

HCD-N455

SERVICE MANUAL

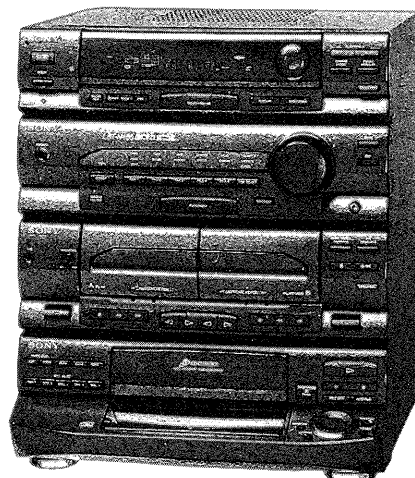


Photo : E model

HCD-N455 is the tuner, deck, CD and amplifier section in LBT-N455.

*AEP Model
UK Model
E Model
Australian Model
PX Model*

CD SECTION	Model Name Using Similar Mechanism	HCD-D270/G3100/N255
	CD Mechanism Type	CDM37-5BD19
	Base Unit Type	BU-5BD19
	Optical Pick-up Type	KSS-213BA/S-N
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-N350
	Tape Transport Mechanism Type	TCM-220 WR2E

SPECIFICATIONS

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$) Emission duration: continuous
laser output	Max 44.6 μW^*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.	
Wavelength	780 - 790 nm

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

	87.5 - 108.0 MHz (50 kHz step)
Aerial	FM wire aerial
Aerial terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	German and Italian models: AM: 531-1, 602 kHz
	AEP, UK, East European models: MW: 531-1, 602 kHz LW: 153-279 kHz (with the tuning interval set at 3 kHz)
Other models:	AM: 531 - 1,602 kHz (with the AM tuning interval set at 9 kHz) 530 - 1,710 kHz (with the AM tuning interval set at 10 kHz)
Aerial	AM loop aerial External aerial terminals
Intermediate frequency	450 kHz

— Continued on next page —

COMPACT DISC DECK RECEIVER
SONY[®]



Tape player section

Recording system
4-track 2-channel stereo

Frequency response
(DOLBY NR OFF)
40 – 13,000 Hz (± 3 dB), using
SONY TYPE I cassette
40 – 14,000 Hz (± 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)

Amplifier section

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

Peak music power output:
(40 W + 40 W) x 2 (6 Ω at 1 kHz,
0.7% DIN)

Continuous RDS power output:
(50 W + 50 W) x 2 (6 Ω at 1 kHz,
10% THD)

Music power output:
(80 W + 80 W) x 2 (6 Ω at 1 kHz,
10% THD)

Other models:

Peak music power output:
1,200 W (6 Ω at 1 kHz, 10%
THD)

Continuous RMS power output:
(40 W + 40 W) x 2 (6 Ω at 1
kHz, 10% THD)

Inputs

PHONO (phono jack):
Sensitivity 3 mV, impedance
47 kilohms

VIDEO (AUDIO) (phono jack):
Sensitivity 250 mV, impedance
47 kilohms

MIC (phone jack): (E, Australian, Mexican, PX,
Argentine model)
Sensitivity 1 mV, impedance
10 kilohms

Outputs

PHONES (phone jack):
accept headphones of 8 ohms or more

(FRONT) SPEAKER: accept impedance of
6 to 16 ohms

SURROUND SPEAKER:
AEP, UK, German, Italian, East European,
Mexican models:
accept impedance of 16 ohms

Other models:
accept impedance of 8 to
16 ohms

SUPER WOOFER :
AEP, UK, German, Italian, East European
models: accept impedance of 16 ohms

Other models:
accept impedance of 6 to
16 ohms

General

Power requirements
AEP, UK, German, Italian, East European models:
220-230 V AC, 50/60 Hz
Australian model:
240 V AC, 50/60 Hz
Mexican model:
120 V AC, 60 Hz
Other models:
110 - 120 V or 220 - 240 V AC
adjustable, 50/60 Hz

Power consumption


AEP, UK, German, Italian, East European
models: 175 W
Other models: 180 W

Dimensions

Approx. 355 x 425 x 400 mm
(14 x 16 ³/₄ x 15 ³/₄ inches) (w/h/d)
incl. projecting parts and controls

Mass

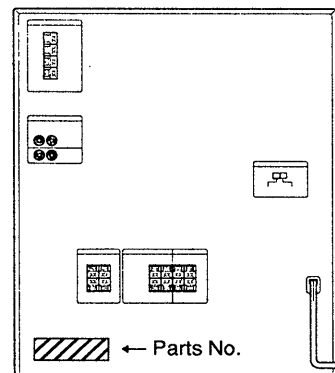
Approx. 11.8 kg (26 lb)

* Dolby noise reduction manufactured
under license from Dolby Laboratories
Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories
Licensing Corporation.

Design and specifications subject to change
without notice.

MODEL IDENTIFICATION

— BACK PANEL —



MODEL	PARTS No.
N455 : AEP model	4-978-191-2□
N455 : German model	4-978-191-3□
N455 : Italian model	4-978-191-4□
N455 : UK model	4-978-191-5□
N455 : East European model	4-978-191-7□
N455 : E model	4-978-192-0□
N455 : Argentine model	4-978-192-1□
N455 : Australian model	4-978-192-2□
N455 : PX model	4-978-192-3□
N455 : Mexican model	4-978-192-4□

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

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

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

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

CAUTION : 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 OLET ALTIINA LASERSÄTELYLLE.
VARNING : LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URÖPPAD.
ADVERSEL: USYNLIG LASERSTRÅLING NÅR DEKSEL ÖPNES UNNGÅ EKSPONERING FÖR STRÅLEN.

This caution label is located inside the unit.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ 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.

SERVICING NOTE

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

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

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

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

When the **TUNER/BAND**, **DISPLAY/DEMO**, and **FILE 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 "K1 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**, **FILE 2** buttons simultaneously again.

[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.

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(AEP, UK, G, IT, EE Models)		42	AR : Argentine model.		

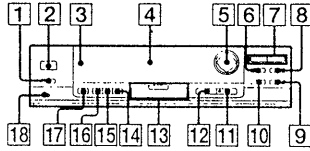
SECTION 1 GENERAL

This section is extracted from instruction manual.

Front Panel

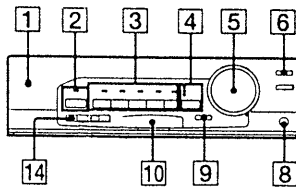
Tuner section

Refer to the pages indicated in parentheses for details on how to use the controls.



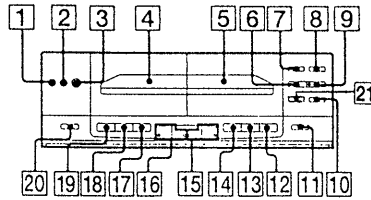
- 1 SLEEP button (24)
- 2 SYSTEM POWER switch (7)
- 3 Remote sensor
- 4 Display window (30)
- 5 CURSOR CONTROL buttons (6, 22)
- 6 TUNING MODE button (12)
- 7 TUNING +/- buttons (12)
- 8 TUNER MEMORY button (13)
- 9 STEREO/MONO button (12)
- 10 PTY button (13) (AEP, UK, G, IT, EE models)
- 11 ENTER/NEXT button/indicator (6, 9, 13, 22)
- 12 DISPLAY/DEMO button (7, 13, 22)
- 13 TUNER/BAND button/indicator (12, 19, 25)
- 14 REC button (25)
- 15 DAILY 2 button (24)
- 16 DAILY 1 button (24)
- 17 TIMER SET button (24, 25)
- 18 CLOCK SET button (6)

Amplifier section



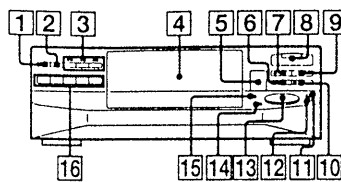
- 1 PHONES jack (20)
- 2 EFFECT button/indicator (20)
- 3 FILE 1 - 5 buttons/indicators (20, 21)
- 4 FILE SELECT button/indicators (20, 21)
- 5 VOLUME control (7, 20)
- 6 DBFB button (20)
- 8 SUPER WOOFER button
- 9 MEMORY button (22)
- 10 FUNCTION button (7, 14)
- 14 KARAOKE PON/MPX button (25) (E, AUS, PX, MX, AR model)

Tape player section



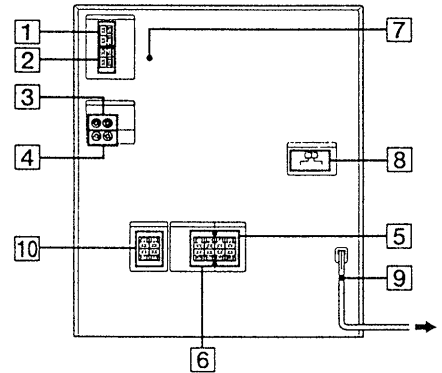
- 1 MIC jack (25) (E, AUS, PX, MX, AR models)
- 3 MIC LEVEL control (25)
- 4 Cassette compartment for DECK A (14)
- 5 Cassette compartment for DECK B (14)
- 6 (pause) button (14)
- 7 HIGH SPEED DUBBING button (19)
- 8 CD SYNCHRO button (15)
- 9 REC (recording) button (15)
- 10 DIRECTION button (15)
- 11 EJECT button for DECK B (14)
- 12 (fast rightward) button for DECK B (14)
- 13 (fast leftward) button for DECK B (14)
- 14 STOP button for DECK B (14)
- 15 (play) button for DECK B (14)
- 16 (play) button for DECK A (14)
- 17 (fast rightward) button for DECK A (14)
- 18 (fast leftward) button for DECK A (14)
- 19 STOP button for DECK A (14)
- 20 EJECT button for DECK A (14)
- 21 DOLBY NR button (AEP, UK, G, IT, EE models)

CD player section

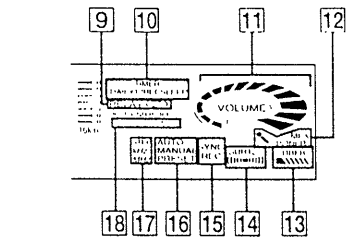
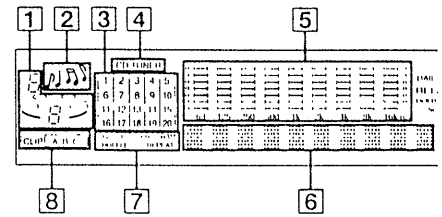


- 1 MUSIC CLIP PLAY button (11)
- 2 MUSIC CLIP ERASE button (11)
- 3 CLIP A, B, C buttons/indicators (10)
- 4 Front cover (7)
- 5 OPEN button (7)
- 6 DISC SKIP button (7)
- 7 (pause) button (7)
- 8 (play) button (7)
- 9 (stop) button (7)
- 10 AUTO button/indicator (7)
- 11 PROGRAM button (9)
- 12 REPEAT button (9)
- 13 JOC dial (7)
- 14 SHUFFLE buttons (8)
- 15 CONTINUE button (7)
- 16 DISC 1 - 5 buttons (7)

Rear Panel

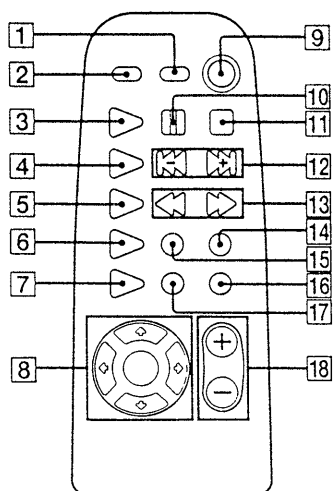


- 1 AM terminal (4)
- 2 FM 75Ω terminal (4)
- 3 PHONO IN jacks (26)
- 4 VIDEO (AUDIO) IN jacks (26)
- 5 FRONT SPEAKER connectors (5)
- 6 SURROUND SPEAKER connectors (5)
- 7 ground terminal (5)
- 8 VOLTAGE SELECTOR (except for Malaysian, Mexican and Australian models) (6)
- 9 AC power cord (6)
- 10 SUPER WOOFER connectors (5)



- 1 Disc calendar (7)
- 2 Demo mode indications (6)
- 3 Music calendar (7)
- 4 CD/TUNER indication (7)
- 5 Graphic Equalizer indication (21)
- 6 Multi-display (7, 12, 21)
- 7 CD play mode indications (8)
- 8 CLIP indicator (11)
- 9 Tape direction mode indication (14)
- 10 Timer indication (24)
- 11 VOLUME indication (7)
- 12 KARAOKE PON/MPX R L indication (25) (E, AUS, PX, MX, AR models)
- 13 DBFB indication (20)
- 14 SUR indication (15, 21)
- 15 SYNC REC indicator (15)
- 16 Tuning mode indications (12)
- 17 STEP/frequency waves indication (12)
- 18 TUNED/STEREO/MONO indications (12)

Remote



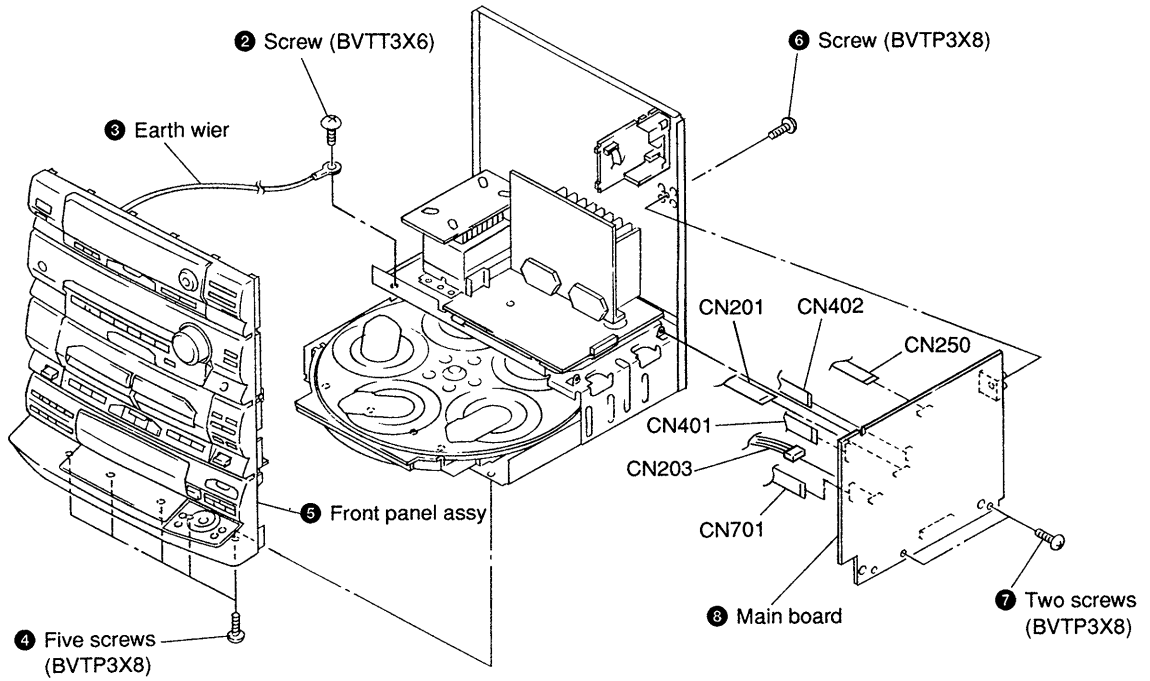
- 1** SLEEP button (23)
- 2** LOOP button (10)
- 3** CD ▷ (play) button (7)
- 4** TUNER/BAND ▷ button (12)
- 5** DECK A ▷ button (14)
- 6** DECK B ▷ button (14)
- 7** FUNCTION button (7, 14)
- 8** MUSIC MENU buttons (20)
- 9** POWER button (7)
- 10** ⏸ (pause) (7)
- 11** □ (stop) (7)
- 12** ⏮ / ⏭ buttons (7)
- 13** ⏪ / ⏩ buttons (8)
- 14** EDIT button (16)
- 15** CHECK button (9)
- 16** DISC SKIP button (9)
- 17** CLEAR button (9)
- 18** VOL (volume) +/- buttons (7, 20)

SECTION 2 DISASSEMBLY

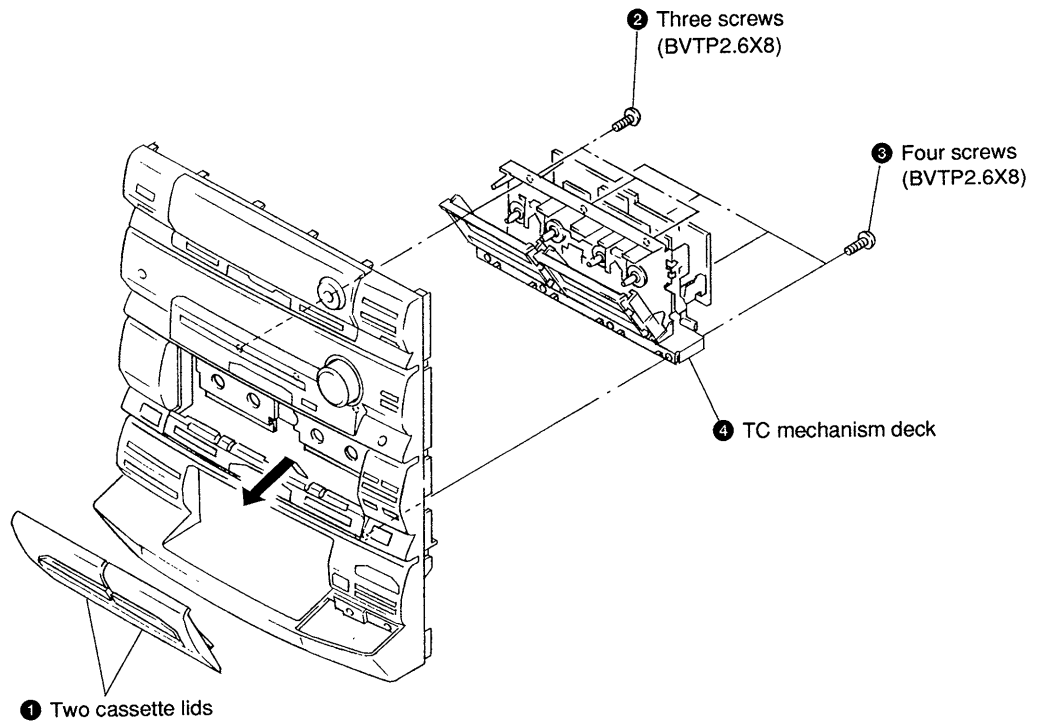
Note : Follow the disassembly procedure in the numerical order given.

2-1. FRONT PANEL ASSY AND MAIN BOARD

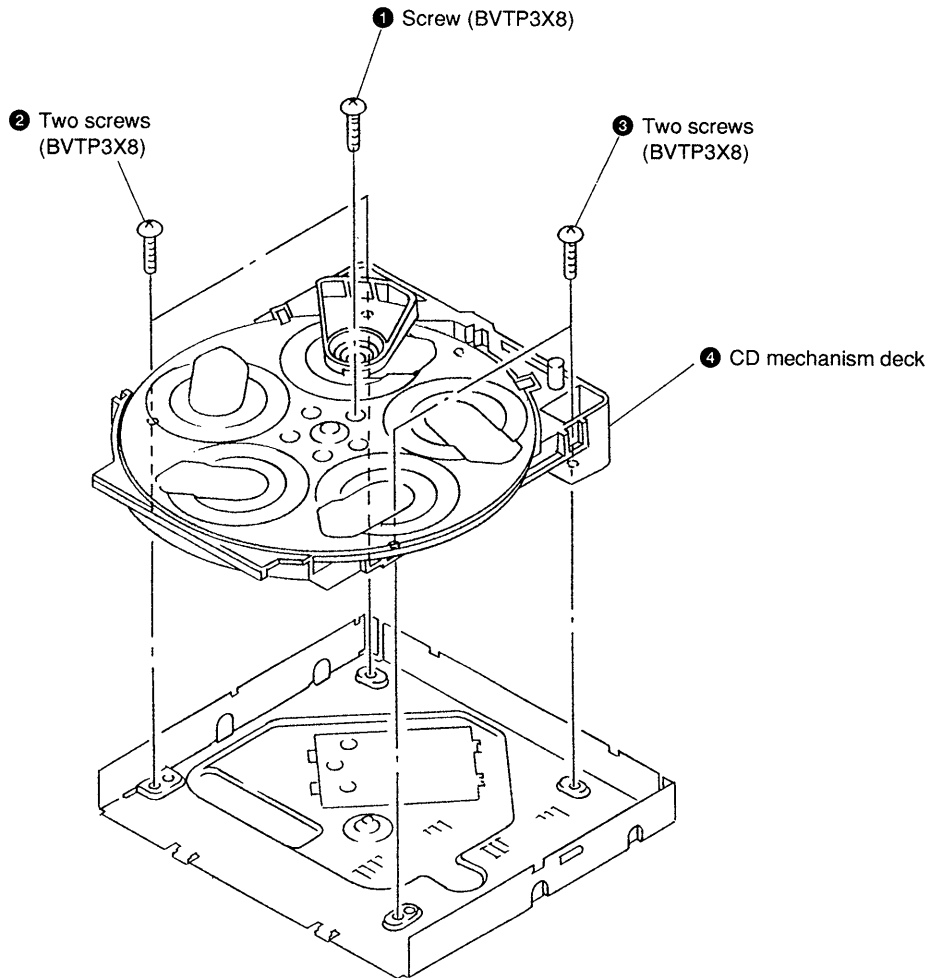
- 1 Remove the connectors.
 - Main board (six connectors)



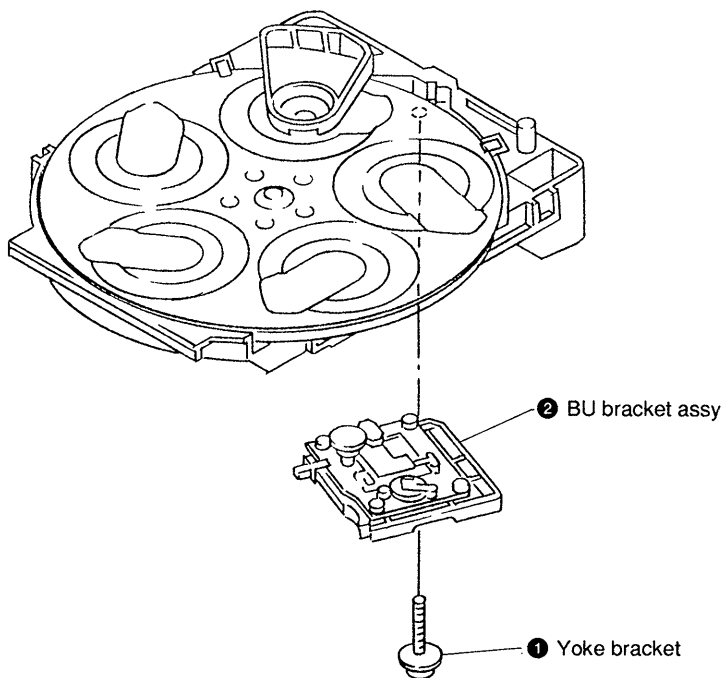
2-2. TC MECHANISM DECK



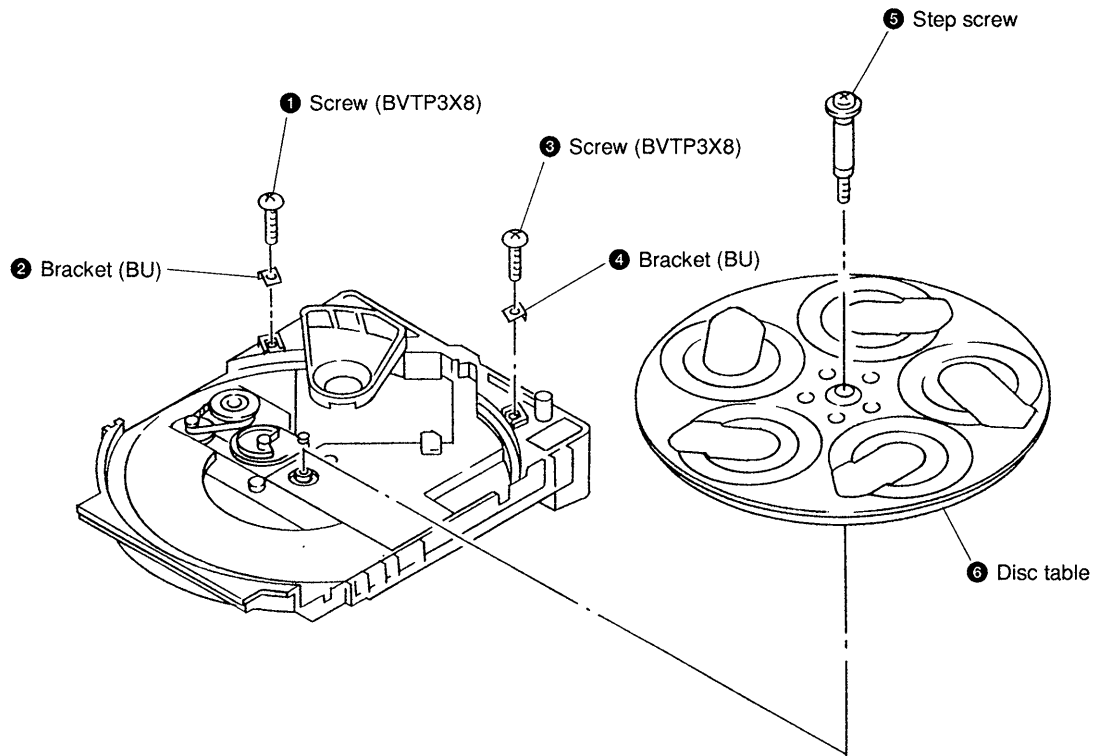
2-3. CD MECHANISM DECK



2-4. BU BRACKET ASSY



2-5. DISC TABLE



SECTION 3 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 61g • cm (0.5 – 0.84 oz • inch)
FWD back tension	CQ-102C	2 to 6g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	36 to 61g • cm (0.5 – 0.84 oz • inch)
REV back tension	CQ-102RC	2 to 6g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	61 to 143g • cm (0.85 – 1.99 oz • inch)
FWD tension	CQ-403A	100g • cm or more (1.39 oz • inch or more)
REV tension	CQ-403R	100g • cm or more (1.39 oz • inch or more)

SECTION 4 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(AEP, UK, G, IT, EE model)
8. Set to test mode. (Press key switch simultaneously DISPLAY/DEMO, TUNER/BAND and FILE 1 button.)

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

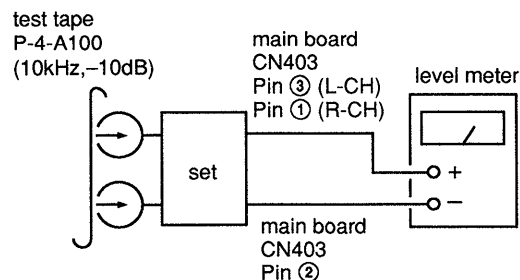
DECK A

DECK B

Note : Perform this adjustments for both decks.

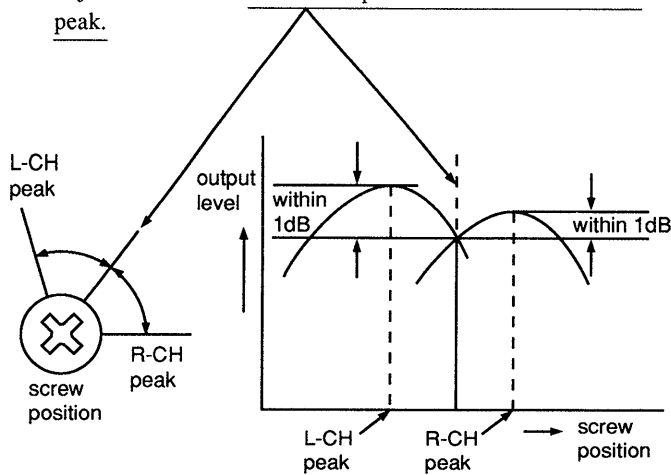
Procedure :

1. Mode : Playback (FWD)



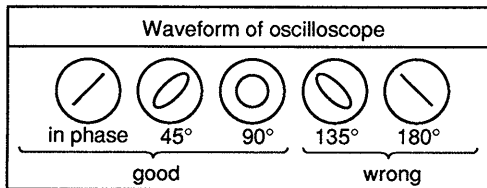
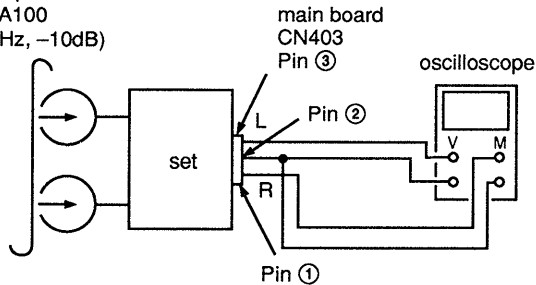
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - EE : East European model.

- 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.



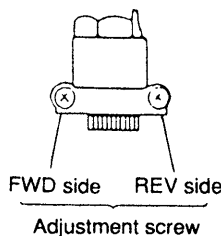
- Mode : Playback (FWD)

test tape
P-4-A100
(10kHz, -10dB)



- Repeat steps 1 to 3 in playback (REV) mode.
- After the adjustments, apply suitable locking compound to the parts adjusted.

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

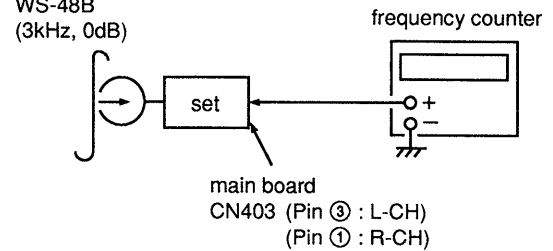


Tape Speed Adjustment **DECK A**

Procedure :

Mode : Playback (FWD)

test tape
WS-48B
(3kHz, 0dB)



High speed adjustment

- Set to test mode. (See page 10)
- Insert the WS-48B into the deck A to playback.
- Press the **HIGH SPEED DUBBING** button. Then at HIGH speed mode.
- Adjust 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.

Normal speed adjustment

- Set to the playback mode.
- Adjust 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 $\pm 1.5\%$.

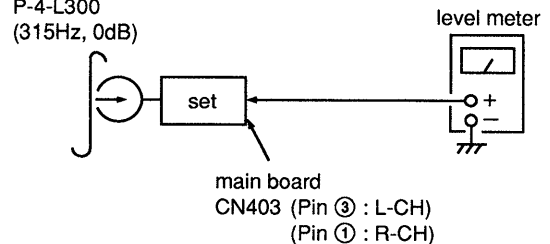
Adjustment Location : MD board

Playback Level Adjustment **DECK A** **DECK B**

Procedure :

Mode : Playback (FWD)

test tape
P-4-L300
(315Hz, 0dB)



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 PB level: 301.5 to 338.3 mV (-8.2 to -7.2 dB)

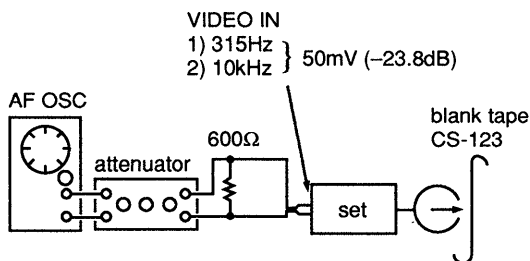
level difference between the channels: within ± 0.5 dB

Adjustment Location : MD board

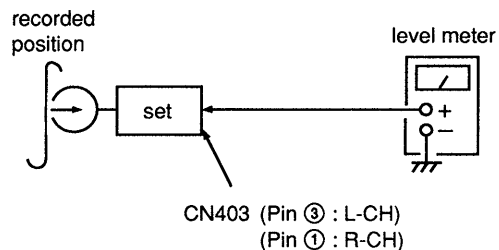
Record Bias Current Adjustment DECK B

Procedure :

1. Mode : record



2. Mode : Playback



Confirm playback the signal recorded in step 1 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 step 1 and 2.

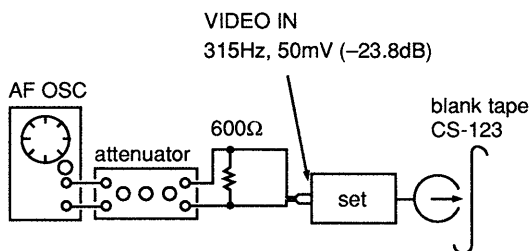
Adjustment level : The playback output of 10 kHz level difference against 315Hz reference should be ± 0.5 dB

Adjustment Location : MD board

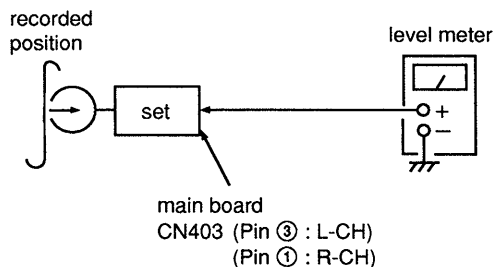
Record Level Adjustment DECK B

Procedure :

1. Mode: record



2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

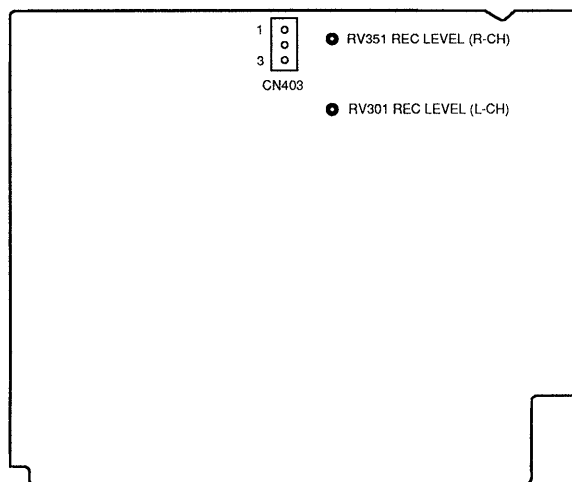
If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the main board to repeat steps 1 and 2.

Adjustment level :

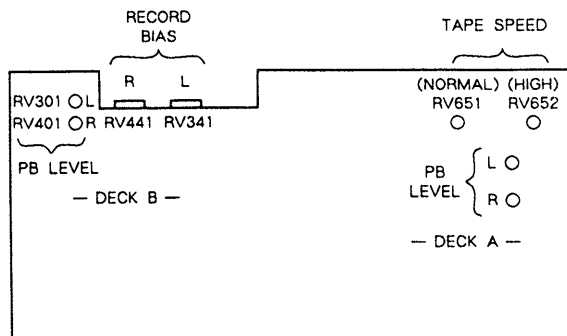
CN403 PB level : 47.2 to 53.0 mV (-24.3 to -23.3 dB)

Adjustment Location : main board

[MAIN BOARD] (Component Side)



[MD BOARD] (Conductor Side)



TUNER SECTION

0dB=1μV

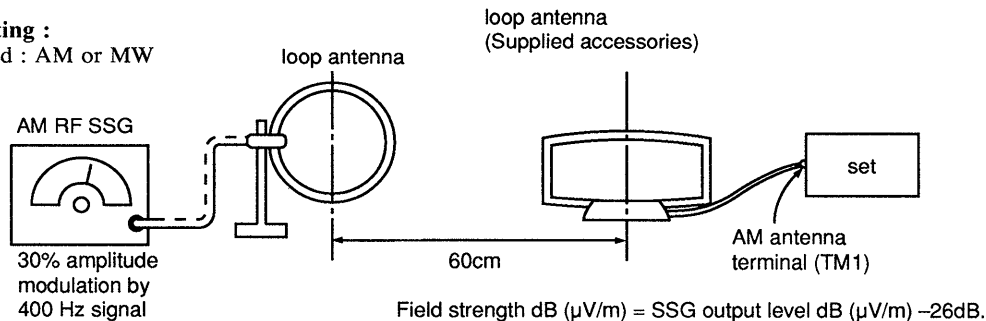
Note: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

AM Tuned Level Adjustment

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

Setting :

Band : AM or MW



Carrier frequency : 999kHz (at 9kHz step)
1000kHz (at 10kHz step)

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 1000 kHz.
3. Adjust RV41 (AEP, UK, IT, G, EE models), RV42 (other models) to the point (moment) when the TUNED indicator will change from going off to going on.

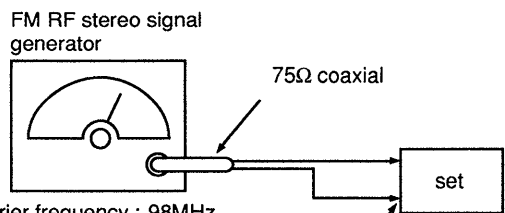
Adjustment Location : TCB board

FM Tuned Level Adjustment

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

Setting :

Band : FM



Carrier frequency : 98MHz
Modulation : AUDIO 1kHz, 75kHz deviation (100%) (at 75Ω open)

Procedure :

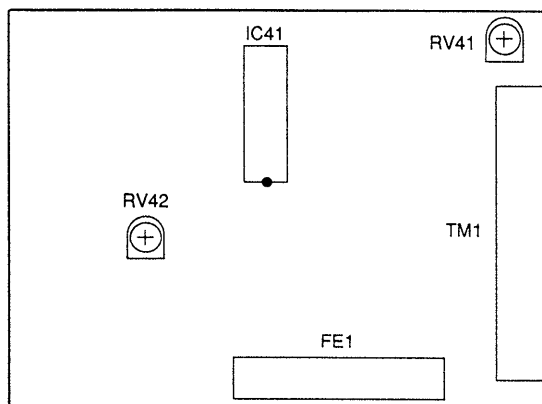
1. Supply a 25dBμ 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV42 (AEP, UK, IT, G, EE models), RV41 (other models) to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location : TCB board

Adjustment Location :

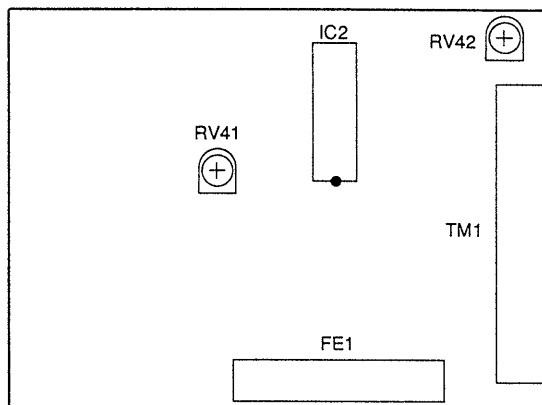
AEP, UK, G, IT, EE model

[TCB BOARD] (Component Side)



Other model

[TCB BOARD] (Component Side)



• Abbreviation

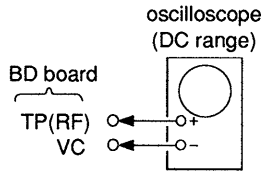
- G : German model
- IT : Italian model
- EE : East European model

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 $10M\Omega$ 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.

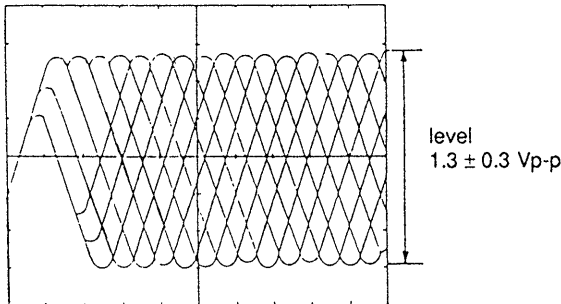
Focus Bias Adjustment



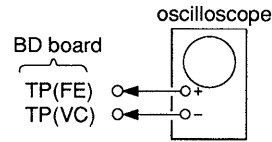
Procedure:

1. Connect oscilloscope to test point TP (RF). (GND terminal : 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



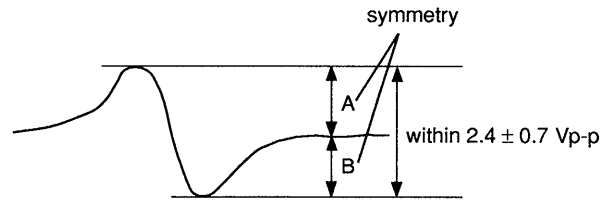
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and GND 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 ± 0.7 Vp-p.

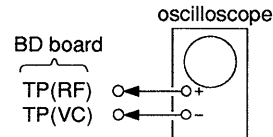
S-curve waveform



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



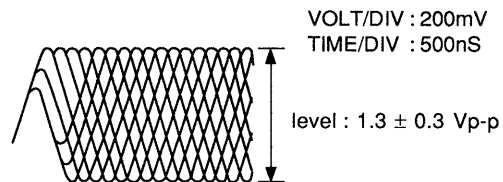
Procedure :

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.

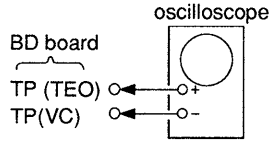
Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform

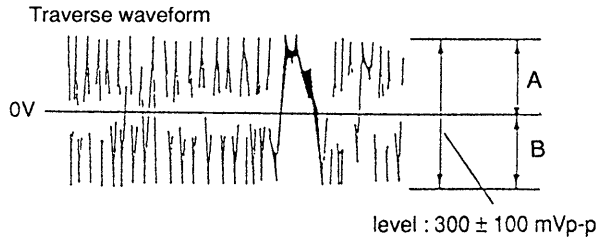


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) on Main board to GND 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.



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

$$\bullet A+B=300 \pm 100 \text{ mVp-p}$$

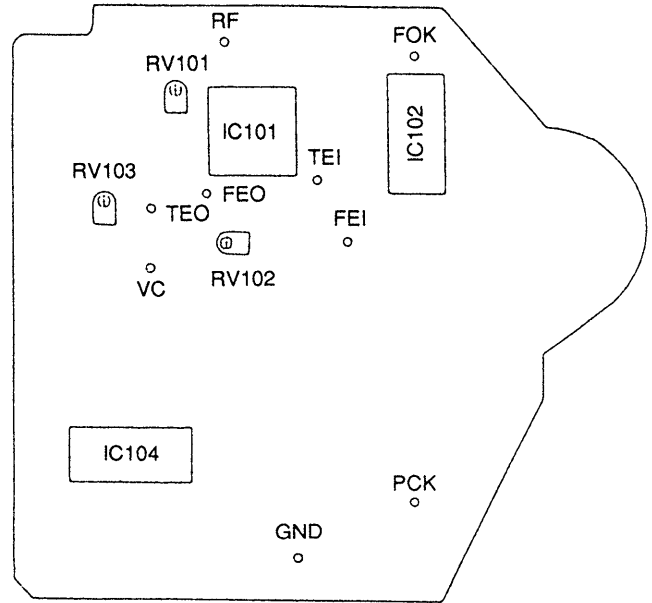
6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

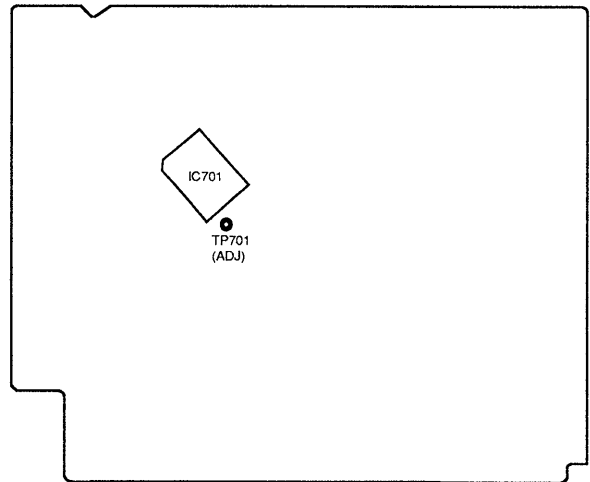
This gain has a margin, so even if it is slightly off. There is no problem. Therefore, do not perform this adjustment. Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location :

[BD BOARD] (Conductor Side)



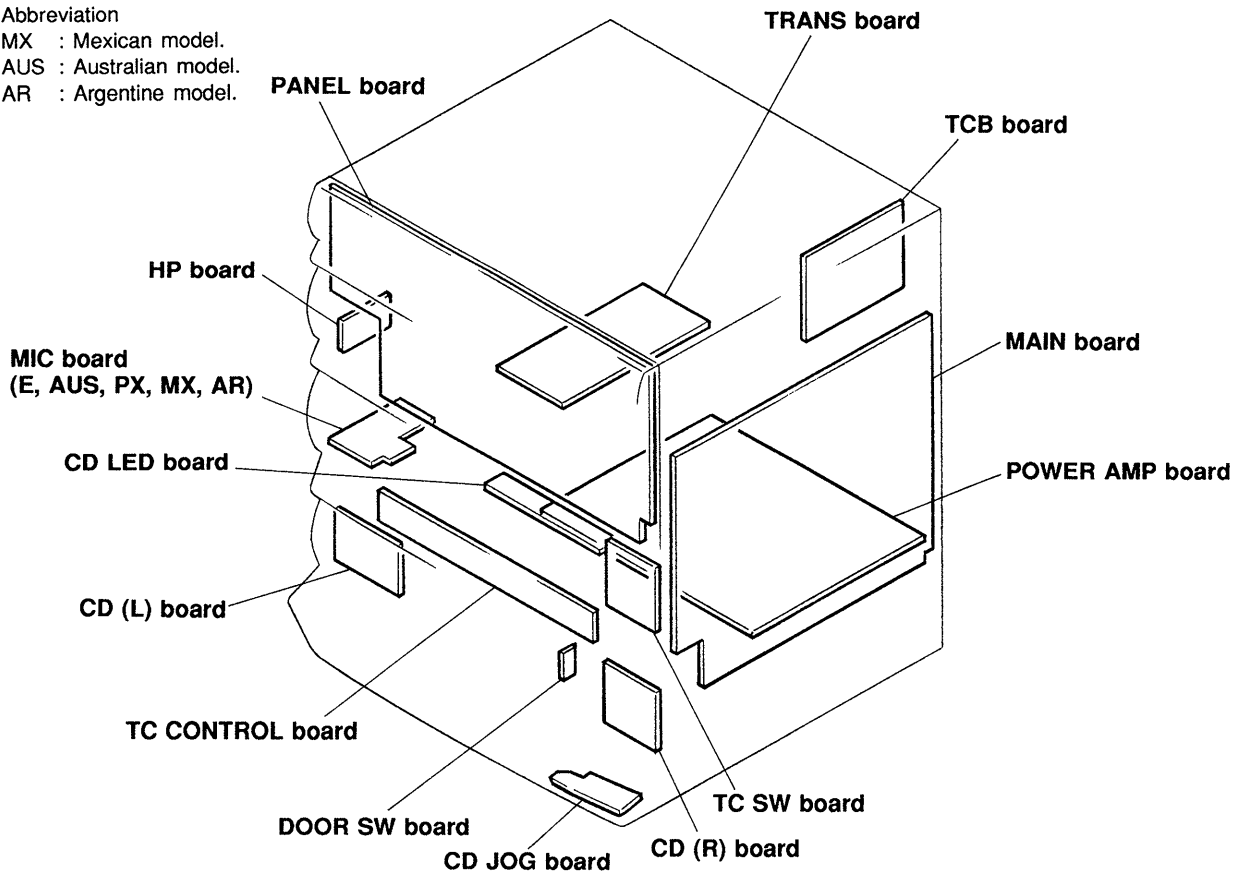
[MAIN BOARD] (Conductor Side)



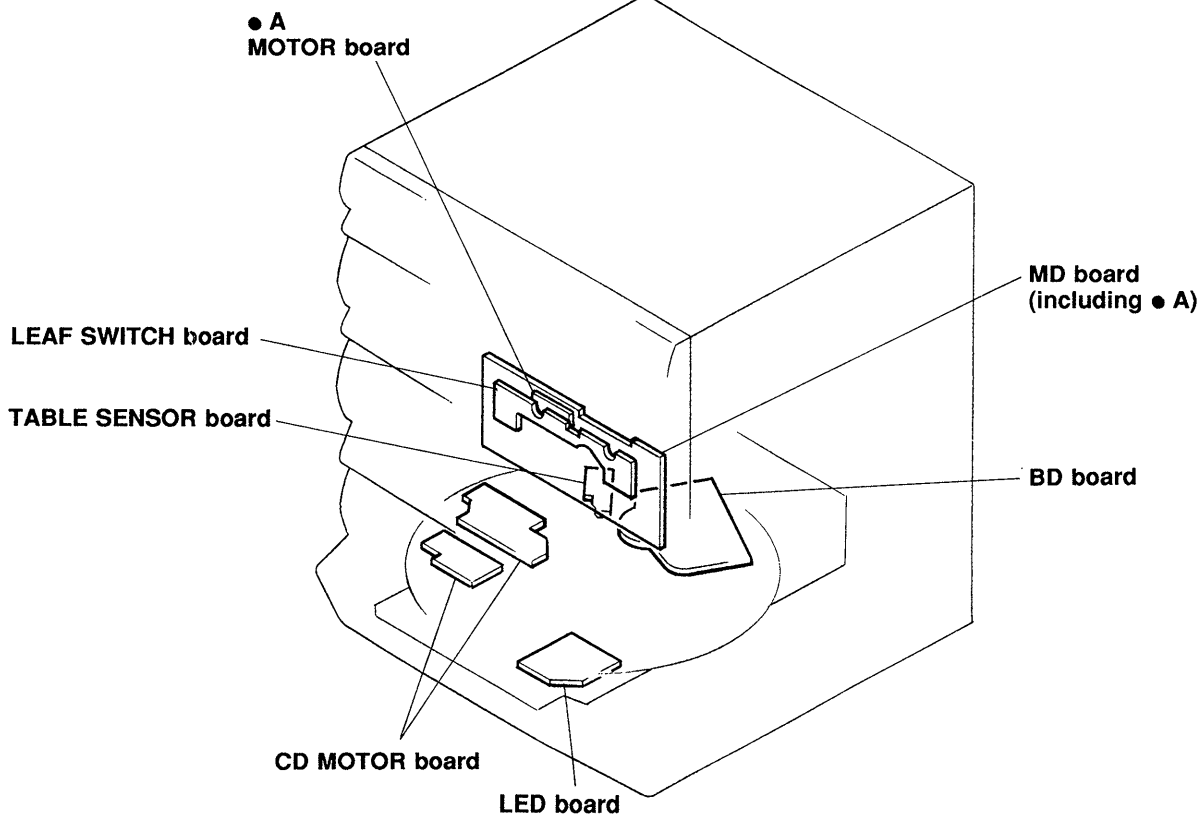
SECTION 5 DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION

- Abbreviation
 MX : Mexican model.
 AUS : Australian model.
 AR : Argentine model.

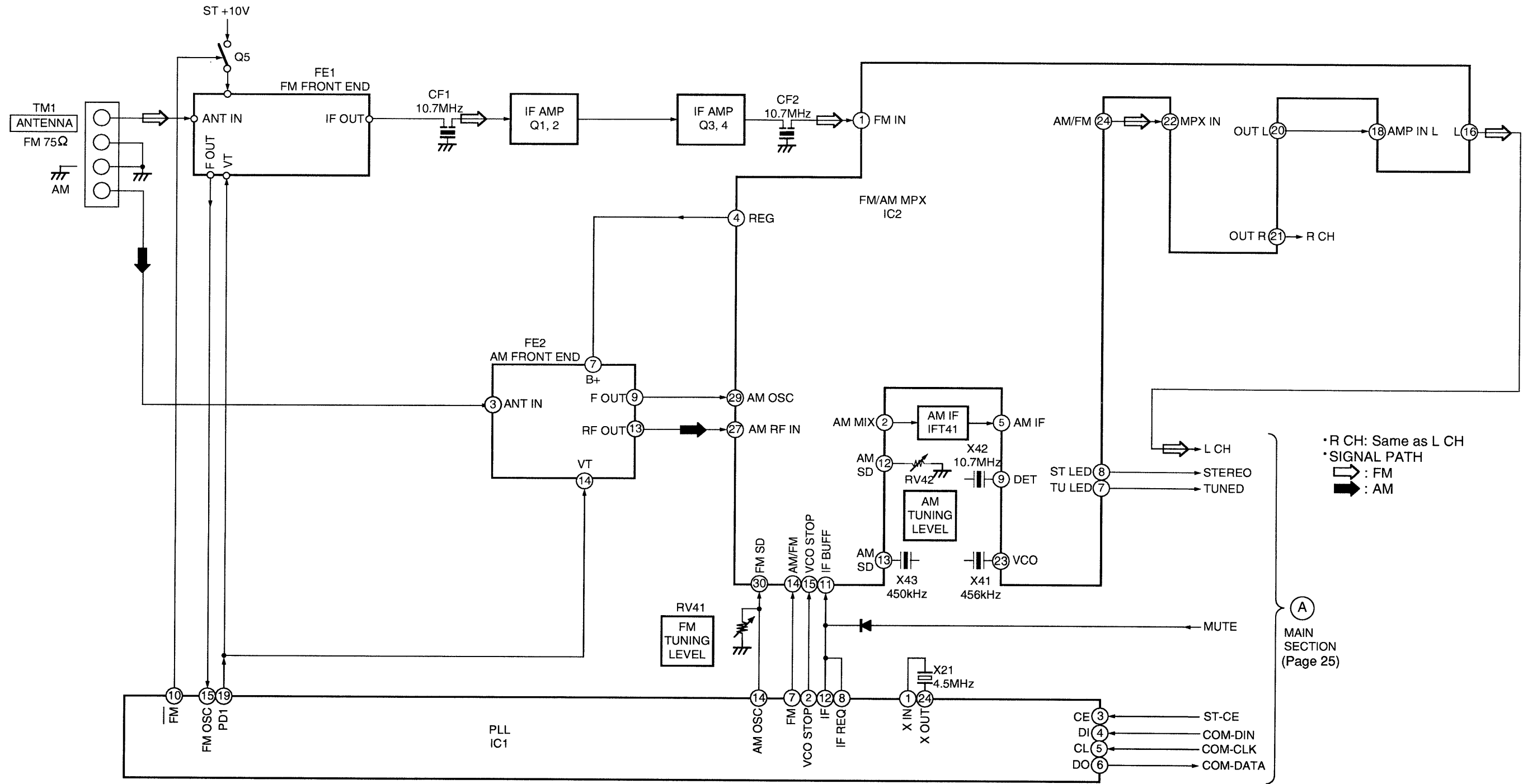


Note : ● A is including in MD board.



5-2. BLOCK DIAGRAMS

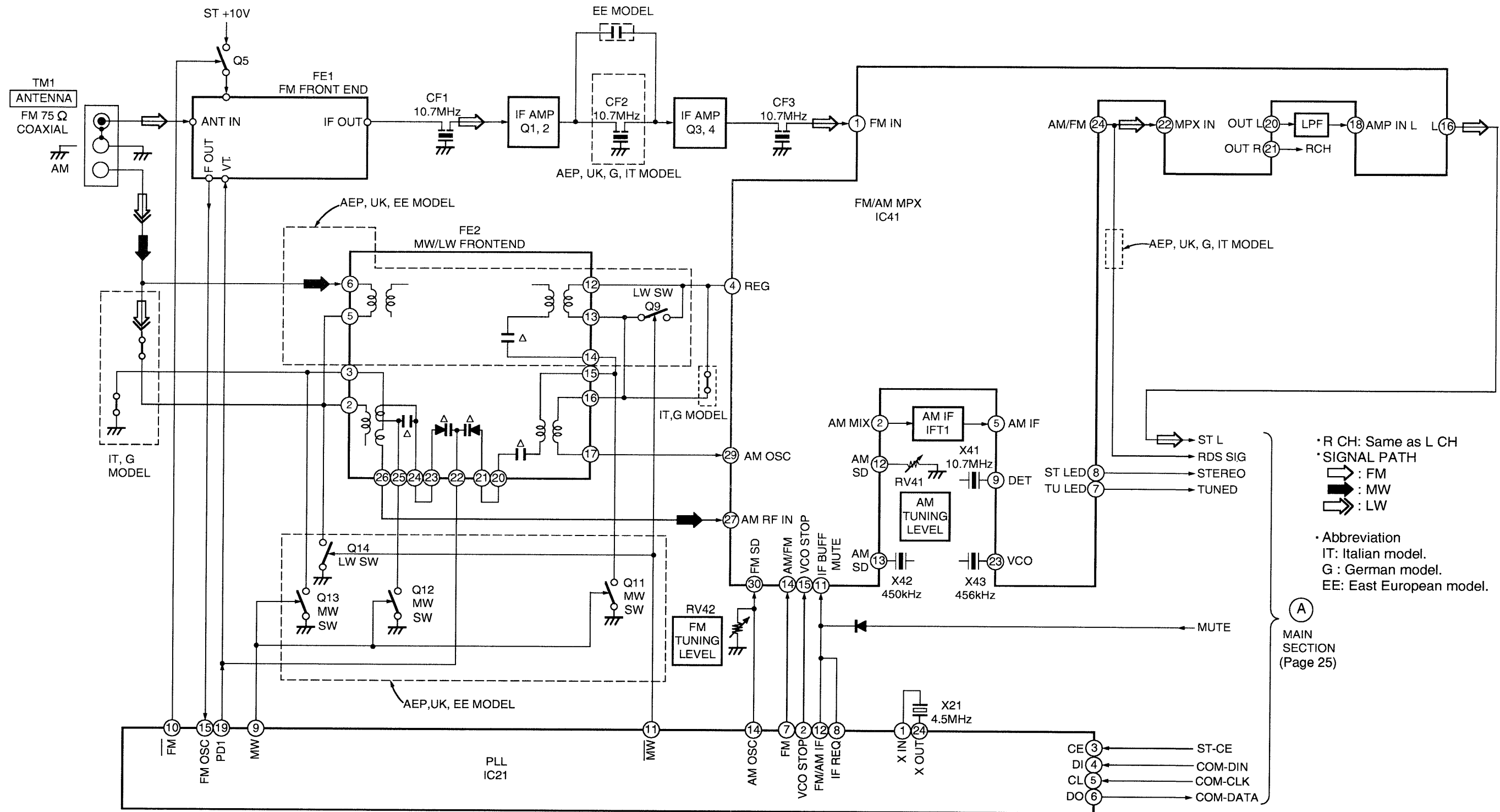
— TUNER SECTION — (E, AUS, MX, PX, AR MODELS)



09

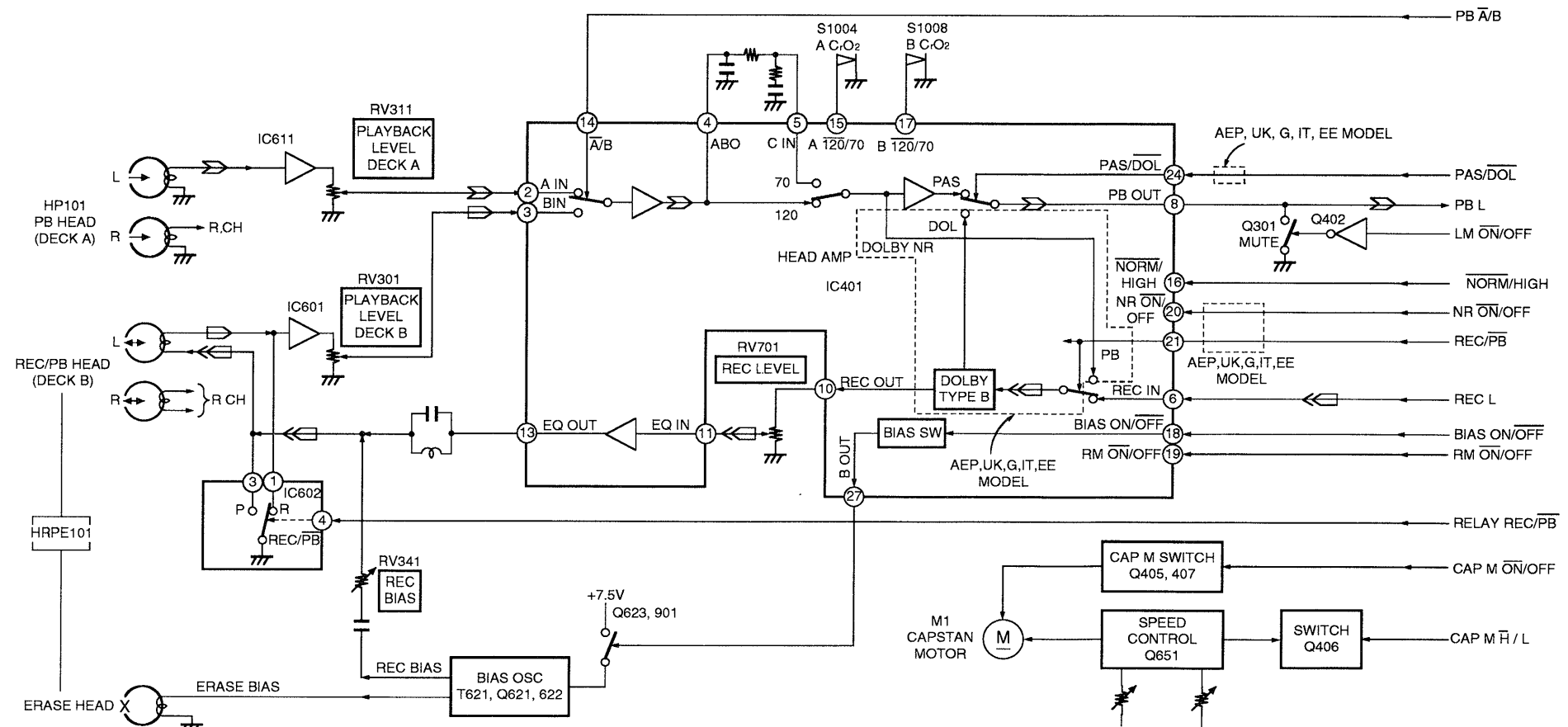
(A)
MAIN SECTION
(Page 25)

— TUNER SECTION — (E, AUS, MX, PX, AR MODELS)



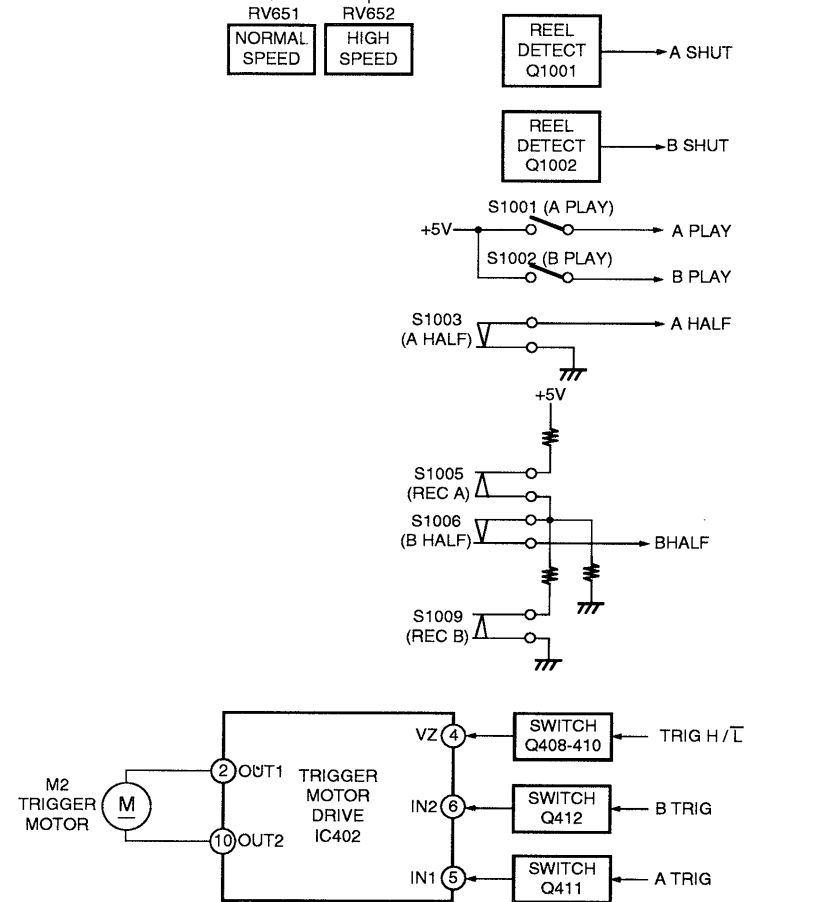
09

— DECK SECTION —



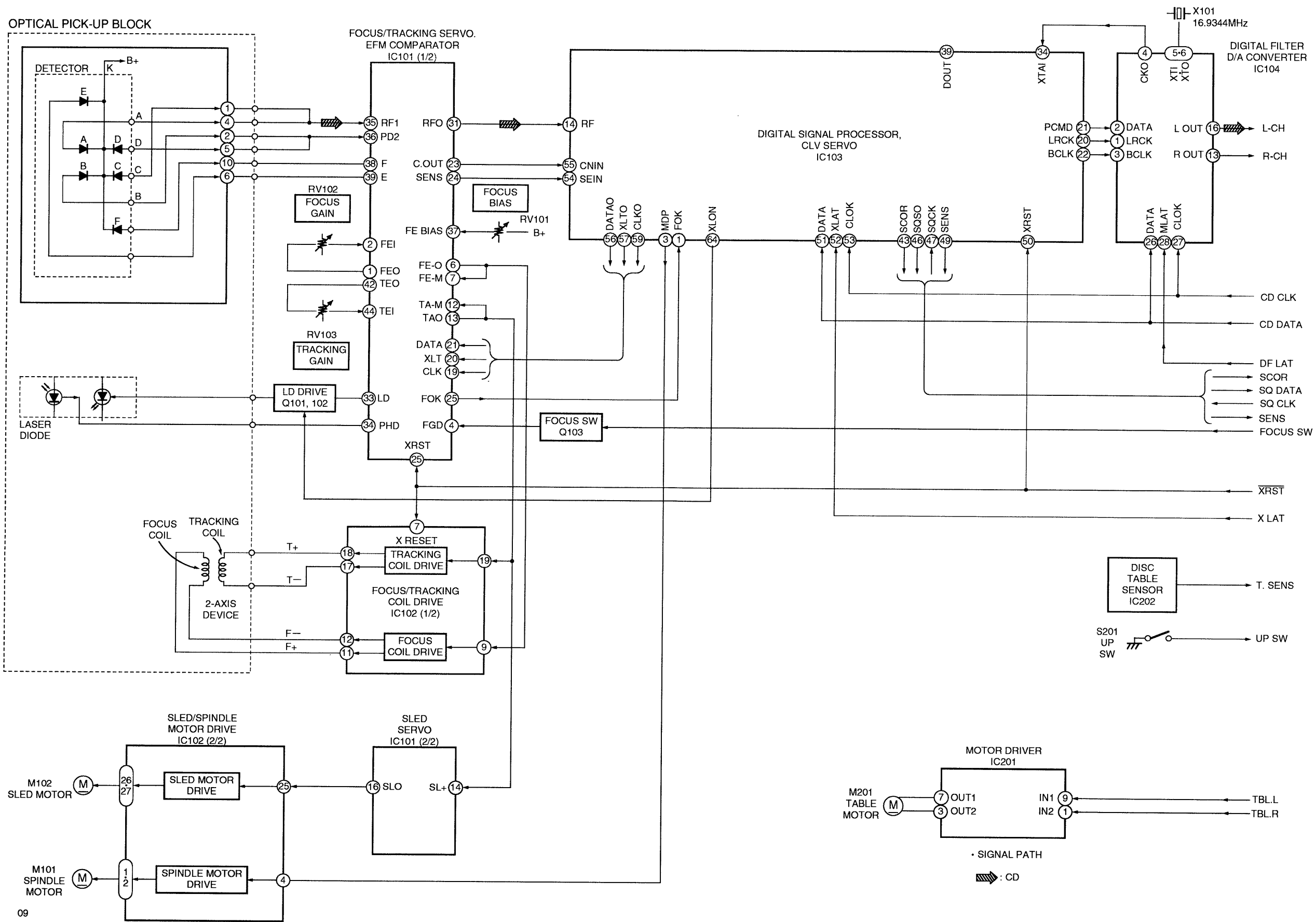
• R CH : Same as L CH
 • SIGNAL PATH
 ◀ : PB (DECK A)
 ◀ : PB (DECK B)
 ◀ : REC (DECK B)
 • Abbreviation
 G : German model.
 IT : Italian model.
 EE : East European model.

09



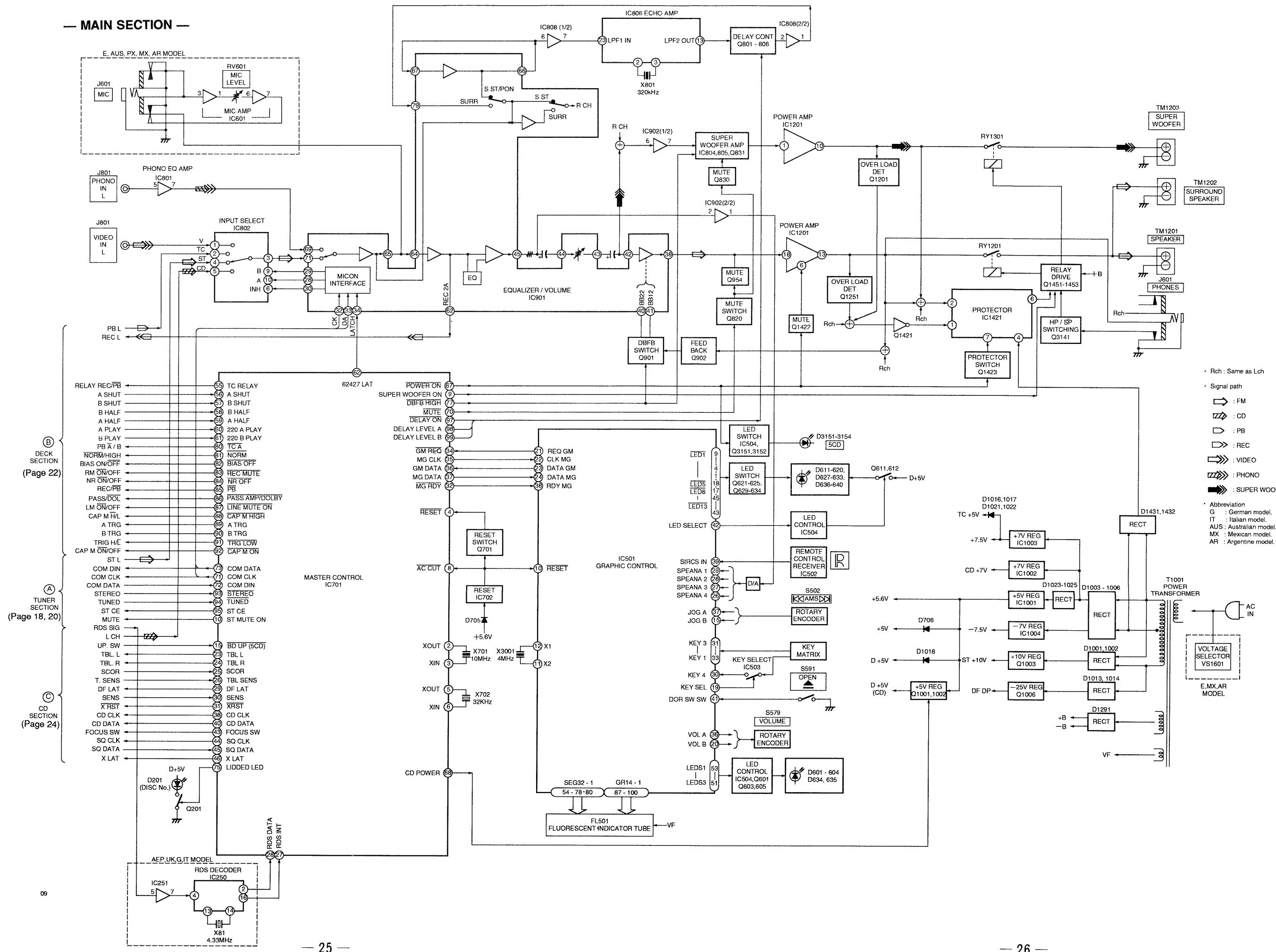
(B)
 MAIN SECTION
 (Page 25)

— CD SECTION —



(C)
MAIN SECTION
(Page 25)

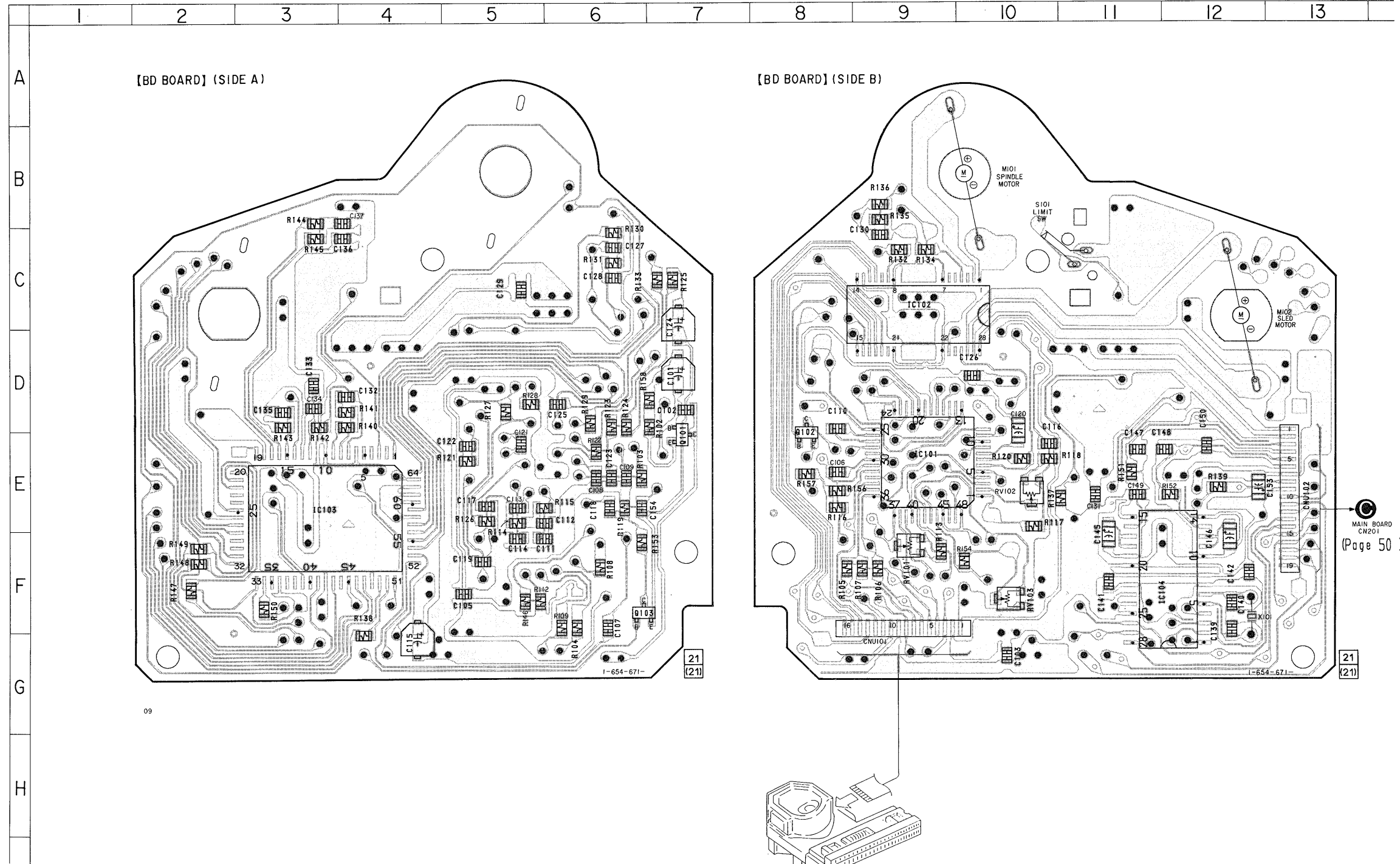
— MAIN SECTION —



5-3. PRINTED WIRING BOARD — CD SECTION —
 • See page 16 for Circuit Boards Location.

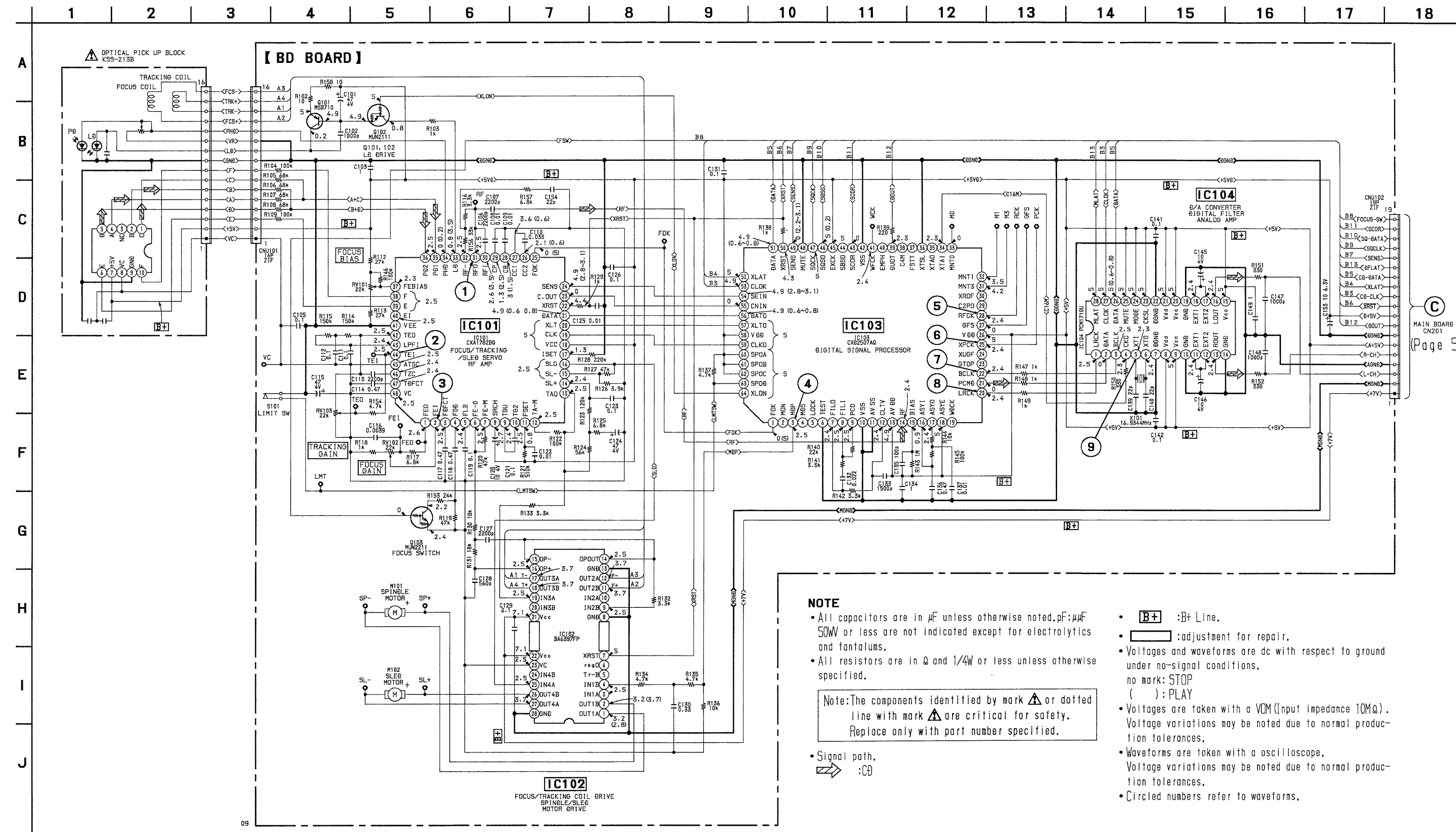
• Semiconductor Location

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

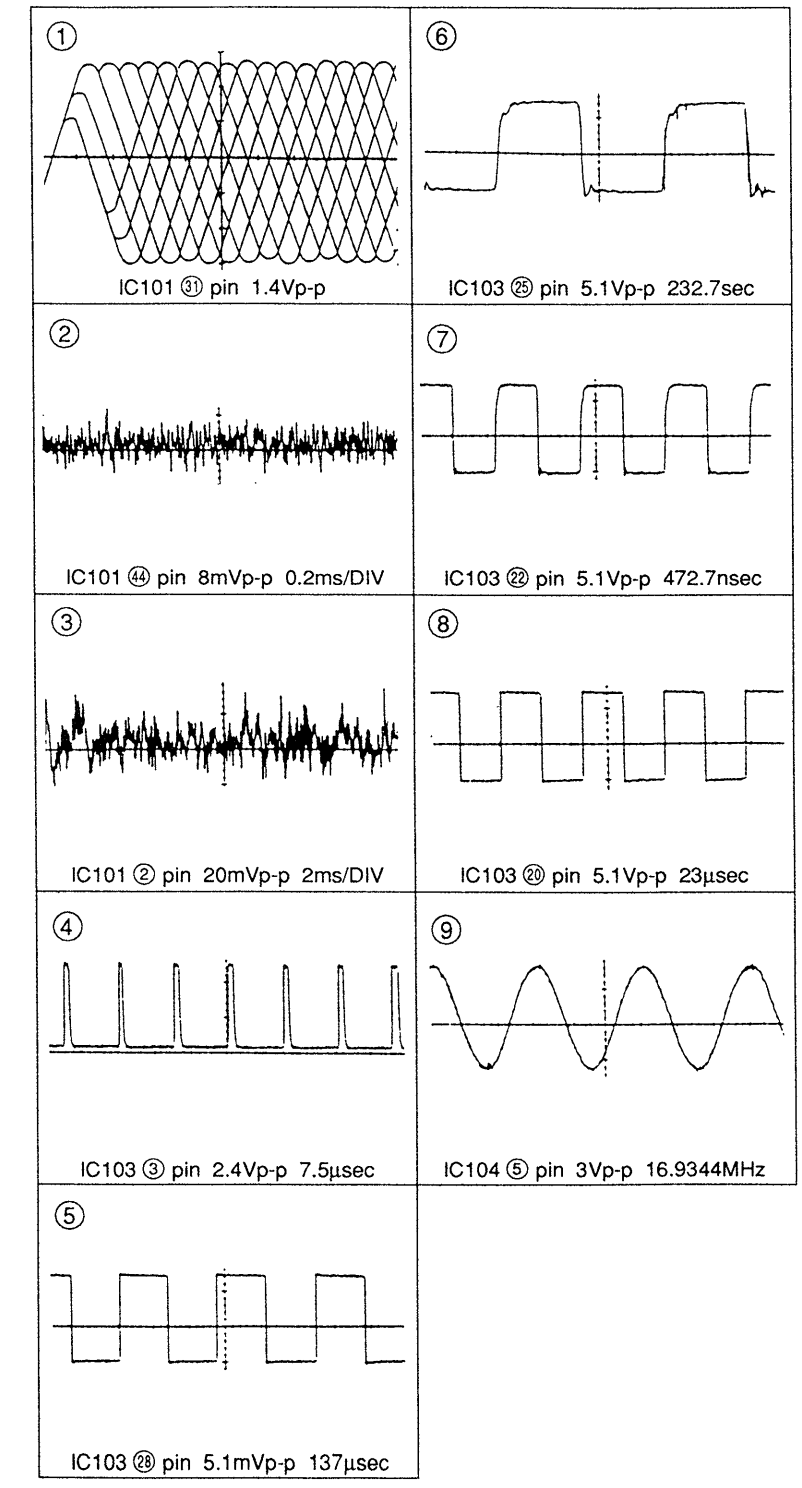


- Note:**
- : parts extracted from the component side.
 - : Through hole.
 - : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)

5-4. SCHEMATIC DIAGRAM — CD SECTION —
 • See page 81 for IC Block Diagrams. (IC101 — 104)

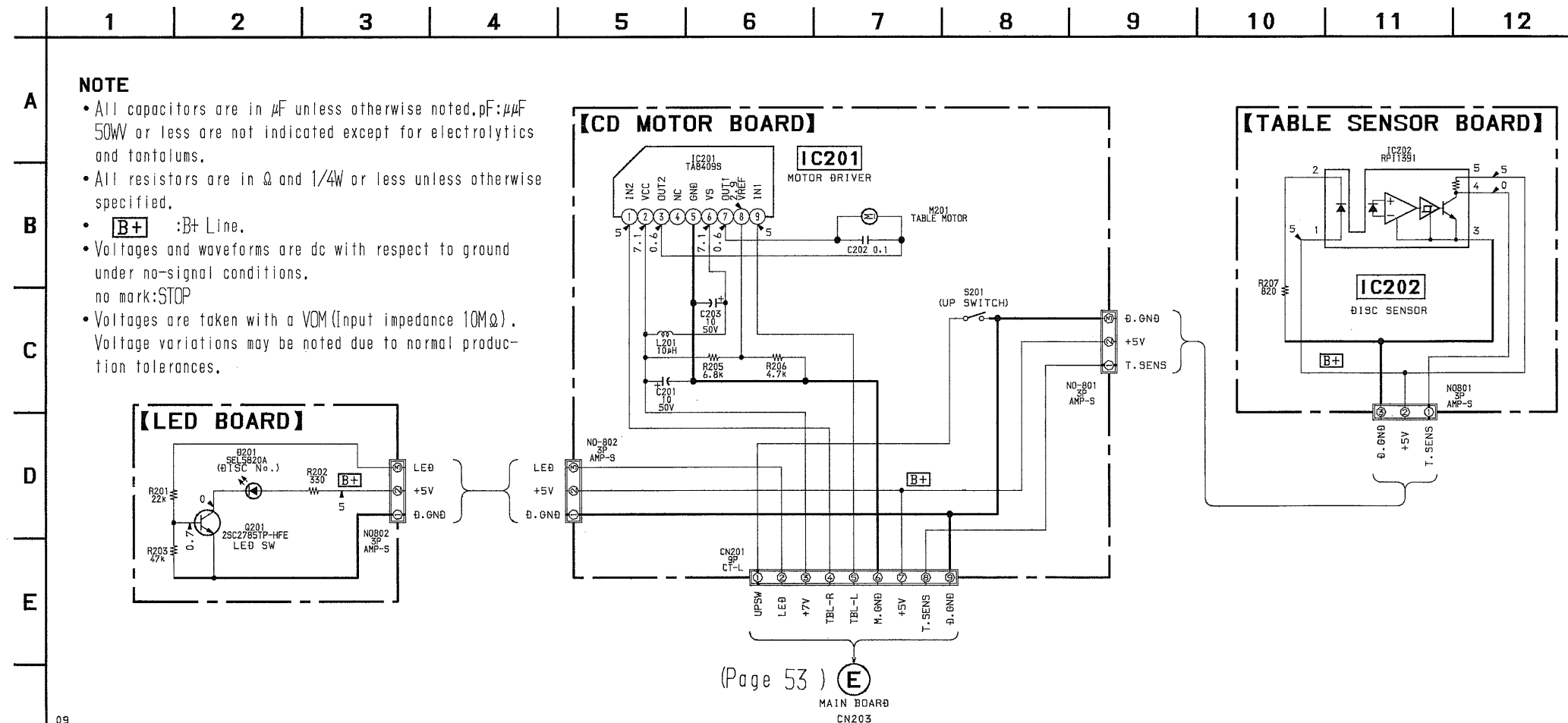


• Waveforms

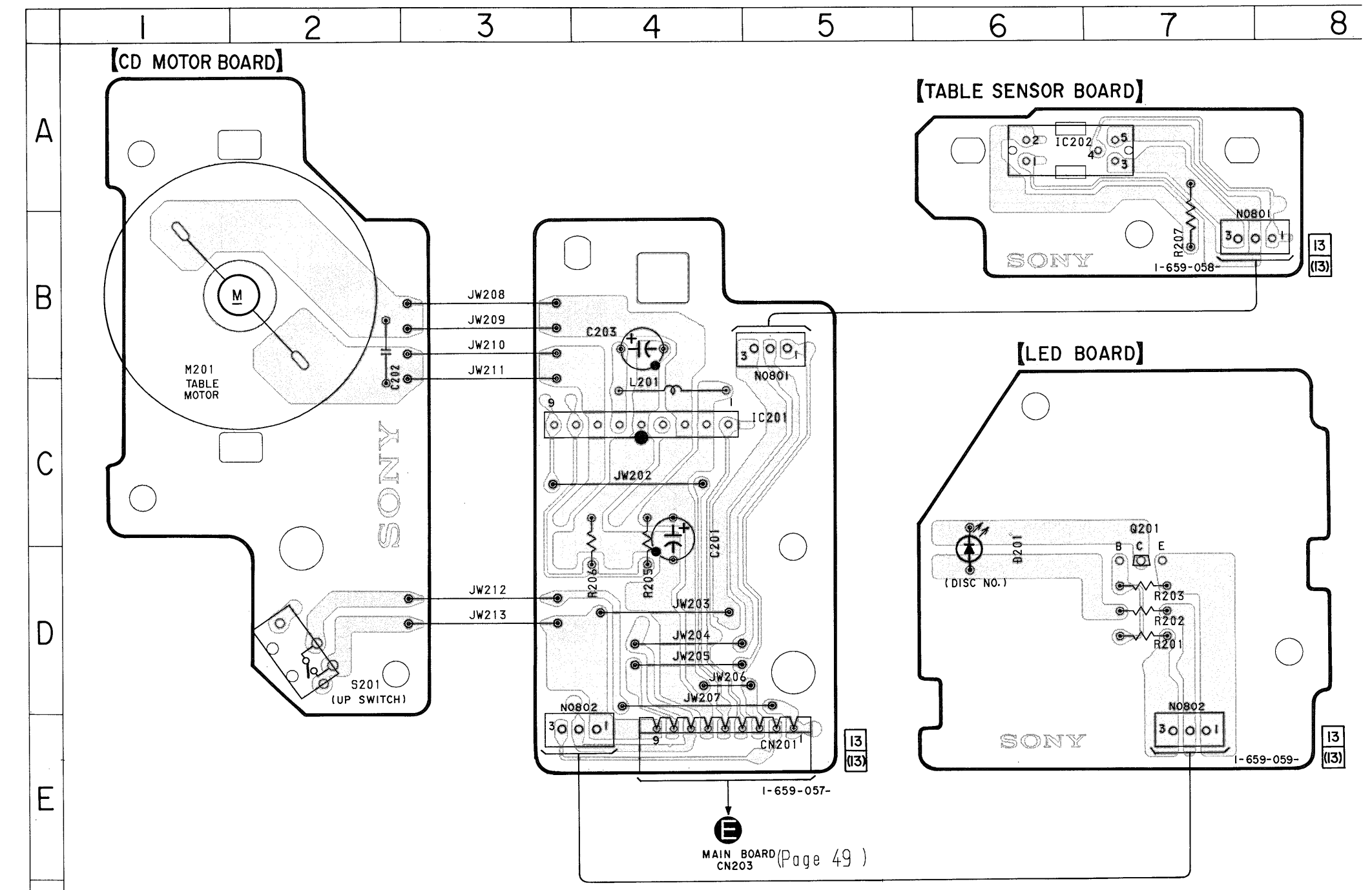


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5-5. SCHEMATIC DIAGRAM — CD MOTOR SECTION —



5-6. PRINTED WIRING BOARD — CD MOTOR SECTION —
• See page 16 for Circuit Boards Location.

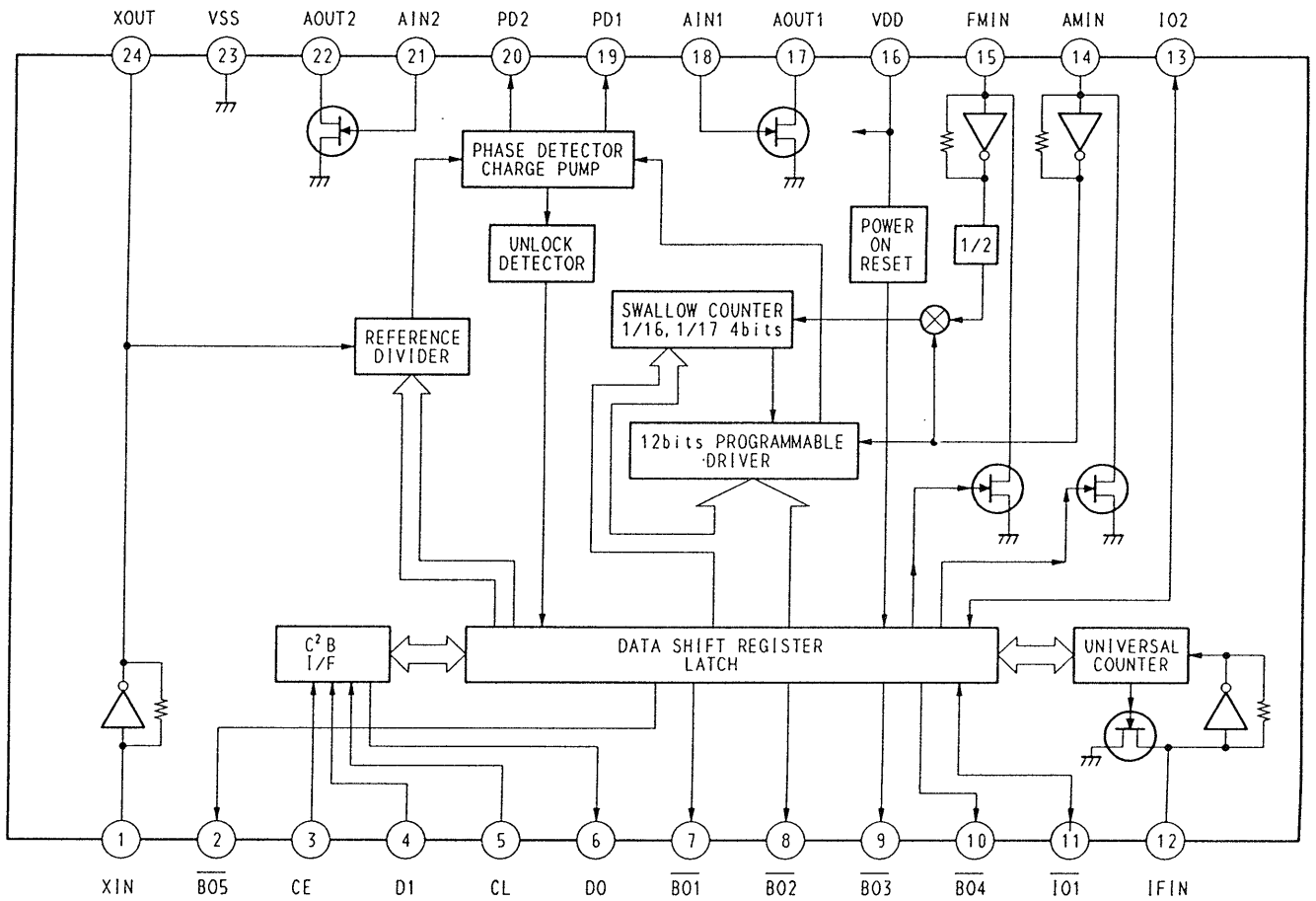


Note:

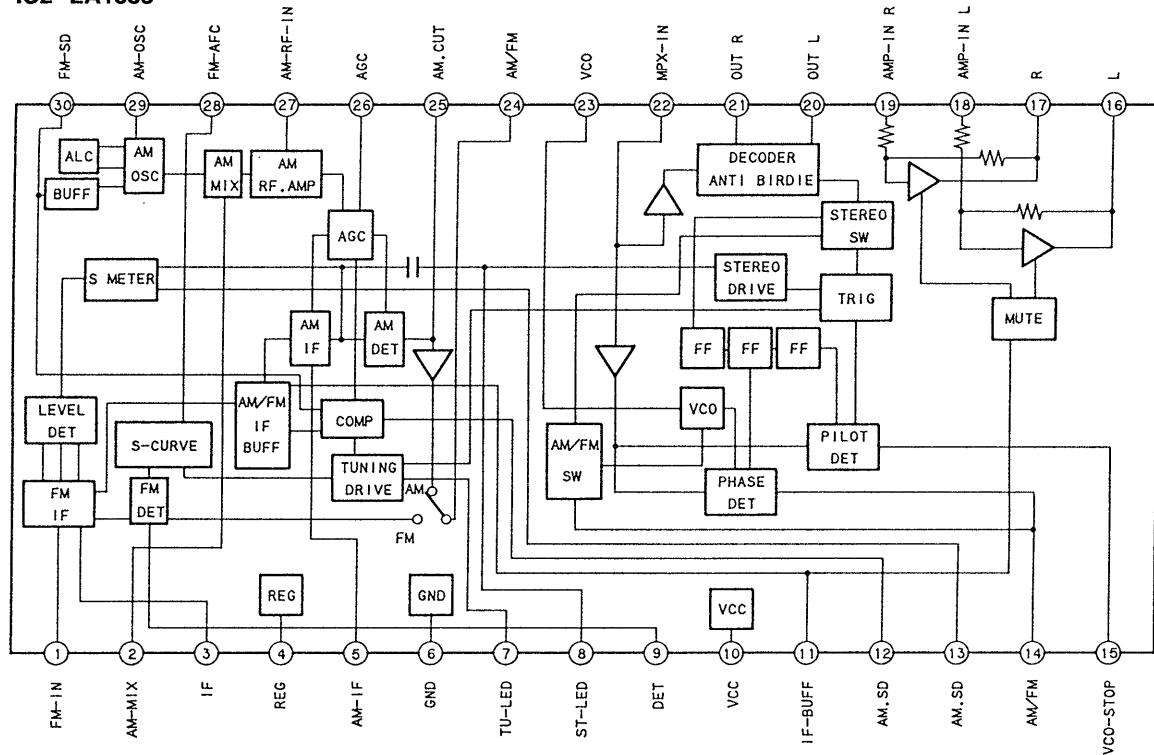
- : parts extracted from the component side.
- : Pattern from the side which enable seeing.

• IC Block Diagrams

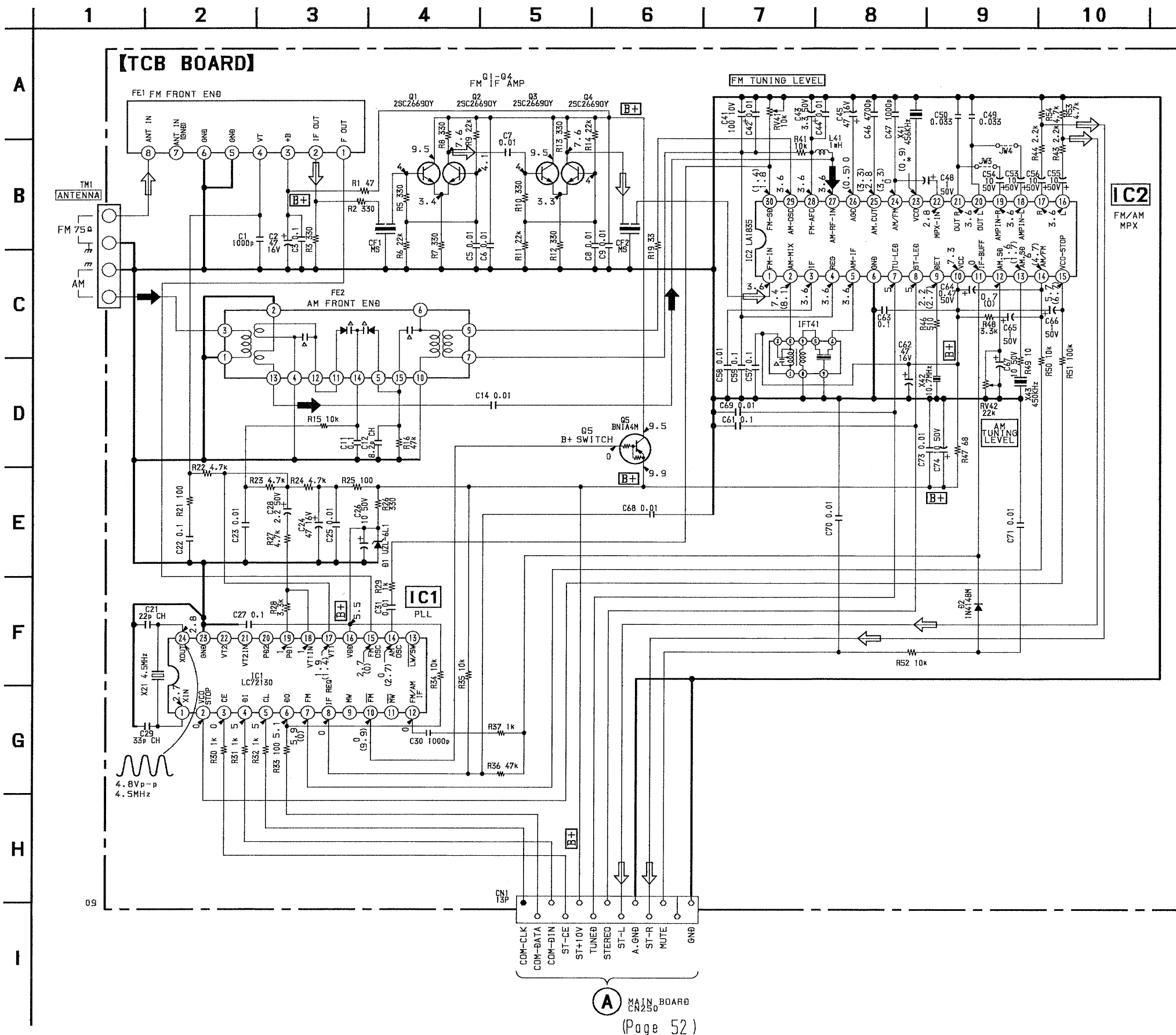
IC1 LC72130



IC2 LA1835



5-7. SCHEMATIC DIAGRAM — TUNER SECTION — (E, AUS, MX, PX, AR MODELS)



(Page 52)

NOTE

- All capacitors are in μF unless otherwise noted, $\text{pF} = \mu\text{F} \times 10^{-6}$. 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- \square : panel designation.

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

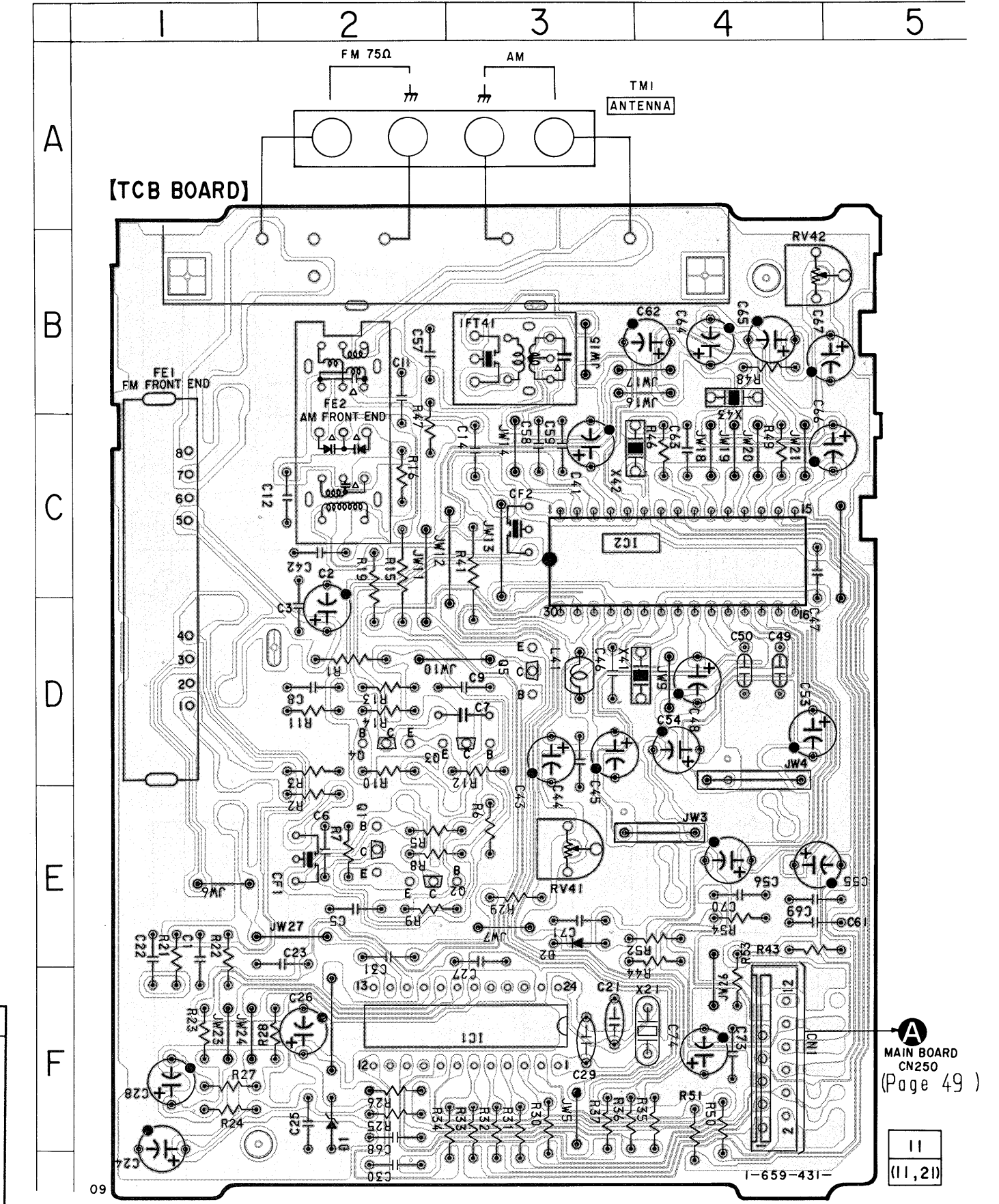
- \square B+ : B+ Line.
- \square : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - no mark: FM
 - () : AM
 - * : can not be measured.
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Abbreviation
 - AUS: Australian model.
 - MX : Mexican model.
 - AR : Argentine model.
- Signal path
 - \rightarrow : FM
 - \rightarrow : AM

• Semiconductor Location

Ref. No.	Location
D1	F-2
D2	E-3
IC1	F-3
IC2	C-3
Q1	E-2
Q2	E-3
Q3	D-2
Q4	D-2
Q5	D-3

5-8. PRINTED WIRING BOARD — TUNER SECTION — (E, AUS, MX, PX, AR MODELS)

• See page 16 for Circuit Boards Location.



- Note:
- \circ : parts extracted from the component side.
 - Δ : internal component.
 - \square : Pattern from the side which enable seeing.

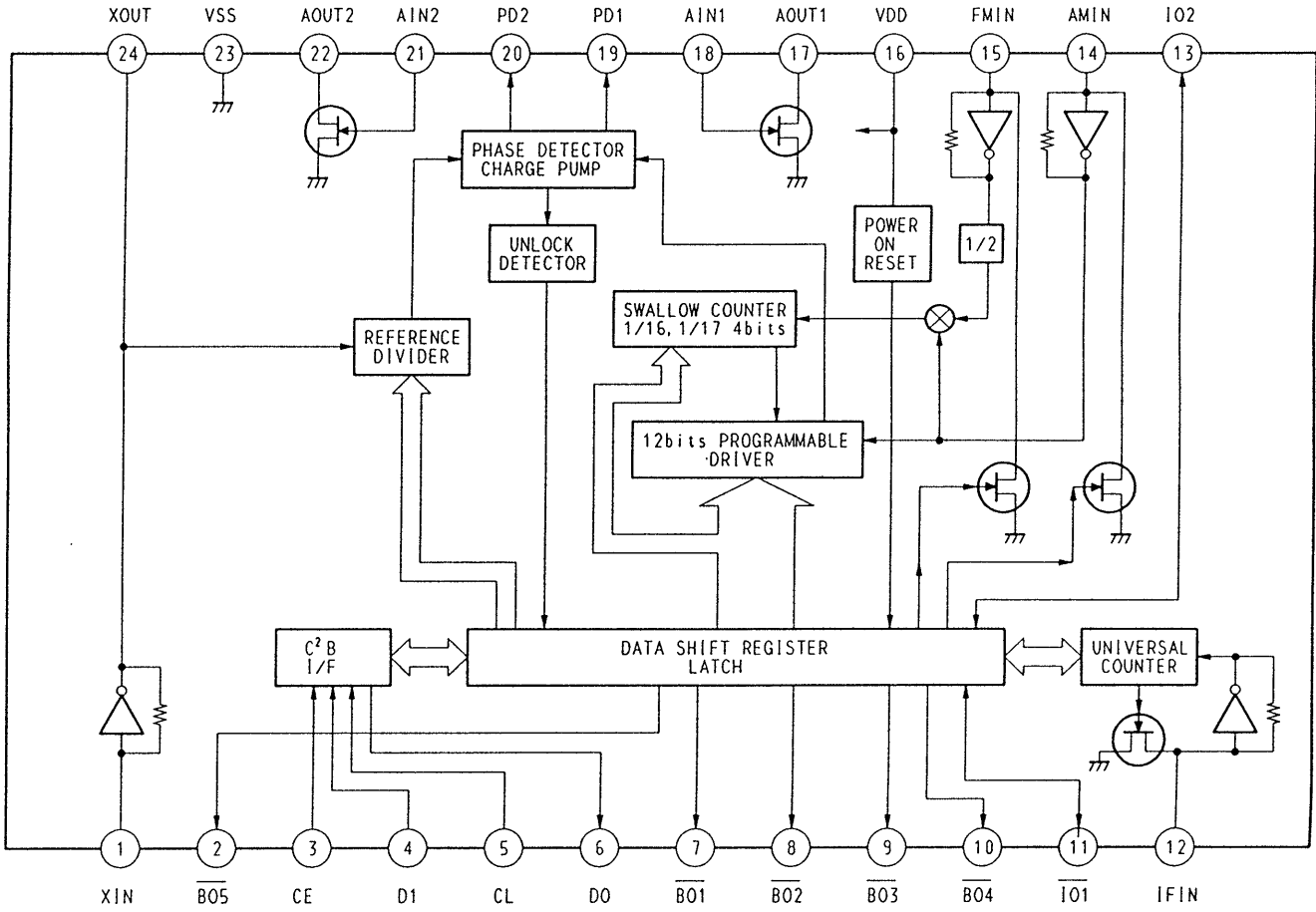
- Abbreviation
 - MX : Mexican model.
 - AUS : Australian model.
 - AR : Argentine model.

MAIN BOARD CN250 (Page 49)

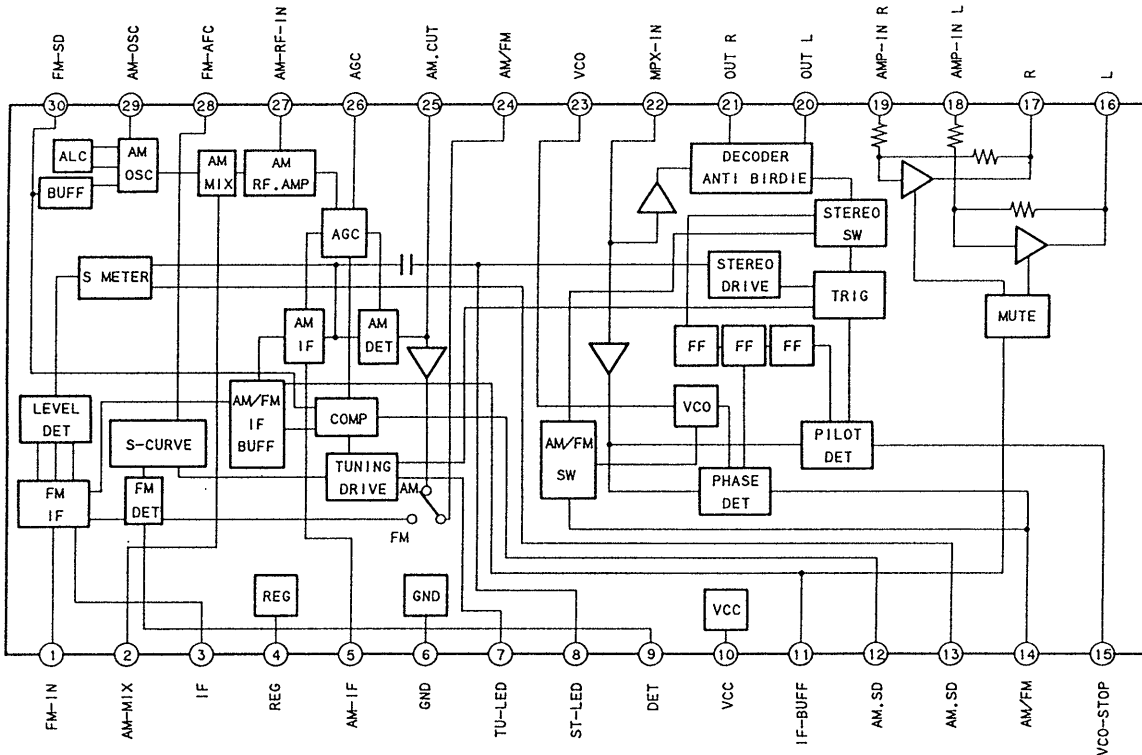
(11, 21)

• IC Block Diagrams

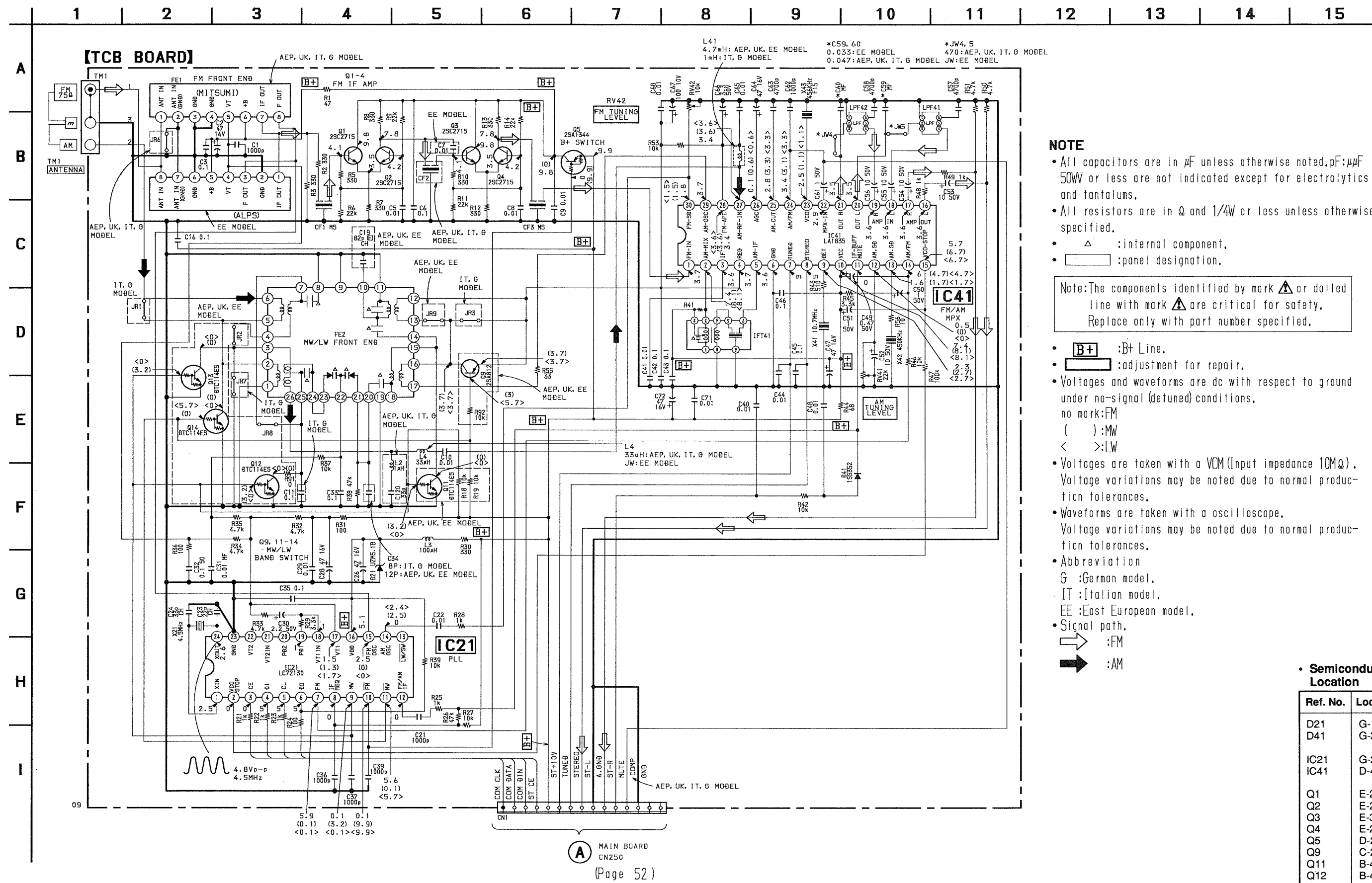
IC21 LC72130



IC41 LA1835



5-9. SCHEMATIC DIAGRAM — TUNER SECTION — (AEP, UK, G, IT, EE MODELS)



NOTE

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

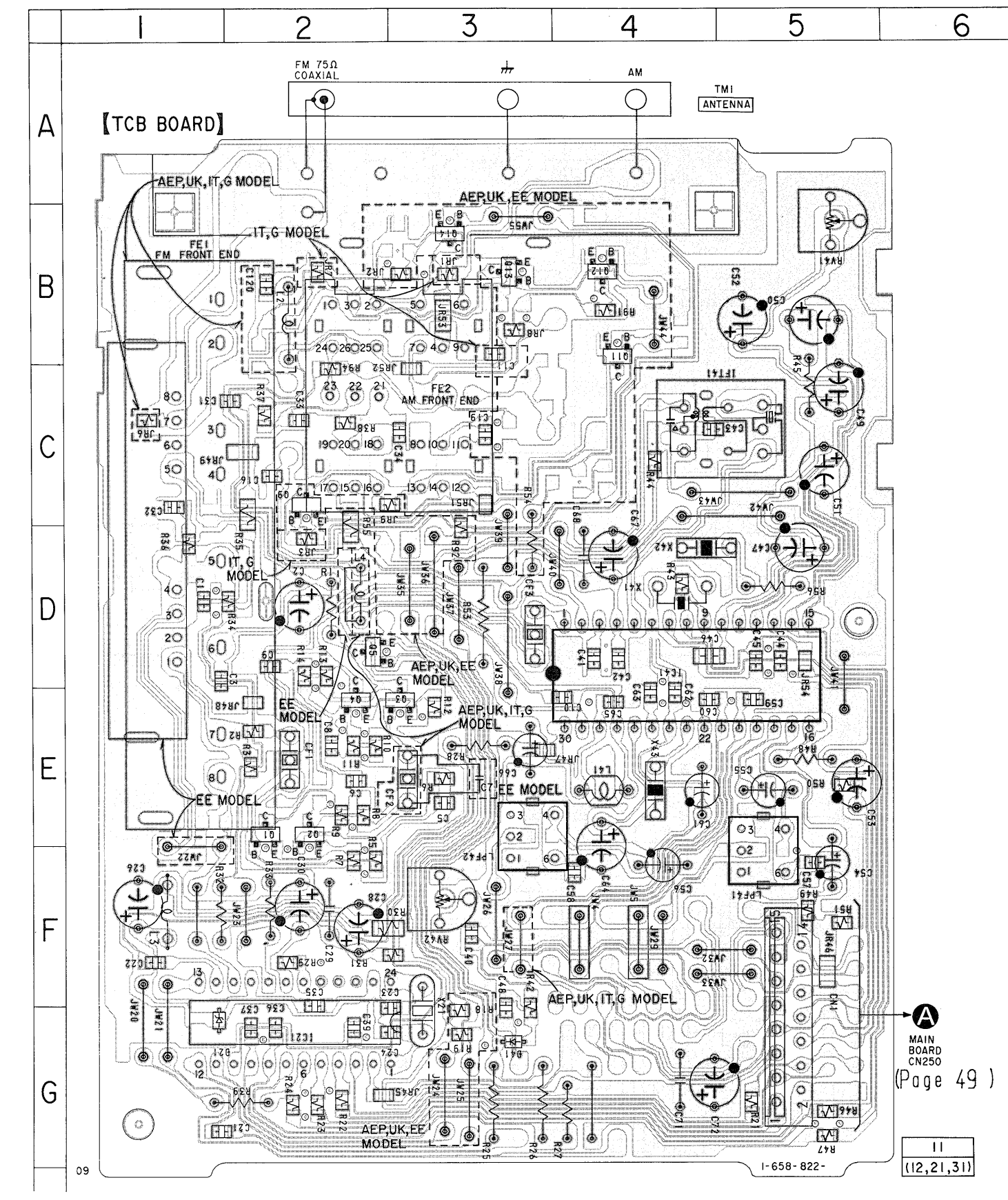
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- \square : B+ Line.
- \square : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- () : 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

• Semiconductor Location

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

5-10. PRINTED WIRING BOARD — TUNER SECTION — (AEP, UK, G, IT, EE MODELS)
• See page 16 for Circuit Boards Location.

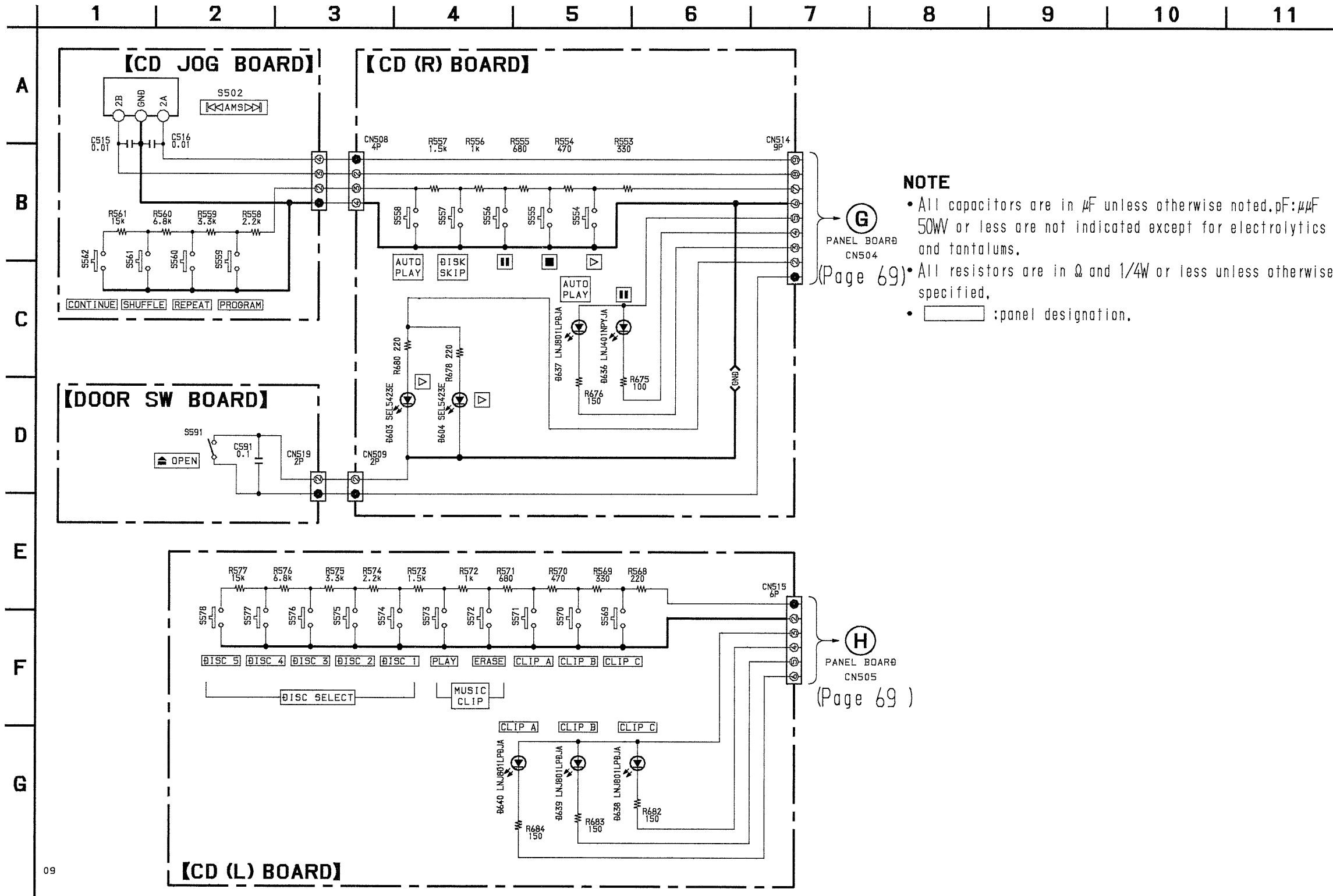


Note:

- \circ : parts extracted from the component side.
- Δ : internal component.
- \square : Pattern from the side which enable seeing.

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

5-11. SCHEMATIC DIAGRAM — CD PANEL SECTION —



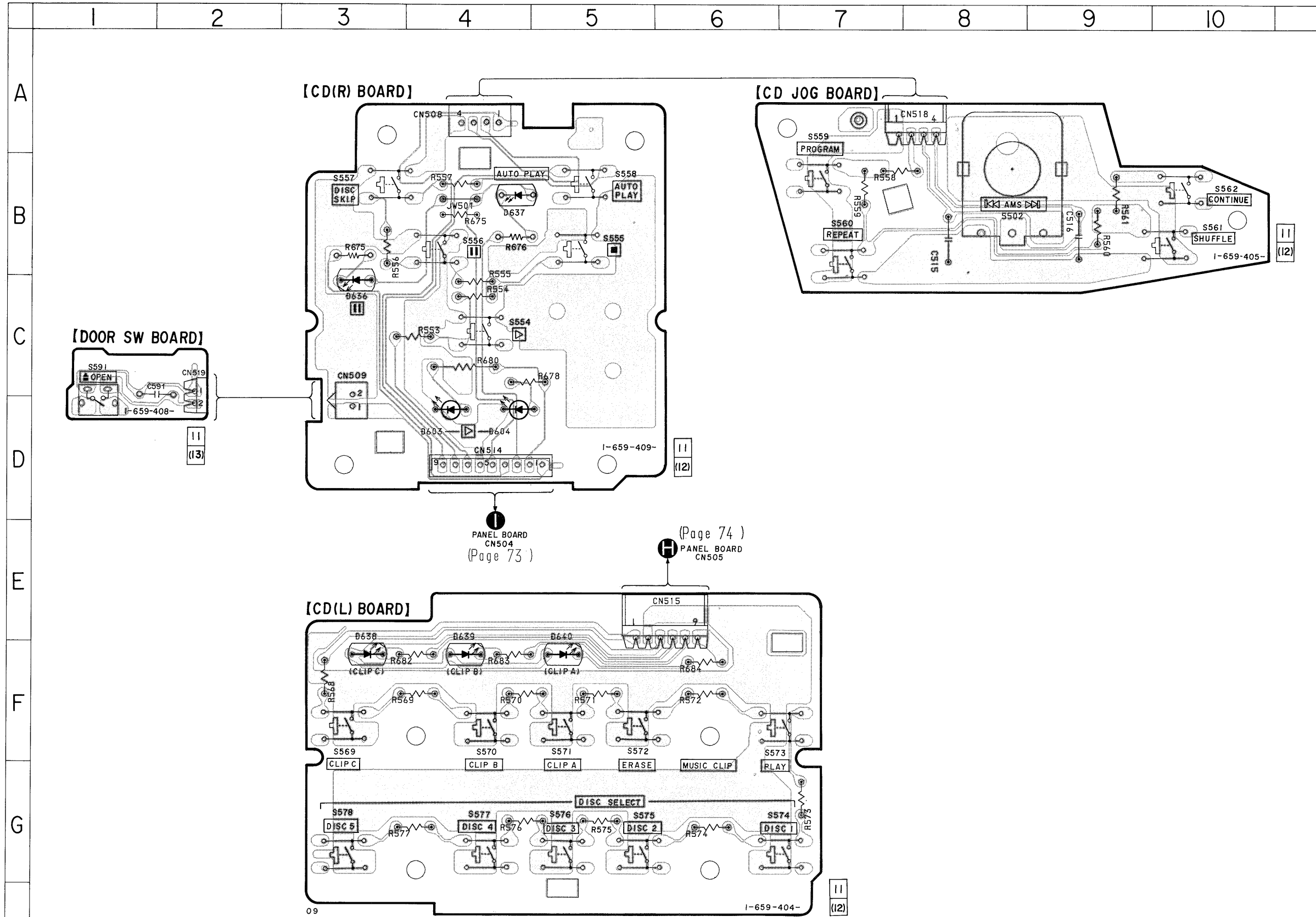
NOTE

- All capacitors are in μF unless otherwise noted. pF: μF 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- : panel designation.

(H)
 PANEL BOARD
 CN505
 (Page 69)

09

5-12. PRINTED WIRING BOARD — CD PANEL SECTION —
 • See page 16 for Circuit Boards Location.

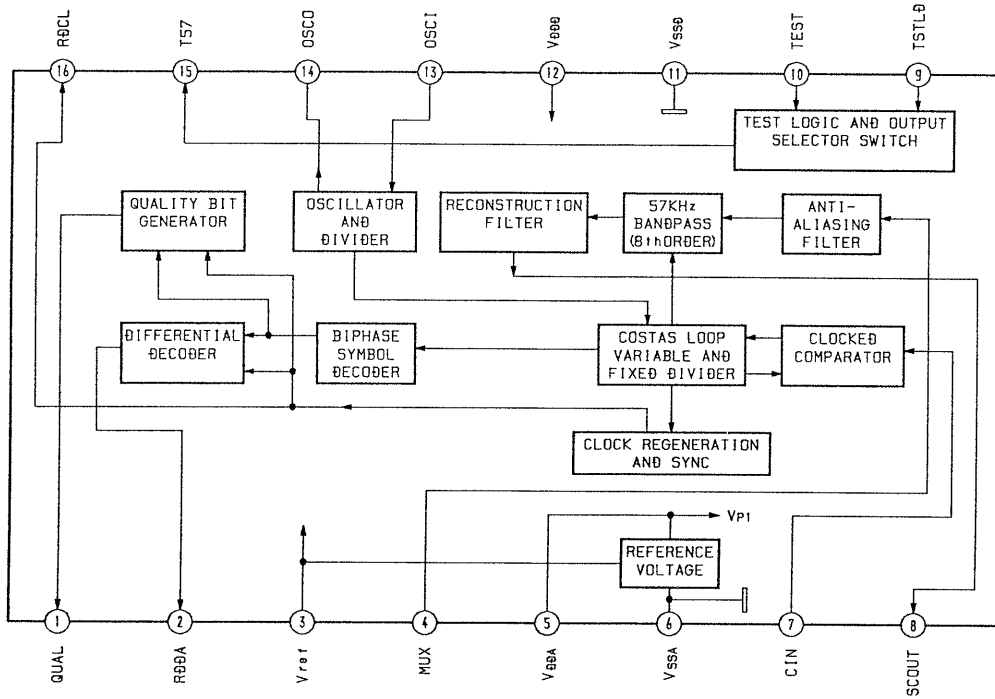


PANEL BOARD CN504 (Page 73)
 PANEL BOARD CN505 (Page 74)

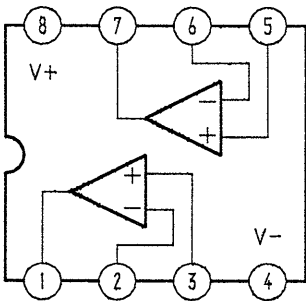
Note:
 • — : parts extracted from the component side.
 • □ : Pattern from the side which enable seeing.

• IC Block Diagrams

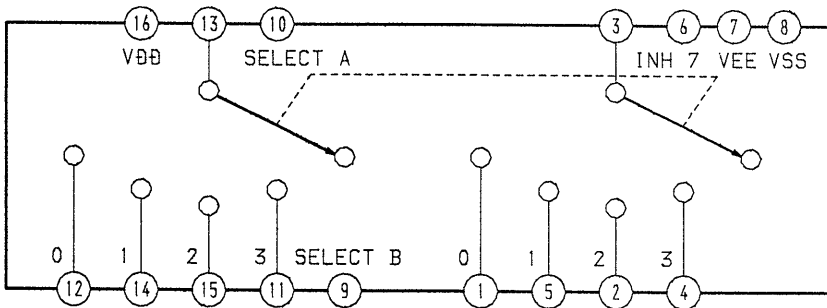
IC250 SAA6579T



IC251 RC4558P

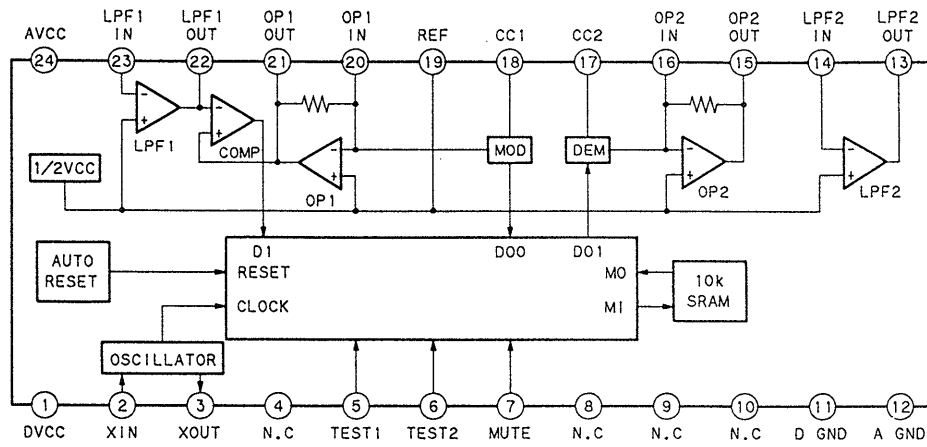


IC802 MC14052BCP



5-13. PRINTED WIRING BOARD — MAIN SECTION —
 • See page 16 for Circuit Boards Location.

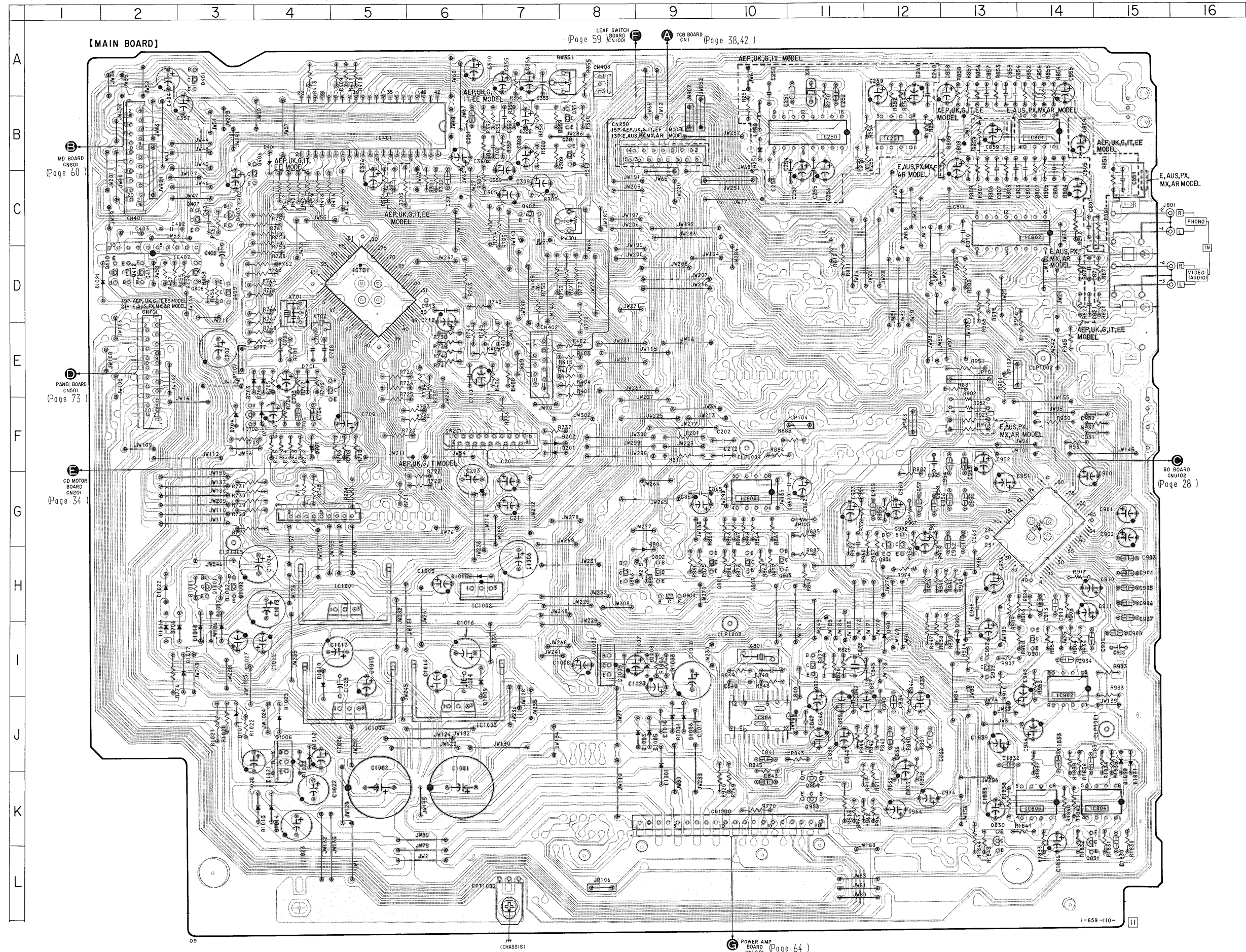
IC806 M65843FP



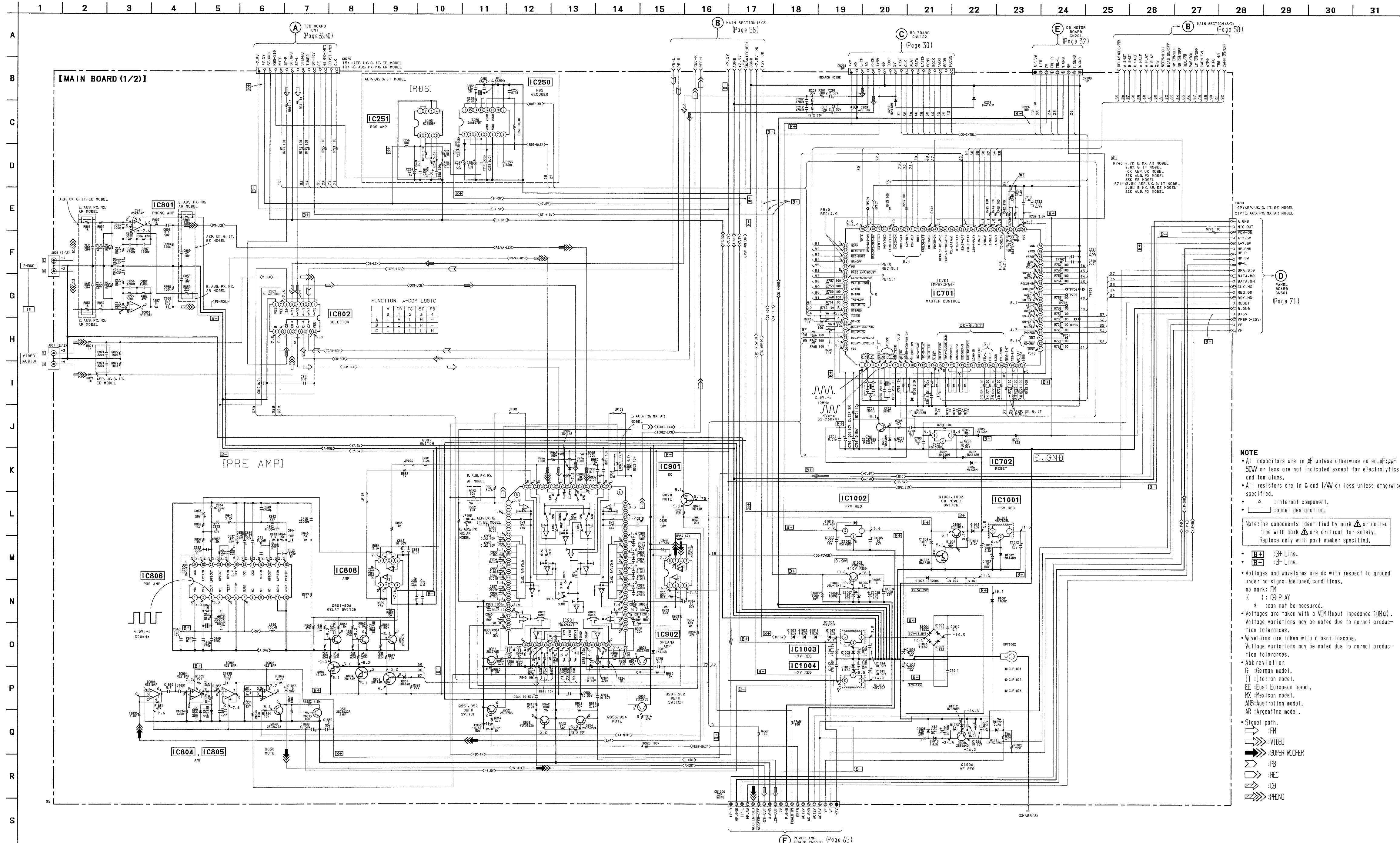
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D201	F-8	IC802	C-14
D202	F-8	IC804	K-14
D251	B-10	IC805	K-14
D401	B-4	IC806	J-10
D701	E-4	IC808	G-10
D702	F-4	IC831	L-14
D703	E-3	IC901	G-14
D704	F-3	IC902	J-12
D705	E-4	IC1001	H-5
D706	I-2	IC1002	H-6
D707	F-4	IC1003	J-6
D801	H-9	IC1004	J-5
D901	I-12		
D902	I-13	Q301	B-8
D1001	K-9	Q351	B-8
D1003	J-9	Q401	A-3
D1004	J-9	Q402	C-7
D1005	J-9	Q403	C-3
D1006	J-9	Q406	B-4
D1007	H-3	Q407	C-3
D1008	I-9	Q408	D-3
D1009	I-6	Q409	D-3
D1010	I-4	Q410	D-2
D1011	J-3	Q411	D-2
D1012	J-4	Q412	D-2
D1013	K-4	Q701	E-5
D1014	K-4	Q801	H-10
D1015	H-6	Q802	H-9
D1016	I-2	Q803	H-10
D1017	I-3	Q804	H-9
D1018	I-3	Q805	H-10
D1021	D-1	Q806	H-8
D1022	H-2	Q820	I-11
D1023	J-4	Q830	K-13
D1830	K-15	Q901	I-14
D1831	K-15	Q902	I-13
		Q951	H-12
IC250	B-11	Q952	G-12
IC251	B-12	Q953	K-11
IC401	B-5	Q954	K-11
IC402	D-2	Q1001	H-3
IC701	D-5	Q1002	H-3
IC702	F-3	Q1003	I-8
IC801	B-14	Q1006	J-4

- Note:**
- : parts extracted from the component side.
 - : parts mounted on the conductor side.
 - △ : internal component.
 - : Pattern from the side which enable seeing.
- Abbreviation**
- G : German model.
 - IT : Italian model.
 - EE : East European model.
 - MX : Mexican model.
 - AUS : Australian model.
 - AR : Argentine model.



5-14. SCHEMATIC DIAGRAM — MAIN SECTION —
• See page 78 for IC Pin Function. (IC701)



NOTE

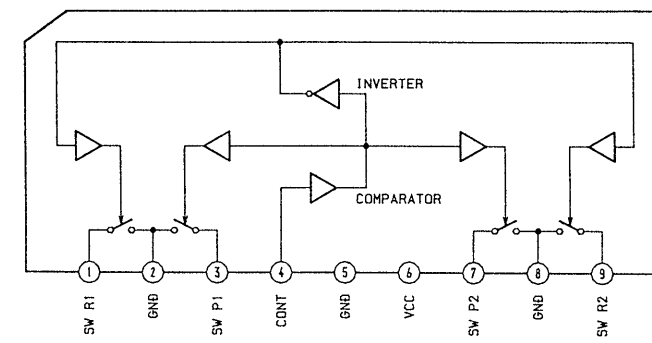
- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F} \times 10^{-6}$ or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/\Omega$ or less unless otherwise specified.
- Δ : internal component.
- \square : panel designation.

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

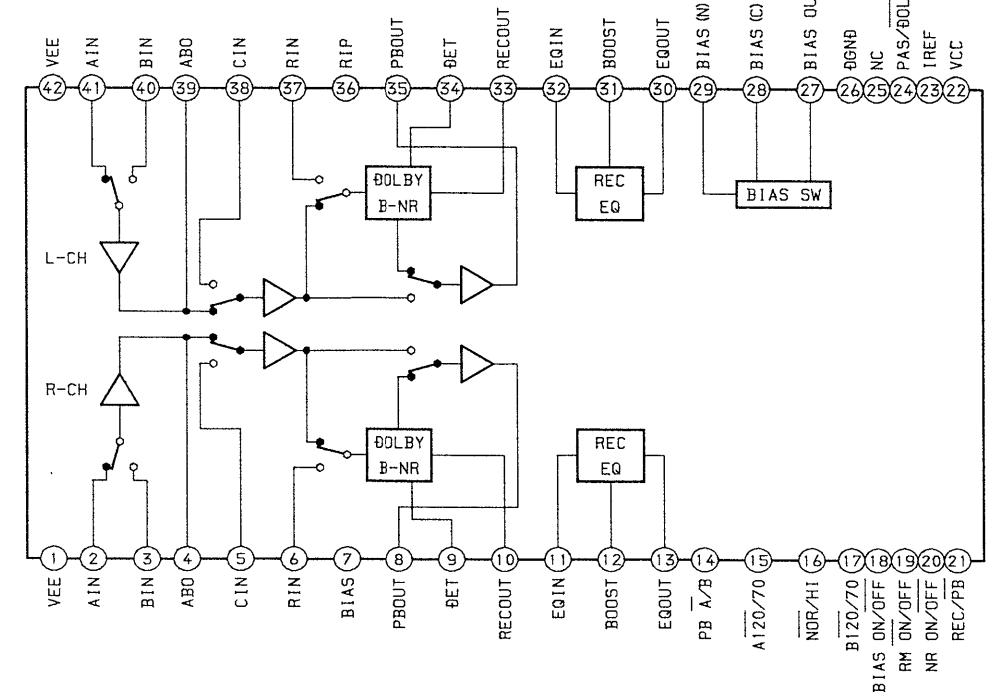
- \square : B+ Line.
- \square : B- Line.
- Voltagess and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- () : CD PLAY
- * : can not be measured.
- Voltagess are taken with a VOM (input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Abbreviation
G : German model.
IT : Italian model.
EE : East European model.
MX : Mexican model.
AUS : Australian model.
AR : Argentine model.
- Signal path:
FM
VIDEO
SUPER WOOFER
PB
REC
CB
PHONO

• IC Block Diagrams

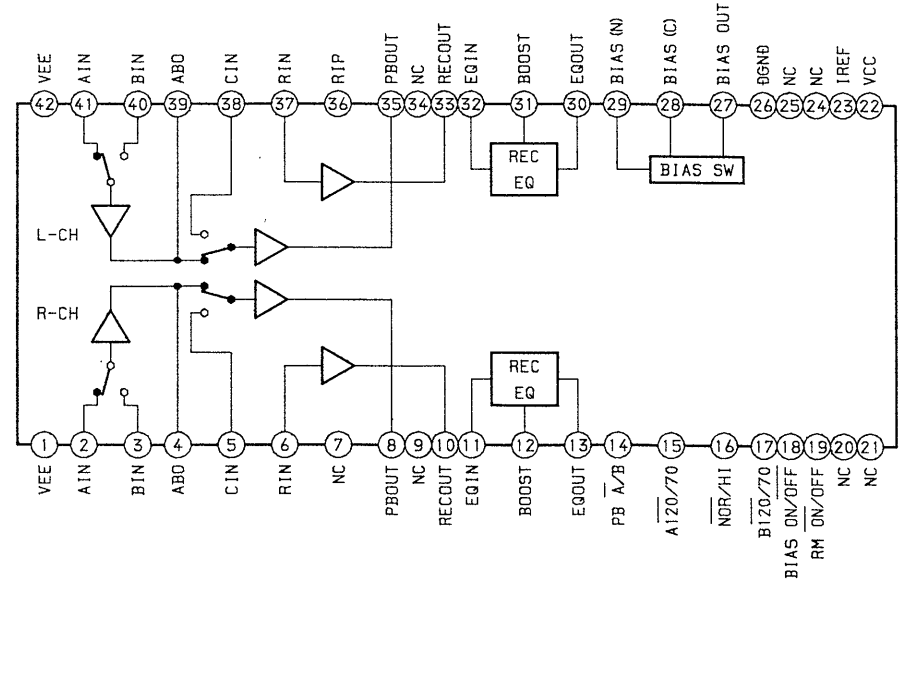
IC602 μ PC1330HA



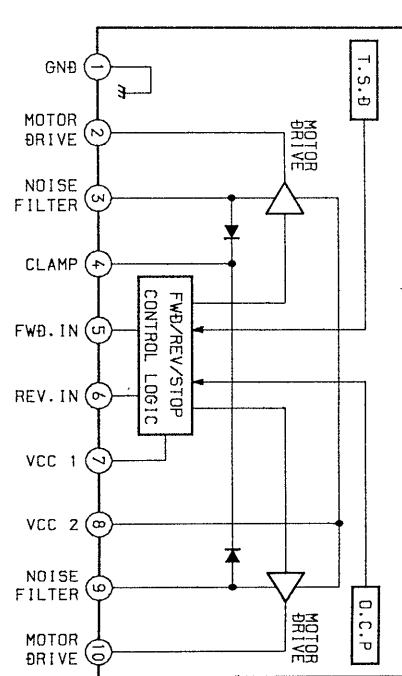
IC901 HA12195T



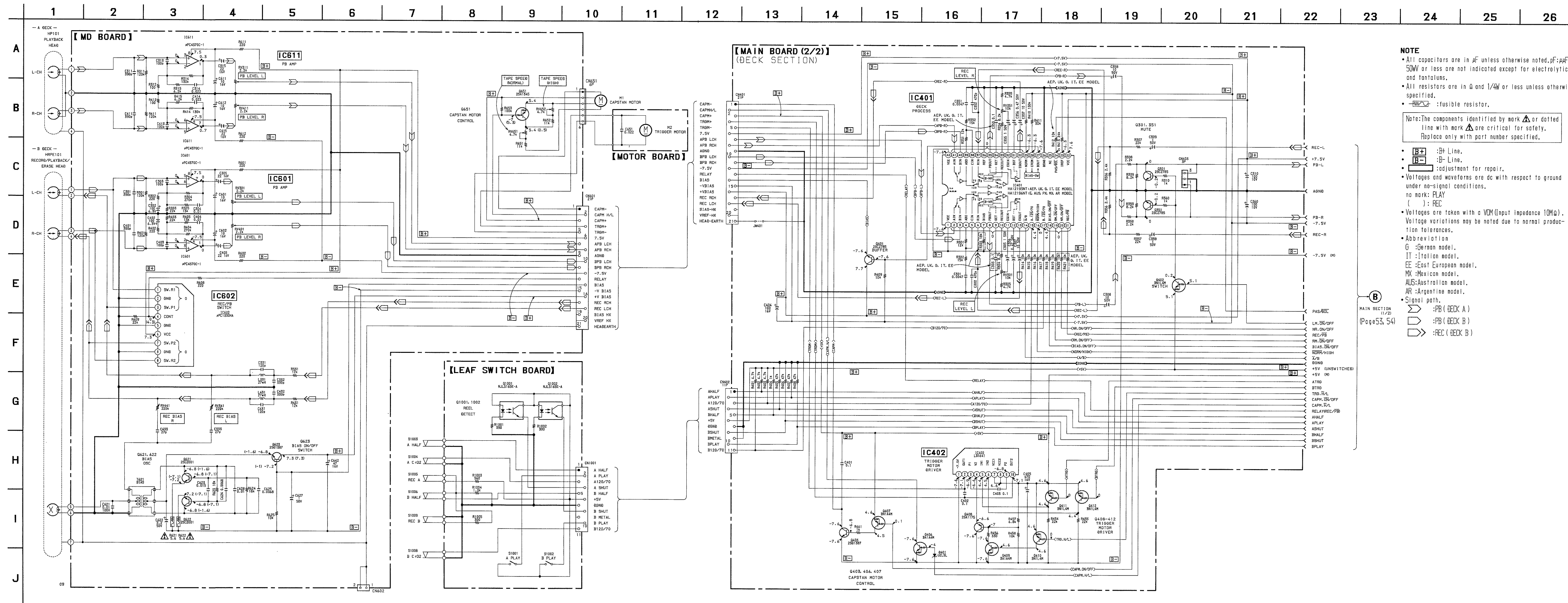
IC901 HA12196T



IC902 LB1641



5-15. SCHEMATIC DIAGRAM — DECK SECTION —



NOTE

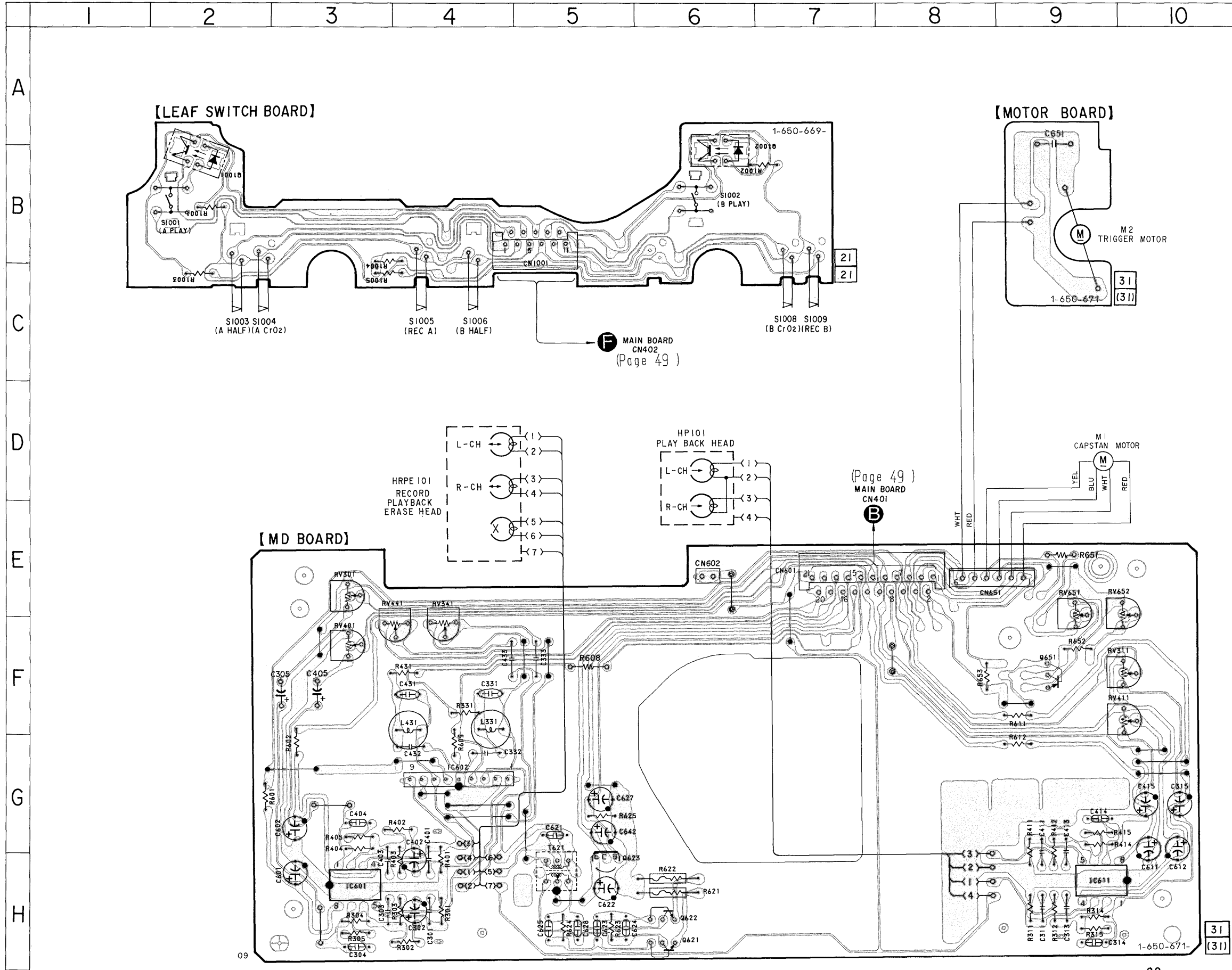
- All capacitors are in μ F unless otherwise noted, pF: μ F
- 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4W$ or less unless otherwise specified.
- : fusible resistor.

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

Legend:

- : B+ Line.
- : B- Line.
- : adjustment for repair.
- : Voltages and waveforms are dc with respect to ground under no-signal conditions.
- no mark: PLAY
- () : REC
- : Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Abbreviation**
- G : German model.
- IT : Italian model.
- EE : East European model.
- MX : Mexican model.
- AUS : Australian model.
- AR : Argentine model.
- Signal path.**
- : PB (DECK A)
- : PB (DECK B)
- : REC (DECK B)

5-16. PRINTED WIRING BOARD — DECK SECTION —
 • See page 16 for Circuit Boards Location.



• Semiconductor Location

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

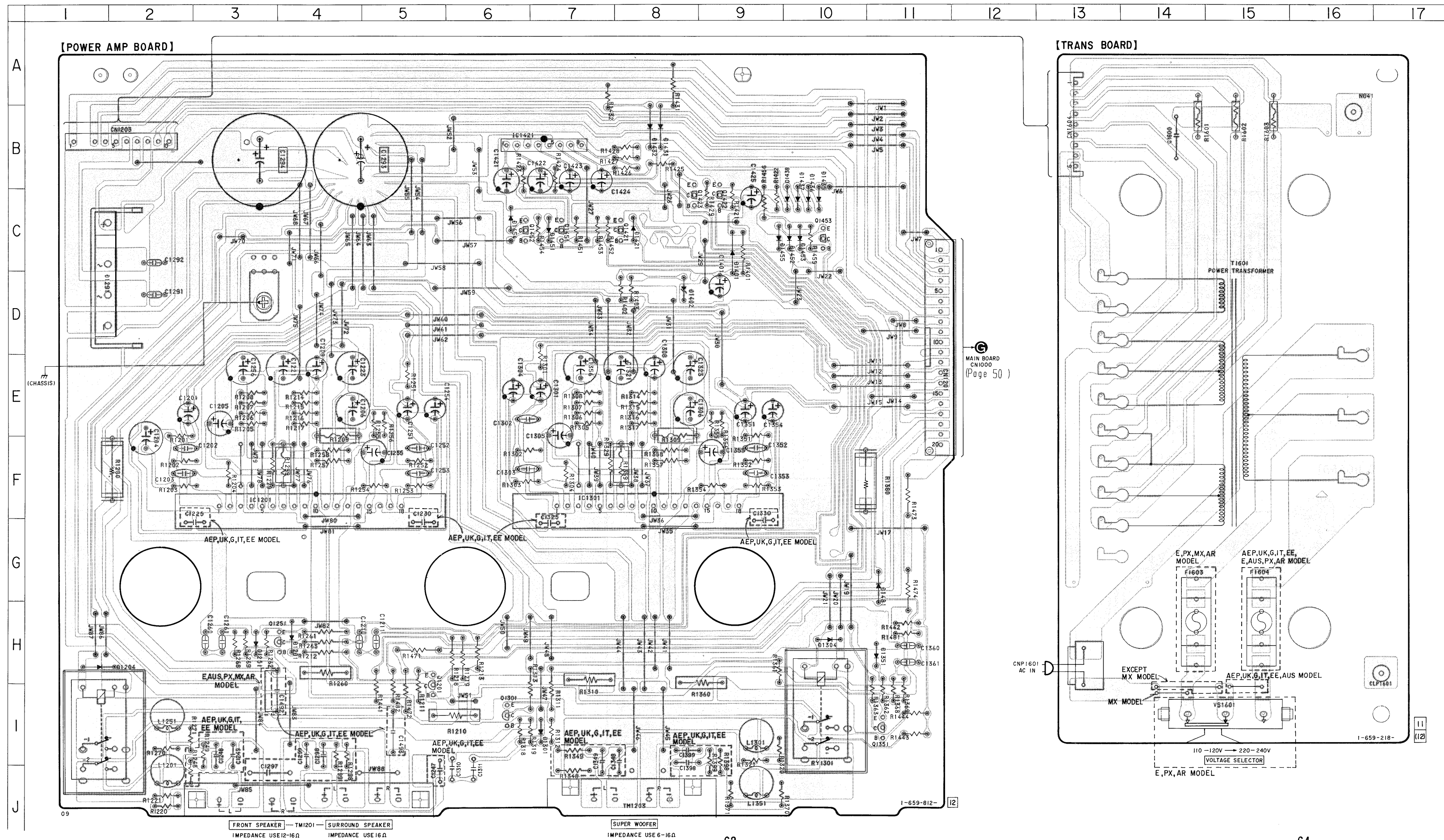
Note:
 • ○ : parts extracted from the component side.
 • □ : Pattern from the side which enable seeing.

5-17. PRINTED WIRING BOARD — POWER SECTION —
 • See page 16 for Circuit Boards Location.

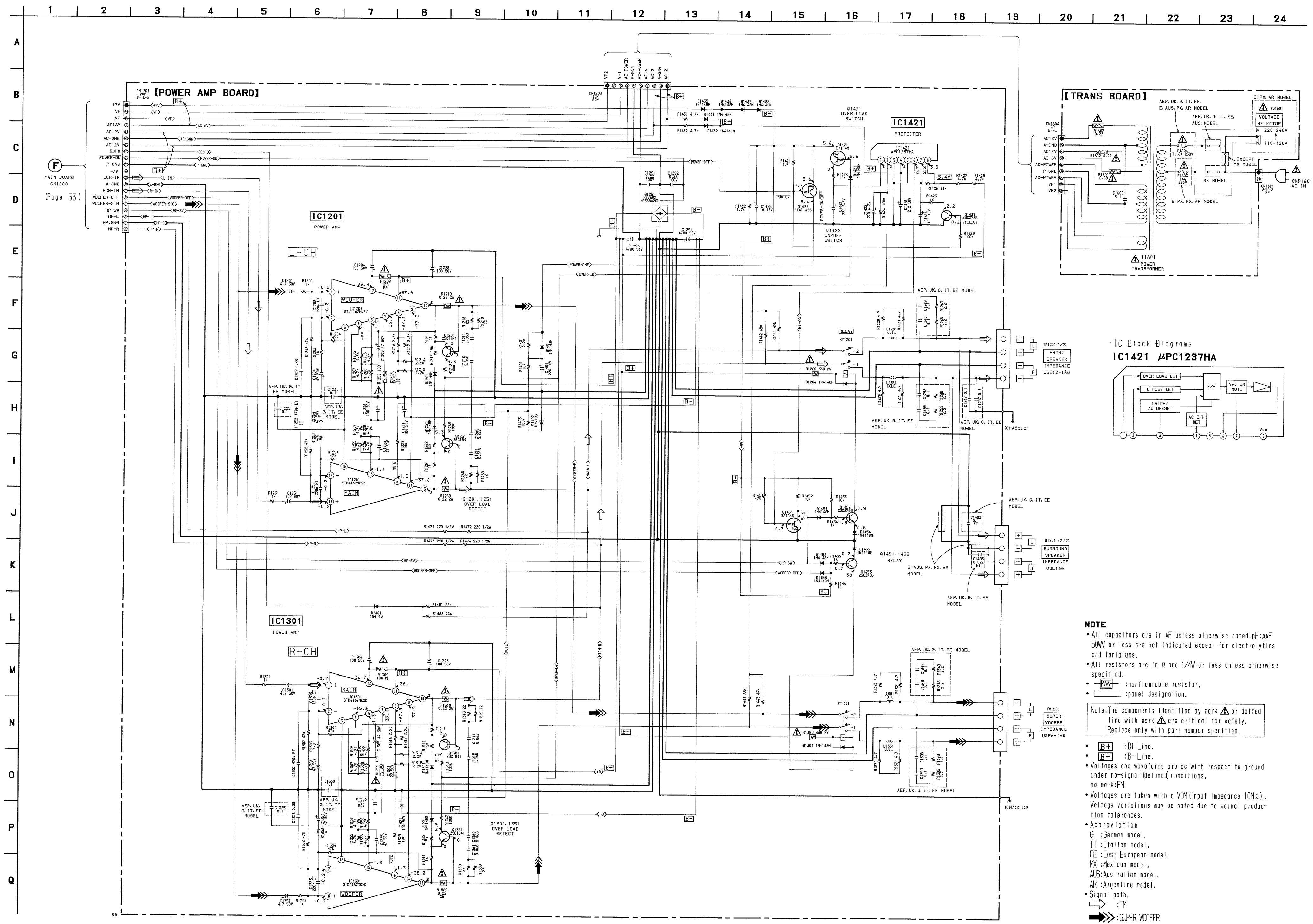
• Semiconductor Location

Ref. No.	Location
D1201	H-4
D1204	H-2
D1251	H-3
D1291	D-1
D1301	I-7
D1304	H-10
D1351	H-11
D1401	C-9
D1402	D-8
D1421	C-8
D1431	B-8
D1432	B-8
D1435	B-10
D1436	B-10
D1437	B-10
D1438	B-10
D1451	C-7
D1452	C-10
D1453	C-10
D1454	C-6
D1455	C-9
D1481	G-11
IC1201	F-3
IC1301	F-7
IC1421	B-6
Q1201	H-5
Q1251	H-3
Q1301	I-6
Q1351	I-11
Q1421	C-8
Q1422	C-9
Q1423	C-8
Q1451	C-7
Q1452	C-6
Q1453	C-10

Note:
 • ○ : parts extracted from the component side.
 • □ : Pattern from the side which enable seeing.
 • Abbreviation
 G : German model.
 IT : Italian model.
 EE : East European model.
 MX : Mexican model.
 AUS : Australian model.
 AR : Argentine model.



5-18. SCHEMATIC DIAGRAM — POWER SECTION —

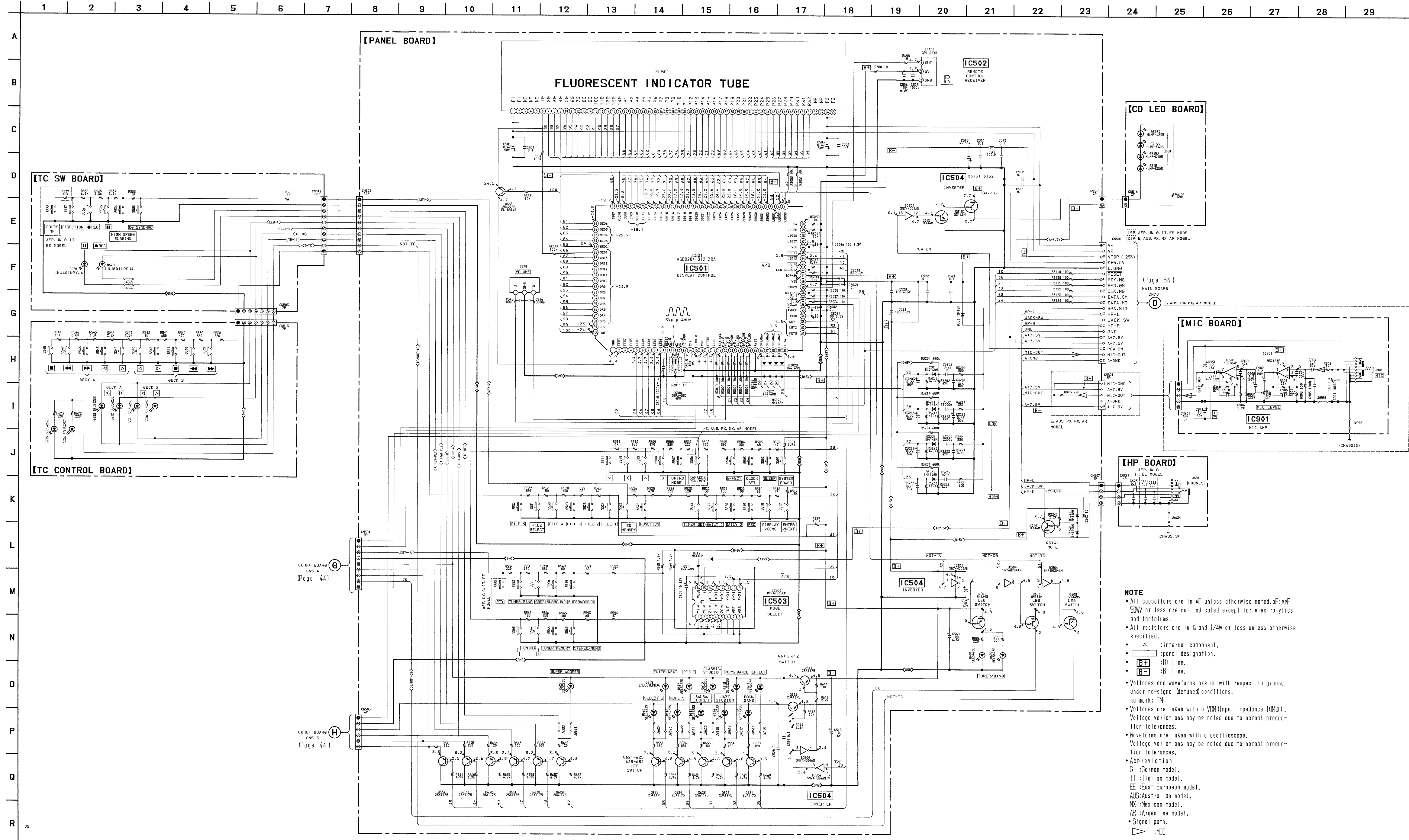


(Page 53)

NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F} / 100$.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 - \square : nonflammable resistor.
 - \square : panel designation.
- Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.
- B+ : B+ Line.
 - B- : B- Line.
 - Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - Voltages are taken with a VOM (input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
 - Abbreviation:
 - G : German model.
 - IT : Italian model.
 - EE : East European model.
 - MX : Mexican model.
 - AUS : Australian model.
 - AR : Argentine model.
 - Signal path:
 - \Rightarrow : FM
 - \Rightarrow : SUPER WOOFER

5-19. SCHEMATIC DIAGRAM — PANEL SECTION —
• See page 77 for IC Pin Function. (IC501)

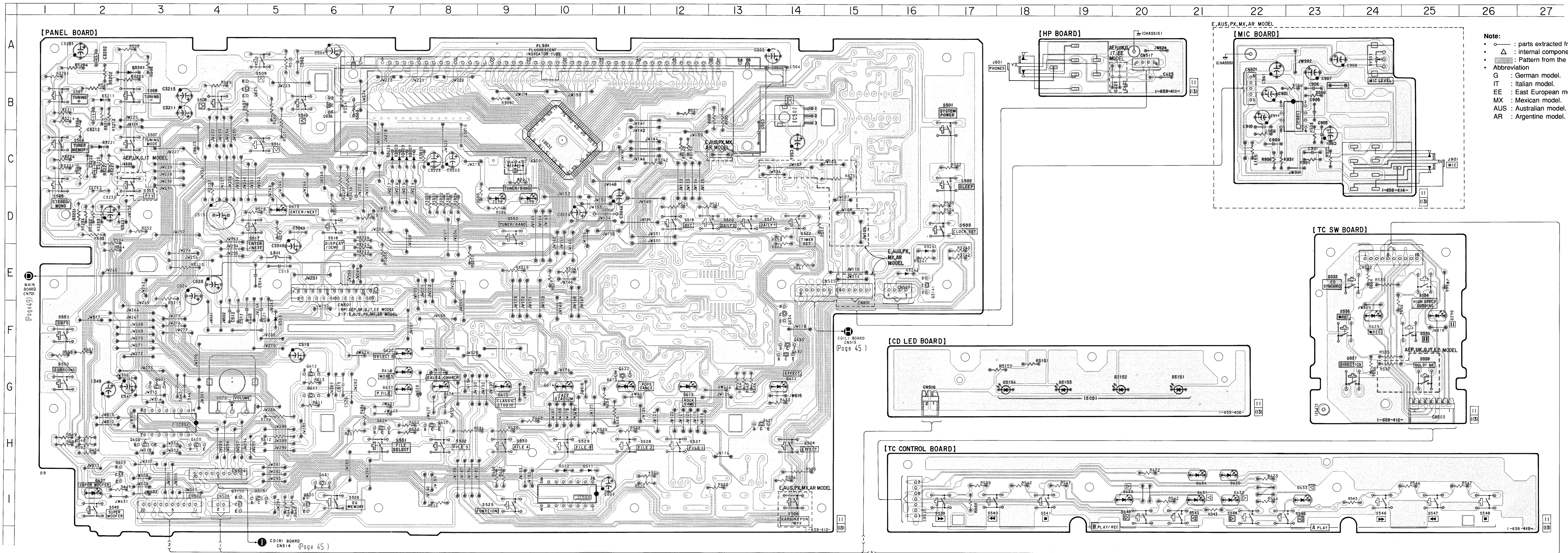


(Page 54)

NOTE

- All capacitors are in μF unless otherwise noted, pF or nF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- [B+] : panel designation.
- [B] : B+ Line.
- [B-] : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- 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
G : German model.
IT : Italian model.
EE : East European model.
AUS : Australian model.
MX : Mexican model.
AR : Argentine model.
- Signal path.
- ∇ : MIC

5-20. PRINTED WIRING BOARD — PANEL SECTION —
• See page 16 for Circuit Boards Location.



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.
 - MX : Mexican model.
 - AUS : Australian model.
 - AR : Argentine model.

• Semiconductor Location

Ref. No.	Location
D503	F-5
D511	H-10
D512	H-10
D601	D-9
D602	D-9
D611	G-14
D612	G-12
D613	G-11
D614	G-10
D615	G-9
D616	G-8
D617	G-7
D618	G-7
D619	D-5
D620	F-7
D627	I-2
D628	F-25
D629	F-24
D630	I-20
D631	I-21
D632	I-22
D633	I-23
D634	I-21
D635	I-22
D3026	C-7
D3027	C-7
D3028	C-7
D3029	C-7
D3151	G-21
D3152	G-20
D3153	G-19
D3154	G-18
D3201	A-3
D3211	B-2
D3221	C-2
D3231	D-2
D3241	E-16
D3242	E-16
IC501	C-10
IC502	B-14
IC503	I-10
IC504	H-3
IC901	B-23
Q601	G-3
Q603	H-4
Q605	H-3
Q611	G-6
Q612	G-6
Q621	H-14
Q622	G-11
Q623	H-8
Q624	H-7
Q625	B-5
Q629	H-2
Q630	I-6
Q631	I-6
Q632	F-14
Q633	F-14
Q634	F-14
Q636	B-6
Q3141	E-16
Q3151	I-5
Q3152	I-4

5-21. IC PIN FUNCTIONS

• IC501 GRAPHIC CONTROL (ASD0204-012-3BA)

Pin No.	Pin Name	I/O	Function
1	V _{DD}	–	+5V
2	$\overline{\text{LED8}}$	O	LED drive signal output.
3, 4	$\overline{\text{LED7, 6}}$	O	Not used.
5–9	$\overline{\text{LED5–1}}$	O	LED drive signal output.
10	$\overline{\text{RESET}}$	I	Reset signal input.
11	X2	O	} X'tal (4 MHz).
12	X1	I	
13	IC (V _{pp})	–	GND
14	XT2	I	Not used.
15	JOG B	I	AMS encoder signal input.
16	V _{DD}	–	+5V
17, 18	$\overline{\text{LED10, 9}}$	O	LED drive signal output.
19	KEY SEL	O	Key select control.
20	VOL B	I	Volume encoder signal input.
21	REQ. GM	O	Request signal from/to master control.
22	CLK MG	I	Serial clock input.
23	DATA GM	O	Serial data output.
24	DATA MG	I	Serial data input.
25	AV _{SS}	–	GND
26–29	SPEANA 4–1	I	Spectram analyzer signal input.
30–33	KEY 4–1	I	Key matrix input.
34	AV _{DD}	–	} +5V
35	AV _{REF}	–	
36	VOL A	I	Volume encoder signal input.
37	JOG A	I	AMS encoder signal input.
38	RDY MG	I	RDY signal from master control.
39	SIRCS	I	SIRCS signal input.
40	V _{SS}	–	GND
41	DOR SW	I	CD door open detection input.
42	LED SELECT	O	LED select signal output.
43–45	$\overline{\text{LED13–11}}$	O	LED drive signal output.
46	V _{DD}	–	+5V
47, 48	LEDS7, 6	O	Not used.
49, 50	LEDS5, 4	O	Not used. (Pull down)
51–53	LEDS3–1	O	LED drive signal output.
54–78	SEG32–8	O	FL segment signal output.
79	V. LOAD	–	–25V for FL
80–86	SEG7–1	O	FL segment signal output.
87–100	GR14–1	O	FL grid signal output.

• Abbreviation

FL : FLUORESCENT INDICATOR TUBE

• IC701 MASTER CONTROL (TMP87CS64YF)

Pin No.	Pin Name	I/O	Function
1	V _{SS}	—	GND
2	XOUT	O	} X'tal (10 MHz).
3	XIN	I	
4	RESET	I	Reset signal input.
5	XOUT	O	} X'tal for clock (32.768 kHz)
6	XIN	I	
7	GND (test)	—	GND
8	AC CUT	I	Back up signal input.
9	SUPER WOOFER ON	O	Super woofer ON/OFF control.
10	ST-MUTE ON	O	Mute signal output for tuner.
11	I80-A-PLAY	I	} Tape detection signal input. (Connected to GND)
12	I80-B-PLAY	I	
13	I80-B-REC	I	
14	V. DET	I	Voltage detection (Pull up).
15	BD-UP (5CD)	I	Disc table up detect.
16	TRAY CLOSE (1CD)	I	Not used.
17	ENCODER-1	I	} Input selector control signal output. (Not used)
18	ENCODER-2	I	
19	ENCODER-3	I	
20	OUT SW OPEN	I	Out switch signal input. (Not used)
21	LOAD IN	O	} Loading motor control signal output. (Not used)
22	LOAD OUT	O	
23	TBL-L	O	} Table motor control signal output.
24	TBL-R	O	
25	SCOR	I	Sub-code sync signal input.
26	TBL-SENS	I	CD Table sensor signal input.
27	RDS INT	I	RDS data start input.
28	RDS DATA	I	RDS data output.
29	DF LAT	O	Latch signal for digital filter.
30	SENS	I	Table sence signal input.
31	XRST	O	Reset signal output for CD.
32	MG-RDY	I	RDY signal from graphic control.
33	ADJ	I	Test mode input.
34	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.

• Abbreviation

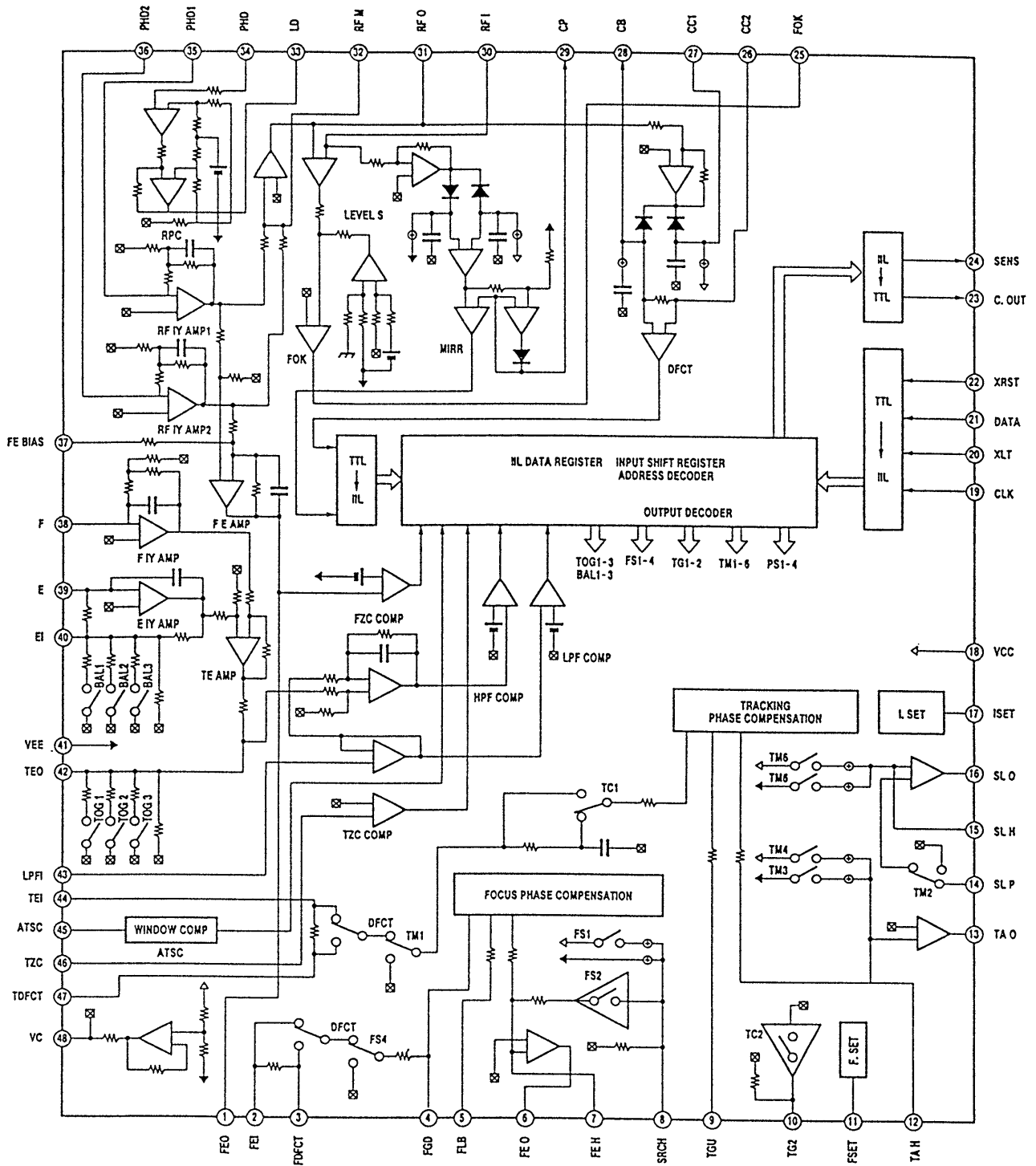
FL : FLUORESCENT INDICATOR TUBE

Pin No.	Pin Name	I/O	Function
41	AUB IN	I	} Audio bus in/output.
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	VAss	—	} GND
50	Vss	—	
51	VDD	—	+5V
52	SPEC	I	} Not used.
53	DESTINATION	I	
54	DISC SENS	I	
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.
64	VOL LAT (AV)	O	Latch signal for electrical volume. (Not used)
65	FRONT SP RELAY B	O	} Not used.
66	REAR 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.
70	MUTE	O	Mute signal for AMP.
71	COM CLK	O	PLL clock output. (PLL, Function, Graphic Equalizer)
72	COM DIN	I	PLL data input. (PLL, Function, Graphic Equalizer)
73	COM DATA	O	PLL data output. (PLL, Function, Graphic Equalizer)
74	K CON ON	O	Not used.
75	LIDDED LED	O	Disc No. LED drive signal output.
76	MD/VIDEO	O	Not used.
77	DBFB-HIGH	O	DBFB switching signal output.
78	URG STB STDBY	I	} Not used.
79	URG SIG ON	O	
80	TC A	O	Deck A, B select output.

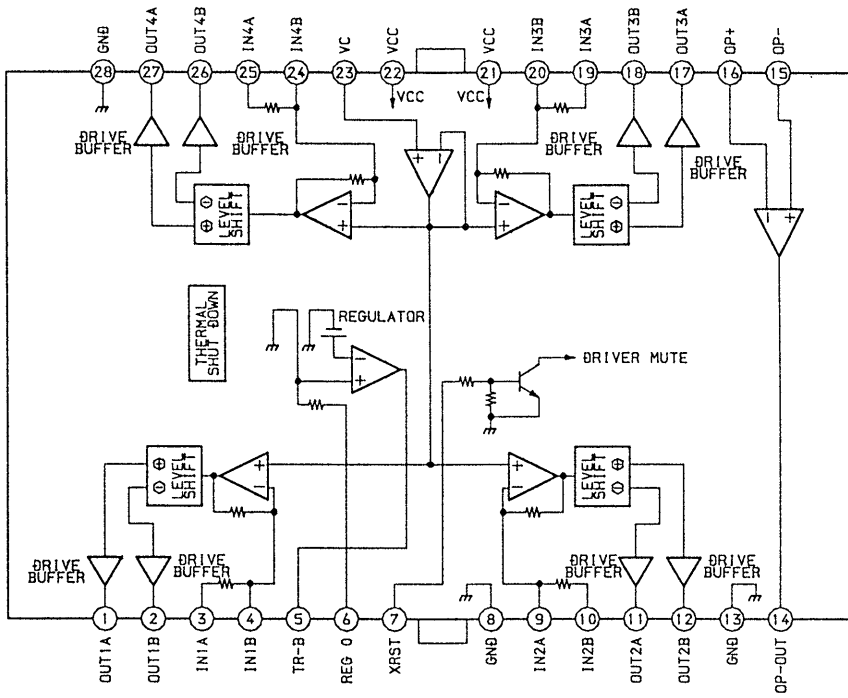
Pin No.	Pin Name	I/O	Function
81	$\overline{\text{NORM}}$	O	NORMAL/HIGH control signal output.
82	$\overline{\text{BIAS OFF}}$	O	Bias oscillation output.
83	$\overline{\text{REC MUTE}}$	O	Mute output.
84	$\overline{\text{NR OFF}}$	O	Dolby ON/OFF signal output.
85	$\overline{\text{PB}}$	O	REC/PB control 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.
97	$\overline{\text{DELAY ON}}$	O	ECHO delay ON/OFF control signal output.
98	DELAY LEVEL A	O	} ECHO delay level control signal output.
99	DELAY LEVEL B	O	
100	VDD	-	+5V

5-22. IC BLOCK DIAGRAMS — CD SECTION —

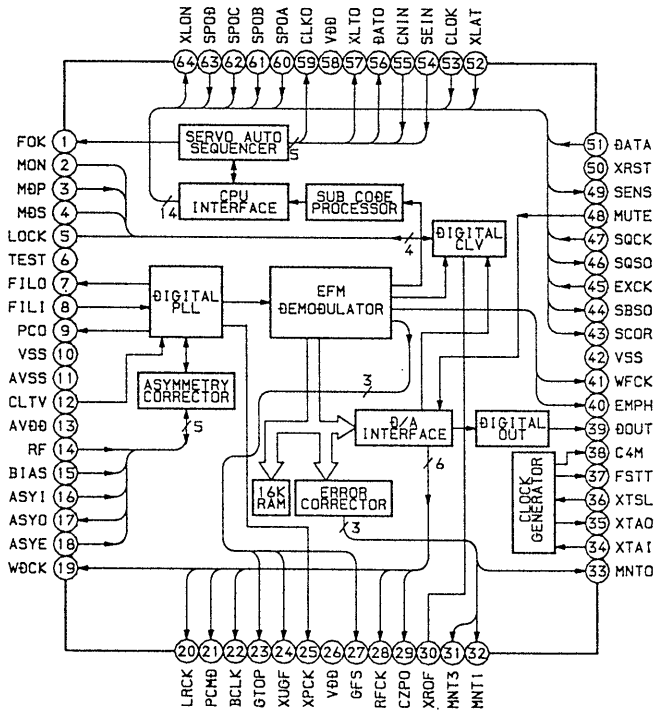
IC101 CXA1782BQ



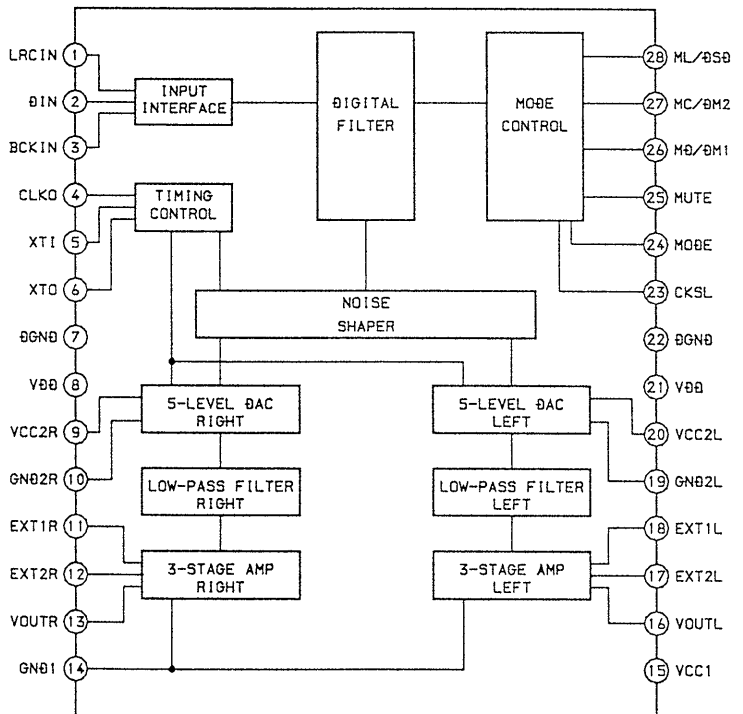
IC102 BA6397FP



IC103 CXD2507AQ



IC104 PCM1710U



SECTION 6 EXPLODED VIEWS

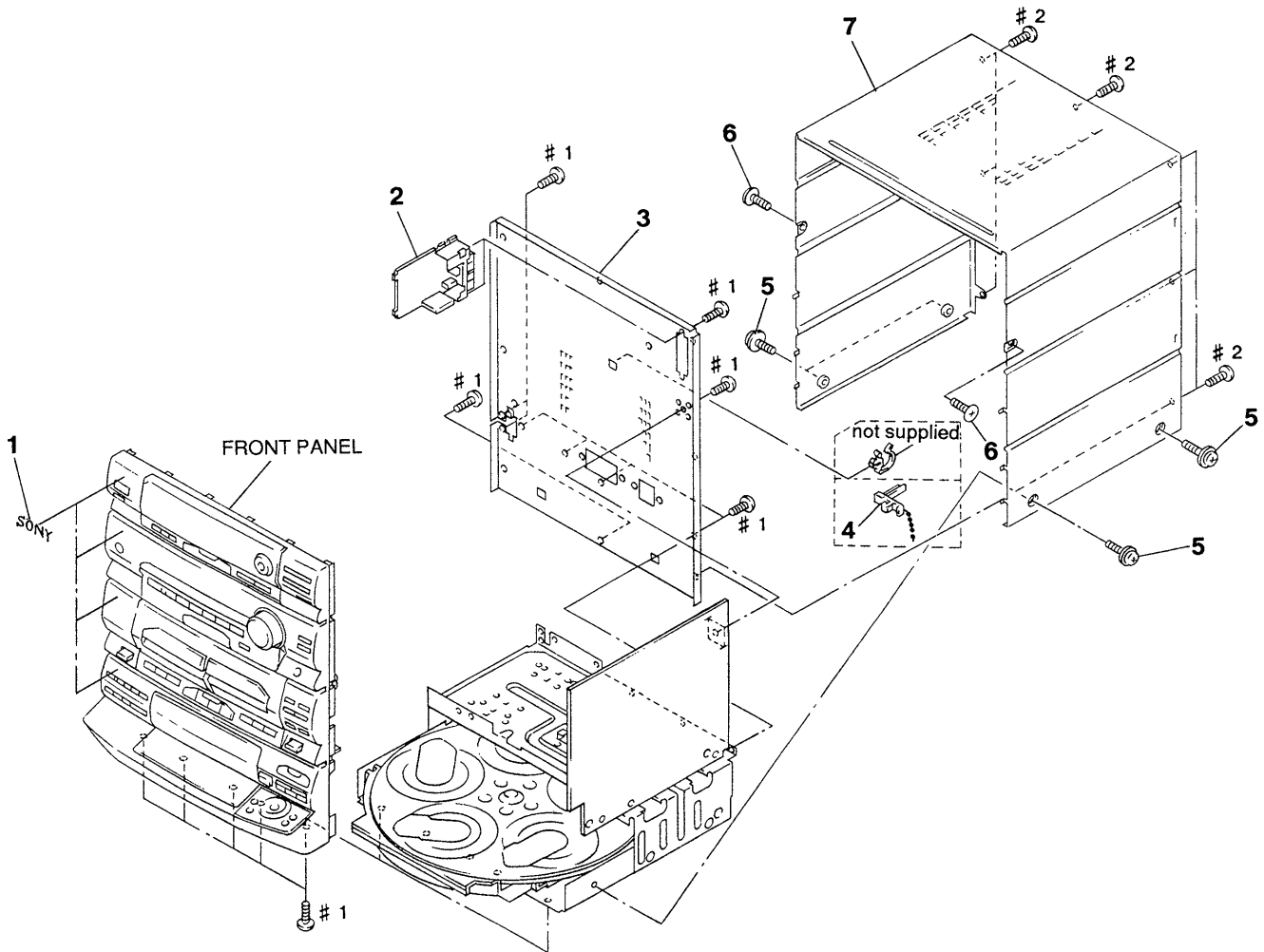
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- 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
 - MX : Mexican model
 - AUS : Australian model
 - AR : Argentine model

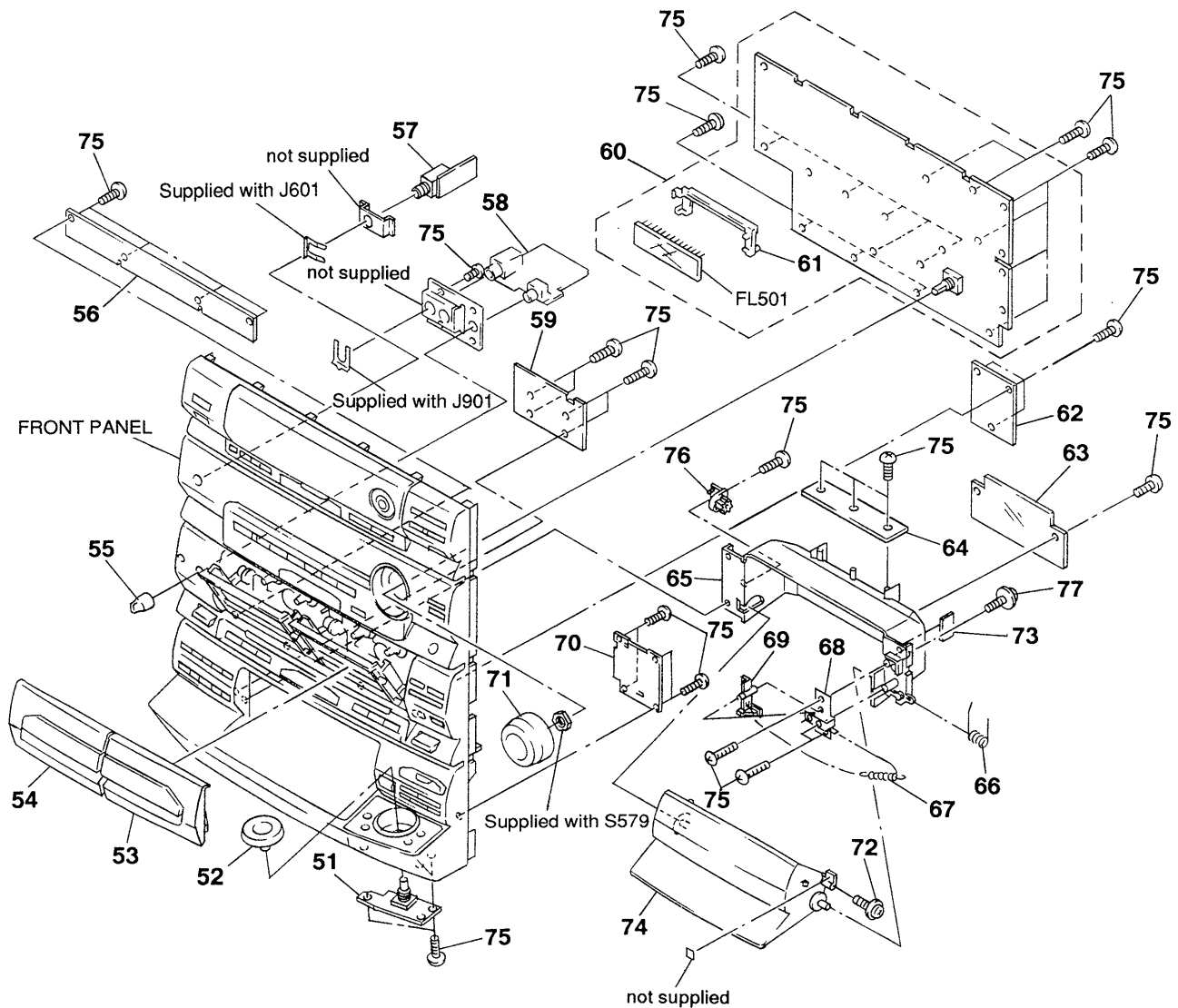
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

6-1. CASE AND BACK PANEL SECTION



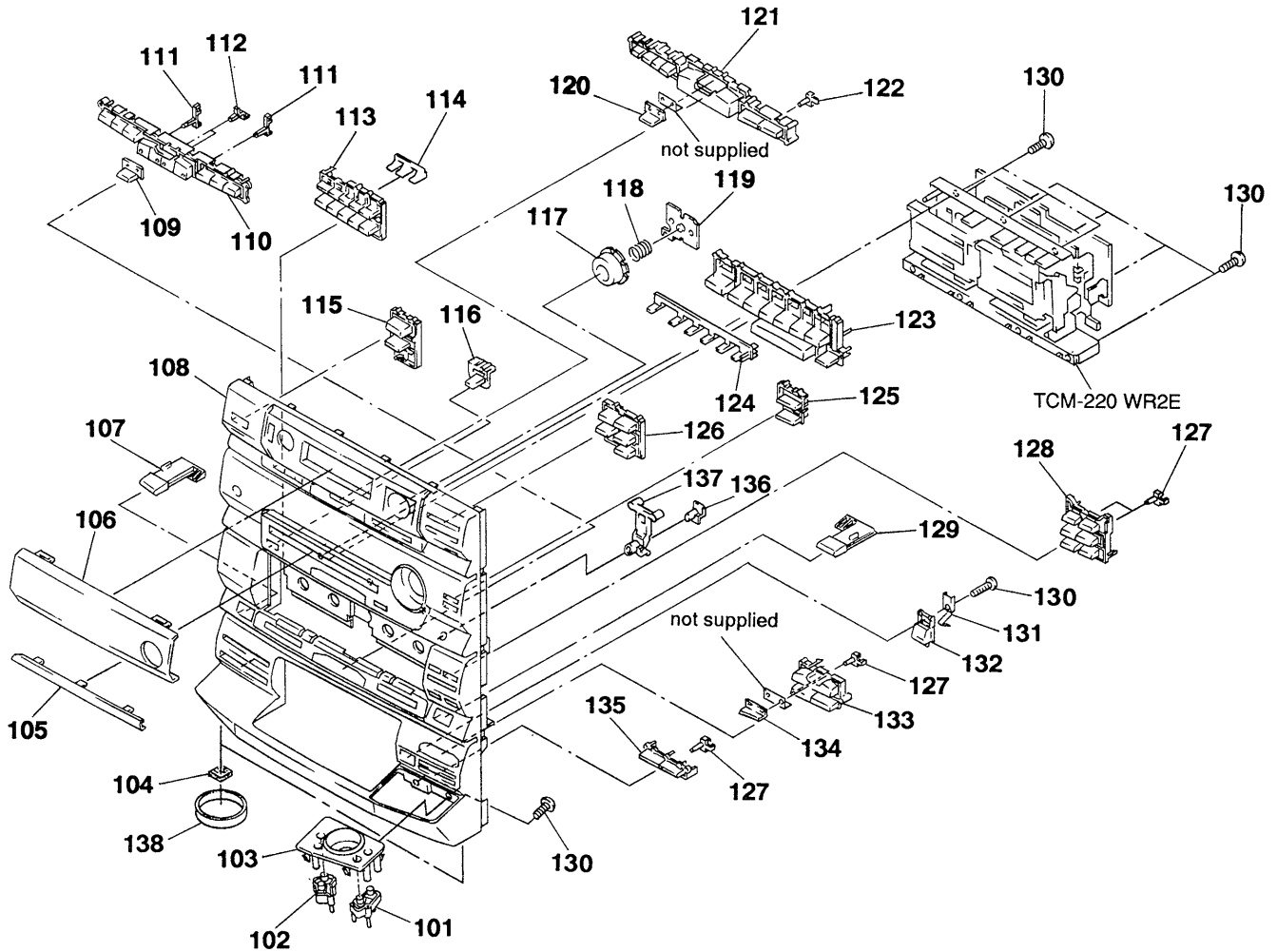
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-963-404-21	EMBLEM (5-A), SONY		* 3	4-978-192-01	PANEL, BACK (E)	
* 2	A-4303-502-A	TCB-17 BOARD, COMPLETE (AEP, UK)		* 3	4-978-192-11	PANEL, BACK (AR)	
* 2	A-4303-503-A	TCB-17 BOARD, COMPLETE (IT, G)		* 3	4-978-192-21	PANEL, BACK (AUS)	
* 2	A-4303-504-A	TCB-17 BOARD, COMPLETE (EE)		* 3	4-978-192-31	PANEL, BACK (PX)	
* 2	A-4303-513-A	TCB-17 BOARD, COMPLETE (E, AUS, PX, MX, AR)		* 3	4-978-192-41	PANEL, BACK (MX)	
* 3	4-978-191-21	PANEL, BACK (AEP)		4	4-956-370-12	BAND, PLUG FIXED (UK, AUS)	
* 3	4-978-191-31	PANEL, BACK (G)		5	4-929-973-01	SCREW (CASE, 3 POINT)	
* 3	4-978-191-41	PANEL, BACK (IT)		6	3-363-099-01	SCREW (CASE 3 TP2)	
* 3	4-978-191-51	PANEL, BACK (UK)		* 7	4-978-177-11	CASE	
* 3	4-978-191-71	PANEL, BACK (EE)					

6-2. PANEL BOARD SECTION



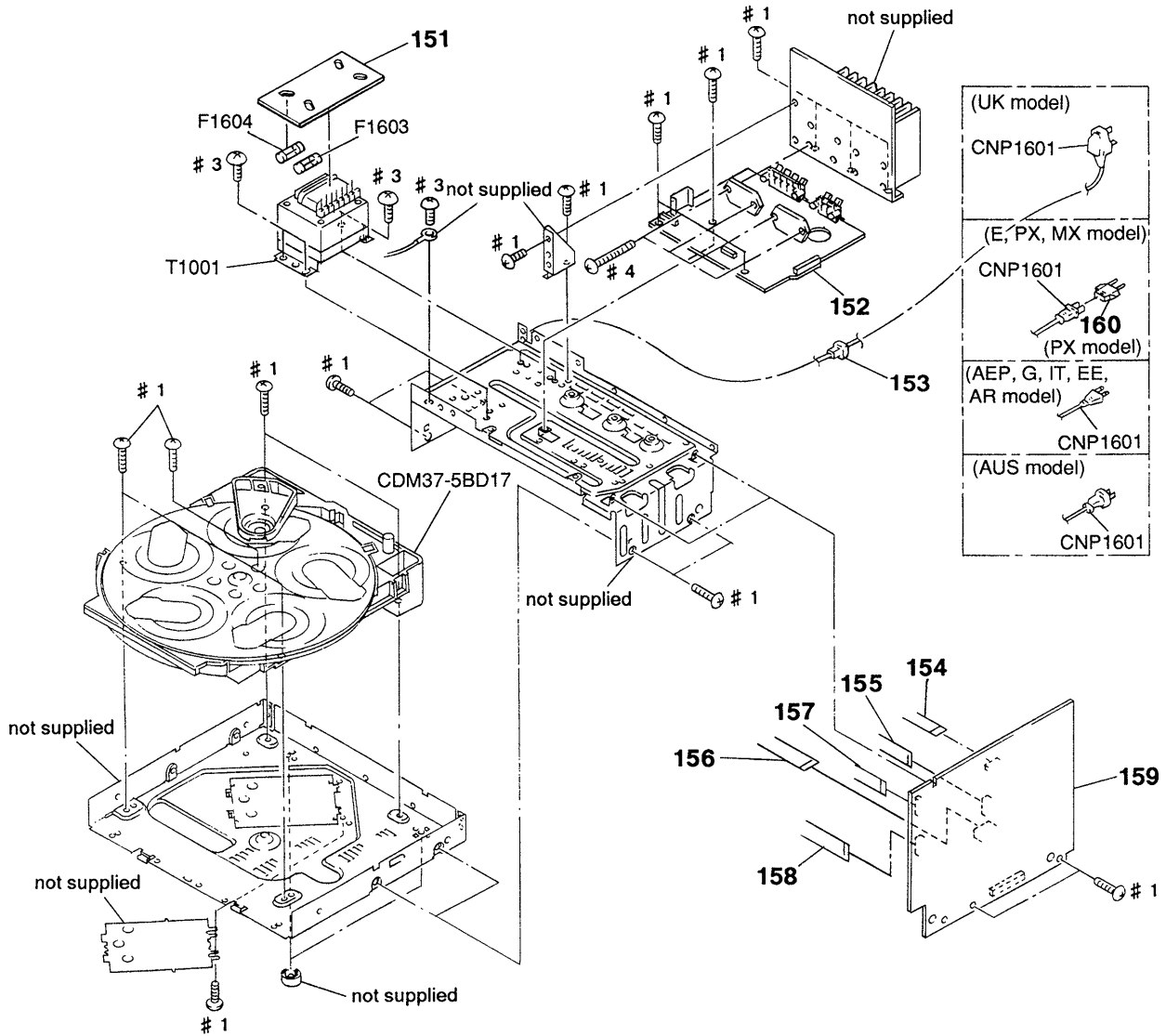
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	1-659-405-11	CD JOG BOARD		65	4-978-140-11	COVER (CD)	
52	4-978-154-01	KNOB (DISC)		66	4-978-171-01	SPRING, TORSION	
53	X-4946-636-1	LID (B) ASSY, CASSETTE		67	4-978-170-01	SPRING, TENSION	
54	X-4946-635-1	LID (A) ASSY, CASSETTE		* 68	4-978-169-01	BRACKET (OPEN)	
55	4-973-644-01	KNOB (MIC) (E, AUS, PX, MX, AR)		69	4-978-141-01	LEVER, LOCK	
* 56	1-659-413-11	TC CONTROL BOARD		* 70	1-659-409-11	CD (R) BOARD	
* 57	1-659-411-11	HP BOARD		71	4-978-142-01	KNOB (V)	
* 58	1-659-414-11	MIC BOARD (E, AUS, PX, MX, AR)		72	4-909-982-11	SCREW, TAPPING	
* 59	1-659-404-11	CD (L) BOARD		* 73	1-659-408-11	DOOR SW BOARD	
* 60	A-4389-163-A	PANEL BOARD, COMPLETE (AEP, UK, G, IT, EE)		74	4-978-139-01	LID, DISC	
* 60	A-4389-165-A	PANEL BOARD, COMPLETE (E, AUS, PX, MX, AR)		75	4-951-620-01	SCREW (2. 6X8), +BTP	
61	4-971-014-11	HOLDER, FL TUBE		76	3-354-963-21	DAMPER	
* 62	1-659-412-11	TC SW BOARD		77	4-957-577-01	SCREW PTP WH (2. 6X8)	
63	4-980-060-01	INDICATOR (COVER)		FL501	1-517-490-21	INDICATOR TUBU, FLUORESCENT	
* 64	1-659-406-11	CD LED BOARD					

6-3. FRONT PANEL SECTION



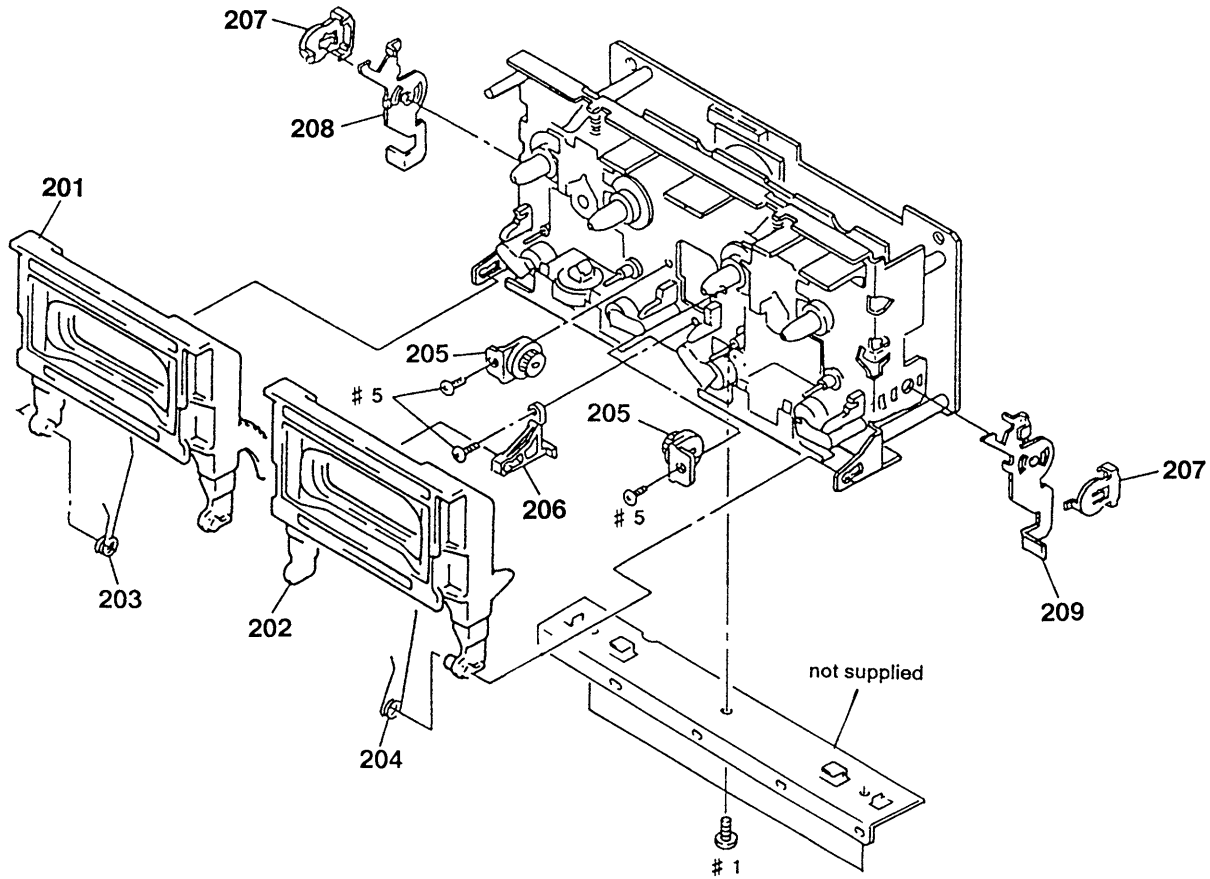
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-978-153-01	BUTTON (PROGRAM)		121	4-978-121-11	BUTTON (BAND)	
102	4-978-712-01	BUTTON (SHUFFLE)		122	4-978-136-01	INDICATOR (ENTER)	
103	4-978-155-01	PLATE, ORNAMENTAL		123	4-978-123-01	BUTTON (FU)	
104	4-948-236-01	CUSHION (107)		124	4-978-681-01	INDICATOR (SE5)	
105	4-978-134-11	DISPLAY (TA)		125	4-978-122-01	BUTTON (DBFB)	
106	4-978-131-01	DISPLAY (ST) (E, AUS, PX, EE, MX, AR)		126	4-978-120-01	BUTTON (TUNING) (E, AUS, PX, MX, AR)	
106	4-978-131-11	DISPLAY (ST) (AEP, UK, G, IT)		126	4-978-120-11	BUTTON (TUNING) (AEP, UK, G, IT, EE)	
107	4-978-146-01	BUTTON (EJECT-L)		127	4-978-161-01	INDICATOR (PAUSE)	
108	4-978-115-11	PANEL, FRONT (AEP, UK, G, IT, EE)		128	4-978-144-01	BUTTON (DUBBING) (AEP, UK, G, IT, EE)	
108	4-978-115-21	PANEL, FRONT (E, AUS, PX, MX, AR)		128	4-978-144-11	BUTTON (DUBBING) (E, AUS, PX, MX, AR)	
109	4-978-157-01	INDICATOR (TC)		129	4-978-147-01	BUTTON (EJECT-R)	
110	4-978-145-01	BUTTON (TC)		130	4-951-620-01	SCREW (2. 6X8), +BVTP	
111	4-978-159-01	INDICATOR (REV)		131	4-980-061-01	SPRING (OPEN)	(AEP, UK, E, AUS, PX, G, IT, EE, MX)
112	4-978-158-01	INDICATOR (FWD)		132	4-978-130-01	BUTTON (OPEN)	
113	4-978-127-11	BUTTON (DISC 5)		133	4-978-128-01	BUTTON (PLAY)	
114	4-978-160-01	INDICATOR (CLIP)		134	4-978-137-01	INDICATOR (PLAY)	
115	4-978-118-01	BUTTON (POWER)		135	4-978-152-01	BUTTON (AUTO)	
116	4-978-151-01	BUTTON (PON) (E, AUS, PX, MX, AR)		136	4-979-017-01	INDICATOR (SW)	
117	4-978-119-01	BUTTON (CURSOR)		137	4-978-166-01	BUTTON (SUPER-W)	
118	4-978-683-01	SPRING, COMPRESSION		138	4-921-918-11	PLATE, ORNAMENTAL	
119	4-978-682-01	COVER (CURSOR)					
120	4-978-135-01	INDICATOR (BAND)					

6-4. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151	1-659-218-11	TRANS BOARD		158	1-773-154-11	WIRE(FLAT TYPE) (21 CORE) (E, AUS, PX, MX, AR)	
* 152	A-4389-210-A	POWER AMP BOARD, COMPLETE	(AEP, UK, G, IT, EE)	* 159	A-4378-954-A	MAIN BOARD, COMPLETE (AEP, UK, G, IT)	
* 152	A-4389-212-A	POWER AMP BOARD, COMPLETE	(E, AUS, PX, MX, AR)	* 159	A-4378-962-A	MAIN BOARD, COMPLETE (E, AUS, PX, MX, AR)	
153	3-703-244-00	BUSHING (FBS001), CORD	(AEP, UK, AUS, G, IT, EE, AR)	* 159	A-4390-172-A	MAIN BOARD, COMPLETE (EE)	
153	4-966-266-01	BUSHING (S) (FBS002), CORD	(E, PX, MX)	△160	1-569-007-11	ADAPTER, CONVERSION 2P (PX)	
154	1-769-977-11	WIRE(FLAT TYPE) (13 CORE) (E, AUS, PX, MX, AR)		△CNP16011-558-943-41	CORD, POWER (E, PX, MX)		
154	1-773-009-11	WIRE(FLAT TYPE) (15 CORE) (AEP, UK, G, IT, EE)		△CNP16011-575-651-21	CORD, POWER (AEP, G, IT, EE, AR)		
155	1-765-325-11	WIRE(FLAT TYPE) (11 CORE)		△CNP16011-696-845-11	CORD, POWER (AUS)		
156	1-776-265-11	WIRE(FLAT TYPE) (19 CORE)		△CNP16011-751-529-11	CORD, POWER (UK)		
157	1-765-338-11	WIRE(FLAT TYPE) (21 CORE)		△F1603	1-532-350-00	FUSE (T4A, 250V) (E, PX, MX, AR)	
158	1-773-119-11	WIRE(FLAT TYPE) (19 CORE) (AEP, UK, G, IT, EE)		△F1604	1-532-259-00	FUSE (T1. 6A, 250V)	(AEP, UK, E, AUS, PX, G, IT, EE, AR)
				△T1001	1-429-343-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE)	
				△T1001	1-429-345-11	TRANSFORMER, POWER (E, AUS, PX, MX, AR)	

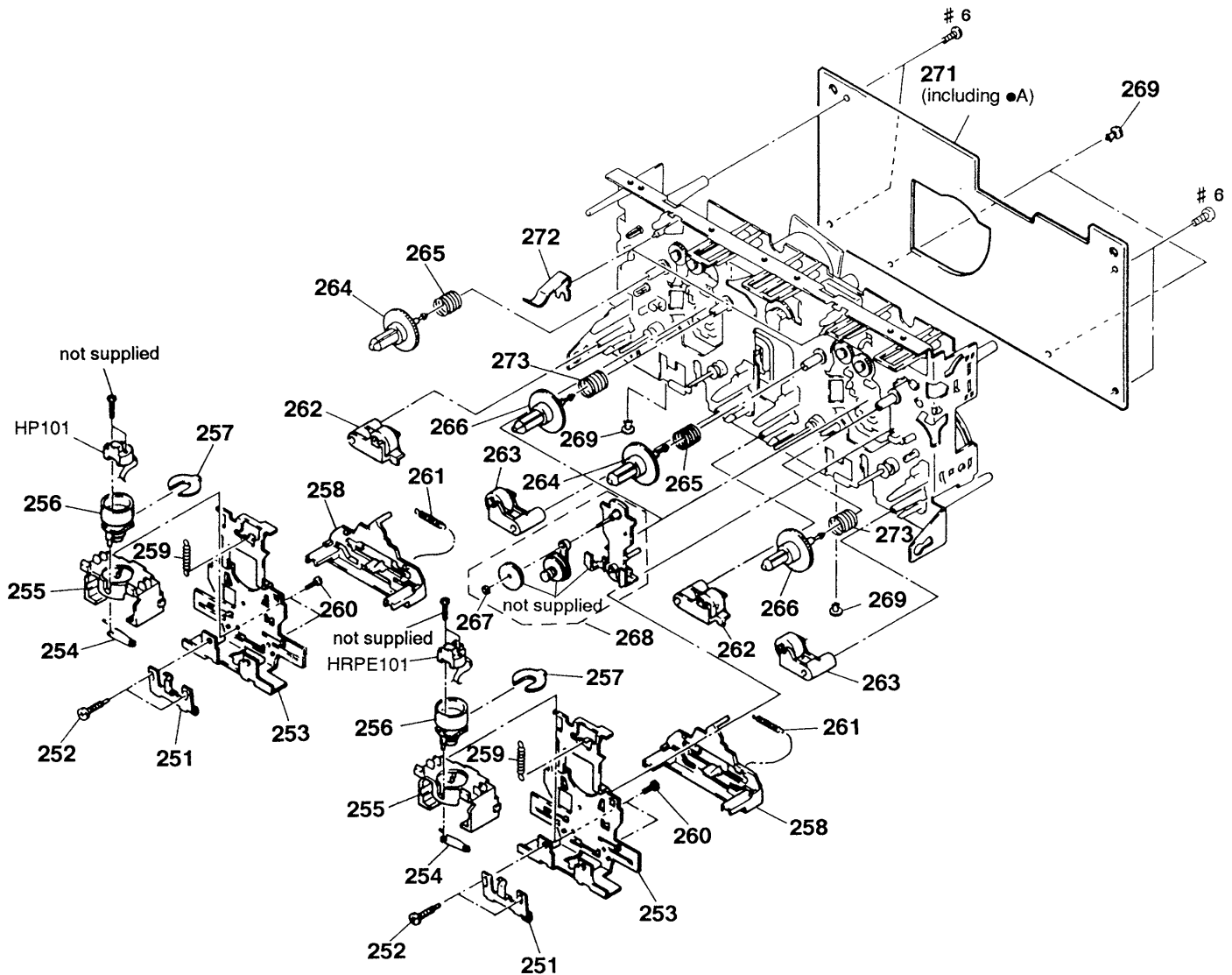
**6-5. TC MECHANISM SECTION 1
(TCM-220 WR2E)**



<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>
201	X-4943-776-1	HOLDER (L) ASSY, CASSETTE
202	X-4943-775-1	HOLDER (R) ASSY, CASSETTE
203	4-959-231-11	SPRING (L), TORSION
204	4-959-232-11	SPRING (R), TORSION
205	3-354-963-01	DAMPER

<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
	* 206	3-908-611-01	FULCRUM, HOLDER	
	207	3-354-957-01	JOINT (LOCK LEVER)	
	* 208	3-354-953-01	LEVER (LOCK LEVER L)	
	* 209	3-354-954-01	LEVER (LOCK LEVER R)	

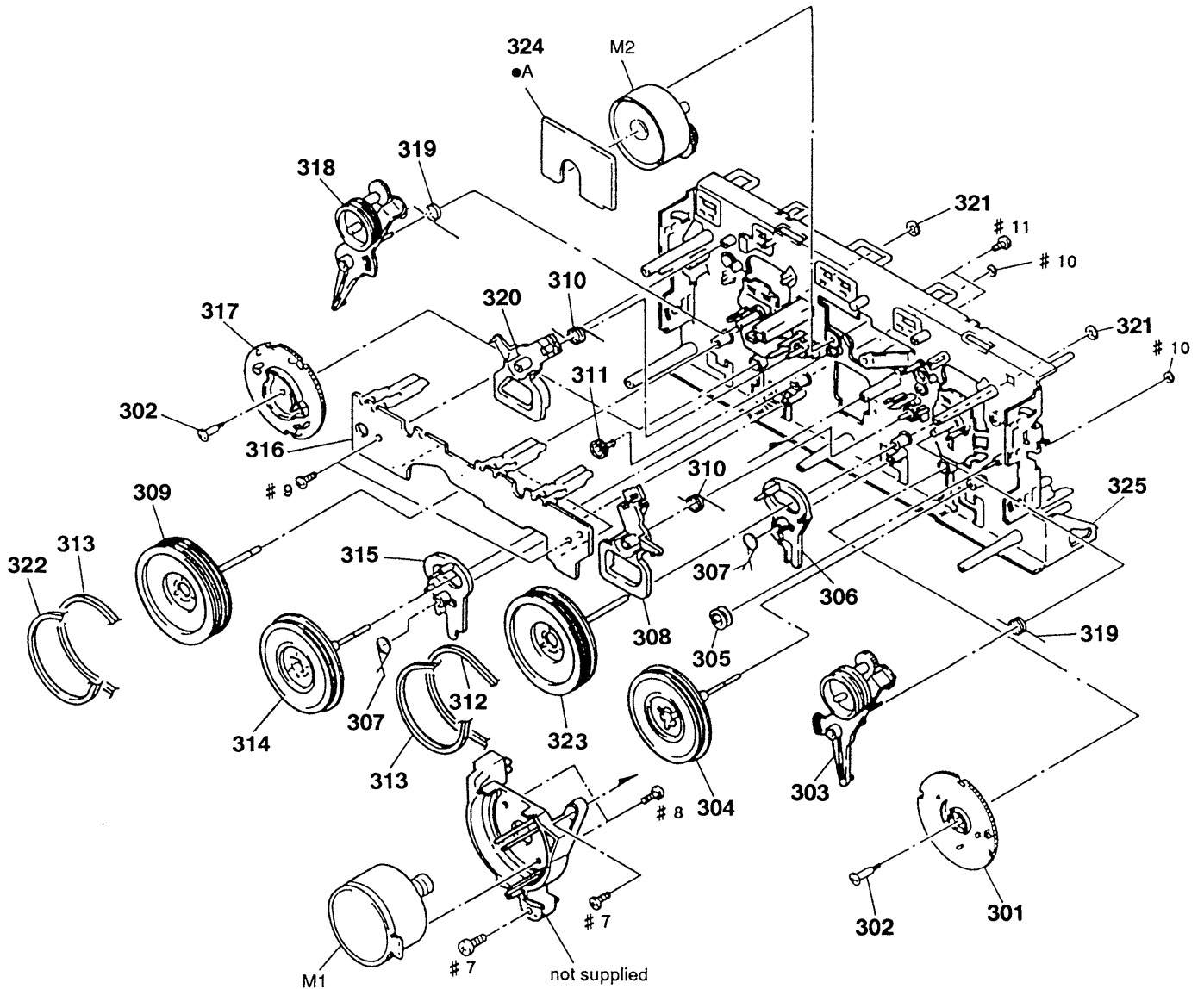
6-6. TC MECHANISM SECTION 2
(TCM-220 WR2E)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT		263	X-3367-588-1	PINCH LEVER (FWD) ASSY	
252	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT		264	3-908-613-01	GEAR (S), REEL	
* 253	X-3367-584-2	SLIDER (HEAD) ASSY		265	3-917-141-01	SPRING, COMPRESSION	
254	3-908-556-01	SPRING, HEAD TOGGLE		266	X-3371-305-1	REEL (T) ASSY	
255	3-908-558-02	FITTING BLOCK, HEAD		267	3-669-465-01	WASHER (1.5), STOPPER	
256	3-908-557-02	ROTARY BLOCK, HEAD		268	X-3370-173-1	TU ASSY	
* 257	3-908-559-01	STOPPER, AZIMUTH		269	3-911-116-21	RIVET, PUSH	
258	3-908-555-01	SLIDER (REV SLIDER)		* 271	A-2007-435-A	MD BOARD, COMPLETE	
259	3-917-143-11	SPRING, TENSION		272	3-930-972-01	DETENT, HALF	
260	3-388-848-01	SCREW (P2X6) (B TIGHT)		273	3-917-142-01	SPRING, COMPRESSION	
261	3-911-113-01	SPRING, TENSION		HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
262	X-3370-643-1	PINCH LEVER (REV) ASSY		HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	

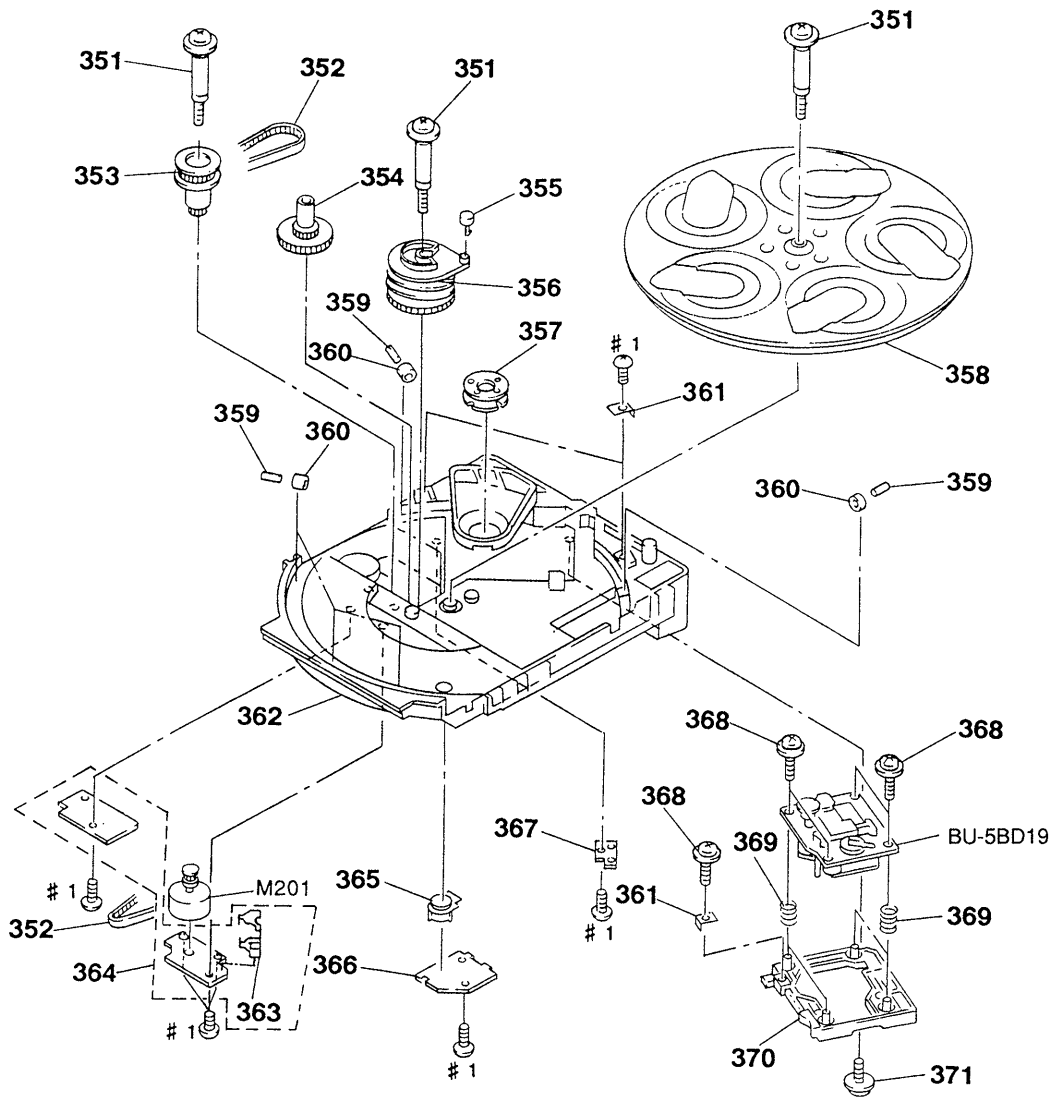
**6-7. TC MECHANISM SECTION 3
(TCM-220 WR2E)**

● A: MOTOR board (Supplied with MD board)



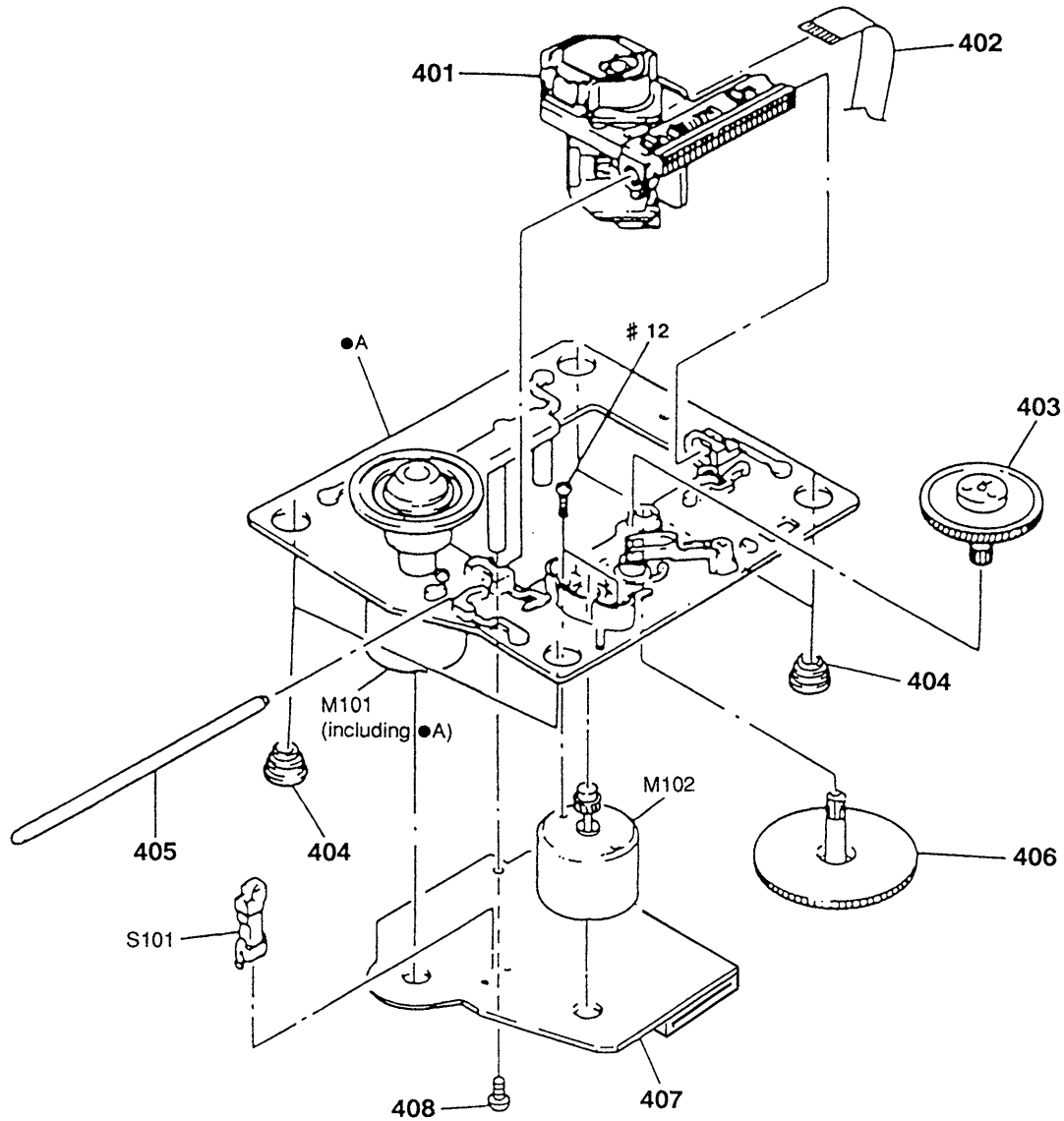
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	3-908-597-01	CAM (A)		315	3-908-600-01	LEVER (REV-B)	
302	3-908-608-11	SCREW, STEP		* 316	1-650-669-11	LEAF SWITCH BOARD	
303	X-3367-590-2	ARM (A) ASSY, FR		317	3-908-598-01	CAM (B)	
304	X-3370-169-1	FLYWHEEL (AR) ASSY		318	X-3369-849-2	ARM (B) ASSY, FR	
305	3-928-047-01	PULLEY, TENSION		319	3-914-111-01	SPRING (FR), TORSION	
306	3-908-599-01	LEVER (REV-A)		320	3-908-604-01	LEVER (TRIGGER B)	
307	3-908-601-01	SPRING (REV LEVER), TORSION		321	3-911-115-01	WASHER, STOPPER	
308	3-908-603-01	LEVER (TRIGGER A)		322	3-917-176-11	BELT (B)	
309	X-3370-170-1	FLYWHEEL (BF) ASSY		323	X-3370-172-1	FLYWHEEL (AF) ASSY	
310	3-908-605-01	SPRING (TRIGGER), TORSION		324	A-2007-435-A	MD BOARD, COMPLETE	
311	3-908-609-01	GEAR, TRIGGER		325	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
312	3-913-845-11	BELT (A)		M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
313	3-913-846-11	BELT (FR)		M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	
314	X-3370-171-1	FLYWHEEL (BR) ASSY					

6-8. CD MECHANISM SECTION (CDM37-5BD19)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	4-978-423-01	SCREW, STEP		* 362	4-978-418-01	CHASSIS	
352	4-944-490-01	BELT (TIMING)		* 363	4-980-385-01	HOLDER (SW)	
353	A-4660-978-A	GEAR (PULLEY) ASSY		* 364	A-4673-765-A	CD MOTOR BOARD, COMPLETE	
354	4-978-421-01	GEAR (MID)		365	4-978-426-01	INDICATOR (NO.)	
355	4-978-425-01	ROLLER (CAM)		* 366	1-659-059-12	LED BOARD	
356	4-978-420-01	CAM (HOLDER)		* 367	1-659-058-12	TABLE SENSOR BOARD	
* 357	1-452-538-11	MAGNET		368	4-933-134-01	SCREW (+PTPWH M2.6X6)	
358	4-978-417-01	TABLE, DISC		369	4-958-593-01	SPRING (BU), COMPRESSION	
359	4-934-376-01	SHAFT (ROLLER)		* 370	4-978-419-01	HOLDER (BU-5)	
360	X-4924-457-1	ROLLER ASSY		371	4-917-583-71	BRACKET, YOKE	
* 361	4-978-583-01	BRACKET (BU)		M201	A-4660-977-A	MOTOR ASSY (TABLE)	

6-9. BASE UNIT SECTION (BU-5BD19)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
\triangle 401	8-848-387-01	OPTICAL PICK-UP KSS-213BA/S-N		* 407	A-4673-402-A	BD BOARD, COMPLETE	
402	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		408	4-951-620-01	SCREW (2.6X8), +BVTP	
403	4-917-567-01	GEAR (M)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
404	4-951-940-01	INSULATOR (BU)		M102	X-4917-504-1	MOTOR ASSY (SLED)	
405	4-917-565-01	SHAFT, SLED		S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
406	4-917-564-01	GEAR (P), FLATNESS					

SECTION 7

ELECTRICAL PARTS LIST

BD

NOTE:

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

When indicating parts by reference number, please include the board 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.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
G : German model
IT : Italian model
EE : East European model
MX : Mexican model
AUS : Australian model
AR : Argentine model

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*	A-4673-402-A	BD BOARD, COMPLETE *****					
		< CAPACITOR >					
C101	1-126-607-11	ELECT CHIP	47uF 20% 4V	C141	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C102	1-163-275-11	CERAMIC CHIP	0.001uF 5% 50V	C142	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C103	1-164-346-11	CERAMIC CHIP	1uF 16V	C145	1-135-201-11	TANTALUM CHIP	10uF 20% 4V
C105	1-163-038-91	CERAMIC CHIP	0.1uF 25V	C146	1-135-201-11	TANTALUM CHIP	10uF 20% 4V
C106	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	C147	1-163-275-11	CERAMIC CHIP	0.001uF 5% 50V
C107	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	C148	1-163-275-11	CERAMIC CHIP	0.001uF 5% 50V
C108	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C149	1-164-346-11	CERAMIC CHIP	1uF 16V
C109	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C153	1-135-259-11	TANTAL. CHIP	10uF 20% 6.3V
C110	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	C154	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C111	1-163-038-91	CERAMIC CHIP	0.1uF 25V			< CONNECTOR >	
C112	1-163-038-91	CERAMIC CHIP	0.1uF 25V	CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P	
C113	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P	
C114	1-164-005-11	CERAMIC CHIP	0.47uF 25V			< IC >	
C115	1-126-607-11	ELECT CHIP	47uF 20% 4V	IC101	8-752-069-56	IC CXA1782BQ	
C116	1-163-016-00	CERAMIC CHIP	0.0039uF 10% 50V	IC102	8-759-291-06	IC BA6397FP	
C117	1-164-005-11	CERAMIC CHIP	0.47uF 25V	IC103	8-752-372-94	IC CXD2507AQ	
C118	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V	IC104	8-759-185-29	IC PCM1710U-B	
C119	1-163-038-91	CERAMIC CHIP	0.1uF 25V			< MOTOR >	
C120	1-135-201-11	TANTALUM CHIP	10uF 20% 4V	M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
C121	1-163-038-91	CERAMIC CHIP	0.1uF 25V	M102	X-4917-504-1	MOTOR ASSY (SLED)	
C122	1-164-232-11	CERAMIC CHIP	0.01uF 50V			< TRANSISTOR >	
C123	1-163-038-91	CERAMIC CHIP	0.1uF 25V	Q101	8-729-010-08	TRANSISTOR MSB710-R	
C124	1-126-607-11	ELECT CHIP	47uF 20% 4V	Q102	8-729-424-08	TRANSISTOR UN2111	
C125	1-164-232-11	CERAMIC CHIP	0.01uF 50V	Q103	8-729-421-22	TRANSISTOR UN2211	
C126	1-163-038-91	CERAMIC CHIP	0.1uF 25V			< RESISTOR >	
C127	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	R102	1-216-001-00	METAL CHIP	10 5% 1/10W
C128	1-163-135-00	CERAMIC CHIP	560PF 5% 50V	R103	1-216-049-91	METAL GLAZE	1K 5% 1/10W
C129	1-163-038-91	CERAMIC CHIP	0.1uF 25V	R104	1-216-097-91	METAL GLAZE	100K 5% 1/10W
C130	1-164-336-11	CERAMIC CHIP	0.33uF 25V	R105	1-216-093-00	METAL CHIP	68K 5% 1/10W
C131	1-163-038-91	CERAMIC CHIP	0.1uF 25V	R106	1-216-093-00	METAL CHIP	68K 5% 1/10W
C132	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R107	1-216-093-00	METAL CHIP	68K 5% 1/10W
C133	1-163-145-00	CERAMIC CHIP	0.0015uF 5% 50V	R108	1-216-093-00	METAL CHIP	68K 5% 1/10W
C134	1-164-346-11	CERAMIC CHIP	1uF 16V	R109	1-216-097-91	METAL GLAZE	100K 5% 1/10W
C135	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	R112	1-216-083-00	METAL CHIP	27K 5% 1/10W
C136	1-164-005-11	CERAMIC CHIP	0.47uF 25V	R113	1-216-083-00	METAL CHIP	27K 5% 1/10W
C137	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R114	1-216-101-00	METAL CHIP	150K 5% 1/10W
C139	1-163-235-11	CERAMIC CHIP	22PF 5% 50V				
C140	1-163-235-11	CERAMIC CHIP	22PF 5% 50V				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R115	1-216-101-00	METAL CHIP	150K 5% 1/10W			< SWITCH >	
R116	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W				
R117	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W	S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
R118	1-216-049-91	METAL GLAZE	1K 5% 1/10W			< VIBRATOR >	
R119	1-216-089-91	METAL GLAZE	47K 5% 1/10W	X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHZ)	
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	*	1-659-404-11	CD (L) BOARD	
R125	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W			*****	
R126	1-216-063-91	METAL GLAZE	3. 9K 5% 1/10W			< CONNECTOR >	
R127	1-216-089-91	METAL GLAZE	47K 5% 1/10W	* CN515	1-568-944-11	PIN, CONNECTOR 6P	
R128	1-216-105-91	METAL GLAZE	220K 5% 1/10W			< DIODE >	
R129	1-216-049-91	METAL GLAZE	1K 5% 1/10W	D638	8-719-057-09	DIODE LNJ801LPDJA (CLIP C)	
R130	1-216-079-00	METAL CHIP	18K 5% 1/10W	D639	8-719-057-09	DIODE LNJ801LPDJA (CLIP B)	
R131	1-216-079-00	METAL CHIP	18K 5% 1/10W	D640	8-719-057-09	DIODE LNJ801LPDJA (CLIP A)	
R132	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W			< RESISTOR >	
R133	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W	R568	1-247-815-91	CARBON 220 5% 1/4W	
R134	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R569	1-249-411-11	CARBON 330 5% 1/4W	
R135	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R570	1-249-413-11	CARBON 470 5% 1/4W F	
R136	1-216-073-00	METAL CHIP	10K 5% 1/10W	R571	1-249-415-11	CARBON 680 5% 1/4W F	
R137	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	R572	1-249-417-11	CARBON 1K 5% 1/4W F	
R138	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R573	1-249-419-11	CARBON 1. 5K 5% 1/4W F	
R139	1-216-033-00	METAL CHIP	220 5% 1/10W	R574	1-249-421-11	CARBON 2. 2K 5% 1/4W F	
R140	1-216-081-00	METAL CHIP	22K 5% 1/10W	R575	1-249-423-11	CARBON 3. 3K 5% 1/4W F	
R141	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W	R576	1-249-427-11	CARBON 6. 8K 5% 1/4W F	
R142	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W	R577	1-249-431-11	CARBON 15K 5% 1/4W	
R143	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R682	1-249-407-11	CARBON 150 5% 1/4W	
R144	1-216-073-00	METAL CHIP	10K 5% 1/10W	R683	1-249-407-11	CARBON 150 5% 1/4W	
R145	1-216-097-91	METAL GLAZE	100K 5% 1/10W	R684	1-249-407-11	CARBON 150 5% 1/4W	
R146	1-216-097-91	METAL GLAZE	100K 5% 1/10W			< SWITCH >	
R147	1-216-049-91	METAL GLAZE	1K 5% 1/10W	S569	1-554-303-21	SWITCH, TACTILE (CLIP C)	
R148	1-216-049-91	METAL GLAZE	1K 5% 1/10W	S570	1-554-303-21	SWITCH, TACTILE (CLIP B)	
R149	1-216-049-91	METAL GLAZE	1K 5% 1/10W	S571	1-554-303-21	SWITCH, TACTILE (CLIP A)	
R150	1-216-037-00	METAL CHIP	330 5% 1/10W	S572	1-554-303-21	SWITCH, TACTILE (ERASE MUSIC CLIP)	
R151	1-216-037-00	METAL CHIP	330 5% 1/10W	S573	1-554-303-21	SWITCH, TACTILE (PLAY MUSIC CLIP)	
R152	1-216-037-00	METAL CHIP	330 5% 1/10W	S574	1-554-303-21	SWITCH, TACTILE (DISC 1 DISC SELECT)	
R153	1-216-082-00	METAL GLAZE	24K 5% 1/10W	S575	1-554-303-21	SWITCH, TACTILE (DISC 2 DISC SELECT)	
R154	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W	S576	1-554-303-21	SWITCH, TACTILE (DISC 3 DISC SELECT)	
R156	1-216-085-00	METAL CHIP	33K 5% 1/10W	S577	1-554-303-21	SWITCH, TACTILE (DISC 4 DISC SELECT)	
R157	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W	S578	1-554-303-21	SWITCH, TACTILE (DISC 5 DISC SELECT)	
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				

CD (R)

CD JOG

CD LED

CD MOTOR

Ref.No.	Part No.	Description	Remark
*	1-659-409-11	CD (R) BOARD ***** < CONNECTOR >	
CN514	1-568-936-11	PIN, CONNECTOR 9P < DIODE >	
D603	8-719-058-03	DIODE SEL5423E-TP15 (▷)	
D604	8-719-058-03	DIODE SEL5423E-TP15 (▷)	
D636	8-719-058-17	DIODE LNJ401NPYJA (■)	
D637	8-719-057-09	DIODE LNJ801LPDJA (AUTO PLAY)	
		< RESISTOR >	
R553	1-249-411-11	CARBON 330 5% 1/4W	
R554	1-249-413-11	CARBON 470 5% 1/4W F	
R555	1-249-415-11	CARBON 680 5% 1/4W F	
R556	1-249-417-11	CARBON 1K 5% 1/4W F	
R557	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R675	1-247-807-31	CARBON 100 5% 1/4W	
R676	1-249-407-11	CARBON 150 5% 1/4W	
R678	1-247-815-91	CARBON 220 5% 1/4W	
R680	1-247-815-91	CARBON 220 5% 1/4W	
		< SWITCH >	
S554	1-554-303-21	SWITCH, TACTILE (▷)	
S555	1-554-303-21	SWITCH, TACTILE (■)	
S556	1-554-303-21	SWITCH, TACTILE (■)	
S557	1-554-303-21	SWITCH, TACTILE (DISC SKIP)	
S558	1-554-303-21	SWITCH, TACTILE (AUTO PLAY)	

*	1-659-405-11	CD JOG BOARD ***** < CAPACITOR >	
C515	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C516	1-162-306-11	CERAMIC 0.01uF 30% 16V	
		< CONNECTOR >	
* CN518	1-568-942-11	PIN, CONNECTOR 4P < RESISTOR >	
R558	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R559	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R560	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R561	1-249-431-11	CARBON 15K 5% 1/4W	
		< SWITCH >	
S502	1-473-534-11	ENCODER, ROTARY (◀◀ AMS ▶▶)	
S559	1-554-303-21	SWITCH, TACTILE (PROGRAM)	

Ref.No.	Part No.	Description	Remark
S560	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S561	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S562	1-554-303-21	SWITCH, TACTILE (CONTINUE)	

*	1-659-406-11	CD LED BOARD ***** < CONNECTOR >	
CN516	1-506-481-11	PIN, CONNECTOR 2P < DIODE >	
D3151	8-719-057-40	DIODE HLMF-K305-2UL (5CD)	
D3152	8-719-058-19	DIODE HLMF-K405-2UL (5CD)	
D3153	8-719-058-19	DIODE HLMF-K405-2UL (5CD)	
D3154	8-719-057-40	DIODE HLMF-K305-2UL (5CD)	
		< RESISTOR >	
R3151	1-249-412-11	CARBON 390 5% 1/4W F	

*	A-4673-765-A	CD MOTOR BOARD, COMPLETE *****	
*	4-980-385-01	HOLDER (SW) < CAPACITOR >	
C201	1-124-907-11	ELECT 10uF 20% 50V	
C202	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C203	1-124-907-11	ELECT 10uF 20% 50V	
		< CONNECTOR >	
* CN201	1-568-947-11	PIN, CONNECTOR 9P < IC >	
IC201	8-759-365-94	IC TA8409S	
		< COIL >	
L201	1-408-117-00	INDUCTOR 10uH	
		< MOTOR >	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	
		< RESISTOR >	
R205	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R206	1-249-425-11	CARBON 4.7K 5% 1/4W F	

CD MOTOR

DOOR SW

HP

LEAF SWITCH

LED

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< SWITCH >				< SWITCH >	
S201	1-762-587-11	SWITCH, PUSH (1 KEY)(UP)		S1001	1-692-832-11	SWITCH, PUSH (1 KEY)(A PLAY)	
		*****		S1002	1-692-832-11	SWITCH, PUSH (1 KEY)(B PLAY)	
*	1-659-408-11	DOOR SW BOARD		S1003	1-572-248-11	SWITCH, LEAF (A HALF)	
		*****		S1004	1-571-281-21	SWITCH, LEAF (A CrO2)	
		< CAPACITOR >		S1005	1-571-281-21	SWITCH, LEAF (REC A)	
C591	1-164-159-11	CERAMIC	0.1uF 50V	S1006	1-572-248-11	SWITCH, LEAF (B HALF)	
		< CONNECTOR >		S1008	1-571-281-21	SWITCH, LEAF (B CrO2)	
* CN519	1-568-940-11	PIN, CONNECTOR 2P		S1009	1-571-281-21	SWITCH, LEAF (REC B)	
		< SWITCH >		*****			
S591	1-572-126-11	SWITCH, PUSH (1 KEY)(▲ OPEN)		* 1-659-059-12	LED BOARD		
		*****			*****		
*	1-659-411-11	HP BOARD			< DIODE >		
		*****		D201	8-719-032-98	DIODE SEL5820A (DISC No.)	
		< CAPACITOR >			< TRANSISTOR >		
C621	1-164-159-21	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)	Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C622	1-164-159-21	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)		< RESISTOR >		
C623	1-164-159-21	CERAMIC	0.1uF 50V	R201	1-247-863-91	CARBON 22K 5% 1/4W	
		< JACK >		R202	1-249-411-11	CARBON 330 5% 1/4W	
J601	1-569-113-11	JACK, LARGE TYPE (PHONES)		R203	1-249-437-11	CARBON 47K 5% 1/4W	
		*****		*****			
* 1-650-669-11	LEAF SWITCH BOARD			* A-4378-954-A	MAIN BOARD, COMPLETE (AEP, UK, G, IT)		
	*****				*****		
	< CONNECTOR >			* A-4378-962-A	MAIN BOARD, COMPLETE (E, AUS, PX, MX, AR)		
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P			*****		
		< TRANSISTOR >		* A-4390-172-A	MAIN BOARD, COMPLETE (EE)		
Q1001	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H2			*****		
Q1002	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H2		7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		
		< RESISTOR >			< CAPACITOR >		
R1001	1-249-412-11	CARBON	390 5% 1/4W F	C201	1-124-925-11	ELECT 2.2uF 20% 100V	
R1002	1-249-412-11	CARBON	390 5% 1/4W F	C202	1-162-600-11	CERAMIC 0.0047uF 20% 16V	
R1003	1-249-414-11	CARBON	560 5% 1/4W F	C203	1-126-925-11	ELECT 470uF 20% 10V	
R1004	1-247-834-11	CARBON	1.3K 5% 1/4W	C211	1-124-925-11	ELECT 2.2uF 20% 100V	
R1005	1-247-818-11	CARBON	300 5% 1/4W	C212	1-162-600-11	CERAMIC 0.0047uF 20% 16V	
				C250	1-162-306-11	CERAMIC 0.01uF 20% 16V (AEP, UK, G, IT)	
				C251	1-164-035-11	CERAMIC 47PF 5% 50V (AEP, UK, G, IT)	
				C252	1-102-527-11	CERAMIC 82PF 5% 50V (AEP, UK, G, IT)	
				C253	1-162-291-31	CERAMIC 560PF 10% 50V (AEP, UK, G, IT)	

MAIN

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C254	1-162-306-11	CERAMIC	0.01uF 20% 16V (AEP, UK, G, IT)	C711	1-126-177-11	ELECT	100uF 20% 10V
C255	1-162-288-31	CERAMIC	330PF 10% 50V (AEP, UK, G, IT)	C712	1-126-177-11	ELECT	100uF 20% 10V
C256	1-124-925-11	ELECT	2.2uF 20% 100V (AEP, UK, G, IT)	C713	1-162-306-11	CERAMIC	0.01uF 30% 16V
C257	1-126-964-11	ELECT	10uF 20% 50V (AEP, UK, G, IT)	C801	1-162-288-31	CERAMIC	330PF 10% 50V (AEP, UK, G, IT, EE)
C258	1-162-291-31	CERAMIC	560PF 10% 50V (AEP, UK, G, IT)	C803	1-162-282-31	CERAMIC	100PF 10% 50V
C259	1-126-964-11	ELECT	10uF 20% 50V (AEP, UK, G, IT)	C804	1-162-282-31	CERAMIC	100PF 10% 50V
C260	1-164-159-21	CERAMIC	0.1uF 50V (AEP, UK, G, IT)	C805	1-124-252-00	ELECT	0.33uF 20% 50V (E, AUS, PX, MX, AR)
C261	1-126-967-11	ELECT	47uF 20% 16V (AEP, UK, G, IT)	C805	1-124-925-11	ELECT	2.2uF 20% 100V
C301	1-130-479-00	MYLAR	0.0047uF 5% 50V	C806	1-130-479-00	MYLAR	0.0047uF 5% 50V
C302	1-162-290-31	CERAMIC	470PF 10% 50V	C807	1-130-473-00	MYLAR	0.0015uF 5% 50V
C303	1-164-159-21	CERAMIC	0.1uF 5% 50V (AEP, UK, G, IT, EE)	C808	1-124-463-00	ELECT	0.1uF 20% 50V
C305	1-124-903-11	ELECT	1uF 20% 50V	C809	1-124-589-11	ELECT	47uF 20% 16V (AEP, UK, G, IT, EE)
C306	1-124-902-00	ELECT	0.47uF 20% 50V	C810	1-162-306-11	CERAMIC	0.01uF 30% 16V
C307	1-126-964-11	ELECT	10uF 20% 50V	C811	1-162-306-11	CERAMIC	0.01uF 30% 16V
C308	1-126-964-11	ELECT	10uF 20% 50V	C821	1-162-286-21	CERAMIC	220PF 10% 50V (AEP, UK, G, IT, EE)
C309	1-124-903-11	ELECT	1uF 20% 50V	C825	1-109-889-11	ELECT	1uF 20% 50V
C310	1-126-933-11	ELECT	100uF 20% 10V	C832	1-130-473-00	MYLAR	0.0015uF 5% 50V
C351	1-130-479-00	MYLAR	0.0047uF 5% 50V	C833	1-124-903-11	ELECT	1uF 20% 50V
C352	1-162-290-31	CERAMIC	470PF 10% 50V	C834	1-130-479-00	MYLAR	0.0047uF 5% 50V
C353	1-164-159-21	CERAMIC	0.1uF 5% 50V (AEP, UK, G, IT, EE)	C835	1-124-903-11	ELECT	1uF 20% 50V
C355	1-124-903-11	ELECT	1uF 20% 50V	C836	1-136-495-11	FILM	0.068uF 5% 50V
C356	1-124-902-00	ELECT	0.47uF 20% 50V	C837	1-126-947-11	ELECT	47uF 20% 35V
C357	1-126-964-11	ELECT	10uF 20% 50V	C838	1-124-902-00	ELECT	0.47uF 20% 50V
C358	1-126-964-11	ELECT	10uF 20% 50V	C839	1-124-902-00	ELECT	0.47uF 20% 50V
C359	1-124-903-11	ELECT	1uF 20% 50V	C840	1-162-305-11	CERAMIC	0.0068uF 20% 16V
C360	1-126-933-11	ELECT	100uF 20% 10V	C841	1-136-495-11	FILM	0.068uF 5% 50V
C401	1-164-159-21	CERAMIC	0.1uF 50V	C842	1-162-304-21	CERAMIC	0.0047uF 5% 50V
C402	1-164-159-21	CERAMIC	0.1uF 50V	C843	1-130-473-00	MYLAR	0.0015uF 5% 50V
C403	1-164-159-21	CERAMIC	0.1uF 50V	C844	1-124-903-11	ELECT	1uF 20% 50V
C404	1-126-933-11	ELECT	100uF 20% 16V	C845	1-161-494-00	CERAMIC	0.022uF 25V
C405	1-126-935-11	ELECT	470uF 20% 16V (AEP, UK, G, IT, EE)	C846	1-126-933-11	ELECT	100uF 20% 16V
C701	1-162-306-11	CERAMIC	0.01uF 20% 16V	C847	1-162-306-11	CERAMIC	0.01uF 30% 16V
C702	1-126-926-11	ELECT	1000uF 20% 10V	C848	1-162-290-31	CERAMIC	470PF 10% 50V
C703	1-126-964-11	ELECT	10uF 20% 50V	C849	1-162-290-31	CERAMIC	470PF 10% 50V
C704	1-136-165-00	FILM	0.1uF 5% 50V	C851	1-162-288-31	CERAMIC	330PF 10% 50V (AEP, UK, G, IT, EE)
C705	1-136-165-00	FILM	0.1uF 5% 50V	C853	1-162-282-31	CERAMIC	100PF 10% 50V
C706	1-126-965-11	ELECT	22uF 20% 50V	C854	1-162-282-31	CERAMIC	100PF 10% 50V
C707	1-162-206-31	CERAMIC	20PF 5% 50V	C855	1-124-252-00	ELECT	0.33uF 20% 50V (E, AUS, PX, MX, AR)
C708	1-162-206-31	CERAMIC	20PF 5% 50V	C855	1-124-925-11	ELECT	2.2uF 20% 100V
C709	1-126-934-11	ELECT	220uF 20% 16V	C856	1-130-479-00	MYLAR	0.0047uF 5% 50V
C710	1-162-306-11	CERAMIC	0.01uF 30% 16V	C857	1-130-473-00	MYLAR	0.0015uF 5% 50V
				C858	1-124-463-00	ELECT	0.1uF 20% 50V
				C859	1-124-589-11	ELECT	47uF 20% 16V (AEP, UK, G, IT, EE)
				C862	1-126-964-11	ELECT	10uF 20% 50V
				C863	1-162-306-11	CERAMIC	0.01uF 30% 16V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C864	1-126-964-11	ELECT	10uF 20% 50V	C1009	1-162-294-31	CERAMIC	0.001uF 10% 50V
C865	1-162-306-11	CERAMIC	0.01uF 30% 16V	C1010	1-164-159-21	CERAMIC	0.1uF 50V
C871	1-162-286-21	CERAMIC	220PF 10% 50V	C1011	1-164-159-21	CERAMIC	0.1uF 50V
			(AEP, UK, G, IT, EE)	C1012	1-126-964-11	ELECT	10uF 20% 50V
C900	1-126-964-11	ELECT	10uF 20% 50V	C1013	1-126-916-11	ELECT	1000uF 20% 6.3V
C901	1-124-464-11	ELECT	0.22uF 20% 50V	C1014	1-126-964-11	ELECT	10uF 20% 50V
C902	1-124-464-11	ELECT	0.22uF 20% 50V	C1015	1-126-964-11	ELECT	10uF 20% 50V
C903	1-136-495-11	FILM	0.068uF 5% 50V	C1016	1-126-925-11	ELECT	470uF 20% 10V
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	1-126-942-61	ELECT	1000uF 20% 25V
C906	1-136-156-00	FILM	0.018uF 5% 50V	C1020	1-126-947-11	ELECT	47uF 20% 35V
C907	1-130-480-00	MYLAR	0.0056uF 5% 50V	C1021	1-162-306-11	CERAMIC	0.01uF 30% 16V
C908	1-130-479-00	MYLAR	0.0047uF 5% 50V	C1022	1-126-968-11	ELECT	100uF 20% 50V
C909	1-130-474-00	MYLAR	0.0018uF 5% 50V	C1023	1-126-969-11	ELECT	220uF 20% 50V
C910	1-126-964-11	ELECT	10uF 20% 50V	C1024	1-126-964-11	ELECT	10uF 20% 50V
C911	1-126-964-11	ELECT	10uF 20% 50V	C1025	1-126-964-11	ELECT	10uF 20% 50V
C912	1-136-169-00	FILM	0.22uF 5% 50V	C1026	1-126-964-11	ELECT	10uF 20% 50V
C913	1-136-169-00	FILM	0.22uF 5% 50V	C1027	1-126-964-11	ELECT	10uF 20% 50V
C914	1-126-964-11	ELECT	10uF 20% 50V	C1028	1-126-933-11	ELECT	100uF 20% 16V
C915	1-136-153-00	CERAMIC	0.01uF 5% 50V	C1830	1-136-165-00	FILM	0.1uF 5% 50V
C930	1-164-159-21	CERAMIC	0.1uF 50V	C1831	1-136-165-00	FILM	0.1uF 5% 50V
C931	1-162-306-11	CERAMIC	0.01uF 30% 16V	C1832	1-136-167-00	FILM	0.15uF 5% 50V
C933	1-124-902-00	ELECT	0.47uF 20% 50V	C1833	1-136-171-00	ELECT	0.33uF 5% 50V
C935	1-164-159-21	CERAMIC	0.1uF 50V	C1836	1-126-964-11	ELECT	10uF 20% 50V
C936	1-126-964-11	ELECT	10uF 20% 50V	C1838	1-126-964-11	ELECT	10uF 20% 50V
C938	1-162-282-31	CERAMIC	100PF 10% 50V	C1839	1-126-964-11	ELECT	10uF 20% 50V
C943	1-126-964-11	ELECT	10uF 20% 50V	< CONNECTOR >			
C944	1-126-964-11	ELECT	10uF 20% 50V	CN201	1-770-067-11	CONNECTOR, FFC/FPC 19P	
C950	1-126-964-11	ELECT	10uF 20% 50V	* CN203	1-568-936-11	PIN, CONNECTOR 9P	
C951	1-124-464-11	ELECT	0.22uF 20% 50V	* CN250	1-568-832-11	SOCKET, CONNECTOR 13P (E, AUS, PX, MX, AR)	
C952	1-124-464-11	ELECT	0.22uF 20% 50V	* CN250	1-568-834-11	SOCKET, CONNECTOR 15P (AEP, UK, G, IT, EE)	
C953	1-136-495-11	FILM	0.068uF 5% 50V	CN401	1-568-838-11	SOCKET, CONNECTOR 21P	
C954	1-136-495-11	FILM	0.068uF 5% 50V	* CN402	1-568-830-11	SOCKET, CONNECTOR 11P	
C955	1-136-156-00	FILM	0.018uF 5% 50V	* CN403	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P	
C956	1-136-156-00	FILM	0.018uF 5% 50V	CN701	1-568-802-11	SOCKET, CONNECTOR 19P (AEP, UK, G, IT, EE)	
C957	1-130-480-00	MYLAR	0.0056uF 5% 50V	CN701	1-568-838-11	SOCKET, CONNECTOR 21P (E, AUS, PX, MX, AR)	
C958	1-130-479-00	MYLAR	0.0047uF 5% 50V	* CN1000	1-770-734-11	CONNECTOR, BOARD TO BOARD 20P	
C959	1-130-474-00	MYLAR	0.0018uF 5% 50V	< DIODE >			
C960	1-126-964-11	ELECT	10uF 20% 50V	D201	8-719-987-63	DIODE 1N4148M	
C961	1-126-964-11	ELECT	10uF 20% 50V	D202	8-719-987-63	DIODE 1N4148M	
C962	1-136-169-00	FILM	0.22uF 5% 50V	D251	8-719-987-63	DIODE 1N4148M (AEP, UK, G, IT)	
C963	1-136-169-00	FILM	0.22uF 5% 50V	D401	8-719-933-54	DIODE HZS9A2L	
C964	1-126-964-11	ELECT	10uF 20% 50V	D701	8-719-987-63	DIODE 1N4148M	
C965	1-136-153-00	CERAMIC	0.01uF 5% 50V	D702	8-719-987-63	DIODE 1N4148M	
C1001	1-126-937-11	ELECT	4700uF 20% 16V	D703	8-719-987-63	DIODE 1N4148M	
C1002	1-126-768-11	ELECT	2200uF 20% 16V	D704	8-719-987-63	DIODE 1N4148M	
C1004	1-126-952-11	ELECT	1000uF 20% 16V	D705	8-719-987-63	DIODE 1N4148M	
C1005	1-126-964-11	ELECT	10uF 20% 50V	D706	8-719-200-82	DIODE 11ES2	
C1006	1-126-952-11	ELECT	1000uF 20% 16V				
C1007	1-126-934-11	ELECT	220uF 20% 16V				
C1008	1-126-933-11	ELECT	100uF 20% 16V				

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D707	8-719-987-63	DIODE 1N4148M				< JACK >	
D801	8-719-987-63	DIODE 1N4148M		J801	1-695-188-31	JACK, PIN 4P (PHONO, VIDEO (AUDIO) IN)	
D901	8-719-987-63	DIODE 1N4148M				< RESISTOR >	
D902	8-719-987-63	DIODE 1N4148M					
D1001	8-719-200-82	DIODE 11ES2					
D1003	8-719-200-82	DIODE 11ES2		JP105	1-247-895-91	CARBON 470K 5% 1/4W	(E, AUS, PX, MX, AR)
D1004	8-719-200-82	DIODE 11ES2					
D1005	8-719-200-82	DIODE 11ES2		JP105	1-249-429-11	CARBON 10K 5% 1/4W	(AEP, UK, G, IT, EE)
D1006	8-719-200-82	DIODE 11ES2					
D1007	8-719-987-63	DIODE 1N4148M				< COIL >	
D1008	8-719-001-43	DIODE UZL-11M1-TA					
D1009	8-719-200-82	DIODE 11ES2		L250	1-410-521-11	INDUCTOR 100uH (AEP, UK, G, IT)	
D1010	8-719-200-82	DIODE 11ES2		L840	1-410-521-11	INDUCTOR 100uH	
D1011	8-719-010-43	DIODE UZ-5.6BSC				< TRANSISTOR >	
D1012	8-719-013-63	DIODE UZ-30BS					
D1013	8-719-200-82	DIODE 11ES2		Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1014	8-719-200-82	DIODE 11ES2		Q351	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1015	8-719-987-63	DIODE 1N4148M		Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1016	8-719-200-82	DIODE 11ES2		Q402	8-729-900-65	TRANSISTOR DTA144ES	
D1017	8-719-200-82	DIODE 11ES2		Q403	8-729-801-93	TRANSISTOR 2SD1387	
D1018	8-719-200-82	DIODE 11ES2		Q406	8-729-900-80	TRANSISTOR DTC114ES	
D1021	8-719-200-82	DIODE 11ES2		Q407	8-729-422-57	TRANSISTOR UN4111	
D1022	8-719-200-82	DIODE 11ES2		Q408	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D1023	8-719-210-21	DIODE 11EQS04		Q409	8-729-900-80	TRANSISTOR DTC114ES	
D1830	8-719-987-63	DIODE 1N4148M		Q410	8-729-900-65	TRANSISTOR DTA144ES	
D1831	8-719-987-63	DIODE 1N4148M		Q411	8-729-900-65	TRANSISTOR DTA144ES	
		< EPT >		Q412	8-729-900-65	TRANSISTOR DTA144ES	
EPT1002	1-537-770-21	TERMINAL BOARD, GROUND		Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< IC >		Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC250	8-759-169-99	IC SAA6579 (AEP, UK, G, IT)		Q802	8-729-422-57	TRANSISTOR UN4111	
IC251	8-759-634-51	IC M5218AP (AEP, UK, G, IT)		Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC401	8-759-289-38	IC HA12195NT (AEP, UK, G, IT, EE)		Q804	8-729-422-57	TRANSISTOR UN4111	
IC401	8-759-289-39	IC HA12196NT (E, AUS, PX, MX, AR)		Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC402	8-759-822-09	IC LB1641		Q806	8-729-422-57	TRANSISTOR UN4111	
IC701	8-759-375-44	IC TMP87CS64YF-6361		Q820	8-729-422-57	TRANSISTOR UN4111	
IC702	8-759-165-80	IC PST600C-T		Q830	8-729-141-26	TRANSISTOR 2SC3622A-LK	
IC801	8-759-634-51	IC M5218AP		Q831	8-729-141-26	TRANSISTOR 2SC3622A-LK	
IC802	8-759-000-48	IC MC14052BCP		Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC804	8-759-634-51	IC M5218AP		Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC805	8-759-634-51	IC M5218AP		Q951	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC806	8-759-265-83	IC M65843FP		Q952	8-729-141-26	TRANSISTOR 2SC3622A-LK	
IC808	8-759-634-51	IC M5218AP		Q953	8-729-141-26	TRANSISTOR 2SC3622A-LK	
IC901	8-759-331-39	IC M62427FP		Q954	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC902	8-759-634-51	IC M5218AP		Q1001	8-729-118-01	TRANSISTOR 2SB1116-K	
IC1001	8-759-231-53	IC TA7805S		Q1002	8-729-900-80	TRANSISTOR DTC114ES	
IC1002	8-759-604-86	IC M5F7807L		Q1003	8-729-030-18	TRANSISTOR 2SD2525	
IC1003	8-759-604-86	IC M5F7807L		Q1006	8-729-030-19	TRANSISTOR 2SB1640	
IC1004	8-759-604-90	IC M5F7907L				< RESISTOR >	
				R201	1-249-415-11	CARBON 680 5% 1/4W F	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R202	1-249-435-11	CARBON	33K	5%	1/4W	R414	1-249-429-11	CARBON	10K	5%	1/4W
R211	1-249-415-11	CARBON	680	5%	1/4W F	R415	1-249-429-11	CARBON	10K	5%	1/4W
R212	1-249-435-11	CARBON	33K	5%	1/4W	R416	1-249-429-11	CARBON	10K	5%	1/4W
R224	1-247-807-31	CARBON	100	5%	1/4W	R417	1-249-429-11	CARBON	10K	5%	1/4W
R250	1-249-421-11	CARBON	2. 2K	5%	1/4W F (AEP, UK, G, IT)	R418	1-249-429-11	CARBON	10K	5%	1/4W
R251	1-249-401-11	CARBON	47	5%	1/4W F (AEP, UK, G, IT)	R419	1-249-429-11	CARBON	10K	5%	1/4W
R252	1-249-441-11	CARBON	100K	5%	1/4W (AEP, UK, G, IT)	R420	1-249-429-11	CARBON	10K	5%	1/4W (AEP, UK, G, IT, EE)
R253	1-249-441-11	CARBON	100K	5%	1/4W (AEP, UK, G, IT)	R421	1-249-429-11	CARBON	10K	5%	1/4W (AEP, UK, G, IT, EE)
R254	1-249-426-11	CARBON	5. 6K	5%	1/4W (AEP, UK, G, IT)	R454	1-247-863-91	CARBON	22K	5%	1/4W
R255	1-249-429-11	CARBON	10K	5%	1/4W (AEP, UK, G, IT)	R455	1-247-863-91	CARBON	22K	5%	1/4W
R256	1-247-807-31	CARBON	100	5%	1/4W (AEP, UK, G, IT)	R456	1-249-411-11	CARBON	330	5%	1/4W
R301	1-249-430-11	CARBON	12K	5%	1/4W	R457	1-249-427-11	CARBON	6. 8K	5%	1/4W F
R302	1-249-431-11	CARBON	15K	5%	1/4W	R458	1-249-429-11	CARBON	10K	5%	1/4W
R303	1-249-432-11	CARBON	18K	5%	1/4W (AEP, UK, G, IT, EE)	R461	1-249-417-11	CARBON	1K	5%	1/4W F
R304	1-249-428-11	CARBON	8. 2K	5%	1/4W F	R701	1-249-429-11	CARBON	10K	5%	1/4W
R305	1-249-425-11	CARBON	4. 7K	5%	1/4W F	R702	1-249-437-11	CARBON	47K	5%	1/4W
R306	1-247-840-00	CARBON	2. 4K	5%	1/4W	R703	1-249-437-11	CARBON	47K	5%	1/4W
R307	1-247-863-91	CARBON	22K	5%	1/4W	R704	1-249-429-11	CARBON	10K	5%	1/4W
R308	1-249-421-11	CARBON	2. 2K	5%	1/4W F	R705	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-428-11	CARBON	8. 2K	5%	1/4W F	R706	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-249-417-11	CARBON	1K	5%	1/4W F	R708	1-249-423-11	CARBON	3. 3K	5%	1/4W F
R351	1-249-430-11	CARBON	12K	5%	1/4W	R709	1-249-441-11	CARBON	100K	5%	1/4W
R352	1-249-431-11	CARBON	15K	5%	1/4W	R710	1-249-429-11	CARBON	10K	5%	1/4W
R354	1-249-428-11	CARBON	8. 2K	5%	1/4W F	R712	1-249-429-11	CARBON	10K	5%	1/4W
R355	1-249-425-11	CARBON	4. 7K	5%	1/4W F	R713	1-249-429-11	CARBON	10K	5%	1/4W
R356	1-247-840-00	CARBON	2. 4K	5%	1/4W	R714	1-249-429-11	CARBON	10K	5%	1/4W
R357	1-247-863-91	CARBON	22K	5%	1/4W	R715	1-249-429-11	CARBON	10K	5%	1/4W
R358	1-249-421-11	CARBON	2. 2K	5%	1/4W F	R718	1-247-807-31	CARBON	100	5%	1/4W
R359	1-249-428-11	CARBON	8. 2K	5%	1/4W F	R719	1-247-807-31	CARBON	100	5%	1/4W
R401	1-249-417-11	CARBON	1K	5%	1/4W F	R720	1-247-807-31	CARBON	100	5%	1/4W
R402	1-249-425-11	CARBON	4. 7K	5%	1/4W F	R721	1-247-807-31	CARBON	100	5%	1/4W
R403	1-249-425-11	CARBON	4. 7K	5%	1/4W F	R722	1-247-807-31	CARBON	100	5%	1/4W (AEP, UK, G, IT)
R404	1-249-417-11	CARBON	1K	5%	1/4W F	R723	1-247-807-31	CARBON	100	5%	1/4W (AEP, UK, G, IT)
R405	1-249-437-11	CARBON	47K	5%	1/4W	R724	1-247-807-31	CARBON	100	5%	1/4W
R406	1-249-437-11	CARBON	47K	5%	1/4W	R725	1-247-807-31	CARBON	100	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W	R726	1-247-807-31	CARBON	100	5%	1/4W
R408	1-249-437-11	CARBON	47K	5%	1/4W	R727	1-247-807-31	CARBON	100	5%	1/4W
R409	1-249-429-11	CARBON	10K	5%	1/4W	R728	1-247-807-31	CARBON	100	5%	1/4W
R410	1-247-882-11	CARBON	130K	5%	1/4W	R729	1-247-807-31	CARBON	100	5%	1/4W
R411	1-247-866-11	CARBON	30K	5%	1/4W	R730	1-247-807-31	CARBON	100	5%	1/4W
R412	1-249-429-11	CARBON	10K	5%	1/4W (AEP, UK, G, IT, EE)	R731	1-247-807-31	CARBON	100	5%	1/4W
R413	1-247-864-11	CARBON	24K	5%	1/4W	R732	1-247-807-31	CARBON	100	5%	1/4W
						R733	1-247-807-31	CARBON	100	5%	1/4W
						R734	1-247-807-31	CARBON	100	5%	1/4W
						R735	1-247-807-31	CARBON	100	5%	1/4W
						R736	1-247-807-31	CARBON	100	5%	1/4W

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R737	1-247-807-31	CARBON	100 5% 1/4W	R807	1-249-417-11	CARBON	1K 5% 1/4W F
R738	1-249-427-11	CARBON	6. 8K 5% 1/4W F	R808	1-249-441-11	CARBON	100K 5% 1/4W
R739	1-249-423-11	CARBON	3. 3K 5% 1/4W F	R809	1-247-815-91	CARBON	220 5% 1/4W
R740	1-247-863-91	CARBON	22K 5% 1/4W F (AUS, PX)	R810	1-249-417-11	CARBON	1K 5% 1/4W F
R740	1-249-423-11	CARBON	10K 5% 1/4W F (AEP, UK)	R811	1-249-417-11	CARBON	1K 5% 1/4W F
R740	1-249-425-11	CARBON	4. 7K 5% 1/4W F (E, MX, AR)	R821	1-249-417-11	CARBON	1K 5% 1/4W F
R740	1-249-427-11	CARBON	6. 8K 5% 1/4W F (G, IT)	R822	1-249-441-11	CARBON	100K 5% 1/4W
R740	1-249-435-11	CARBON	33K 5% 1/4W F (EE)	R825	1-247-887-00	CARBON	220K 5% 1/4W
R741	1-247-863-91	CARBON	22K 5% 1/4W F (AUS, PX)	R826	1-249-441-11	CARBON	100K 5% 1/4W
R741	1-249-423-11	CARBON	3. 3K 5% 1/4W F (AEP, UK, G, IT)	R827	1-249-429-11	CARBON	10K 5% 1/4W
R741	1-249-427-11	CARBON	6. 8K 5% 1/4W F (E, MX, AR, EE)	R837	1-249-429-11	CARBON	10K 5% 1/4W
R742	1-249-413-11	CARBON	470 5% 1/4W F	R838	1-249-431-11	CARBON	15K 5% 1/4W
R743	1-247-807-31	CARBON	100 5% 1/4W	R839	1-249-431-11	CARBON	15K 5% 1/4W
R744	1-247-807-31	CARBON	100 5% 1/4W	R840	1-249-399-11	CARBON	33 5% 1/4W F
R745	1-247-807-31	CARBON	100 5% 1/4W	R841	1-249-421-11	CARBON	2. 2K 5% 1/4W F
R753	1-247-807-31	CARBON	100 5% 1/4W	R842	1-247-863-91	CARBON	22K 5% 1/4W
R755	1-247-807-31	CARBON	100 5% 1/4W	R843	1-249-431-11	CARBON	15K 5% 1/4W
R757	1-247-807-31	CARBON	100 5% 1/4W	R844	1-249-431-11	CARBON	15K 5% 1/4W
R758	1-247-807-31	CARBON	100 5% 1/4W	R845	1-249-429-11	CARBON	10K 5% 1/4W
R759	1-247-807-31	CARBON	100 5% 1/4W	R846	1-249-431-11	CARBON	15K 5% 1/4W
R760	1-247-807-31	CARBON	100 5% 1/4W	R847	1-249-417-11	CARBON	1K 5% 1/4W F
R761	1-247-807-31	CARBON	100 5% 1/4W	R848	1-247-903-00	CARBON	1M 5% 1/4W
R762	1-249-429-11	CARBON	10K 5% 1/4W	R849	1-249-427-11	CARBON	6. 8K 5% 1/4W F
R763	1-249-429-11	CARBON	10K 5% 1/4W	R851	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, UK, G, IT, EE)
R764	1-247-807-31	CARBON	100 5% 1/4W	R852	1-249-417-11	CARBON	1K 5% 1/4W F
R766	1-247-807-31	CARBON	100 5% 1/4W	R853	1-249-437-11	CARBON	47K 5% 1/4W
R767	1-247-807-31	CARBON	100 5% 1/4W	R854	1-249-419-11	CARBON	1. 5K 5% 1/4W F
R768	1-247-807-31	CARBON	100 5% 1/4W	R855	1-247-897-11	CARBON	560K 5% 1/4W
R769	1-247-807-31	CARBON	100 5% 1/4W	R856	1-249-437-11	CARBON	47K 5% 1/4W
R770	1-247-807-31	CARBON	100 5% 1/4W	R857	1-249-417-11	CARBON	1K 5% 1/4W F
R771	1-247-807-31	CARBON	100 5% 1/4W	R858	1-249-441-11	CARBON	100K 5% 1/4W
R772	1-247-807-31	CARBON	100 5% 1/4W	R859	1-247-815-91	CARBON	220 5% 1/4W (AEP, UK, G, IT, EE)
R773	1-247-807-31	CARBON	100 5% 1/4W	R860	1-249-437-11	CARBON	47K 5% 1/4W
R774	1-247-807-31	CARBON	100 5% 1/4W	R861	1-249-431-11	CARBON	15K 5% 1/4W
R775	1-247-807-31	CARBON	100 5% 1/4W	R862	1-249-427-11	CARBON	6. 8K 5% 1/4W F
R776	1-247-807-31	CARBON	100 5% 1/4W	R863	1-247-887-00	CARBON	220K 5% 1/4W
R777	1-249-429-11	CARBON	10K 5% 1/4W	R864	1-247-887-00	CARBON	220K 5% 1/4W
R778	1-249-429-11	CARBON	10K 5% 1/4W F	R865	1-247-887-00	CARBON	220K 5% 1/4W
R801	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, UK, G, IT, EE)	R866	1-249-441-11	CARBON	100K 5% 1/4W
R802	1-249-417-11	CARBON	1K 5% 1/4W F	R867	1-249-441-11	CARBON	100K 5% 1/4W
R803	1-249-437-11	CARBON	47K 5% 1/4W	R868	1-249-441-11	CARBON	100K 5% 1/4W
R804	1-249-419-11	CARBON	1. 5K 5% 1/4W F	R871	1-249-417-11	CARBON	1K 5% 1/4W F
R805	1-247-897-11	CARBON	560K 5% 1/4W	R872	1-249-441-11	CARBON	100K 5% 1/4W
R806	1-249-437-11	CARBON	47K 5% 1/4W	R875	1-249-429-11	CARBON	10K 5% 1/4W
				R876	1-249-429-11	CARBON	10K 5% 1/4W
				R877	1-249-429-11	CARBON	10K 5% 1/4W
				R881	1-249-421-11	CARBON	2. 2K 5% 1/4W F

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R882	1-249-417-11	CARBON	1K 5% 1/4W F	R963	1-249-429-11	CARBON	10K 5% 1/4W
R883	1-249-429-11	CARBON	10K 5% 1/4W	R964	1-249-437-11	CARBON	47K 5% 1/4W
R884	1-249-423-11	CARBON	3. 3K 5% 1/4W F	R965	1-249-441-11	CARBON	100K 5% 1/4W
R885	1-249-437-11	CARBON	47K 5% 1/4W	R966	1-249-441-11	CARBON	100K 5% 1/4W
R887	1-249-431-11	CARBON	15K 5% 1/4W	R967	1-249-429-11	CARBON	10K 5% 1/4W
R890	1-247-863-91	CARBON	22K 5% 1/4W	R973	1-249-429-11	CARBON	10K 5% 1/4W (E, AUS, PX, MX, AR)
R901	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R974	1-247-903-00	CARBON	1M 5% 1/4W
R902	1-249-429-11	CARBON	10K 5% 1/4W	R1001	1-249-421-11	CARBON	2. 2K 5% 1/4W F
R904	1-249-437-11	CARBON	47K 5% 1/4W	R1002	1-247-815-91	CARBON	220 5% 1/4W
R905	1-249-441-11	CARBON	100K 5% 1/4W	R1003	1-249-417-11	CARBON	1K 5% 1/4W F
R906	1-247-895-91	CARBON	470K 5% 1/4W	R1006	1-249-417-11	CARBON	1K 5% 1/4W F
R907	1-249-437-11	CARBON	47K 5% 1/4W	R1020	1-247-815-91	CARBON	220 5% 1/4W
R908	1-249-429-11	CARBON	10K 5% 1/4W	R1021	1-247-815-91	CARBON	220 5% 1/4W
R909	1-249-411-11	CARBON	330 5% 1/4W F	R1022	1-249-421-11	CARBON	2. 2K 5% 1/4W F
R910	1-249-429-11	CARBON	10K 5% 1/4W	R1023	1-249-417-11	CARBON	1K 5% 1/4W F
R911	1-249-421-11	CARBON	2. 2K 5% 1/4W F	R1830	1-249-427-11	CARBON	6. 8K 5% 1/4W F
R912	1-249-441-11	CARBON	100K 5% 1/4W	R1831	1-249-437-11	CARBON	47K 5% 1/4W
R913	1-249-429-11	CARBON	10K 5% 1/4W	R1832	1-249-419-11	CARBON	1. 5K 5% 1/4W F
R914	1-249-437-11	CARBON	47K 5% 1/4W	R1833	1-249-429-11	CARBON	10K 5% 1/4W
R915	1-249-441-11	CARBON	100K 5% 1/4W	R1834	1-247-895-91	CARBON	470K 5% 1/4W
R916	1-249-441-11	CARBON	100K 5% 1/4W	R1835	1-247-863-91	CARBON	22K 5% 1/4W
R917	1-249-429-11	CARBON	10K 5% 1/4W	R1836	1-249-429-11	CARBON	10K 5% 1/4W
R920	1-249-441-11	CARBON	100K 5% 1/4W	R1837	1-249-429-11	CARBON	10K 5% 1/4W
R922	1-247-903-00	CARBON	1M 5% 1/4W	R1838	1-249-429-11	CARBON	10K 5% 1/4W
R923	1-249-429-11	CARBON	10K 5% 1/4W (E, AUS, PX, MX, AR)	R1839	1-249-419-11	CARBON	1. 5K 5% 1/4W F
R924	1-247-903-00	CARBON	1M 5% 1/4W	R1840	1-249-437-11	CARBON	47K 5% 1/4W
R930	1-249-429-11	CARBON	10K 5% 1/4W	R1841	1-249-431-11	CARBON	12K 5% 1/4W
R931	1-249-429-11	CARBON	10K 5% 1/4W	R1842	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R932	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R1843	1-249-441-11	CARBON	100K 5% 1/4W
R933	1-247-895-91	CARBON	470K 5% 1/4W	R1844	1-249-429-11	CARBON	10K 5% 1/4W
R934	1-249-437-11	CARBON	47K 5% 1/4W	< VARIABLE RESISTOR >			
R938	1-247-807-31	CARBON	100 5% 1/4W	RV301	1-238-600-11	RES, ADJ, CARBON 10K	
R939	1-247-807-31	CARBON	100 5% 1/4W	RV351	1-238-600-11	RES, ADJ, CARBON 10K	
R940	1-249-429-11	CARBON	10K 5% 1/4W	< VIBRATOR >			
R941	1-249-429-11	CARBON	10K 5% 1/4W	X81	1-579-900-21	VIBRATOR, CRYSTAL (4. 332MHz)	
R942	1-249-429-11	CARBON	10K 5% 1/4W	(AEP, UK, G, IT)			
R947	1-247-807-31	CARBON	100 5% 1/4W	X701	1-579-175-11	VIBRATOR, CERAMIC (10MHz)	
R951	1-249-425-11	CARBON	4. 7K 5% 1/4W F	X702	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)	
R952	1-249-429-11	CARBON	10K 5% 1/4W	X801	1-527-978-00	OSCILLATOR, CERAMIC (320kHz)	
R953	1-249-437-11	CARBON	47K 5% 1/4W	*****			
R954	1-249-437-11	CARBON	47K 5% 1/4W				
R955	1-249-441-11	CARBON	100K 5% 1/4W				
R956	1-247-895-91	CARBON	470K 5% 1/4W				
R957	1-249-437-11	CARBON	47K 5% 1/4W				
R958	1-249-429-11	CARBON	10K 5% 1/4W				
R959	1-249-411-11	CARBON	330 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				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-435-A	MD BOARD, COMPLETE ***** (including MOTOR board)				< IC >	
		MOTOR BOARD		IC601	8-759-710-59	IC NJM4580D-D	
		< CAPACITOR >		IC602	8-759-143-54	IC uPC1330HA	
C301	1-162-289-31	CERAMIC	390PF 10% 50V	IC611	8-759-710-59	IC NJM4580D-D	
C302	1-126-968-11	ELECT	100uF 20% 6.3V			< COIL >	
C303	1-162-282-31	CERAMIC	100PF 10% 50V	L331	1-410-780-11	INDUCTOR 27mH	
C304	1-130-483-00	MYLAR	0.01uF 5% 50V	L431	1-410-780-11	INDUCTOR 27mH	
C305	1-107-715-11	ELECT	22uF 20% 16V			< MOTOR >	
C311	1-162-289-31	CERAMIC	390PF 10% 50V	M2	X-3369-111-1	MOTOR ASSY (TRIGGER)	
C313	1-162-282-31	CERAMIC	100PF 10% 50V			< TRANSISTOR >	
C314	1-130-487-00	MYLAR	0.022uF 5% 50V	Q621	8-729-142-46	TRANSISTOR 2SC2001-LK	
C315	1-126-233-11	ELECT	22uF 20% 50V	Q622	8-729-142-46	TRANSISTOR 2SC2001-LK	
C331	1-137-427-11	FILM	120PF 5% 50V	Q623	8-729-801-93	TRANSISTOR 2SD1387	
C332	1-162-288-31	CERAMIC	330PF 10% 50V	Q651	8-729-900-65	TRANSISTOR DTA144ES	
C333	1-162-209-31	CERAMIC	27PF 5% 50V			< RESISTOR >	
C401	1-162-289-31	CERAMIC	390PF 10% 50V	R301	1-247-881-00	CARBON 120K 5% 1/4W	
C402	1-126-968-11	ELECT	100uF 20% 6.3V	R302	1-249-409-11	CARBON 220 5% 1/4W F	
C403	1-162-282-31	CERAMIC	100PF 10% 50V	R303	1-249-433-11	CARBON 22K 5% 1/4W	
C404	1-130-483-00	MYLAR	0.01uF 5% 50V	R304	1-247-889-00	CARBON 270K 5% 1/4W	
C405	1-107-715-11	ELECT	22uF 20% 16V	R305	1-247-858-11	CARBON 13K 5% 1/4W	
C411	1-162-289-31	CERAMIC	390PF 10% 50V	R311	1-247-881-00	CARBON 120K 5% 1/4W	
C413	1-162-282-31	CERAMIC	100PF 10% 50V	R312	1-247-807-31	CARBON 100 5% 1/4W	
C414	1-130-487-00	MYLAR	0.022uF 5% 50V	R314	1-247-882-11	CARBON 130K 5% 1/4W	
C415	1-126-233-11	ELECT	22uF 20% 50V	R315	1-247-850-11	CARBON 6.2K 5% 1/4W	
C431	1-137-427-11	FILM	120PF 5% 50V	R331	1-249-430-11	CARBON 12K 5% 1/4W	
C432	1-162-288-31	CERAMIC	330PF 10% 50V	R401	1-247-881-00	CARBON 120K 5% 1/4W	
C433	1-162-209-31	CERAMIC	27PF 5% 50V	R402	1-249-409-11	CARBON 220 5% 1/4W F	
C601	1-126-157-11	ELECT	10uF 20% 16V	R403	1-249-433-11	CARBON 22K 5% 1/4W	
C602	1-126-157-11	ELECT	10uF 20% 16V	R404	1-247-889-00	CARBON 270K 5% 1/4W	
C611	1-124-907-11	ELECT	10uF 20% 50V	R405	1-247-858-11	CARBON 13K 5% 1/4W	
C612	1-124-907-11	ELECT	10uF 20% 50V	R411	1-247-881-00	CARBON 120K 5% 1/4W	
C621	1-137-150-11	FILM	0.01uF 5% 100V	R412	1-247-807-31	CARBON 100 5% 1/4W	
C622	1-126-961-11	ELECT	2.2uF 20% 50V	R414	1-247-882-11	CARBON 130K 5% 1/4W	
C623	1-136-155-00	FILM	0.015uF 5% 50V	R415	1-247-850-11	CARBON 6.2K 5% 1/4W	
C624	1-130-481-00	MYLAR	0.0068uF 5% 50V	R431	1-249-430-11	CARBON 12K 5% 1/4W	
C625	1-130-481-00	MYLAR	0.0068uF 5% 50V	R601	1-249-409-11	CARBON 220 5% 1/4W F	
C627	1-124-903-11	ELECT	1uF 20% 50V	R602	1-249-409-11	CARBON 220 5% 1/4W F	
C628	1-136-153-00	FILM	0.01uF 5% 50V	R608	1-249-409-11	CARBON 220 5% 1/4W F	
C642	1-104-664-11	ELECT	47uF 20% 16V	R609	1-249-433-11	CARBON 22K 5% 1/4W	
C651	1-161-494-00	CERAMIC	0.022uF 25V	R611	1-249-409-11	CARBON 220 5% 1/4W F	
		< CONNECTOR >		R612	1-249-409-11	CARBON 220 5% 1/4W F	
* CN601	1-568-864-11	SOCKET, CONNECTOR 21P		△R621	1-212-851-00	FUSIBLE 5.6 5% 1/4W F	
* CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P		△R622	1-212-851-00	FUSIBLE 5.6 5% 1/4W F	
* CN651	1-564-521-11	PLUG, CONNECTOR 6P		R623	1-249-432-11	CARBON 18K 5% 1/4W	
				R624	1-249-432-11	CARBON 18K 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
R625	1-249-429-11	CARBON	10K 5% 1/4W	R907	1-249-436-11	CARBON	39K 5% 1/4W
R651	1-247-856-00	CARBON	11K 5% 1/4W	R911	1-249-441-11	CARBON	100K 5% 1/4W
R652	1-247-856-00	CARBON	11K 5% 1/4W	R931	1-247-887-00	CARBON	220K 5% 1/4W
R653	1-249-441-11	CARBON	100K 5% 1/4W				
< VARIABLE RESISTOR >				< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON	2.2K	RV901	1-223-983-11	RES, VAR, CARBON	50K (MIC LEVEL)
RV311	1-238-598-11	RES, ADJ, CARBON	2.2K	*****			
RV341	1-238-551-11	RES, ADJ, CARBON	220K	*	A-4389-163-A	PANEL BOARD, COMPLETE	(AEP, UK, G, IT, EE)
RV401	1-238-598-11	RES, ADJ, CARBON	2.2K				*****
RV411	1-238-598-11	RES, ADJ, CARBON	2.2K	*	A-4389-165-A	PANEL BOARD, COMPLETE	(E, AUS, PX, MX, AR)
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 >				4-971-014-11 HOLDER, FL TUBE			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION		< CAPACITOR >			
*****				C501	1-124-465-00	ELECT	0.47uF 20% 50V
*	1-659-414-11	MIC BOARD (E, AUS, PX, MX, AR)	*****	C502	1-164-159-21	CERAMIC	0.1uF 50V
< CAPACITOR >				C503	1-124-465-00	ELECT	0.47uF 20% 50V
C901	1-162-306-11	CERAMIC	0.01uF 30% 16V	C504	1-164-159-21	CERAMIC	0.1uF 50V
C903	1-162-294-31	CERAMIC	0.001uF 10% 50V	C505	1-162-294-31	CERAMIC	0.001uF 10% 50V
C904	1-124-257-00	ELECT	2.2uF 20% 50V	C506	1-126-177-11	ELECT	100uF 20% 10V
C905	1-162-215-31	CERAMIC	47PF 5% 50V	C511	1-164-159-21	CERAMIC	0.1uF 50V
C906	1-162-290-31	CERAMIC	470PF 10% 50V	C512	1-164-159-21	CERAMIC	0.1uF 50V
C907	1-124-259-00	ELECT	2.2uF 20% 50V	C513	1-164-159-21	CERAMIC	0.1uF 50V
C908	1-124-257-00	ELECT	2.2uF 20% 50V	C514	1-164-159-21	CERAMIC	0.1uF 50V
C909	1-162-215-31	CERAMIC	47PF 5% 50V	C515	1-126-793-11	ELECT	33uF 20% 35V
C910	1-162-286-21	CERAMIC	220PF 10% 50V	C518	1-126-157-11	ELECT	10uF 20% 16V
C911	1-126-963-11	ELECT	4.7uF 20% 50V	C519	1-164-159-21	CERAMIC	0.1uF 50V
C931	1-126-964-11	ELECT	10uF 20% 50V	C520	1-164-159-21	CERAMIC	0.1uF 50V
C941	1-126-964-11	ELECT	10uF 20% 50V	C521	1-164-159-21	CERAMIC	0.1uF 50V
< IC >				C522	1-164-159-21	CERAMIC	0.1uF 50V
IC901	8-759-634-51	IC	M5218AP	C523	1-126-177-11	ELECT	100uF 20% 10V
< JACK >				C524	1-126-177-11	ELECT	100uF 20% 10V
J901	1-573-151-11	JACK, LARGE TYPE (MIC)		C545	1-162-306-11	CERAMIC	0.01uF 30% 16V
< RESISTOR >				C546	1-162-306-11	CERAMIC	0.01uF 30% 16V
R901	1-249-429-11	CARBON	10K 5% 1/4W	C547	1-126-157-11	ELECT	10uF 20% 16V
R902	1-249-417-11	CARBON	1K 5% 1/4W F	C549	1-126-177-11	ELECT	100uF 20% 10V
R903	1-249-441-11	CARBON	100K 5% 1/4W	C601	1-126-157-11	ELECT	10uF 20% 16V
R904	1-249-417-11	CARBON	1K 5% 1/4W F	C3002	1-164-159-21	CERAMIC	0.1uF 50V
R905	1-247-863-91	CARBON	22K 5% 1/4W	C3010	1-162-294-31	CERAMIC	0.001uF 10% 50V
R906	1-249-421-11	CARBON	2.2K 5% 1/4W F	C3034	1-126-177-11	ELECT	100uF 20% 10V
				C3046	1-126-177-11	ELECT	100uF 20% 10V
				C3048	1-126-177-11	ELECT	100uF 20% 10V
				C3049	1-164-159-21	CERAMIC	0.1uF 50V
				C3201	1-126-163-11	ELECT	4.7uF 20% 50V
				C3202	1-136-169-00	FILM	0.22uF 5% 50V
				C3203	1-124-464-11	ELECT	0.22uF 20% 50V
				C3211	1-124-465-00	ELECT	0.47uF 20% 50V
				C3212	1-136-155-00	FILM	0.015uF 5% 50V

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C3213	1-124-464-11	ELECT	0.22uF 20% 50V			< COIL >	
C3221	1-136-167-00	FILM	0.15uF 5% 50V	L511	1-410-521-11	INDUCTOR	100uH
C3222	1-162-302-11	CERAMIC	0.0022uF 30% 16V			< TRANSISTOR >	
C3223	1-124-464-11	ELECT	0.22uF 20% 50V				
C3232	1-162-293-31	CERAMIC	820PF 10% 50V	Q601	8-729-422-57	TRANSISTOR	UN4111
C3233	1-124-464-11	ELECT	0.22uF 20% 50V	Q603	8-729-422-57	TRANSISTOR	UN4111
		< CONNECTOR >		Q605	8-729-422-57	TRANSISTOR	UN4111
CN501	1-568-802-11	SOCKET, CONNECTOR 19P (AEP, UK, G, IT, EE)		Q611	8-729-119-76	TRANSISTOR	2SA1175-HFE
CN501	1-568-838-11	SOCKET, CONNECTOR 21P (E, AUS, PX, MX, AR)		Q612	8-729-119-76	TRANSISTOR	2SA1175-HFE
		< DIODE >		Q621	8-729-119-76	TRANSISTOR	2SA1175-HFE
D503	8-719-987-63	DIODE	1N4148M	Q622	8-729-119-76	TRANSISTOR	2SA1175-HFE
D511	8-719-987-63	DIODE	1N4148M	Q623	8-729-119-76	TRANSISTOR	2SA1175-HFE
D512	8-719-987-63	DIODE	1N4148M	Q624	8-729-119-76	TRANSISTOR	2SA1175-HFE
D601	8-719-058-03	DIODE	SEL5423E-TP15 (TUNER/BAND)	Q625	8-729-119-76	TRANSISTOR	2SA1175-HFE
D602	8-719-058-03	DIODE	SEL5423E-TP15 (TUNER/BAND)	Q629	8-729-119-76	TRANSISTOR	2SA1175-HFE
D611	8-719-058-04	DIODE	SEL5223S-TP15 (EFFECT)	Q630	8-729-119-76	TRANSISTOR	2SA1175-HFE
D612	8-719-058-04	DIODE	SEL5223S-TP15 (ROCK, GAME)	Q631	8-729-119-76	TRANSISTOR	2SA1175-HFE
D613	8-719-058-04	DIODE	SEL5223S-TP15 (POPS, DANCE)	Q632	8-729-119-76	TRANSISTOR	2SA1175-HFE
D614	8-719-058-04	DIODE	SEL5223S-TP15 (JAZZ, STADIUM)	Q633	8-729-119-76	TRANSISTOR	2SA1175-HFE
D615	8-719-058-04	DIODE	SEL5223S-TP15 (CLASSIC, STUDIO)	Q634	8-729-119-76	TRANSISTOR	2SA1175-HFE
D616	8-719-058-04	DIODE	SEL5223S-TP15 (SALSA, CHURCH)	Q636	8-729-119-78	TRANSISTOR	2SC2785-HFE
D617	8-719-058-04	DIODE	SEL5223S-TP15 (P FILE)	Q3141	8-729-900-80	TRANSISTOR	DTC114ES
D618	8-719-058-04	DIODE	SEL5223S-TP15 (MORE 5)	Q3151	8-729-900-80	TRANSISTOR	DTC114ES
D619	8-719-057-09	DIODE	LNJ801LPDJA (ENTER/NEXT)	Q3152	8-729-903-02	TRANSISTOR	DTA143XS
D620	8-719-058-04	DIODE	SEL5223S-TP15 (SELECT 5)			< RESISTOR >	
D627	8-719-058-04	DIODE	SEL5223S-TP15 (SUPER WOOFER)	R501	1-249-419-11	CARBON	1.5K 5% 1/4W F
D3026	8-719-987-63	DIODE	1N4148M	R502	1-249-401-11	CARBON	47 5% 1/4W F
D3027	8-719-987-63	DIODE	1N4148M	R503	1-249-403-11	CARBON	68 5% 1/4W F
D3028	8-719-987-63	DIODE	1N4148M	R504	1-247-807-31	CARBON	100 5% 1/4W
D3029	8-719-987-63	DIODE	1N4148M	R505	1-249-407-11	CARBON	150 5% 1/4W F
D3201	8-719-987-63	DIODE	1N4148M	R506	1-249-407-11	CARBON	150 5% 1/4W F
D3211	8-719-987-63	DIODE	1N4148M	R507	1-247-815-91	CARBON	220 5% 1/4W
D3221	8-719-987-63	DIODE	1N4148M	R508	1-249-411-11	CARBON	330 5% 1/4W
D3231	8-719-987-63	DIODE	1N4148M	R509	1-249-413-11	CARBON	470 5% 1/4W F
D3241	8-719-987-63	DIODE	1N4148M	R510	1-249-415-11	CARBON	680 5% 1/4W F
D3242	8-719-987-63	DIODE	1N4148M	R511	1-249-417-11	CARBON	1K 5% 1/4W F
		< FLUORESCENT INDICATOR >		R517	1-249-419-11	CARBON	1.5K 5% 1/4W F
FL501	1-517-490-21	INDICATOR TUBU, FLUORESCENT		R518	1-249-401-11	CARBON	47 5% 1/4W F
		< IC >		R519	1-249-403-11	CARBON	68 5% 1/4W F
IC501	8-759-375-43	IC	ASD0204-012-3BA	R520	1-247-807-31	CARBON	100 5% 1/4W
IC502	8-759-339-53	IC	GP1U28XB (国)	R521	1-249-407-11	CARBON	150 5% 1/4W F
IC503	8-759-140-53	IC	uPD4053BC	R522	1-249-407-11	CARBON	150 5% 1/4W F
IC504	8-759-916-14	IC	SN74HC04AN	R523	1-247-815-91	CARBON	220 5% 1/4W
				R524	1-249-411-11	CARBON	330 5% 1/4W
				R525	1-249-413-11	CARBON	470 5% 1/4W F
				R526	1-249-415-11	CARBON	680 5% 1/4W F
				R527	1-249-419-11	CARBON	1.5K 5% 1/4W F
				R528	1-249-401-11	CARBON	47 5% 1/4W F
				R529	1-249-403-11	CARBON	68 5% 1/4W F

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R530	1-247-807-31	CARBON	100 5% 1/4W	R3011	1-247-903-00	CARBON	1M 5% 1/4W
R531	1-249-407-11	CARBON	150 5% 1/4W F	R3015	1-249-429-11	CARBON	10K 5% 1/4W
R532	1-249-407-11	CARBON	150 5% 1/4W F	R3019	1-249-429-11	CARBON	10K 5% 1/4W
R548	1-249-419-11	CARBON	1.5K 5% 1/4W F	R3020	1-249-429-11	CARBON	10K 5% 1/4W
R549	1-247-807-31	CARBON	100 5% 1/4W	R3021	1-249-429-11	CARBON	10K 5% 1/4W
R550	1-249-407-11	CARBON	150 5% 1/4W F	R3022	1-249-429-11	CARBON	10K 5% 1/4W
R551	1-249-407-11	CARBON	150 5% 1/4W F	R3023	1-249-429-11	CARBON	10K 5% 1/4W
R552	1-247-815-91	CARBON	220 5% 1/4W	R3024	1-249-429-11	CARBON	10K 5% 1/4W
R553	1-249-429-11	CARBON	10K 5% 1/4W	R3036	1-249-429-11	CARBON	10K 5% 1/4W
R554	1-249-441-11	CARBON	100K 5% 1/4W	R3037	1-249-429-11	CARBON	10K 5% 1/4W
R564	1-249-419-11	CARBON	1.5K 5% 1/4W F	R3038	1-249-429-11	CARBON	10K 5% 1/4W
R565	1-247-807-31	CARBON	100 5% 1/4W	R3041	1-249-429-11	CARBON	10K 5% 1/4W
R566	1-249-407-11	CARBON	150 5% 1/4W F	R3042	1-249-423-11	CARBON	3.3K 5% 1/4W F
R567	1-249-407-11	CARBON	150 5% 1/4W F	R3049	1-249-429-11	CARBON	10K 5% 1/4W
R586	1-247-815-91	CARBON	220 5% 1/4W	R3050	1-249-429-11	CARBON	10K 5% 1/4W
R588	1-247-815-91	CARBON	220 5% 1/4W	R3051	1-249-429-11	CARBON	10K 5% 1/4W
R591	1-249-403-11	CARBON	68 5% 1/4W F	R3053	1-249-429-11	CARBON	10K 5% 1/4W
R592	1-249-401-11	CARBON	47 5% 1/4W F	R3087	1-249-441-11	CARBON	100K 5% 1/4W
R593	1-249-403-11	CARBON	68 5% 1/4W F	R3110	1-247-807-31	CARBON	100 5% 1/4W
R594	1-249-401-11	CARBON	47 5% 1/4W F	R3115	1-247-807-31	CARBON	100 5% 1/4W
R611	1-249-429-11	CARBON	10K 5% 1/4W	R3122	1-247-807-31	CARBON	100 5% 1/4W
R612	1-249-421-11	CARBON	2.2K 5% 1/4W F	R3123	1-247-807-31	CARBON	100 5% 1/4W
R613	1-249-429-11	CARBON	10K 5% 1/4W	R3124	1-247-807-31	CARBON	100 5% 1/4W
R614	1-249-421-11	CARBON	2.2K 5% 1/4W F	R3138	1-247-807-31	CARBON	100 5% 1/4W
R633	1-249-407-11	CARBON	150 5% 1/4W F	R3201	1-249-411-11	CARBON	330 5% 1/4W
R634	1-249-407-11	CARBON	150 5% 1/4W F	R3202	1-249-437-11	CARBON	47K 5% 1/4W
R635	1-249-407-11	CARBON	150 5% 1/4W F	R3203	1-247-895-91	CARBON	470K 5% 1/4W
R636	1-249-407-11	CARBON	150 5% 1/4W F	R3204	1-247-899-11	CARBON	680K 5% 1/4W
R637	1-249-407-11	CARBON	150 5% 1/4W F	R3211	1-249-411-11	CARBON	330 5% 1/4W
R641	1-249-406-11	CARBON	120 5% 1/4W F	R3212	1-249-437-11	CARBON	47K 5% 1/4W
R642	1-247-807-31	CARBON	100 5% 1/4W	R3213	1-247-895-91	CARBON	470K 5% 1/4W
R643	1-247-807-31	CARBON	100 5% 1/4W	R3214	1-247-899-11	CARBON	680K 5% 1/4W
R644	1-249-406-11	CARBON	120 5% 1/4W F	R3221	1-249-411-11	CARBON	330 5% 1/4W
R645	1-249-407-11	CARBON	150 5% 1/4W F	R3222	1-249-437-11	CARBON	47K 5% 1/4W
R646	1-249-406-11	CARBON	120 5% 1/4W F	R3223	1-247-895-91	CARBON	470K 5% 1/4W
R648	1-249-425-11	CARBON	4.7K 5% 1/4W F	R3224	1-247-899-11	CARBON	680K 5% 1/4W
R649	1-249-425-11	CARBON	4.7K 5% 1/4W F	R3231	1-247-807-31	CARBON	100 5% 1/4W
R650	1-249-425-11	CARBON	4.7K 5% 1/4W F	R3232	1-249-437-11	CARBON	47K 5% 1/4W
R651	1-249-425-11	CARBON	4.7K 5% 1/4W F	R3233	1-247-895-91	CARBON	470K 5% 1/4W
R652	1-249-425-11	CARBON	4.7K 5% 1/4W F	R3234	1-247-899-11	CARBON	680K 5% 1/4W
R656	1-249-425-11	CARBON	4.7K 5% 1/4W F	R3241	1-249-421-11	CARBON	2.2K 5% 1/4W F
R657	1-249-425-11	CARBON	4.7K 5% 1/4W F	R3242	1-249-393-11	CARBON	10 5% 1/4W F
R658	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R659	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R660	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R661	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R698	1-249-393-11	CARBON	10 5% 1/4W F				
R700	1-249-393-11	CARBON	10 5% 1/4W F				
R875	1-247-815-91	CARBON	220 5% 1/4W				

(E, AUS, PX, MX, AR)

< SWITCH >

S501	1-554-303-21	SWITCH, TACTILE	(SYSTEM POWER)
S502	1-554-303-21	SWITCH, TACTILE	(SLEEP)
S503	1-554-303-21	SWITCH, TACTILE	(CLOCK SET)
S504	1-554-303-21	SWITCH, TACTILE	(EFFECT)
S506	1-554-303-21	SWITCH, TACTILE	(KARAOKEPON/MPX)

(E, AUS, PX, MX, AR)

PANEL POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
S507	1-554-303-21	SWITCH, TACTILE (TUNING MODE)		C1206	1-126-968-11	ELECT	100uF 20% 50V
S508	1-554-303-21	SWITCH, TACTILE (>)		C1208	1-126-965-11	ELECT	22uF 20% 50V
S509	1-554-303-21	SWITCH, TACTILE (^)		C1210	1-136-495-11	FILM	0.068uF 5% 50V
S510	1-554-303-21	SWITCH, TACTILE (<)		C1211	1-136-495-11	FILM	0.068uF 5% 50V
S511	1-554-303-21	SWITCH, TACTILE (v)		C1221	1-126-968-11	ELECT	100uF 20% 50V
S517	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)		C1223	1-126-968-11	ELECT	100uF 20% 50V
S518	1-554-303-21	SWITCH, TACTILE (DISPLAY/DEMO)		C1225	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S519	1-554-303-21	SWITCH, TACTILE (REC)		C1230	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S520	1-554-303-21	SWITCH, TACTILE (DAILY 2)		C1247	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S521	1-554-303-21	SWITCH, TACTILE (DAILY 1)		C1248	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S522	1-554-303-21	SWITCH, TACTILE (TIMER SET)		C1249	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S525	1-554-303-21	SWITCH, TACTILE (FUNCTION)		C1251	1-126-963-11	ELECT	4.7uF 20% 50V
S526	1-554-303-21	SWITCH, TACTILE (EQ MEMORY)		C1252	1-102-824-00	CERAMIC	470PF 5% 50V
S527	1-554-303-21	SWITCH, TACTILE (FILE 1)		C1253	1-102-978-00	CERAMIC	220PF 5% 50V
S528	1-554-303-21	SWITCH, TACTILE (FILE 2)		C1254	1-126-967-11	ELECT	47uF 20% 50V
S529	1-554-303-21	SWITCH, TACTILE (FILE 3)		C1255	1-126-967-11	ELECT	47uF 20% 50V
S530	1-554-303-21	SWITCH, TACTILE (FILE 4)		C1256	1-126-968-11	ELECT	100uF 20% 50V
S531	1-554-303-21	SWITCH, TACTILE (FILE SELECT)		C1260	1-136-495-11	FILM	0.068uF 5% 50V
S532	1-554-303-21	SWITCH, TACTILE (FILE 5)		C1261	1-136-495-11	FILM	0.068uF 5% 50V
S549	1-554-303-21	SWITCH, TACTILE (SUPER WOOFER)		C1291	1-130-781-00	FILM	0.22uF 10% 100V
S550	1-554-303-21	SWITCH, TACTILE (SURROUND)		C1292	1-130-781-00	FILM	0.22uF 10% 100V
S551	1-554-303-21	SWITCH, TACTILE (DBFB)		C1293	1-126-258-11	ELECT	4700uF 20% 56V
S552	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)		C1294	1-126-258-11	ELECT	4700uF 20% 56V
S553	1-554-303-21	SWITCH, TACTILE (PTY) (AEP, UK, G, IT, EE)		C1297	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S565	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)		C1298	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S566	1-554-303-21	SWITCH, TACTILE (TUNER MEMORY)		C1299	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
S567	1-554-303-21	SWITCH, TACTILE (+ TUNING)		C1301	1-126-963-11	ELECT	4.7uF 20% 50V
S568	1-554-303-21	SWITCH, TACTILE (- TUNING)		C1302	1-102-824-00	CERAMIC	470PF 5% 50V
S579	1-467-869-11	ENCODER, ROTARY (VOLUME)		C1303	1-102-978-00	CERAMIC	220PF 5% 50V
< VIBRATOR >				C1304	1-126-967-11	ELECT	47uF 20% 50V
X3001	1-579-233-11	VIBRATOR, CERAMIC (4MHz)		C1305	1-126-967-11	ELECT	47uF 20% 50V
*****				C1306	1-126-968-11	ELECT	100uF 20% 50V
A-4389-210-A POWER AMP BOARD, COMPLETE				C1308	1-126-965-11	ELECT	22uF 20% 50V
(AEP, UK, G, IT, EE)				C1310	1-136-495-11	FILM	0.068uF 5% 50V
*****				C1311	1-136-495-11	FILM	0.068uF 5% 50V
A-4389-212-A POWER AMP BOARD, COMPLETE				C1321	1-126-968-11	ELECT	100uF 20% 50V
(E, AUS, PX, MX, AR)				C1323	1-126-968-11	ELECT	100uF 20% 50V
*****				C1325	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
1-537-770-21 TERMINAL BOARD, GROUND				C1330	1-164-159-11	CERAMIC	0.1uF 50V (AEP, UK, G, IT, EE)
7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S				C1348	1-136-495-11	FILM	0.068uF 5% 50V (AEP, UK, G, IT, EE)
< CAPACITOR >							
C1201	1-126-963-11	ELECT	4.7uF 20% 50V				
C1202	1-136-171-00	FILM	0.33uF 10% 50V				
C1203	1-102-978-00	CERAMIC	220PF 5% 50V				
C1204	1-126-967-11	ELECT	47uF 20% 50V				
C1205	1-126-967-11	ELECT	47uF 20% 50V				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C1348	1-164-159-21	CERAMIC	0. 1uF 50V (AEP, UK, G, IT, EE)	D1436	8-719-987-63	DIODE 1N4148M	
C1349	1-136-495-11	FILM	0. 068uF 5% 50V (AEP, UK, G, IT, EE)	D1437	8-719-987-63	DIODE 1N4148M	
C1349	1-164-159-21	CERAMIC	0. 1uF 50V (AEP, UK, G, IT, EE)	D1438	8-719-987-63	DIODE 1N4148M	
C1351	1-126-963-11	ELECT	4. 7uF 20% 50V	D1451	8-719-987-63	DIODE 1N4148M	
C1352	1-136-171-00	FILM	0. 33uF 10% 50V	D1452	8-719-987-63	DIODE 1N4148M	
C1353	1-102-978-00	CERAMIC	220PF 5% 50V	D1453	8-719-987-63	DIODE 1N4148M	
C1354	1-126-967-11	ELECT	47uF 20% 50V	D1454	8-719-987-63	DIODE 1N4148M	
C1355	1-126-967-11	ELECT	47uF 20% 50V				
C1356	1-126-968-11	ELECT	100uF 20% 50V			< IC >	
C1360	1-136-495-11	FILM	0. 068uF 5% 50V	IC1201	8-749-900-24	IC STK-4162MK2	
C1361	1-136-495-11	FILM	0. 068uF 5% 50V	IC1301	8-749-900-24	IC STK-4162MK2	
C1398	1-136-495-11	FILM	0. 068uF 5% 50V (AEP, UK, G, IT, EE)	IC1421	8-759-111-68	IC uPCI237HA	
C1398	1-164-159-21	CERAMIC	0. 1uF 50V (AEP, UK, G, IT, EE)			< COIL >	
C1399	1-136-495-11	FILM	0. 068uF 5% 50V (AEP, UK, G, IT, EE)	L1201	1-420-872-00	COIL, AIR-CORE	
C1399	1-164-159-21	CERAMIC	0. 1uF 50V (AEP, UK, G, IT, EE)	L1251	1-420-872-00	COIL, AIR-CORE	
C1401	1-126-923-11	ELECT	220uF 20% 10V	L1301	1-420-872-00	COIL, AIR-CORE	
C1421	1-126-923-11	ELECT	220uF 20% 10V	L1351	1-420-872-00	COIL, AIR-CORE	
C1422	1-126-923-11	ELECT	220uF 20% 10V			< TRANSISTOR >	
C1423	1-124-925-11	ELECT	2. 2uF 20% 100V	Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1424	1-126-933-11	ELECT	100uF 20% 10V	Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1425	1-126-964-11	ELECT	10uF 20% 50V	Q1301	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1492	1-136-157-00	FILM	0. 022uF 5% 50V (AEP, UK, G, IT, EE)	Q1351	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1492	1-164-159-21	CERAMIC	0. 1uF 50V (AEP, UK, G, IT, EE)	Q1421	8-729-900-63	TRANSISTOR DTA124ES	
C1493	1-136-157-00	FILM	0. 022uF 5% 50V (AEP, UK, G, IT, EE)	Q1422	8-729-900-65	TRANSISTOR DTA114ES	
		< CONNECTOR >		Q1423	8-729-119-78	TRANSISTOR 2SC2785-HFE	
* CN1201	1-766-957-11	CONNECTOR, BOARD TO BOARD 20P		Q1451	8-729-900-80	TRANSISTOR DTC114ES	
		< DIODE >		Q1452	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1201	8-719-987-63	DIODE 1N4148M		Q1453	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1204	8-719-987-63	DIODE 1N4148M				< RESISTOR >	
D1251	8-719-987-63	DIODE 1N4148M		R1201	1-249-417-11	CARBON 1K 5% 1/4W F	
D1291	8-719-302-38	DIODE RBV-602-01		R1202	1-249-437-11	CARBON 47K 5% 1/4W	
D1301	8-719-987-63	DIODE 1N4148M		R1203	1-249-417-11	CARBON 1K 5% 1/4W F	
D1304	8-719-987-63	DIODE 1N4148M		R1204	1-249-437-11	CARBON 47K 5% 1/4W	
D1351	8-719-987-63	DIODE 1N4148M		R1205	1-249-425-11	CARBON 4. 7K 5% 1/4W F	
D1401	8-719-987-63	DIODE 1N4148M		R1206	1-249-425-11	CARBON 4. 7K 5% 1/4W F	
D1402	8-719-987-63	DIODE 1N4148M		R1207	1-249-425-11	CARBON 4. 7K 5% 1/4W F	
D1421	8-719-987-63	DIODE 1N4148M		R1208	1-249-425-11	CARBON 4. 7K 5% 1/4W F	
D1431	8-719-987-63	DIODE 1N4148M		△R1209	1-212-881-11	FUSIBLE 100 5% 1/4W F	
D1432	8-719-987-63	DIODE 1N4148M		△R1210	1-208-602-11	WIREWOUND 0. 22 10% 2W F	
D1435	8-719-987-63	DIODE 1N4148M		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	

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

POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1217	1-249-421-11	CARBON	2. 2K 5% 1/4W F	R1320	1-249-389-11	CARBON	4. 7 5% 1/4W F
R1218	1-247-791-91	CARBON	22 5% 1/4W	R1321	1-249-389-11	CARBON	4. 7 5% 1/4W F
R1219	1-247-791-91	CARBON	22 5% 1/4W	R1329	1-249-429-11	CARBON	10K 5% 1/4W
R1220	1-249-389-11	CARBON	4. 7 5% 1/4W F	R1348	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)
R1221	1-249-389-11	CARBON	4. 7 5% 1/4W F	R1349	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)
R1229	1-249-429-11	CARBON	10K 5% 1/4W	R1351	1-249-417-11	CARBON	1K 5% 1/4W F
R1248	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)	R1352	1-249-437-11	CARBON	47K 5% 1/4W
R1249	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)	R1353	1-249-417-11	CARBON	1K 5% 1/4W F
R1251	1-249-417-11	CARBON	1K 5% 1/4W F	R1354	1-249-437-11	CARBON	47K 5% 1/4W
R1252	1-249-437-11	CARBON	47K 5% 1/4W	R1355	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1253	1-249-413-11	CARBON	470 5% 1/4W F	R1356	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1254	1-249-437-11	CARBON	47K 5% 1/4W	R1357	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1255	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R1358	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1256	1-249-425-11	CARBON	4. 7K 5% 1/4W F	△R1359	1-212-881-11	FUSIBLE	100 5% 1/4W F
R1257	1-249-425-11	CARBON	4. 7K 5% 1/4W F	△R1360	1-208-602-11	WIREWOUND	0. 22 10% 2W F
R1258	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R1361	1-249-417-11	CARBON	1K 5% 1/4W F
△R1259	1-212-881-11	FUSIBLE	100 5% 1/4W F	R1362	1-249-431-11	CARBON	15K 5% 1/4W
△R1260	1-208-602-11	WIREWOUND	0. 22 10% 2W F	R1363	1-249-441-11	CARBON	100K 5% 1/4W
R1261	1-249-417-11	CARBON	1K 5% 1/4W F	R1368	1-247-791-91	CARBON	22 5% 1/4W
R1262	1-249-431-11	CARBON	15K 5% 1/4W	R1369	1-247-791-91	CARBON	22 5% 1/4W
R1263	1-249-441-11	CARBON	100K 5% 1/4W	R1370	1-249-389-11	CARBON	4. 7 5% 1/4W F
R1268	1-247-791-91	CARBON	22 5% 1/4W	R1371	1-249-389-11	CARBON	4. 7 5% 1/4W F
R1269	1-247-791-91	CARBON	22 5% 1/4W	△R1380	1-215-889-00	METAL OXIDE	330 5% 2W F
R1270	1-249-389-11	CARBON	4. 7 5% 1/4W F	R1398	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)
R1271	1-249-389-11	CARBON	4. 7 5% 1/4W F	R1399	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)
△R1280	1-215-889-00	METAL OXIDE	330 5% 2W F	R1401	1-249-421-11	CARBON	2. 2K 5% 1/4W F
R1298	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)	R1402	1-249-429-11	CARBON	10K 5% 1/4W
R1299	1-249-385-11	CARBON	2. 2 5% 1/6W F (AEP, UK, G, IT, EE)	R1403	1-249-441-11	CARBON	100K 5% 1/4W
R1301	1-249-417-11	CARBON	1K 5% 1/4W F	R1421	1-249-429-11	CARBON	10K 5% 1/4W F
R1302	1-249-437-11	CARBON	47K 5% 1/4W	R1422	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1303	1-249-413-11	CARBON	470 5% 1/4W F	R1423	1-249-429-11	CARBON	10K 5% 1/4W
R1304	1-249-437-11	CARBON	47K 5% 1/4W	R1424	1-249-441-11	CARBON	100K 5% 1/4W
R1305	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R1425	1-247-791-91	CARBON	22 5% 1/4W
R1306	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R1426	1-249-435-11	CARBON	33K 5% 1/4W
R1307	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R1427	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1308	1-249-425-11	CARBON	4. 7K 5% 1/4W F	R1428	1-249-425-11	CARBON	4. 7K 5% 1/4W F
△R1309	1-212-881-11	FUSIBLE	100 5% 1/4W F	R1429	1-249-441-11	CARBON	100K 5% 1/4W
△R1310	1-208-602-11	WIREWOUND	0. 22 10% 2W F	R1431	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1311	1-249-417-11	CARBON	1K 5% 1/4W F	R1432	1-249-425-11	CARBON	4. 7K 5% 1/4W F
R1312	1-249-431-11	CARBON	15K 5% 1/4W	R1441	1-249-437-11	CARBON	47K 5% 1/4W
R1313	1-249-441-11	CARBON	100K 5% 1/4W	R1442	1-249-439-11	CARBON	68K 5% 1/4W
R1314	1-249-421-11	CARBON	2. 2K 5% 1/4W F	R1443	1-249-437-11	CARBON	47K 5% 1/4W
R1315	1-249-421-11	CARBON	2. 2K 5% 1/4W F	R1444	1-249-439-11	CARBON	68K 5% 1/4W
R1316	1-249-421-11	CARBON	2. 2K 5% 1/4W F	R1451	1-249-413-11	CARBON	470 5% 1/4W F
R1317	1-249-421-11	CARBON	2. 2K 5% 1/4W F	R1452	1-249-429-11	CARBON	10K 5% 1/4W
R1318	1-247-791-91	CARBON	22 5% 1/4W	R1453	1-249-429-11	CARBON	10K 5% 1/4W
R1319	1-247-791-91	CARBON	22 5% 1/4W	R1454	1-249-417-11	CARBON	1K 5% 1/4W F

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

POWER AMP

TABLE SENSOR

TC CONTROL

TC SW

Ref. No.	Part No.	Description	Remark
R1455	1-249-417-11	CARBON	1K 5% 1/4W F
R1456	1-249-429-11	CARBON	10K 5% 1/4W
R1471	1-260-091-11	CARBON	220 5% 1/2W
R1472	1-260-091-11	CARBON	220 5% 1/2W
R1473	1-260-091-11	CARBON	220 5% 1/2W
R1474	1-260-091-11	CARBON	220 5% 1/2W
R1481	1-247-863-91	CARBON	22K 5% 1/4W
R1482	1-247-863-91	CARBON	22K 5% 1/4W
< RELAY >			
RY1201	1-515-920-11	RELAY (24V)	
RY1301	1-515-920-11	RELAY (24V)	
< TERMINAL >			
TM1201	1-694-055-11	TERMINAL BOARD (SP) (FRONT SPEAKER, SURROUND SPEAKER)	
TM1203	1-694-053-11	TERMINAL BOARD (SUPER WOOFER)	

*	1-659-058-12	TABLE SENSOR BOARD *****	
< IC >			
IC202	8-749-924-18	PHOTO INTERRUPTER RPI-1391	
< RESISTOR >			
R207	1-249-416-11	CARBON	820 5% 1/4W F

*	1-659-413-11	TC CONTROL BOARD *****	
< DIODE >			
D630	8-719-058-03	DIODE SEL5423E-TP15	(▷)(DECK B)
D631	8-719-058-03	DIODE SEL5423E-TP15	(◁)(DECK B)
D632	8-719-058-03	DIODE SEL5423E-TP15	(▷)(DECK A)
D633	8-719-058-03	DIODE SEL5423E-TP15	(◁)(DECK A)
D634	8-719-058-03	DIODE SEL5423E-TP15	
D635	8-719-058-03	DIODE SEL5423E-TP15	
< RESISTOR >			
R538	1-247-815-91	CARBON	220 5% 1/4W
R539	1-249-411-11	CARBON	330 5% 1/4W
R540	1-249-413-11	CARBON	470 5% 1/4W F
R541	1-249-415-11	CARBON	680 5% 1/4W F
R542	1-249-417-11	CARBON	1K 5% 1/4W F
R543	1-249-419-11	CARBON	1.5K 5% 1/4W F
R544	1-249-421-11	CARBON	2.2K 5% 1/4W F
R545	1-249-423-11	CARBON	3.3K 5% 1/4W F

Ref. No.	Part No.	Description	Remark
R546	1-249-427-11	CARBON	6.8K 5% 1/4W F
R547	1-249-431-11	CARBON	15K 5% 1/4W
R672	1-247-815-91	CARBON	220 5% 1/4W
R673	1-247-815-91	CARBON	220 5% 1/4W
< SWITCH >			
S539	1-554-303-21	SWITCH, TACTILE (▶▶)	(DECK B)
S540	1-554-303-21	SWITCH, TACTILE (◀◀)	(DECK B)
S541	1-554-303-21	SWITCH, TACTILE (■)	(DECK B)
S542	1-554-303-21	SWITCH, TACTILE (▷)	(DECK B)
S543	1-554-303-21	SWITCH, TACTILE (◁)	(DECK B)
S544	1-554-303-21	SWITCH, TACTILE (▷)	(DECK A)
S545	1-554-303-21	SWITCH, TACTILE (◁)	(DECK A)
S546	1-554-303-21	SWITCH, TACTILE (▶▶)	(DECK A)
S547	1-554-303-21	SWITCH, TACTILE (◀◀)	(DECK A)
S548	1-554-303-21	SWITCH, TACTILE (■)	(DECK A)

*	1-659-412-11	TC SW BOARD *****	
< CONNECTOR >			
* CN503	1-568-945-11	PIN, CONNECTOR 7P	
< DIODE >			
D628	8-719-058-17	DIODE LNJ401NPYJA	(■)
D629	8-719-057-09	DIODE LNJ801LPDJA	(● REC)
< RESISTOR >			
R533	1-249-419-11	CARBON	1.5K 5% 1/4W F
R534	1-249-421-11	CARBON	2.2K 5% 1/4W F
R535	1-249-423-11	CARBON	3.3K 5% 1/4W F
R536	1-249-427-11	CARBON	6.8K 5% 1/4W F
R537	1-249-431-11	CARBON	15K 5% 1/4W (AEP, UK, G, IT, EE)
R590	1-249-417-11	CARBON	1K 5% 1/4W F
< SWITCH >			
S533	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	
S534	1-554-303-21	SWITCH, TACTILE (HIGH SPEED DUBBING)	
S535	1-554-303-21	SWITCH, TACTILE (■)	
S536	1-554-303-21	SWITCH, TACTILE (● REC)	
S537	1-554-303-21	SWITCH, TACTILE (DIRECTION)	
S538	1-554-303-21	SWITCH, TACTILE (DOLBY NR)	 (AEP, UK, G, IT, EE)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4303-513-A	TCB-17 BOARD, COMPLETE (E, AUS, PX, MX, AR) *****		C68	1-162-306-11	CERAMIC	10000PF 30% 16V
		< CAPACITOR >		C69	1-162-306-11	CERAMIC	10000PF 30% 16V
C1	1-162-294-31	CERAMIC	0.001uF 10% 50V	C70	1-162-306-11	CERAMIC	10000PF 30% 16V
C2	1-126-967-11	ELECT	47uF 20% 16V	C71	1-162-306-11	CERAMIC	10000PF 30% 16V
C3	1-164-159-21	CERAMIC	0.1uF 50V				
C5	1-162-306-11	CERAMIC	10000PF 30% 16V	C73	1-162-306-11	CERAMIC	10000PF 30% 16V
C6	1-162-306-11	CERAMIC	10000PF 30% 16V	C74	1-126-964-11	ELECT	10uF 20% 50V
						< FILTER >	
C7	1-101-004-00	CERAMIC	0.01uF 50V	CF1	1-567-389-11	FILTER, CERAMIC	
C8	1-162-306-11	CERAMIC	10000PF 30% 16V	CF2	1-567-389-11	FILTER, CERAMIC	
C9	1-162-306-11	CERAMIC	10000PF 30% 16V			< CONNECTOR >	
C11	1-164-159-21	CERAMIC	0.1uF 50V	* CN1	1-568-832-11	SOCKET, CONNECTOR 13P	
C12	1-162-198-31	CERAMIC	8.2PF 10% 50V			< DIODE >	
C14	1-162-306-11	CERAMIC	10000PF 30% 16V	D1	8-719-933-33	DIODE UZL-6L1-TA	
C21	1-102-959-00	CERAMIC	22PF 5% 50V	D2	8-719-987-63	DIODE 1N4148M-TA	
C22	1-164-159-21	CERAMIC	0.1uF 50V			< FRONTEND >	
C23	1-162-306-11	CERAMIC	10000PF 30% 16V	FE1	1-233-533-11	ENCAPSULATED COMPONENT	
C24	1-126-967-11	ELECT	47uF 20% 16V	FE2	1-239-260-11	ENCAPSULATED COMPONENT	
C25	1-162-306-11	CERAMIC	10000PF 30% 16V			< IC >	
C26	1-126-964-11	ELECT	10uF 20% 50V	IC1	8-759-288-54	IC LC72130	
C27	1-164-159-21	CERAMIC	0.1uF 50V	IC2	8-759-176-03	IC LA1835	
C28	1-124-925-11	ELECT	2.2uF 20% 100V			< IFT >	
C29	1-102-518-11	CERAMIC	33PF 5% 50V	IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
C30	1-162-294-31	CERAMIC	0.001uF 10% 50V			< COIL >	
C31	1-162-306-11	CERAMIC	10000PF 30% 16V	L41	1-410-119-11	MICRO INDUCTOR (EL TYPE)	
C41	1-126-933-11	ELECT	100uF 20% 10V			< TRANSISTOR >	
C42	1-162-306-11	CERAMIC	10000PF 30% 16V	Q1	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4	
C43	1-126-962-11	ELECT	3.3uF 20% 50V	Q2	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4	
C44	1-162-306-11	CERAMIC	10000PF 30% 16V	Q3	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4	
C45	1-124-589-11	ELECT	47uF 20% 16V	Q4	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4	
C46	1-162-600-11	CERAMIC	4700PF 30% 16V	Q5	8-729-422-57	TRANSISTOR BN1A4M-TP	
C47	1-162-294-31	CERAMIC	0.001uF 10% 50V			< RESISTOR >	
C48	1-126-160-11	ELECT	1uF 20% 50V	R1	1-249-401-11	CARBON 47 5% 1/4W F	
C49	1-136-159-00	METALIZED FILM	0.033uF 5% 50V	R2	1-249-411-11	CARBON 330 5% 1/4W	
C50	1-136-159-00	METALIZED FILM	0.033uF 5% 50V	R3	1-249-411-11	CARBON 330 5% 1/4W	
C53	1-126-964-11	ELECT	10uF 20% 50V	R5	1-249-411-11	CARBON 330 5% 1/4W	
C54	1-126-157-11	ELECT	10uF 20% 16V	R6	1-247-863-91	CARBON 22K 5% 1/4W	
C55	1-126-964-11	ELECT	10uF 20% 50V	R7	1-249-411-11	CARBON 330 5% 1/4W	
C56	1-126-964-11	ELECT	10uF 20% 50V	R8	1-249-411-11	CARBON 330 5% 1/4W	
C57	1-164-159-21	CERAMIC	0.1uF 50V F	R9	1-247-863-91	CARBON 22K 5% 1/4W	
C58	1-162-306-11	CERAMIC	10000PF 30% 16V	R10	1-249-411-11	CARBON 330 5% 1/4W	
C59	1-164-159-21	CERAMIC	0.1uF 50V F				
C61	1-164-159-21	CERAMIC	0.1uF 50V F				
C62	1-126-967-11	ELECT	47uF 20% 16V				
C63	1-164-159-21	CERAMIC	0.1uF 50V F				
C64	1-124-902-00	ELECT	0.47uF 20% 50V				
C65	1-124-903-11	ELECT	1.0uF 20% 50V				
C66	1-124-903-11	ELECT	1.0uF 20% 50V				
C67	1-126-964-11	ELECT	10uF 20% 50V				

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R11	1-247-863-91	CARBON	22K 5% 1/4W	*****			
R12	1-249-411-11	CARBON	330 5% 1/4W	*	A-4303-502-A	TCB-17 BOARD, COMPLETE (AEP, UK)	
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	*	A-4303-503-A	TCB-17 BOARD, COMPLETE (IT, G)	
R16	1-249-437-11	CARBON	47K 5% 1/4W	*****			
R19	1-249-399-11	CARBON	33 5% 1/4W F	*	A-4303-504-A	TCB-17 BOARD, COMPLETE (EE)	
R21	1-247-807-31	CARBON	100 5% 1/4W	*****			
R22	1-249-425-11	CARBON	4.7K 5% 1/4W F			< CAPACITOR >	
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	C1	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
R26	1-249-411-11	CARBON	330 5% 1/4W	C2	1-126-967-11	ELECT 47uF 20% 16V	
R27	1-249-425-11	CARBON	4.7K 5% 1/4W F	C3	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
R28	1-249-423-11	CARBON	3.3K 5% 1/4W F	C5	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
R29	1-249-417-11	CARBON	1K 5% 1/4W F	C6	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
R30	1-249-417-11	CARBON	1K 5% 1/4W F	C7	1-101-004-00	CERAMIC 0.01uF 50V (EE)	
R31	1-249-417-11	CARBON	1K 5% 1/4W F	C8	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
R32	1-249-417-11	CARBON	1K 5% 1/4W F	C9	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
R33	1-247-807-31	CARBON	100 5% 1/4W	C10	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
R34	1-249-429-11	CARBON	10K 5% 1/4W	C16	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
R35	1-249-429-11	CARBON	10K 5% 1/4W	C19	1-163-249-11	CERAMIC CHIP 82PF 5% 50V (AEP, UK, EE)	
R36	1-249-437-11	CARBON	47K 5% 1/4W	C21	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
R37	1-249-417-11	CARBON	1K 5% 1/4W F	C22	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
R41	1-249-429-11	CARBON	10K 5% 1/4W	C23	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
R43	1-249-421-11	CARBON	2.2K 5% 1/4W	C24	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
R44	1-249-421-11	CARBON	2.2K 5% 1/4W	C26	1-126-967-11	ELECT 47uF 20% 16V	
R46	1-249-442-11	CARBON	510 5% 1/4W	C28	1-126-967-11	ELECT 47uF 20% 16V	
R47	1-249-403-11	CARBON	68 5% 1/4W F	C29	1-162-306-11	CERAMIC 0.01uF 30% 16V	
R48	1-249-423-11	CARBON	3.3K 5% 1/4W F	C30	1-124-925-11	ELECT 2.2uF 20% 100V	
R49	1-249-393-11	CARBON	10 5% 1/4W F	C31	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
R50	1-249-429-11	CARBON	10K 5% 1/4W	C32	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
R51	1-249-441-11	CARBON	100K 5% 1/4W	C33	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
R52	1-249-429-11	CARBON	10K 5% 1/4W	C34	1-163-091-00	CERAMIC CHIP 8PF 50V (G, IT)	
R53	1-249-425-11	CARBON	4.7K 5% 1/4W F	C34	1-163-229-11	CERAMIC CHIP 12PF 5% 50V (AEP, UK, EE)	
R54	1-249-425-11	CARBON	4.7K 5% 1/4W F	C35	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
		< VARIABLE RESISTOR >		C36	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
RV41	1-238-600-11	RES, ADJ, CARBON 10K		C37	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
RV42	1-238-601-11	RES, ADJ, CARBON 22K		C39	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
		< TERMINAL >		C40	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
				C41	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
TM1	1-537-238-21	TERMINAL BOARD (ANTENNA)		C42	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
		< VIBRATOR >		C43	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)		C44	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
X41	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)		C45	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
X42	1-760-220-11	FILTER, CERAMIC (10.7MHz)		C46	1-163-077-00	CERAMIC CHIP 0.1uF 10% 25V	
X43	1-527-981-00	FILTER, CERAMIC (450KHz)		C47	1-126-967-11	ELECT 47uF 20% 16V	
				C48	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
				C49	1-124-902-00	ELECT 0.47uF 20% 50V	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C50	1-124-903-11	ELECT	1.0uF 20% 50V			< IFT >	
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 (EE)				
C60	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V (EE)				
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 (AEP, UK, G, IT)				
C64	1-126-967-11	ELECT	47uF 20% 16V				
C65	1-163-031-11	CERAMIC CHIP	0.01uF 50V				
C66	1-126-162-11	ELECT	3.3uF 20% 50V				
C67	1-126-933-11	ELECT	100uF 20% 10V				
C68	1-162-306-11	CERAMIC	0.01uF 30% 16V				
C71	1-162-306-11	CERAMIC	0.01uF 30% 16V				
C72	1-126-967-11	ELECT	47uF 20% 16V				
C120	1-163-105-00	CERAMIC CHIP	33PF 5% 50V (AEP, UK, EE)				
		< FILTER >					
CF1	1-567-389-11	FILTER, CERAMIC (EE)					
CF1	1-579-374-71	FILTER, CERAMIC (AEP, UK, G, IT)					
CF2	1-760-393-11	FILTER, CERAMIC (AEP, UK, G, IT)					
CF3	1-567-389-11	FILTER, CERAMIC (EE)					
CF3	1-760-393-11	FILTER, CERAMIC (AEP, UK, G, IT)					
		< CONNECTOR >					
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P					
		< DIODE >					
D21	8-719-976-XX	DIODE UDZ-TE-17-5.1B					
D41	8-719-016-74	DIODE 1SS352-TPH3					
		< FRONTEND >					
FE1	1-233-542-11	FRONT END (4 GANG) (AEP, UK, G, IT)					
FE1	1-693-335-11	FRONT END (3 GANG) (EE)					
FE2	1-233-514-11	ENCAPSULATED COMPONENT (AEP, UK, EE)					
FE2	1-239-260-11	ENCAPSULATED COMPONENT (G, IT)					
		< IC >					
IC21	8-759-288-54	IC LC72130					
IC41	8-759-176-03	IC LA1835					
		< JUMPER RESISTOR >					
JR1	1-216-295-11	METAL CHIP	0 5% 1/10W (G, IT)				
JR2	1-216-295-11	METAL CHIP	0 5% 1/10W (AEP, UK, EE)				
JR3	1-216-295-11	METAL CHIP	0 5% 1/10W (G, IT)				
JR6	1-216-295-11	METAL CHIP	0 5% 1/10W (AEP, UK, G, IT)				
JR7	1-216-295-11	METAL CHIP	0 5% 1/10W (G, IT)				
JR8	1-216-295-11	METAL CHIP	0 5% 1/10W (AEP, UK, EE)				
JR9	1-216-295-11	METAL CHIP	0 5% 1/10W (AEP, UK, EE)				
JR45	1-216-295-11	METAL CHIP	0 5% 1/10W				
JR46	1-216-296-11	METAL CHIP	0 5% 1/8W				
JR47	1-216-295-11	METAL CHIP	0 5% 1/10W				
JR48	1-216-295-11	METAL CHIP	0 5% 1/10W				
JR49	1-216-296-11	METAL CHIP	0 5% 1/8W				
JR51	1-216-295-11	METAL CHIP	0 5% 1/10W				
JR52	1-216-295-11	METAL CHIP	0 5% 1/10W				
JR53	1-216-296-11	METAL CHIP	0 5% 1/8W				
JR54	1-216-295-11	METAL CHIP	0 5% 1/10W				
		< JUMPER RESISTOR >					
JW4	1-249-413-11	CARBON	470 5% 1/4W (AEP, UK, G, IT)				
JW5	1-249-413-11	CARBON	470 5% 1/4W (AEP, UK, G, IT)				
		< COIL >					
L2	1-414-142-11	MICRO INDUCTOR 1uH (AEP, UK, G, IT)					
L3	1-410-521-11	MICRO INDUCTOR 100uH					
L4	1-410-515-11	INDUCTOR 33uH (AEP, UK, G, IT)					
L41	1-407-500-00	MICRO INDUCTOR 4.7mH (AEP, UK, EE)					
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH (G, IT)					
		< 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	8-729-422-57	TRANSISTOR MUN2111					
Q9	8-729-216-22	TRANSISTOR 2SA812-M5M6 (AEP, UK, EE)					
Q11	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)					
Q12	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)					
Q13	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)					
Q14	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE)					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< RESISTOR >				< VARIABLE RESISTOR >			
R1	1-249-401-11	CARBON	47 5% 1/4W F	RV41	1-238-601-11	RES, ADJ, CARBON 22K	
R2	1-216-037-00	METAL CHIP	330 5% 1/10W	RV42	1-238-600-11	RES, ADJ, CARBON 10K	
R3	1-216-037-00	METAL CHIP	330 5% 1/10W	< TERMINAL >			
R5	1-216-037-00	METAL CHIP	330 5% 1/10W	TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)	
R6	1-216-081-00	METAL CHIP	22K 5% 1/10W	< VIBRATOR >			
R7	1-216-037-00	METAL CHIP	330 5% 1/10W	X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)	
R8	1-216-037-00	METAL CHIP	330 5% 1/10W	X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)	
R9	1-216-081-00	METAL CHIP	22K 5% 1/10W	X42	1-527-981-00	FILTER, CERAMIC (450KHz)	
R10	1-216-037-00	METAL CHIP	330 5% 1/10W	X43	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)	
R11	1-216-081-00	METAL CHIP	22K 5% 1/10W	*****			
R12	1-216-037-00	METAL CHIP	330 5% 1/10W	*	1-659-218-11	TRANS BOARD	
R13	1-216-037-00	METAL CHIP	330 5% 1/10W	*****			
R14	1-216-081-00	METAL CHIP	22K 5% 1/10W	< CAPACITOR >			
R18	1-216-073-00	METAL CHIP	10K 5% 1/10W (AEP, UK, EE)	CV1600	1-164-159-21	CERAMIC 0.1uF	50V
R19	1-216-073-00	METAL CHIP	10K 5% 1/10W (AEP, UK, EE)	< CONNECTOR >			
R21	1-216-049-11	METAL CHIP	1.0K 5% 1/10W	* CN1601	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P (AUS, MX)	
R22	1-216-049-11	METAL CHIP	1.0K 5% 1/10W	CN1601	1-774-108-11	PIN, CONNECTOR (PC BOARD)	
R23	1-216-049-11	METAL CHIP	1.0K 5% 1/10W	(AEP, UK, G, IT, EE, E, PX, AR)			
R24	1-216-025-11	METAL CHIP	100 5% 1/10W	CN1604	1-564-524-11	PLUG, CONNECTOR 9P	
R25	1-249-417-11	CARBON	1K 5% 1/4W F	< FUSE >			
R26	1-249-437-11	CARBON	47K 5% 1/4W	△F1603	1-532-350-00	FUSE (T4A 250V) (E, PX, MX, AR)	
R27	1-249-429-11	CARBON	10K 5% 1/4W	△F1604	1-532-259-00	FUSE (T1.6A 250V)	
R28	1-249-417-11	CARBON	1K 5% 1/4W F	(AEP, UK, G, IT, EE, E, AUS, PX, AR)			
R29	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	< FUSE HOLDER >			
R30	1-216-186-00	METAL CHIP	330 5% 1/8W	FH1601	1-533-217-31	HOLDER, FUSE (E, PX, AR)	
R31	1-216-025-11	METAL CHIP	100 5% 1/10W	FH1602	1-533-217-31	HOLDER, FUSE (E, PX, AR)	
R32	1-249-425-11	CARBON	4.7K 5% 1/4W F	FH1603	1-533-217-31	HOLDER, FUSE	
R33	1-249-425-11	CARBON	4.7K 5% 1/4W F	FH1604	1-533-217-31	HOLDER, FUSE	
R34	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	< RESISTOR >			
R35	1-216-214-00	METAL CHIP	4.7K 5% 1/8W	△R1601	1-219-139-11	FUSIBLE 0.68 5% 1/4W F	
R36	1-216-025-11	METAL CHIP	100 5% 1/10W	△R1602	1-219-136-11	FUSIBLE 0.22 5% 1/4W F	
R37	1-216-073-00	METAL CHIP	10K 5% 1/10W	△R1603	1-219-136-11	FUSIBLE 0.22 5% 1/4W F	
R38	1-216-089-11	METAL CHIP	47K 5% 1/10W	< TRANSFORMER >			
R39	1-249-429-11	CARBON	10K 5% 1/4W	△T1001	1-429-343-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE)	
R42	1-216-073-00	METAL CHIP	10K 5% 1/10W	△T1001	1-429-345-11	TRANSFORMER, POWER (E, AUS, PX, MX, AR)	
R43	1-216-042-00	METAL CHIP	510 5% 1/10W	< SWITCH >			
R44	1-216-021-00	METAL CHIP	68 5% 1/10W	△VS1601	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE	
R45	1-249-423-11	CARBON	3.3K 5% 1/4W F	(VOLTAGE SELECTOR) (E, PX, AR)			
R46	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R47	1-216-097-11	METAL CHIP	100K 5% 1/10W				
R48	1-249-417-11	CARBON	1K 5% 1/4W F				
R49	1-216-049-11	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	1-216-295-11	METAL CHIP	0 5% 1/10W (AEP, UK, EE)				
R92	1-216-073-00	METAL CHIP	10K 5% 1/10W (AEP, UK, EE)				

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

		MISCELLANEOUS	

154	1-769-977-11	WIRE (FLAT TYPE) (13 CORE) (E, AUS, PX, MX, AR)	
154	1-773-009-11	WIRE (FLAT TYPE) (15 CORE) (AEP, UK, G, IT, EE)	
155	1-765-325-11	WIRE (FLAT TYPE) (11 CORE)	
156	1-776-265-11	WIRE (FLAT TYPE)	
157	1-765-338-11	WIRE (FLAT TYPE) (21 CORE)	
158	1-773-119-11	WIRE (FLAT TYPE) (19 CORE) (AEP, UK, G, IT, EE)	
158	1-773-154-11	WIRE (FLAT TYPE) (21 CORE) (E, AUS, PX, MX, AR)	
△160	1-569-007-11	ADAPTER, CONVERSION 2P (PX)	
* 357	1-452-538-11	MAGNET	
△401	8-848-387-01	OPTICAL PICK-UP KSS-213BA/S-N	
402	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
△CNP16011-558-943-41		CORD, POWER (E, PX, MX)	
△CNP16011-575-651-21		CORD, POWER (AEP, G, IT, EE, AR)	
△CNP16011-696-845-11		CORD, POWER (AUS)	
△CNP16011-751-529-11		CORD, POWER (UK)	
△F1603	1-532-350-00	FUSE (T4A, 250V) (E, PX, MX, AR)	
△F1604	1-532-259-00	FUSE (T1.6A, 250V) (AEP, UK, E, AUS, PX, G, IT, EE, AR)	
FL501	1-517-490-21	INDICATOR TUBU, FLUORESCENT	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE1011-500-094-11		HEAD, MAGNETIC (REC/PB/ERASE)	
M1	X-2004-409-1	MOTOR ASSY (CAPSTAN)	
M2	X-2004-410-1	MOTOR ASSY (TRIGGER)	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
△T1001	1-429-343-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE)	
△T1001	1-429-345-11	TRANSFORMER, POWER (E, AUS, PX, MX, AR)	

ACCESSORIES & PACKING MATERIALS

1-501-374-11	ANTENNA, LOOP
1-501-659-41	ANTENNA (FM) (E, AUS, PX, MX, AR)
1-501-804-11	ANTENNA (FM) (AEP, UK, IT, EE)
3-810-802-11	MANUAL, INSTRUCTION (ENGLISH) (UK)
3-810-802-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
3-810-802-31	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)
3-810-802-51	MANUAL, INSTRUCTION (GERMAN) (G)
3-810-802-61	MANUAL, INSTRUCTION (ENGLISH, POLISH, RUSSIAN) (EE)

Ref. No.	Part No.	Description	Remark
	3-810-803-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE) (E, AUS, PX, AR)	
	3-810-803-21	MANUAL, INSTRUCTION (SPANISH) (MX)	
	4-979-306-01	INDIVIDUAL CARTON (AUS, PX)	
	4-979-307-01	INDIVIDUAL CARTON (E, MX, AR)	
*	4-979-309-01	INDIVIDUAL CARTON (AEP, UK, G, IT, EE)	
	4-979-371-01	COVER, BATTERY (for RM-SD50)	
*	4-979-431-01	CUSHION (BOTTOM)	
*	4-980-140-01	CUSHION (UPPER)	
	4-981-440-01	LABEL (PTT) (IT)	
	8-917-537-90	REMOCON RM-SD50	

HARDWARE LIST

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-682-548-04	SCREW +BVTT 3X8 (S)
#3	7-685-871-01	SCREW +BVTT 3X6 (S)
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
#5	7-621-770-67	SCREW +BVTT 2.6X6 (S)
#6	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S
#7	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
#8	7-621-775-10	SCREW +B 2.6X4
#9	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
#10	7-623-921-01	RING, RETAINING, CAPSTAN
#11	7-621-775-00	SCREW +B 2.6X3
#12	7-621-255-15	SCREW +P 2X3

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

HCD-N455

SONY

SERVICE MANUAL

*AEP Model
UK Model
E Model
Australian Model
PX Model*

SUPPLEMENT-1


File this supplement with the service manual.

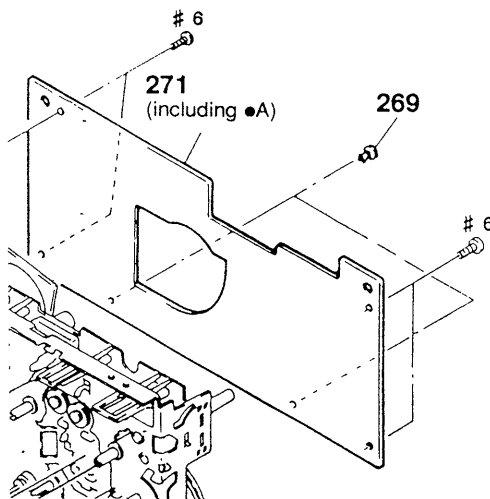
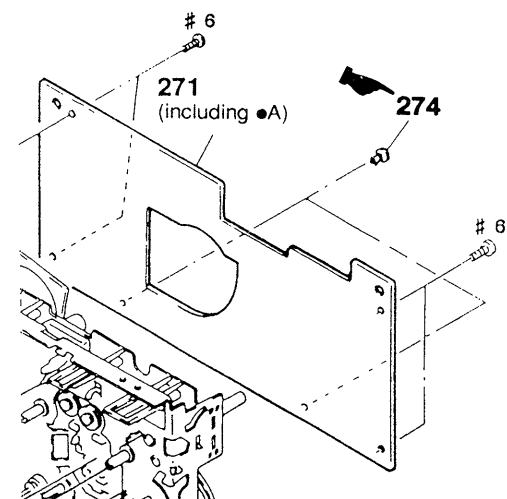
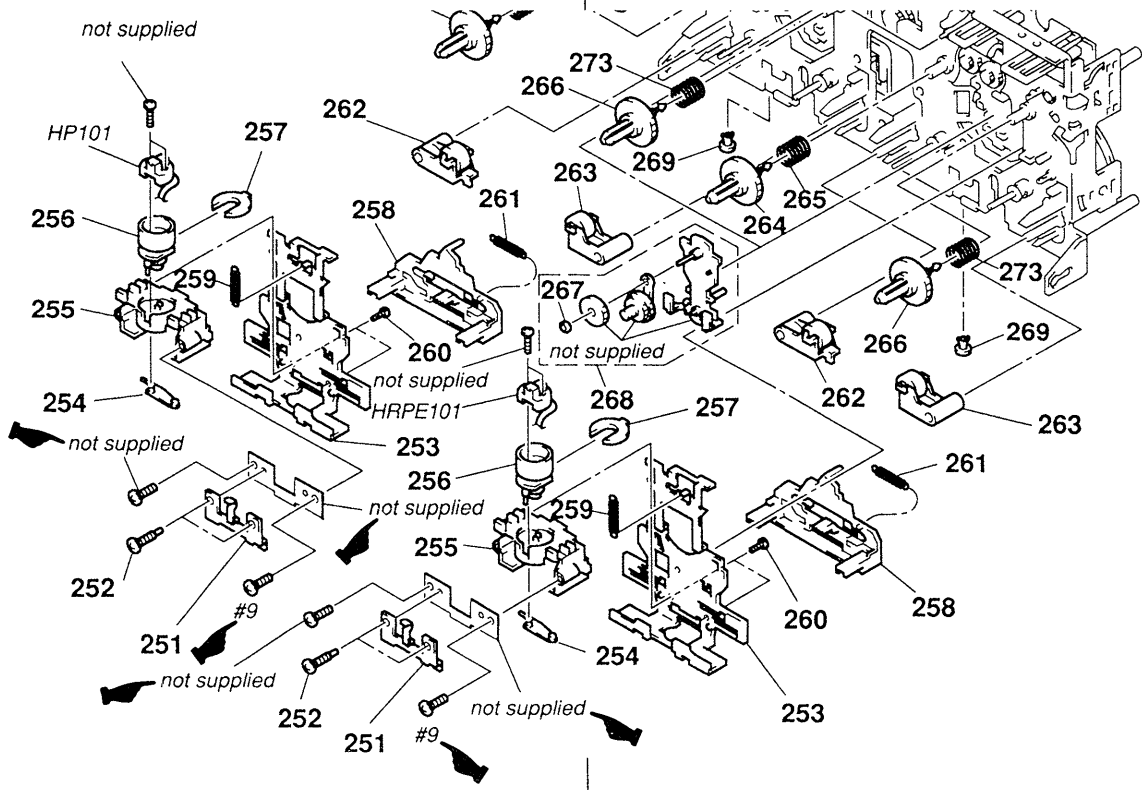
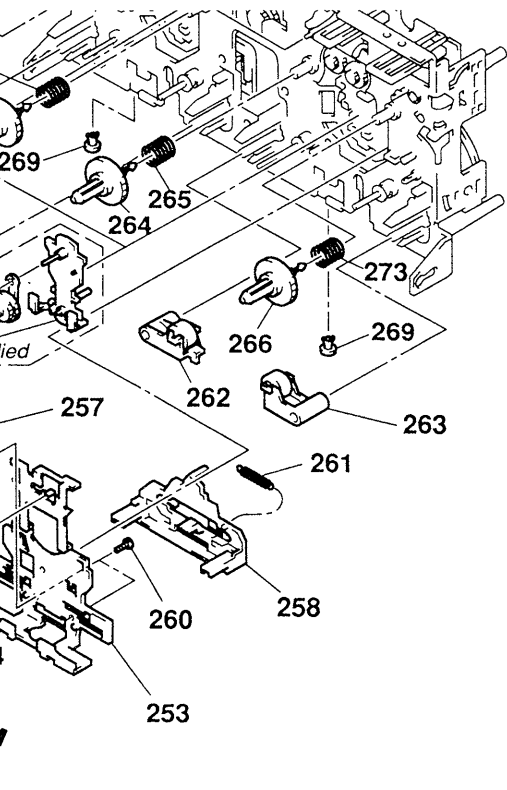
**Subject : 1. CORRECTION
2. SERVICING NOTE ADDITION
3. PARTS CHANGED
4. BOARD CHANGED**




(ECN-TA600653)

1. CORRECTION

• Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT				CORRECT			
88	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
			*** EXPLODED VIEWS ***				*** EXPLODED VIEWS ***	
								
								
89	319	3-914-111-01	SPRING (FR), TORSION		319	3-911-114-01	SPRING (FR), TORSION	

Page	INCORRECT					CORRECT						
	Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark			
96	*** ELECTRICAL PARTS LIST *** *** MAIN BOARD *** C805 1-124-252-00 ELECT 0.33uF 20% 50V (E,AUS,PX,MX,AR) C855 1-124-252-00 ELECT 0.33uF 20% 50V (E,AUS,PX,MX,AR)					*** ELECTRICAL PARTS LIST *** *** MAIN BOARD *** _____ _____						
100	R740	1-249-425-11	CARBON	4.7K	5%	1/4W F (E,MX,AR)	R740	1-247-843-11	CARBON	3.3K	5%	1/4W F (E,MX,AR)
	R741	1-249-427-11	CARBON	6.8K	5%	1/4W F (E,MX,AR,EE)	R741	1-249-423-11	CARBON	10K	5%	1/4W F (E,MX,AR)
							R741	1-249-427-11	CARBON	6.8K	5%	1/4W F (EE)
101	_____					R903	1-249-437-11	CARBON	47K	5%	1/4W	
106	A-4389-210-A	POWER AMP BOARD, COMPLETE			(AEP,UK,G,IT,EE)	* 	A-4389-210-A	POWER AMP BOARD, COMPLETE			(AEP,UK,G,IT,EE)	
	A-4389-212-A	POWER AMP BOARD, COMPLETE			(E,AUS,PX,MX,AR)	* 	A-4389-212-A	POWER AMP BOARD, COMPLETE			(E,AUS,PX,MX,AR)	
	1-537-770-21	TERMINAL BOARD, GROUND				* 	1-537-738-21	TERMINAL, EARTH				
	C1348	1-136-495-11	FILM	0.068uF	5%	50V (AEP,UK,G,IT,EE)	_____					
	C1349	1-136-495-11	FILM	0.068uF	5%	50V (AEP,UK,G,IT,EE)	_____					
	C1398	1-136-495-11	FILM	0.068uF	5%	50V (AEP,UK,G,IT,EE)	_____					
	C1399	1-136-495-11	FILM	0.068uF	5%	50V (AEP,UK,G,IT,EE)	_____					
	C1492	1-136-157-00	FILM	0.022uF	5%	50V (AEP,UK,G,IT,EE)	_____					

- Abbreviation
 - G : German model
 - IT : Italian model
 - EE : East European model
 - MX : Mexican model
 - AUS : Australian model
 - AR : Argentine model

ELECTRICAL ADJUSTMENTS CORRECTION

• Correct your service manual as shown below.

 : indicates corrected portion.

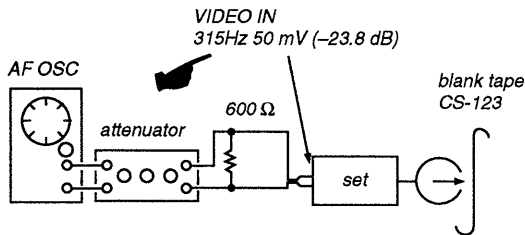
DECK SECTION

Record Bias Adjustment **DECK B** — Page 12 —

Record Level Adjustment **DECK B** — Page 12 —

Procedure:

1. Set function to VIDEO.
2. Mode : record

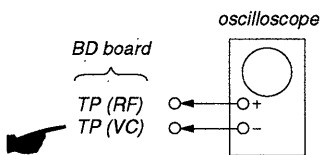


CD SECTION — Page 14 —

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 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Adjust the focus bias adjustment when optical block is replaced.

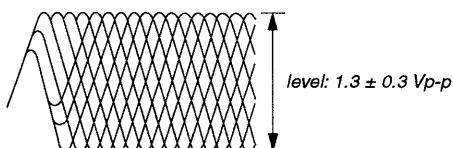
Focus Bias Adjustment



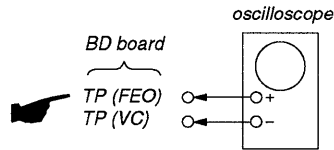
Procedure:

1. Connect oscilloscope to test point TP (RF).
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



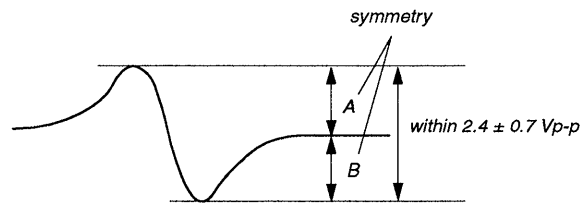
S Curve Check



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 ± 0.7 Vp-p.

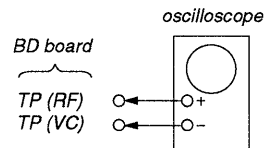
S-curve waveform



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

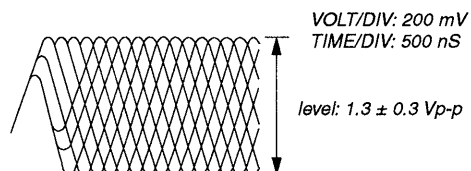


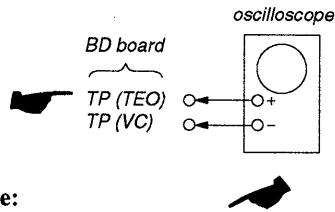
Procedure :

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

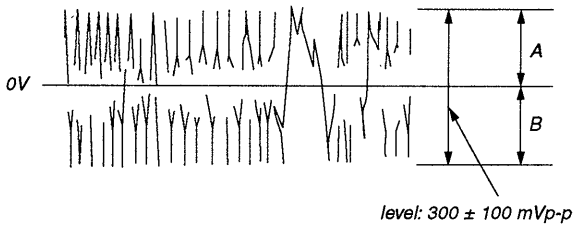




Procedure:

1. Connect test point TP703 (ADJ2) 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.

Traverse waveform



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

• $A + B = 300 \pm 100 \text{ mVp-p}$

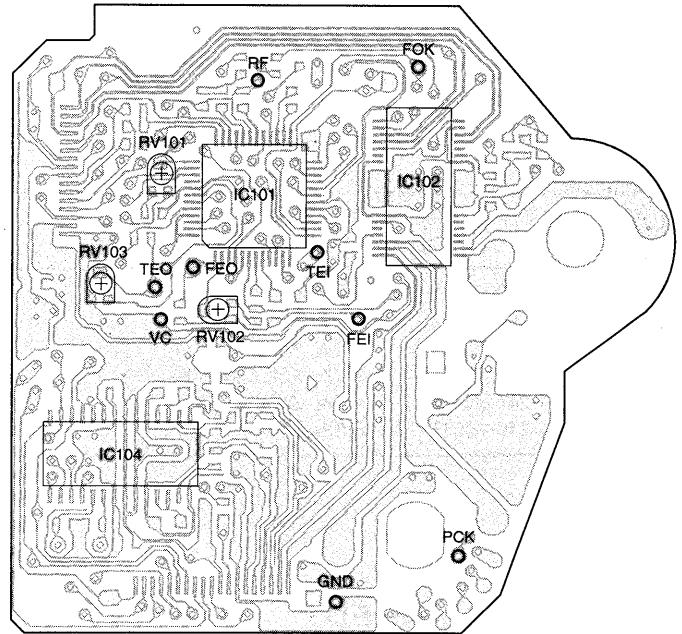
6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

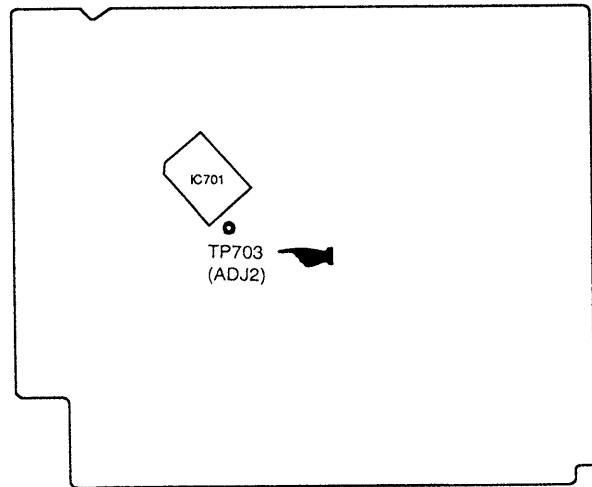
This gain has a margin, so even if it is slightly off. There is no problem. Therefore, do not perform this adjustment. Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location:

[BD BOARD] — Component Side —



[MAIN BOARD] — Conductor Side —



2. SERVICING NOTE ADDITION

How to reset all


Pressing the **TUNER/BAND**, **DISPLAY/DEMO** and **FILE 3** buttons simultaneously, all are reset and returned to as when the unit was shipped.

Note for replacement of microprocessor (IC701)

R740 and R741 on the Main board for changing destination differ the fixed numbers in comparison with new and former microprocessors (IC701).

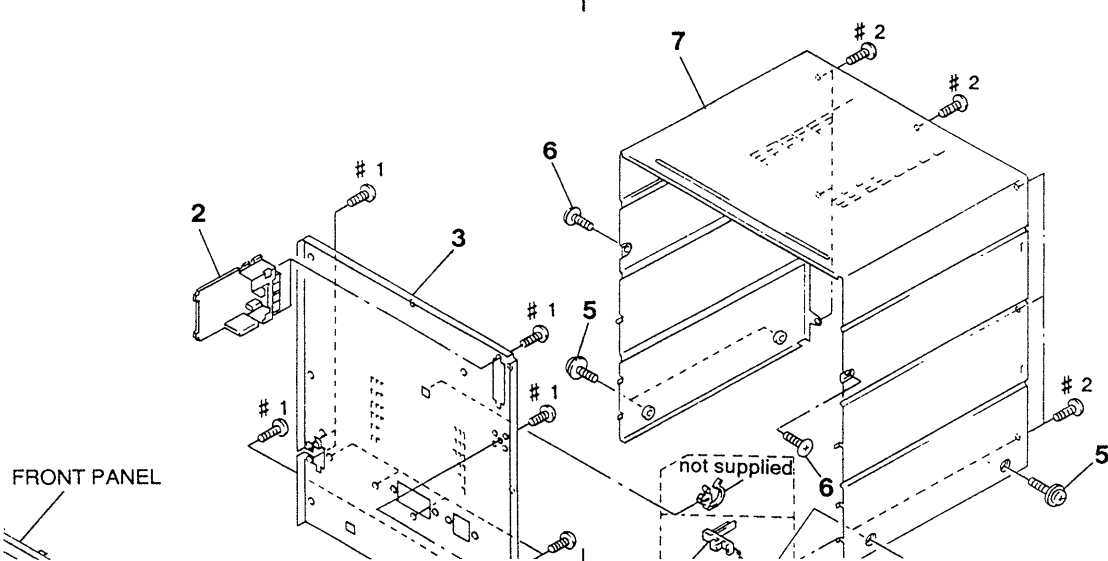
FORMER TYPE : Set for use TMP87CS64YF-6361 to IC701 on the MAIN board.			NEW TYPE : Set for use TMP87CS64YF-6417 to IC701 on the MAIN board.		
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
IC701	8-759-375-44	IC TMP87CS64YF-6361	IC701	8-759-398-86	IC TMP87CS64YF-6417
R740	1-247-863-91	CARBON 22K (AUS,PX)	R740	1-247-843-11	CARBON 3.3K (AUS,PX)
R740	1-247-843-11	CARBON 3.3K (E,MX,AR)	R740	1-249-425-11	CARBON 4.7K (E,MX,AR)
R741	1-247-863-91	CARBON 22K (AUS,PX)	R741	1-249-429-11	CARBON 10K (AUS,PX)
R741	1-249-423-11	CARBON 10K (E,MX,AR)	R741	1-249-427-11	CARBON 6.8K (E,MX,AR)

3. PARTS CHANGED

 : indicates changed portion.

• Abbreviation

G : German model MX : Mexican model
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Page	FORMER				NEW			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
83	*** EXPLODED VIEWS ***				*** EXPLODED VIEWS ***			
								
84	* 60	A-4389-163-A	PANEL BOARD, COMPLETE (AEP,UK,G,IT,EE)		* 60	A-4389-163-A	PANEL BOARD, COMPLETE (AEP,UK,G,IT)	
					* 60	A-4389-753-A	PANEL BOARD, COMPLETE (EE)	
85	108	4-978-115-11	PANEL FRONT (AEP,UK,G,IT,EE)		108	4-978-115-11	PANEL FRONT (AEP,UK,G,IT)	
	126	4-978-120-01	BUTTON (TUNING)(E,AUS,PX,MX,AR)		108	4-978-115-61	PANEL FRONT (EE)	
	126	4-978-120-11	BUTTON (TUNING)(AEP,UK,G,IT,EE)		126	4-978-120-01	BUTTON (TUNING)(E,EE,AUS,PX,MX,AR)	
					126	4-978-120-11	BUTTON (TUNING)(AEP,UK,G,IT)	

Page	FORMER				NEW			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
86	* 159	A-4378-954-A	MAIN BOARD, COMPLETE (AEP,UK,G,IT)		* 159	A-4378-954-A	MAIN BOARD, COMPLETE (AEP,UK)	
	* 159	A-4378-962-A	MAIN BOARD, COMPLETE (E,AUS,PX,MX,AR)		* 159	A-4390-414-A	MAIN BOARD, COMPLETE (G,IT)	
					* 159	A-4378-962-A	MAIN BOARD, COMPLETE (E,MX,AR)	
					* 159	A-4390-412-A	MAIN BOARD, COMPLETE (AUS,PX)	
	△ F1603	1-532-350-00	FUSE (T4A,250V)(E,PX,MX,AR)		△ F1603	1-532-465-31	FUSE TIME LAG (4A,250V)(E,PX,MX,AR)	
	△ F1604	1-532-259-00	FUSE(T1.6A,250V) (AEP,UK,E,AUS,PX,G,IT,EE,AR)		△ F1604	1-532-503-31	FUSE TIME LAG (1.6A,250V) (AEP,UK,E,AUS,PX,G,IT,EE,AR)	
88	* 253	X-3367-584-2	SLIDER (HEAD) ASSY		* 253	X-3370-844-2	SLIDER (HEAD) ASSY	
	262	X-3370-643-1	PINCH LEVER (REV) ASSY		262	X-3369-909-1	PINCH LEVER (REV) ASSY	
	263	X-3367-588-1	PINCH LEVER (FWD) ASSY		263	X-3369-908-1	PINCH LEVER (FWD) ASSY	
	269	3-911-116-21	RIVET, PUSH		269	3-939-862-01	CLIP	
	274	3-911-116-11	RIVET, PUSH		270	3-938-863-01	STOPPER	

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

Page	FORMER				NEW			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
89	303 318	X-3367-590-2 X-3369-849-2	ARM (A) ASSY, FR ARM (B) ASSY, FR		303 318	X-3372-930-1 X-3372-931-1	ARM (A) ASSY, FR ARM (B) ASSY, FR	
114	<p>*** MISCELLANEOUS ***</p> <hr/> <p>△ F1603 1-532-350-00 FUSE (T4A,250V)(E,PX,MX,AR) △ F1604 1-532-259-00 FUSE (T1.6A,250V) (AEP,UK,E,AUS,PX,G,IT,EE,AR)</p> <p>*** ACCESSORIES & PACKING MATERIALS ***</p> <p>4-979-306-01 INDIVIDUAL CARTON (AUS,PX) 4-981-440-01 LABEL (PTT)(IT)</p>				<p>*** MISCELLANEOUS ***</p> <p>△ 160 1-569-008-11 ADAPTOR, CONVERSION 2P 161 X-4941-228-1 FOOT (F22125H-M) △ F1603 1-532-465-31 FUSE TIME LAG (4A,250V)(E,PX,MX,AR) △ F1604 1-532-503-31 FUSE TIME LAG (1.6A,250V) (AEP,UK,E,AUS,PX,G,IT,EE,AR)</p> <p>*** ACCESSORIES & PACKING MATERIALS ***</p> <p>* 4-979-306-01 INDIVIDUAL CARTON (AUS,PX)</p>			

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Page	FORMER						NEW					
	Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
93	*** ELECTRICAL PARTS LIST ***						*** ELECTRICAL PARTS LIST ***					
	*** CD (L) BOARD ***						*** CD (L) BOARD ***					
	R682	1-249-407-11	CARBON	150	5%	1/4W			JUMPER			
	R683	1-249-407-11	CARBON	150	5%	1/4W			JUMPER			
	R684	1-249-407-11	CARBON	150	5%	1/4W			JUMPER			
94	*** CD (R) BOARD ***						*** CD (R) BOARD ***					
	R675	1-247-807-31	CARBON	100	5%	1/4W			JUMPER			
	R676	1-249-407-11	CARBON	150	5%	1/4W			JUMPER			
	*** CD MOTOR BOARD ***						*** CD MOTOR BOARD ***					
	C202	1-162-306-11	CERAMIC	0.01uF	30%	16V	C202	1-164-159-21	CERAMIC	0.1uF		50V
95	*** DOOR SW BOARD ***						*** DOOR SW BOARD ***					
	* CN519	1-568-940-11	PIN, CONNECTOR 2P				CN519	1-506-481-11	PIN, CONNECTOR 2P			
	*** HP BOARD ***						*** HP BOARD ***					
	C621	1-164-159-21	CERAMIC	0.1uF		50V (AEP,UK,G,IT,EE)	C621	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP,UK,G,IT,EE)
	C622	1-164-159-21	CERAMIC	0.1uF		50V (AEP,UK,G,IT,EE)	C622	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP,UK,G,IT,EE)
	*	A-4378-954-A MAIN BOARD, COMPLETE (AEP,UK,G,IT)					*	A-4378-954-A MAIN BOARD, COMPLETE (AEP,UK)				
	*	A-4378-962-A MAIN BOARD, COMPLETE (E,AUS,PX,MX,AR)					*	A-4390-414-A MAIN BOARD, COMPLETE (G,IT)				
							*	A-4378-962-A MAIN BOARD, COMPLETE (E,MX,AR)				
						*	A-4390-412-A MAIN BOARD, COMPLETE (AUS,PX)					
	C202	1-162-600-11	CERAMIC	0.0047uF	20%	16V	C202	1-162-303-11	CERAMIC	0.0033uF	20%	16V
	C212	1-162-600-11	CERAMIC	0.0047uF	20%	16V	C212	1-162-303-11	CERAMIC	0.0033uF	20%	16V
96	C306	1-124-902-00	ELECT	0.47uF	20%	50V						
	C356	1-124-902-00	ELECT	0.47uF	20%	50V						
	C405	1-126-935-11	ELECT	470uF	20%	16V (AEP,UK,G,IT,EE)	C405	1-126-952-11	ELECT	1000uF	20%	16V
	C707	1-162-206-31	CERAMIC	20PF	5%	50V	C707	1-162-205-31	CERAMIC	18PF	5%	50V
	C708	1-162-206-31	CERAMIC	20PF	5%	50V	C708	1-162-205-31	CERAMIC	18PF	5%	50V
	C805	1-124-925-11	ELECT	2.2uF	20%	100V	C805	1-126-162-11	ELECT	3.3uF	20%	50V
	C855	1-124-925-11	ELECT	2.2uF	20%	100V	C855	1-126-162-11	ELECT	3.3uF	20%	50V
97	C910	1-126-964-11	ELECT	10uF	20%	50V	C910	1-104-665-11	ELECT	100uF	20%	25V
	C915	1-136-153-00	CERAMIC	0.01uF	5%	50V	C915	1-130-481-00	MYLAR	0.0068uF	5%	50V
	C930	1-164-159-21	CERAMIC	0.1uF		50V	C930	1-136-167-00	FILM	0.15uF	5%	50V
	C931	1-162-306-11	CERAMIC	0.01uF	30%	16V	C931	1-162-294-31	CERAMIC	0.001uF	10%	50V
							C934	1-136-161-00	FILM	0.047uF	5%	50V
	C950	1-126-964-11	ELECT	10uF	20%	50V	C950	1-104-665-11	ELECT	100uF	20%	25V
	C965	1-136-153-00	CERAMIC	0.01uF	5%	50V	C965	1-130-481-00	MYLAR	0.0068uF	5%	50V
	C1013	1-126-916-11	ELECT	1000uF	20%	6.3V	C1013	1-104-656-11	ELECT	2200uF	20%	6.3V
	C1021	1-162-306-11	CERAMIC	0.01uF	30%	16V						
	C1832	1-136-167-00	FILM	0.15uF	5%	50V	C1832	1-136-155-00	FILM	0.015uF	5%	50V
	98	D901	8-719-987-63	DIODE 1N4148M				D901	8-719-200-82	DIODE 11ES2		
D1009		8-719-200-82	DIODE 11ES2				D1009	8-719-987-63	DIODE 1N4148M			
D1010		8-719-200-82	DIODE 11ES2				D1010	8-719-987-63	DIODE 1N4148M			
D1012		8-719-013-63	DIODE UZ-30BS				D1012	8-719-011-10	DIODE UZ-30BS-TA			
D1023		8-719-210-21	DIODE 11EQS04				D1023	8-719-200-82	DIODE 11ES2			

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Page	FORMER							NEW						
	Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
98	IC701	8-759-375-44	IC TMP87CS64YF-6361					IC701	8-759-398-86	IC TMP87CS64YF-6417 (NOTE)				
	JP105	1-247-895-91	CARBON 470K	5%	1/4W	(E,AUS,PX,MX,AR)								
	JP105	1-249-429-11	CARBON 10K	5%	1/4W	(AEP,UK,G,IT,EE)								
99	Q952	8-729-141-26	TRANSISTOR 2SC3622A-LK					Q952	8-729-119-78	TRANSISTOR 2SC2785-HFE				
	Q954	8-729-119-78	TRANSISTOR 2SC2785-HFE					Q954	8-729-141-26	TRANSISTOR 2SC3622A-LK				
	R304	1-249-428-11	CARBON 8.2K	5%	1/4W	F	R304	1-249-432-11	CARBON 18K	5%	1/4W			
	R305	1-249-425-11	CARBON 4.7K	5%	1/4W	F	R305	1-249-417-11	CARBON 1K	5%	1/4W			
	R306	1-247-840-00	CARBON 2.4K	5%	1/4W		R306	1-249-420-11	CARBON 1.8K	5%	1/4W	F		
	R354	1-249-428-11	CARBON 8.2K	5%	1/4W	F	R354	1-249-432-11	CARBON 18K	5%	1/4W			
	R355	1-249-425-11	CARBON 4.7K	5%	1/4W	F	R355	1-249-417-11	CARBON 1K	5%	1/4W			
	R356	1-247-840-00	CARBON 2.4K	5%	1/4W		R356	1-249-420-11	CARBON 1.8K	5%	1/4W	F		
	R454	1-247-863-91	CARBON 22K	5%	1/4W		R454	1-249-425-11	CARBON 4.7K	5%	1/4W	F		
	R455	1-247-863-91	CARBON 22K	5%	1/4W		R455	1-249-425-11	CARBON 4.7K	5%	1/4W	F		
	R708	1-249-423-11	CARBON 3.3K	5%	1/4W	F	R708	1-249-429-11	CARBON 10K	5%	1/4W			
100	R740	1-247-863-91	CARBON 22K	5%	1/4W	F	R740	1-247-843-11	CARBON 3.3K	5%	1/4W			
						(AUS,PX)						(AUS,PX)		
	R740	1-247-843-11	CARBON 3.3K	5%	1/4W		R740	1-249-425-11	CARBON 4.7K	5%	1/4W	F		
						(E,MX,AR)						(E,MX,AR) (NOTE)		
	R741	1-247-863-91	CARBON 22K	5%	1/4W	F	R741	1-249-429-11	CARBON 10K	5%	1/4W			
						(AUS,PX)						(AUS,PX) (NOTE)		
	R741	1-249-423-11	CARBON 10K	5%	1/4W	F	R741	1-249-427-11	CARBON 6.8K	5%	1/4W	F		
						(E,MX,AR)						(E,MX,AR) (NOTE)		
	R742	1-249-413-11	CARBON 470	5%	1/4W	F								
	R766	1-247-807-31	CARBON 100	5%	1/4W		JUMPER							
	R767	1-247-807-31	CARBON 100	5%	1/4W		JUMPER							
	R768	1-247-807-31	CARBON 100	5%	1/4W		JUMPER							
	R778	1-249-429-11	CARBON 10K	5%	1/4W	F								
	R804	1-249-419-11	CARBON 1.5K	5%	1/4W	F	R804	1-249-417-11	CARBON 1K	5%	1/4W	F		
	R825	1-247-887-00	CARBON 220K	5%	1/4W									
	R827	1-249-429-11	CARBON 10K	5%	1/4W		R827	1-249-421-11	CARBON 2.2K	5%	1/4W	F		
	R854	1-249-419-11	CARBON 1.5K	5%	1/4W	F	R854	1-249-417-11	CARBON 1K	5%	1/4W	F		
101	R917	1-249-429-11	CARBON 10K	5%	1/4W		R917	1-249-431-11	CARBON 15K	5%	1/4W			
	R930	1-249-429-11	CARBON 10K	5%	1/4W		R930	1-247-863-91	CARBON 22K	5%	1/4W			
	R931	1-249-429-11	CARBON 10K	5%	1/4W		R931	1-247-863-91	CARBON 22K	5%	1/4W			
	R932	1-249-425-11	CARBON 4.7K	5%	1/4W	F	R932	1-249-429-11	CARBON 10K	5%	1/4W			
	R967	1-249-429-11	CARBON 10K	5%	1/4W		R967	1-249-431-11	CARBON 15K	5%	1/4W			
	R1835	1-247-863-91	CARBON 22K	5%	1/4W		R1835	1-249-426-11	CARBON 5.6K	5%	1/4W			
	RV301	1-238-600-11	RES, ADJ, CARBON 10K					RV301	1-238-630-11	RES, ADJ, CARBON 10K				
	RV351	1-238-600-11	RES, ADJ, CARBON 10K					RV351	1-238-630-11	RES, ADJ, CARBON 10K				
102	*** MD BOARD ***							*** MD BOARD ***						
	Q623	8-729-801-93	TRANSISTOR 2SD1387					Q623	8-729-030-18	TRANSISTOR 2SD2525				
103	*** MIC BOARD ***							*** MIC BOARD ***						
	C907	1-124-259-00	ELECT 2.2uF	20%	50V			C907	1-136-160-00	FILM 0.039uF	5%	50V		
	R906	1-249-421-11	CARBON 2.2K	5%	1/4W	F	R906	1-249-417-11	CARBON 1K	5%	1/4W	F		
	R907	1-249-436-11	CARBON 39K	5%	1/4W		R907	1-249-435-11	CARBON 33K	5%	1/4W			
	*	A-4389-163-A	PANEL BOARD, COMPLETE (AEP,UK,G,IT,EE)				*	A-4389-163-A	PANEL BOARD, COMPLETE (AEP,UK,G,IT)					
							*	A-4389-753-A	PANEL BOARD, COMPLETE (EE)					

NOTE : Refer to "Note for replacement of microprocessor (IC701)" on page 6 to replace the IC701,R740 and R741.

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Page	FORMER							NEW						
	Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
103	C501	1-124-465-00	ELECT	0.47uF	20%	50V		C501	1-126-301-11	ELECT	1uF	20%	50V	
	C503	1-124-465-00	ELECT	0.47uF	20%	50V		C503	1-126-301-11	ELECT	1uF	20%	50V	
	C3046	1-126-177-11	ELECT	100uF	20%	10V								
	C3211	1-124-465-00	ELECT	0.47uF	20%	50V		C3211	1-126-301-11	ELECT	1uF	20%	50V	
104	D503	8-719-987-63	DIODE	1N4148M										
105								R3052	1-249-429-11	CARBON	10K	5%	1/4W	
106	S553	1-554-303-21	SWITCH, TACTILE (PTY)(AEP,UK,G,IT,EE)					S553	1-554-303-11	SWITCH, TACTILE (PTY)(AEP,UK,G,IT)				
	*** POWER AMP BOARD ***							*** POWER AMP BOARD ***						
	C1204	1-126-967-11	ELECT	47uF	20%	50V		C1204	1-126-933-11	ELECT	100uF	20%	10V	
	C1247	1-164-159-11	CERAMIC	0.1uF			(AEP,UK,G,IT,EE)	C1247	1-162-306-11	CERAMIC	0.01uF	20%	16V	(AEP,UK,G,IT,EE)
	C1297	1-164-159-11	CERAMIC	0.1uF			(AEP,UK,G,IT,EE)	C1297	1-162-306-11	CERAMIC	0.01uF	20%	16V	(AEP,UK,G,IT,EE)
107	C1354	1-126-967-11	ELECT	47uF	20%	50V		C1354	1-126-933-11	ELECT	100uF	20%	10V	
	C1492	1-164-159-21	CERAMIC	0.1uF			(AEP,UK,G,IT,EE)							
	C1493	1-136-157-00	FILM	0.022uF	5%	50V	(AEP,UK,G,IT,EE)							
	D1251	8-719-987-63	DIODE	1N4148M				D1261	8-719-987-63	DIODE	1N4148M			
	D1402	8-719-987-63	DIODE	1N4148M				D1403	8-719-987-63	DIODE	1N4148M			
	Q1422	8-729-900-65	TRANSISTOR	DTA114ES				Q1422	8-729-422-57	TRANSISTOR	UN4111			
108	R1253	1-249-413-11	CARBON	470	5%	1/4W	F	R1253	1-249-415-11	CARBON	680	5%	1/4W	F
	R1303	1-249-413-11	CARBON	470	5%	1/4W	F	R1303	1-249-415-11	CARBON	680	5%	1/4W	F
	R1422	1-249-425-11	CARBON	4.7K	5%	1/4W	F							
	R1443	1-249-437-11	CARBON	47K	5%	1/4W		R1443	1-249-436-11	CARBON	39K	5%	1/4W	
	R1444	1-249-439-11	CARBON	68K	5%	1/4W		R1444	1-249-438-11	CARBON	56K	5%	1/4W	
109								R1483	1-249-419-11	CARBON	1.5K	5%	1/4W	F
	*** TC CONTROL BOARD ***							*** TC CONTROL BOARD ***						
	D630	8-719-058-03	DIODE	SEL5423E-TP15 (\triangleright)(DECK B)				D630	8-719-032-86	DIODE	SEL5420E (\triangleright)(DECK B)			
	D631	8-719-058-03	DIODE	SEL5423E-TP15 (\triangleleft)(DECK B)				D631	8-719-032-86	DIODE	SEL5420E (\triangleleft)(DECK B)			
	D632	8-719-058-03	DIODE	SEL5423E-TP15 (\triangleright)(DECK A)				D632	8-719-032-86	DIODE	SEL5420E (\triangleright)(DECK A)			
	D633	8-719-058-03	DIODE	SEL5423E-TP15 (\triangleleft)(DECK A)				D633	8-719-032-86	DIODE	SEL5420E (\triangleleft)(DECK A)			
	*** TC SW BOARD ***							*** TC SW BOARD ***						
	* CN503	1-568-945-11	PIN, CONNECTOR 7P					CN503	1-573-734-31	PIN, CONNECTOR 7P				
113														
	*** TRANS BOARD ***							*** TRANS BOARD ***						
								C1601	1-162-306-11	CERAMIC	0.01uF	20%	16V	(AEP,UK,G,IT,EE)
	* CN1601	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P (AUS,MX)					CN1601	1-774-108-11	PIN, CONNECTOR (PC BOARD) 2P (AUS,MX)				
	Δ F1603	1-532-350-00	FUSE (T4A 250V)(E,PX,MX,AR)					Δ F1603	1-532-465-31	FUSE, TIME-LAG (3.15A 250V)(E,PX,MX,AR)				
	Δ F1604	1-532-259-00	FUSE (T1.6A 250V) (AEP,UK,G,IT,EE,E,AUS,PX,AR)					Δ F1604	1-532-503-31	FUSE, TIME-LAG (1.6A 250V) (AEP,UK,G,IT,EE,E,AUS,PX,AR)				
	Δ R1601	1-219-139-11	FUSIBLE	0.68	5%	1/4W	F	Δ R1601	1-219-124-11	FUSIBLE	0.68	5%	1/4W	F
	Δ R1602	1-219-136-11	FUSIBLE	0.22	5%	1/4W	F	Δ R1602	1-219-121-11	FUSIBLE	0.22	5%	1/4W	F
	Δ R1603	1-219-136-11	FUSIBLE	0.22	5%	1/4W	F	Δ R1603	1-219-121-11	FUSIBLE	0.22	5%	1/4W	F

4. BOARD CHANGED

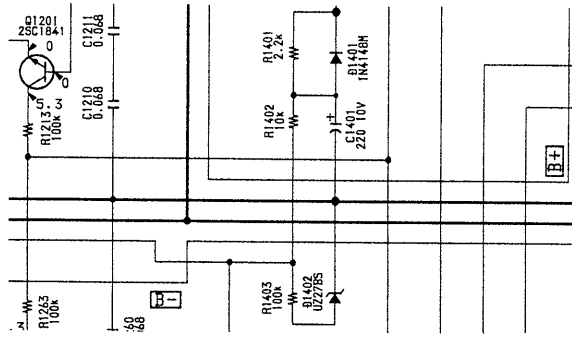
: indicates changed portion.

Page	FORMER	NEW
50	<p>[MAIN BOARD] Location : F-L, 11-16</p> <p style="text-align: right;">I-659-110- [11]</p>	<p>[MAIN BOARD] Location : F-L, 11-16</p> <p style="text-align: right;">I-659-110- [21]</p>
52	<p>[MAIN BOARD] Location : L-N, 14-17</p> <p style="text-align: right;">[12]</p>	<p>[MAIN BOARD] Location : L-N, 14-17</p> <p style="text-align: right;">[12]</p>

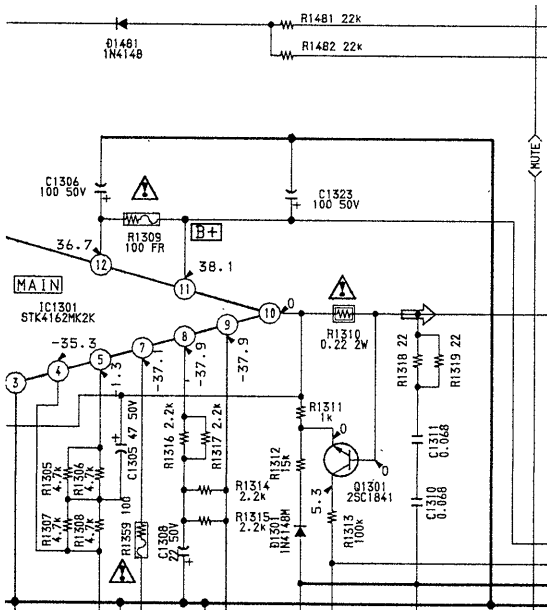
indicates changed portion.

Page **FORMER**

66 **[POWER AMP BOARD]**
Location : F-H, 8-11

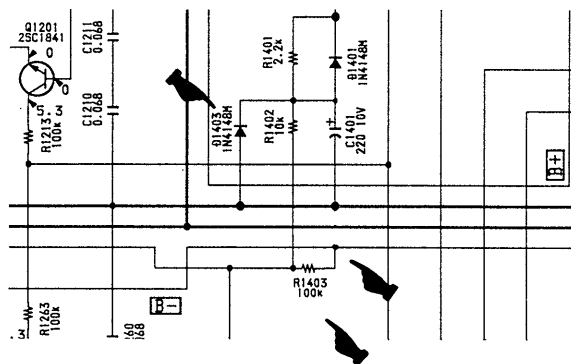


Location : L-O, 7-9

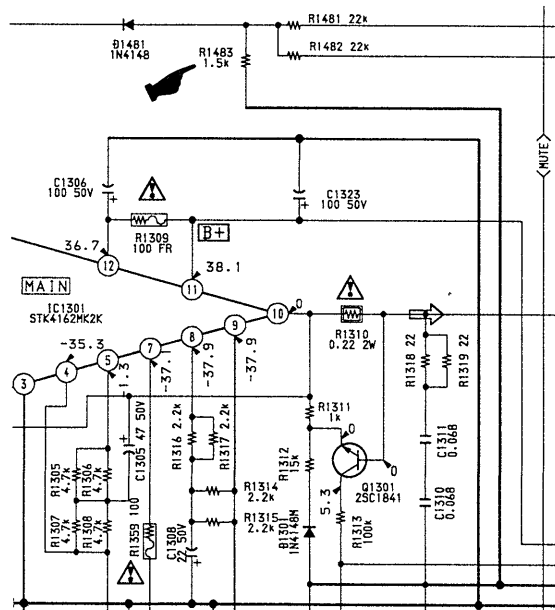


NEW

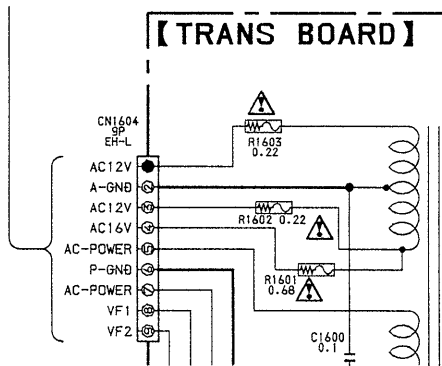
[POWER AMP BOARD]
Location : F-H, 8-11



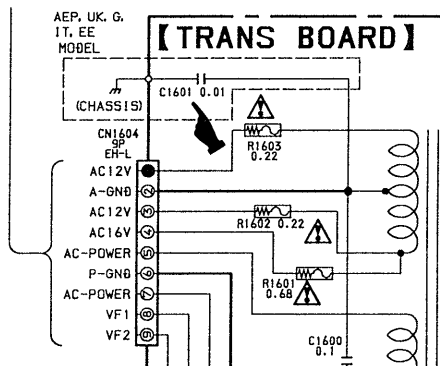
Location : L-O, 7-9



67 **[TRANS BOARD]**
Location : B-D, 19-22



[TRANS BOARD]
Location : B-D, 19-22

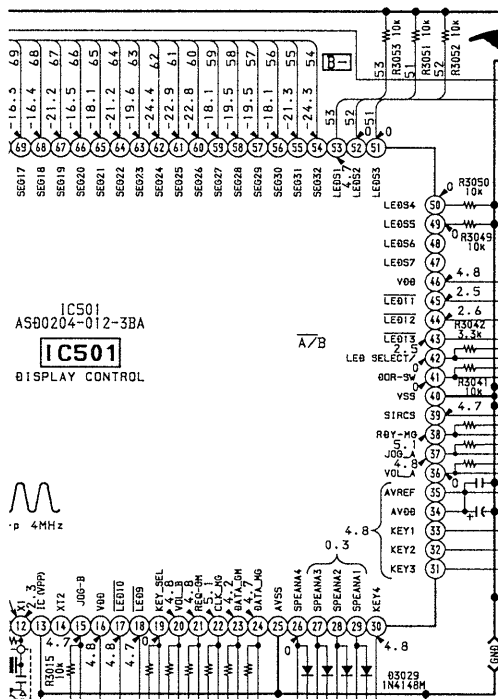
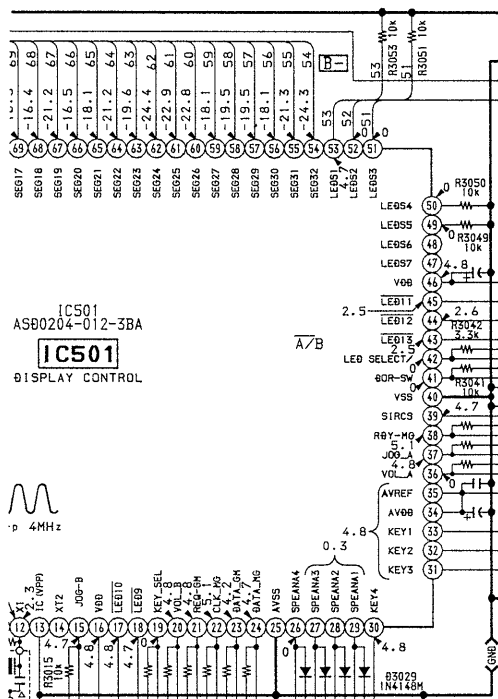


[PANEL BOARD]

Location : D-H, 14-17

[PANEL BOARD]

Location : D-H, 14-17

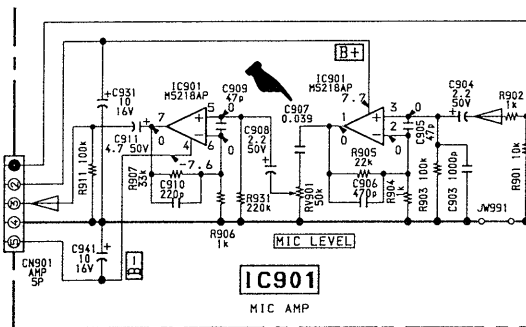
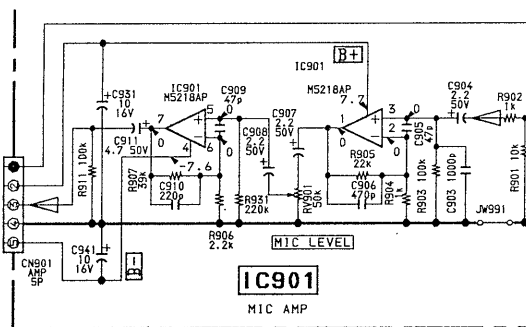



[MIC BOARD]

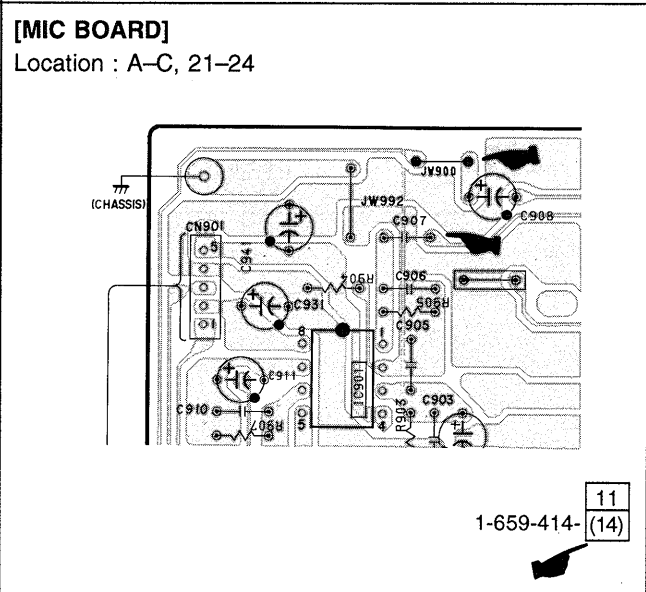
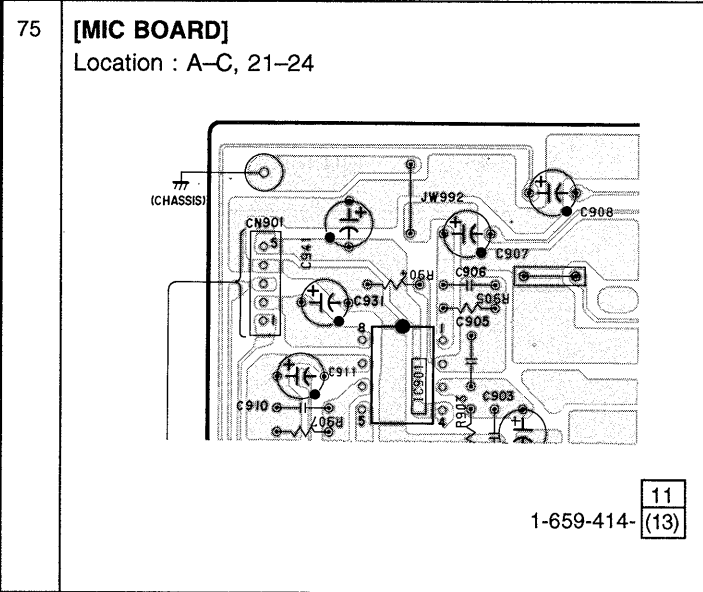
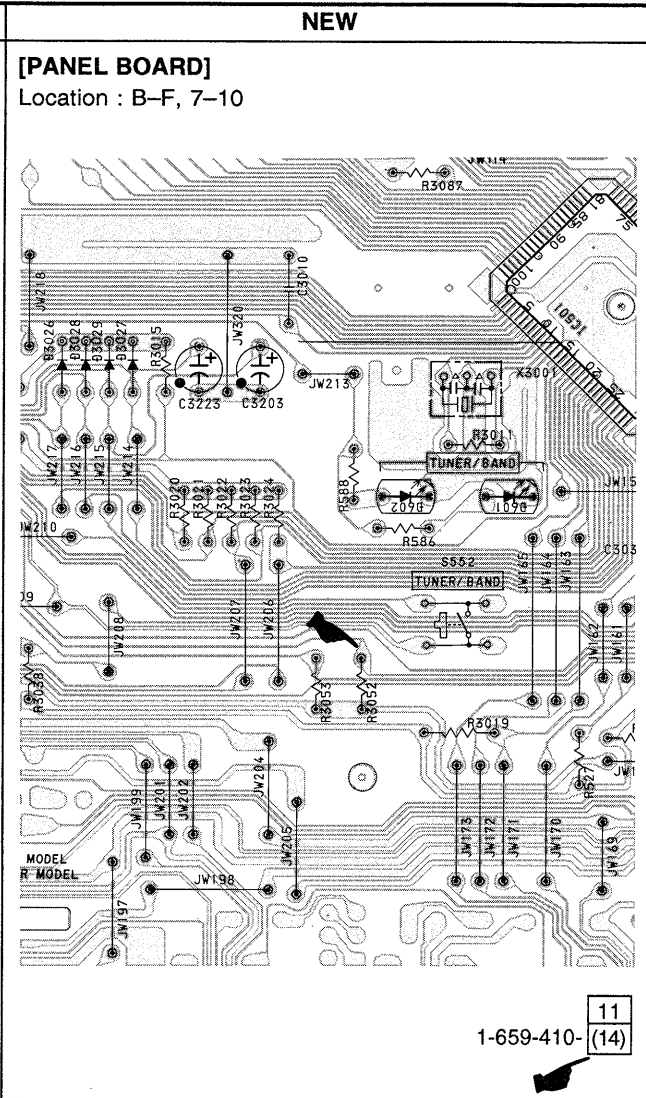
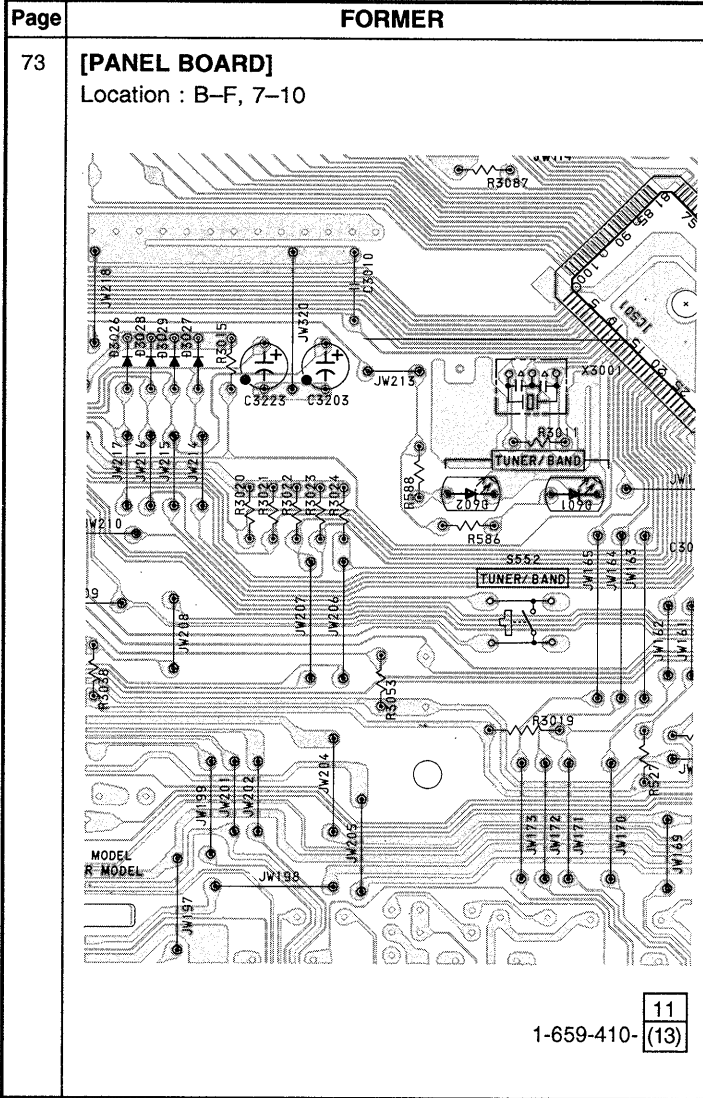
Location : H-I, 25-28

[MIC BOARD]

Location : H-I, 25-28



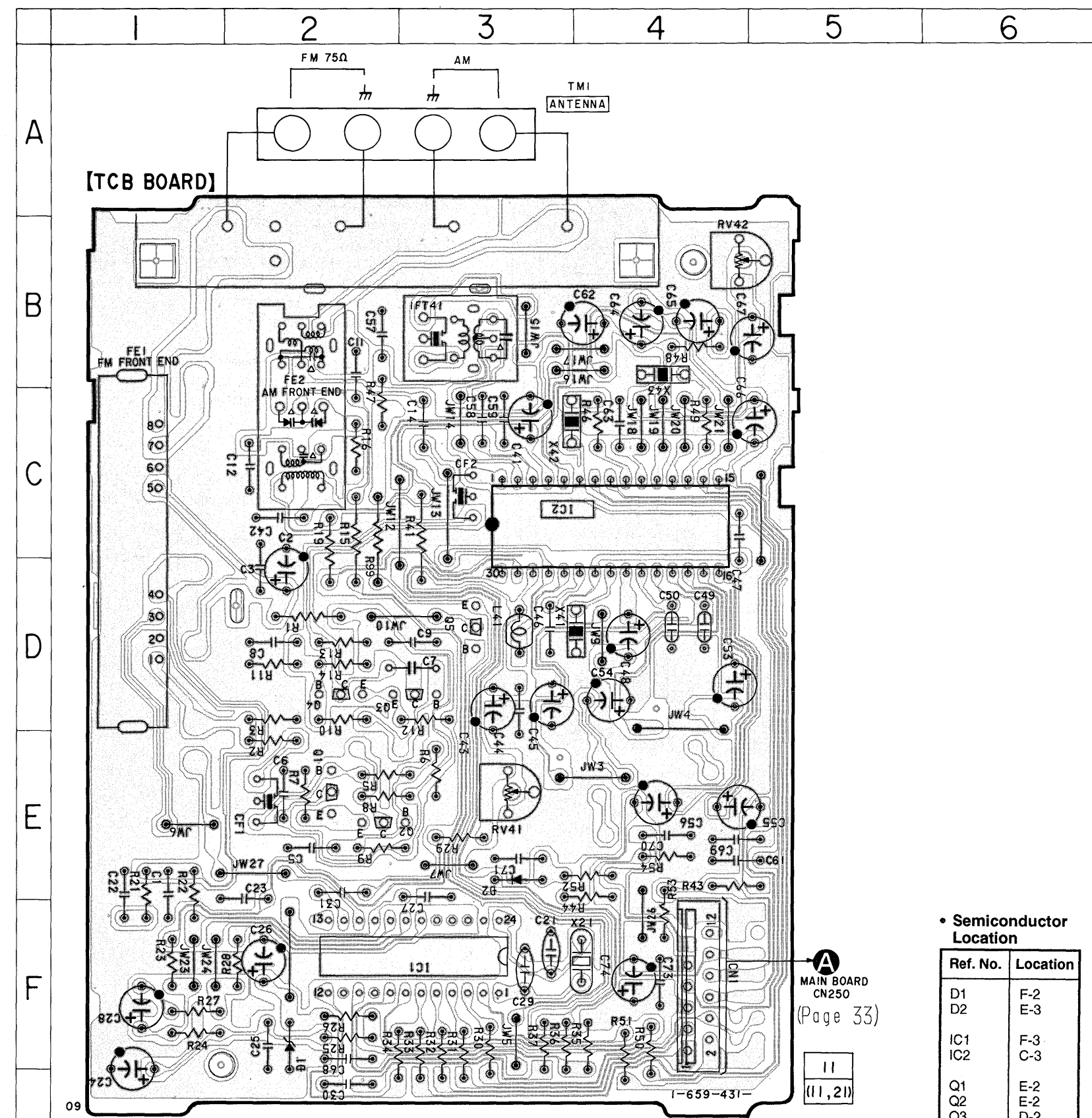
 : indicates changed portion.



TCB BOARD CHANGED (E, AUS, MX, PX, AR MODEL)

• The TCB board was renewed with a change of parts, please look at this.

PRINTED WIRING BOARD

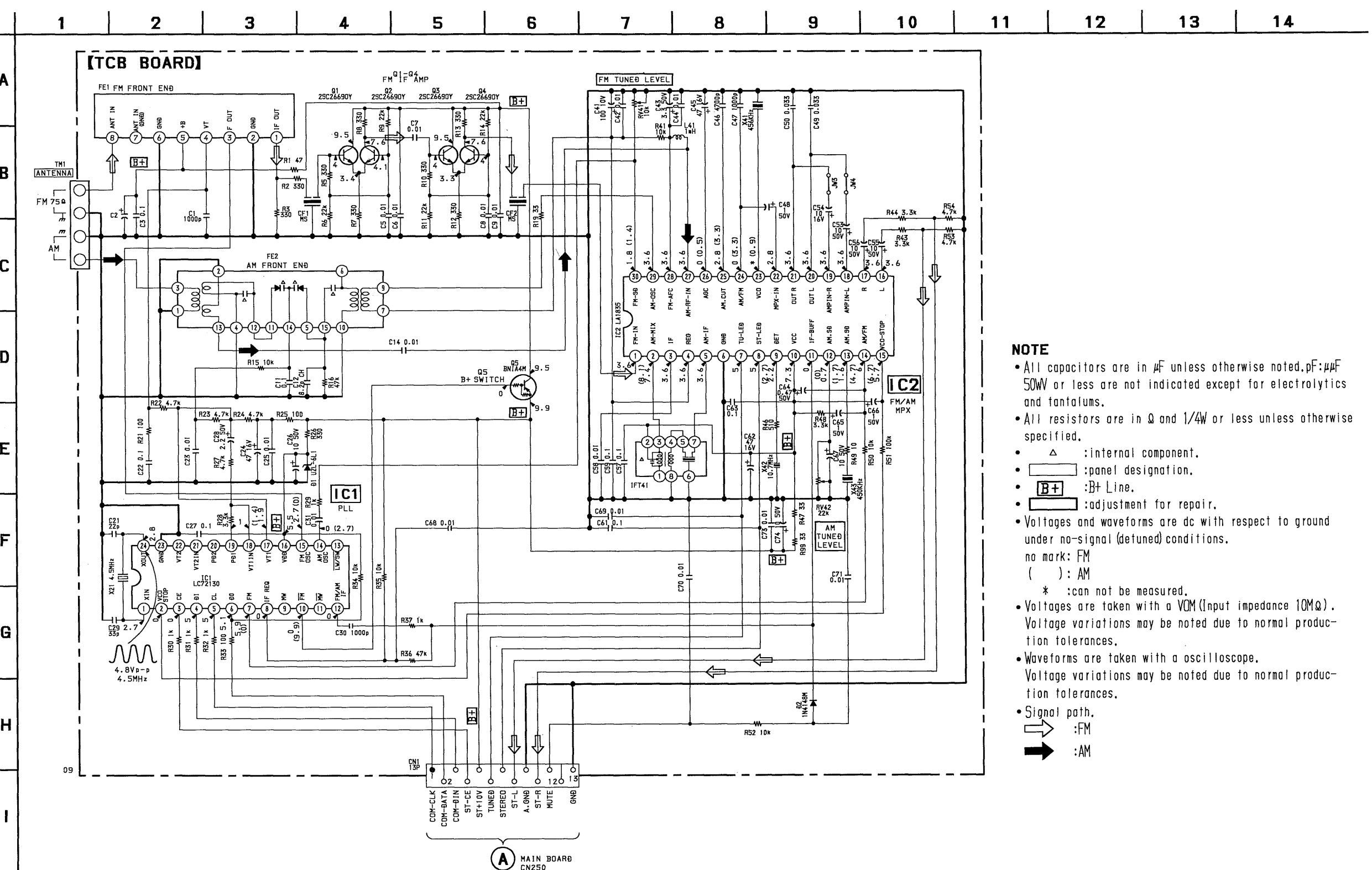


Note:
 ○ : parts extracted from the component side. • Abbreviation
 △ : Internal component. AUS : Australian model. MX : Mexican model.
 □ : Pattern from the side which enable seeing. AR : Argentine model.

Semiconductor Location

Ref. No.	Location
D1	F-2
D2	E-3
IC1	F-3
IC2	C-3
Q1	E-2
Q2	E-2
Q3	D-2
Q4	D-2
Q5	D-3

SCHEMATIC DIAGRAM



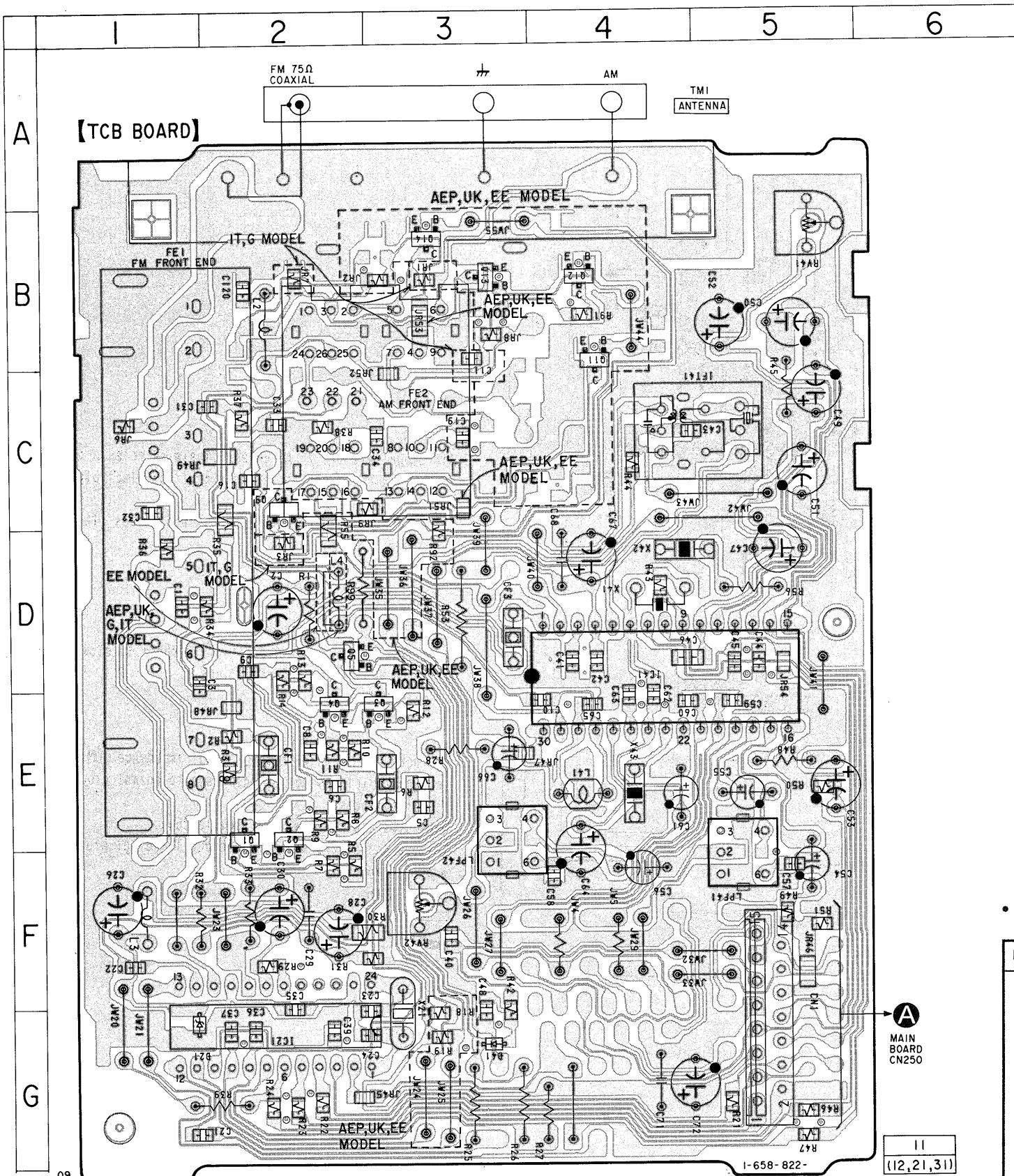
NOTE

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- □ : panel designation.
- B+ : B+ Line.
- [] : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 no mark: FM
 (): AM
 * : 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.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
 ◀ : FM
 ▶ : AM

TCB BOARD CHANGED (AEP, UK, G, IT, EE MODEL)

• The TCB board was renewed with a change of parts, please look at this.

PRINTED WIRING BOARD



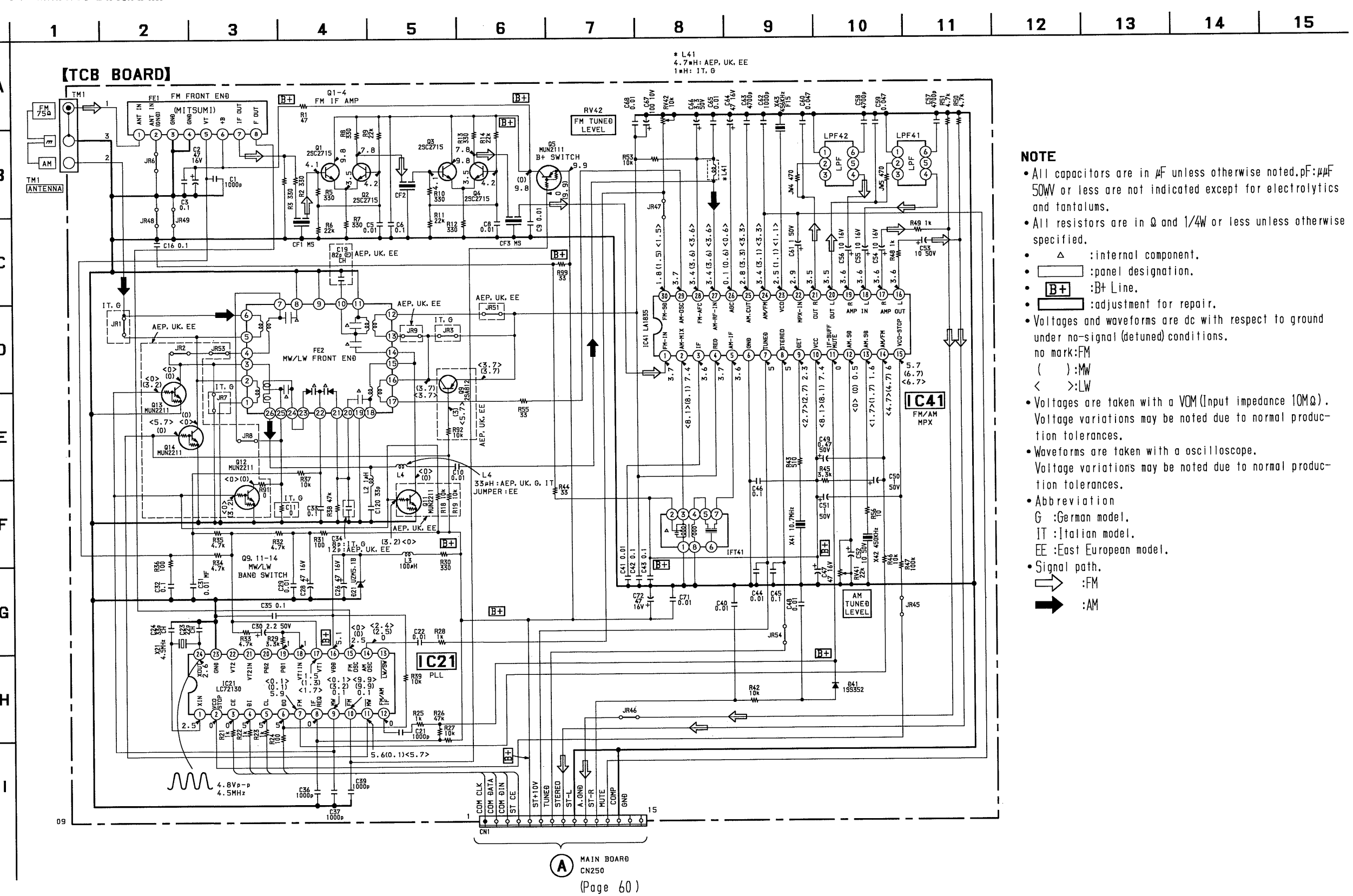
Note:

- : parts extracted from the component side.
- △ : Internal component.
- ▭ : Pattern from the side which enable seeing.
- Abbreviation G : German model. EE : East European model. IT : Italian model.

Semiconductor Location

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

SCHEMATIC DIAGRAM



NOTE

- All capacitors are in μF unless otherwise noted, pF: μF 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ↔ : 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 an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Abbreviation G : German model. IT : Italian model. EE : East European model.
- Signal path: ↗ : FM ↘ : AM

ELECTRICAL PARTS LIST

Note:

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
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
G : German model
IT : Italian model
EE : East European model
MX : Mexican model
AUS : Australian model
AR : Argentine model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4303-513-A	TCB BOARD, COMPLETE (E,AUS,PX,MX,AR) *****		C63	1-164-159-21	CERAMIC	0.1uF 50V
		< CAPACITOR >		C64	1-124-902-00	ELECT	0.47uF 20% 50V
C1	1-162-294-31	CERAMIC	0.001uF 10% 50V	C65	1-124-903-11	ELECT	1.0uF 20% 50V
C2	1-126-967-11	ELECT	47uF 20% 16V	C66	1-124-903-11	ELECT	1.0uF 20% 50V
C3	1-164-159-21	CERAMIC	0.1uF 50V	C67	1-126-964-11	ELECT	10uF 20% 50V
C5	1-162-306-11	CERAMIC	10000PF 30% 16V	C68	1-162-306-11	CERAMIC	10000PF 30% 16V
C6	1-162-306-11	CERAMIC	10000PF 30% 16V	C69	1-162-306-11	CERAMIC	10000PF 30% 16V
C7	1-101-004-00	CERAMIC	0.01uF 50V	C70	1-162-306-11	CERAMIC	10000PF 30% 16V
C8	1-162-306-11	CERAMIC	10000PF 30% 16V	C71	1-162-306-11	CERAMIC	10000PF 30% 16V
C9	1-162-306-11	CERAMIC	10000PF 30% 16V	C73	1-162-306-11	CERAMIC	10000PF 30% 16V
C11	1-164-159-21	CERAMIC	0.1uF 50V	C74	1-126-964-11	ELECT	10uF 20% 50V
C12	1-162-198-31	CERAMIC	8.2PF 10% 50V			< FILTER >	
C14	1-162-306-11	CERAMIC	10000PF 30% 16V	CF1	1-567-389-11	FILTER, CERAMIC	
C21	1-102-959-00	CERAMIC	22PF 5% 50V	CF2	1-567-389-11	FILTER, CERAMIC	
C22	1-164-159-21	CERAMIC	0.1uF 50V			< CONNECTOR >	
C23	1-162-306-11	CERAMIC	10000PF 30% 16V	* CN1	1-568-832-11	SOCKET, CONNECTOR 13P	
C24	1-126-967-11	ELECT	47uF 20% 16V			< DIODE >	
C25	1-162-306-11	CERAMIC	10000PF 30% 16V	D1	8-719-933-33	DIODE UZL-6L1-TA	
C26	1-126-964-11	ELECT	10uF 20% 50V	D2	8-719-987-63	DIODE 1N4148M-TA	
C27	1-164-159-21	CERAMIC	0.1uF 50V			< FRONT-END >	
C28	1-124-925-11	ELECT	2.2uF 20% 100V	FE1	1-233-533-11	ENCAPSULATED COMPONENT	
C29	1-102-518-11	CERAMIC	33PF 5% 50V	FE2	1-239-260-11	ENCAPSULATED COMPONENT	
C30	1-162-294-31	CERAMIC	0.001uF 10% 50V			< IC >	
C31	1-162-306-11	CERAMIC	10000PF 30% 16V	IC1	8-759-288-54	IC LC72130	
C41	1-126-933-11	ELECT	100uF 20% 10V	IC2	8-759-176-03	IC LA1835	
C42	1-162-306-11	CERAMIC	10000PF 30% 16V			< IFT >	
C43	1-126-962-11	ELECT	3.3uF 20% 50V	IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
C44	1-162-306-11	CERAMIC	10000PF 30% 16V			< COIL >	
C45	1-124-589-11	ELECT	47uF 20% 16V	L41	1-410-119-11	MICRO INDUCTOR (EL TYPE)	
C46	1-162-600-11	CERAMIC	4700PF 30% 16V			< TRANSISTOR >	
C47	1-162-294-31	CERAMIC	0.001uF 10% 50V	Q1	8-729-230-99	TRANSISTOR 2SC26690Y-TPE4	
C48	1-126-160-11	ELECT	1uF 20% 50V	Q2	8-729-230-99	TRANSISTOR 2SC26690Y-TPE4	
C49	1-136-159-00	METALIZED FILM	0.033uF 5% 50V	Q3	8-729-230-99	TRANSISTOR 2SC26690Y-TPE4	
C50	1-136-159-00	METALIZED FILM	0.033uF 5% 50V	Q4	8-729-230-99	TRANSISTOR 2SC26690Y-TPE4	
C53	1-126-964-11	ELECT	10uF 20% 50V	Q5	8-729-422-57	TRANSISTOR BN1A4M-TP	
C54	1-126-157-11	ELECT	10uF 20% 16V				
C55	1-126-964-11	ELECT	10uF 20% 50V				
C56	1-126-964-11	ELECT	10uF 20% 50V				
C57	1-164-159-21	CERAMIC	0.1uF 50V				
C58	1-162-306-11	CERAMIC	10000PF 30% 16V				
C59	1-164-159-21	CERAMIC	0.1uF 50V				
C61	1-164-159-21	CERAMIC	0.1uF 50V				
C62	1-126-967-11	ELECT	47uF 20% 16V				

TCB

Ref. No.	Part No.	Description	Remark
< 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
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 1K	5% 1/4W F
R30	1-249-417-11	CARBON 1K	5% 1/4W F
R31	1-249-417-11	CARBON 1K	5% 1/4W F
R32	1-249-417-11	CARBON 1K	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 1K	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	

Ref. No.	Part No.	Description	Remark
< TERMINAL >			
TM1	1-537-238-21	TERMINAL BOARD (ANTENNA)	
< VIBRATOR >			
X21	1-760-549-11	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)	

*	A-4303-502-A	TCB BOARD, COMPLETE (AEP,UK)	*****
*	A-4303-503-A	TCB BOARD, COMPLETE (G,IT)	*****
*	A-4303-504-A	TCB BOARD, COMPLETE (EE)	*****
< 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	0.01uF 0.1uF 25V
C5	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C6	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C7	1-101-004-00	CERAMIC	0.01uF 50V (EE)
C8	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C9	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C10	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C11	1-216-295-91	CONDUCTOR, CHIP (2012)(G,IT)	
C16	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C19	1-163-249-11	CERAMIC CHIP	82PF 5% 50V (AEP,UK,EE)
C21	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C22	1-163-031-11	CERAMIC CHIP	0.01uF 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% 16V
C28	1-126-967-11	ELECT	47uF 20% 16V
C29	1-162-306-11	CERAMIC	0.01uF 30% 16V
C30	1-124-925-11	ELECT	2.2uF 20% 100V
C31	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C32	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C33	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C34	1-163-091-00	CERAMIC CHIP	8PF 50V (G,IT)
C34	1-163-229-11	CERAMIC CHIP	12PF 5% 50V (AEP,UK,EE)
C35	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C36	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C37	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C39	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C40	1-163-031-11	CERAMIC CHIP	0.01uF 50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C41	1-163-031-11	CERAMIC CHIP	0.01uF	50V			
C42	1-163-038-91	CERAMIC CHIP	0.1uF	25V			
C43	1-163-038-91	CERAMIC CHIP	0.1uF	25V			
C44	1-163-031-11	CERAMIC CHIP	0.01uF	50V			
C45	1-163-038-91	CERAMIC CHIP	0.1uF	25V			
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V		
C47	1-126-967-11	ELECT	47uF	20%	16V		
C48	1-163-031-11	CERAMIC CHIP	0.01uF	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	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V		
C59	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)	(AEP,UK,G,IT)	
C60	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	(AEP,UK,G,IT)	
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)	(AEP,UK,G,IT)	
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	ELECT	47uF	20%	16V		
C65	1-163-031-11	CERAMIC CHIP	0.01uF	50V			
C66	1-126-162-11	ELECT	3.3uF	20%	50V		
C67	1-126-933-11	ELECT	100uF	20%	10V		
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V		
C71	1-162-306-11	CERAMIC	0.01uF	30%	16V		
C72	1-126-967-11	ELECT	47uF	20%	16V		
C120	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	(AEP,UK,G,IT)	
		< FILTER >					
CF1	1-567-389-11	FILTER, CERAMIC (EE)					
CF1	1-579-374-71	FILTER, CERAMIC (AEP,UK,G,IT)					
CF2	1-760-393-11	FILTER, CERAMIC (AEP,UK,G,IT)					
CF3	1-567-389-11	FILTER, CERAMIC (EE)					
CF3	1-760-393-11	FILTER, CERAMIC (AEP,UK,G,IT)					
		< CONNECTOR >					
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P					
		< DIODE >					
D21	8-719-976-99	DIODE UDZ-TE-17-5.1B					
D41	8-719-016-74	DIODE 1SS352-TPH3					
		< FRONT-END >					
FE1	1-193-385-11	FRONT END (3 GANG)(EE)					
FE1	1-233-542-11	FRONT END (4 GANG)(AEP,UK,G,IT)					
FE2	1-233-514-11	ENCAPSULATED COMPONENT (AEP,UK,EE)					
FE2	1-239-260-11	ENCAPSULATED COMPONENT (G,IT)					
		< 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	1-216-295-11	METAL CHIP	0	5%	1/10W	(G,IT)	
JR2	1-216-295-11	METAL CHIP	0	5%	1/10W	(AEP,UK,EE)	
JR3	1-216-295-11	METAL CHIP	0	5%	1/10W	(G,IT)	
JR6	1-216-295-11	METAL CHIP	0	5%	1/10W	(AEP,UK,G,IT)	
JR7	1-216-295-11	METAL CHIP	0	5%	1/10W	(G,IT)	
JR8	1-216-295-11	METAL CHI	0	5%	1/10W	(AEP,UK,EE)	
JR9	1-216-295-11	METAL CHIP	0	5%	1/10W	(AEP,UK,EE)	
JR45	1-216-295-11	METAL CHIP	0	5%	1/10W		
JR46	1-216-296-11	METAL CHIP	0	5%	1/8W		
JR47	1-216-295-11	METAL CHIP	0	5%	1/10W		
JR48	1-216-295-11	METAL CHI	0	5%	1/10W		
JR49	1-216-296-11	METAL CHIP	0	5%	1/8W		
JR51	1-216-295-11	METAL CHI	0	5%	1/10W	(AEP,UK,EE)	
JR52	1-216-295-11	METAL CHIP	0	5%	1/10W		
JR53	1-216-296-11	METAL CHIP	0	5%	1/8W	(AEP,UK,EE)	
JR54	1-216-295-11	METAL CHIP	0	5%	1/10W		
		< JUMPER RESISTOR >					
JW4	1-249-413-11	CARBON	470	5%	1/4W	(AEP,UK,G,IT)	
JW5	1-249-413-11	CARBON	470	5%	1/4W	(AEP,UK,G,IT)	
		< COIL >					
L2	1-414-142-11	MICRO INDUCTOR 1uH (AEP,UK,G,IT)					
L3	1-410-521-11	MICRO INDUCTOR 100uH					
L4	1-410-515-11	INDUCTOR 33uH (AEP,UK,G,IT)					
L41	1-407-500-00	MICRO INDUCTOR 4.7mH (AEP,UK,EE)					
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH (G,IT)					

TCB

Ref. No.	Part No.	Description	Remark
		< 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	
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
R19	1-216-073-00	METAL CHIP 10K	5% 1/10W (AEP,UK,EE)
R21	1-216-049-11	METAL CHIP 1.0K	5% 1/10W
R22	1-216-049-11	METAL CHIP 1.0K	5% 1/10W
R23	1-216-049-11	METAL CHIP 1.0K	5% 1/10W
R24	1-216-025-11	METAL CHIP 100	5% 1/10W
R25	1-249-417-11	CARBON 1K	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 1K	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	1-216-025-11	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	1-216-025-11	METAL CHIP 100	5% 1/10W
R37	1-216-073-00	METAL CHIP 10K	5% 1/10W
R38	1-216-089-11	METAL CHIP 47K	5% 1/10W

Ref. No.	Part No.	Description	Remark
R39	1-249-429-11	CARBON 10K	5% 1/4W
R42	1-216-073-00	METAL CHIP 10K	5% 1/10W
R43	1-216-042-00	METAL CHIP 510	5% 1/10W
R44	1-216-021-00	METAL CHIP 68	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	1-216-097-11	METAL CHIP 100K	5% 1/10W
R48	1-249-417-11	CARBON 1K	5% 1/4W F
R49	1-216-049-11	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	1-216-295-11	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)	

Sony Corporation

Home A&V Products Company

9-960-493-81

96K0976-1
 Printed in Japan © 1996. 11
 Published by Service and Safety
 Engineering Dept. (Shibaura)