0.01uF 50V
*	A-4303-515-A	TCB BOARD, COMPLETE (IT,G)	*****	C49	1-124-902-00	ELECT	0.47uF 20% 50V
*	A-4303-516-A	TCB BOARD, COMPLETE (EE)	*****	C50	1-124-903-11	ELECT	1.0uF 20% 50V
< CAPACITOR >							
C1	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V	C51	1-124-903-11	ELECT	1.0uF 20% 50V
C2	1-126-967-11	ELECT	47uF 20% 16V	C52	1-126-964-11	ELECT	10uF 20% 50V
C3	1-163-038-91	CERAMIC CHIP	0.1uF 25V	C53	1-126-964-11	ELECT	10uF 20% 50V
C5	1-163-031-11	CERAMIC CHIP	0.01uF 50V	C54	1-126-157-11	ELECT	10uF 20% 16V
C6	1-163-038-91	CERAMIC CHIP	0.1uF 25V	C55	1-126-157-11	ELECT	10uF 20% 16V
C7	1-101-004-00	CERAMIC	0.01uF 50V (EE)	C56	1-126-157-11	ELECT	10uF 20% 16V
C8	1-163-031-11	CERAMIC CHIP	0.01uF 50V	C57	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C9	1-163-031-11	CERAMIC CHIP	0.01uF 50V	C58	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C10	1-163-031-11	CERAMIC CHIP	0.01uF 50V	C59	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C11	1-216-295-11	METAL CHIP	0 5% 1/10W (IT,G)	C59	1-163-989-11	CERAMIC CHIP	33000PF 10% 25V (EE)
C16	1-163-038-91	CERAMIC CHIP	0.1uF 25V	C60	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C19	1-163-249-11	CERAMIC CHIP	82PF 5% 50V (AEP,UK,EE)	C60	1-163-989-11	CERAMIC CHIP	33000PF 10% 25V (EE)
C21	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V	C61	1-126-301-11	ELECT	1.0uF 20% 50V
C22	1-163-031-11	CERAMIC CHIP	0.01uF 50V	C62	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C23	1-163-235-11	CERAMIC CHIP	22PF 5% 50V	C63	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V
C24	1-163-239-11	CERAMIC CHIP	33PF 5% 50V	C64	1-126-967-11	ELECT	47uF 20% 16V
C26	1-126-967-11	ELECT	47uF 20% 16V	C65	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C28	1-126-967-11	ELECT	47uF 20% 16V	C66	1-126-162-11	ELECT	3.3uF 20% 50V
C29	1-162-306-11	CERAMIC	0.01uF 30% 16V	C67	1-126-933-11	ELECT	100uF 20% 10V
C30	1-124-925-11	ELECT	2.2uF 20% 100V	C68	1-162-306-11	CERAMIC	0.01uF 30% 16V
C31	1-163-031-11	CERAMIC CHIP	0.01uF 50V	C71	1-162-306-11	CERAMIC	0.01uF 30% 16V
C32	1-163-038-91	CERAMIC CHIP	0.1uF 25V	C72	1-126-967-11	ELECT	47uF 20% 16V
C33	1-163-038-91	CERAMIC CHIP	0.1uF 25V	C120	1-163-105-00	CERAMIC CHIP	33PF 5% 50V
C34	1-163-091-00	CERAMIC CHIP	8PF 50V (IT,G)	< FILTER >			
C34	1-163-229-11	CERAMIC CHIP	12PF 5% 50V (AEP,UK,EE)	CF1	1-567-389-11	FILTER, CERAMIC (EE)	
C35	1-163-038-91	CERAMIC CHIP	0.1uF 25V	CF1	1-579-374-71	FILTER, CERAMIC (AEP,UK,IT,G)	
C36	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V	CF2	1-760-393-11	FILTER, CERAMIC (AEP,UK,IT,G)	
C37	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V	CF3	1-567-389-11	FILTER, CERAMIC (EE)	
C39	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V	CF3	1-760-393-11	FILTER, CERAMIC (AEP,UK,IT,G)	
C40	1-163-031-11	CERAMIC CHIP	0.01uF 50V	< CONNECTOR >			
C41	1-163-031-11	CERAMIC CHIP	0.01uF 50V	* CN1	1-568-834-11	SOCKET, CONNECTOR 15P	
C42	1-163-038-91	CERAMIC CHIP	0.1uF 25V	< DIODE >			
C43	1-163-038-91	CERAMIC CHIP	0.1uF 25V	D21	8-719-976-99	DIODE DTZ5.1B	
C44	1-163-031-11	CERAMIC CHIP	0.01uF 50V	D41	8-719-016-74	DIODE 1SS352	
C45	1-163-038-91	CERAMIC CHIP	0.1uF 25V	< FRONTEND >			
C41	1-163-031-11	CERAMIC CHIP	0.01uF 50V	FE1	1-693-335-11	FRONT END (3 GANG)(EE)	
C42	1-163-038-91	CERAMIC CHIP	0.1uF 25V	FE1	1-233-542-11	FRONT END (4 GANG)(AEP,UK,IT,G)	
C43	1-163-038-91	CERAMIC CHIP	0.1uF 25V	FE2	1-233-514-11	ENCAPSULATED COMPONENT (AEP,UK,EE)	
C44	1-163-031-11	CERAMIC CHIP	0.01uF 50V	FE2	1-239-260-11	ENCAPSULATED COMPONENT (IT,G)	
C45	1-163-038-91	CERAMIC CHIP	0.1uF 25V				

Ref. No.	Part No.	Description	Remark
< IC >			
IC21	8-759-288-54	IC LC72130	
IC41	8-759-176-03	IC LA1835	
< IFT >			
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
< JUMPER RESISTOR >			
JR1	1-216-295-91	METAL CHIP 0 5% 1/10W (IT,G)	
JR2	1-216-295-91	METAL CHIP 0 5% 1/10W (AEP,UK,EE)	
JR3	1-216-295-91	METAL CHIP 0 5% 1/10W (IT,G)	
JR6	1-216-295-91	METAL CHIP 0 5% 1/10W (AEP,UK,IT,G)	
JR7	1-216-295-91	METAL CHIP 0 5% 1/10W (IT,G)	
JR8	1-216-295-91	METAL CHIP 0 5% 1/10W (AEP,UK,EE)	
JR9	1-216-295-91	METAL CHIP 0 5% 1/10W (AEP,UK,EE)	
JR45	1-216-295-91	METAL CHIP 0 5% 1/10W	
JR46	1-216-296-11	METAL CHIP 0 5% 1/8W	
JR47	1-216-295-91	METAL CHIP 0 5% 1/10W	
JR48	1-216-295-91	METAL CHIP 0 5% 1/10W	
JR49	1-216-296-11	METAL CHIP 0 5% 1/8W	
JR51	1-216-295-91	METAL CHIP 0 5% 1/10W (AEP,UK,EE)	
JR52	1-216-295-91	METAL CHIP 0 5% 1/10W	
JR53	1-216-296-11	METAL CHIP 0 5% 1/8W (AEP,UK,EE)	
JR54	1-216-295-91	METAL CHIP 0 5% 1/10W	
< JUMPER RESISTOR >			
JW4	1-249-413-11	CARBON 470 5% 1/4W (AEP,UK,IT,G)	
JW5	1-249-413-11	CARBON 470 5% 1/4W (AEP,UK,IT,G)	
< COIL >			
L2	1-414-142-11	MICRO INDUCTOR 1uH (AEP,UK,IT,G)	
L3	1-410-521-11	MICRO INDUCTOR 100uH	
L4	1-410-515-11	INDUCTOR 33uH (AEP,UK,IT,G)	
L41	1-407-500-00	MICRO INDUCTOR 4.7mH (AEP,UK,EE)	
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH (IT,G)	
< FILTER >			
LPF41	1-239-845-11	FILTER, LOW PASS	
LPF42	1-239-845-11	FILTER, LOW PASS	

Ref. No.	Part No.	Description	Remark
< TRANSISTOR >			
Q1	8-729-201-27	TRANSISTOR 2SC2715Y	
Q2	8-729-201-27	TRANSISTOR 2SC2715Y	
Q3	8-729-201-27	TRANSISTOR 2SC2715Y	
Q4	8-729-201-27	TRANSISTOR 2SC2715Y	
Q5	8-729-424-08	TRANSISTOR UN2111	
Q9	8-729-216-22	TRANSISTOR 2SA812-M5M6 (AEP,UK,EE)	
Q11	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)	
Q12	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)	
Q13	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)	
Q14	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)	
< RESISTOR >			
R1	1-249-401-11	CARBON 47 5% 1/4W F	
R2	1-216-037-00	METAL CHIP 330 5% 1/10W	
R3	1-216-037-00	METAL CHIP 330 5% 1/10W	
R5	1-216-037-00	METAL CHIP 330 5% 1/10W	
R6	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R7	1-216-037-00	METAL CHIP 330 5% 1/10W	
R8	1-216-037-00	METAL CHIP 330 5% 1/10W	
R9	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R10	1-216-037-00	METAL CHIP 330 5% 1/10W	
R11	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R12	1-216-037-00	METAL CHIP 330 5% 1/10W	
R13	1-216-037-00	METAL CHIP 330 5% 1/10W	
R14	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R18	1-216-073-00	METAL CHIP 10K 5% 1/10W (AEP,UK,EE)	
R19	1-216-073-00	METAL CHIP 10K 5% 1/10W (AEP,UK,EE)	
R21	1-216-049-91	METAL CHIP 1.0K 5% 1/10W	
R22	1-216-049-91	METAL CHIP 1.0K 5% 1/10W	
R23	1-216-049-91	METAL CHIP 1.0K 5% 1/10W	
R24	1-216-025-91	METAL CHIP 100 5% 1/10W	
R25	1-249-417-11	CARBON 1.0K 5% 1/4W F	
R26	1-249-437-11	CARBON 47K 5% 1/4W	
R27	1-249-429-11	CARBON 10K 5% 1/4W	
R28	1-249-417-11	CARBON 1.0K 5% 1/4W F	
R29	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R30	1-216-186-00	METAL CHIP 330 5% 1/8W	
R31	1-216-025-91	METAL CHIP 100 5% 1/10W	
R32	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R33	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R34	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R35	1-216-214-00	METAL CHIP 4.7K 5% 1/8W	
R36	1-216-025-91	METAL CHIP 100 5% 1/10W	
R37	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R38	1-216-089-91	METAL CHIP 47K 5% 1/10W	
R39	1-249-429-11	CARBON 10K 5% 1/4W	
R42	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R43	1-216-042-00	METAL CHIP 510 5%	1/10W
R44	1-216-013-00	METAL CHIP 33 5%	1/10W
R45	1-249-423-11	CARBON 3.3K 5%	1/4W F
R46	1-216-073-00	METAL CHIP 10K 5%	1/10W
R47	1-216-097-91	METAL CHIP 100K 5%	1/10W
R48	1-249-417-11	CARBON 1.0K 5%	1/4W F
R49	1-216-049-91	METAL CHIP 1.0K 5%	1/10W
R50	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R51	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R53	1-249-429-11	CARBON 10K 5%	1/4W
R55	1-216-162-00	METAL CHIP 33 5%	1/8W
R56	1-249-393-11	CARBON 10 5%	1/4W F
R91	1-216-295-91	METAL CHIP 0 5%	1/10W (AEP,UK,EE)
R92	1-216-073-00	METAL CHIP 10K 5%	1/10W (AEP,UK,EE)
R99	1-249-399-11	CARBON 33 5%	1/4W F
		< VARIABLE RESISTOR >	
RV41	1-238-601-11	RES, ADJ, CARBON 22K	
RV42	1-238-600-11	RES, ADJ, CARBON 10K	
		< TERMINAL >	
TM1	1-537-488-11	TERMINAL BOARD (ANT)(ANTENNA)	
		< VIBRATOR >	
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)	
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)	
X42	1-527-981-00	FILTER, CERAMIC (450kHz)	
X43	1-577-075-11	OSCILLATOR, CERAMIC (456kHz)	
*****			
*	A-4303-506-A	TCB BOARD, COMPLETE (IA)	*****
*	A-4303-518-A	TCB BOARD, COMPLETE (E,EA,HK,SP,MY,TW)	*****
*	A-4303-520-A	TCB BOARD, COMPLETE (JE)	*****
		< CAPACITOR >	
C1	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C2	1-126-967-11	ELECT 47uF 20%	16V
C3	1-163-038-91	CERAMIC CHIP 100000PF	25V
C5	1-163-031-11	CERAMIC CHIP 10000PF	50V
C6	1-163-038-91	CERAMIC CHIP 100000PF	25V
C7	1-101-004-00	CERAMIC 0.01uF	50V
C8	1-163-031-11	CERAMIC CHIP 10000PF	50V
C9	1-163-031-11	CERAMIC CHIP 10000PF	50V
C10	1-163-031-11	CERAMIC CHIP 10000PF	50V

Ref. No.	Part No.	Description	Remark
C11	1-163-038-91	CERAMIC CHIP 100000PF	25V
C14	1-163-038-91	CERAMIC CHIP 100000PF	25V
C15	1-136-162-00	METALIZED FILM 0.056uF 5%	50V
C16	1-163-038-91	CERAMIC CHIP 100000PF	25V
C17	1-163-031-11	CERAMIC CHIP 10000PF	50V
C18	1-163-088-00	CERAMIC CHIP 5PF	50V
C21	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C22	1-163-031-11	CERAMIC CHIP 10000PF	50V
C23	1-163-235-11	CERAMIC CHIP 22PF 5%	50V
C24	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
C26	1-126-967-11	ELECT 47uF 20%	50V
C28	1-126-967-11	ELECT 47uF 20%	50V
C29	1-162-306-11	CERAMIC 10000PF	20% 16V
C30	1-124-925-11	ELECT 2.2uF 20%	100V
C31	1-163-031-11	CERAMIC CHIP 10000PF	50V
C32	1-163-038-91	CERAMIC CHIP 100000PF	25V
C33	1-163-038-91	CERAMIC CHIP 100000PF	25V
C34	1-163-091-00	CERAMIC CHIP 8PF	50V
C35	1-163-038-91	CERAMIC CHIP 100000PF	25V
C36	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C37	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C38	1-162-211-31	CERAMIC 33PF 5%	50V
C39	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C40	1-163-031-11	CERAMIC CHIP 10000PF	50V
C41	1-163-031-11	CERAMIC CHIP 10000PF	50V
C42	1-163-038-91	CERAMIC CHIP 100000PF	25V
C43	1-163-038-91	CERAMIC CHIP 100000PF	25V
C44	1-163-031-11	CERAMIC CHIP 10000PF	50V
C45	1-163-038-91	CERAMIC CHIP 100000PF	25V
C46	1-163-077-00	CERAMIC CHIP 0.1uF 10%	25V
C47	1-126-967-11	ELECT 47uF 20%	50V
C48	1-163-031-11	CERAMIC CHIP 10000PF	50V
C49	1-124-902-00	ELECT 0.47uF 20%	50V
C50	1-124-903-11	ELECT 1.0uF 20%	50V
C51	1-124-903-11	ELECT 1.0uF 20%	50V
C52	1-126-964-11	ELECT 10uF 20%	50V
C53	1-126-964-11	ELECT 10uF 20%	50V
C54	1-126-157-11	ELECT 10uF 20%	16V
C55	1-126-157-11	ELECT 10uF 20%	16V
C56	1-126-157-11	ELECT 10uF 20%	16V
C57	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
C58	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
C59	1-163-989-11	CERAMIC CHIP 0.033uF 10%	25V
C60	1-163-989-11	CERAMIC CHIP 0.033uF 10%	25V
C61	1-126-301-11	ELECT 1uF 20%	50V
C62	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C63	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
C64	1-126-967-11	CAP, ELECT 47uF 20%	50V
C65	1-163-031-11	CERAMIC CHIP 10000PF	50V

**TCB**

Ref. No.	Part No.	Description	Remark		
C66	1-126-162-11	ELECT	3.3uF	20%	50V
C67	1-126-933-11	ELECT	100uF	20%	16V
C68	1-162-306-11	CERAMIC	10000PF	20%	16V
C71	1-162-306-11	CERAMIC	10000PF	20%	16V
C72	1-126-967-11	ELECT	47uF	20%	50V
< FILTER >					
CF1	1-567-389-11	FILTER, CERAMIC			
CF3	1-567-389-11	FILTER, CERAMIC			
< CONNECTOR >					
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P			
< VARIABLE CAPACITOR >					
CV1	1-141-227-00	CAP, TRIMMER 20PF			
CV2	1-141-227-00	CAP, TRIMMER 20PF			
< DIODE >					
D1	8-719-976-30	DIODE KV1560NT			
D21	8-719-976-99	DIODE DTZ5.1B			
D41	8-719-016-74	DIODE 1SS352			
< FRONT END >					
FE1	1-233-532-11	ENCAPSULATED COMPONENT (EXCEPT JE)			
FE1	1-693-251-11	FRONT END (JE)			
FE2	1-239-262-11	ENCAPSULATED COMPONENT			
< IC >					
IC21	8-759-288-54	IC LC72130			
IC41	8-759-176-03	IC LA1835			
< IFT >					
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)			
< JUMPER RESISTOR >					
JR45	1-216-295-91	METAL GLAZE	0	5%	1/10W
JR46	1-216-296-91	METAL GLAZE	0	5%	1/8W
JR47	1-216-295-91	METAL GLAZE	0	5%	1/10W
JR48	1-216-295-91	METAL GLAZE	0	5%	1/10W
JR49	1-216-296-91	METAL GLAZE	0	5%	1/8W
JR50	1-216-295-91	METAL GLAZE	0	5%	1/10W
JR51	1-216-295-91	METAL GLAZE	0	5%	1/10W
JR52	1-216-295-91	METAL GLAZE	0	5%	1/10W
JR53	1-216-296-91	METAL GLAZE	0	5%	1/8W
JR54	1-216-295-91	METAL GLAZE	0	5%	1/10W
< COIL >					
L1	1-410-521-11	MICRO INDUCTOR 100uH			
L3	1-410-521-11	MICRO INDUCTOR 100uH			

Ref. No.	Part No.	Description	Remark		
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH			
< FILTER >					
LPF41	1-239-845-11	FILTER, LOW PASS			
LPF42	1-239-845-11	FILTER, LOW PASS			
< TRANSISTOR >					
Q1	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q2	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q3	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q4	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L			
Q5	8-729-424-08	TRANSISTOR UN2111			
Q8	8-729-033-67	TRANSISTOR 2SK211-Y-TE85L			
Q9	8-729-216-22	TRANSISTOR 2SA812-T1-M5M6			
Q10	8-729-216-22	TRANSISTOR 2SA812-T1-M5M6			
Q12	8-729-421-22	TRANSISTOR UN2211			
Q13	8-729-421-22	TRANSISTOR UN2211			
Q14	8-729-421-22	TRANSISTOR UN2211			
< RESISTOR >					
R1	1-249-401-11	CARBON	47	5%	1/4W
R2	1-216-037-00	METAL CHIP	330	5%	1/10W
R3	1-216-037-00	METAL CHIP	330	5%	1/10W
R5	1-216-037-00	METAL CHIP	330	5%	1/10W
R6	1-216-081-00	METAL CHIP	22K	5%	1/10W
R7	1-216-037-00	METAL CHIP	330	5%	1/10W
R8	1-216-037-00	METAL CHIP	330	5%	1/10W
R9	1-216-081-00	METAL CHIP	22K	5%	1/10W
R10	1-216-037-00	METAL CHIP	330	5%	1/10W
R11	1-216-081-00	METAL CHIP	22K	5%	1/10W
R12	1-216-037-00	METAL CHIP	330	5%	1/10W
R13	1-216-037-00	METAL CHIP	330	5%	1/10W
R14	1-216-081-00	METAL CHIP	22K	5%	1/10W
R18	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W
R20	1-216-121-91	METAL CHIP	1.0M	5%	1/10W
R21	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R22	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R23	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R24	1-216-025-91	METAL CHIP	100	5%	1/10W
R25	1-249-417-11	CARBON	1K	5%	1/4W
R26	1-249-437-11	CARBON	47K	5%	1/4W
R27	1-249-429-11	CARBON	10K	5%	1/4W
R28	1-249-417-11	CARBON	1K	5%	1/4W
R29	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R30	1-216-186-00	METAL CHIP	330	5%	1/8W
R31	1-216-025-91	METAL CHIP	100	5%	1/10W
R32	1-249-425-11	CARBON	4.7K	5%	1/4W
R33	1-249-425-11	CARBON	4.7K	5%	1/4W
R34	1-216-065-00	METAL CHIP	4.7K	5%	1/10W



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R35	1-216-214-00	METAL CHIP	4.7K 5% 1/8W	C5	1-162-306-11	CERAMIC	10000PF 30% 16V
R36	1-216-025-91	METAL CHIP	100 5% 1/10W	C6	1-162-306-11	CERAMIC	10000PF 30% 16V
R37	1-216-073-00	METAL CHIP	10K 5% 1/10W	C7	1-101-004-00	CERAMIC	0.01uF 50V
R38	1-216-089-91	METAL CHIP	47K 5% 1/10W	C8	1-162-306-11	CERAMIC	10000PF 30% 16V
R39	1-249-429-11	CARBON	10K 5% 1/4W	C9	1-162-306-11	CERAMIC	10000PF 30% 16V
R42	1-216-073-00	METAL CHIP	10K 5% 1/10W	C11	1-164-159-21	CERAMIC	0.1uF 50V
R43	1-216-042-00	METAL CHIP	510 5% 1/10W	C12	1-162-198-31	CERAMIC	8.2PF 10% 50V
R44	1-216-013-00	METAL CHIP	33 5% 1/10W	C14	1-162-306-11	CERAMIC	10000PF 30% 16V
R45	1-249-423-11	CARBON	3.3K 5% 1/4W	C21	1-102-960-00	CERAMIC	24PF 5% 50V
R46	1-216-073-00	METAL CHIP	10K 5% 1/10W	C22	1-164-159-21	CERAMIC	0.1uF 50V
R47	1-216-097-91	METAL CHIP	100K 5% 1/10W	C23	1-162-306-11	CERAMIC	10000PF 30% 16V
R48	1-249-423-11	CARBON	3.3K 5% 1/4W	C24	1-104-664-11	ELECT	47uF 20% 16V
R49	1-216-061-00	METAL CHIP	3.3K 5% 1/4W	C25	1-162-306-11	CERAMIC	10000PF 30% 16V
R50	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	C26	1-126-964-11	ELECT	10uF 20% 50V
R51	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	C27	1-164-159-21	CERAMIC	0.1uF 50V
R53	1-249-429-11	CARBON	10K 5% 1/4W	C28	1-124-925-11	ELECT	2.2uF 20% 100V
R54	1-249-399-11	CARBON	33 5% 1/4W	C29	1-102-960-00	CERAMIC	24PF 5% 50V
R55	1-216-162-00	METAL CHIP	33 5% 1/10W	C30	1-162-294-31	CERAMIC	0.001uF 10% 50V
R56	1-249-393-11	CARBON	10 5% 1/4W	C31	1-162-306-11	CERAMIC	10000PF 30% 16V
R91	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	C41	1-126-933-11	ELECT	100uF 20% 10V
R92	1-216-073-00	METAL CHIP	10K 5% 1/10W	C42	1-162-306-11	CERAMIC	10000PF 30% 16V
R93	1-216-073-00	METAL CHIP	10K 5% 1/10W	C43	1-126-962-11	ELECT	3.3uF 20% 50V
R94	1-216-073-00	METAL CHIP	10K 5% 1/10W	C44	1-162-306-11	CERAMIC	10000PF 30% 16V
R99	1-249-399-11	CARBON	33 5% 1/4W F	C45	1-124-589-11	ELECT	47uF 20% 16V
		< VARIABLE RESISTOR >		C46	1-162-600-11	CERAMIC	4700PF 30% 16V
RV41	1-238-601-11	RES, ADJ, CARBON 22K		C47	1-162-294-31	CERAMIC	0.001uF 10% 50V
RV42	1-238-600-11	RES, ADJ, CARBON 10K		C48	1-126-160-11	ELECT	1.0uF 20% 50V
		< TRANSFORMER >		C49	1-136-159-00	METALIZED FILM	0.033uF 5% 50V
T1	1-409-505-11	COIL (ANT. SW3)		C50	1-136-159-00	METALIZED FILM	0.033uF 5% 50V
T2	1-402-960-11	COIL (OSC SW3)		C51	1-162-600-11	CERAMIC	4700PF 30% 16V
		< TERMINAL >		C52	1-162-600-11	CERAMIC	4700PF 30% 16V
TM1	1-537-238-21	TERMINAL BOARD (ANTENNA)		C53	1-126-964-11	ELECT	10uF 20% 50V
		< VIBRATOR >		C54	1-126-157-11	ELECT	10uF 20% 16V
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)		C55	1-126-964-11	ELECT	10uF 20% 50V
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)		C56	1-126-964-11	ELECT	10uF 20% 50V
X42	1-527-981-00	FILTER, CERAMIC (450kHz)		C57	1-164-159-21	CERAMIC	0.1uF 50V F
X43	1-577-075-11	OSCILLATOR, CERAMIC (19kHz)		C58	1-162-306-11	CERAMIC	10000PF 30% 16V
		*****		C59	1-164-159-21	CERAMIC	0.1uF 50V F
*	A-4303-537-A	TCB BOARD, COMPLETE (TH)		C61	1-164-159-21	CERAMIC	0.1uF 50V F
		*****		C62	1-104-664-11	ELECT	47uF 20% 16V
		< CAPACITOR >		C63	1-164-159-21	CERAMIC	0.1uF 50V F
C1	1-162-294-31	CERAMIC	0.001uF 10% 50V	C64	1-124-902-00	ELECT	0.47uF 20% 50V
C2	1-104-664-11	ELECT	47uF 20% 16V	C65	1-124-903-11	ELECT	1.0uF 20% 50V
C3	1-164-159-21	CERAMIC	0.1uF 50V	C66	1-124-903-11	ELECT	1.0uF 20% 50V
				C67	1-126-964-11	ELECT	10uF 20% 50V
				C68	1-162-306-11	CERAMIC	10000PF 30% 16V
				C69	1-162-306-11	CERAMIC	10000PF 30% 16V
				C70	1-162-306-11	CERAMIC	10000PF 30% 16V
				C71	1-162-306-11	CERAMIC	10000PF 30% 16V
				C73	1-162-306-11	CERAMIC	10000PF 30% 16V

**TCB**

Ref. No.	Part No.	Description	Remark
C74	1-126-964-11	ELECT 10uF 20% 50V	
		< FILTER >	
CF1	1-567-389-11	FILTER, CERAMIC	
CF2	1-567-389-11	FILTER, CERAMIC	
		< CONNECTOR >	
* CN1	1-568-832-11	SOCKET, CONNECTOR 13P	
		< DIODE >	
D1	8-719-933-33	DIODE HZS6A1L	
D2	8-719-987-63	DIODE 1N4148M	
		< FRONTEND >	
FE1	1-233-533-11	ENCAPSULATED COMPONENT	
FE2	1-239-260-11	ENCAPSULATED COMPONENT	
		< IC >	
IC1	8-759-288-54	IC LC72130	
IC2	8-759-176-03	IC LA1835	
		< IFT >	
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
		< COIL >	
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH	
		< FILTER >	
LPF41	1-239-845-11	FILTER, LOW PASS	
LPF42	1-239-845-11	FILTER, LOW PASS	
		< TRANSISTOR >	
Q1	8-729-230-99	TRANSISTOR 2SC26690-Y	
Q2	8-729-230-99	TRANSISTOR 2SC26690-Y	
Q3	8-729-230-99	TRANSISTOR 2SC26690-Y	
Q4	8-729-230-99	TRANSISTOR 2SC26690-Y	
Q5	8-729-422-57	TRANSISTOR UN4111	
		< RESISTOR >	
R1	1-249-401-11	CARBON 47 5% 1/4W	F
R2	1-249-411-11	CARBON 330 5% 1/4W	
R3	1-249-411-11	CARBON 330 5% 1/4W	
R5	1-249-411-11	CARBON 330 5% 1/4W	
R6	1-247-863-91	CARBON 22K 5% 1/4W	
R7	1-249-411-11	CARBON 330 5% 1/4W	
R8	1-249-411-11	CARBON 330 5% 1/4W	
R9	1-247-863-91	CARBON 22K 5% 1/4W	
R10	1-249-411-11	CARBON 330 5% 1/4W	
R11	1-247-863-91	CARBON 22K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R12	1-249-411-11	CARBON 330 5% 1/4W	
R13	1-249-411-11	CARBON 330 5% 1/4W	
R14	1-247-863-91	CARBON 22K 5% 1/4W	
R15	1-249-429-11	CARBON 10K 5% 1/4W	
R16	1-249-437-11	CARBON 47K 5% 1/4W	
R19	1-249-399-11	CARBON 33 5% 1/4W	F
R21	1-247-807-31	CARBON 100 5% 1/4W	
R22	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R23	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R24	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R25	1-247-807-31	CARBON 100 5% 1/4W	
R26	1-249-411-11	CARBON 330 5% 1/4W	
R27	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R28	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R29	1-249-417-11	CARBON 1.0K 5% 1/4W	F
R30	1-249-417-11	CARBON 1.0K 5% 1/4W	F
R31	1-249-417-11	CARBON 1.0K 5% 1/4W	F
R32	1-249-417-11	CARBON 1.0K 5% 1/4W	F
R33	1-247-807-31	CARBON 100 5% 1/4W	
R34	1-249-429-11	CARBON 10K 5% 1/4W	
R35	1-249-429-11	CARBON 10K 5% 1/4W	
R36	1-249-437-11	CARBON 47K 5% 1/4W	
R37	1-249-417-11	CARBON 1.0K 5% 1/4W	F
R41	1-249-429-11	CARBON 10K 5% 1/4W	
R43	1-249-423-11	CARBON 3.3K 5% 1/4W	
R44	1-249-423-11	CARBON 3.3K 5% 1/4W	
R46	1-249-442-11	CARBON 510 5% 1/4W	
R47	1-249-399-11	CARBON 33 5% 1/4W	F
R48	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R49	1-249-393-11	CARBON 10 5% 1/4W	F
R50	1-249-429-11	CARBON 10K 5% 1/4W	
R51	1-249-441-11	CARBON 100K 5% 1/4W	
R52	1-249-429-11	CARBON 10K 5% 1/4W	
R53	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R54	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R99	1-249-399-11	CARBON 33 5% 1/4W	F
		< VARIABLE RESISTOR >	
RV41	1-238-600-11	RES, ADJ, CARBON 10K	
RV42	1-238-601-11	RES, ADJ, CARBON 22K	
		< TERMINAL >	
TM1	1-537-238-21	TERMINAL BOARD (ANTENNA)	
		< VIBRATOR >	
X21	1-567-713-11	VIBRATOR, CRYSTAL (4.5MHz)	
X41	1-577-075-11	OSCILLATOR, CERAMIC (456kHz)	
X42	1-760-220-11	FILTER, CERAMIC (10.7MHz)	
X43	1-527-981-00	FILTER, CERAMIC (450kHz)	

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# TRANSFORMER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-659-332-11	TRANSFORMER BOARD *****		FL501	1-517-489-11	INDICATOR TUBE, FLUORESCENT	
		< CONNECTOR >		HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
				HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	
				M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
				M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	
* CN1600	1-564-525-11	PLUG, CONNECTOR 10P		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
CN1601	1-564-321-00	PIN, CONNECTOR 2P		M102	X-4917-504-1	MOTOR ASSY (SLED)	
		< FUSE >		M903	A-4604-363-A	MOTOR (L) ASSY (LOADING)	
				S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
△F1603	1-532-503-31	FUSE, TIME-LAG (1.6A 250V) (E,JE,EA,HK,SP,TW,IA)		△T1601	1-429-438-11	TRANSFORMER, POWER (AEP,UK,G,IT,EE)	
		< FUSE HOLDER >		△T1601	1-429-465-11	TRANSFORMER, POWER (E,JE,EA,HK,MY,SP,TW,IA,TH)	
FH1603	1-533-223-11	HOLDER, FUSE (E,JE,EA,HK,SP,TW,IA)		*****			
FH1604	1-533-223-11	HOLDER, FUSE (E,JE,EA,HK,SP,TW,IA)		ACCESSORIES & PACKING MATERIALS *****			
		< TRANSFORMER >					
△T1601	1-429-438-11	TRANSFORMER, POWER (AEP,UK,G,IT,EE)		*	4-981-032-01	CUSHION (FRONT)	
△T1601	1-429-465-11	TRANSFORMER, POWER (E,JE,EA,HK,MY,SP,TW,IA,TH)		*	4-981-033-01	CUSHION (REAR)	
		< SWITCH >		*****			
△VS1601	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)(E,JE,EA,HK,SP,TW,IA)		***** HARDWARE LIST *****			
*****				#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
MISCELLANEOUS *****				#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
				#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
				#4	7-621-775-10	SCREW +B 2.6X4	
				#5	7-621-255-15	SCREW +P 2X3	
4	1-751-086-11	WIRE (FLAT TYPE)(13 CORE)(TH)		#6	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S	
4	1-773-012-11	WIRE (FLAT TYPE)(15 CORE)(EXCEPT TH)		#7	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
6	1-769-946-11	WIRE (FLAT TYPE)(11 CORE)		#8	7-623-921-01	RING, RETAINING, CAPSTAN	
7	1-769-940-11	WIRE (FLAT TYPE)(11 CORE)		#9	7-621-775-00	SCREW +B 2.6X3	
8	1-773-158-11	WIRE (FLAT TYPE)(21 CORE)		#10	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
9	1-776-166-11	WIRE (FLAT TYPE)(19 CORE)		#11	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
52	1-537-770-21	TERMINAL BOARD, GROUND					
△58	1-569-007-11	ADAPTER, CONVERSION 2P (E,JE)					
△58	1-569-008-11	ADAPTER, CONVERSION 2P (EA,SP,TW,IA)					
△58	1-770-019-11	ADAPTOR, CONVERSION PLUGJ(HK)					
203	1-452-719-11	MAGNET ASSY					
△301	8-848-367-11	OPTICAL PICK-UP KSS-213BA/F-NP					
302	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)					
△CNP1601	1-575-651-11	CORD, POWER (EXCEPT UK,E,JE,TH)					
△CNP1601	1-575-653-11	CORD, POWER (E,JE)					
△CNP1601	1-751-326-31	CORD, POWER (TH)					
△CNP1601	1-751-520-21	CORD, POWER (UK)					
△F1601	1-532-504-31	FUSE, TIME LAG (4.0A 250V)					
△F1602	1-532-504-31	FUSE, TIME LAG (4.0A 250V)					
△F1603	1-532-503-31	FUSE, TIME LAG (1.6 A 250V) (E,JE,EA,HK,SP,TW,IA)					

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

