

HCD-XB8

SERVICE MANUAL

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




HCD-XB8 is the tuner, deck, CD and amplifier section in LBT-XB8AV.

Photo : AEP model

This stereo system is equipped with the Dolby Pro Logic Surround system* and the Dolby B-type noise reduction system.

* Manufactured under license from Dolby Laboratories Licensing Corporation.

DOLBY, the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

CD SECTION	Model Name Using Similar Mechanism	HCD-D670AV/N555AV
	CD Mechanism Type	CDM37L-5BD29AL
	Base Unit Type	BU-5BD29AL
	Optical Pick-up Type	KSS-213D/Q-NP
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-D670AV/N555AV
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

Amplifier section (AEP, UK, East European, CIS model)

DIN power outputs
FRONT SPEAKER: 100 + 100 watts (8 ohms at 1 kHz, DIN)
CENTER SPEAKER: 35 watts (8 ohms at 1 kHz, DIN)
REAR SPEAKER: 17.5 + 17.5 watts (16 ohms at 1 kHz, DIN)

Continuous RMS power outputs
FRONT SPEAKER: 120 + 120 watts (8 ohms at 1 kHz, 10% THD)
CENTER SPEAKER: 42 watts (8 ohms at 1 kHz, 10% THD)
REAR SPEAKER: 21 + 21 watts (16 ohms at 1 kHz, 10% THD)

Music power outputs
FRONT SPEAKER: 210 + 210 watts (8 ohms at 1 kHz, 10% THD)
CENTER SPEAKER: 70 watts (8 ohms at 1 kHz, 10% THD)
REAR SPEAKER: 35 + 35 watts (16 ohms at 1 kHz, 10% THD)

Inputs
PHONO IN (phono jacks): sensitivity 3 mV, impedance 47 kilohms
VIDEO (AUDIO) IN (phono jacks): sensitivity 250 mV, impedance 47 kilohms
MIX MIC (phone jack): sensitivity 1 mV, impedance 10 kilohms

Outputs
PHONES (stereo phone jack): accepts headphones of 8 ohms or more
FRONT SPEAKER: accepts impedance of 8 to 16 ohms
SURROUND SPEAKER CENTER: accepts impedance of 8 to 16 ohms
SURROUND SPEAKER REAR: accepts impedance of 16 ohms

Amplifier section (Other model)

Peak music power output
1,500 watts
Continuous RMS power output
FRONT SPEAKER: 100 + 100 watts (8 ohms at 1 kHz, 10% THD)
CENTER SPEAKER: 25 watts (8 ohms at 1 kHz, 10% THD)
REAR SPEAKER: 12.5 + 12.5 watts (16 ohms at 1 kHz, 10% THD)

Inputs
PHONO IN (phono jacks): sensitivity 3 mV, impedance 47 kilohms
VIDEO (AUDIO) IN (phono jacks): sensitivity 250 mV, impedance 47 kilohms
MIX MIC (phone jack): sensitivity 1 mV, impedance 10 kilohms

Outputs
PHONES (stereo phone jack): accepts headphones of 8 ohms or more
FRONT SPEAKER: accepts impedance of 8 to 16 ohms
SURROUND SPEAKER CENTER: accepts impedance of 8 to 16 ohms
SURROUND SPEAKER REAR: accepts impedance of 16 ohms

— Continued on next page —

COMPACT DISC DECK RECEIVER



SONY®

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser ($\lambda = 780\text{ nm}$)
Laser output	Emission duration: continuous Max. $44.6\text{ }\mu\text{F}^*$ * 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
Frequency response	2 Hz – 20 kHz ($\pm 0.5\text{ dB}$)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	60 – 13,000 Hz ($\pm 3\text{ dB}$), using a Sony TYPE I cassette 60 – 14,000 Hz ($\pm 3\text{ dB}$), using a Sony TYPE II cassette
Wow and flutter	$\pm 0.15\%$ W. Peak (IEC) 0.1% W. RMS (NAB) $\pm 0.2\%$ W. Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner	
FM tuner section	
Tuning range (EXCEPT East European, CIS models):	87.5 – 108.0 MHz (50 kHz step)
(East European, CIS models):	87.5 – 108.0 MHz (50 kHz step)
FM:	65.0 – 74.0 MHz (10 kHz step) OIRT 65.0 – 74.0 MHz (10 kHz step) POLAR STEREO
UKV:	FM wire aerial 75 ohm unbalanced
Aerial	10.7 MHz
Aerial terminals	
Intermediate frequency	
AM tuner section	
Tuning range	
(AEP, UK, East European, CIS models):	MW: 531 – 1,602 kHz (with the tuning interval set at 9 kHz) LW: 153 – 279 kHz (with the tuning interval set at 3 kHz)
Mexican models:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 10 kHz)
Other models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz) 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
Aerial	AM loop aerial, External aerial terminal
Intermediate frequency	450 kHz

General

Power requirements	
AEP, UK, East European, CIS models :	220 – 230 V AC, 50/60 Hz
Mexican model:	120 V AC, 50/60 Hz
Australian model:	220 – 240 V AC, 50/60 Hz
Other models:	110 – 120 V or 220 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
AEP, UK, East European, CIS models :	270 watts
Other models :	240 watts
Dimensions (w/h/d)	
Approx. 355 × 425 × 435 mm (14 × 16 3/4 × 17 1/4 in) incl. projecting parts and controls	
Mass	
AEP, UK, East European, CIS models :	Approx. 13.3 kg (29 lb 5 oz.)
Other models :	Approx. 12.8 kg

Design and specifications are subject to change without notice.

CAUTION

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

Notes on chip component replacement

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

Flexible Circuit Board Repairing

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

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

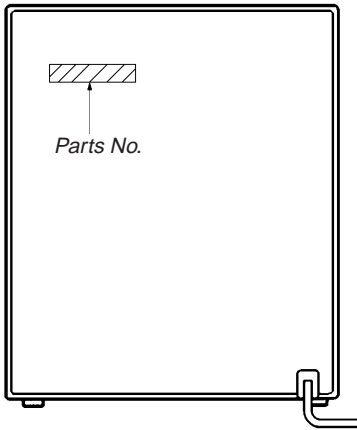
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

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 DLET ALTUINA LASERSÄTELYLLE.
VARNING	; LASERSTRÅLING NÅR DENNA DEL ÅR ÖPPNÅD OCH SPÄRREN ÅR URÖPPPLAD.
ADVARSEL	; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

MODEL IDENTIFICATION
— BACK PANEL —



- Abbreviation
AUS: Australian model
AR : Argentine model
SAF: South Africa model
MX : Mexican model
EE : East European model

MODEL	PARTS No.
AEP, UK model	4-987-045-0 <input type="checkbox"/>
EE, CIS model	4-987-045-2 <input type="checkbox"/>
E, AR, SAF model	4-988-222-0 <input type="checkbox"/>
AUS model	4-988-222-1 <input type="checkbox"/>
PX model	4-988-222-2 <input type="checkbox"/>
MX model	4-988-222-3 <input type="checkbox"/>

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

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

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

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

SAFETY-RELATED COMPONENT WARNING !!

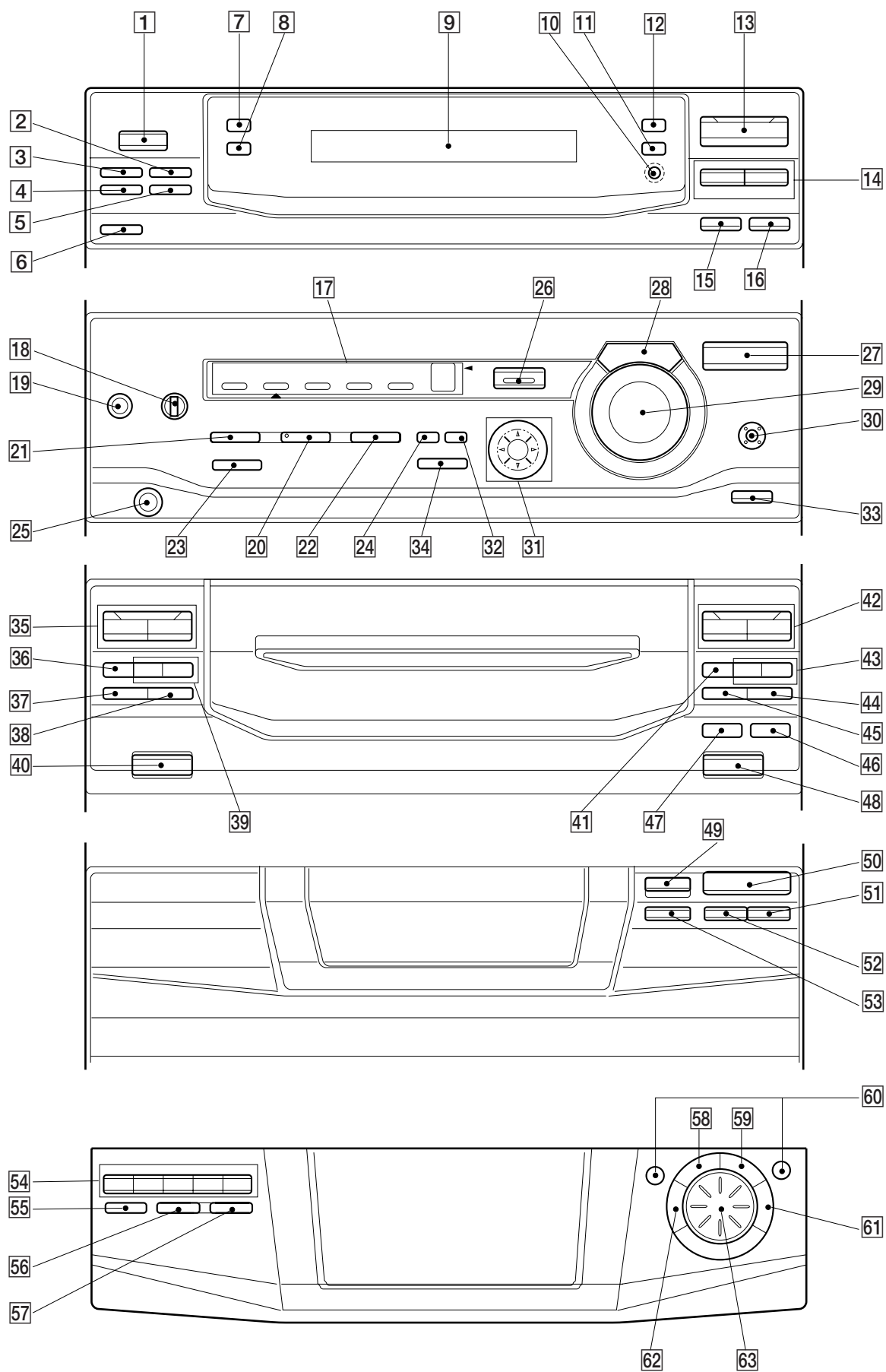
COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

1. GENERAL	4
2. DISASSEMBLY	
2-1. Front Panel	5
2-2. Main Board	6
2-3. Tape Mechanism Deck	6
2-4. Cassette Lid Assembly	7
2-5. CD Lid assembly	7
2-6. CD Mechanism Deck	8
2-7. Base Unit	8
2-8. Disc Table	8
3. SERVICE MODE	9
4. MECHANICAL ADJUSTMENTS	11
5. ELECTRICAL ADJUSTMENTS	11
6. DIAGRAMS	
6-1. Circuit Boards Location	18
6-2. Block Diagrams	
• Tuner Section (AEP, UK model)	19
• Tuner Section (East European, CIS model)	21
• CD Section	23
• Deck Section	25
• Main Section	27
• Power Section	29
6-3. Printed Wiring Board —CD Section —	31
6-4. Schematic Diagram — CD Section —	33
6-5. Printed Wiring Board	
—Tuner (AEP, UK model) Section —	36
6-6. Schematic Diagram	
—Tuner (AEP, UK model) Section —	37
6-7. Schematic Diagram	
—Tuner (East European, CIS model) Section —	39
6-8. Printed Wiring Board	
—Tuner (East European, CIS model) Section —	41
6-9. Printed Wiring Board — Main Section —	42
6-10. Schematic Diagram — Main Section —	45
6-11. Schematic Diagram — Deck Section —	49
6-12. Printed Wiring Board — Deck Section —	53
6-13. Schematic Diagram — Panel Section —	56
6-14. Printed Wiring Board — Panel Section —	59
6-15. Schematic Diagram — Power Section —	63
6-16. Printed Wiring Board — Power Section —	67
6-17. Schematic Diagram — CD Motor Section —	70
6-18. Printed Wiring Board — CD Motor Section —	71
6-19. IC Block Diagrams	73
6-20. IC Pin Functions	80
7. EXPLODED VIEWS	
7-1. Case and Back Panel Section	89
7-2. Front Panel Section 1	90
7-3. Front Panel Section 2	91
7-4. Chassis Section	92
7-5. TC Mechanism Section 1 (TCM-220WR2)	93
7-6. TC Mechanism Section 2 (TCM-220WR2)	94
7-7. TC Mechanism Section 3 (TCM-220WR2)	95
7-8. CD Mechanism Section (CDM37L-5BD29AL)	96
7-9. Base Unit Section (BU-5BD29AL)	97
8. ELECTRICAL PARTS LIST	98

SECTION 1 GENERAL

Front Panel



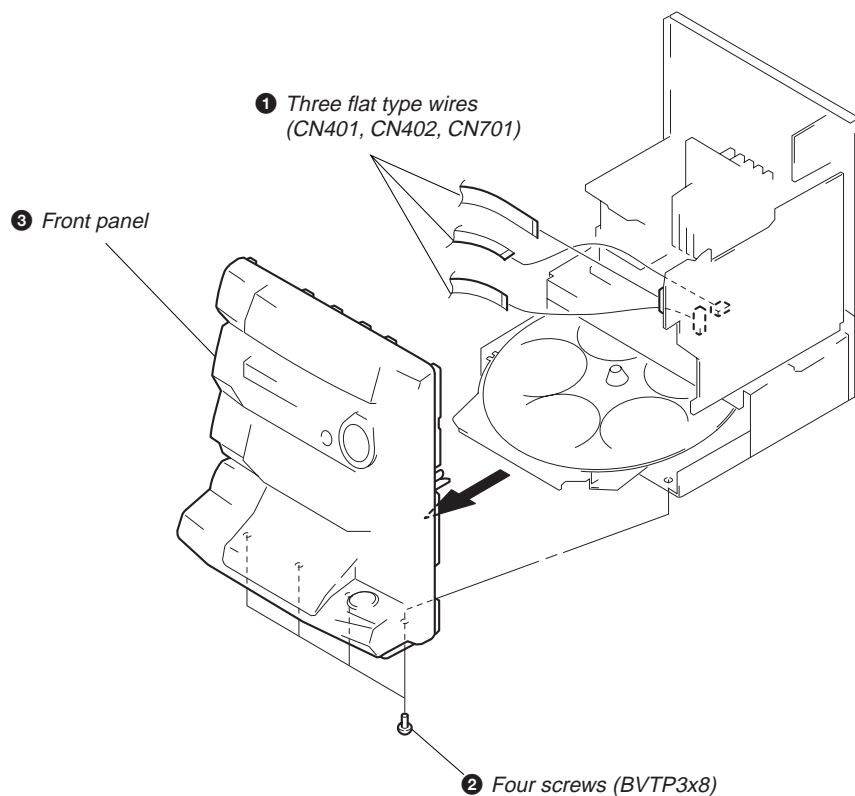
LOCATION OF PARTS AND CONTROLS

- | | | |
|-----------------------------------|----------------------------------|---------------------------------|
| 1 POWER button | 21 WAVE button | 42 Deck B ◀, ▶ button |
| 2 REC button | 22 PROLOGIC button | 43 Deck B ◀◀, ▶▶ button |
| 3 ⌚/CLOCK SET button | 23 KARAOKE PON/MPX button | 44 Deck B ● REC button |
| 4 DAILY 1 button | 24 P FILE MEMORY button | 45 Deck B ■■ button |
| 5 DAILY 2 button | 25 PHONES jack | 46 CD SYNC button |
| 6 SLEEP button | 26 EFFECT button | 47 H SPEED DUB button |
| 7 DISPLAY/DEMO button | 27 FUNCTION button | 48 Deck B ▲ EJECT button |
| 8 SPECTRUM ANALYZER button | 28 GROOVE button | 49 ▲ OPEN button |
| 9 Display Window | 29 VOLUME control | 50 CD ▷ button |
| 10 ENTER/NEXT button | 30 SUPER WOOFER button | 51 CD ■ button |
| 11 TUNER MEMORY button | 31 GEQ control buttons | 52 CD ■■ button |
| 12 TUNING MODE button | 32 GEQ CONTROL button | 53 DISC SKIP button |
| 13 TUNER/BAND button | 33 SUPER W MODE button | 54 DISC1-DISC5 buttons |
| 14 TUNING (+/-) button | 34 ENTER button | 55 NON-STOP button |
| 15 PTY button
(AEP, UK) | 35 Deck A ◀, ▶ button | 56 LOOP button |
| 16 STEREO/MONO button | 36 Deck A ■ button | 57 FLASH button |
| 17 Equalizer indicators | 37 DIRECTION button | 58 1/ALL DISCS button |
| 18 MIC LEVEL knob | 38 DOLBY NR button | 59 PLAY MODE button |
| 19 MIC jack | 39 Deck A ◀◀, ▶▶ button | 60 CD ◀◀, ▶▶ button |
| 20 DSP button | 40 Deck A ▲ EJECT button | 61 REPEAT button |
| | 41 Deck B ■ button | 62 EDIT button |
| | | 63 ◀◀ AMS ▶▶ dial |

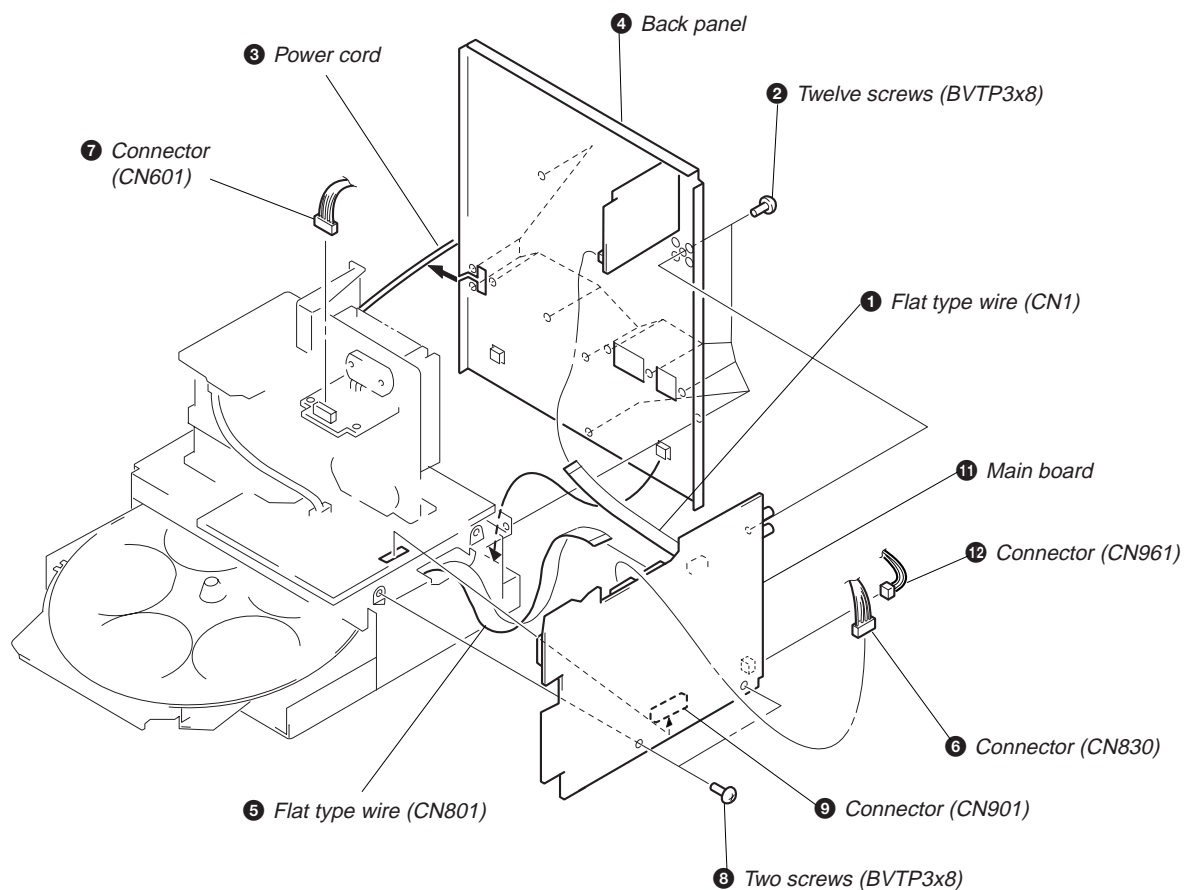
SECTION 2 DISASSEMBLY

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

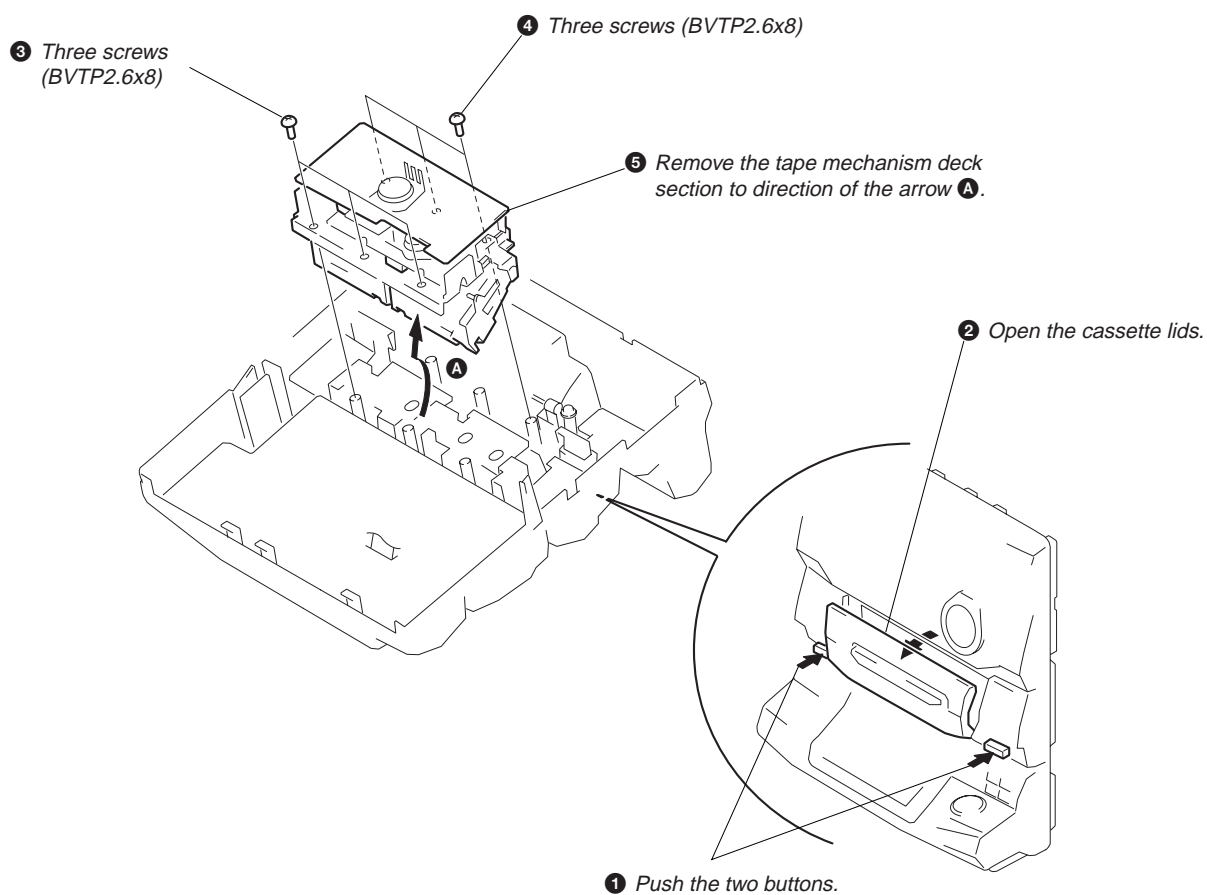
2-1. FRONT PANEL



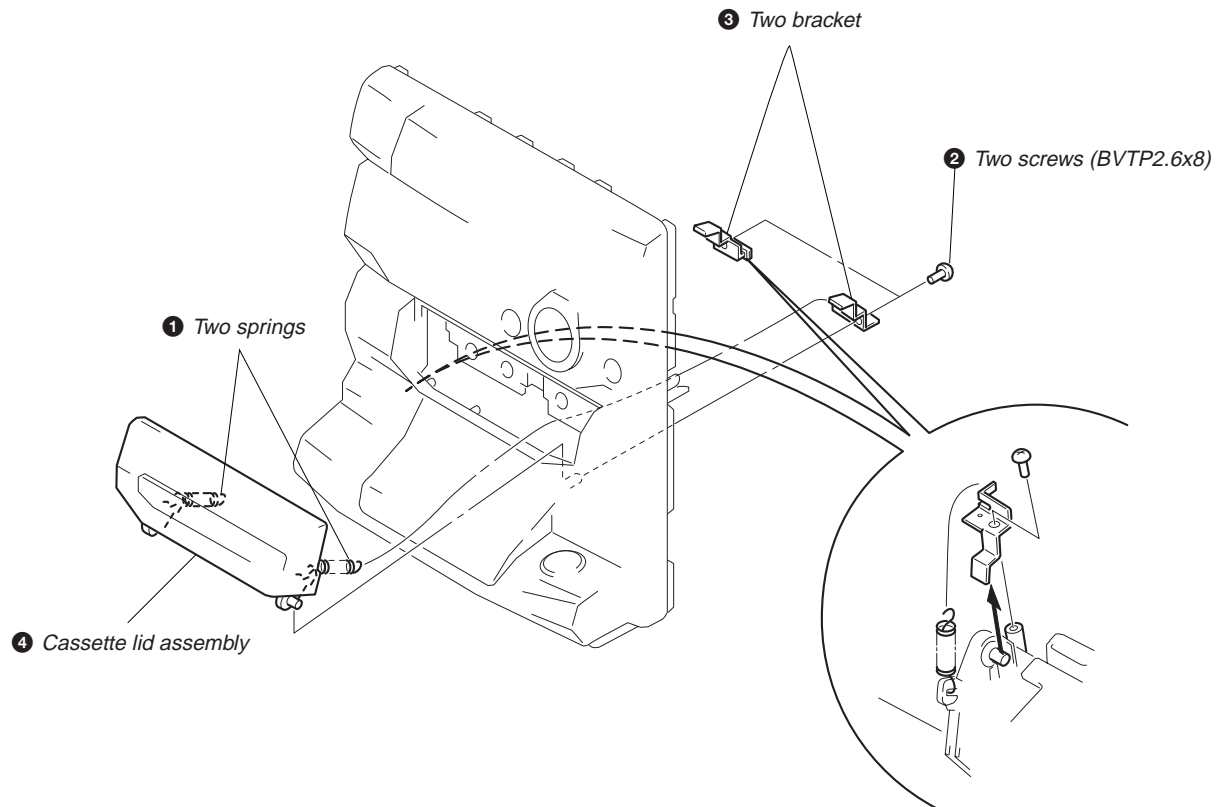
2-2. MAIN BOARD



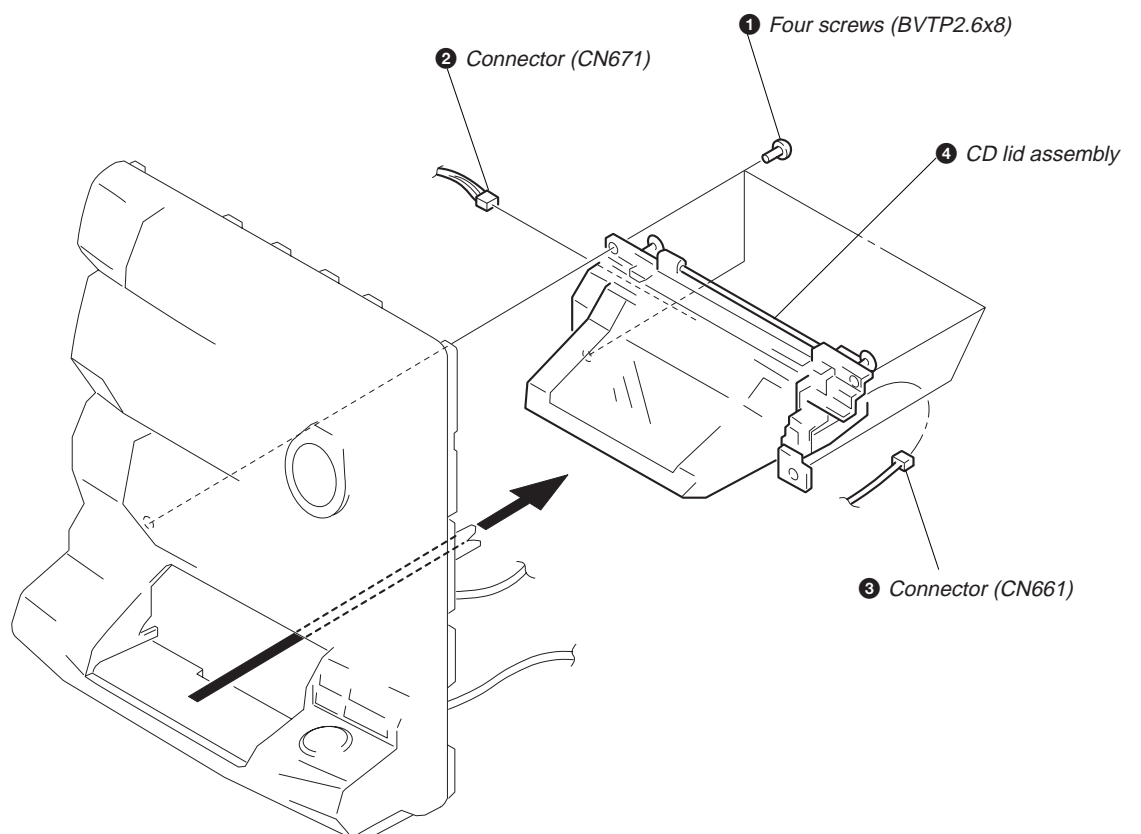
2-3. TAPE MECHANISM DECK



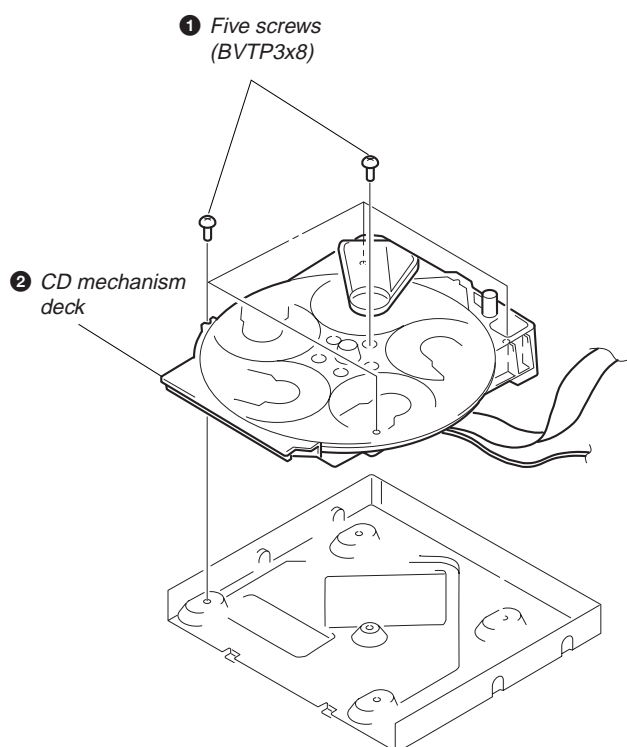
2-4. CASSETTE LID ASSEMBLY



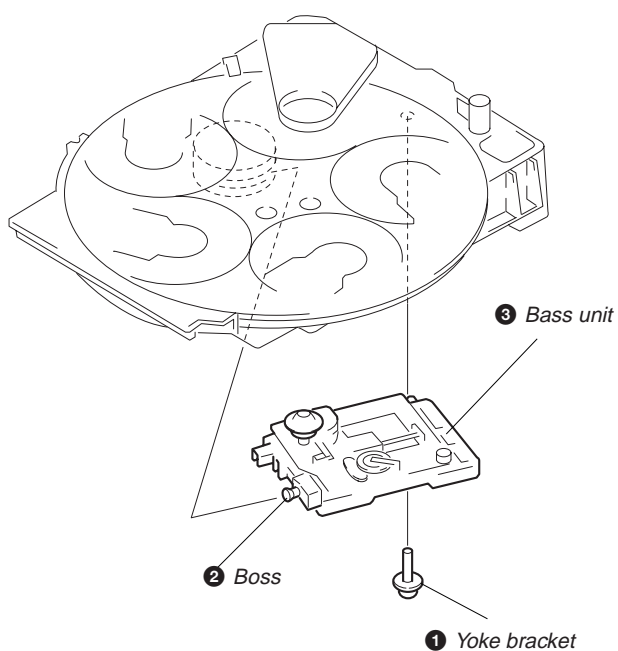
2-5. CD LID ASSEMBLY



2-6. CD MECHANISM DECK



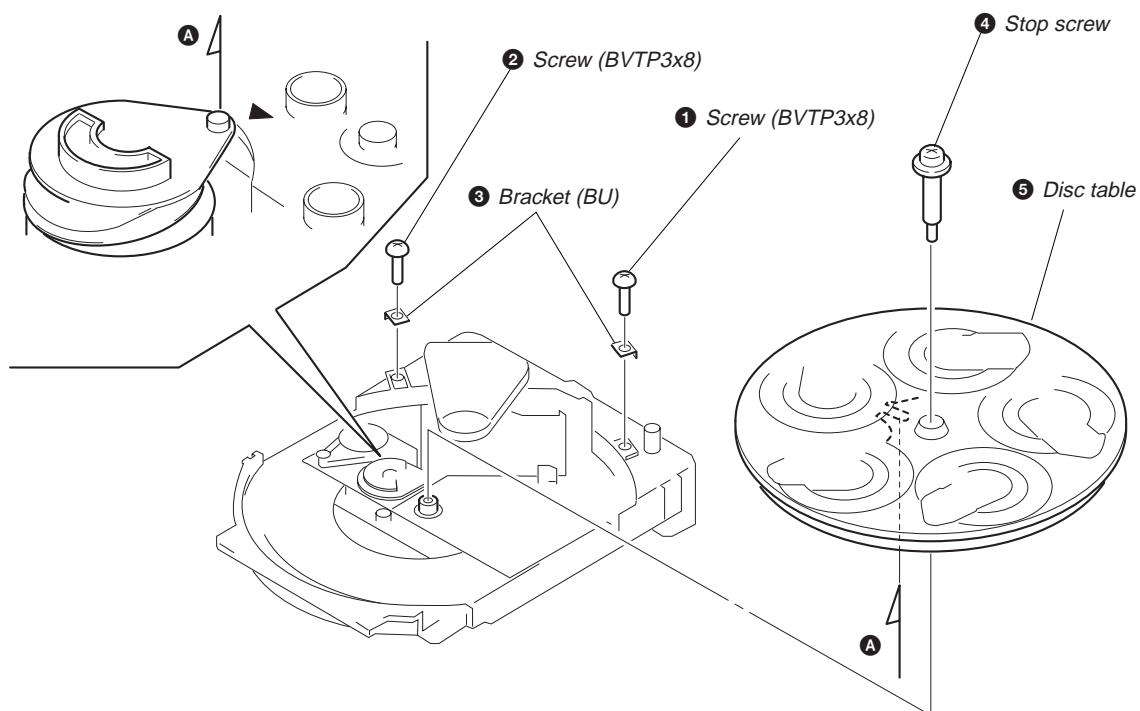
2-7. BASE UNIT



2-8. DISC TABLE

Note:

When the disc table is installed, adjust the positions of roller cam and mark ► as shown in the figure, then set to the groove of disc table.



SECTION 3

SERVICE MODE

MC Cold Reset

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

Procedure:

1. Press three buttons [SPECTRUM ANALYZER], [ENTER], and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

CD Delivery Mode

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

Procedure:

1. Press [POWER] button to turn the set ON.
2. Press [PLAY MODE] button and [POWER] button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC Hot Reset

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [SPECTRUM ANALYZER], [ENTER], and [DISC 2] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

Sled Servo Mode

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

Procedure:

1. Select the function "CD".
2. Press three buttons [SPECTRUM ANALYZER], [ENTER], and [FUNCTION] simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, press [▶▶] button in CD section to move the pick-up to outside track, or [◀◀] button to inside track.
5. To exit from this mode, perform as follows:
 - 1) Move the pick-up to the most inside track.
 - 2) Press three buttons in the same manner as step 2.

Note:

- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

Change-over of FUNCTION Name

- The FUNCTION name of external input terminal can be changed over to VIDEO or MD. With the FUNCTION selected to "MD", about 5dB mute is applied to the input gain.

Procedure:

1. Press [POWER] button to turn the set OFF.
2. Press [POWER] button together with [FUNCTION] button, and the power is turned on, the display of fluorescent indicator tube changes to "MD" or "VIDEO" instantaneously, and thus the FUNCTION is changed over.

Change-over of AM Tuner Step between 9kHz and 10kHz

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

Procedure:

1. Press [POWER] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [POWER] button to turn the set OFF.
4. Press [ENTER/NEXT] and [POWER] buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9k STEP" or "AM 10k STEP", and thus the channel step is changed over.

LED and Fluorescent Indicator Tube All Lit, Key Check Mode

Procedure:

1. Press three buttons [SPECTRUM ANALYZER], [ENTER], and [DISC 3] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
Press [DISC 2] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 V0 J0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.
"J" Value increases like 1, 2, 3 ... if rotating JOG knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
"V" Value increases like 1, 2, 3 ... if rotating [VOLUME] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

Aging Mode

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

- If an error occurred:
The aging operation stops.
- If no error occurs:
The aging operation continues repeatedly.

1. Aging Mode in CD Section

1-1. Operating procedure of Aging Mode

1. Set discs in DISC 1 and DISC 3 trays.
 2. Select the function "CD".
 3. Press three buttons **[SPECTRUM ANALYZER]**, **[ENTER]**, and **[KARAOKE PON/MPX]** simultaneously.
 4. The aging mode is activated, if a roulette mark on the fluorescent indicator tube is blinking.
 5. In the aging mode, the aging is executed in a sequence given in "1-2. Operation during Aging Mode".
The aging continues unless an alarm occurred.
 6. To exit from the aging mode, press **[POWER]** button to turn the set OFF.
- If a button other than buttons In CD section is pressed during aging, the aging in the CD section is finished.
 - To execute aging to the tape deck section successively, press **[▷]** button in the deck A.
"AGING" is displayed on the fluorescent indicator tube. (For the aging in tape deck, see "2. Aging Mode in Tape Deck Section".)

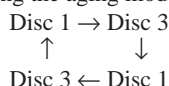
1-2. Operation during aging Mode

In the aging mode, the program is executed in the following sequence.

1. The disc tray turns to select a disc. (For a disc selection sequence, see Section 1-3.)
2. TOC of disc is read.
3. The pick-up accesses to the last track.
4. Steps 1 through 3 are repeated.

1-3. Disc Selection Sequence

- During the aging mode, discs are selected in the following sequence:



2. Aging Mode in Tape Deck Section

2-1. Operating procedure of Aging Mode

1. Load a commercially available 10-minute tape into the decks A and B respectively.
(If a 10-minute tape is not available, another tape may be used but a cycle time will be longer.)
2. Select the function "TAPE".
3. Rewind tapes in advance by pressing **[◀▶]** button respectively on decks A and B.
4. Press three buttons **[SPECTRUM ANALYZER]**, **[ENTER]**, and **[KARAOKE PON/MPX]** simultaneously.
5. Press **[▷]** button on deck A. (This button triggers the aging mode.)
6. The aging mode is activated if "AGING A" is displayed on the fluorescent indicator tube.
7. In the aging mode, the aging is executed in a sequence given in "2-2. Operation during Aging Mode".
The aging continues unless an alarm occurred.
8. To exit from the aging mode, press **[POWER]** button to turn the set OFF.

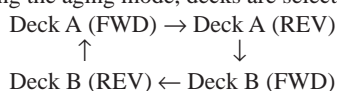
2-2. Operation during Aging Mode

In the aging mode, the program is executed in the following sequence.

1. A tape on FWD side is played for one minute.
2. PAUSE STOP is made.
3. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed.)
4. FF is executed up to the end of tape.
5. A tape is reversed, and the tape on REV side is played for one minute.
6. PAUSE STOP is made.
7. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed.)
8. FF is executed up to the end of tape.
9. Steps 1 through 8 are executed for the other deck.
10. Steps 1 through 9 are repeated unless an alarm occurred.

2-3. Deck Selection Sequence

- During the aging mode, decks are selected in the following sequence:



SECTION 4 MECHANICAL ADJUSTMENTS

Precaution

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

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

Torque Measurement

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

SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775V

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

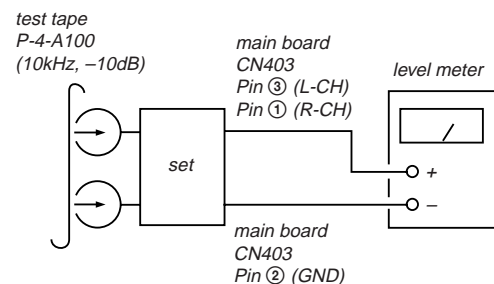
Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

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

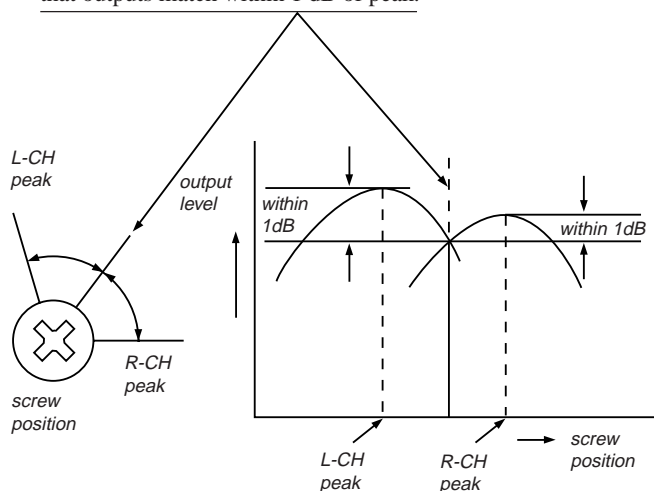
Note: Perform this adjustments for both decks.

Procedure:

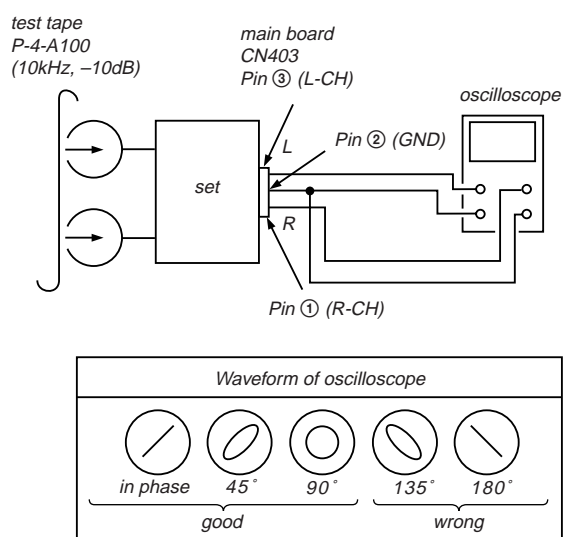
- Mode : Playback



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

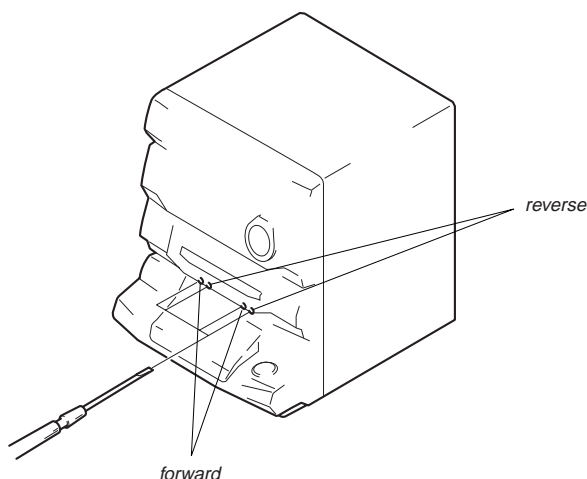


- Mode: Playback



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

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



Tape Speed Adjustment (Deck A)

Note: Set the test mode using the following method and begin tape speed adjustment.

In the test mode, the tape will move at double speed while the [H SPEED DUB.] button is pressed.

Procedure :

With the power turned ON, press the [SPECTRUM ANALYZER] button, [ENTER] button, and [EFFECT] button simultaneously. (The "VOLUME" on the fluorescent display tube will blink while in the test mode.)

To exit the test mode, press the [POWER] button.

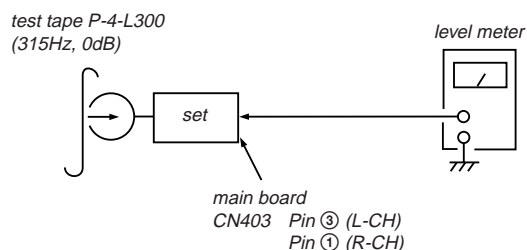
- Load WS-48B into deck A and a recordable tape into deck B.
- Press the [REC] button, and press the [] button of deck B to set deck B into the recording state.
- Play deck A.
- While pressing the [H SPEED DUB.] button, set double speed play.
- Adjust RV652 of the AUDIO board so that the reading of the frequency counter becomes 6000 ± 30 Hz.
- Release the [H SPEED DUB.] button to set normal speed play.
- Adjust RV651 of the AUDIO board so that the reading of the frequency counter becomes 3000 ± 15 Hz.

Adjustment Location: AUDIO board

Playback Level Adjustment (Deck A, Deck B)

Procedure:

Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within the following adjustment level.

Adjustment level:

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

level difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO board

Record Bias Adjustment (Deck B)

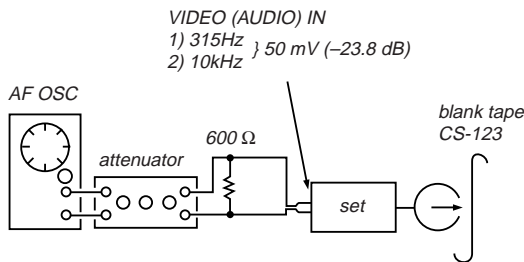
Procedure:

INTRODUCTION

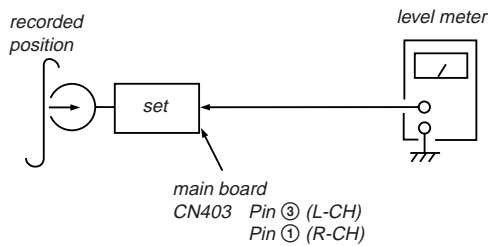
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the “REC memory mode” which rewinds only the recorded portion and playback is set.

This “REC memory mode” is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

1. Press **FUNCTION** button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Load a tape into deck B, and press the **REC** button.
3. Mode: Record



4. Mode: Playback

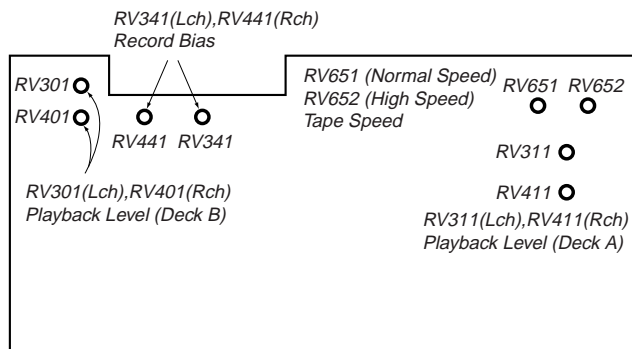


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

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

Adjustment Location: AUDIO board

Adjustment Location [AUDIO BOARD] (Conductor Side)



Record Level Adjustment (Deck B)

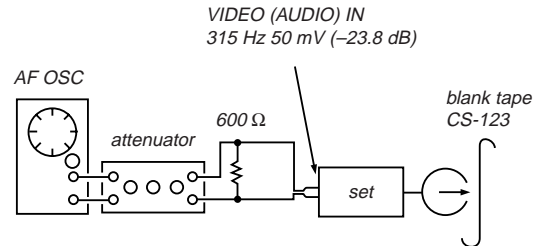
Procedure:

INTRODUCTION

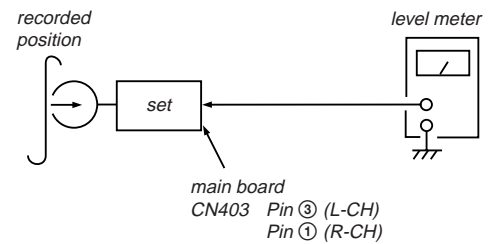
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the “REC memory mode” which rewinds only the recorded portion and playback is set.

This “REC memory mode” is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

1. Press **FUNCTION** button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Load a tape into deck B, and press the **REC** button.
3. Mode: Record



4. Mode: Playback

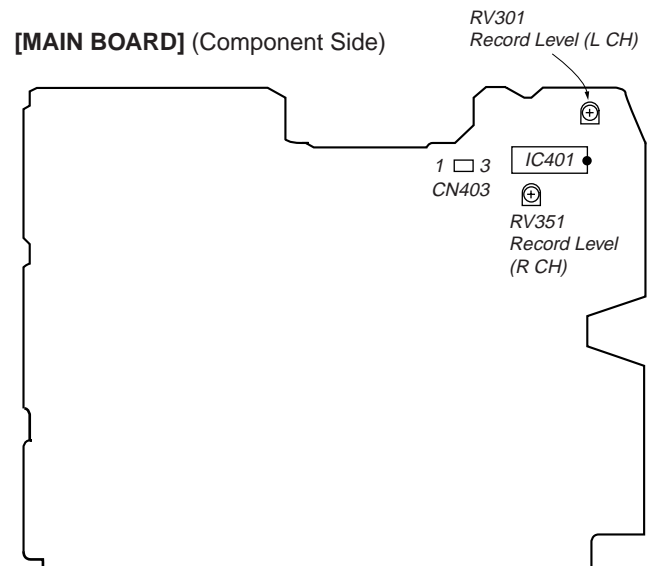


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

Adjustment level:
CN403 playback level: 47.2 to 53.0 mV (−24.3 to −23.3 dB)

Adjustment Location: MAIN board

[MAIN BOARD] (Component Side)



TUNER SECTION

0dB=1μV

Note 1: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

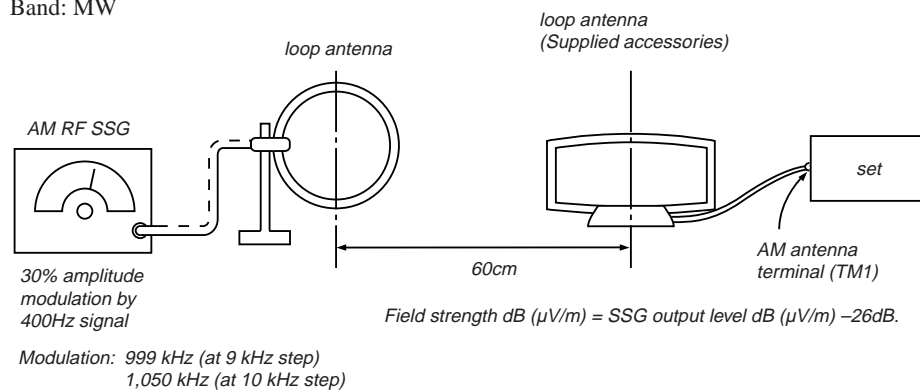
Note 2: No adjustment is needed due to a tuner pack for except AEP, UK, East European, CIS models.

AM Tuned Level Adjustment

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

Setting:

Band: MW



Procedure:

1. Set the output of SSG so that the input level of the set becomes 55 dB or 58 dB. (55 dB : Except East European, CIS model, 58 dB : East European, CIS model)
2. Tune the set to 999 kHz or 1,050 kHz.
3. Adjust RV41 to the point (moment) when the TUNED indicator will change from going off to going on.

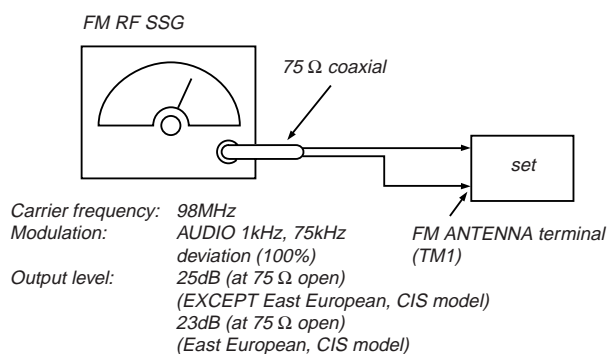
Adjustment Location: TCB board

FM Tuned Level Adjustment

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

Setting:

Band: FM



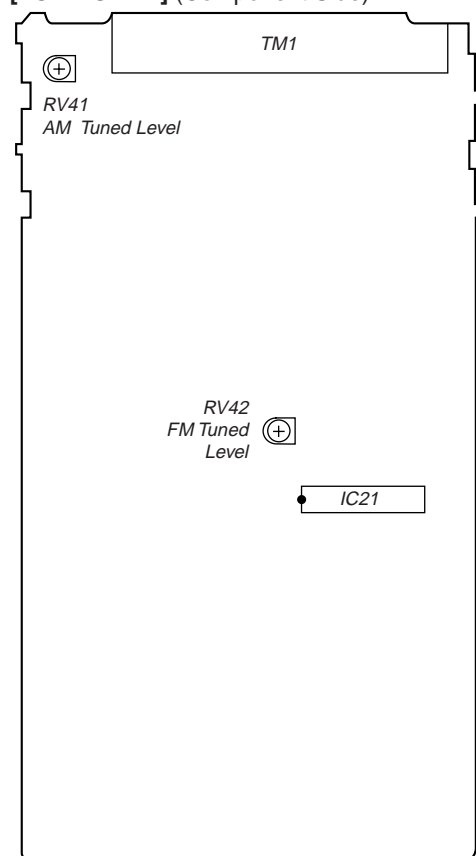
Procedure:

1. Supply a 25 dB or 23 dB 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV42 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location: TCB board

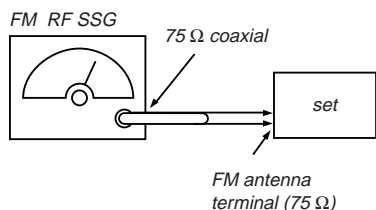
Adjustment Location

[TCB BOARD] (Component Side)



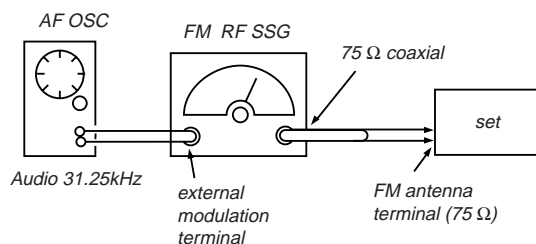
FM Polar Adjustment (East European, CIS model only)

Connection 1 :



Carrier frequency: 69 MHz
Output level: 1 mV (60 dBμ) (at 75 Ω open)
Modulation: AUDIO 1 kHz, 10 kHz deviation

Connection 2 :



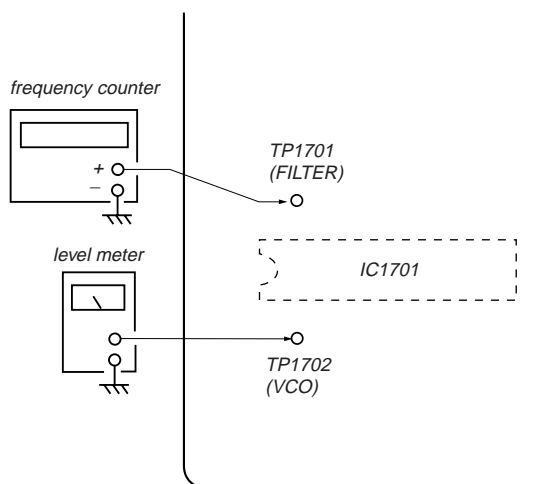
Carrier frequency: 69 MHz
Output level: 1 mV (60 dBμ) (at 75 Ω open)
Modulation: AUDIO 31.25 kHz, 10 kHz deviation
(EXTERNAL MODULATION)

Procedure :

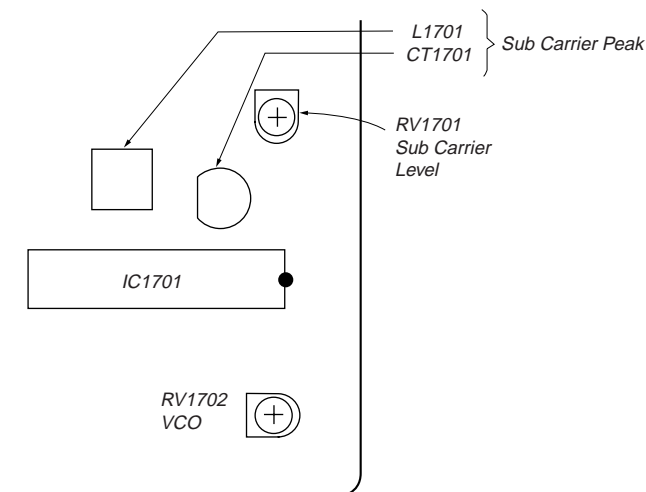
1. Set the modulation of FM RF SSG to AUDIO 1 kHz, 10 kHz deviation according to "Connection 1".
2. Tune the set to 69 MHz.
3. Adjust the RV1702 so that the reading of frequency counter connected to TP1702 (VCO) becomes within $31.25 \text{ kHz} \pm 0.05 \text{ kHz}$. (VCO adjustment)
4. Then record the reading of the level meter connected to TP1701.
5. Set the modulation of FM RF SSG to AUDIO 31.25 kHz, 10 kHz deviation according to "Connection 2".
6. Tune the set to 69 MHz.
7. Set the CT1701 to be mechanical center.
8. Adjust the L1701 so that the reading of the level meter connected to TP1701 (FILTER) becomes maximum. Then adjust the CT1701 so that the reading of the level meter connected to TP1701 (FILTER) becomes maximum. (SUB CARRIER PEAK Adjustment)
9. Adjust the RV1701 so that the level at the moment becomes 14 dB higher value than the level recorded in step 4. (SUB CARRIER LEVEL Adjustment)

Adjustment Location

[TCB BOARD] (Conductor Side)



[TCB BOARD] (Component Side)

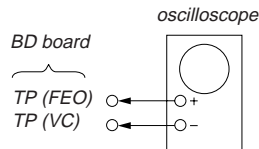


CD SECTION

Note:

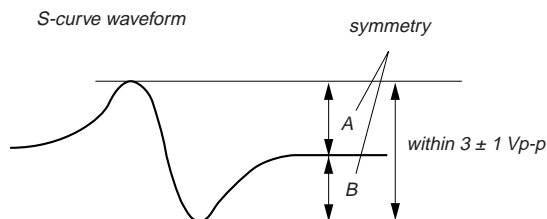
1. CD Block is basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M impedance.
4. Clean the object lens by an applicator with neutral detergent when the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

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 3 ± 1 Vp-p.

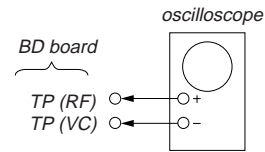


6. After check, remove the lead wire connected in step 2.

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.

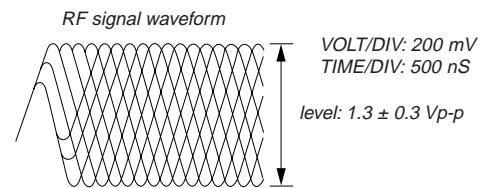
RF Level Check



Procedure :

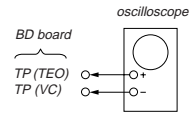
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

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



SECTION 6 DIAGRAMS

E-F Balance (1 Track Jump) check



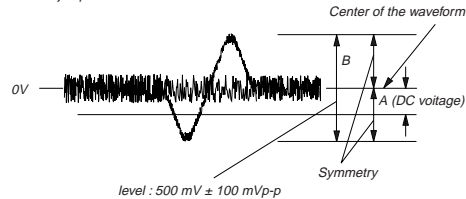
Procedure:

1. Connect oscilloscope to test point TP (TEO) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Press the "II (Pause)" button.
5. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform.

Confirm the following:

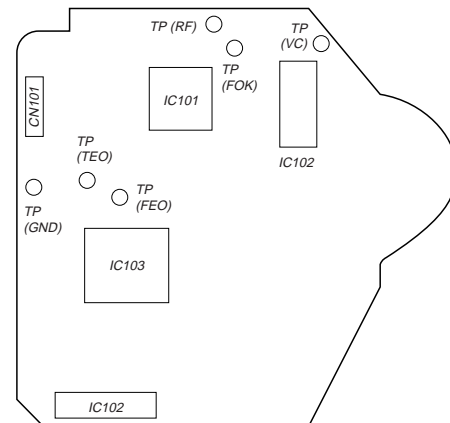
- $\frac{A - B}{2(A + B)} \times 100 = \text{less than } \pm 7 (\%)$
- $A + B = 500 \pm 100 \text{ mVp-p}$

1 track jump waveform

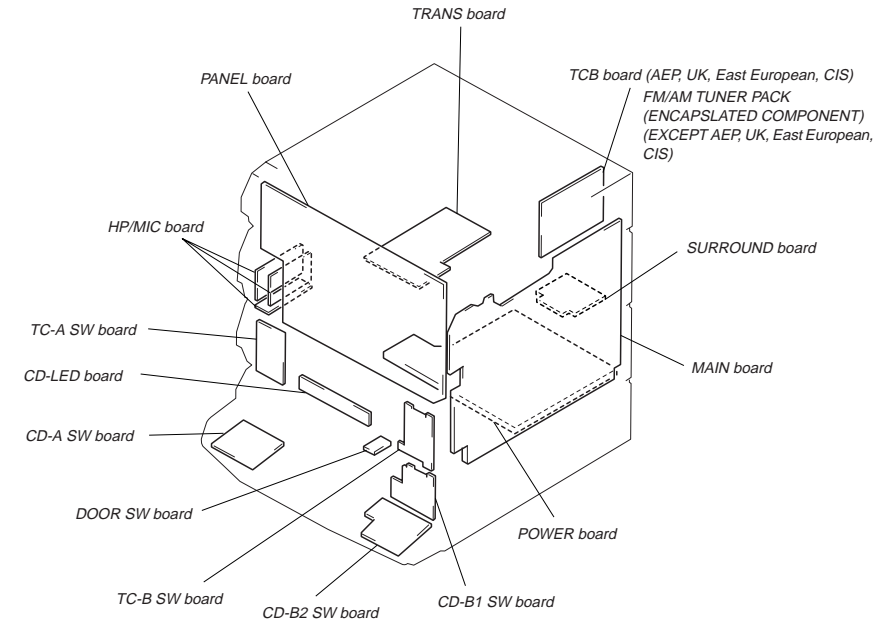


Adjustment Location:

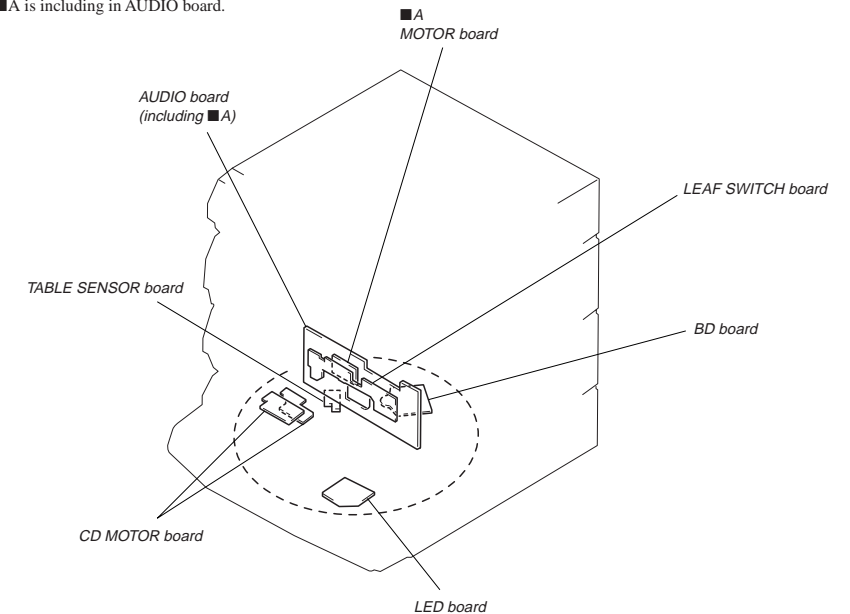
[BD BOARD] (Conductor Side)

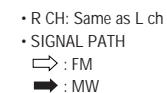


6-1. CIRCUIT BOARDS LOCATION



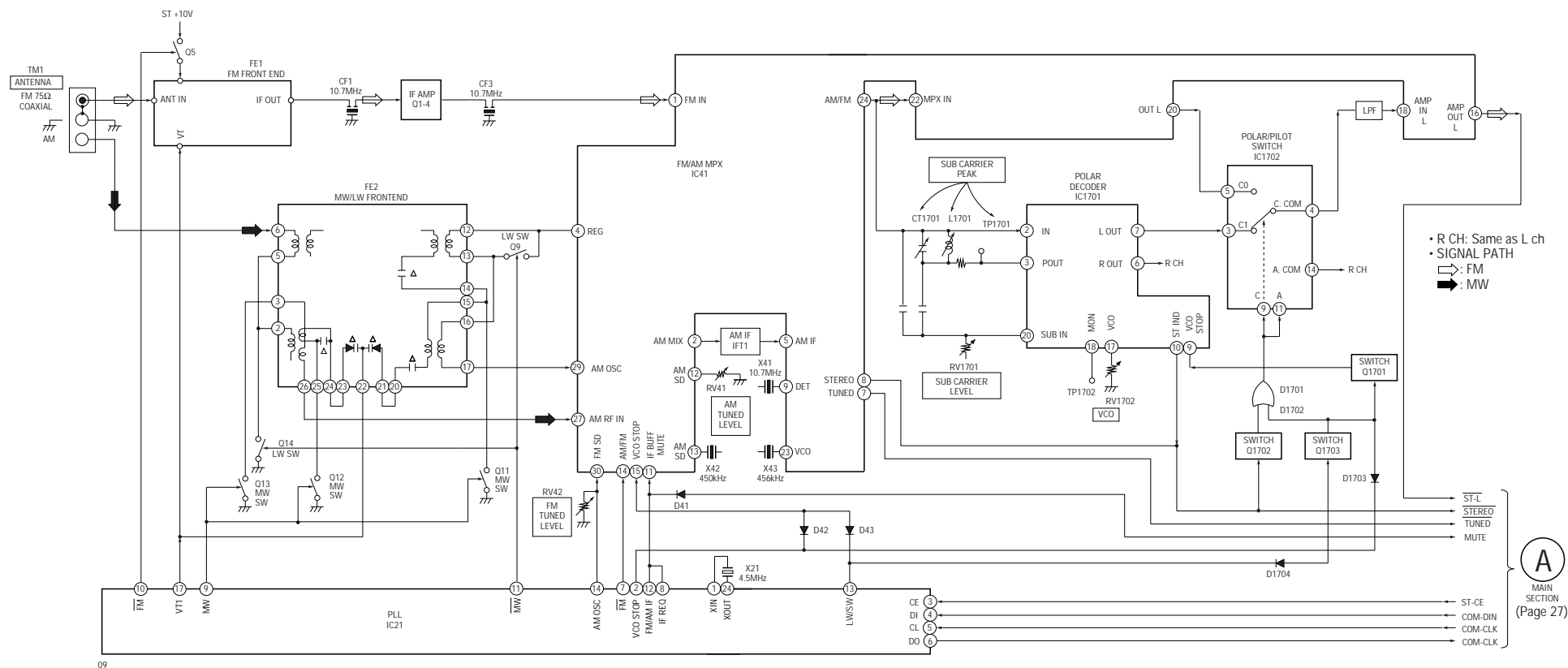
Note: ■A is including in AUDIO board.

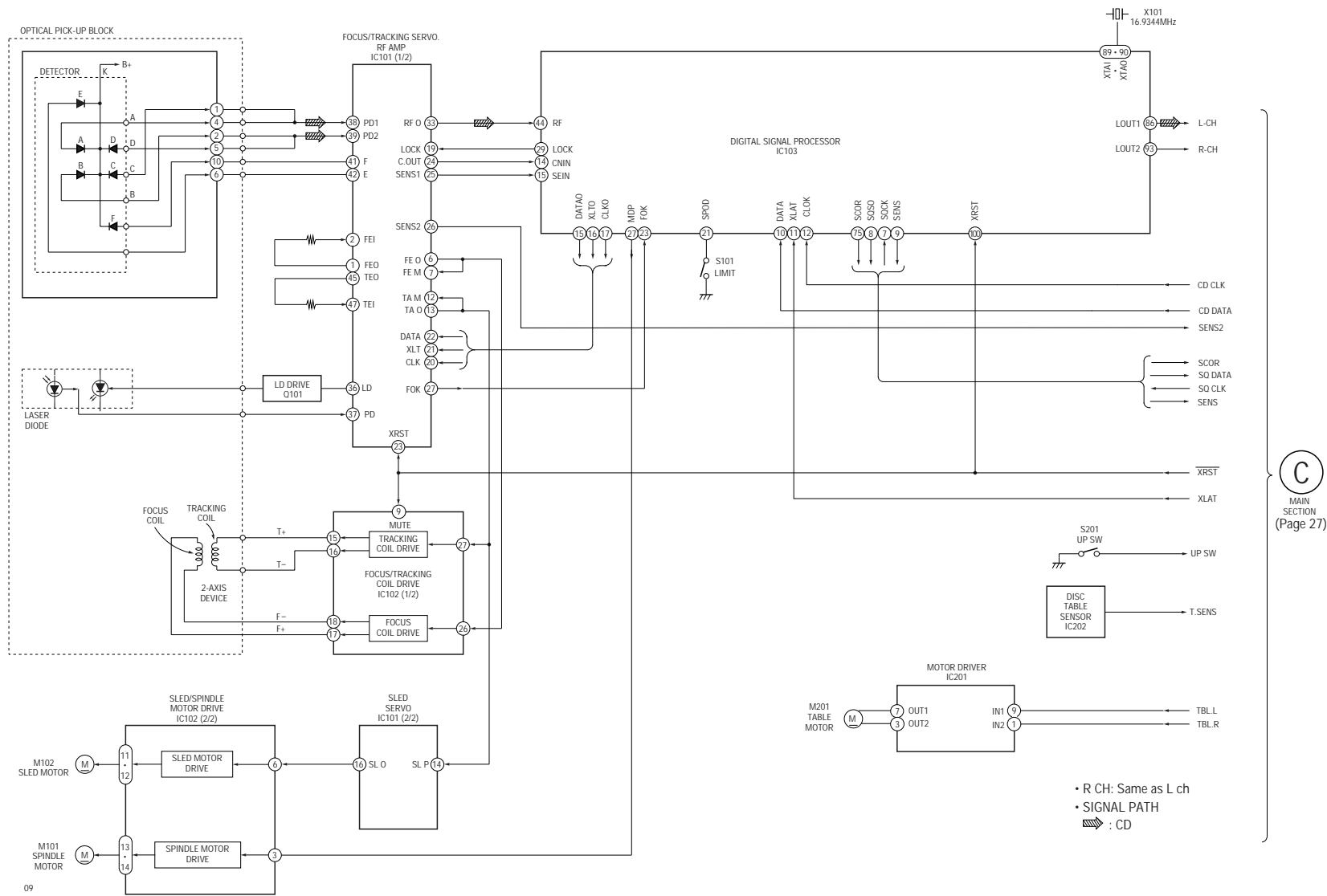




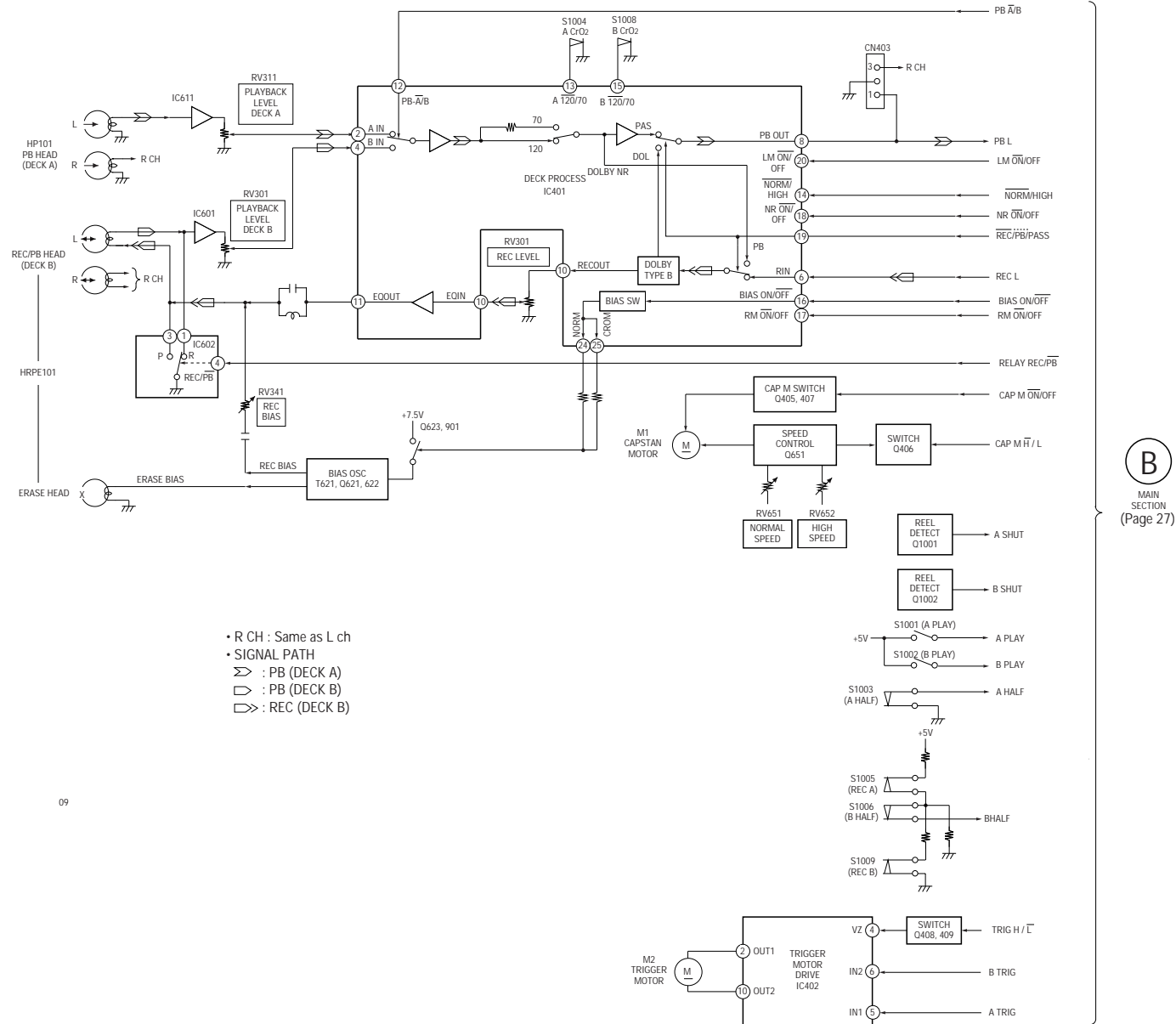
A
MAIN
SECTION
(Page 27)

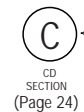
— TUNER SECTION — (East European, CIS model)





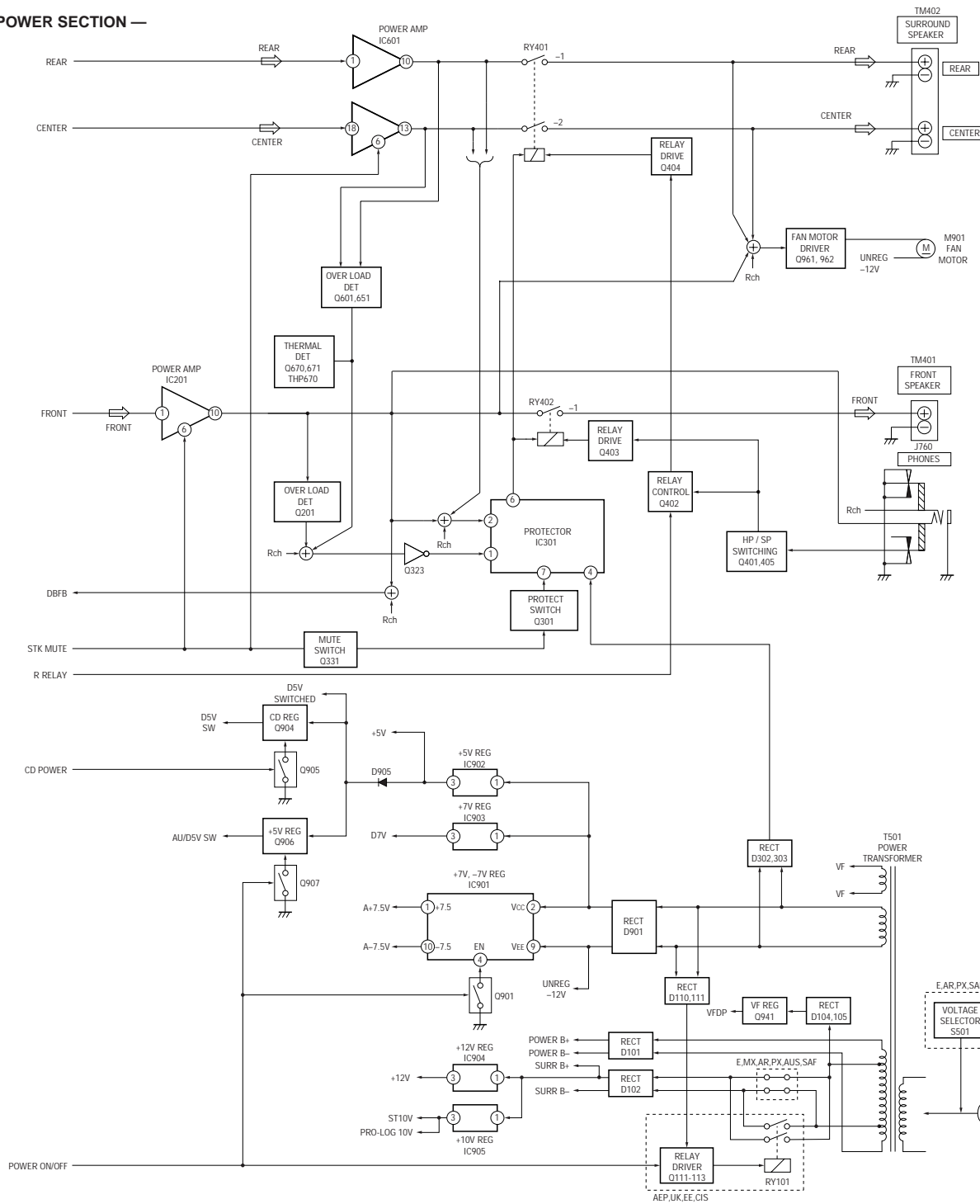
C
MAIN
SECTION
(Page 27)





- R CH: Same as L ch
- SIGNAL PATH
 - ➡ : FM
 - ▨ : CD
 - : PB
 - ➡➡ : REC
 - ➡➡➡ : VIDEO
 - ▷ : MIC

— POWER SECTION —

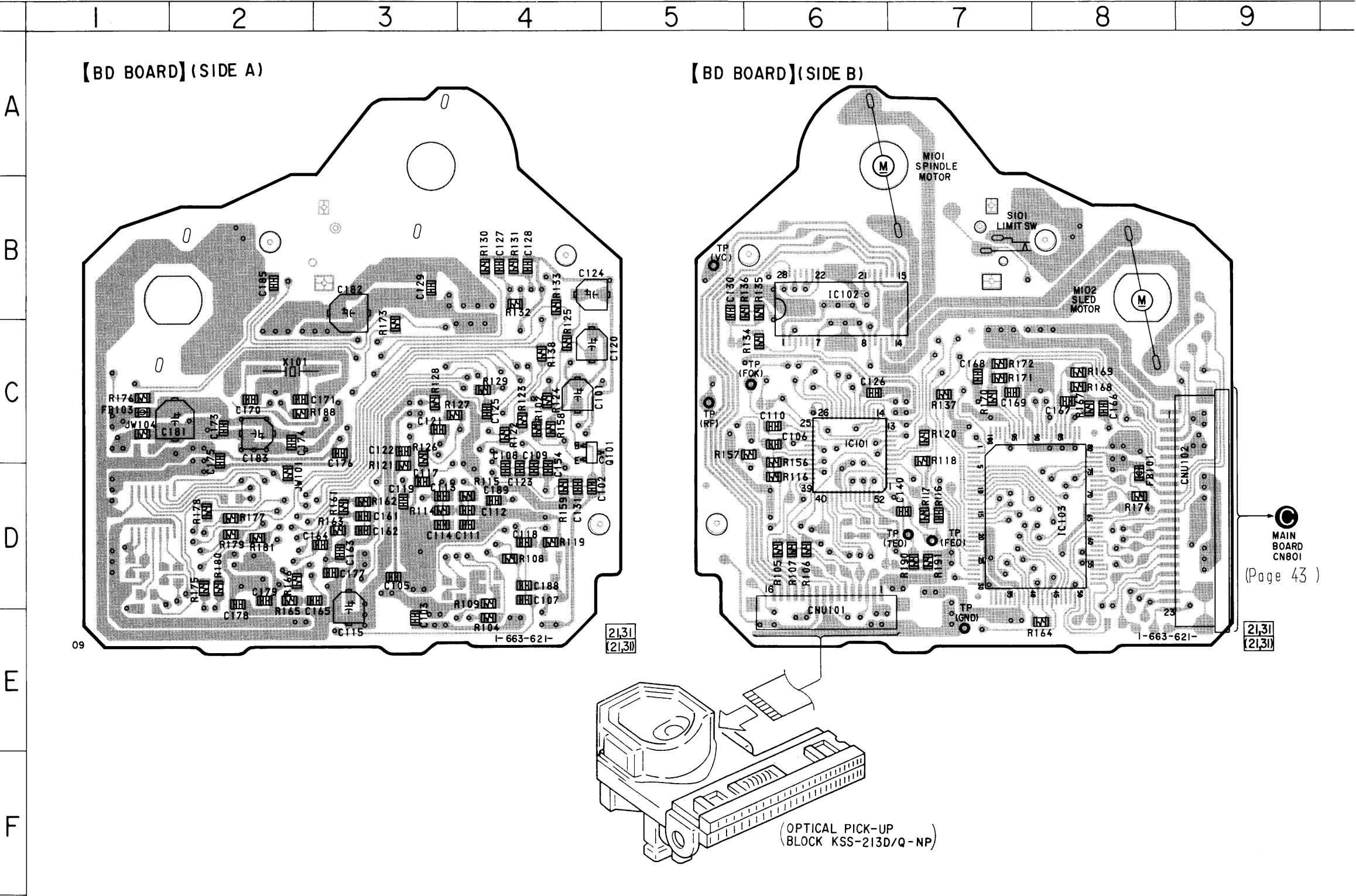


- R CH : Same as L ch
- SIGNAL PATH
 \Rightarrow : FM
- Abbreviation
 EE: East European model.
 MX: Mexican model.
 AR: Argentine model.
 AUS: Australian model.
 SAF: South African model.

6-3. PRINTED WIRING BOARD — CD SECTION —
• See page 18 for Circuit Boards Location.

• Semiconductor Location

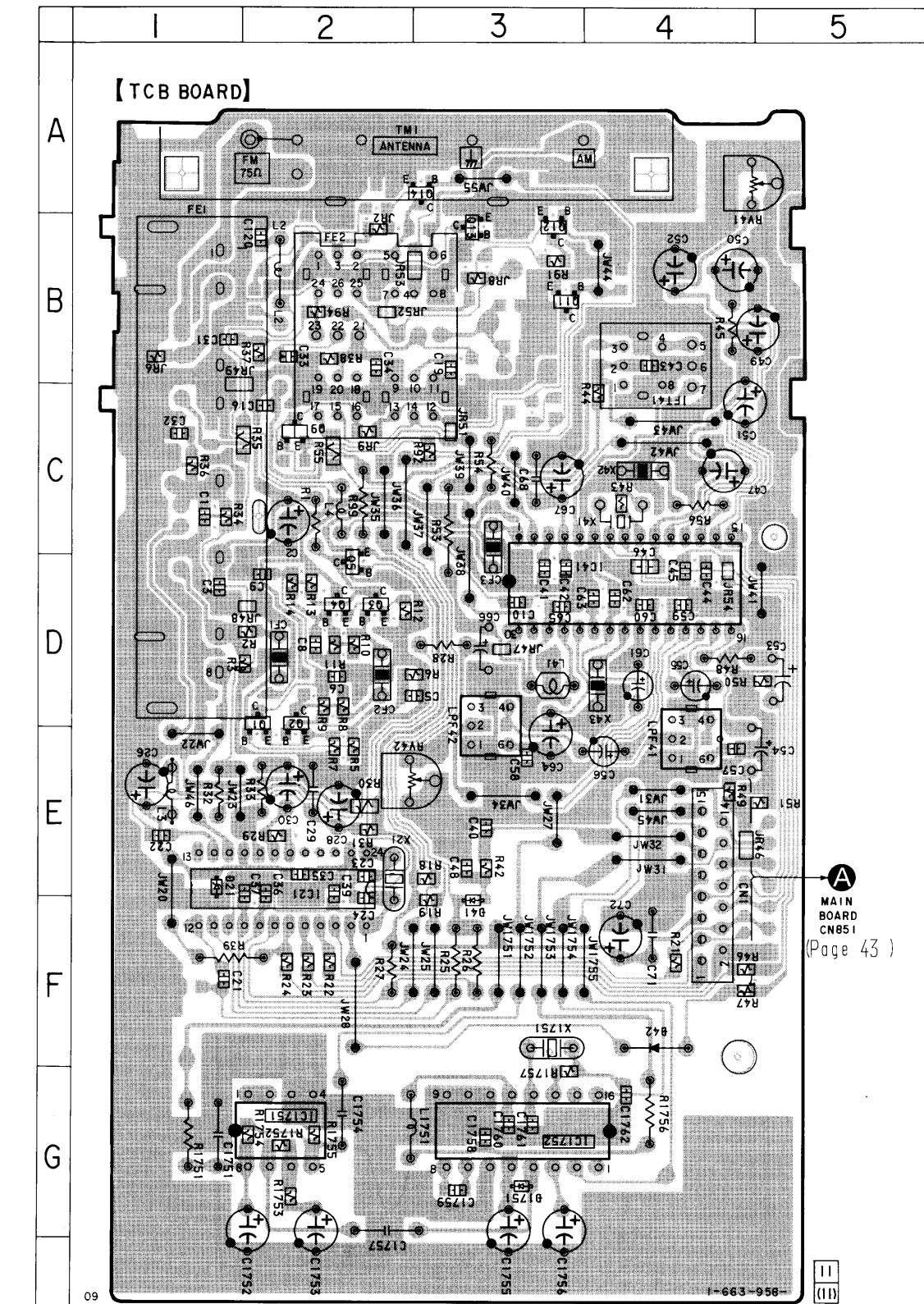
Ref. No.	Location
IC101	C-6
IC102	B-6
IC103	D-8
Q101	C-5



Note:

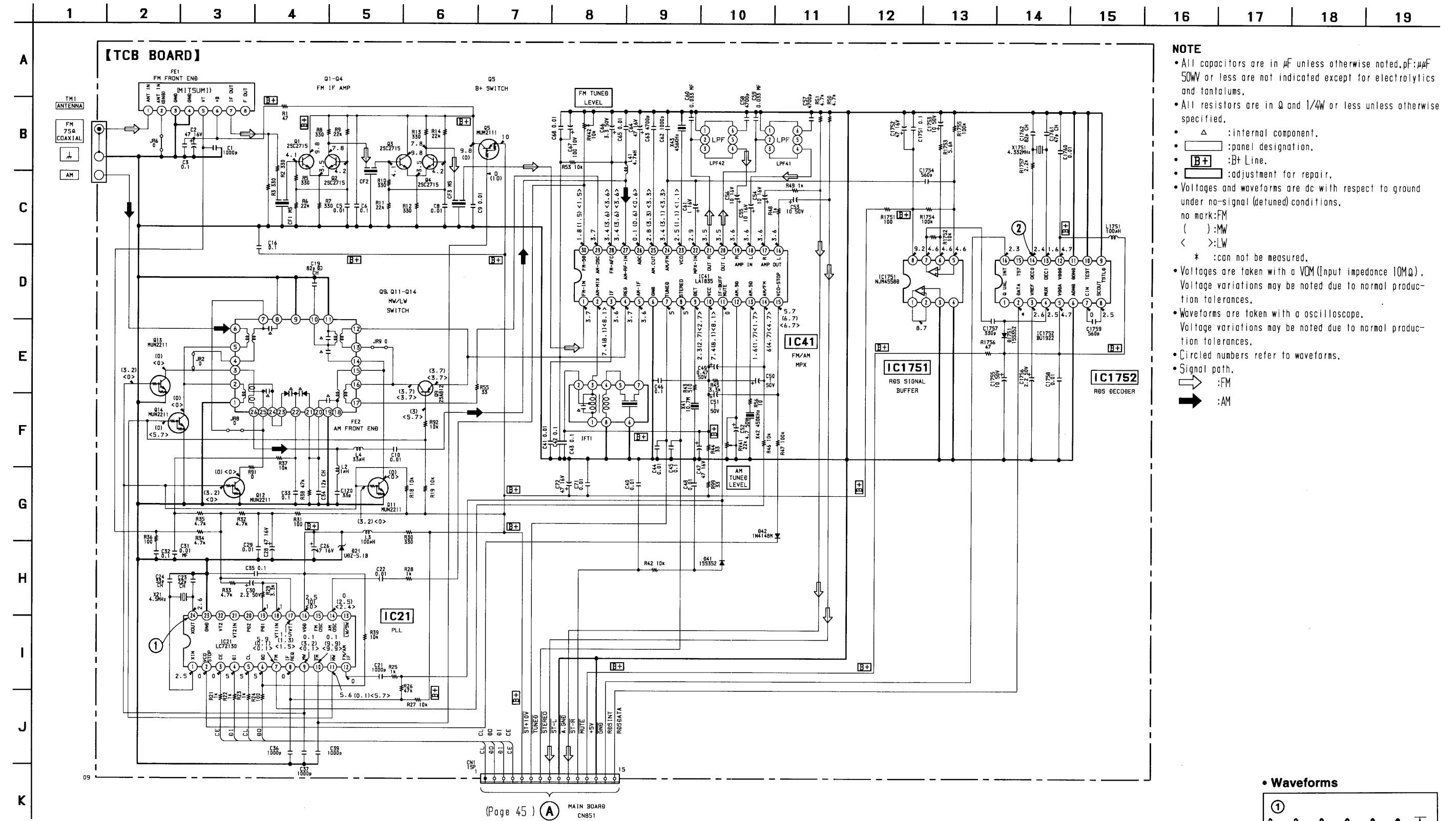
- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)

6-5. PRINTED WIRING BOARD — TUNER (AEP, UK model) SECTION —
• See page 18 for Circuit Boards Location.

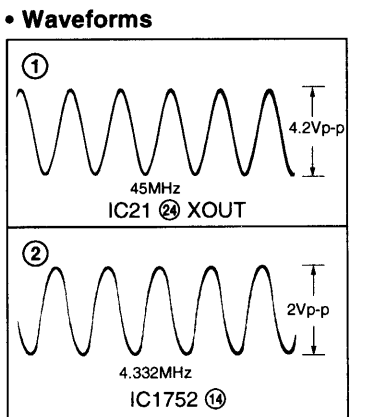


Note:
• : parts extracted from the component side.
• : Pattern from the side which enable seeing.

6-6. SCHEMATIC DIAGRAM — TUNER (AEP, UK model) SECTION —
• See page 73 for IC Block Diagrams.

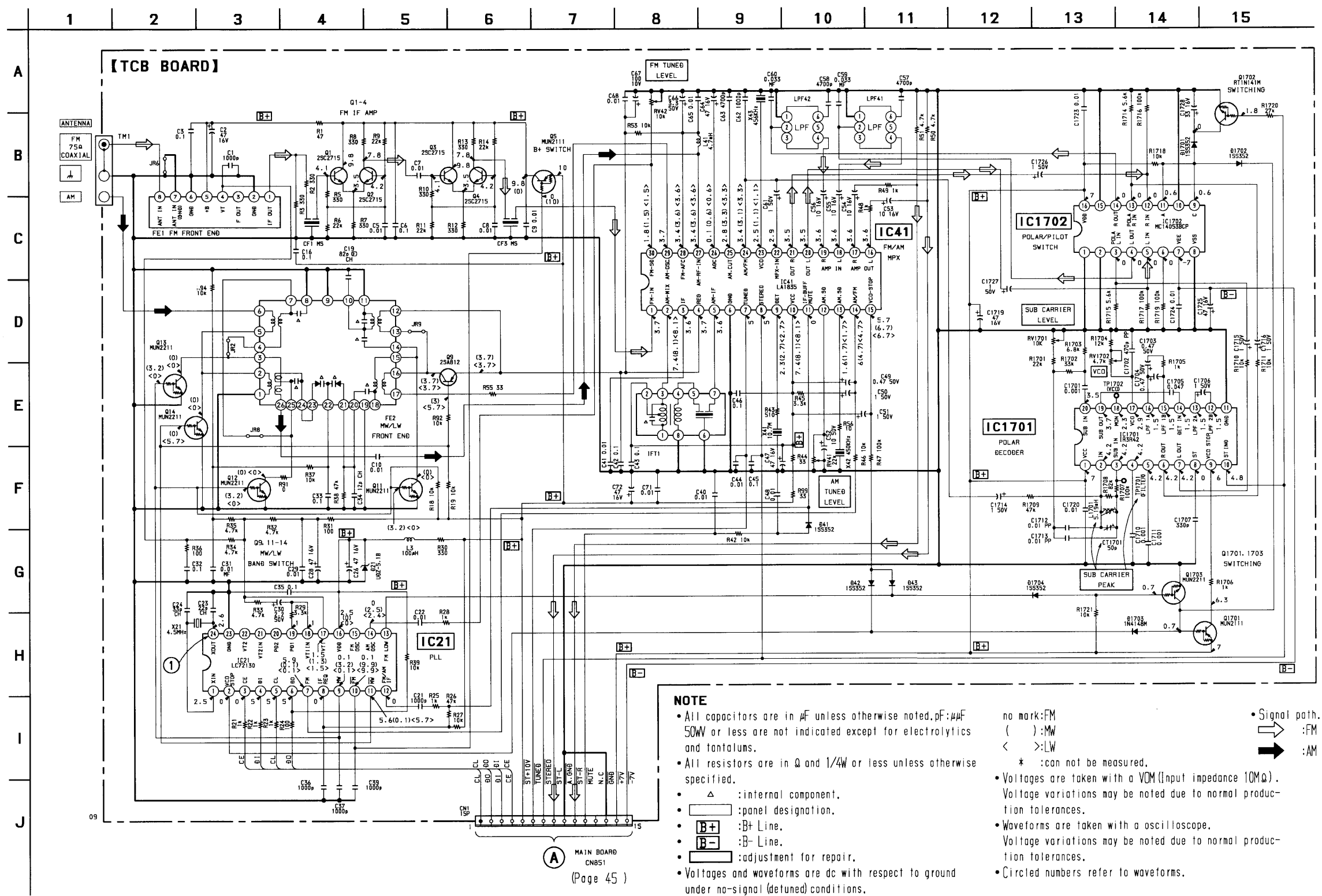


NOTE
• All capacitors are in μF unless otherwise noted, pF : μF
50W or less are not indicated except for electrolytics
and tantalums.
• All resistors are in Ω and $1/4\text{W}$ or less unless otherwise
specified.
• : internal component.
• : panel designation.
• B+ : B+ Line.
• : adjustment for repair.
• Voltages and waveforms are dc with respect to ground
under no-signal (detuned) conditions.
no mark: FM
(): MW
< > : LW
* : can not be measured.
• Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$).
Voltage variations may be noted due to normal produc-
tion tolerances.
• Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal produc-
tion tolerances.
• Circled numbers refer to waveforms.
• Signal path.
→ : FM
→ : AM



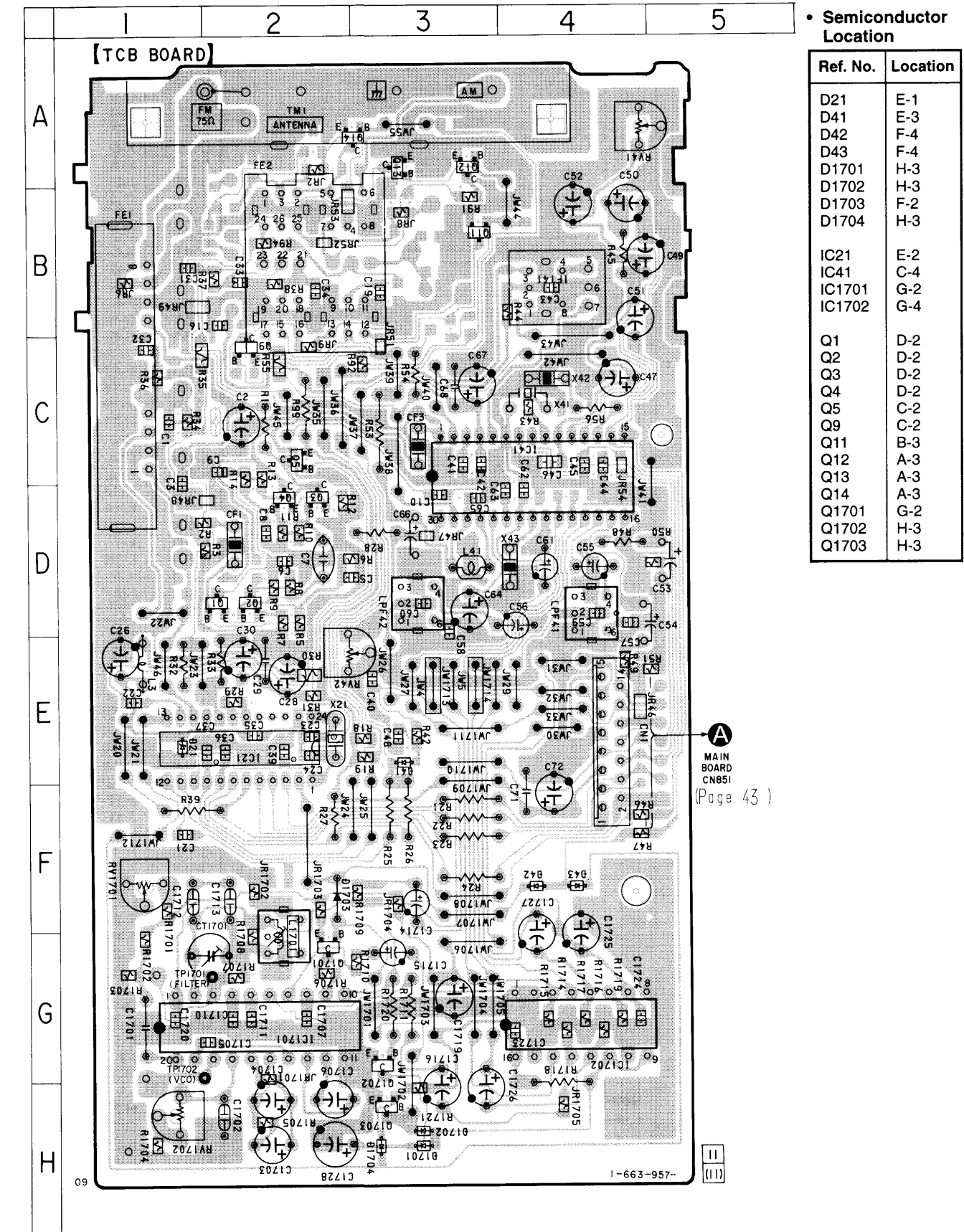
6-7. SCHEMATIC DIAGRAM — TUNER (East European, CIS model) SECTION —

• See page 73 for IC Block Diagrams.

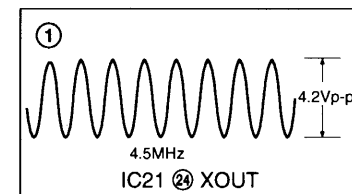


6-8. PRINTED WIRING BOARD — TUNER (East European, CIS model) SECTION —

• See page 18 for Circuit Boards Location.



• Waveform



Note:

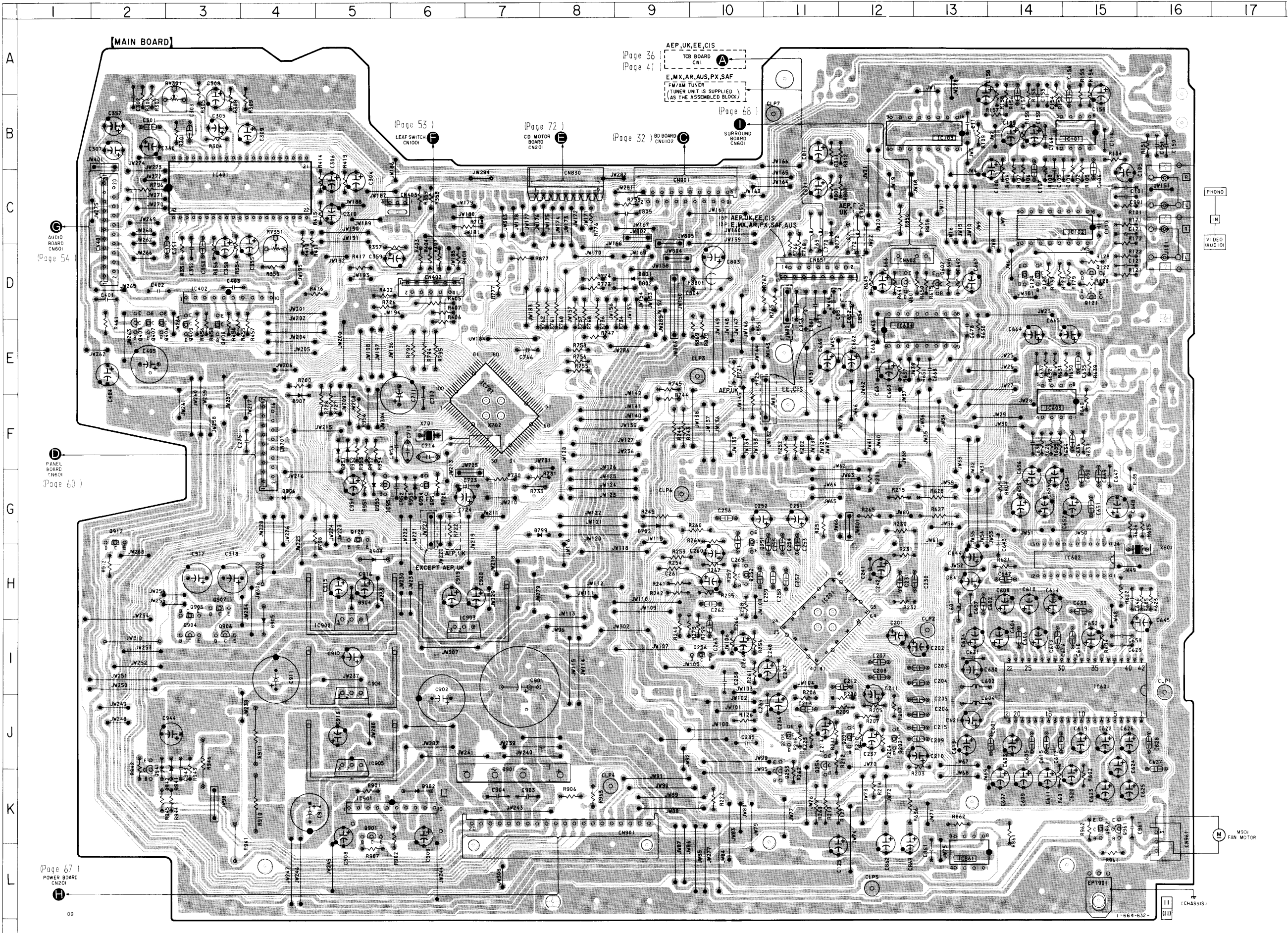
- : parts extracted from the component side.
- : Pattern from the side which enable seeing.

6-9. PRINTED WIRING BOARD — MAIN SECTION —
• See page 18 for Circuit Boards Location.

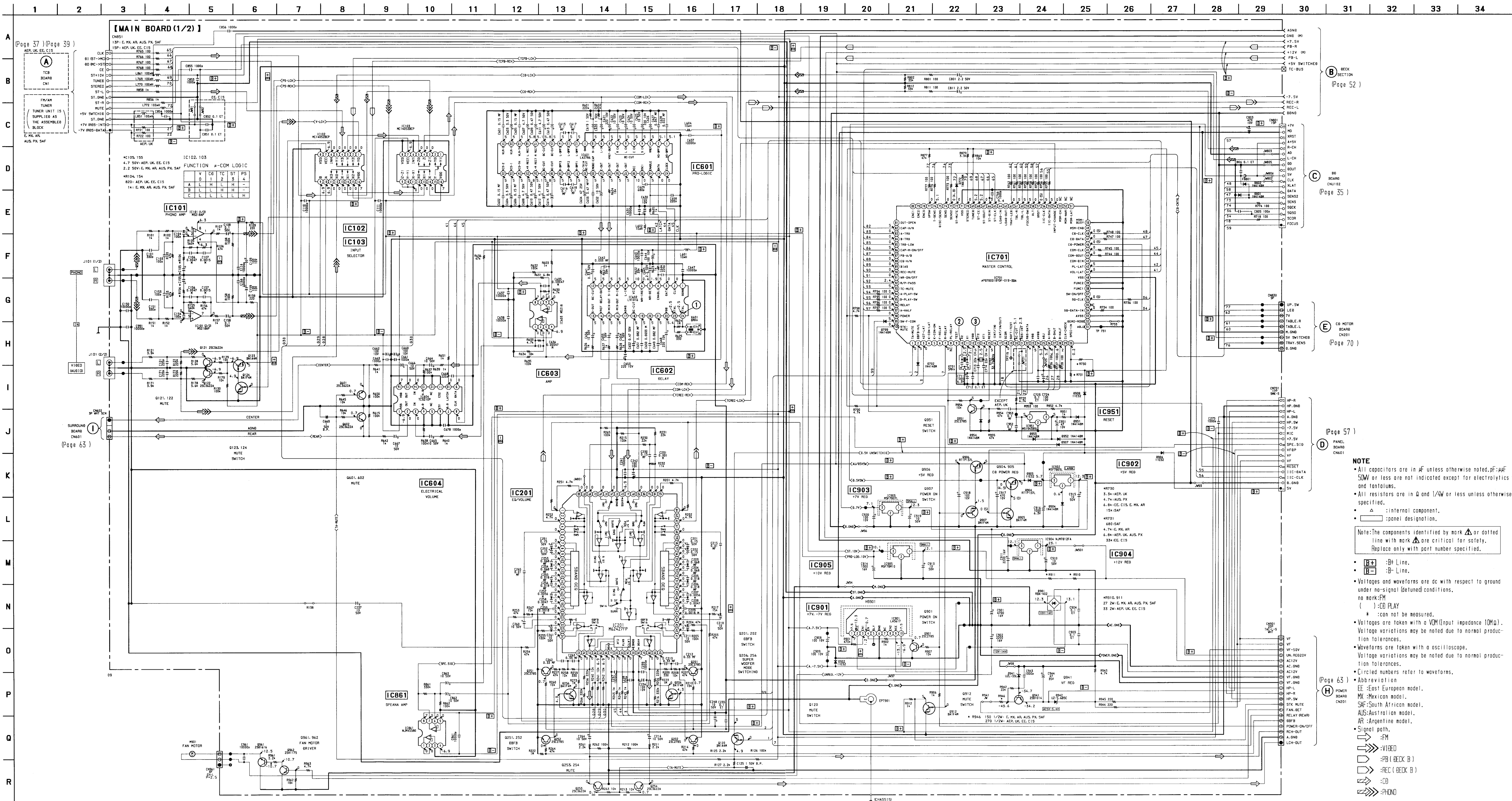
• Semiconductor Location

Ref. No.	Location
D702	G-9
D772	C-11
D799	G-8
D801	D-9
D802	D-9
D901	K-7
D902	K-6
D904	H-5
D905	I-4
D906	G-4
D907	F-4
D908	H-5
D941	K-3
D942	K-3
D951	F-5
D952	F-5
D953	G-5
D954	G-6
IC101	B-15
IC102	C-15
IC103	B-13
IC201	H-11
IC401	C-2
IC402	D-2
IC601	I-15
IC602	H-15
IC603	F-14
IC604	E-12
IC701	E-7
IC861	L-13
IC901	K-5
IC902	I-5
IC903	I-7
IC904	J-5
IC905	J-5
IC951	G-5
Q120	G-5
Q121	D-15
Q122	D-15
Q123	D-14
Q124	D-14
Q201	J-12
Q202	J-12
Q206	J-11
Q251	H-10
Q252	H-10
Q253	K-11
Q254	K-11
Q256	I-10
Q403	E-2
Q406	E-2
Q407	E-2
Q408	E-3
Q409	E-3
Q601	D-12
Q602	D-13
Q901	K-5
Q904	I-3
Q905	H-3
Q906	I-3
Q907	H-3
Q912	G-2
Q941	K-2
Q951	G-6
Q961	K-15
Q962	K-15

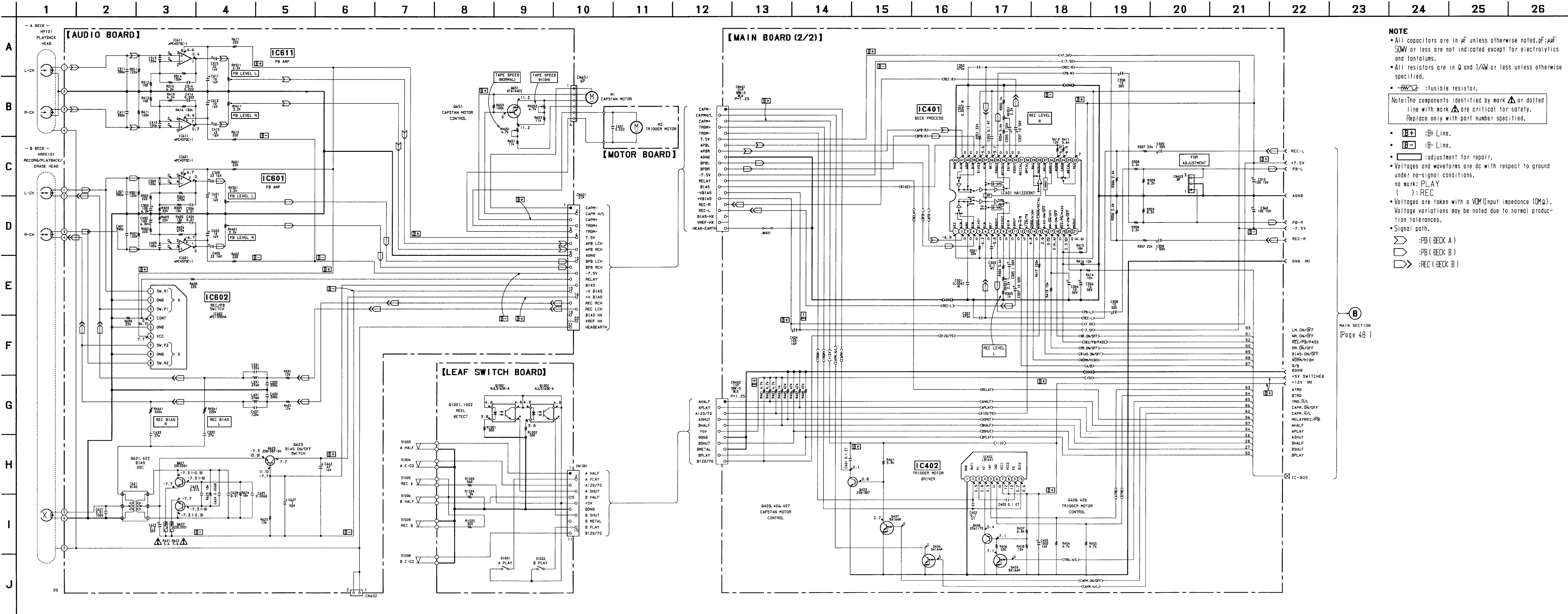
- Note:
- — : parts extracted from the component side.
 - — : Pattern from the side which enable seeing.
 - Abbreviation
 - EE : East European model.
 - MX : Mexican model.
 - AUS : Australian model.
 - AR : Argentine model.
 - SAF : South African model.



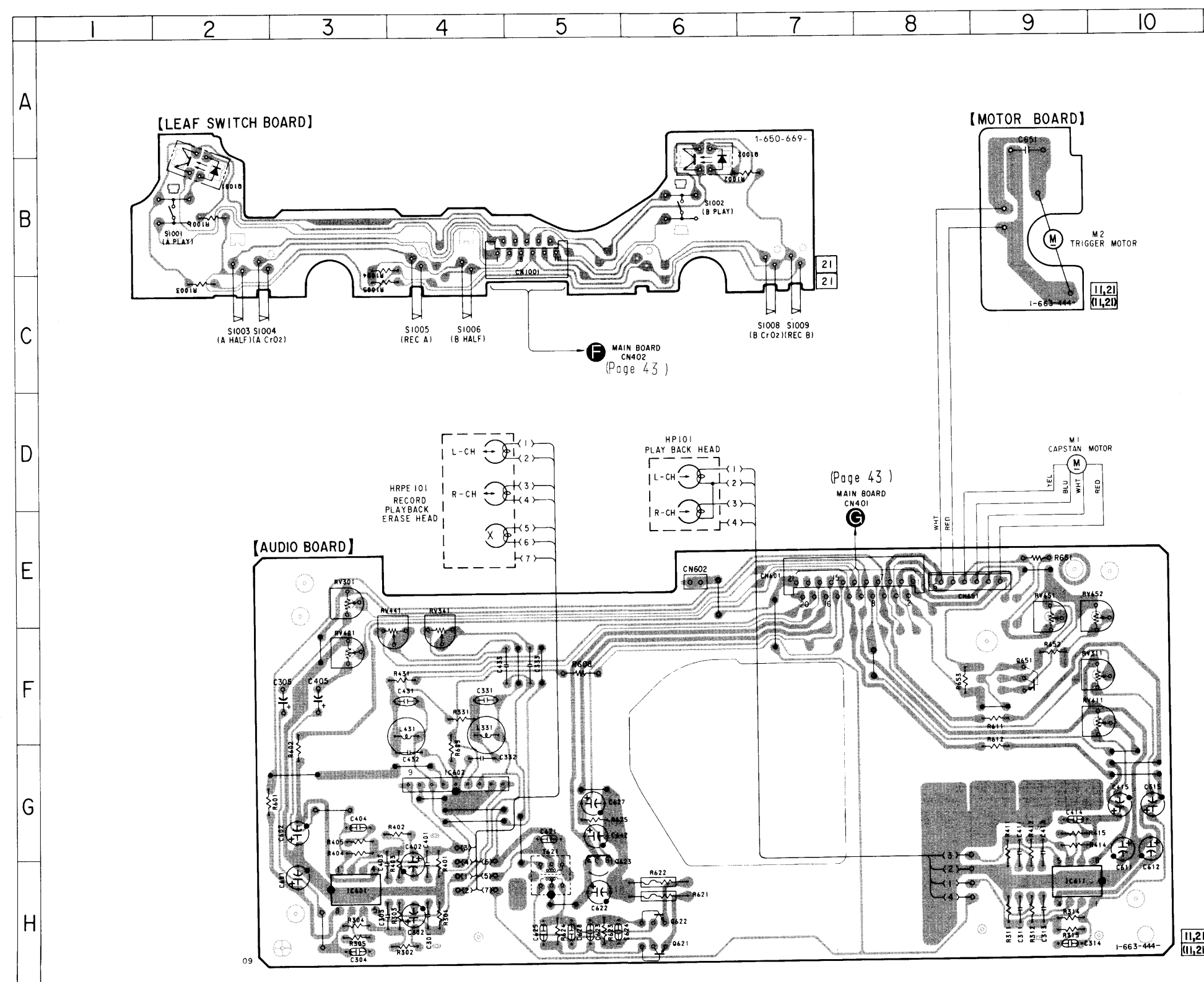
- See page 77 for IC Block Diagrams.
- See page 86 for IC Pin Functions.



6-11. SCHEMATIC DIAGRAM — DECK SECTION —
• See page 43 for Printed Wiring Board. (Main board)
• See page 79 for IC Block Diagrams.




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



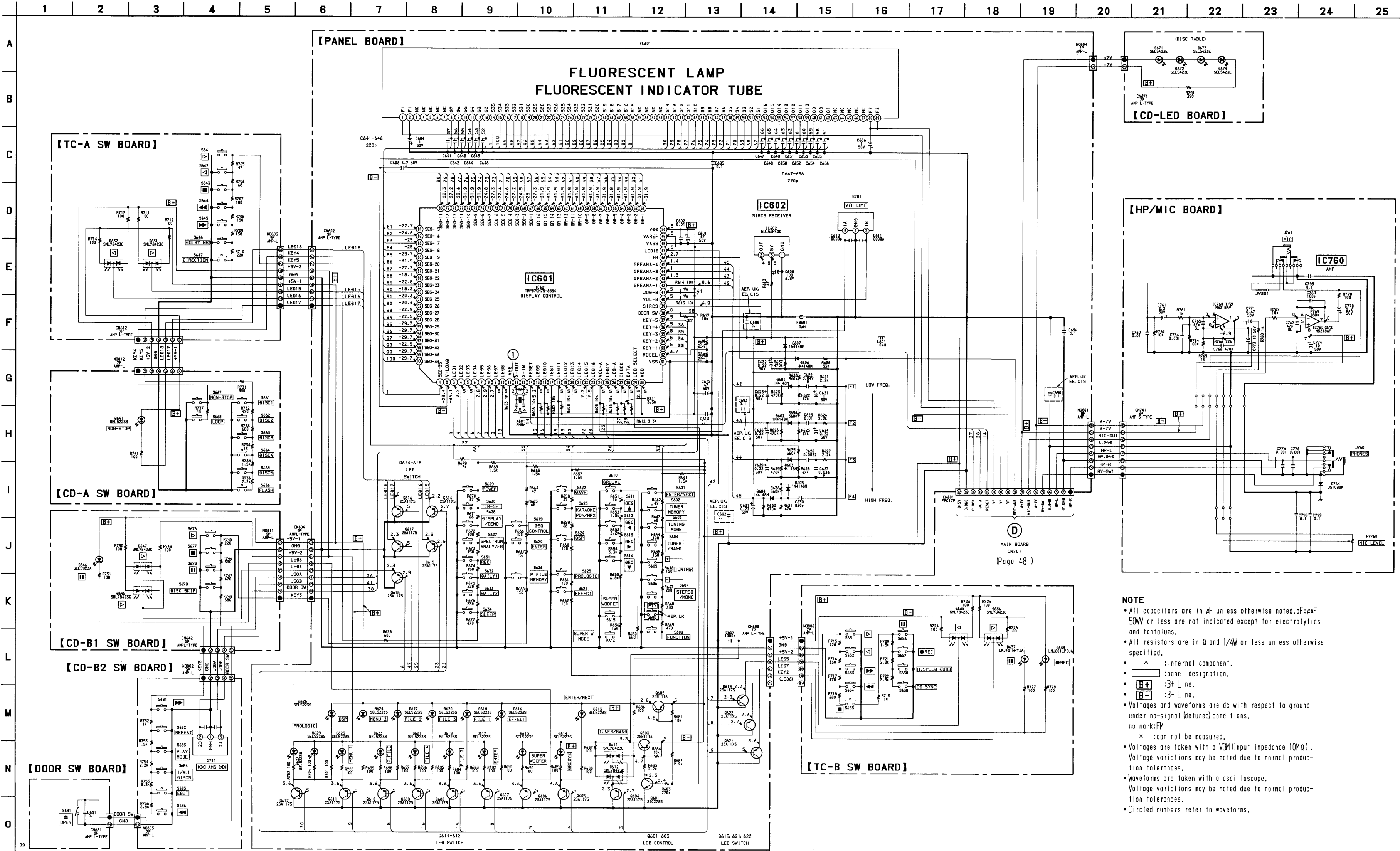
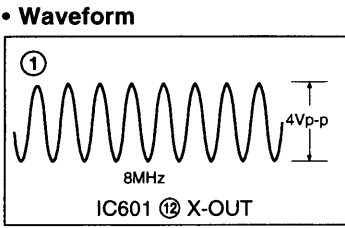
- **Semiconductor Location**

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



Note:

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

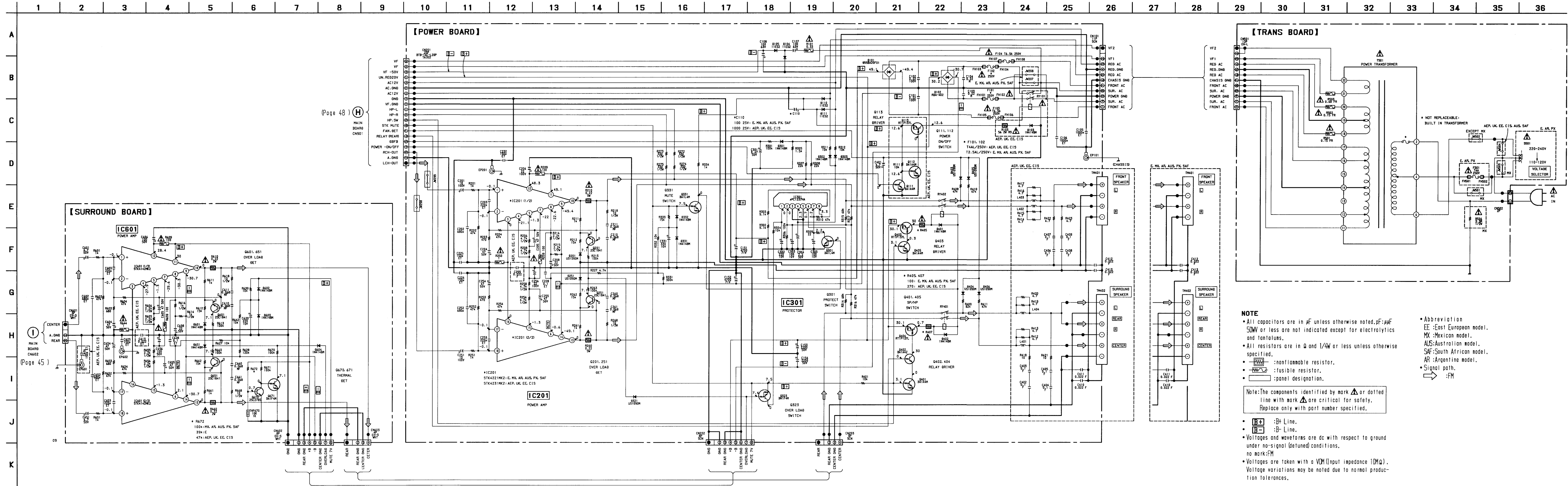
6-13. SCHEMATIC DIAGRAM — PANEL SECTION —
• See page 85 for IC Pin Functions.



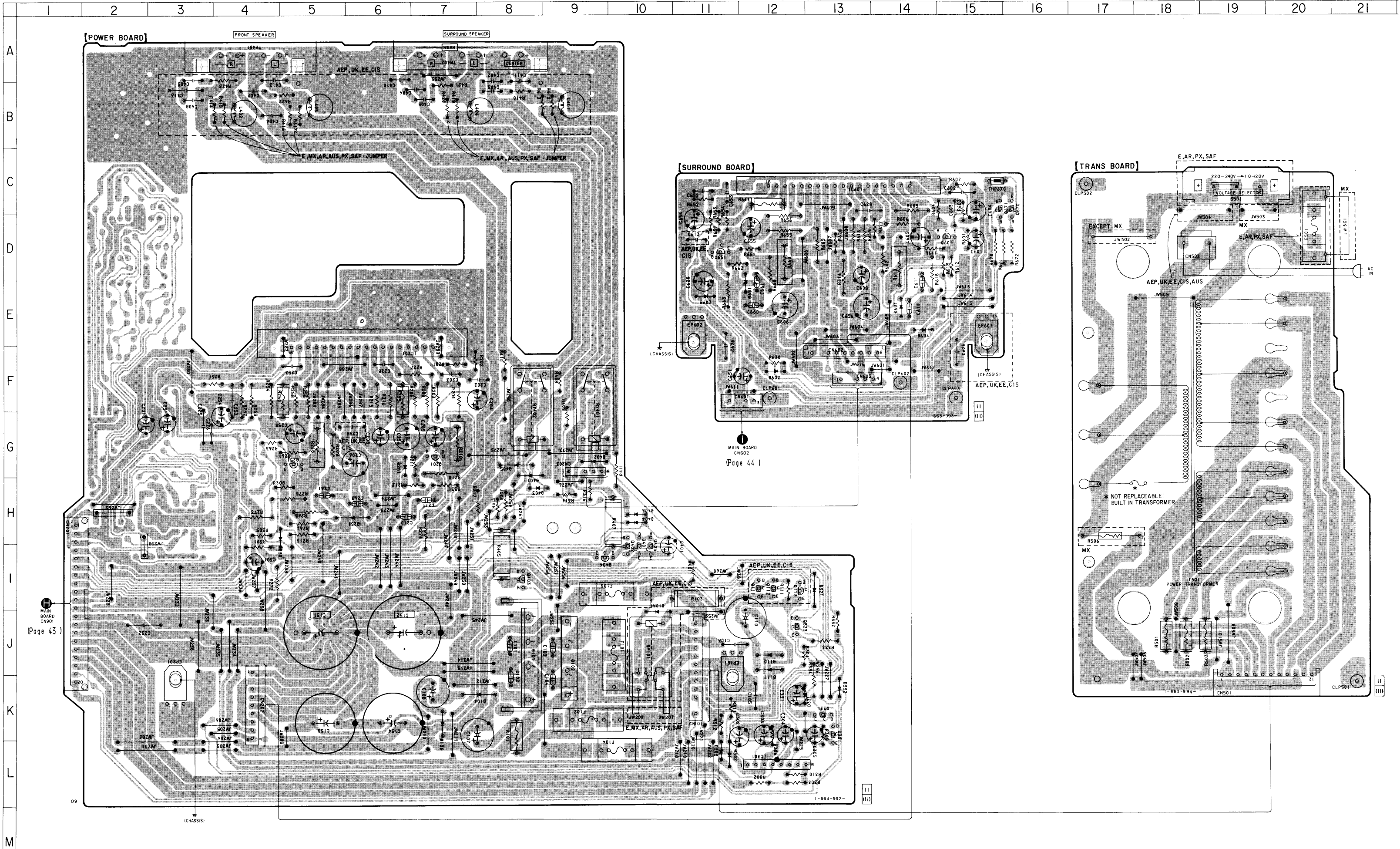
Note:

-  : parts extracted from the component side.
-  : Pattern from the side which enable seeing.
- Abbreviation
 EE : East European model.

6-15. SCHEMATIC DIAGRAM — POWER SECTION —
• See page 79 for IC Block Diagrams.



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



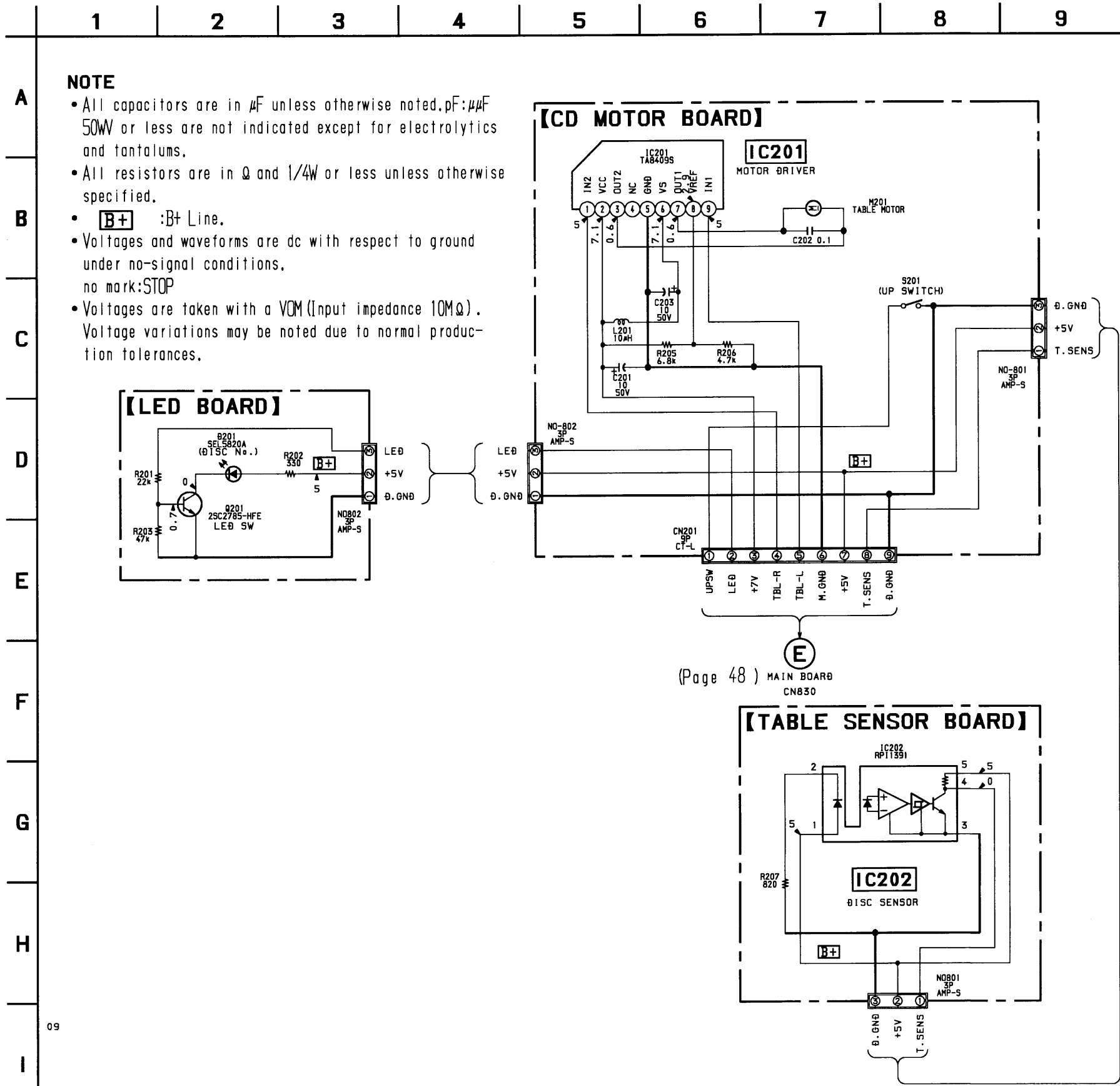
• Semiconductor Location

Ref. No.	Location
D101	J-8
D102	J-9
D103	I-10
D104	K-8
D105	K-7
D110	J-12
D111	J-12
D201	G-6
D251	H-6
D301	I-4
D302	L-11
D303	L-11
D321	I-13
D331	K-13
D332	K-13
D401	H-8
D402	G-9
D403	H-8
D404	H-10
D405	G-8
D406	H-10
D601	E-14
D602	F-12
D603	E-11
D604	E-14
D651	E-12
IC201	F-6
IC301	L-12
IC601	C-13
Q111	I-12
Q112	I-12
Q113	I-12
Q201	G-7
Q251	G-5
Q301	K-13
Q323	J-13
Q331	K-13
Q401	I-10
Q402	I-10
Q403	I-8
Q404	I-9
Q405	I-10
Q601	D-15
Q651	D-11
Q670	C-16
Q671	C-16

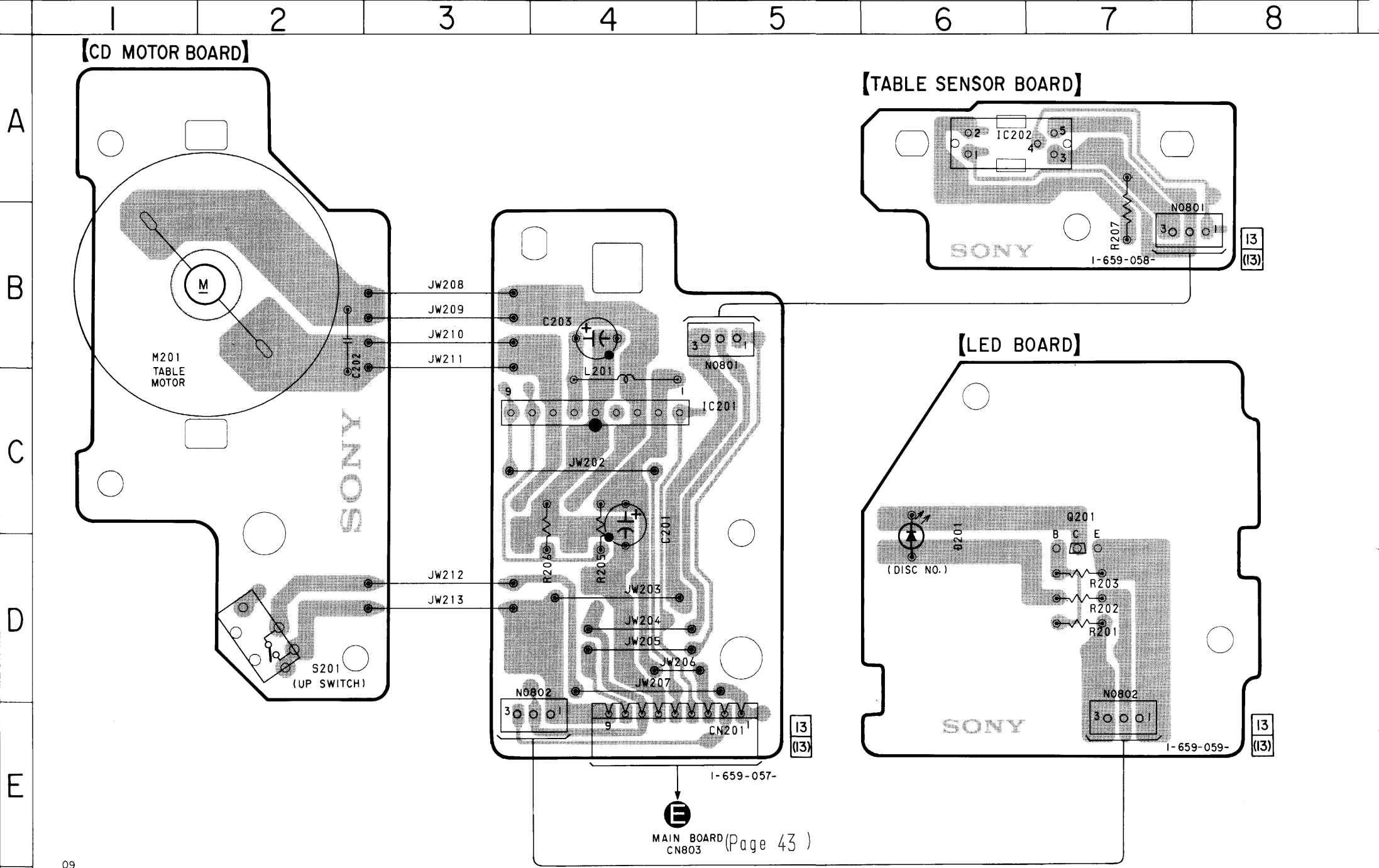
Note:

- — : parts extracted from the component side.
- — : Pattern from the side which enable seeing.
- Abbreviation
 - EE : East European model.
 - MX : Mexican model.
 - AUS : Australian model.
 - AR : Argentine model.
 - SAF : South African model.

6-17. SCHEMATIC DIAGRAM — CD MOTOR SECTION —
• See page 79 for IC Block Diagrams.



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



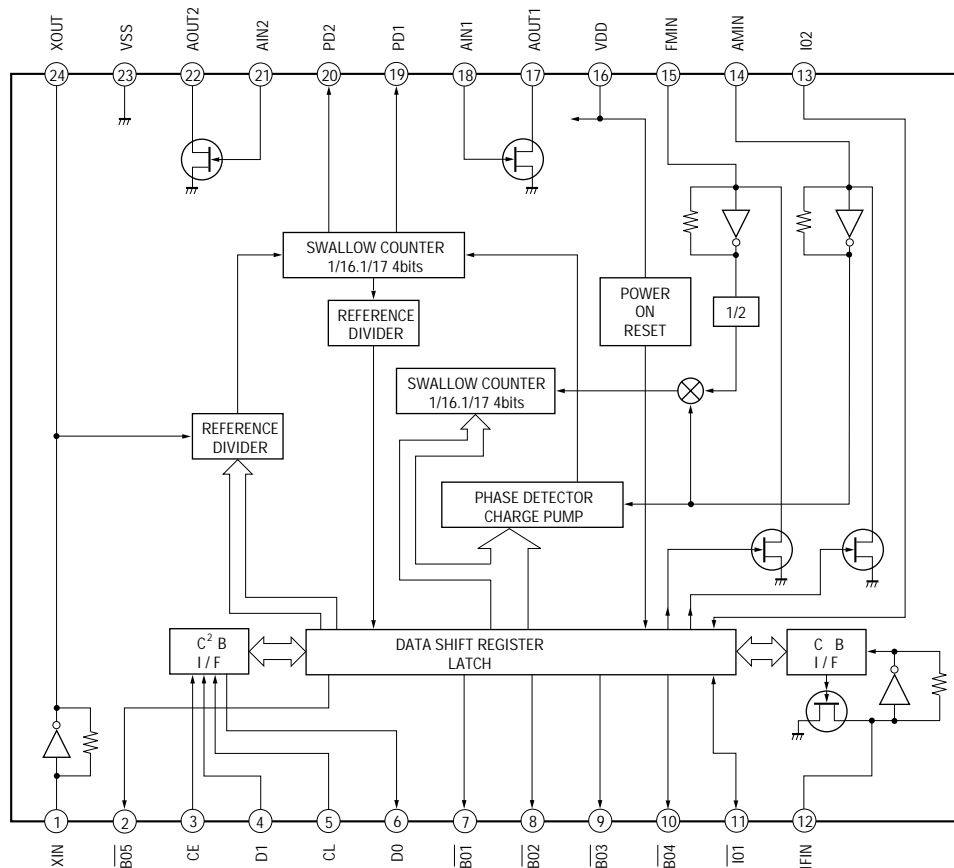
09

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

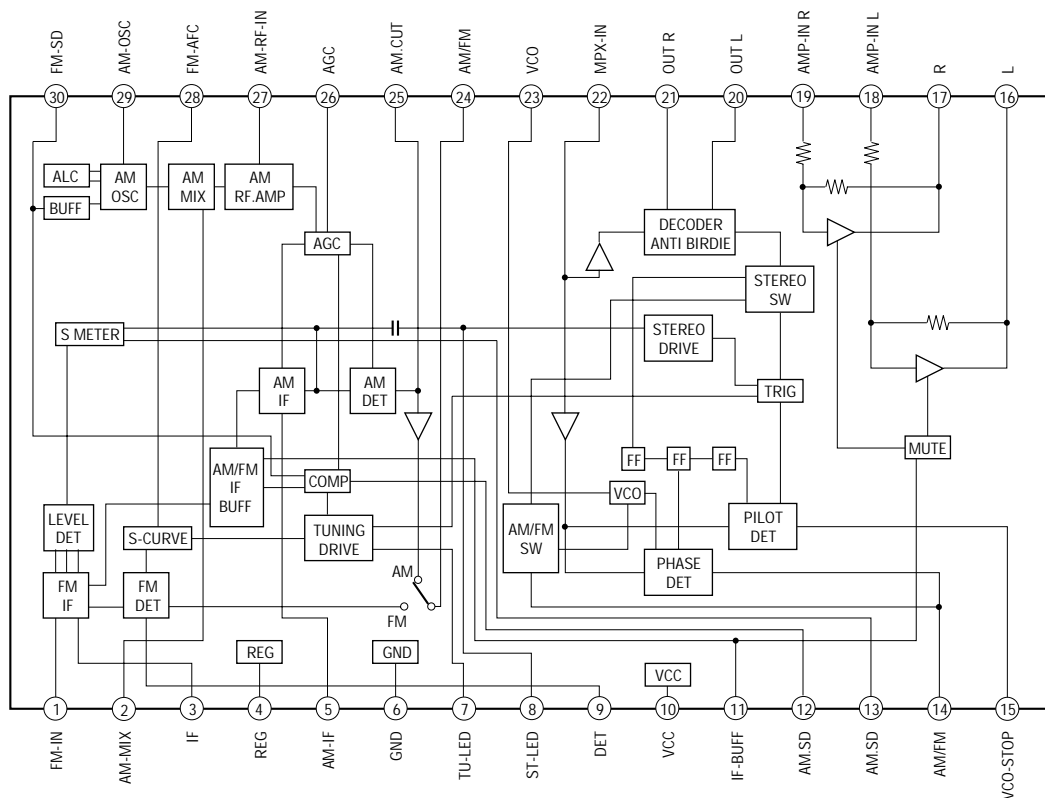
6-19. IC BLOCK DIAGRAMS

• Tuner section

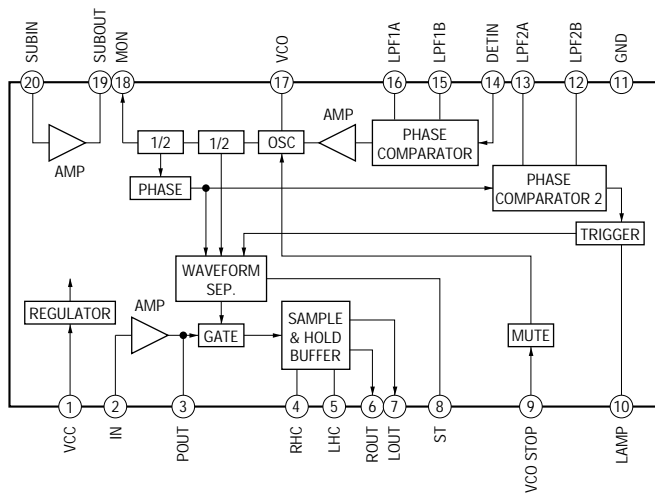
IC21 LC72130



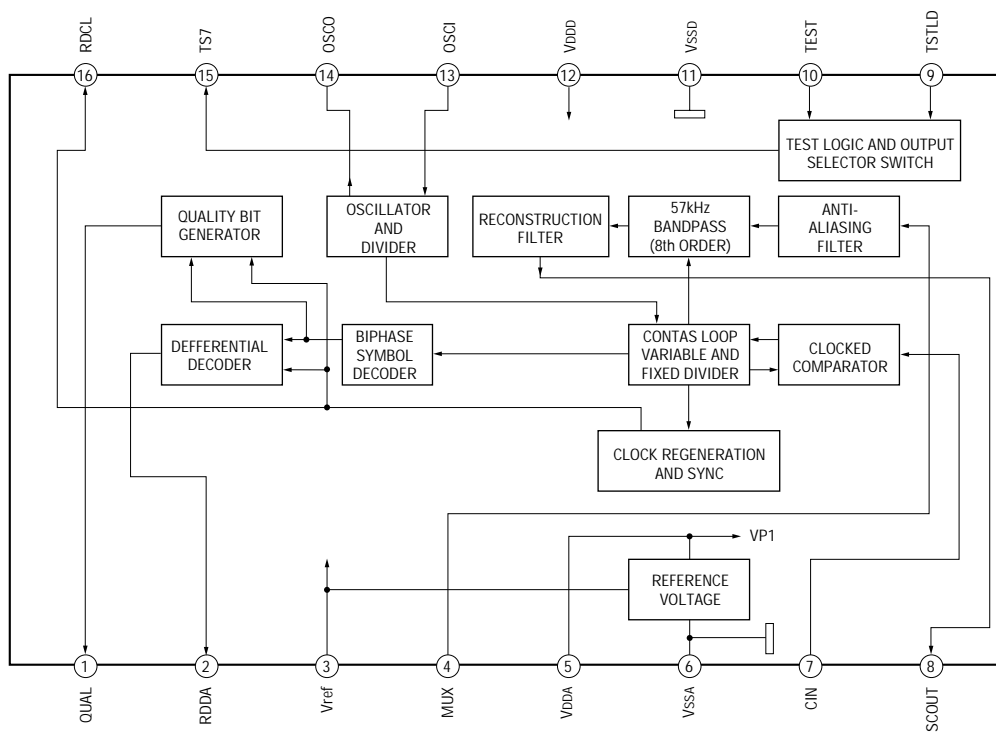
IC41 LA1835



IC1701 IR3R42



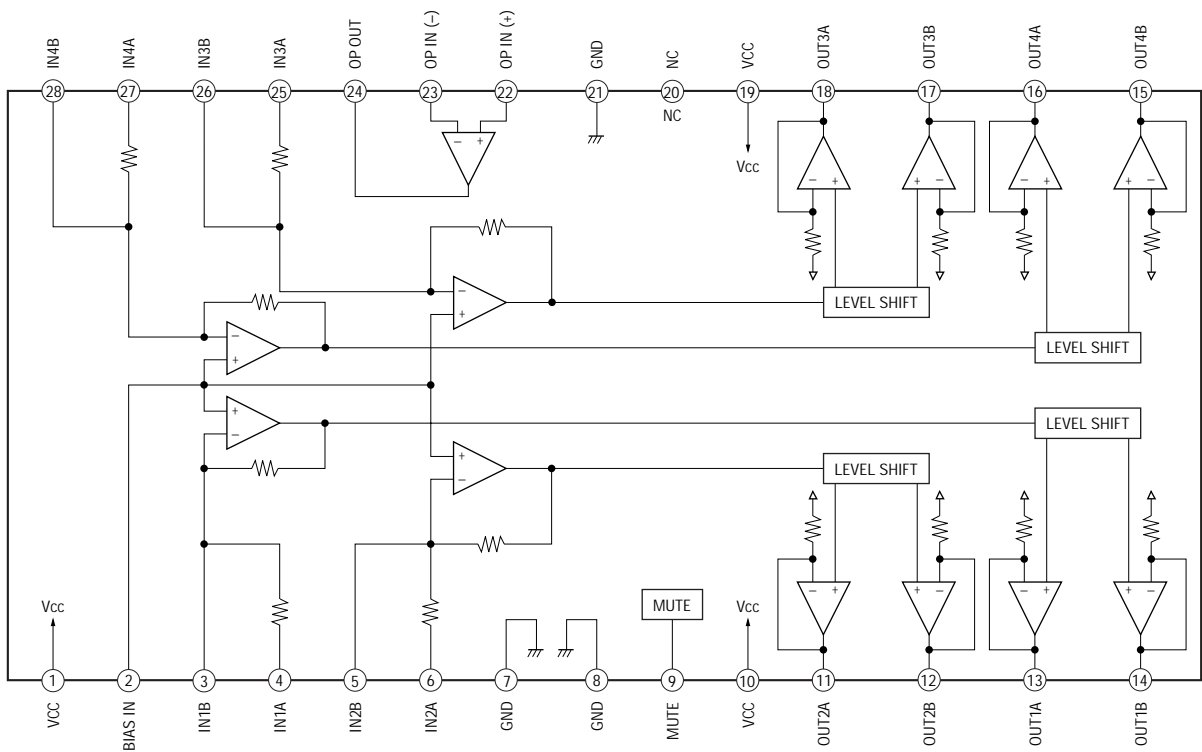
IC1752 BU1922



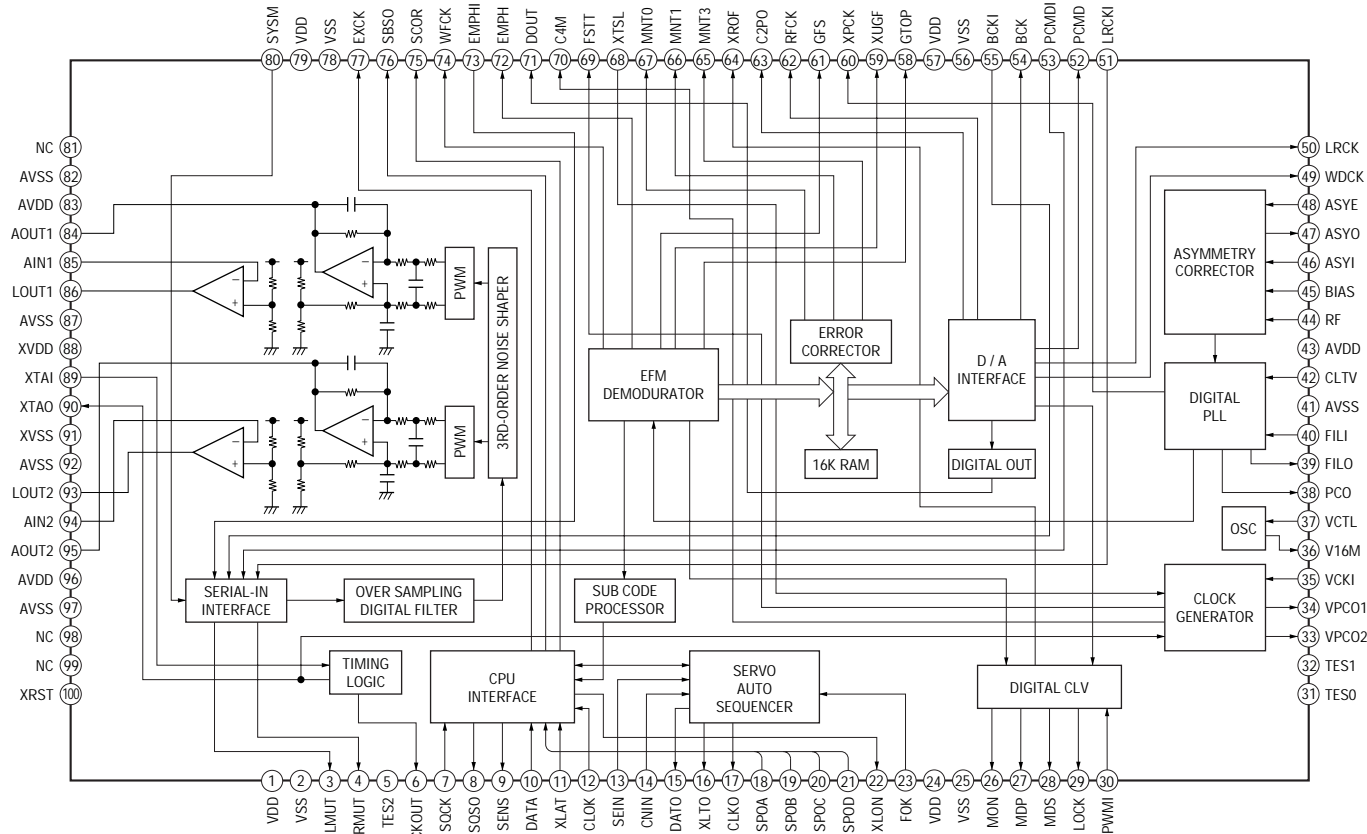
IC101 CXA1992AR



IC102 BA5941FP

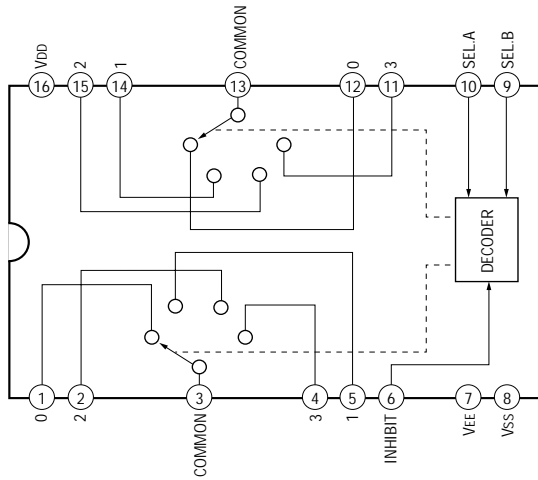


IC103 CXD2519Q

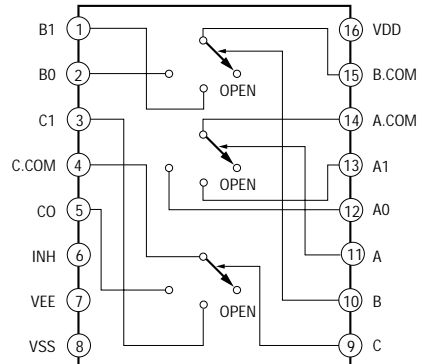


• Main section

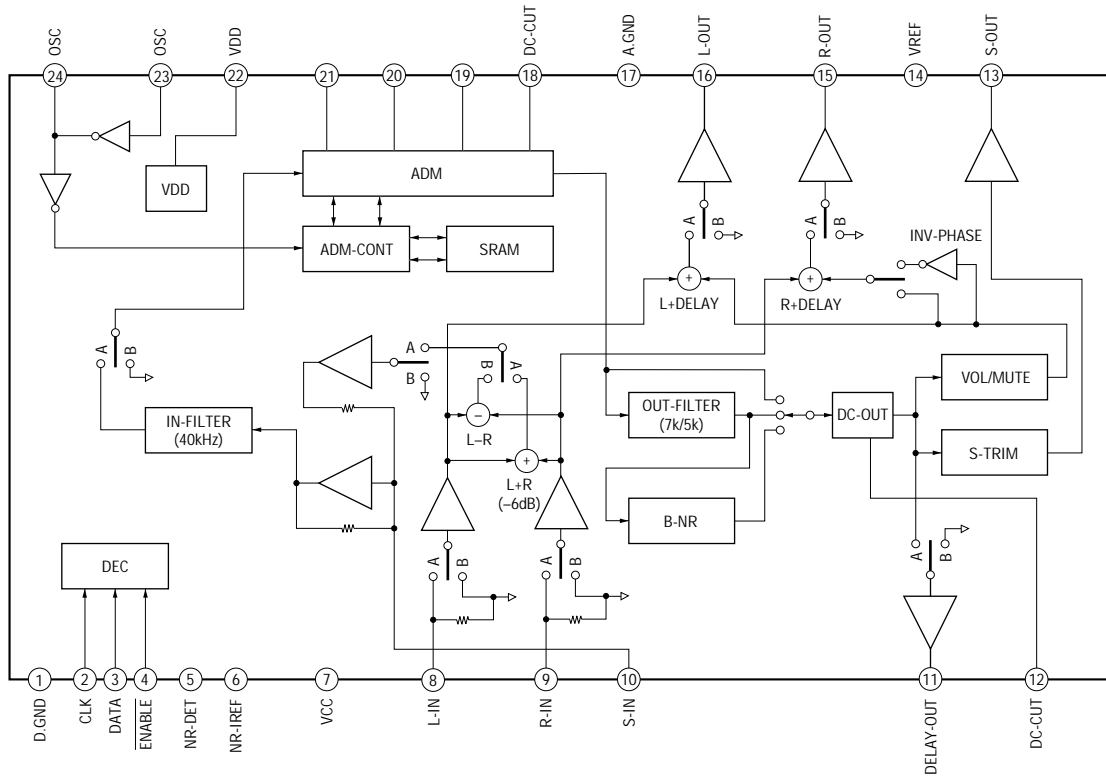
IC102 MC14052BCP



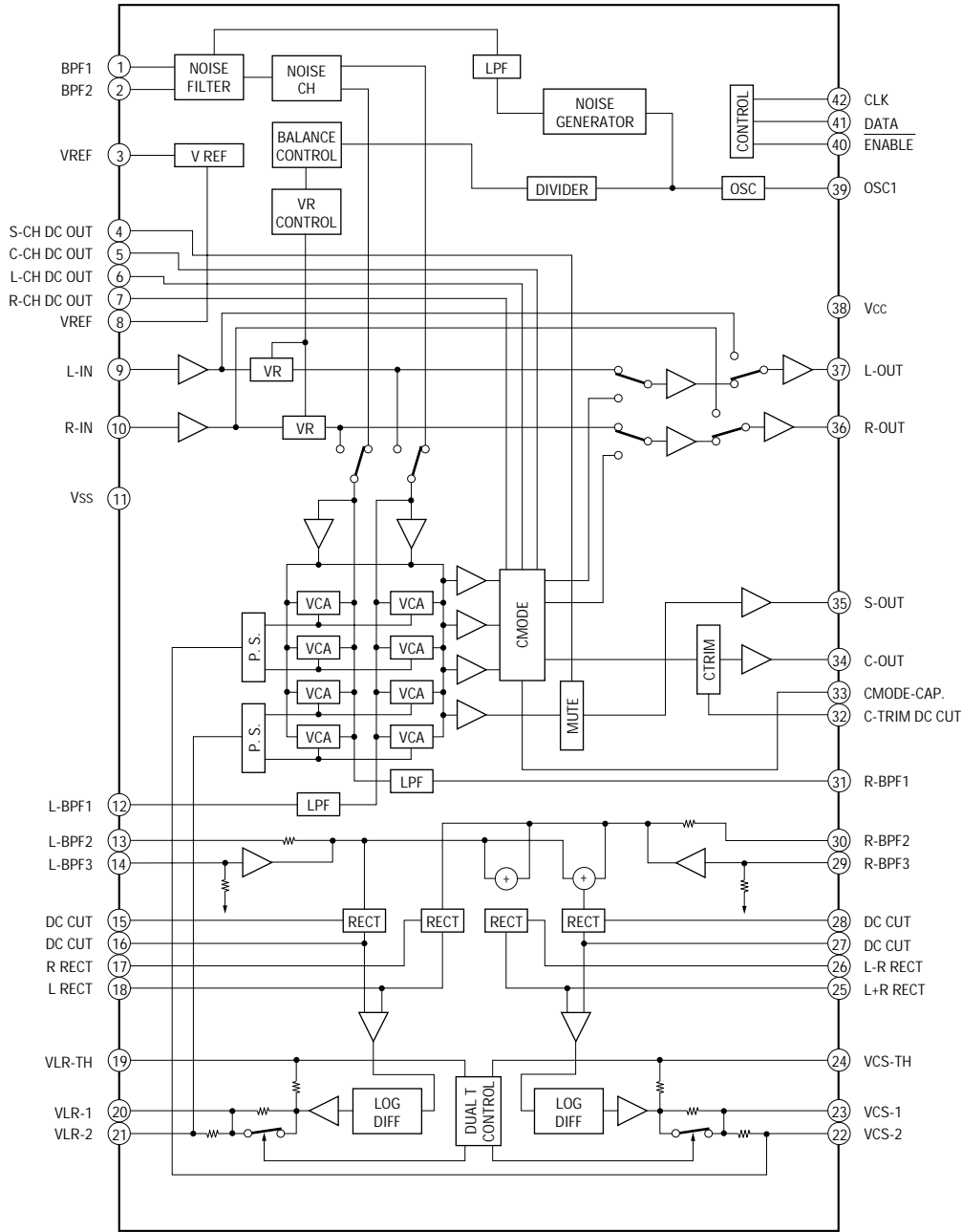
IC103, 1702 MC14053BCP



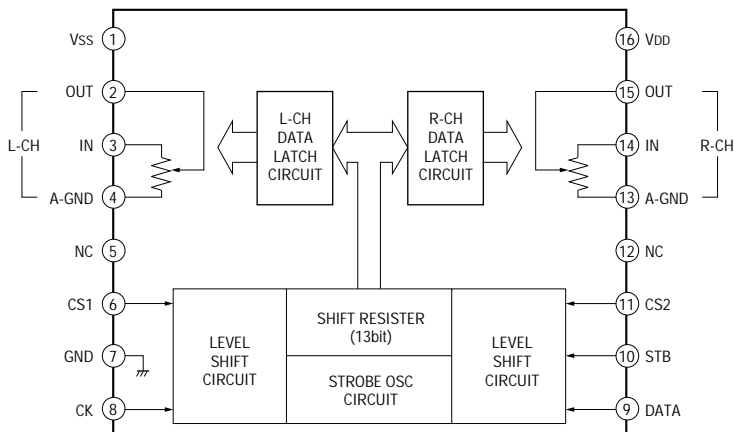
IC602 LV1016



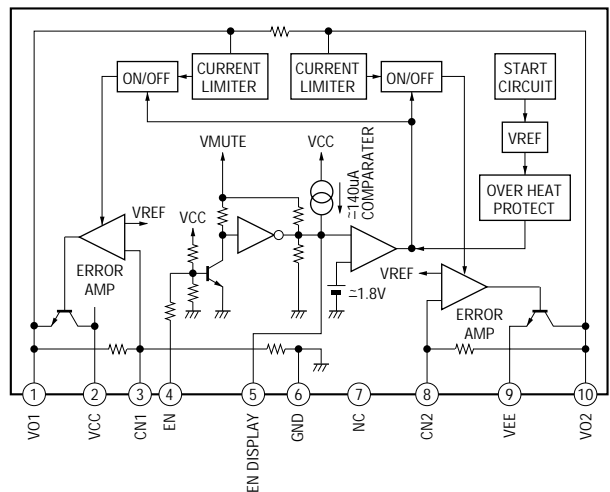
IC601 LA2786



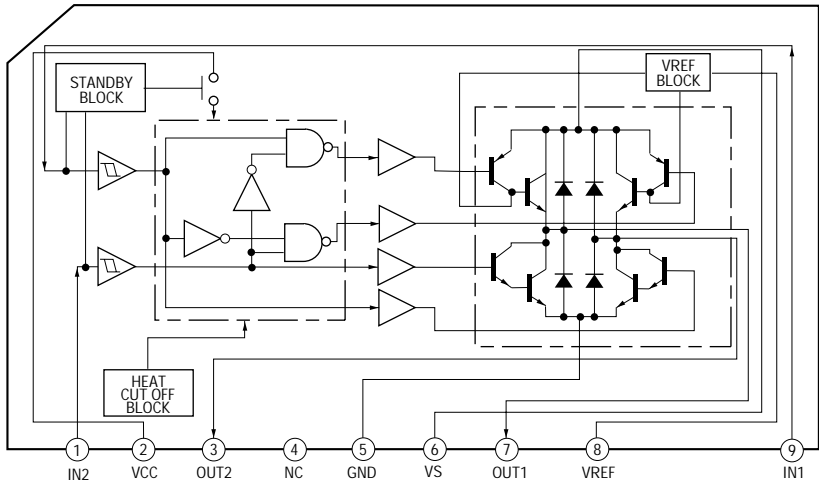
IC604 TC9210P



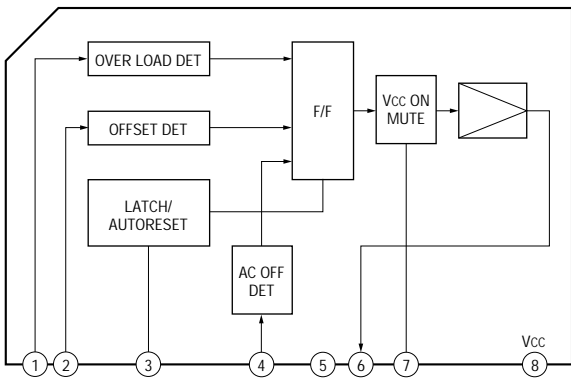
IC901 LA5617



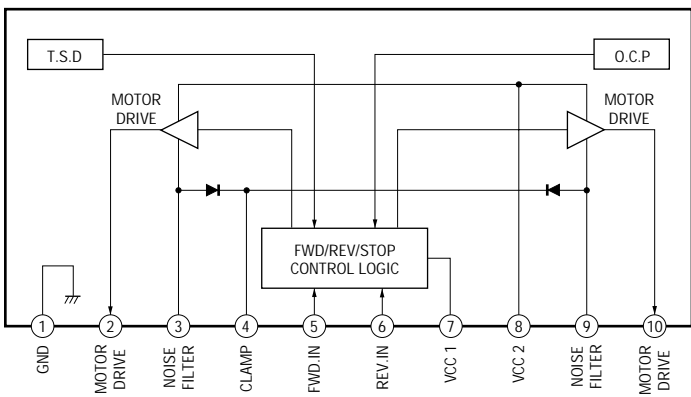
• **CD motor sectoin**
IC201 TA8409S



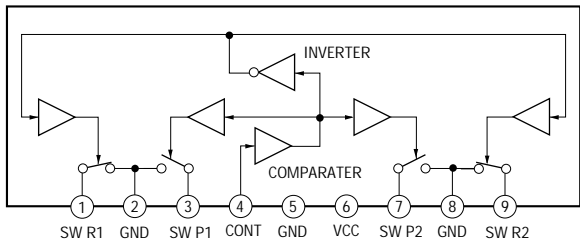
• **Power sectoin**
IC301 uPC1237HA



• **Deck sectoin**
IC402 LB1641



IC602 uPC1330HA



6-20. IC PIN FUNCTIONS

• IC101 FOCUS/TRACKING/SLED SERVO RF AMP (CXA1992AR)

Pin No.	Pin Name	I/O	Function
1	FEO	O	Focus error amplifier output Connected internally to the window comparator input for bias adjustment
2	FEI	I	Focus error input
3	FDFCT	I	Capacitor connection pin for defect time constant
4	FGD	I	Ground this pin through a capacitor for cutting the focus servo high-frequency gain
5	FLB	I	External time constant setting pin for boosting the focus servo low-frequency
6	FE O	O	Focus drive output
7	FE M	I	Focus amplifier inverted input
8	SRCH	I	External time constant setting pin for generating focus search waveform
9	TGU	I	External time constant setting pin for switching tracking high-frequency gain
10	TG2	I	External time constant setting pin for switching tracking high-frequency gain
11	FSET	I	Peak frequency setting pin for focus and tracking phase compensation amplifier
12	TA M	I	Tracking amplifier inverted input
13	TA O	O	Tracking drive output
14	SL P	I	Sled amplifier non-inverted input
15	SL M	I	Sled amplifier inverted input
16	SL O	O	Sled drive output
17	ISSET	I	Connect an external capacitance to set the current which determines the Focus search, Track jump, and Sled kick heights
18	Vcc	I	Positive power supply
19	LOCK	I	The sled overrun prevention circuit operates when this pin is Low (No pull-up resistance)
20	CLK	I	Serial data transfer clock input from CPU (No pull-up resistance)
21	XLT	I	Lach input from CPU (No pull-up resistance)
22	DATA	I	Serial data input from CPU (No pull-up resistance)
23	XRST	I	Reset input; resets at Low (No pull-up resistance)
24	C.OUT	O	Track number count signal output
25	SENS1	O	Outputs FZC, DFCT1, TZC, BALH, TGH, FOH, ATSC, and others according to the command from CPU
26	SENS2	O	Outputs DFCT2, MIRR, BALL, TGL, FOL, and others according to the command from CPU
27	FOK	O	Focus OK comparator output
28	CC2	I	Input for the defect bottom hold output with capacitance coupled
29	CC1	O	Defect bottom hold output Connected internally to the interruption comparator input
30	CB	I	Connection pin for defect bottom hold capacitor
31	CP	I	Connection pin for MIRR hold capacitor MIRR comparator non-inverted input
32	RF I	I	Input for the RF summing amplifier output with capacitance coupled
33	RF O	O	RF summing amplifier output Eye-pattern check point

• Abbreviation

FZC : Focus zero-cross
 DFCT : Defect
 TZC : Tracking zero-cross
 BALH : E-F Balance (High)
 TGH : Tracking Gain (High)
 FOH : Focus Bias (High)
 ATSC : Anti Shock
 MIRR : Mirror
 BALL : E-F Balance (Low)
 TGL : Tracking Gain (LOW)
 FOL : Focus Bias (LOW)

Pin No.	Pin Name	I/O	Function
34	RF M	I	RF summing amplifier inverted input The RF amplifier gain is determined by the resistance connected between this pin and RFO pin
35	RFTC	I	External time constant setting pin during RF level control
36	LD	O	APC amplifier output
37	PD	I	APC amplifier input
38	PD1	I	RF I-V amplifier inverted input Connect these pins to the photo diode A+C and B+D pins
39	PD2	I	
40	FE BIAS	I	Bias adjustment of focus error amplifier Leave this pin open for automatic adjustment
41	F	I	F I-V and E I-V amplifier inverted input Connect these pins to photo diodes F and E
42	E	I	
43	EI	–	I-V amplifier E gain adjustment (When not using automatic balance adjustment)
44	VEE	–	Negative power supply
45	TEO	O	Tracking error amplifier output E-F signal is output
46	LPFI	I	Comparator input for balance adjustment (Input from TEO through LPF)
47	TEI	I	Tracking error input
48	ATSC	I	Window comparator input for ATSC detection
49	TZC	I	Trackig zero-cross comparator input
50	TDFCT	I	Capacitor connection pin for defect time constant
51	VC	O	(VCC + VEE)/2 direct voltage output
52	FZC	I	Focus zero-cross comparator input

- Abbreviation
APC : Auto Power Control

• IC103 DIGITAL SIGNAL PROCESSOR (CXD2519Q)

Pin No.	Pin Name	I/O	Function
1	VDD	–	+5V power supply
2	VSS	–	Ground
3	LMUT	O	Lch “L” detection flog (Not used)
4	RMUT	O	Rch “L” detection flog (Not used)
5	ACDT	O	Test output (Not used)
6	CKOUT	O	Master clock divider output (Not used)
7	SQCK	I	Clock input for SQSO read out
8	SQSO	O	Serial output for Sub-Q 80bit
9	SENS	O	SENS signal output to CPU
10	DATA	I	Serial data input, supplied from CPU
11	XLAT	I	Latch input, supplied from CPU
12	CLOCK	I	Serial data transfer clock input, supplied from CPU
13	SEIN	I	SENS input from IC101
14	CNIN	I	Numbers of track jump counted signal input
15	DATO	O	Serial data output to IC101
16	XLTO	O	Serial data latch output to IC101
17	CLKO	O	Serial data transfer clock output to IC101
18	SPOA	I	Micro computer demodulation interface (Input A)
19	SPOB	I	Micro computer demodulation interface (Input B)
20	SPOC	I	Micro computer demodulation interface (Input C)
21	SPOD	I	Micro computer demodulation interface (Input D)
22	XLON	O	Micro computer demodulation interface (Output)
23	FOK	I	Focus OK input
24	VDD	–	+5V power supply
25	VSS	–	Ground
26	MON	O	Output to control ON/OFF of spindle motor (Not used)
27	MDP	O	Output to control spindle motor servo
28	MDS	O	Output to control spindle motor servo (Not used)
29	LOCK	O	GFS is sampled by 460Hz
30	PWMI	I	Input to control the outside spindle motor
31	TES0	I	Test pin (Connected to ground)
32	TES1	I	Test pin (Connected to ground)
33	VPCO2	O	Charge-pump output (Not used)
34	VPCO1	O	Charge-pump output (Not used)
35	VCKI	I	VCO2 oscillator input (Not used)
36	V16M	O	VCO2 oscillator output (Not used)
37	VCTL	I	VCO2 control voltage input
38	PCO	O	Charge-pump output to master PLL
39	FILO	O	Filter output to master PLL
40	FILI	I	Filter input for master PLL

• Abbreviation

GFS : Guarded Frame Sync
 PLL : Phase Locked Loop

Pin No.	Pin Name	I/O	Function
41	AVSS	–	Analog ground
42	CLTV	I	Control voltage input for VCO
43	AVDD	–	Analog power supply
44	RF	I	EFM signal input
45	BIAS	I	Asymmetry circuit constant current input
46	ASYI	I	Asymmetry compare voltage input
47	ASYO	O	EFM full swing output (“L” =Vss, “H” =VDD)
48	ASYE	I	Asymmetry circuit ON/OFF (“L”=OFF, “H”=ON)
49	WDCK	O	D/A interface Word clock f=2fs (Not used)
50	LRCK	O	D/A interface LR clock output f=Fs
51	LRCKI	I	D/A interface LR clock input f=Fs
52	PCMD	O	D/A interface Serial data output
53	PCMDI	I	D/A interface Serial data input
54	BCK	O	D/A interface Bit clock output
55	BCKI	I	D/A interface Bit clock input
56	VSS	–	Ground
57	VDD	–	+5V power supply
58	GTOP	O	Not used
59	XUGF	O	Not used
60	XPLCK	O	EFM decoder PLL clock output
61	GFS	O	“H” Playback EFM sync and interpolation protection timing much
62	RFCK	O	Read Frame Clock signal output
63	C2PO	O	Not used
64	XRAOF	O	Internal RAM overflow detection signal output (Not used)
65	MNT3	O	Not used
66	MNT1	O	Not used
67	MNT0	O	Not used
68	XTSL	I	Not used
69	FSTT	O	2/3 divider output (Not used)
70	C4M	O	4.2336MHz output(Not used)
71	DOUT	O	Digital audio signal output
72	EMPH	O	Playback disc output in emphasis mode
73	EMPHI	I	“H” =Input when de-emphasis ON
74	WFCK	O	Write Frame Clock signal output
75	SCOR	O	Sub-code sync output
76	SBSO	O	Sub-P through Sub-W serial output
77	EXCK	I	Clock input for SBSO read-out
78	VSS	–	Ground
79	VDD	–	+5V power supply
80	SYSM	I	System mute input

• Abbreviation

EFM : Eight to Fourteen Modulation

Pin No.	Pin Name	I/O	Function
81	—	–	Not used
82	AVSS	–	Analog ground
83	AVDD	–	Analog power supply
84	AOUT1	O	Lch analog output
85	AIN1	I	Lch opamp input
86	LOUT1	O	Lch line output
87	AVSS	–	Analog ground
88	XVDD	–	Master clock power supply
89	XTAI	I	X'tal oscillator circuit input
90	XTAO	O	X'tal oscillator circuit output
91	XVSS	–	Master clock ground
92	AVSS	–	Analog ground
93	LOUT2	O	Rch line output
94	AIN2	I	Rch opamp input
95	AOUT2	O	Rch analog output
96	AVDD	–	Analog power supply
97	AVSS	–	Analog ground
98	—	–	Not used
99	—	–	Not used
100	XRST	I	Sysyem reset input

• **IC601 DISPLAY CONTROL (TMP87CH75-6554)**

Pin No.	Pin Name	I/O	Function
1	SEG35	O	FL segment signal output
2	VLOAD	–	Power supply (–25V) for FL segment signal output
3 to 10	LED1 to LED8	O	LED driver output
11	VSS	–	Ground
12	X-OUT	O	X'tall (8MHz)
13	X-IN	I	
14	RESET	I	Reset signal input from main controller
15	LED 9	O	Connected ground
16	LED10	O	
17	TEST	I	
18 to 23	LED11 to LED16	O	LED driver output
24	VOL-A	O	Rotary encoder (S701) pulse input
25	LED17	O	LED driver output
26	JOG-A	I	Rotary encoder (S711) pulse input
27	CLOCK	I	Serial clock input from main controller
28	DATA	I	Serial data input from main controller
29	LED SELECT	O	LED select signal output
30	VDD	–	Power supply (+5V)
31	VSS	–	Ground
32	MODEL	I	Version select signal input
33 to 37	KEY1 to KEY5	I	Key input
38	DOOR SW	I	DOOR SW (S691) ON/OFF signal input
39	SIRCS	I	Remote commander signal input
40	VOL-B	I	Rotary encoder (S701) pulse input
41	JOG-B	I	Rotary encoder (S711) pulse input
42	SPEANA-1	I	Spectrum analyzer input
43	SPEANA-2	I	Spectrum analyzer input
44	SPEANA-3	I	Spectrum analyzer input
45	SPEANA-4	I	Spectrum analyzer input
46	L + R	I	Spectrum analyzer (high frequency) input
47	LED18	O	LED driver output
48	VASS	–	Ground
49	VAREF	I	Analog reference voltage input
50	VDD	–	Power supply (+5V)
51 to 56	GR1 to GR16	O	FL gride signal output
67 to 100	SEG1 to SEG34	O	FL segment signal output

• Abbreviation

FL : Fluorescent indicator tube

• IC701 MASTER CONTROL (uPD780018YGF-019-3BA)

Pin No.	Pin Name	I/O	Function
1	TA-MUTE	O	Line mute signal output
2	DBFB-H/L	O	DBFB H/L select signal output
3	427-LT	O	Latch signal output for IC201 (62427)
4	KCON-LT	O	Not used
5	KCON-ON	O	
6	F-RELAY	O	Front speaker relay control output (Not used)
7	R-RELAY	O	Rear speaker relay control output
8	PL-RELAY	O	Not used
9	TEST	I	Connected to ground
10	X2	O	X'tal (5MHz)
11	X1	I	
12	VDD	—	Power supply (+5V)
13	XT2	O	X'tal (32.768 KHz)
14	XT1	I	
15	RESET	I	Reset signal input
16	INT/IN	I	Connected to ground
17	INT/IN/OUT	I	
18	SCOR	O	Subcode data request signal output
19	SOFT-TEST	O	Software test port
20	AC-CUT	I	Back up signal input
21	RDS-INT	I	RDS data interrupt input
22	RDS-DATA	I	RDS data interrupt input
23	VDD	—	Power supply (+5V)
24	AVDD	I	Analog reference voltage input.
25	ADJ	I	CD adjust point port Normal "H"
26	A-SHUT	I	A Deck reel pulse detector
27	B-SHUT	I	B Deck reel pulse detector
28	B-HALF	I	Half detector signal input
29	CLK-CHECK	I	Connected to ground
30	SPEC-IN	I	Version select signal input
31	ADJ 2	I	Connected to ground
32	DEMO-CHANGE	I	DEMO H/L select signal input (Fixed at fixed at "L")
33	AVSS	—	Ground
34	SQ-DATA-IN	I	Subcode Q data clock input
35	—	I	Not used
36	SQ-CLK	I	Sub code Q data clock input
37	SW-ON/OFF	O	Not used
38, 39	FUNC 1, 2	I	Connected to ground
40	VSS	—	Ground
41	VOL-LAT	O	Latch signal to erectrial volume (IC604)
42	PL-LAT	O	Latch signal to pro-logic (IC601, 602)
43	COM-DIN	I	Connected to ground
44	COM-DOUT	O	Common serial data output

Pin No.	Pin Name	I/O	Function
45	COM-CLK	O	Common serial clock output
46	CD-POWER	O	CD power on signal output
47	CD-DATA	O	CD data output
48	CD-CLK	O	CD clock output
49	MSM-CMD	O	Not used
50	MSM-BUSY	I	Connected to ground
51	MSM-LT	O	Not used
52	MSM-NAR	I	
53	MSM-CH	O	
54	INPUT-CHANGE	O	Input sensitivity switching output
55	IIC-DATA	O	Data output for IC601
56	IIC-CLK	O	Clock output for IC601
57	XRST	O	CD reset signal output
58	XLT	O	CD latch signal output
59	FOUCUS-SW	O	Not used
60	TBL-L	O	Table motor control output
61	TBL-R	O	
62	TRAY-LED	O	CD tray LED ON/OFF output
63	LOAD-OUT	O	Not used
64	LOAD-IN	O	
65	ST-CLK	O	Tuner clock output
66	ST-DIN	I	Tuner data input
67	ST-DOUT	O	Tuner data output
68	ST-CE	O	Tuner chip enable output
69	TUNED	I	Tuned detection for tuner
70	STEREO	I	Stereo detection for tuner
71	VSS	–	Ground
72	ST-MUTE	O	Tuner mute signal output
73	SENS2	I	BD Condition signal input
74	SENS	I	
75	DISC-SENS	I	Not used
76	T-SENS	I	CD table detection signal input
77	UP-SW	I	Up SW (S201) signal input
78	ENC 3	I	Not used
79	ENC 2	I	
80	ENC 1	I	
81	OUT-OPEN	I	Not used
82	CAP-M-H/N	O	Capstan motor H/N speed select signal output
83	B-TRG	O	Trigger motor control output
84	A-TRG	O	Trigger motor control output
85	TRG-LOW	O	Trigger motor control output
86	CAP-M-ON/OFF	O	Capstan motor ON/OFF signal output
87	PB-A/B	O	PB Deck A/Deck B select output

Pin No.	Pin Name	I/O	Function
88	EQ-H/N	O	Equalizer H/N select output
89	BIAS	O	Bias ON/OFF signal output
90	REC-MUTE	O	REC mute ON/OFF selection output
91	NR-ON/OFF	O	NR ON/OFF signal output
92	R/P-PASS	I	REC/PB/PASS selection output
93	TC-MUTE	O	TC mute ON/OFF selection output
94	A-PLAY-SW	I	Deck A play detect
95	B-PLAY-SW	I	Deck B play detect
96	TC-RELAY	O	REC/PB head selection output for IC602
97	A-HALF	I	Deck A cassette detect
98	POWER	O	POWER ON/OFF signal output
99	SW-F-CHG	O	Super woofer mode signal output
100	STK-MUTE	O	Power amp ON/OFF signal output

SECTION 7 EXPLODED VIEWS

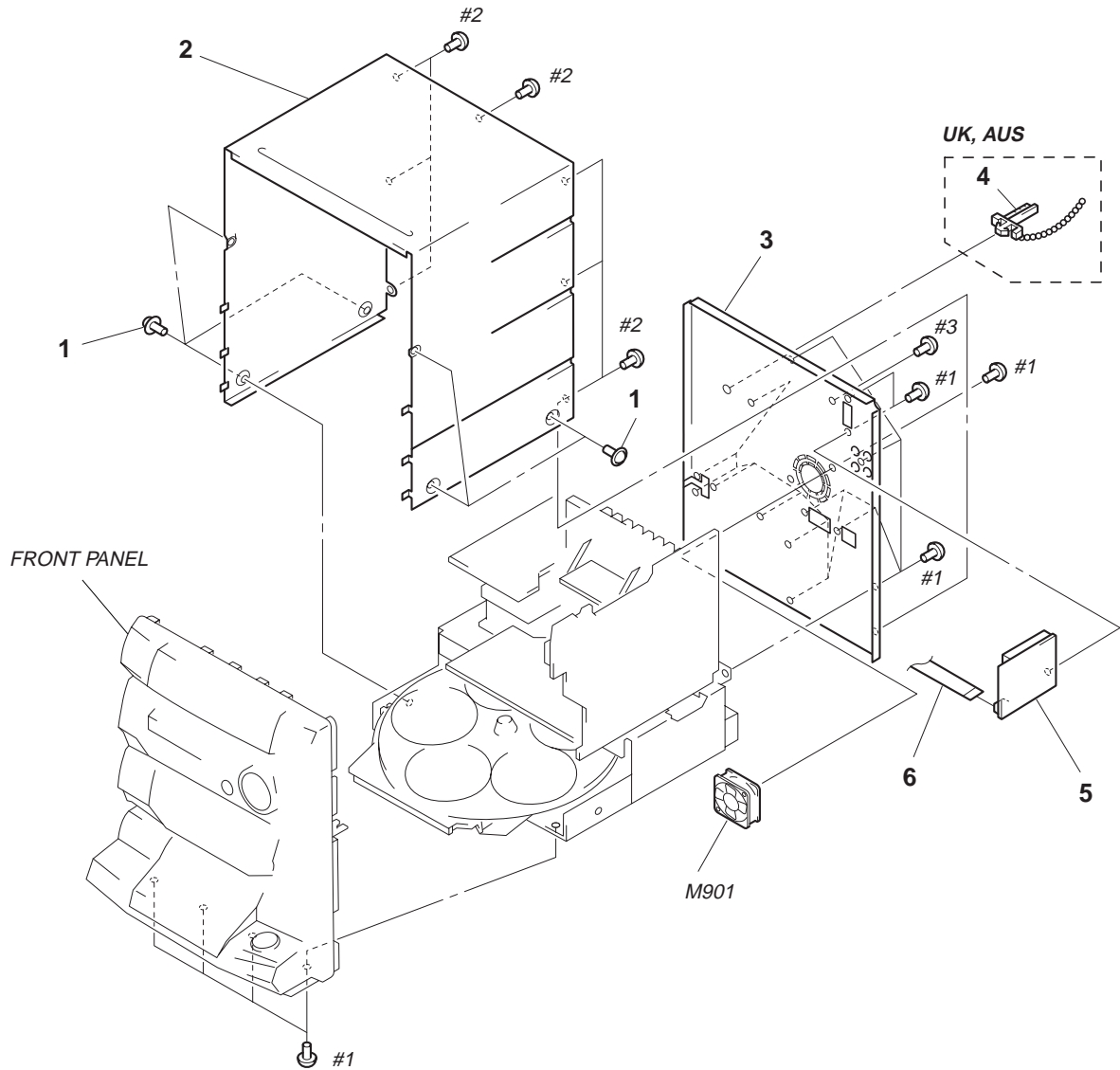
NOTE:

- -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
 EE : East European model
 SAF : South African model
 MX : Mexican model
 AUS : Australian model
 AR : Argentine model

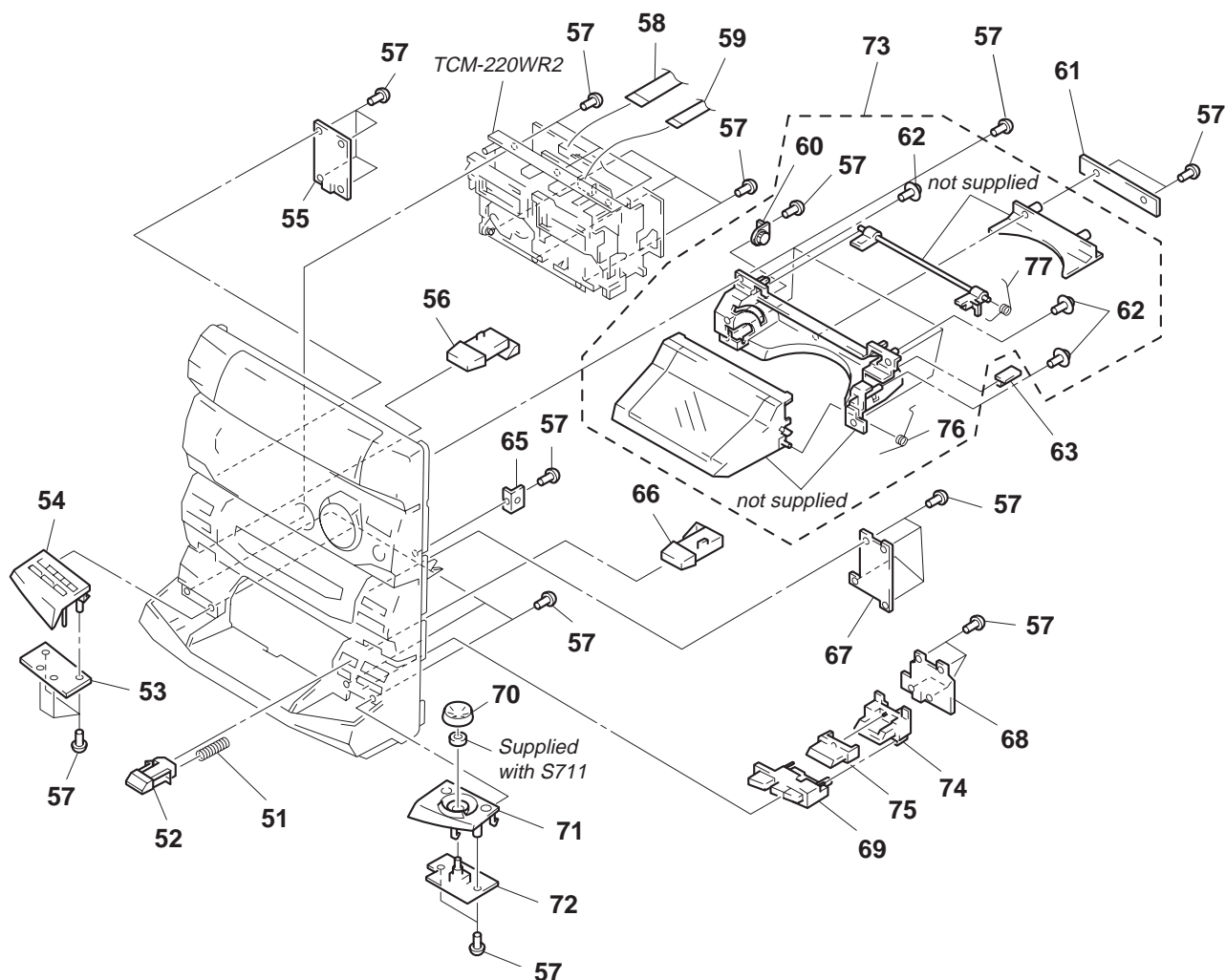
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
 Replace only with part number specified.

7-1. CASE AND BACK PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-929-973-01	SCREW (CASE, 3 POINT)		5	1-233-545-11	ENCAPSULATED COMPONENT (E,MX,AR,AUS,PX,SAF)	
* 2	4-987-052-31	CASE		* 5	A-4303-571-A	TCB BOARD, COMPLETE (AEP,UK)	
* 3	4-987-045-01	PANEL, BACK (AEP,UK)		* 5	A-4303-570-A	TCB BOARD, COMPLETE (EE,CIS)	
* 3	4-987-045-21	PANEL, BACK (EE,CIS)		6	1-769-974-11	WIRE (FLAT TYPE)(13 CORE) (E,MX,AR,AUS,PX,SAF)	
* 3	4-988-222-01	PANEL, BACK (E,AR,SAF)		6	1-773-006-11	WIRE (FLAT TYPE)(15 CORE)(AEP,UK,EE,CIS)	
* 3	4-988-222-11	PANEL, BACK (AUS)		M901	1-698-792-11	FAN, DC	
* 3	4-988-222-21	PANEL, BACK (PX)					
* 3	4-988-222-31	PANEL, BACK (MX)					
4	4-956-370-12	BAND, PLUG FIXED (UK,AUS)					

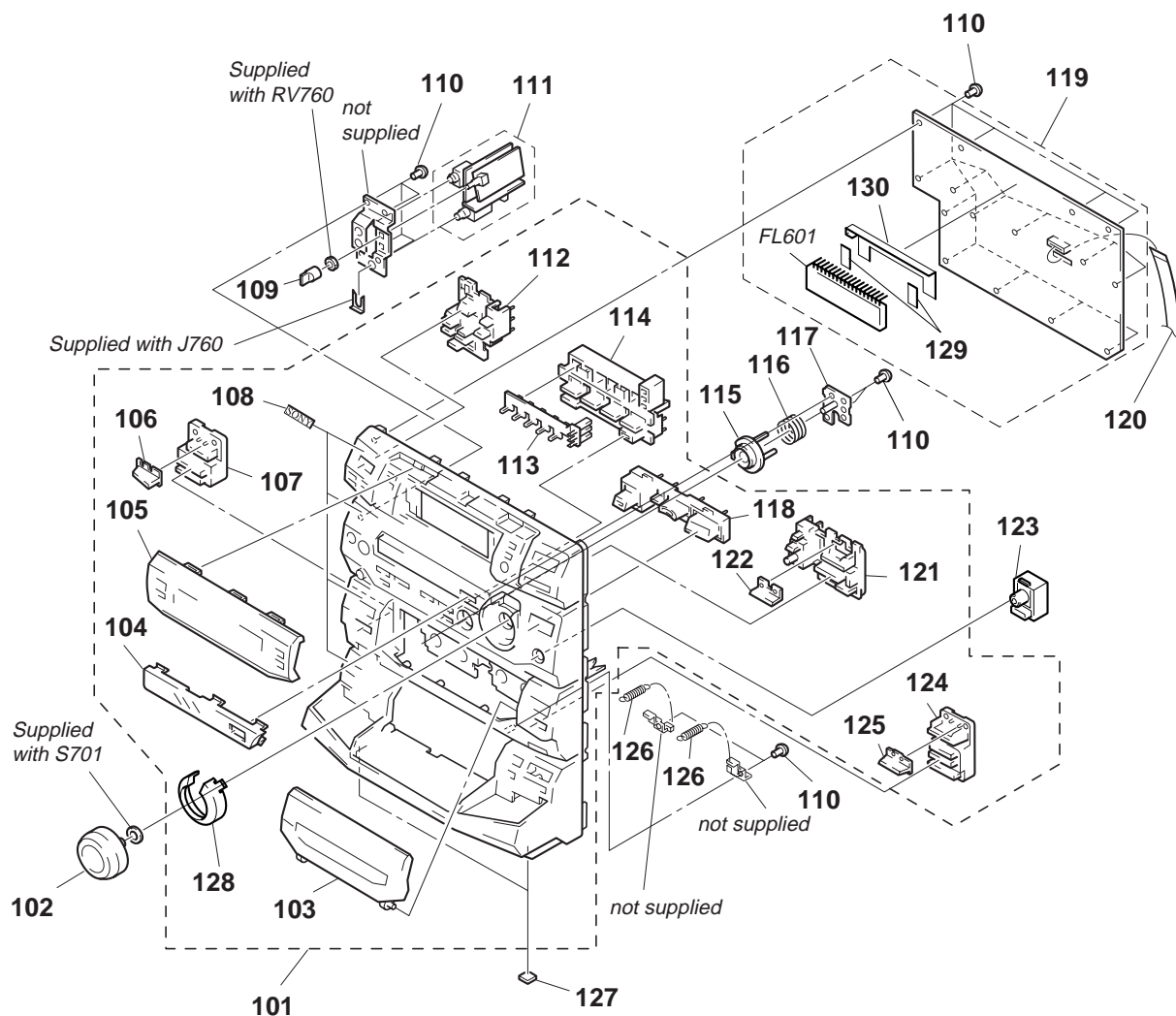
7-2. FRONT PANEL SECTION 1



Ref. No.	Part No.	Description	Remark
51	4-987-995-01	SPRING (CD EJECT), COMPRESSION	
52	4-987-001-01	BUTTON (EJECT CD)	
* 53	1-664-019-11	CD-A SW BOARD	
54	X-4948-348-1	PANEL (A) SUB ASSY	
* 55	1-664-012-11	TC-A SW BOARD	
56	4-986-999-01	BUTTON (EJECT A)	
57	4-951-620-01	SCREW (2.6X8), +BVTP	
58	1-773-163-11	WIRE (FLAT TYPE)(21 CORE)	
59	1-769-949-11	WIRE (FLAT TYPE)(11 CORE)	
60	3-354-963-01	DAMPER	
* 61	1-664-017-11	CD-LED BOARD	
62	4-957-577-01	SCREW PTP WH (2.6X8)(DIA. 10)	
* 63	1-664-016-11	DOOR SW BOARD	
* 65	4-987-933-01	BRACKET (TA)	

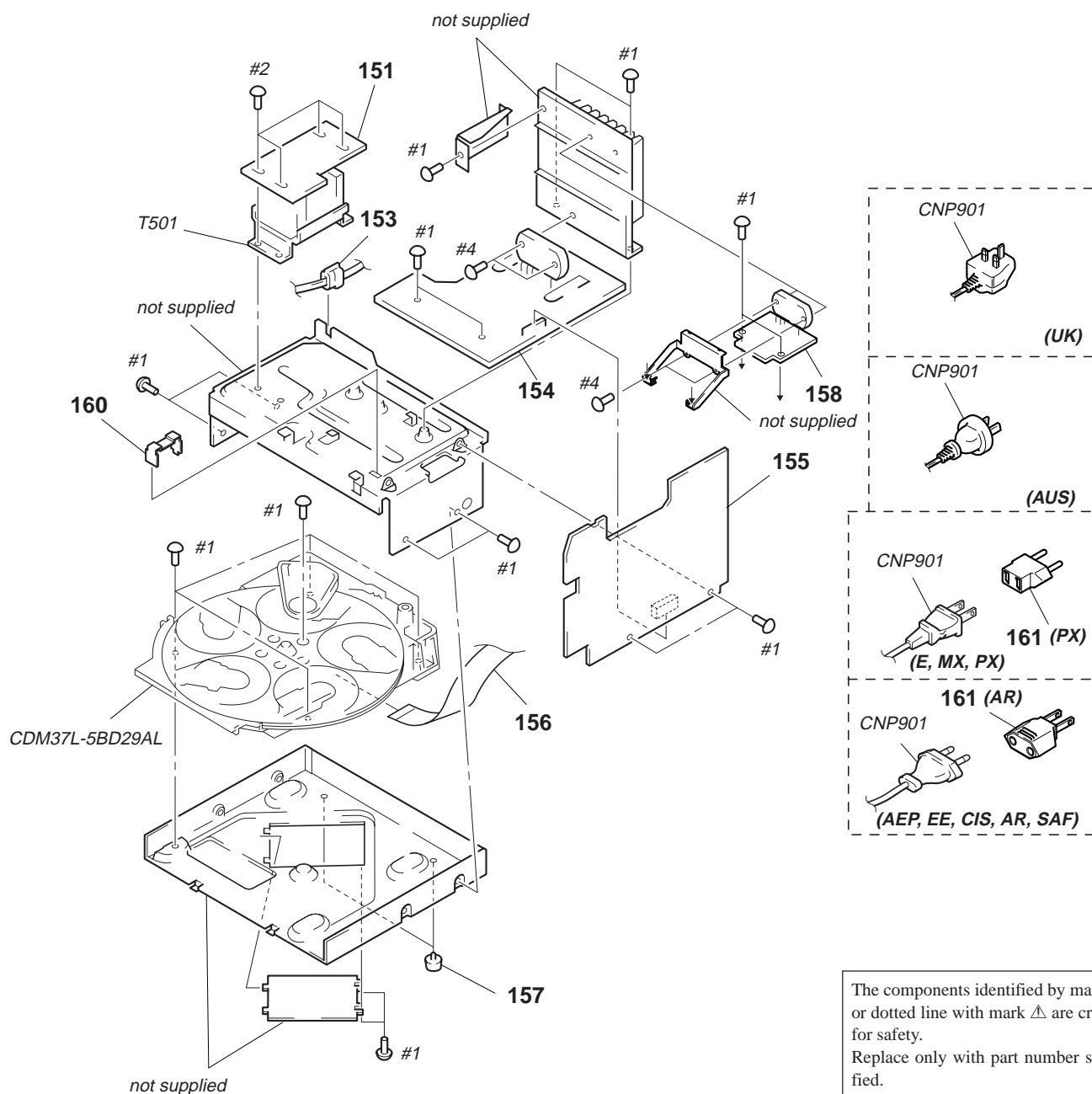
Ref. No.	Part No.	Description	Remark
66	4-987-000-01	BUTTON (EJECT B)	
* 67	1-664-013-11	TC-B SW BOARD	
* 68	1-664-020-11	CD-B1 SW BOARD	
69	X-4947-969-1	BUTTON (CD STOP) ASSY	
70	4-987-037-01	KNOB (JOG)	
71	X-4948-296-1	PANEL (B) SUB ASSY	
* 72	1-664-021-11	CD-B2 SW BOARD	
73	A-4384-396-A	LID ASSY, CD (AEP,UK,EE,CIS,SAF)	
73	A-4384-681-A	LID ASSY, CD (E,MX,AR,AUS,PX)	
74	4-987-002-01	BUTTON (CD, PLAY)	
75	4-987-014-01	INDICATOR (CD)	
76	4-987-997-01	SPRING (CD, LID), TORTION	
77	4-987-998-01	SPRING (LOCK SHAFT), TORTION	

7-3. FRONT PANEL SECTION 2



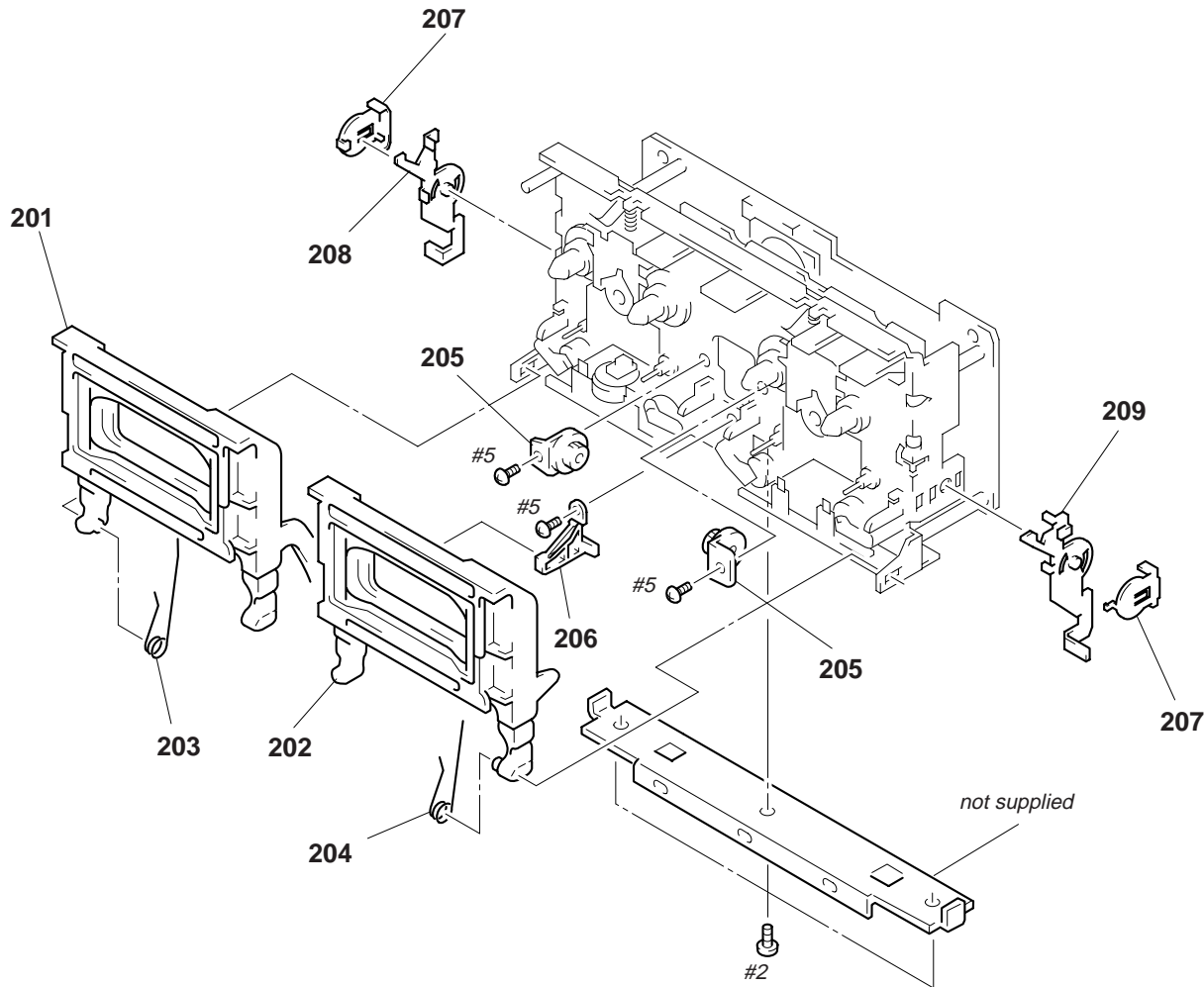
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-4948-306-1	PANEL ASSY (AEP,UK)		118	X-4947-963-1	BUTTON (FUNCTION) ASSY	
101	X-4948-307-1	PANEL ASSY (EE,CIS,E,MX,AR,AUS,PX,SAF)		* 119	A-4392-684-A	PANEL BOARD, COMPLETE (AEP,UK,EE,CIS)	
102	4-987-036-01	KNOB (VOL)		* 119	A-4392-685-A	PANEL BOARD, COMPLETE (E,MX,AR,AUS,PX,SAF)	
103	X-4947-961-1	LID ASSY, CASSETTE		120	1-773-051-11	WIRE (FLAT TYPE)(17 CORE)	
104	4-987-032-01	DISPLAY (TA)		121	X-4947-962-1	BUTTON (TUNER) ASSY (EE,CIS,E,MX,AR,AUS,PX,SAF)	
105	4-987-028-01	DISPLAY (ST)		121	X-4948-165-1	BUTTON (TUNER) ASSY (AEP,UK)	
106	4-987-021-01	INDICATOR (TC A)		122	4-987-013-01	INDICATOR (TUNER)	
107	4-986-997-01	BUTTON (DECK.A)		123	X-4947-968-1	BUTTON (WOOFER) ASSY	
108	4-963-404-21	EMBLEM (5-A), SONY		124	X-4947-967-1	BUTTON (DECK B) ASSY	
109	4-973-644-01	KNOB (MIC)		125	4-987-022-01	INDICATOR (TC B)	
110	4-951-620-01	SCREW (2.6X8), +BVTP		126	4-987-996-01	SPRING (TC LID), TENSION	
* 111	A-4392-452-A	HP/MIC BOARD, COMPLETE		127	4-948-236-01	CUSHION (107)	
112	4-986-986-01	BUTTON (POWER)		128	4-987-930-01	PLATE (VOL), ORNAMENTAL	
113	4-987-012-01	INDICATOR (TA)		129	4-949-935-41	CUSHION (FL)	
114	X-4947-989-1	BUTTON (SOUND) ASSY		* 130	4-986-870-11	HOLDER, FL TUBE	
115	4-986-990-01	BUTTON (CURSOR)		FL601	1-517-617-11	INDICATOR TUBE, FLUORESCENT	
116	4-978-683-01	SPRING, COMPRESSION					
* 117	4-987-041-01	COVER, CURSOR					

7-4. CHASSIS SECTION



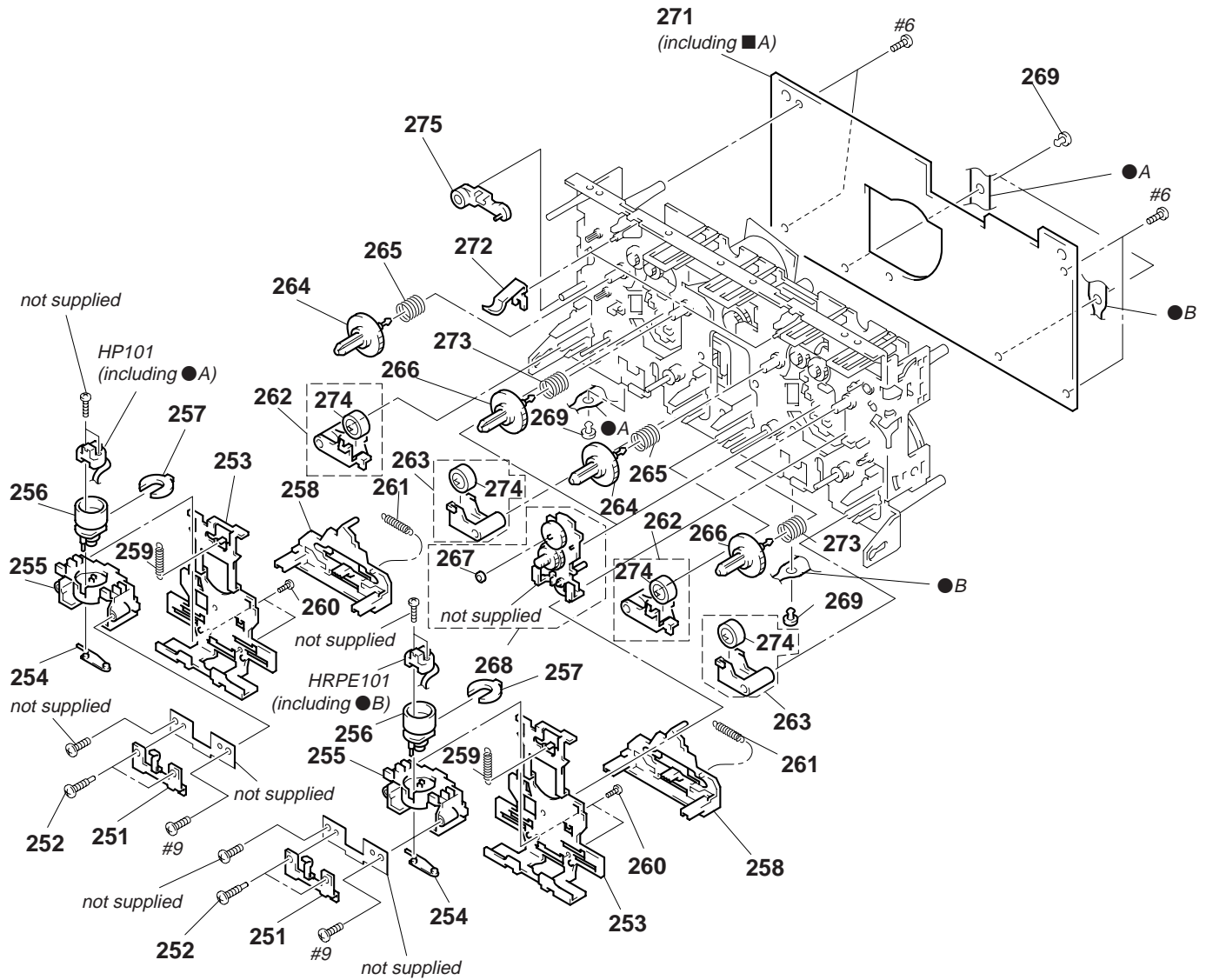
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151	1-663-994-11	TRANS BOARD		157	X-4941-228-1	FOOT (F22125H-M)	
153	3-703-244-00	BUSHING (FBS001), CORD (AEP,UK,EE,CIS,AUS,AR,SAF)		* 158	A-4392-662-A	SURROUND BOARD, COMPLETE (E,MX,AR,AUS,PX,SAF)	
153	4-966-266-01	BUSHING (S)(FBS002), CORD (E,MX,PX)		* 158	A-4392-663-A	SURROUND BOARD, COMPLETE (AEP,UK,EE,CIS)	
* 154	A-4392-678-A	POWER BOARD, COMPLETE (AEP,UK,EE,CIS)		* 160	4-988-533-11	HOLDER, PCB	
* 154	A-4392-679-A	POWER BOARD, COMPLETE (E,MX,AR,AUS,PX,SAF)		\triangle 161	1-569-007-11	ADAPTOR, CONVERSION 2P (PX)	
* 155	A-4392-669-A	MAIN BOARD, COMPLETE (AEP,UK)		\triangle 161	1-569-008-11	ADAPTOR, CONVERSION 2P (AR)	
* 155	A-4392-670-A	MAIN BOARD, COMPLETE (E,MX,AR)		\triangle CNP901	1-558-943-41	CORD, POWER (E,MX,PX)	
* 155	A-4398-907-A	MAIN BOARD, COMPLETE (SAF)		\triangle CNP901	1-575-651-21	CORD, POWER (AEP,EE,CIS,AR,SAF)	
* 155	A-4398-046-A	MAIN BOARD, COMPLETE (EE,CIS)		\triangle CNP901	1-696-845-21	CORD, POWER (AUS)	
* 155	A-4398-051-A	MAIN BOARD, COMPLETE (AUS,PX)		\triangle CNP901	1-751-522-11	CORD, POWER (UK)	
156	1-777-868-11	WIRE (FLAT TYPE)(19 CORE)		\triangle T501	1-431-139-11	TRANSFORMER, POWER (AEP,UK,EE,CIS)	
				\triangle T501	1-431-140-11	TRANSFORMER, POWER (E,MX,AR,AUS,PX,SAF)	

7-5.TC MECHANISM SECTION-1 (TCM-220WR2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	X-4947-943-1	HOLDER (L) ASSY, CASSETTE		* 206	4-980-439-01	FULCLUM, HOLDER	
202	X-4947-944-1	HOLDER (R) ASSY, CASSETTE		207	3-354-957-01	JOINT (LOCK LEVER)	
203	4-959-231-11	SPRING (L), TORSION		208	3-354-953-01	LEVER (LOCK LEVER L)	
204	4-959-232-11	SPRING (R), TORSION		209	3-354-954-01	LEVER (LOCK LEVER R)	
205	3-354-963-01	DAMPER					

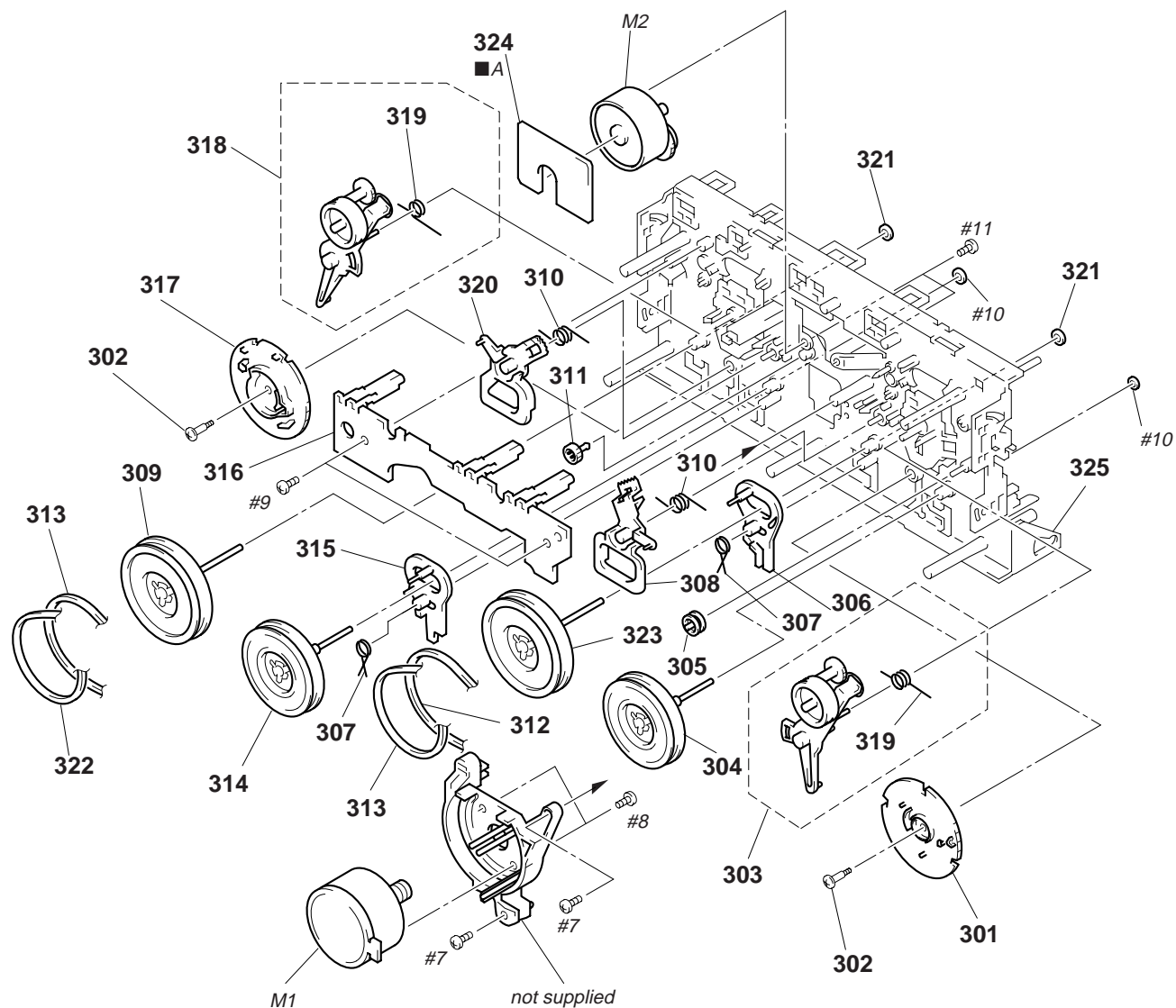
7-6. TC MECHANISM SECTION-2 (TCM-220WR2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT		264	3-908-613-01	GEAR (S), REEL	
252	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT		265	3-917-141-01	SPRING, COMPRESSION	
* 253	X-3373-113-1	SLIDER (HEAD) ASSY		266	X-3371-305-1	REEL (T) ASSY	
254	3-009-956-01	SPRING, HEAD TOGGLE		267	3-669-465-01	WASHER (1.5), STOPPER	
255	3-908-558-02	FITTING BLOCK, HEAD		268	X-3370-173-1	TU ASSY	
256	3-908-557-02	ROTARY BLOCK, HEAD		269	3-939-862-01	CLIP	
* 257	3-908-559-01	STOPPER, AZIMUTH		* 271	A-2007-131-A	AUDIO BOARD, COMPLETE	
258	3-908-555-01	SLIDER (REV SLIDER)		272	3-930-972-01	DETENT, HALF	
259	3-917-143-11	SPRING, TENSION		273	3-917-142-01	SPRING, COMPRESSION	
260	3-388-848-01	SCREW (P2X6)(B TIGHT)		274	3-355-808-02	PINCH ROLLER	
261	3-939-371-01	SPRING (1), TENSION		275	3-938-863-01	STOPPER	
262	X-3369-909-1	PINCH LEVER (REV) ASSY		HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
263	X-3369-908-1	PINCH LEVER (FWD) ASSY		HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	

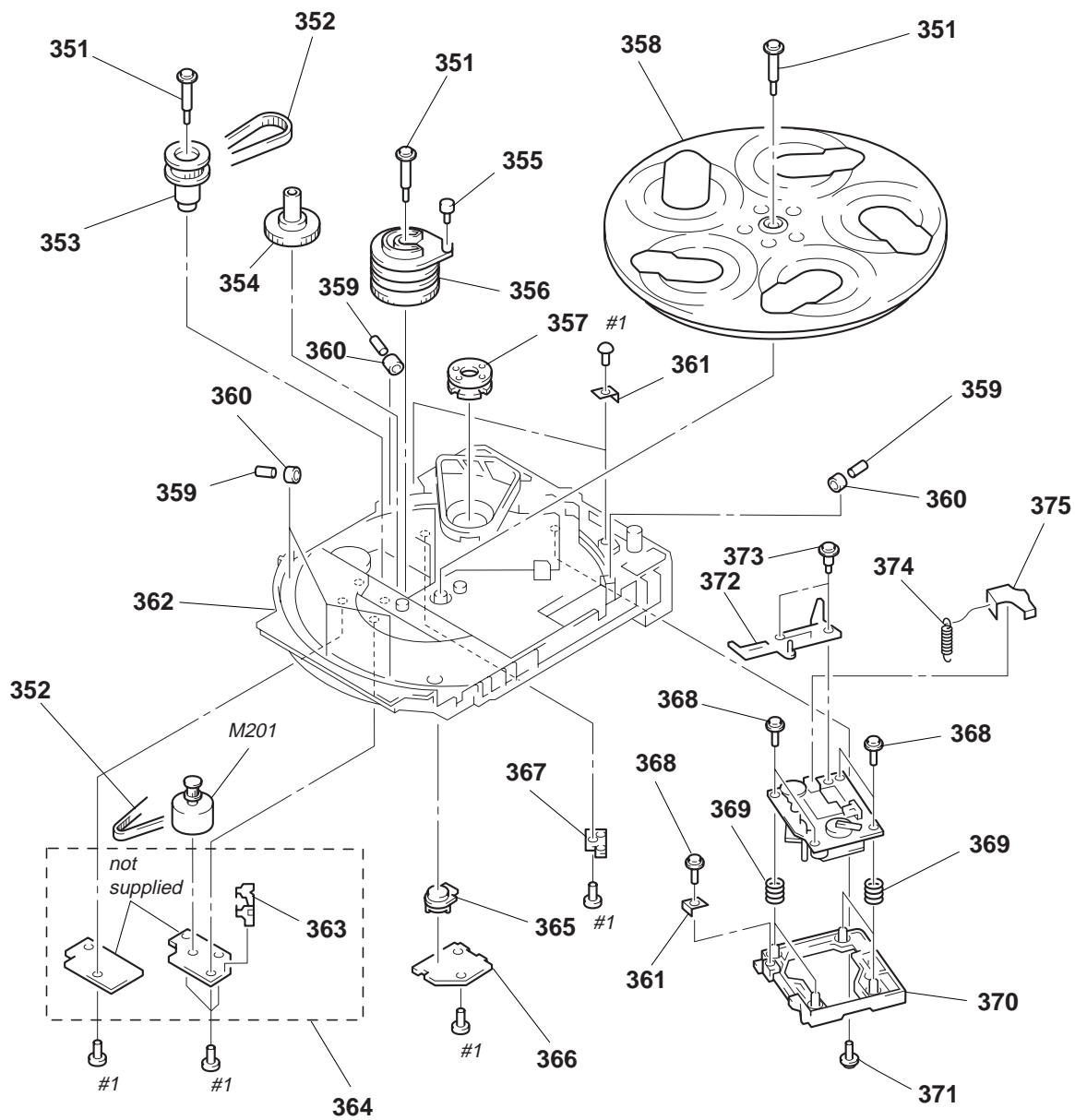
7-7. TC MECHANISM SECTION-3 (TCM-220WR2)

■A: MOTOR board (Supplied with AUDIO board)



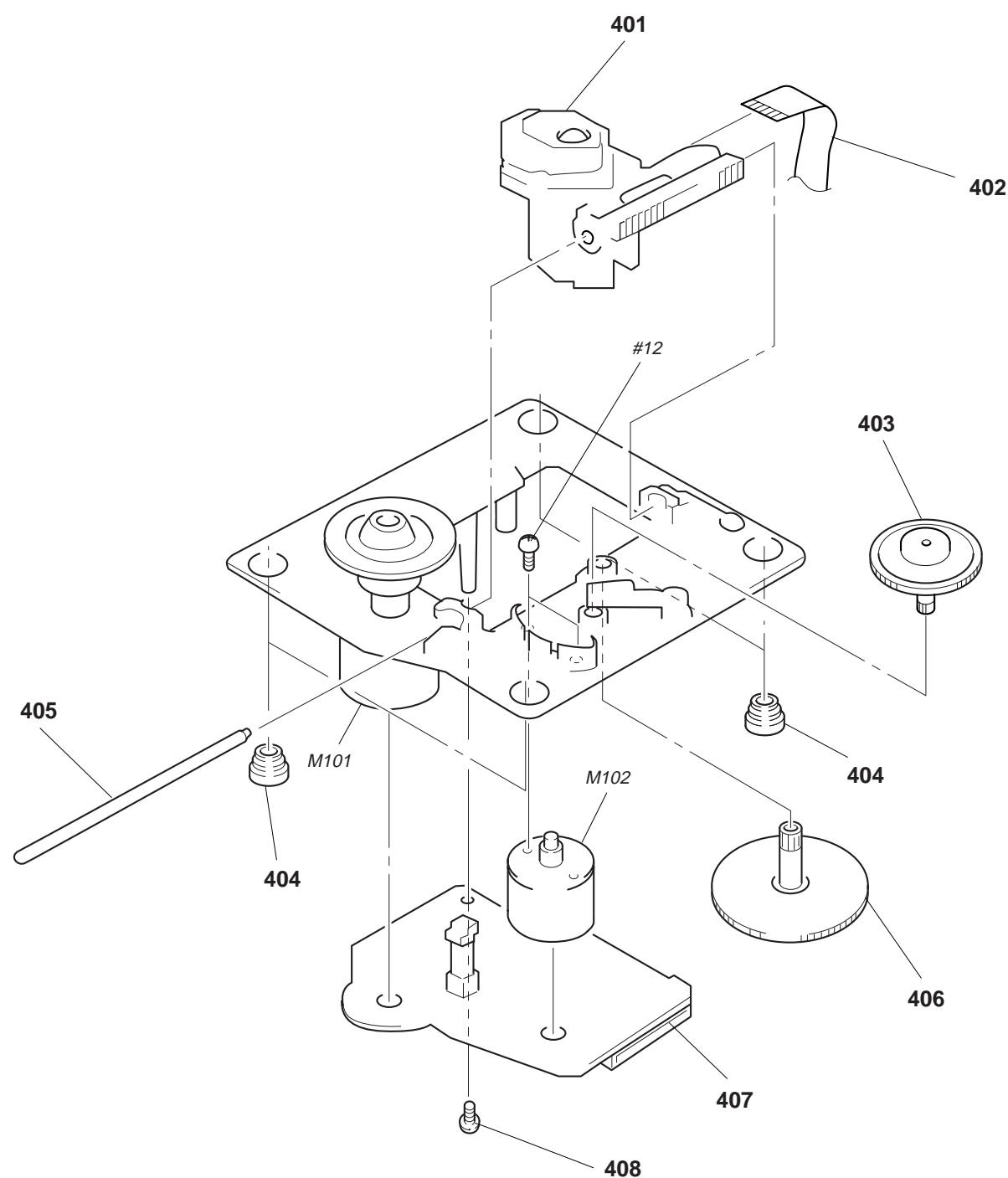
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	3-908-597-01	CAM (A)		315	3-908-600-01	LEVER (REV-B)	
302	3-908-608-11	SCREW, STEP		* 316	1-650-669-11	LEAF SWITCH BOARD	
303	X-3372-930-1	ARM (A) ASSY, FR		317	3-908-598-01	CAM (B)	
304	X-3370-169-1	FLYWHEEL (AR) ASSY		318	X-3372-931-1	ARM (B) ASSY, FR	
305	3-928-047-01	PULLEY, TENSION		319	3-911-114-01	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-3367-593-1	FLYWHEEL (BF) ASSY		323	X-3370-172-1	FLYWHEEL (AF) ASSY	
310	3-908-605-01	SPRING (TRIGGER), TORSION		* 324	A-2007-131-A	AUDIO BOARD, COMPLETE	
311	3-908-609-01	GEAR, TRIGGER		325	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
312	3-913-845-11	BELT (A)					
313	3-913-846-11	BELT (FR)		M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
314	X-3370-171-1	FLYWHEEL (BR) ASSY		M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	

7-8. CD MECHANISM SECTION (CDM37L-5BD29AL)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	4-987-976-01	SCREW, STEP		365	4-978-426-01	INDICATOR (NO.)	
352	4-944-490-01	BELT (TIMING)		* 366	1-659-059-13	LED BOARD	
353	A-4660-978-A	GEAR (PULLEY) ASSY		* 367	1-659-058-13	TABLE SENSOR BOARD	
354	4-978-421-01	GEAR (MID)		368	4-933-134-01	SCREW (+PTPWH M2.6X6)	
355	4-978-425-01	ROLLER (CAM)		369	4-958-593-01	SPRING (BU), COMPRESSION	
356	4-978-420-01	CAM (HOLDER)		* 370	4-978-419-01	HOLDER (BU-5)	
* 357	1-452-879-11	MAGNET		371	4-917-583-71	BRACKET, YOKE	
358	4-978-417-01	TABLE, DISC		372	4-989-493-01	SLIDER (37)	
359	4-934-376-01	SHAFT (ROLLER)		373	4-989-494-01	SCREW (SLIDER), STEP	
360	X-4924-457-1	ROLLER ASSY		374	4-989-819-01	SPRING, TENSION	
* 361	4-978-583-01	BRACKET (BU)		375	4-989-491-21	COVER, LENS	
* 362	4-978-418-01	CHASSIS		M201	A-4660-977-A	MOTOR ASSY (TABLE)	
* 363	4-980-385-01	HOLDER (SW)					
* 364	A-4673-765-A	CD MOTOR BOARD, COMPLETE					

7-9. BASE UNIT SECTION (BU-5BD29AL)



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	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP		406	4-917-564-01	GEAR (P), FLATNESS	
402	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)		* 407	A-4699-522-A	BD BOARD, COMPLETE	
403	4-917-567-21	GEAR (M)		408	4-951-620-01	SCREW (2.6X8), +BVTP	
404	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
405	4-917-565-01	SHAFT, SLED		M102	X-4917-504-1	MOTOR ASSY (SLED)	

SECTION 8 ELECTRICAL PARTS LIST

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
EE : East European model
SAF : South African model
MX : Mexican model
AUS : Australian model
AR : Argentine model

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
*	A-2007-131-A	AUDIO BOARD, COMPLETE ***** (including MOTOR board)							< IC >				
							IC601	8-759-111-44	IC uPC4570C-1				
							IC602	8-759-143-54	IC uPC1330HA				
		< CAPACITOR >					IC611	8-759-111-44	IC uPC4570C-1				
									< COIL >				
C301	1-162-289-31	CERAMIC	390PF	10%	50V								
C302	1-126-968-11	ELECT	100uF	20%	6.3V								
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								
C313	1-162-282-31	CERAMIC	100PF	10%	50V	M2	A-2004-410-A	MOTOR ASSY (TRIGGER)					
C314	1-130-487-00	MYLAR	0.022uF	5%	50V			< TRANSISTOR >					
C315	1-126-233-11	ELECT	22uF	20%	50V								
C331	1-137-427-11	FILM	120PF	5%	50V								
C332	1-162-288-31	CERAMIC	330PF	10%	50V	Q621	8-729-142-46	TRANSISTOR 2SC2001-LK					
C333	1-162-209-31	CERAMIC	27PF	5%	50V	Q622	8-729-142-46	TRANSISTOR 2SC2001-LK					
C401	1-162-289-31	CERAMIC	390PF	10%	50V	Q623	8-729-801-93	TRANSISTOR 2SD1387					
C402	1-126-968-11	ELECT	100uF	20%	6.3V	Q651	8-729-900-65	TRANSISTOR DTA144ES					
C403	1-162-282-31	CERAMIC	100PF	10%	50V			< RESISTOR >					
C404	1-130-483-00	MYLAR	0.01uF	5%	50V	R301	1-247-881-00	CARBON 120K	5%	1/4W			
C405	1-107-715-11	ELECT	22uF	20%	16V	R302	1-249-409-11	CARBON 220	5%	1/4W	F		
C411	1-162-289-31	CERAMIC	390PF	10%	50V	R303	1-249-433-11	CARBON 22K	5%	1/4W			
C413	1-162-282-31	CERAMIC	100PF	10%	50V	R304	1-247-889-00	CARBON 270K	5%	1/4W			
C414	1-130-487-00	MYLAR	0.022uF	5%	50V	R305	1-247-858-11	CARBON 13K	5%	1/4W			
C415	1-126-233-11	ELECT	22uF	20%	50V	R311	1-247-881-00	CARBON 120K	5%	1/4W			
C431	1-137-427-11	FILM	120PF	5%	50V	R312	1-247-807-31	CARBON 100	5%	1/4W			
C432	1-162-288-31	CERAMIC	330PF	10%	50V	R314	1-247-882-11	CARBON 130K	5%	1/4W			
C433	1-162-209-31	CERAMIC	27PF	5%	50V	R315	1-247-850-11	CARBON 6.2K	5%	1/4W			
C601	1-104-396-11	ELECT	10uF	20%	16V	R331	1-249-430-11	CARBON 12K	5%	1/4W			
C602	1-104-396-11	ELECT	10uF	20%	16V	R401	1-247-881-00	CARBON 120K	5%	1/4W			
C611	1-124-907-11	ELECT	10uF	20%	50V	R402	1-249-409-11	CARBON 220	5%	1/4W	F		
C612	1-124-907-11	ELECT	10uF	20%	50V	R403	1-249-433-11	CARBON 22K	5%	1/4W			
C621	1-137-150-11	FILM	0.01uF	5%	100V	R404	1-247-889-00	CARBON 270K	5%	1/4W			
C622	1-126-961-11	ELECT	2.2uF	20%	50V	R405	1-247-858-11	CARBON 13K	5%	1/4W			
C623	1-136-155-00	FILM	0.015uF	5%	50V	R411	1-247-881-00	CARBON 120K	5%	1/4W			
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V	R412	1-247-807-31	CARBON 100	5%	1/4W			
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V	R414	1-247-882-11	CARBON 130K	5%	1/4W			
C627	1-124-903-11	ELECT	1uF	20%	50V	R415	1-247-850-11	CARBON 6.2K	5%	1/4W			
C628	1-136-153-00	FILM	0.01uF	5%	50V	R431	1-249-430-11	CARBON 12K	5%	1/4W			
C642	1-104-664-11	ELECT	47uF	20%	16V	R601	1-249-409-11	CARBON 220	5%	1/4W	F		
C651	1-161-494-00	CERAMIC	0.022uF		25V	R602	1-249-409-11	CARBON 220	5%	1/4W	F		
							R608	1-249-409-11	CARBON 220	5%	1/4W	F	
		< CONNECTOR >					R609	1-249-433-11	CARBON 22K	5%	1/4W		
							R611	1-249-409-11	CARBON 220	5%	1/4W	F	
CN601	1-695-382-31	PIN, CONNECTOR (PC BOARD) 21P											
CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P					R612	1-249-409-11	CARBON 220	5%	1/4W	F	
* CN651	1-564-521-11	PLUG, CONNECTOR 6P					△R621	1-212-851-00	FUSIBLE 5.6	5%	1/4W	F	

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
△ R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F	C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
R623	1-249-432-11	CARBON	18K	5%	1/4W	C161	1-164-005-11	CERAMIC CHIP	0.47uF		25V
R624	1-249-432-11	CARBON	18K	5%	1/4W	C162	1-164-232-11	CERAMIC CHIP	0.01uF		50V
						C163	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
R625	1-249-429-11	CARBON	10K	5%	1/4W						
R651	1-247-856-00	CARBON	11K	5%	1/4W	C164	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
R652	1-247-856-00	CARBON	11K	5%	1/4W	C165	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
R653	1-249-441-11	CARBON	100K	5%	1/4W	C166	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
		< VARIABLE RESISTOR >				C167	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
						C168	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K				C169	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K				C170	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
RV341	1-238-551-11	RES, ADJ, CARBON 220K				C171	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K				C173	1-163-038-91	CERAMIC CHIP	0.1uF		25V
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K				C174	1-163-038-91	CERAMIC CHIP	0.1uF		25V
RV441	1-238-551-11	RES, ADJ, CARBON 220K				C175	1-163-038-91	CERAMIC CHIP	0.1uF		25V
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K				C176	1-163-038-91	CERAMIC CHIP	0.1uF		25V
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K				C177	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< TRANSFORMER >				C178	1-163-038-91	CERAMIC CHIP	0.1uF		25V
						C179	1-163-038-91	CERAMIC CHIP	0.1uF		25V
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION				C181	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
						C182	1-126-393-11	ELECT	33uF	20%	10V
*****						C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
						C185	1-164-232-11	CERAMIC CHIP	0.01uF		50V
*	A-4699-522-A	BD BOARD, COMPLETE				C188	1-163-235-11	CERAMIC CHIP	22PF	5%	50V

		< CAPACITOR >				C189	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
								< CONNECTOR >			
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V						
C102	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P			
C103	1-164-346-11	CERAMIC CHIP	1uF		16V	CNU102	1-778-874-11	CONNECTOR,FFC(LIF(NON-ZIF))19P			
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V			< FERRITE BEAD >			
C106	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V						
						FB101	1-414-234-11	INDUCTOR, FERRITE BEAD			
C107	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	FB103	1-414-234-11	INDUCTOR, FERRITE BEAD			
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V			< IC >			
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V						
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V	IC101	8-752-080-62	IC CXA1992AR			
C111	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	IC102	8-759-429-32	IC BA5941FP-E2			
						IC103	8-752-378-66	IC CXD2519Q			
C112	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V			< JUMPER RESISTOR >			
C113	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V						
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V	JW101	1-216-295-91	CONDUCTOR, CHIP (2012)			
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V	JW104	1-216-295-91	CONDUCTOR, CHIP (2012)			
C116	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V			< MOTOR >			
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V	M101	X-4917-523-4	MOTOR ASSY (SPINDLE)			
C118	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	M102	X-4917-504-1	MOTOR ASSY (SLED)			
C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V			< TRANSISTOR >			
C120	1-124-779-00	ELECT CHIP	10uF	20%	16V						
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V	Q101	8-729-010-08	TRANSISTOR MSB710-R			
								< RESISTOR >			
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V						
C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V	R102	1-216-001-00	METAL CHIP	10	5%	1/10W
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V	R104	1-216-093-00	METAL CHIP	68K	5%	1/10W
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V	R105	1-216-088-00	METAL CHIP	43K	5%	1/10W
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V	R106	1-216-088-00	METAL CHIP	43K	5%	1/10W
						R107	1-216-088-00	METAL CHIP	43K	5%	1/10W
C127	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V						
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V						
C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V						
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V						
C131	1-164-346-11	CERAMIC CHIP	1uF		16V						
C140	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V						

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

BD	CD-A SW	CD-B1 SW
-----------	----------------	-----------------

Ref. No.	Part No.	Description	Remark		
R108	1-216-088-00	METAL CHIP	43K	5%	1/10W
R109	1-216-093-00	METAL CHIP	68K	5%	1/10W
R114	1-216-101-00	METAL CHIP	150K	5%	1/10W
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R117	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R118	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R119	1-216-085-00	METAL CHIP	33K	5%	1/10W
R120	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R121	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R122	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R123	1-216-099-00	METAL CHIP	120K	5%	1/10W
R124	1-216-091-00	METAL CHIP	56K	5%	1/10W
R125	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R126	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R127	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R128	1-216-098-00	METAL CHIP	110K	5%	1/10W
R129	1-216-025-91	METAL GLAZE	100	5%	1/10W
R130	1-216-079-00	METAL CHIP	18K	5%	1/10W
R131	1-216-079-00	METAL CHIP	18K	5%	1/10W
R132	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R133	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R134	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R135	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W
R137	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R138	1-216-025-91	METAL GLAZE	100	5%	1/10W
R156	1-216-081-00	METAL CHIP	22K	5%	1/10W
R157	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R158	1-216-001-00	METAL CHIP	10	5%	1/10W
R159	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R161	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R162	1-216-073-00	METAL CHIP	10K	5%	1/10W
R163	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R164	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R165	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R166	1-216-073-00	METAL CHIP	10K	5%	1/10W
R167	1-216-081-00	METAL CHIP	22K	5%	1/10W
R168	1-216-073-00	METAL CHIP	10K	5%	1/10W
R169	1-216-079-00	METAL CHIP	18K	5%	1/10W
R170	1-216-081-00	METAL CHIP	22K	5%	1/10W
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W
R172	1-216-079-00	METAL CHIP	18K	5%	1/10W
R173	1-216-025-91	METAL GLAZE	100	5%	1/10W
R174	1-216-033-00	METAL CHIP	220	5%	1/10W
R175	1-216-025-91	METAL GLAZE	100	5%	1/10W
R176	1-216-025-91	METAL GLAZE	100	5%	1/10W
R177	1-216-025-91	METAL GLAZE	100	5%	1/10W
R178	1-216-025-91	METAL GLAZE	100	5%	1/10W
R179	1-216-025-91	METAL GLAZE	100	5%	1/10W
R180	1-216-025-91	METAL GLAZE	100	5%	1/10W
R181	1-216-025-91	METAL GLAZE	100	5%	1/10W
R188	1-216-037-00	METAL CHIP	330	5%	1/10W
R190	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R191	1-216-105-91	METAL GLAZE	220K	5%	1/10W
< SWITCH >					
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			

Ref. No.	Part No.	Description	Remark		
< VIBRATOR >					
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			

*	1-664-019-11	CD-A SW BOARD			

< DIODE >					
D641	8-719-058-04	DIODE SEL5223S-TP15 (NON-STOP)			
< RESISTOR >					
R731	1-249-411-11	CARBON	330	5%	1/4W
R732	1-249-413-11	CARBON	470	5%	1/4W
R733	1-249-415-11	CARBON	680	5%	1/4W
R734	1-249-417-11	CARBON	1K	5%	1/4W
R735	1-249-419-11	CARBON	1.5K	5%	1/4W
R736	1-249-421-11	CARBON	2.2K	5%	1/4W
R737	1-249-417-11	CARBON	1K	5%	1/4W
R741	1-247-807-31	CARBON	100	5%	1/4W
< SWITCH >					
S661	1-554-303-21	SWITCH, TACTILE (DISC 1)			
S662	1-554-303-21	SWITCH, TACTILE (DISC 2)			
S663	1-554-303-21	SWITCH, TACTILE (DISC 3)			
S664	1-554-303-21	SWITCH, TACTILE (DISC 4)			
S665	1-554-303-21	SWITCH, TACTILE (DISC 5)			
S666	1-554-303-21	SWITCH, TACTILE (FLASH)			
S667	1-554-303-21	SWITCH, TACTILE (NON-STOP)			
S668	1-554-303-21	SWITCH, TACTILE (LOOP)			

*	1-664-020-11	CD-B1 SW BOARD			

< CONNECTOR >					
* CN642	1-568-943-11	PIN, CONNECTOR 5P			
< DIODE >					
D645	8-719-057-29	DIODE SML78423C-TP15 (▷)			
D646	8-719-057-97	DIODE SEL5923A-TP15 (■)			
D647	8-719-057-29	DIODE SML78423C-TP15 (▷)			
< RESISTOR >					
R745	1-247-815-91	CARBON	220	5%	1/4W
R746	1-249-411-11	CARBON	330	5%	1/4W
R747	1-249-413-11	CARBON	470	5%	1/4W
R748	1-249-415-11	CARBON	680	5%	1/4W
R749	1-247-807-31	CARBON	100	5%	1/4W
R750	1-247-807-31	CARBON	100	5%	1/4W
R751	1-247-807-31	CARBON	100	5%	1/4W
< SWITCH >					
S676	1-554-303-21	SWITCH, TACTILE (▷)			
S677	1-554-303-21	SWITCH, TACTILE (■)			
S678	1-554-303-21	SWITCH, TACTILE (■)			
S679	1-554-303-21	SWITCH, TACTILE (DISC SKIP)			

CD-B2 SW

CD-LED

CD MOTOR

DOOR SW

HP/MIC

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-664-021-11	CD-B2 SW BOARD *****				< MOTOR >	
		< RESISTOR >		M201	A-4660-977-A	MOTOR ASSY (TABLE)	
						< RESISTOR >	
R752	1-249-417-11	CARBON 1K 5% 1/4W F		R205	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R753	1-249-419-11	CARBON 1.5K 5% 1/4W F		R206	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R754	1-249-421-11	CARBON 2.2K 5% 1/4W F				< SWITCH >	
R755	1-247-843-11	CARBON 3.3K 5% 1/4W					
R756	1-249-427-11	CARBON 6.8K 5% 1/4W F		S201	1-762-587-11	SWITCH, PUSH (1 KEY)(UP)	
		< SWITCH >				*****	
S681	1-554-303-21	SWITCH, TACTILE (▶▶)		*	1-664-016-11	DOOR SW BOARD *****	
S682	1-554-303-21	SWITCH, TACTILE (REPEAT)				< CAPACITOR >	
S683	1-554-303-21	SWITCH, TACTILE (PLAY MODE)					
S684	1-554-303-21	SWITCH, TACTILE (1/ALL DISCS)		C691	1-164-159-21	CERAMIC 0.1uF 50V	
S685	1-554-303-21	SWITCH, TACTILE (EDIT)				< CONNECTOR >	
S686	1-554-303-21	SWITCH, TACTILE (◀◀)					
S711	1-467-968-11	ENCODER, ROTARY (◀◀ AMS ▶▶)		CN661	1-506-481-11	PIN, CONNECTOR 2P	
		*****				< SWITCH >	
*	1-664-017-11	CD-LED BOARD *****		S691	1-570-953-11	SWITCH, PUSH (1 KEY)(▲ OPEN)	
		< CONNECTOR >				*****	
CN671	1-506-481-11	PIN, CONNECTOR 2P		*	A-4392-452-A	HP/MIC BOARD, COMPLETE *****	
		< DIODE >				< CAPACITOR >	
D671	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)		C760	1-162-306-11	CERAMIC 0.01uF 20% 16V	
D672	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)		C761	1-126-961-11	ELECT 2.2uF 20% 50V	
D673	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)		C764	1-162-294-31	CERAMIC 0.001uF 10% 50V	
D674	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)		C765	1-162-215-31	CERAMIC 47PF 5% 50V	
		< RESISTOR >		C766	1-162-290-31	CERAMIC 470PF 10% 50V	
R791	1-249-412-11	CARBON 390 5% 1/4W F		C767	1-162-215-31	CERAMIC 47PF 5% 50V	
		*****		C769	1-162-282-31	CERAMIC 100PF 10% 50V	
*	A-4673-765-A	CD MOTOR BOARD, COMPLETE *****		C770	1-126-961-11	ELECT 2.2uF 20% 50V	
*	4-980-385-01	HOLDER (SW)		C771	1-126-959-11	ELECT 0.47uF 20% 50V	
		< CAPACITOR >		C773	1-126-964-11	ELECT 10uF 20% 50V	
C201	1-124-907-11	ELECT 10uF 20% 50V		C774	1-126-964-11	ELECT 10uF 20% 50V	
C202	1-164-159-21	CERAMIC 0.1uF 50V		C775	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C203	1-124-907-11	ELECT 10uF 20% 50V		C776	1-162-294-31	CERAMIC 0.001uF 10% 50V	
		< CONNECTOR >		C795	1-164-159-21	CERAMIC 0.1uF 50V	
* CN201	1-568-947-11	PIN, CONNECTOR 9P		C796	1-164-159-21	CERAMIC 0.1uF 50V	
		< IC >		C797	1-164-159-21	CERAMIC 0.1uF 50V	
IC201	8-759-365-94	IC TA8409S		C798	1-164-159-21	CERAMIC 0.1uF 50V	
		< COIL >		C799	1-164-159-21	CERAMIC 0.1uF 50V	
L201	1-408-117-00	INDUCTOR 10uH				< CONNECTOR >	
				* CN701	1-568-935-11	PIN, CONNECTOR 8P	
						< DIODE >	
				D764	8-719-815-85	DIODE 1S585	

HP/MIC	LEAF SWITCH	LED	MAIN
--------	-------------	-----	------

Ref. No.	Part No.	Description	Remark			
		< IC >				
IC760	8-759-634-51	IC M5218AP				
		< JACK >				
J760	1-770-226-11	JACK (LARGE TYPE)(PHONES)				
J761	1-770-226-11	JACK (LARGE TYPE)(MIC)				
		< BASE POST >				
* LP2	1-690-880-21	LEAD (WITH CONNECTOR)				
		< RESISTOR >				
R760	1-249-429-11	CARBON	10K	5%	1/4W	
R761	1-249-417-11	CARBON	1K	5%	1/4W	F
R764	1-249-441-11	CARBON	100K	5%	1/4W	
R765	1-249-417-11	CARBON	1K	5%	1/4W	F
R766	1-247-863-91	CARBON	22K	5%	1/4W	
R767	1-249-429-11	CARBON	10K	5%	1/4W	
R769	1-247-885-00	CARBON	180K	5%	1/4W	
R770	1-247-807-31	CARBON	100	5%	1/4W	
R780	1-249-417-11	CARBON	1K	5%	1/4W	F
		< VARIABLE RESISTOR >				
RV760	1-225-366-11	RES, VAR, CARBON 50K (MIC LEVEL)				

*	1-650-669-11	LEAF SWITCH BOARD				

		< CONNECTOR >				
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P				
		< TRANSISTOR >				
Q1001	8-749-010-90	TRANSISTOR PHOTO REFLECTOR				
		NJL5165KA-H2				
Q1002	8-749-010-90	TRANSISTOR PHOTO REFLECTOR				
		NJL5165KA-H2				
		< RESISTOR >				
R1001	1-247-818-11	CARBON	300	5%	1/4W	
R1002	1-247-820-11	CARBON	360	5%	1/4W	
R1003	1-249-414-11	CARBON	560	5%	1/4W	F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W	
R1005	1-247-818-11	CARBON	300	5%	1/4W	
		< SWITCH >				
S1001	1-692-832-11	SWITCH, PUSH (1 KEY)(A PLAY)				
S1002	1-692-832-11	SWITCH, PUSH (1 KEY)(B PLAY)				
S1003	1-572-248-11	SWITCH, LEAF (A HALF)				
S1004	1-571-281-21	SWITCH, LEAF (A CrO2)				
S1005	1-571-281-21	SWITCH, LEAF (REC A)				
S1006	1-572-248-11	SWITCH, LEAF (B HALF)				
S1008	1-571-281-21	SWITCH, LEAF (B CrO2)				
S1009	1-571-281-21	SWITCH, LEAF (REC B)				

Ref. No.	Part No.	Description	Remark			
*	1-659-059-13	LED BOARD				

		< DIODE >				
D201	8-719-032-98	DIODE SEL5820A (DISC No.)				
		< TRANSISTOR >				
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		< RESISTOR >				
R201	1-247-863-91	CARBON	22K	5%	1/4W	
R202	1-249-411-11	CARBON	330	5%	1/4W	
R203	1-249-437-11	CARBON	47K	5%	1/4W	

*	A-4392-669-A	MAIN BOARD, COMPLETE (AEP,UK)				

*	A-4392-670-A	MAIN BOARD, COMPLETE (E,MX,AR)				

*	A-4398-046-A	MAIN BOARD, COMPLETE (EE,CIS)				

*	A-4398-051-A	MAIN BOARD, COMPLETE (AUS,PX)				

*	A-4398-907-A	MAIN BOARD, COMPLETE (SAF)				

		< CAPACITOR >				
C101	1-162-288-31	CERAMIC	330PF	10%	50V	
C103	1-162-282-31	CERAMIC	100PF	10%	50V	
C104	1-162-282-31	CERAMIC	100PF	10%	50V	
C105	1-126-961-11	ELECT	2.2uF	20%	50V	
		(E,MX,AR,AUS,PX,SAF)				
C105	1-126-963-11	ELECT	4.7uF	20%	50V	
		(AEP,UK,EE,CIS)				
C106	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C107	1-130-473-00	MYLAR	0.0015uF	5%	50V	
C108	1-126-956-91	ELECT	0.1uF	20%	50V	
C109	1-126-933-11	ELECT	100uF	20%	10V	
C110	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C111	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C114	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C121	1-162-286-21	CERAMIC	220PF	10%	50V	
C125	1-124-499-11	ELECT	1uF	20%	50V	
C150	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C151	1-162-288-31	CERAMIC	330PF	10%	50V	
C153	1-162-282-31	CERAMIC	100PF	10%	50V	
C154	1-162-282-31	CERAMIC	100PF	10%	50V	
C155	1-126-961-11	ELECT	2.2uF	20%	50V	
		(E,MX,AR,AUS,PX,SAF)				
C155	1-126-963-11	ELECT	4.7uF	20%	50V	
		(AEP,UK,EE,CIS)				
C156	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C157	1-130-473-00	MYLAR	0.0015uF	5%	50V	
C158	1-126-956-91	ELECT	0.1uF	20%	50V	
C159	1-126-933-11	ELECT	100uF	20%	10V	
C164	1-162-306-11	CERAMIC	0.01uF	20%	16V	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C171	1-162-286-21	CERAMIC	220PF	10%	50V	C358	1-126-964-11	ELECT	10uF	20%	50V
C201	1-124-250-11	ELECT	0.15uF	20%	50V	C359	1-126-960-11	ELECT	1uF	20%	50V
C202	1-124-250-11	ELECT	0.15uF	20%	50V						
C203	1-136-495-11	FILM	0.068uF	5%	50V	C360	1-126-933-11	ELECT	100uF	20%	10V
C204	1-136-495-11	FILM	0.068uF	5%	50V	C401	1-164-159-21	CERAMIC	0.1uF		50V
						C402	1-164-159-21	CERAMIC	0.1uF		50V
C205	1-136-156-00	FILM	0.018uF	5%	50V	C403	1-164-159-21	CERAMIC	0.1uF		50V
C206	1-136-156-00	FILM	0.018uF	5%	50V	C404	1-126-933-11	ELECT	100uF	20%	16V
C207	1-130-480-00	MYLAR	0.0056uF	5%	50V						
C208	1-130-479-00	MYLAR	0.0047uF	5%	50V	C405	1-126-767-11	ELECT	1000uF	20%	16V
C209	1-130-474-00	MYLAR	0.0018uF	5%	50V	C601	1-136-167-00	FILM	0.15uF	5%	50V
						C602	1-136-167-00	FILM	0.15uF	5%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V	C603	1-126-962-11	ELECT	3.3uF	20%	50V
C211	1-126-964-11	ELECT	10uF	20%	50V	C604	1-126-962-11	ELECT	3.3uF	20%	50V
C212	1-136-171-00	FILM	0.33uF	5%	50V						
C213	1-136-171-00	FILM	0.33uF	5%	50V	C605	1-136-167-00	FILM	0.15uF	5%	50V
C214	1-126-964-11	ELECT	10uF	20%	50V	C606	1-136-167-00	FILM	0.15uF	5%	50V
						C607	1-126-963-11	ELECT	4.7uF	20%	50V
C215	1-136-153-00	FILM	0.01uF	5%	50V	C608	1-126-963-11	ELECT	4.7uF	20%	50V
C230	1-136-167-00	FILM	0.15uF	5%	50V	C609	1-126-959-11	ELECT	0.47uF	20%	50V
C231	1-130-471-00	MYLAR	0.001uF	5%	50V						
C234	1-126-933-11	ELECT	100uF	20%	10V	C610	1-126-959-11	ELECT	0.47uF	20%	50V
C235	1-164-159-21	CERAMIC	0.1uF		50V	C611	1-126-963-11	ELECT	4.7uF	20%	50V
						C612	1-126-963-11	ELECT	4.7uF	20%	50V
C237	1-126-964-11	ELECT	10uF	20%	50V	C613	1-126-959-11	ELECT	0.47uF	20%	50V
C238	1-162-286-21	CERAMIC	220PF	10%	50V	C614	1-126-959-11	ELECT	0.47uF	20%	50V
C239	1-162-306-11	CERAMIC	0.01uF	20%	16V						
C241	1-162-306-11	CERAMIC	0.01uF	20%	16V	C615	1-136-165-00	FILM	0.1uF	5%	50V
C242	1-126-933-11	ELECT	100uF	20%	10V	C616	1-136-165-00	FILM	0.1uF	5%	50V
						C617	1-136-165-00	FILM	0.1uF	5%	50V
C247	1-162-306-11	CERAMIC	0.01uF	20%	16V	C618	1-136-165-00	FILM	0.1uF	5%	50V
C248	1-126-964-11	ELECT	10uF	20%	50V	C619	1-126-960-11	ELECT	1uF	20%	50V
C251	1-124-250-11	ELECT	0.15uF	20%	50V						
C252	1-124-250-11	ELECT	0.15uF	20%	50V	C620	1-126-960-11	ELECT	1uF	20%	50V
C253	1-136-495-11	FILM	0.068uF	5%	50V	C621	1-126-923-11	ELECT	220uF	20%	10V
						C622	1-126-964-11	ELECT	10uF	20%	50V
C254	1-136-495-11	FILM	0.068uF	5%	50V	C623	1-126-964-11	ELECT	10uF	20%	50V
C255	1-136-156-00	FILM	0.018uF	5%	50V	C624	1-126-964-11	ELECT	10uF	20%	50V
C256	1-136-156-00	FILM	0.018uF	5%	50V						
C257	1-130-480-00	MYLAR	0.0056uF	5%	50V	C625	1-126-964-11	ELECT	10uF	20%	50V
C258	1-130-479-00	MYLAR	0.0047uF	5%	50V	C626	1-126-923-11	ELECT	220uF	20%	10V
						C627	1-136-161-00	FILM	0.047uF	5%	50V
C259	1-130-474-00	MYLAR	0.0018uF	5%	50V	C628	1-136-157-00	FILM	0.022uF	5%	50V
C260	1-126-964-11	ELECT	10uF	20%	50V	C629	1-162-292-31	CERAMIC	680PF	10%	50V
C261	1-126-964-11	ELECT	10uF	20%	50V						
C262	1-136-171-00	FILM	0.33uF	5%	50V	C630	1-126-933-11	ELECT	100uF	20%	10V
C263	1-136-171-00	FILM	0.33uF	5%	50V	C631	1-162-306-11	CERAMIC	0.01uF	20%	16V
						C632	1-126-964-11	ELECT	10uF	20%	50V
C264	1-126-964-11	ELECT	10uF	20%	50V	C633	1-136-173-00	FILM	0.47uF	5%	50V
C265	1-136-153-00	FILM	0.01uF	5%	50V	C634	1-104-664-11	ELECT	47uF	20%	25V
C275	1-162-294-31	CERAMIC	0.001uF	10%	50V						
C301	1-137-368-11	FILM	0.0047uF	5%	50V	C635	1-130-467-00	MYLAR	470PF	5%	50V
C302	1-162-290-31	CERAMIC	470PF	10%	50V	C636	1-130-467-00	MYLAR	470PF	5%	50V
						C637	1-162-306-11	CERAMIC	0.01uF	20%	16V
C303	1-136-165-00	FILM	0.1uF	5%	50V	C638	1-162-306-11	CERAMIC	0.01uF	20%	16V
C304	1-126-964-11	ELECT	10uF	20%	50V	C641	1-124-252-00	ELECT	0.33uF	20%	50V
C305	1-126-960-11	ELECT	1uF	20%	50V						
C306	1-126-964-11	ELECT	10uF	20%	50V	C642	1-136-159-00	FILM	0.033uF	5%	50V
C307	1-126-964-11	ELECT	10uF	20%	50V	C643	1-162-306-11	CERAMIC	0.01uF	20%	16V
						C644	1-126-933-11	ELECT	100uF	20%	10V
C308	1-126-964-11	ELECT	10uF	20%	50V	C645	1-126-961-11	ELECT	2.2uF	20%	50V
C309	1-126-960-11	ELECT	1uF	20%	50V	C646	1-162-286-21	CERAMIC	220PF	10%	50V
C310	1-126-933-11	ELECT	100uF	20%	10V						
C351	1-137-368-11	FILM	0.0047uF	5%	50V	C647	1-162-306-11	CERAMIC	0.01uF	20%	16V
C352	1-162-290-31	CERAMIC	470PF	10%	50V	C648	1-126-923-11	ELECT	220uF	20%	10V
						C649	1-136-164-00	FILM	0.082uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V	C650	1-130-477-00	MYLAR	0.0033uF	5%	50V
C355	1-126-960-11	ELECT	1uF	20%	50V	C651	1-136-164-00	FILM	0.082uF	5%	50V
C357	1-126-964-11	ELECT	10uF	20%	50V						

MAIN

Ref. No.	Part No.	Description	Remark			
C652	1-126-959-11	ELECT	0.47uF	20%	50V	
C653	1-126-923-11	ELECT	220uF	20%	10V	
C654	1-126-960-11	ELECT	1uF	20%	50V	
C655	1-126-960-11	ELECT	1uF	20%	50V	
C656	1-126-964-11	ELECT	10uF	20%	50V	
C657	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C658	1-162-286-21	CERAMIC	220PF	10%	50V	
C660	1-126-933-11	ELECT	100uF	20%	10V	
C661	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C662	1-126-933-11	ELECT	100uF	20%	10V	
C663	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C664	1-126-964-11	ELECT	10uF	20%	50V	
C665	1-126-964-11	ELECT	10uF	20%	50V	
C666	1-126-964-11	ELECT	10uF	20%	50V	
C667	1-126-964-11	ELECT	10uF	20%	50V	
C668	1-162-286-21	CERAMIC	220PF	10%	50V	
C669	1-124-499-11	ELECT	1uF	20%	50V	
C678	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C711	1-126-916-11	ELECT	1000uF	20%	6.3V	
C712	1-164-159-21	CERAMIC	0.1uF		50V	
C713	1-164-027-11	CERAMIC	22PF	5%	50V	
C714	1-164-027-11	CERAMIC	22PF	5%	50V	
C723	1-164-159-21	CERAMIC	0.1uF		50V	
C724	1-126-933-11	ELECT	100uF	20%	10V	
C766	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C801	1-126-961-11	ELECT	2.2uF	20%	50V	
C803	1-126-925-11	ELECT	470uF	20%	10V	
C804	1-164-159-21	CERAMIC	0.1uF		50V	
C805	1-162-282-31	CERAMIC	100PF	10%	50V	
C811	1-126-961-11	ELECT	2.2uF	20%	50V	
C851	1-164-159-21	CERAMIC	0.1uF		50V (EE,CIS)	
C852	1-164-159-21	CERAMIC	0.1uF		50V (EE,CIS)	
C853	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C854	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C855	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C856	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C861	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C862	1-126-964-11	ELECT	10uF	20%	50V	
C863	1-126-964-11	ELECT	10uF	20%	50V	
C901	1-126-937-11	ELECT	4700uF	20%	16V	
C902	1-126-768-11	ELECT	2200uF	20%	16V	
C903	1-164-159-21	CERAMIC	0.1uF		50V	
C904	1-164-159-21	CERAMIC	0.1uF		50V	
C908	1-126-933-11	ELECT	100uF	20%	10V	
C909	1-126-933-11	ELECT	100uF	20%	10V	
C910	1-126-964-11	ELECT	10uF	20%	50V	
C911	1-126-768-11	ELECT	2200uF	20%	16V	
C913	1-126-968-11	ELECT	10uF	20%	50V	
C914	1-126-767-11	ELECT	1000uF	20%	16V	
C915	1-126-964-11	ELECT	10uF	20%	50V	
C916	1-126-916-11	ELECT	1000uF	20%	6.3V	
C917	1-126-925-11	ELECT	470uF	20%	10V	
C918	1-126-933-11	ELECT	100uF	20%	10V	
C919	1-126-964-11	ELECT	10uF	20%	50V	
C920	1-126-933-11	ELECT	100uF	20%	10V	
C943	1-162-294-31	CERAMIC	0.001uF	10%	50V	

Ref. No.	Part No.	Description	Remark			
C944	1-126-947-11	ELECT	47uF	20%	35V	
C951	1-126-967-11	ELECT	47uF	20%	10V	
C952	1-136-165-00	FILM	0.1uF	5%	50V	
C953	1-136-165-00	FILM	0.1uF	5%	50V	
C961	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C991	1-162-306-11	CERAMIC	0.01uF	20%	16V	
< CONNECTOR >						
CN401	1-568-838-11	SOCKET, CONNECTOR 21P				
* CN402	1-568-830-11	SOCKET, CONNECTOR 11P				
* CN403	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P				
* CN701	1-568-836-11	SOCKET, CONNECTOR 17P				
CN801	1-568-802-11	SOCKET, CONNECTOR 19P				
* CN830	1-568-936-11	PIN, CONNECTOR 9P				
* CN851	1-568-832-11	SOCKET, CONNECTOR 13P				
(E,MX,AR,AUS,PX,SAF)						
* CN851	1-568-834-11	SOCKET, CONNECTOR 15P (AEP,UK,EE,CIS)				
* CN901	1-770-734-11	CONNECTOR, BOARD TO BOARD 20P				
* CN961	1-564-518-11	PLUG, CONNECTOR 3P				
< DIODE >						
D702	8-719-987-63	DIODE 1N4148M				
D772	8-719-987-63	DIODE 1N4148M				
D799	8-719-987-63	DIODE 1N4148M				
D801	8-719-987-63	DIODE 1N4148M				
D802	8-719-987-63	DIODE 1N4148M				
D901	8-719-025-23	DIODE RBA-402-SL				
D902	8-719-200-82	DIODE 11ES2				
D904	8-719-987-63	DIODE 1N4148M				
D905	8-719-200-82	DIODE 11ES2				
D906	8-719-200-82	DIODE 11ES2				
D907	8-719-987-63	DIODE 1N4148M				
D908	8-719-200-82	DIODE 11ES2				
D941	8-719-002-60	DIODE UZL-33L				
D942	8-719-010-43	DIODE UZ-5.6BSC				
D951	8-719-987-63	DIODE 1N4148M				
D952	8-719-987-63	DIODE 1N4148M				
D953	8-719-987-63	DIODE 1N4148M				
D954	8-719-987-63	DIODE 1N4148M				
< GROUND TERMINAL >						
* EPT901	1-537-738-21	TERMINAL, EARTH				
< FERRITE BEAD >						
FB801	1-412-473-21	INDUCTOR 0UH				
< IC >						
IC101	8-759-634-51	IC M5218AP				
IC102	8-759-000-48	IC MC14052BCP				
IC103	8-759-140-53	IC uPD4053BC				
IC201	8-759-331-39	IC M62427FP				
IC401	8-759-363-21	IC HA12203NT				
IC402	8-759-822-09	IC LB1641				
IC601	8-759-442-96	IC LA2786				
IC602	8-759-442-97	IC LV1016				
IC603	8-759-634-51	IC M5218AP				
IC604	8-759-281-42	IC TC9210P				

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark						
IC701	8-759-468-71	IC uPD780018YGF-019-3BA					R104	1-249-416-11	CARBON	820	5%	1/4W	F			
IC861	8-759-634-51	IC M5218AP					(AEP,UK,EE,CIS)									
IC901	8-759-288-53	IC LA5617					1/4W				F					
IC902	8-759-231-53	IC TA7805S					(E,MX,AR,AUS,PX,SAF)									
IC903	8-759-604-86	IC M5F7807L														
IC904	8-759-231-58	IC TA7812S					R105	1-247-897-11	CARBON	560K	5%	1/4W				
IC905	8-759-604-38	IC M5F78M10L					1/4W									
IC951	8-759-635-63	IC M51943BSL					1/4W				F					
< JACK >							R108	1-249-441-11	CARBON	100K	5%	1/4W				
							R109	1-247-815-91	CARBON	220	5%	1/4W				
J101	1-695-188-31	JACK, PIN 4P (VIDEO(AUDIO) IN, PHONO IN)					R121	1-249-424-11	CARBON	3.9K	5%	1/4W	F			
< COIL >							R122	1-247-887-00	CARBON	220K	5%	1/4W				
							R125	1-249-421-11	CARBON	2.2K	5%	1/4W	F			
							R126	1-249-441-11	CARBON	100K	5%	1/4W				
							R127	1-249-421-11	CARBON	2.2K	5%	1/4W	F			
L601	1-410-509-11	INDUCTOR 10uH					R128	1-249-426-11	CARBON	5.6K	5%	1/4W				
L602	1-410-509-11	INDUCTOR 10uH					1/4W									
L604	1-410-509-11	INDUCTOR 10uH					1/4W									
L769	1-410-521-11	INDUCTOR 100uH					1/4W									
L770	1-410-521-11	INDUCTOR 100uH					1/4W				F					
L772	1-410-521-11	INDUCTOR 100uH					R151	1-249-417-11	CARBON	1K	5%	1/4W	F			
L851	1-410-521-11	INDUCTOR 100uH (AEP,UK)					1/4W				F					
L861	1-410-521-11	INDUCTOR 100uH					(AEP,UK,EE,CIS)									
< TRANSISTOR >							R154	1-249-417-11	CARBON	1K	5%	1/4W	F			
							(E,MX,AR,AUS,PX,SAF)									
Q120	8-729-422-57	TRANSISTOR UN4111					R155	1-247-897-11	CARBON	560K	5%	1/4W				
Q121	8-729-141-26	TRANSISTOR 2SC3622A-LK					1/4W									
Q122	8-729-141-26	TRANSISTOR 2SC3622A-LK														
Q123	8-729-422-57	TRANSISTOR UN4111					1/4W				F					
Q124	8-729-900-36	TRANSISTOR DTC124ES					1/4W									
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE					R158	1-249-441-11	CARBON	100K	5%	1/4W				
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE					1/4W				F					
Q206	8-729-900-36	TRANSISTOR DTC124ES					1/4W									
Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE					1/4W									
Q252	8-729-119-78	TRANSISTOR 2SC2785-HFE					1/4W									
Q253	8-729-141-26	TRANSISTOR 2SC3622A-LK					R178	1-249-426-11	CARBON	5.6K	5%	1/4W				
Q254	8-729-141-26	TRANSISTOR 2SC3622A-LK					1/4W									
Q256	8-729-900-36	TRANSISTOR DTC124ES					1/4W				F					
Q403	8-729-801-93	TRANSISTOR 2SD1387					1/4W				F					
Q406	8-729-900-80	TRANSISTOR DTC114ES					1/4W									
Q407	8-729-900-80	TRANSISTOR DTC114ES					R204	1-249-437-11	CARBON	47K	5%	1/4W				
Q408	8-729-119-76	TRANSISTOR 2SA1175-HFE					1/4W									
Q409	8-729-900-80	TRANSISTOR DTC114ES					1/4W									
Q601	8-729-141-26	TRANSISTOR 2SC3622A-LK					1/4W									
Q602	8-729-141-26	TRANSISTOR 2SC3622A-LK					1/4W				F					
Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE					R209	1-249-411-11	CARBON	330	5%	1/4W				
Q904	8-729-040-20	TRANSISTOR RT1P137L-TP					1/4W									
Q905	8-729-900-36	TRANSISTOR DTC124ES					1/4W									
Q906	8-729-040-20	TRANSISTOR RT1P137L-TP					1/4W									
Q907	8-729-900-63	TRANSISTOR DTA124ES					1/4W									
Q912	8-729-900-36	TRANSISTOR DTC124ES					R214	1-249-437-11	CARBON	47K	5%	1/4W				
Q941	8-729-118-01	TRANSISTOR 2SB1116-K					1/4W									
Q951	8-729-119-78	TRANSISTOR 2SC2785-HFE					1/4W									
Q961	8-729-111-29	TRANSISTOR 2SD1616A-K					1/4W									
Q962	8-729-119-76	TRANSISTOR 2SA1175-HFE					1/4W									
< RESISTOR >						R223	1-247-903-00	CARBON	1M	5%	1/4W					
R101	1-249-417-11	CARBON	1K	5%	1/4W	F	R230	1-247-863-91	CARBON	22K	5%	1/4W				
R102	1-249-417-11	CARBON	1K	5%	1/4W	F	R231	1-247-863-91	CARBON	22K	5%	1/4W				
R103	1-249-437-11	CARBON	47K	5%	1/4W		R232	1-247-856-00	CARBON	11K	5%	1/4W				
						R240	1-249-429-11	CARBON	10K	5%	1/4W					
						R241	1-249-429-11	CARBON	10K	5%	1/4W					
						R242	1-249-429-11	CARBON	10K	5%	1/4W					

MAIN

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R243	1-249-417-11	CARBON	1K	5%	1/4W	F	R603	1-249-417-11	CARBON	1K	5%	1/4W	F
R244	1-249-417-11	CARBON	1K	5%	1/4W	F	R604	1-249-432-11	CARBON	18K	5%	1/4W	
R245	1-249-417-11	CARBON	1K	5%	1/4W	F	R605	1-249-417-11	CARBON	1K	5%	1/4W	F
							R615	1-249-441-11	CARBON	100K	5%	1/4W	
R251	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R621	1-249-436-11	CARBON	39K	5%	1/4W	
R252	1-249-425-11	CARBON	4.7K	5%	1/4W	F							
R253	1-249-437-11	CARBON	47K	5%	1/4W		R622	1-249-436-11	CARBON	39K	5%	1/4W	
R254	1-249-437-11	CARBON	47K	5%	1/4W		R623	1-249-417-11	CARBON	1K	5%	1/4W	F
R255	1-249-441-11	CARBON	100K	5%	1/4W		R624	1-247-903-00	CARBON	1M	5%	1/4W	
							R625	1-249-411-11	CARBON	330	5%	1/4W	
R256	1-247-887-00	CARBON	220K	5%	1/4W		R626	1-249-417-11	CARBON	1K	5%	1/4W	F
R257	1-249-437-11	CARBON	47K	5%	1/4W								
R258	1-249-429-11	CARBON	10K	5%	1/4W		R627	1-249-417-11	CARBON	1K	5%	1/4W	F
R259	1-249-411-11	CARBON	330	5%	1/4W		R628	1-249-417-11	CARBON	1K	5%	1/4W	F
R260	1-249-429-11	CARBON	10K	5%	1/4W		R630	1-249-425-11	CARBON	4.7K	5%	1/4W	F
							R631	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R261	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R632	1-249-441-11	CARBON	100K	5%	1/4W	
R262	1-249-441-11	CARBON	100K	5%	1/4W								
R263	1-249-429-11	CARBON	10K	5%	1/4W		R633	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R264	1-249-437-11	CARBON	47K	5%	1/4W		R634	1-249-432-11	CARBON	18K	5%	1/4W	
R265	1-249-441-11	CARBON	100K	5%	1/4W		R635	1-249-441-11	CARBON	100K	5%	1/4W	
							R636	1-249-437-11	CARBON	47K	5%	1/4W	
R266	1-247-891-00	CARBON	330K	5%	1/4W		R637	1-249-441-11	CARBON	100K	5%	1/4W	
R267	1-249-431-11	CARBON	15K	5%	1/4W								
R273	1-247-903-00	CARBON	1M	5%	1/4W		R638	1-249-441-11	CARBON	100K	5%	1/4W	
R301	1-249-435-11	CARBON	33K	5%	1/4W		R639	1-249-417-11	CARBON	1K	5%	1/4W	F
R304	1-249-426-11	CARBON	5.6K	5%	1/4W		R640	1-249-417-11	CARBON	1K	5%	1/4W	F
							R641	1-249-417-11	CARBON	1K	5%	1/4W	F
R305	1-249-417-11	CARBON	1K	5%	1/4W	F	R642	1-249-417-11	CARBON	1K	5%	1/4W	F
R306	1-247-840-00	CARBON	2.4K	5%	1/4W								
R307	1-247-863-91	CARBON	22K	5%	1/4W		R645	1-249-429-11	CARBON	10K	5%	1/4W	
R308	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R646	1-249-429-11	CARBON	10K	5%	1/4W	
R309	1-249-428-11	CARBON	8.2K	5%	1/4W	F	R650	1-249-441-11	CARBON	100K	5%	1/4W	
							R651	1-249-417-11	CARBON	1K	5%	1/4W	F
R351	1-247-863-91	CARBON	22K	5%	1/4W		R700	1-249-425-31	CARBON	4.7K	5%	1/4W	F
R354	1-249-426-11	CARBON	5.6K	5%	1/4W								
R355	1-249-417-11	CARBON	1K	5%	1/4W	F	R718	1-247-807-31	CARBON	100	5%	1/4W	
R356	1-247-840-00	CARBON	2.4K	5%	1/4W		R720	1-249-425-31	CARBON	4.7K	5%	1/4W	F
R357	1-247-863-91	CARBON	22K	5%	1/4W		R721	1-247-807-31	CARBON	100	5%	1/4W	(AEP,UK)
R358	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R722	1-247-807-31	CARBON	100	5%	1/4W	(AEP,UK)
R359	1-249-428-11	CARBON	8.2K	5%	1/4W	F							
R401	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R726	1-247-807-31	CARBON	100	5%	1/4W	
R402	1-249-425-11	CARBON	4.7K	5%	1/4W	F							
R403	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R727	1-247-807-31	CARBON	100	5%	1/4W	
							R728	1-247-807-31	CARBON	100	5%	1/4W	
R404	1-249-417-11	CARBON	1K	5%	1/4W	F	R730	1-247-843-11	CARBON	3.3K	5%	1/4W	
R405	1-249-437-11	CARBON	47K	5%	1/4W								
R406	1-249-437-11	CARBON	47K	5%	1/4W		R730	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R407	1-249-437-11	CARBON	47K	5%	1/4W								
R408	1-249-437-11	CARBON	47K	5%	1/4W		R730	1-249-427-11	CARBON	6.8K	5%	1/4W	F
													(EE,CIS,E,MX,AR)
R410	1-249-430-11	CARBON	12K	5%	1/4W								
R411	1-249-426-11	CARBON	5.6K	5%	1/4W		R730	1-249-431-11	CARBON	15K	5%	1/4W	(SAF)
R414	1-249-429-11	CARBON	10K	5%	1/4W								
R415	1-249-432-11	CARBON	18K	5%	1/4W		R731	1-249-415-11	CARBON	680	5%	1/4W	(SAF)
R416	1-249-429-11	CARBON	10K	5%	1/4W								
							R731	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R417	1-249-441-11	CARBON	100K	5%	1/4W								(E,MX,AR)
R419	1-249-429-11	CARBON	10K	5%	1/4W		R731	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R454	1-249-425-11	CARBON	4.7K	5%	1/4W	F							(AEP,UK,AUS,PX)
R455	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R731	1-249-435-11	CARBON	33K	5%	1/4W	
R456	1-249-411-11	CARBON	330	5%	1/4W								(EE,CIS)
R457	1-249-427-11	CARBON	6.8K	5%	1/4W	F	R734	1-247-807-31	CARBON	100	5%	1/4W	
R458	1-249-429-11	CARBON	10K	5%	1/4W		R736	1-247-807-31	CARBON	100	5%	1/4W	
R461	1-247-843-11	CARBON	3.3K	5%	1/4W		R744	1-247-807-31	CARBON	100	5%	1/4W	
R601	1-247-887-00	CARBON	220K	5%	1/4W		R745	1-247-807-31	CARBON	100	5%	1/4W	
R602	1-247-887-00	CARBON	220K	5%	1/4W		R747	1-247-807-31	CARBON	100	5%	1/4W	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R748	1-247-807-31	CARBON	100	5%	1/4W	R956	1-249-429-11	CARBON	10K	5%	1/4W
R755	1-247-807-31	CARBON	100	5%	1/4W						
R756	1-247-807-31	CARBON	100	5%	1/4W	R961	1-249-421-11	CARBON	2.2K	5%	1/4W F
R757	1-247-807-31	CARBON	100	5%	1/4W	R962	1-249-432-11	CARBON	18K	5%	1/4W
R758	1-247-807-31	CARBON	100	5%	1/4W	R963	1-249-425-11	CARBON	4.7K	5%	1/4W F
								< VARIABLE RESISTOR >			
R759	1-247-807-31	CARBON	100	5%	1/4W						
R760	1-247-807-31	CARBON	100	5%	1/4W	RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
R761	1-247-807-31	CARBON	100	5%	1/4W	RV351	1-238-598-11	RES, ADJ, CARBON 2.2K			
R762	1-247-807-31	CARBON	100	5%	1/4W			< VIBRATOR >			
R765	1-247-807-31	CARBON	100	5%	1/4W						
R766	1-247-807-31	CARBON	100	5%	1/4W	X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			
R767	1-247-807-31	CARBON	100	5%	1/4W	X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)			
R768	1-247-807-31	CARBON	100	5%	1/4W	X702	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
R773	1-247-807-31	CARBON	100	5%	1/4W						
R774	1-247-807-31	CARBON	100	5%	1/4W						
R776	1-247-807-31	CARBON	100	5%	1/4W						
R777	1-247-807-31	CARBON	100	5%	1/4W	*	A-4392-684-A	PANEL BOARD, COMPLETE (AEP,UK,EE,CIS)			
R794	1-247-807-31	CARBON	100	5%	1/4W						
R795	1-247-807-31	CARBON	100	5%	1/4W						
R796	1-247-807-31	CARBON	100	5%	1/4W	*	A-4392-685-A	PANEL BOARD, COMPLETE			
R797	1-247-807-31	CARBON	100	5%	1/4W						
R798	1-249-425-31	CARBON	4.7K	5%	1/4W F						
R801	1-247-807-11	CARBON	100	5%	1/4W F						
R802	1-249-435-11	CARBON	33K	5%	1/4W	*	4-986-870-11	HOLDER, FL TUBE			
R811	1-247-807-11	CARBON	100	5%	1/4W F			< CAPACITOR >			
R812	1-249-435-11	CARBON	33K	5%	1/4W	C601	1-126-967-11	ELECT	47uF	20%	50V
R856	1-249-417-11	CARBON	1K	5%	1/4W F	C602	1-162-306-11	CERAMIC	0.01uF	20%	16V
R858	1-249-417-11	CARBON	1K	5%	1/4W F	C603	1-126-963-11	ELECT	4.7uF	20%	50V
R861	1-247-891-00	CARBON	330K	5%	1/4W	C604	1-126-960-11	ELECT	1uF	20%	50V
R862	1-249-441-11	CARBON	100K	5%	1/4W	C606	1-126-960-11	ELECT	1uF	20%	50V
R869	1-249-429-11	CARBON	10K	5%	1/4W	C608	1-124-584-00	ELECT	100uF	20%	10V
R870	1-247-843-11	CARBON	3.3K	5%	1/4W	C610	1-162-306-11	CERAMIC	0.01uF	20%	16V
R877	1-249-437-11	CARBON	47K	5%	1/4W	C611	1-162-306-11	CERAMIC	0.01uF	20%	16V
R901	1-247-895-91	CARBON	470K	5%	1/4W	C612	1-126-967-11	ELECT	47uF	20%	50V
R902	1-249-417-11	CARBON	1K	5%	1/4W F	C613	1-164-159-21	CERAMIC	0.1uF		50V
R906	1-249-417-11	CARBON	1K	5%	1/4W F	C621	1-126-960-11	ELECT	1uF	20%	50V
R907	1-249-429-11	CARBON	10K	5%	1/4W	C622	1-136-161-00	FILM	0.047uF	5%	50V
R910	1-215-883-11	CARBON	33	5%	2W F	C623	1-126-957-11	ELECT	0.22uF	20%	50V
					(AEP,UK,EE,CIS)	C624	1-126-957-11	ELECT	0.22uF	20%	50V
R910	1-216-447-51	CARBON	27	5%	2W F	C625	1-162-306-11	CERAMIC	0.01uF	20%	16V
					(E,MX,AR,AUS,PX,SAF)						
R911	1-215-883-11	CARBON	33	5%	2W F	C626	1-126-957-11	ELECT	0.22uF	20%	50V
					(AEP,UK,EE,CIS)	C627	1-136-159-00	FILM	0.033uF	5%	50V
						C628	1-162-302-11	CERAMIC	0.0022uF	30%	16V
R911	1-216-447-51	CARBON	27	5%	2W F	C629	1-126-957-11	ELECT	0.22uF	20%	50V
					(E,MX,AR,AUS,PX,SAF)	C630	1-162-293-31	CERAMIC	820PF	10%	50V
R912	1-249-417-11	CARBON	1K	5%	1/4W F						
R942	1-247-863-91	CARBON	22K	5%	1/4W F	C631	1-126-957-11	ELECT	0.22uF	20%	50V
R943	1-249-425-11	CARBON	4.7K	5%	1/4W F	C632	1-126-957-11	ELECT	0.22uF	20%	50V
R944	1-247-815-91	CARBON	220	5%	1/4W	C641	1-162-286-21	CERAMIC	220PF	10%	50V
						C642	1-162-286-21	CERAMIC	220PF	10%	50V
R945	1-247-815-91	CARBON	220	5%	1/4W	C643	1-162-286-21	CERAMIC	220PF	10%	50V
R946	1-260-092-11	CARBON	270	5%	1/2W						
					(AEP,UK,EE,CIS)	C644	1-162-286-21	CERAMIC	220PF	10%	50V
R946	1-260-093-11	CARBON	150	5%	1/2W	C645	1-162-286-21	CERAMIC	220PF	10%	50V
					(E,MX,AR,AUS,PX,SAF)	C646	1-162-286-21	CERAMIC	220PF	10%	50V
R951	1-249-417-11	CARBON	1K	5%	1/4W F	C647	1-162-286-21	CERAMIC	220PF	10%	50V
						C648	1-162-286-21	CERAMIC	220PF	10%	50V
R952	1-249-425-11	CARBON	4.7K	5%	1/4W F						
R953	1-247-807-31	CARBON	100	5%	1/4W	C649	1-162-286-21	CERAMIC	220PF	10%	50V
R954	1-249-437-11	CARBON	47K	5%	1/4W	C650	1-162-286-21	CERAMIC	220PF	10%	50V
R955	1-249-437-11	CARBON	47K	5%	1/4W	C651	1-162-286-21	CERAMIC	220PF	10%	50V

PANEL

Ref. No.	Part No.	Description	Remark
C652	1-162-286-21	CERAMIC 220PF 10% 50V	
C653	1-162-286-21	CERAMIC 220PF 10% 50V	
C654	1-162-286-21	CERAMIC 220PF 10% 50V	
C655	1-162-286-21	CERAMIC 220PF 10% 50V	
C656	1-162-286-21	CERAMIC 220PF 10% 50V	
C690	1-164-159-21	CERAMIC 220PF 10% 50V (AEP,UK,EE,CIS)	
C692	1-164-159-21	CERAMIC 220PF 10% 50V (AEP,UK,EE,CIS)	
C693	1-164-159-21	CERAMIC 220PF 10% 50V (AEP,UK,EE,CIS)	
C695	1-164-159-21	CERAMIC 0.1uF 50V	
C696	1-164-159-21	CERAMIC 0.1uF 50V	
C697	1-162-294-31	CERAMIC 1000PF 10% 50V	
C698	1-136-165-00	FILM 0.1uF 5% 50V (AEP,UK,EE,CIS)	
< CONNECTOR >			
* CN601	1-568-836-11	SOCKET, CONNECTOR 17P	
* CN602	1-568-947-11	PIN, CONNECTOR 9P	
CN603	1-506-486-11	PIN, CONNECTOR 7P	
* CN604	1-568-947-11	PIN, CONNECTOR 9P	
< DIODE >			
D601	8-719-987-63	DIODE 1N4148M	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
D604	8-719-987-63	DIODE 1N4148M	
D605	8-719-987-63	DIODE 1N4148M	
D606	8-719-987-63	DIODE 1N4148M	
D607	8-719-987-63	DIODE 1N4148M	
D611	8-719-057-29	DIODE SML78423C-TP15 (TUNER/BAND)	
D612	8-719-057-29	DIODE SML78423C-TP15 (TUNER/BAND)	
D613	8-719-058-04	DIODE SEL5223S-TP15 (ENTER/NEXT)	
D614	8-719-058-04	DIODE SEL5223S-TP15 (GROOVE)	
D615	8-719-058-04	DIODE SEL5223S-TP15 (SUPER WOOFER)	
D616	8-719-058-04	DIODE SEL5223S-TP15 (EFFECT)	
D617	8-719-058-04	DIODE SEL5223S-TP15 (ENTER)	
D618	8-719-058-04	DIODE SEL5223S-TP15 (FILE 1)	
D619	8-719-058-04	DIODE SEL5223S-TP15 (FILE 2)	
D620	8-719-058-04	DIODE SEL5223S-TP15 (FILE 3)	
D621	8-719-058-04	DIODE SEL5223S-TP15 (FILE 4)	
D622	8-719-058-04	DIODE SEL5223S-TP15 (FILE 5)	
D623	8-719-058-04	DIODE SEL5223S-TP15 (P.FILE)	
D624	8-719-058-04	DIODE SEL5223S-TP15 (MENU 2)	
D625	8-719-058-04	DIODE SEL5223S-TP15 (MENU 1)	
D626	8-719-058-04	DIODE SEL5223S-TP15 (DSP)	
D627	8-719-058-04	DIODE SEL5223S-TP15 (PROLOGIC)	
D629	8-719-058-04	DIODE SEL5223S-TP15 (PROLOGIC)	
< FERRITE BEAD >			
FB601	1-412-473-21	INDUCTOR 0UH	
< FLUORESCENT INDICATOR >			
FL601	1-517-617-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC601	8-759-466-89	IC TMP87CH75-6554	
IC602	8-759-459-84	IC NJL56H400	

Ref. No.	Part No.	Description	Remark
< COIL >			
L601	1-410-509-11	INDUCTOR 10uH	
< TRANSISTOR >			
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
Q603	8-729-118-00	TRANSISTOR 2SB1116-L	
Q604	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q605	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q606	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q607	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q608	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q609	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q610	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q611	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q612	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q614	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q615	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q616	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q617	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q618	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q619	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q621	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q622	8-729-119-77	TRANSISTOR 2SA1175-FEK	
< RESISTOR >			
R601	1-247-843-11	CARBON 3.3K 5% 1/4W	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
R603	1-247-903-00	CARBON 1M 5% 1/4W	
R606	1-249-429-11	CARBON 10K 5% 1/4W	
R607	1-249-429-11	CARBON 10K 5% 1/4W	
R608	1-249-429-11	CARBON 10K 5% 1/4W	
R609	1-249-429-11	CARBON 10K 5% 1/4W	
R610	1-249-429-11	CARBON 10K 5% 1/4W	
R611	1-247-843-11	CARBON 3.3K 5% 1/4W	
R612	1-247-843-11	CARBON 3.3K 5% 1/4W	
R613	1-249-401-11	CARBON 47 5% 1/4W	F
R614	1-249-429-11	CARBON 10K 5% 1/4W	
R615	1-249-429-11	CARBON 10K 5% 1/4W	
R617	1-249-429-11	CARBON 10K 5% 1/4W	
R621	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R622	1-249-437-11	CARBON 47K 5% 1/4W	
R623	1-247-895-91	CARBON 470K 5% 1/4W	
R624	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R625	1-249-437-11	CARBON 47K 5% 1/4W	
R626	1-247-895-91	CARBON 470K 5% 1/4W	
R627	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R628	1-249-437-11	CARBON 47K 5% 1/4W	
R629	1-247-895-91	CARBON 470K 5% 1/4W	
R631	1-249-437-11	CARBON 47K 5% 1/4W	
R632	1-247-895-91	CARBON 470K 5% 1/4W	
R633	1-247-897-11	CARBON 560K 5% 1/4W	
R634	1-247-897-11	CARBON 560K 5% 1/4W	
R635	1-247-897-11	CARBON 560K 5% 1/4W	
R636	1-247-897-11	CARBON 560K 5% 1/4W	
R637	1-247-895-91	CARBON 470K 5% 1/4W	
R638	1-249-435-11	CARBON 33K 5% 1/4W	

POWER

* A-4392-678-A POWER BOARD, COMPLETE (AEP,UK,EE,CIS)

* A-4392-679-A POWER BOARD, COMPLETE

(E,MX,AR,AUS,PX,SAF)

< CAPACITOR >

C101	1-130-781-00	FILM	0.22uF	10%	100V
C102	1-130-781-00	FILM	0.22uF	10%	100V
C103	1-136-169-00	FILM	0.22uF	5%	50V
C104	1-136-169-00	FILM	0.22uF	5%	50V
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V

POWER

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark	
C106	1-162-294-31	CERAMIC	0.001uF	10%	50V	C413	1-161-494-00	CERAMIC	0.022uF	25V
C107	1-128-576-11	ELECT	100uF	20%	63V			< CONNECTOR >		
C108	1-128-576-11	ELECT	100uF	20%	63V					
C110	1-126-942-61	ELECT	1000uF	20%	25V	* CN201	1-766-957-11	CONNECTOR, BOARD TO BOARD 20P		
				(AEP,UK,EE,CIS)				< DIODE >		
C110	1-104-665-11	ELECT	100uF	20%	50V					
				(E,MX,AR,AUS,PX,SAF)						
C151	1-128-493-11	ELECT	4700uF	20%	71V	D101	8-719-510-68	DIODE	D5SBA20F01	
C152	1-128-493-11	ELECT	4700uF	20%	71V	D102	8-719-025-03	DIODE	RBA-402-SL	
C153	1-128-550-11	ELECT	2200uF	20%	50V	D103	8-719-987-63	DIODE	1N4148M (AEP,UK,EE,CIS)	
C154	1-128-550-11	ELECT	2200uF	20%	50V	D104	8-719-200-82	DIODE	11ES2	
C201	1-128-582-11	ELECT	10uF	20%	100V	D105	8-719-200-82	DIODE	11ES2	
C202	1-162-292-31	CERAMIC	680PF	10%	50V	D110	8-719-200-82	DIODE	11ES2	
C203	1-162-286-21	CERAMIC	220PF	10%	50V	D111	8-719-200-82	DIODE	11ES2	
C204	1-126-967-11	ELECT	47uF	20%	50V	D201	8-719-815-85	DIODE	1S1585	
C205	1-126-967-11	ELECT	47uF	20%	50V	D251	8-719-815-85	DIODE	1S1585	
C206	1-128-560-11	ELECT	22uF	20%	100V	D301	8-719-987-63	DIODE	1N4148M	
C208	1-126-965-11	ELECT	22uF	20%	50V	D302	8-719-987-63	DIODE	1N4148M	
C210	1-130-493-00	MYLAR	0.068uF	5%	50V	D303	8-719-987-63	DIODE	1N4148M	
C211	1-130-493-00	MYLAR	0.068uF	5%	50V	D321	8-719-815-85	DIODE	1S1585	
C225	1-162-284-31	CERAMIC	150PF	10%	50V	D331	8-719-987-63	DIODE	1N4148M	
C226	1-162-284-31	CERAMIC	150PF	10%	50V	D332	8-719-987-63	DIODE	1N4148M	
C228	1-164-159-21	CERAMIC	0.1uF		50V	D401	8-719-987-63	DIODE	1N4148M	
C232	1-162-284-31	CERAMIC	150PF	10%	50V	D402	8-719-987-63	DIODE	1N4148M	
C251	1-128-582-11	ELECT	10uF	20%	100V	D403	8-719-815-85	DIODE	1S1585	
C252	1-162-292-31	CERAMIC	680PF	10%	50V	D404	8-719-815-85	DIODE	1S1585	
C253	1-162-286-21	CERAMIC	220PF	10%	50V	D405	8-719-815-85	DIODE	1S1585	
C254	1-126-967-11	ELECT	47uF	20%	50V	D406	8-719-815-85	DIODE	1S1585	
C255	1-126-967-11	ELECT	47uF	20%	50V			< EARTH TERMINAL >		
C256	1-128-560-11	ELECT	22uF	20%	100V					
C260	1-130-493-00	MYLAR	0.068uF	5%	50V	* EP101	1-537-738-21	TERMINAL, EARTH		
C261	1-130-493-00	MYLAR	0.068uF	5%	50V	* EP201	1-537-738-21	TERMINAL, EARTH		
C299	1-161-494-00	CERAMIC	0.022uF		25V			< FUSE >		
				(AEP,UK,EE,CIS)						
C301	1-126-959-11	ELECT	0.47uF	20%	50V	△ F101	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)		
C302	1-126-923-11	ELECT	220uF	20%	10V			(E,MX,AR,AUS,PX,SAF)		
C303	1-126-933-11	ELECT	100uF	20%	10V	△ F101	1-532-504-31	FUSE, TIME-LAG (4A/250V) (AEP,UK,EE,CIS)		
C304	1-126-961-11	ELECT	2.2uF	20%	50V	△ F102	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)		
								(E,MX,AR,AUS,PX,SAF)		
C305	1-126-933-11	ELECT	100uF	20%	10V	△ F102	1-532-504-31	FUSE, TIME-LAG (4A/250V) (AEP,UK,EE,CIS)		
C331	1-126-924-11	ELECT	330uF	20%	10V	△ F103	1-532-506-31	FUSE, TIME-LAG (6.3A/250V)		
C401	1-126-963-11	ELECT	4.7uF	20%	50V					
C402	1-164-159-21	CERAMIC	0.1uF		50V	△ F104	1-532-506-31	FUSE, TIME-LAG (6.3A/250V)		
				(AEP,UK,EE,CIS)				< FUSE HOLDER >		
C403	1-164-159-21	CERAMIC	0.1uF		50V					
				(AEP,UK,EE,CIS)						
C404	1-164-159-21	CERAMIC	0.1uF		50V	FH101	1-533-233-21	HOLDER, FUSE		
				(AEP,UK,EE,CIS)		FH102	1-533-233-21	HOLDER, FUSE		
C405	1-164-159-21	CERAMIC	0.1uF		50V	FH103	1-533-233-21	HOLDER, FUSE		
				(AEP,UK,EE,CIS)		FH104	1-533-233-21	HOLDER, FUSE		
C406	1-164-159-21	CERAMIC	0.1uF		50V	FH105	1-533-233-21	HOLDER, FUSE		
				(AEP,UK,EE,CIS)						
C407	1-164-159-21	CERAMIC	0.1uF		50V	FH106	1-533-233-21	HOLDER, FUSE		
				(AEP,UK,EE,CIS)		FH107	1-533-233-21	HOLDER, FUSE		
C408	1-164-159-21	CERAMIC	0.1uF		50V	FH108	1-533-233-21	HOLDER, FUSE		
				(AEP,UK,EE,CIS)				< IC >		
C409	1-164-159-21	CERAMIC	0.1uF		50V	IC201	8-749-922-65	IC	STK-4221MK2 (E,MX,AR,AUS,PX,SAF)	
				(AEP,UK,EE,CIS)		IC201	8-749-921-68	IC	STK-4231MK2 (AEP,UK,EE,CIS)	
C410	1-161-494-00	CERAMIC	0.022uF		25V	IC301	8-759-111-68	IC	uPC1237HA	
C411	1-161-494-00	CERAMIC	0.022uF		25V					
C412	1-161-494-00	CERAMIC	0.022uF		25V					

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			
< COIL >							R275	1-260-093-11	CARBON	330	5%	1/2W	
L401	1-420-872-00	COIL, AIR-CORE (AEP,UK,EE,CIS)					R301	1-249-441-11	CARBON	100K	5%	1/4W	
L402	1-420-872-00	COIL, AIR-CORE (AEP,UK,EE,CIS)					R302	1-247-854-11	CARBON	9.1K	5%	1/4W	
L403	1-420-872-00	COIL, AIR-CORE (AEP,UK,EE,CIS)					R303	1-247-854-11	CARBON	9.1K	5%	1/4W	
L404	1-420-872-00	COIL, AIR-CORE (AEP,UK,EE,CIS)					R304	1-249-429-11	CARBON	10K	5%	1/4W	
< TRANSISTOR >							R305	1-249-419-11	CARBON	1.5K	5%	1/4W	F
Q111	8-729-900-80	TRANSISTOR DTC114ES (AEP,UK,EE,CIS)					R306	1-249-441-11	CARBON	100K	5%	1/4W	
Q112	8-729-900-80	TRANSISTOR DTC114ES (AEP,UK,EE,CIS)					R307	1-247-863-91	CARBON	22K	5%	1/4W	
Q113	8-729-040-20	TRANSISTOR RT1P137L-TP (AEP,UK,EE,CIS)					R308	1-247-863-91	CARBON	22K	5%	1/4W	
Q201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA					R309	1-247-791-91	CARBON	22	5%	1/4W	
Q251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA					R310	1-249-437-11	CARBON	47K	5%	1/4W	
Q301	8-729-900-89	TRANSISTOR DTC144ES					R311	1-249-429-11	CARBON	10K	5%	1/4W	
Q323	8-729-900-63	TRANSISTOR DTA124ES					R312	1-249-429-11	CARBON	10K	5%	1/4W	
Q331	8-729-900-89	TRANSISTOR DTC144ES					R314	1-249-439-11	CARBON	68K	5%	1/4W	
Q401	8-729-900-80	TRANSISTOR DTC114ES					R315	1-249-439-11	CARBON	68K	5%	1/4W	
Q402	8-729-904-39	TRANSISTOR DTC114TS					R316	1-249-437-11	CARBON	47K	5%	1/4W	
Q403	8-729-040-20	TRANSISTOR RT1P137L-TP					R317	1-249-437-11	CARBON	47K	5%	1/4W	
Q404	8-729-040-20	TRANSISTOR RT1P137L-TP					R331	1-247-890-11	CARBON	300K	5%	1/4W	
Q405	8-729-900-80	TRANSISTOR DTC114ES					R332	1-249-429-11	CARBON	10K	5%	1/4W	
< RESISTOR >							R333	1-249-431-11	CARBON	15K	5%	1/4W	
							R334	1-249-417-11	CARBON	1K	5%	1/4W	F
△ R101	1-219-122-91	FUSIBLE	0.33	5%	1/4W	F	R401	1-249-429-11	CARBON	10K	5%	1/4W	
△ R103	1-216-449-51	METAL OXIDE	56	5%	2W	F	△ R405	1-215-886-11	METAL OXIDE	100	5%	2W	F
							(E,MX,AR,AUS,PX,SAF)						
R111	1-249-429-11	CARBON	10K	5%	1/4W		△ R405	1-216-453-00	METAL OXIDE	270	5%	2W	F
							(AEP,UK,EE,CIS)						
R201	1-249-417-11	CARBON	1K	5%	1/4W	F	△ R407	1-215-886-11	METAL OXIDE	100	5%	2W	F
R202	1-249-437-11	CARBON	47K	5%	1/4W		(E,MX,AR,AUS,PX,SAF)						
							△ R407	1-216-453-00	METAL OXIDE	270	5%	2W	F
							(AEP,UK,EE,CIS)						
R203	1-249-413-11	CARBON	470	5%	1/4W	F	R408	1-249-437-11	CARBON	47K	5%	1/4W	
R204	1-249-437-11	CARBON	47K	5%	1/4W		R409	1-249-440-11	CARBON	82K	5%	1/4W	
R206	1-260-107-11	CARBON	4.7K	5%	1/2W		R410	1-249-437-11	CARBON	47K	5%	1/4W	
R208	1-260-107-11	CARBON	4.7K	5%	1/2W		R411	1-249-437-11	CARBON	47K	5%	1/4W	
△ R209	1-212-881-11	FUSIBLE	100	5%	1/4W	F	R412	1-249-389-11	CARBON	4.7	5%	1/4W	F
							(AEP,UK,EE,CIS)						
△ R210	1-217-156-00	METAL PLATE	0.22	10%	5W		R413	1-249-389-11	CARBON	4.7	5%	1/4W	F
R211	1-249-417-11	CARBON	1K	5%	1/4W	F	(AEP,UK,EE,CIS)						
R212	1-249-431-11	CARBON	15K	5%	1/4W	F	R414	1-249-389-11	CARBON	4.7	5%	1/4W	F
R213	1-249-441-11	CARBON	100K	5%	1/4W		(AEP,UK,EE,CIS)						
R215	1-260-103-11	CARBON	2.2K	5%	1/2W		R415	1-249-389-11	CARBON	4.7	5%	1/4W	F
							(AEP,UK,EE,CIS)						
R216	1-260-103-11	CARBON	2.2K	5%	1/2W		R416	1-249-389-11	CARBON	4.7	5%	1/4W	F
R218	1-260-076-11	CARBON	10	5%	1/2W		(AEP,UK,EE,CIS)						
R227	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R417	1-249-389-11	CARBON	4.7	5%	1/4W	F
△ R250	1-217-637-00	FUSIBLE	1	5%	1/4W	F	(AEP,UK,EE,CIS)						
R251	1-249-417-11	CARBON	1K	5%	1/4W	F	R417	1-249-389-11	CARBON	4.7	5%	1/4W	F
							(AEP,UK,EE,CIS)						
R252	1-249-437-11	CARBON	47K	5%	1/4W		R418	1-249-393-11	CARBON	10	5%	1/4W	F
R253	1-249-413-11	CARBON	470	5%	1/4W	F	(AEP,UK,EE,CIS)						
R254	1-249-437-11	CARBON	47K	5%	1/4W		R419	1-249-389-11	CARBON	4.7	5%	1/4W	F
R256	1-260-107-11	CARBON	4.7K	5%	1/2W		(AEP,UK,EE,CIS)						
R258	1-260-107-11	CARBON	4.7K	5%	1/2W		R420	1-249-389-11	CARBON	4.7	5%	1/4W	F
							(AEP,UK,EE,CIS)						
△ R259	1-212-881-11	FUSIBLE	100	5%	1/4W	F	R421	1-249-393-11	CARBON	10	5%	1/4W	F
△ R260	1-217-156-00	METAL PLATE	0.22	10%	5W		(AEP,UK,EE,CIS)						
R261	1-249-417-11	CARBON	1K	5%	1/4W	F	R422	1-249-389-11	CARBON	4.7	5%	1/4W	F
R262	1-249-431-11	CARBON	15K	5%	1/4W	F	(AEP,UK,EE,CIS)						
R263	1-249-441-11	CARBON	100K	5%	1/4W		(AEP,UK,EE,CIS)						
R268	1-260-076-11	CARBON	10	5%	1/2W		R423	1-249-389-11	CARBON	4.7	5%	1/4W	F
R272	1-260-093-11	CARBON	330	5%	1/2W		(AEP,UK,EE,CIS)						
R273	1-260-093-11	CARBON	330	5%	1/2W								
R274	1-260-093-11	CARBON	330	5%	1/2W								

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

POWER

SURROUND

Ref. No.	Part No.	Description	Remark
< RELAY >			
△ RY101	1-755-195-11	RELAY (AEP,UK,EE,CIS)	
RY401	1-755-142-11	RELAY	
RY402	1-755-141-11	RELAY	
< TERMINAL >			
TM401	1-537-842-11	TERMINAL BOARD (FRONT SPEAKER)	
TM402	1-537-510-11	TERMINAL BOARD (SPEAKER)(6P) (SURROUND SPEAKER)	

*	A-4392-662-A	SURROUND BOARD, COMPLETE ***** (E,MX,AR,AUS,PX,SAF)	
*	A-4392-663-A	SURROUND BOARD, COMPLETE (AEP,UK,EE,CIS) *****	
< CAPACITOR >			
C601	1-126-963-11	ELECT 4.7uF 20% 50V	
C602	1-162-292-31	CERAMIC 680PF 10% 50V	
C603	1-162-286-21	CERAMIC 220PF 10% 50V	
C604	1-126-967-11	ELECT 47uF 20% 50V	
C605	1-126-967-11	ELECT 47uF 20% 50V	
C606	1-126-968-11	ELECT 100uF 20% 50V	
C608	1-126-965-11	ELECT 22uF 20% 50V	
C610	1-130-493-00	MYLAR 0.068uF 5% 50V	
C611	1-130-493-00	MYLAR 0.068uF 5% 50V	
C613	1-161-494-00	CERAMIC 0.022uF 25V (AEP,UK,EE,CIS)	
C620	1-126-923-11	ELECT 220uF 20% 10V	
C625	1-162-284-31	CERAMIC 150PF 10% 50V	
C626	1-162-284-31	CERAMIC 150PF 10% 50V (AEP,UK,EE,CIS)	
C628	1-164-159-21	CERAMIC 0.1uF 50V	
C651	1-126-963-11	ELECT 4.7uF 20% 50V	
C652	1-162-292-31	CERAMIC 680PF 10% 50V	
C653	1-162-286-21	CERAMIC 220PF 10% 50V	
C654	1-126-967-11	ELECT 47uF 20% 50V	
C655	1-126-967-11	ELECT 47uF 20% 50V	
C656	1-126-968-11	ELECT 100uF 20% 50V	
C660	1-130-493-00	MYLAR 0.068uF 5% 50V	
C661	1-130-493-00	MYLAR 0.068uF 5% 50V	
< CONNECTOR >			
CN601	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
CN602	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
CN603	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
< DIODE >			
D601	8-719-987-63	DIODE 1N4148M	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
D604	8-719-987-63	DIODE 1N4148M	
D651	8-719-987-63	DIODE 1N4148M	
< EARTH TERMINAL >			
* EP601	1-537-738-21	TERMINAL, EARTH (AEP,UK,EE,CIS)	

Ref. No.	Part No.	Description	Remark
* EP602	1-537-738-21	TERMINAL, EARTH	
< IC >			
IC601	8-749-900-96	IC STK-4142MK2	
< TRANSISTOR >			
Q601	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q651	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q670	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q671	8-729-900-36	TRANSISTOR DTC124ES	
< RESISTOR >			
R601	1-249-417-11	CARBON 1K 5% 1/4W F	
R602	1-249-437-11	CARBON 47K 5% 1/4W	
R603	1-249-415-11	CARBON 680 5% 1/4W F	
R604	1-249-437-11	CARBON 47K 5% 1/4W	
R605	1-260-103-11	CARBON 2.2K 5% 1/2W	
R606	1-260-103-11	CARBON 2.2K 5% 1/2W	
△ R609	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△ R610	1-217-151-00	METAL PLATE 0.22 10% 2W	
R611	1-249-417-11	CARBON 1K 5% 1/4W F	
R612	1-249-431-11	CARBON 15K 5% 1/4W	
R613	1-249-441-11	CARBON 100K 5% 1/4W	
R614	1-260-099-11	CARBON 1K 5% 1/2W	
R616	1-260-099-11	CARBON 1K 5% 1/2W	
R618	1-260-076-11	CARBON 10 5% 1/2W	
R627	1-249-429-11	CARBON 10K 5% 1/4W	
R628	1-247-881-00	CARBON 120K 5% 1/4W	
R630	1-249-429-11	CARBON 10K 5% 1/4W	
R642	1-249-429-11	CARBON 10K 5% 1/4W	
△ R644	1-217-637-00	FUSIBLE 1 5% 1/4W F	
R651	1-249-417-11	CARBON 1K 5% 1/4W F	
R652	1-249-437-11	CARBON 47K 5% 1/4W	
R653	1-249-415-11	CARBON 680 5% 1/4W F	
R654	1-249-437-11	CARBON 47K 5% 1/4W	
R655	1-260-103-11	CARBON 2.2K 5% 1/2W	
R656	1-260-103-11	CARBON 2.2K 5% 1/2W	
△ R659	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△ R660	1-217-151-00	METAL PLATE 0.22 10% 2W	
R661	1-249-417-11	CARBON 1K 5% 1/4W F	
R662	1-249-431-11	CARBON 15K 5% 1/4W	
R663	1-249-441-11	CARBON 100K 5% 1/4W	
R668	1-260-076-11	CARBON 10 5% 1/2W	
R670	1-249-441-11	CARBON 100K 5% 1/4W	
R671	1-249-441-11	CARBON 100K 5% 1/4W	
R672	1-249-436-11	CARBON 39K 5% 1/4W (E)	
R672	1-249-437-11	CARBON 47K 5% 1/4W (AEP,UK,EE,CIS)	
R672	1-249-441-11	CARBON 100K 5% 1/4W (MX,AR,AUS,PX,SAF)	
< THERMISTOR >			
THP670	1-807-796-11	THERMISTOR	

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

TABLE SENSOR

TCB

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark				
*	1-659-058-13	TABLE SENSOR BOARD					C56	1-104-396-11	ELECT	10uF	20%	16V		
		*****					C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V		
		< IC >					C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V		
IC202	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391					C59	1-163-989-11	CERAMIC CHIP	33000PF	10%	25V		
		< RESISTOR >					C60	1-163-989-11	CERAMIC CHIP	33000PF	10%	25V		
							C61	1-126-301-11	ELECT	1.0uF	20%	50V		
R207	1-249-416-11	CARBON	820	5%	1/4W	F	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		

*	A-4303-570-A	TCB BOARD, COMPLETE (EE,CIS)					C65	1-163-031-11	CERAMIC CHIP	0.01uF		50V		
		*****					C66	1-126-162-11	ELECT	3.3uF	20%	50V		
		< CAPACITOR >					C67	1-126-933-11	ELECT	100uF	20%	10V		
C1	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V		C68	1-162-306-11	CERAMIC	0.01uF	30%	16V		
		C2	1-126-967-11	ELECT	47uF	20%	16V	C71	1-162-306-11	CERAMIC	0.01uF	30%	16V	
		C3	1-163-038-91	CERAMIC CHIP	0.1uF		25V	C72	1-126-967-11	ELECT	47uF	20%	16V	
C5	1-163-031-11	CERAMIC CHIP	0.01uF		50V		C120	1-163-105-00	CERAMIC CHIP	33PF	5%	50V		
		C6	1-163-038-91	CERAMIC CHIP	0.1uF		25V	C1701	1-162-294-31	CERAMIC CHIP	1000PF	10%	50V	
							C1702	1-130-014-00	FILM	470PF	5%	50V		
C7	1-101-004-00	CERAMIC	0.01uF		50V		C1703	1-126-959-11	ELECT	0.47uF	20%	50V		
		C8	1-163-031-11	CERAMIC CHIP	0.01uF		50V	C1704	1-126-959-11	ELECT	0.47uF	20%	50V	
		C9	1-163-031-11	CERAMIC CHIP	0.01uF		50V	C1705	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C10	1-163-031-11	CERAMIC CHIP	0.01uF		50V		C1706	1-126-960-11	ELECT	1.0uF	20%	50V		
		C16	1-163-038-91	CERAMIC CHIP	0.1uF		25V	C1707	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
							C1710	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V		
C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50V		C1711	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V		
		C21	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	C1712	1-130-736-11	FILM	0.01uF	5%	50V	
		C22	1-163-031-11	CERAMIC CHIP	0.01uF		50V	C1713	1-130-736-11	FILM	0.01uF	5%	50V	
C23	1-163-235-11	CERAMIC CHIP	22PF	5%	50V		C1714	1-126-960-11	ELECT	1.0uF	20%	50V		
		C24	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	C1715	1-126-960-11	ELECT	1.0uF	20%	50V	
							C1716	1-126-960-11	ELECT	1.0uF	20%	50V		
C26	1-126-967-11	ELECT	47uF	20%	16V		C1719	1-126-967-11	ELECT	47uF	20%	16V		
		C28	1-126-967-11	ELECT	47uF	20%	16V	C1720	1-163-031-11	CERAMIC CHIP	0.01uF		50V	
		C29	1-162-306-11	CERAMIC	0.01uF	30%	16V	C1723	1-163-031-11	CERAMIC CHIP	0.01uF		50V	
C30	1-126-961-11	ELECT	2.2uF	20%	50V		C1724	1-163-031-11	CERAMIC CHIP	0.01uF		50V		
		C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V	C1725	1-126-967-11	ELECT	47uF	20%	16V	
							C1726	1-126-960-11	ELECT	1.0uF	20%	50V		
C32	1-163-038-91	CERAMIC CHIP	0.1uF		25V		C1727	1-126-960-11	ELECT	1.0uF	20%	50V		
		C33	1-163-038-91	CERAMIC CHIP	0.1uF		25V	C1728	1-126-966-11	ELECT	33uF	20%	16V	
		C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V		< FILTER >					
C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V		CF1	1-567-389-11	FILTER, CERAMIC					
		C36	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	CF3	1-567-389-11	FILTER, CERAMIC				
							CF3	1-760-393-11	FILTER, CERAMIC					
C37	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V		< CONNECTOR >							
		C39	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	* CN1	1-568-834-11	SOCKET, CONNECTOR 15P				
		C40	1-163-031-11	CERAMIC CHIP	0.01uF		50V		< TRIMMER >					
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V		CT1701	1-141-444-11	CAP, CERAMIC TRIMMER 50PF					
		C42	1-163-038-91	CERAMIC CHIP	0.1uF		25V		< DIODE >					
							D21	8-719-976-99	DIODE DTZ5.1B					
C43	1-163-038-91	CERAMIC CHIP	0.1uF		25V		D41	8-719-016-74	DIODE 1SS352					
		C44	1-163-031-11	CERAMIC CHIP	0.01uF		50V	D42	8-719-016-74	DIODE 1SS352				
		C45	1-163-038-91	CERAMIC CHIP	0.1uF		25V	D43	8-719-016-74	DIODE 1SS352				
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V		D1701	8-719-016-74	DIODE 1SS352					
		C47	1-126-967-11	ELECT	47uF	20%	16V							
C48	1-163-031-11	CERAMIC CHIP	0.01uF		50V									
		C49	1-126-959-11	ELECT	0.47uF	20%	50V							
		C50	1-126-960-11	ELECT	1.0uF	20%	50V							
C51	1-126-960-11	ELECT	1.0uF	20%	50V									
		C52	1-126-963-11	ELECT	4.7uF	20%	50V							
C53	1-126-964-11	ELECT	10uF	20%	50V									
		C54	1-104-396-11	ELECT	10uF	20%	16V							
		C55	1-104-396-11	ELECT	10uF	20%	16V							

Ref. No.	Part No.	Description	Remark
D1702	8-719-016-74	DIODE 1SS352	
D1703	8-719-987-63	DIODE 1N4148	
D1704	8-719-016-74	DIODE 1SS352	
< FRONTEND >			
FE1	1-693-335-11	FRONT END (3 GANG)	
FE2	1-233-514-11	ENCAPSULATED COMPONENT	
< IC >			
IC21	8-759-288-54	IC LC72130	
IC41	8-759-176-03	IC LA1835	
IC1701	8-759-063-04	IC IR3R42	
IC1702	8-759-140-53	IC uPD4053BC	
< IFT >			
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
< JUMPER RESISTOR >			
JR2	1-216-295-91	METAL CHIP 0	5% 1/10W
JR6	1-216-295-91	METAL CHIP 0	5% 1/10W
JR8	1-216-295-91	METAL CHIP 0	5% 1/10W
JR9	1-216-295-91	METAL CHIP 0	5% 1/10W
JR46	1-216-296-91	METAL CHIP 0	5% 1/8W
JR47	1-216-295-91	METAL CHIP 0	5% 1/10W
JR48	1-216-295-91	METAL CHIP 0	5% 1/10W
JR49	1-216-296-91	METAL CHIP 0	5% 1/8W
JR51	1-216-295-91	METAL CHIP 0	5% 1/10W
JR52	1-216-295-91	METAL CHIP 0	5% 1/10W
JR53	1-216-296-91	METAL CHIP 0	5% 1/8W
JR54	1-216-295-91	METAL CHIP 0	5% 1/10W
JR1701	1-216-295-91	METAL CHIP 0	5% 1/10W
JR1702	1-216-295-91	METAL CHIP 0	5% 1/10W
JR1703	1-216-295-91	METAL CHIP 0	5% 1/10W
JR1704	1-216-295-91	METAL CHIP 0	5% 1/10W
JR1705	1-216-295-91	METAL CHIP 0	5% 1/10W
< COIL >			
L3	1-410-521-11	MICRO INDUCTOR	100uH
L41	1-407-500-00	MICRO INDUCTOR	4.7mH
L1701	1-409-497-11	COIL (FILTER)	
< 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	
Q2	8-729-201-27	TRANSISTOR 2SC2715Y	
Q3	8-729-201-27	TRANSISTOR 2SC2715Y	
Q4	8-729-201-27	TRANSISTOR 2SC2715Y	
Q5	8-729-424-08	TRANSISTOR UN2111	
Q9	8-729-216-22	TRANSISTOR 2SA812-M5M6	
Q11	8-729-421-22	TRANSISTOR UN2211	
Q12	8-729-421-22	TRANSISTOR UN2211	
Q13	8-729-421-22	TRANSISTOR UN2211	
Q14	8-729-421-22	TRANSISTOR UN2211	
Q1701	8-729-424-08	TRANSISTOR UN2111	

Ref. No.	Part No.	Description	Remark
Q1702	8-729-907-00	TRANSISTOR DTC114EU	
Q1703	8-729-421-22	TRANSISTOR UN2211	
< 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
R21	1-249-417-11	CARBON 1.0K	5% 1/4W
R22	1-249-417-11	CARBON 1.0K	5% 1/4W
R23	1-249-417-11	CARBON 1.0K	5% 1/4W
R24	1-247-807-31	CARBON 100	5% 1/4W
R25	1-249-417-11	CARBON 1.0K	5% 1/4W F
R26	1-249-437-11	CARBON 47K	5% 1/4W
R27	1-249-429-11	CARBON 10K	5% 1/4W
R28	1-249-417-11	CARBON 1.0K	5% 1/4W F
R29	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
R30	1-216-186-00	METAL CHIP 330	5% 1/8W
R31	1-216-025-91	METAL CHIP 100	5% 1/10W
R32	1-249-425-11	CARBON 4.7K	5% 1/4W F
R33	1-249-425-11	CARBON 4.7K	5% 1/4W F
R34	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R35	1-216-214-00	METAL CHIP 4.7K	5% 1/8W
R36	1-216-025-91	METAL CHIP 100	5% 1/10W
R37	1-216-073-00	METAL CHIP 10K	5% 1/10W
R38	1-216-089-91	METAL CHIP 47K	5% 1/10W
R39	1-249-429-11	CARBON 10K	5% 1/4W
R42	1-216-073-00	METAL CHIP 10K	5% 1/10W
R43	1-216-042-00	METAL CHIP 510	5% 1/10W
R44	1-216-013-00	METAL CHIP 33	5% 1/10W
R45	1-247-843-11	CARBON 3.3K	5% 1/4W F
R46	1-216-073-00	METAL CHIP 10K	5% 1/10W
R47	1-216-097-91	METAL CHIP 100K	5% 1/10W
R48	1-249-417-11	CARBON 1.0K	5% 1/4W F
R49	1-216-049-91	METAL CHIP 1.0K	5% 1/10W
R50	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R51	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R53	1-249-429-11	CARBON 10K	5% 1/4W
R55	1-216-162-00	METAL CHIP 33	5% 1/8W
R56	1-249-393-11	CARBON 10	5% 1/4W F
R91	1-216-295-91	METAL CHIP 0	5% 1/10W
R92	1-216-073-00	METAL CHIP 10K	5% 1/10W
R94	1-216-073-00	METAL CHIP 10K	5% 1/10W
R99	1-249-399-11	CARBON 33	5% 1/4W F
R1701	1-216-081-00	METAL CHIP 22K	5% 1/10W
R1702	1-216-085-00	METAL CHIP 33K	5% 1/10W
R1703	1-216-069-00	METAL CHIP 6.8K	5% 1/10W

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R1704	1-216-075-00	METAL CHIP	12K	5%	1/10W	C33	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R1705	1-216-049-91	METAL CHIP	1.0K	5%	1/10W	C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
R1706	1-216-049-91	METAL CHIP	1.0K	5%	1/10W	C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R1707	1-216-097-91	METAL CHIP	100K	5%	1/10W	C36	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
R1708	1-216-095-00	METAL CHIP	82K	5%	1/10W	C37	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
R1709	1-216-089-91	METAL CHIP	47K	5%	1/10W	C39	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
R1710	1-216-073-00	METAL CHIP	10K	5%	1/10W	C40	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R1711	1-249-429-11	CARBON	10K	5%	1/4W	C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R1714	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	C42	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R1715	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	C43	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R1716	1-216-097-91	METAL CHIP	100K	5%	1/10W	C44	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R1717	1-216-097-91	METAL CHIP	100K	5%	1/10W	C45	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R1718	1-249-429-11	CARBON	10K	5%	1/4W	C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
R1719	1-216-097-91	METAL CHIP	100K	5%	1/10W	C47	1-126-967-11	ELECT	47uF	20%	16V
R1720	1-249-434-11	CARBON	27K	5%	1/4W	C48	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R1721	1-216-073-00	METAL CHIP	10K	5%	1/10W	C49	1-126-959-11	ELECT	0.47uF	20%	50V
< VARIABLE RESISTOR >						C50	1-126-960-11	ELECT	1.0uF	20%	50V
RV41	1-238-601-11	RES, ADJ, CARBON 22K				C51	1-126-960-11	ELECT	1.0uF	20%	50V
RV42	1-238-600-11	RES, ADJ, CARBON 10K				C52	1-126-963-11	ELECT	4.7uF	20%	50V
RV1701	1-238-600-11	RES, ADJ, CARBON 10K				C53	1-126-964-11	ELECT	10uF	20%	50V
RV1702	1-238-599-11	RES, ADJ, CARBON 4.7K				C54	1-104-396-11	ELECT	10uF	20%	16V
< TERMINAL >						C55	1-104-396-11	ELECT	10uF	20%	16V
TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)				C56	1-104-396-11	ELECT	10uF	20%	16V
< VIBRATOR >						C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)				C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)				C59	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
X42	1-527-981-00	FILTER, CERAMIC (450kHz)				C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
X43	1-577-075-11	OSCILLATOR, CERAMIC (456kHz)				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
*****						C1751	1-164-159-11	CERAMIC	0.1uF		50V
*****						C1752	1-126-967-11	ELECT	47uF	20%	16V
*****						C1753	1-126-964-11	ELECT	10uF	20%	50V
*****						C1754	1-162-291-31	CERAMIC	560PF	10%	50V
*****						C1755	1-126-964-11	ELECT	10uF	20%	50V
*****						C1756	1-126-961-11	ELECT	2.2uF	20%	50V
*****						C1757	1-162-288-31	CERAMIC	330PF	10%	50V
*****						C1758	1-163-031-11	CERAMIC CHIP	0.01uF		50V
*****						C1759	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
*****						C1760	1-163-031-11	CERAMIC CHIP	0.01uF		50V
*****						C1761	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
*****						C1762	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
< CAPACITOR >						< FILTER >					
C1	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	CF1	1-579-374-71	FILTER, CERAMIC			
C2	1-126-967-11	ELECT	47uF	20%	16V	CF2	1-760-393-11	FILTER, CERAMIC			
C3	1-163-038-91	CERAMIC CHIP	0.1uF		25V	CF3	1-760-393-11	FILTER, CERAMIC			
C5	1-163-031-11	CERAMIC CHIP	0.01uF		50V	< CONNECTOR >					
C6	1-163-038-91	CERAMIC CHIP	0.1uF		25V	* CN1	1-568-834-11	SOCKET, CONNECTOR 15P			
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						
C16	1-163-038-91	CERAMIC CHIP	0.1uF		25V						
C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50V						
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	1-126-961-11	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						

Ref. No.	Part No.	Description	Remark
< DIODE >			
D21	8-719-976-99	DIODE UDZ-TE-17-5.1B	
D41	8-719-016-74	DIODE 1SS352-TPH3	
D42	8-719-987-63	DIODE 1N4148M	
D1751	8-719-016-74	DIODE 1SS352-TPH3	
< FRONT-END >			
FE1	1-693-357-11	FRONT END (4 GANG)	
FE2	1-233-514-11	ENCAPSULATED COMPONENT	
< IC >			
IC21	8-759-288-54	IC LC72130	
IC41	8-759-176-03	IC LA1835	
IC1751	8-759-634-51	IC M5218AP	
IC1752	8-759-450-86	IC BU1922	
< IFT >			
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
< JUMPER RESISTOR >			
JR2	1-216-295-11	METAL CHIP 0	5% 1/10W
JR6	1-216-295-11	METAL CHIP 0	5% 1/10W
JR8	1-216-295-11	METAL CHIP 0	5% 1/10W
JR9	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
< COIL >			
L2	1-414-142-11	MICRO INDUCTOR	1uH
L3	1-410-521-11	MICRO INDUCTOR	100uH
L4	1-410-515-11	INDUCTOR 33uH	
L41	1-407-500-00	MICRO INDUCTOR	4.7mH
L1751	1-410-521-11	MICRO INDUCTOR	100uH
< 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	
Q11	8-729-421-22	TRANSISTOR UN2211	
Q12	8-729-421-22	TRANSISTOR UN2211	
Q13	8-729-421-22	TRANSISTOR UN2211	
Q14	8-729-421-22	TRANSISTOR UN2211	

Ref. No.	Part No.	Description	Remark
< 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
R21	1-216-049-91	METAL CHIP 1.0K	5% 1/10W
R22	1-216-049-91	METAL CHIP 1.0K	5% 1/10W
R23	1-216-049-91	METAL CHIP 1.0K	5% 1/10W
R24	1-216-025-91	METAL CHIP 100	5% 1/10W
R25	1-249-417-11	CARBON 1K	5% 1/4W 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	1-216-025-91	METAL CHIP 100	5% 1/10W
R32	1-249-425-11	CARBON 4.7K	5% 1/4W F
R33	1-249-425-11	CARBON 4.7K	5% 1/4W F
R34	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R35	1-216-214-00	METAL CHIP 4.7K	5% 1/8W
R36	1-216-025-91	METAL CHIP 100	5% 1/10W
R37	1-216-073-00	METAL CHIP 10K	5% 1/10W
R38	1-216-089-91	METAL CHIP 47K	5% 1/10W
R39	1-249-429-11	CARBON 10K	5% 1/4W
R42	1-216-073-00	METAL CHIP 10K	5% 1/10W
R43	1-216-042-00	METAL CHIP 510	5% 1/10W
R44	1-216-013-00	METAL CHIP 33	5% 1/10W
R45	1-247-843-11	CARBON 3.3K	5% 1/4W F
R46	1-216-073-00	METAL CHIP 10K	5% 1/10W
R47	1-216-097-91	METAL CHIP 100K	5% 1/10W
R48	1-249-417-11	CARBON 1K	5% 1/4W F
R49	1-216-049-91	METAL CHIP 1.0K	5% 1/10W
R50	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R51	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R53	1-249-429-11	CARBON 10K	5% 1/4W
R55	1-216-162-00	METAL CHIP 33	5% 1/8W
R56	1-249-393-11	CARBON 10	5% 1/4W F
R91	1-216-295-11	METAL CHIP 0	5% 1/10W
R92	1-216-073-00	METAL CHIP 10K	5% 1/10W
R99	1-249-399-11	CARBON 33	5% 1/4W
R1751	1-247-807-31	CARBON 100	5% 1/4W
R1752	1-216-073-00	METAL CHIP 10K	5% 1/10W
R1753	1-216-067-00	METAL CHIP 5.6K	5% 1/10W
R1754	1-216-097-91	METAL CHIP 100K	5% 1/10W
R1755	1-216-097-91	METAL CHIP 100K	5% 1/10W
R1756	1-249-401-11	CARBON 47	5% 1/4W F

TCB

TC-A SW

TC-B SW

TRANS

Ref. No.	Part No.	Description	Remark		
R1757	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< 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)			
X1751	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)			

*	1-664-012-11	TC-A SW BOARD			

		< CONNECTOR >			
CN612	1-506-486-11	PIN, CONNECTOR 7P			
		< DIODE >			
D631	8-719-057-29	DIODE SML78423C-TP15 (▷)(DECK A)			
D632	8-719-057-29	DIODE SML78423C-TP15 (◁)(DECK A)			
		< RESISTOR >			
R705	1-249-401-11	CARBON	47	5%	1/4W F
R706	1-249-403-11	CARBON	68	5%	1/4W F
R707	1-247-807-31	CARBON	100	5%	1/4W
R708	1-249-407-11	CARBON	150	5%	1/4W F
R709	1-249-407-11	CARBON	150	5%	1/4W F
R710	1-247-815-91	CARBON	220	5%	1/4W
R711	1-247-807-31	CARBON	100	5%	1/4W
R712	1-247-807-31	CARBON	100	5%	1/4W
R713	1-247-807-31	CARBON	100	5%	1/4W
R714	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S641	1-554-303-21	SWITCH, TACTILE (▷)(DECK A)			
S642	1-554-303-21	SWITCH, TACTILE (◁)(DECK A)			
S643	1-554-303-21	SWITCH, TACTILE (■)(DECK A)			
S644	1-554-303-21	SWITCH, TACTILE (◀◀)(DECK A)			
S645	1-554-303-21	SWITCH, TACTILE (▶▶)(DECK A)			
S646	1-554-303-21	SWITCH, TACTILE (DOLBY NR)			
S647	1-554-303-21	SWITCH, TACTILE (DIRECTION)			

*	1-664-013-11	TC-B SW BOARD			

		< DIODE >			
D635	8-719-057-29	DIODE SML78423C-TP15 (◁)(DECK B)			
D636	8-719-057-29	DIODE SML78423C-TP15 (▷)(DECK B)			
D637	8-719-058-17	DIODE LNJ401NPYJA (■)(DECK B)			
D638	8-719-057-09	DIODE LNJ801LPDJA (● REC)(DECK B)			

Ref. No.	Part No.	Description	Remark		
< RESISTOR >					
R715	1-247-815-91	CARBON	220	5%	1/4W
R716	1-249-411-11	CARBON	330	5%	1/4W
R717	1-249-413-11	CARBON	470	5%	1/4W
R718	1-249-415-11	CARBON	680	5%	1/4W
R719	1-249-417-11	CARBON	1K	5%	1/4W
R720	1-249-419-11	CARBON	1.5K	5%	1/4W
R721	1-249-421-11	CARBON	2.2K	5%	1/4W
R722	1-247-843-11	CARBON	3.3K	5%	1/4W
R723	1-247-807-31	CARBON	100	5%	1/4W
R724	1-247-807-31	CARBON	100	5%	1/4W
R725	1-247-807-31	CARBON	100	5%	1/4W
R726	1-247-807-31	CARBON	100	5%	1/4W
R727	1-247-807-31	CARBON	100	5%	1/4W
R728	1-247-807-31	CARBON	100	5%	1/4W
< SWITCH >					
S651	1-554-303-21	SWITCH, TACTILE (▷)(DECK B)			
S652	1-554-303-21	SWITCH, TACTILE (◁)(DECK B)			
S653	1-554-303-21	SWITCH, TACTILE (▶▶)(DECK B)			
S654	1-554-303-21	SWITCH, TACTILE (◀◀)(DECK B)			
S655	1-554-303-21	SWITCH, TACTILE (■)(DECK B)			
S656	1-554-303-21	SWITCH, TACTILE (■)(DECK B)			
S657	1-554-303-21	SWITCH, TACTILE (● REC)(DECK B)			
S658	1-554-303-21	SWITCH, TACTILE (H.SPEED DUBB)			
S659	1-554-303-21	SWITCH, TACTILE (CD SYNC)			

*	1-663-994-11	TRANS BOARD			

< CONNECTOR >					
* CN501	1-564-527-11	PLUG, CONNECTOR 12P			
CN502	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
< FUSE >					
△ F501	1-532-504-31	FUSE, TIME-LAG (4A/250V)(E,AR,PX,SAF)			
< FUSE HOLDER >					
FH501	1-533-233-21	HOLDER, FUSE (E,AR,PX,SAF)			
FH502	1-533-233-21	HOLDER, FUSE (E,AR,PX,SAF)			
< RESISTOR >					
△ R501	1-219-120-11	FUSIBLE	0.15	5%	1/4W
△ R502	1-219-120-11	FUSIBLE	0.15	5%	1/4W
△ R503	1-219-124-11	FUSIBLE	0.68	5%	1/4W
△ R506	1-202-725-00	SOLID	3.3M	10%	1/2W
(MX)					
< SWITCH >					
△ S501	1-762-753-11	SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR)(E,AR,PX,SAF)			

The components identified by mark △ or dotted line with mark △ are critical

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

TRANS

Ref. No.	Part No.	Description	Remark
< TRANSFORMER >			
△ T501	1-431-139-11	TRANSFORMER, POWER (AEP,UK,EE,CIS)	
△ T501	1-431-140-11	TRANSFORMER, POWER (E,MX,AR,AUS,PX,SAF)	

MISCELLANEOUS			

5	1-233-545-11	ENCAPSULATED COMPONENT	
		(E,MX,AR,AUS,PX,SAF)	
6	1-769-974-11	WIRE (FLAT TYPE)(13 CORE)	
		(E,MX,AR,AUS,PX,SAF)	
6	1-773-006-11	WIRE (FLAT TYPE)(15 CORE)(AEP,UK,EE,CIS)	
58	1-773-163-11	WIRE (FLAT TYPE)(21 CORE)	
59	1-769-949-11	WIRE (FLAT TYPE)(11 CORE)	
120	1-773-051-11	WIRE (FLAT TYPE)(17 CORE)	
156	1-777-868-11	WIRE (FLAT TYPE)(19 CORE)	
△ 161	1-569-007-11	ADAPTOR, CONVERSION 2P (PX)	
△ 161	1-569-008-11	ADAPTOR, CONVERSION 2P (AR)	
* 357	1-452-879-11	MAGNET	
△ 401	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP	
402	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)	
△ CNP901	1-558-943-41	CORD, POWER (E,MX,PX)	
△ CNP901	1-575-651-21	CORD, POWER (AEP,EE,CIS,AR,SAF)	
△ CNP901	1-696-845-21	CORD, POWER (AUS)	
△ CNP901	1-751-522-11	CORD, POWER (UK)	
FL601	1-517-617-11	INDICATOR TUBE, FLUORESCENT	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	
M901	1-698-792-11	FAN, DC	
△ T501	1-431-139-11	TRANSFORMER, POWER (AEP,UK,EE,CIS)	
△ T501	1-431-140-11	TRANSFORMER, POWER (E,MX,AR,AUS,PX,SAF)	

ACCESSORIES & PACKING MATERIALS			

	1-475-045-11	REMOTE COMMANDER (RM-SE2AV)(SAF)	
	1-501-374-11	ANTENNA, LOOP (SAF)	
	1-501-659-41	ANTENNA (FM)(SAF)	
	3-859-538-11	MANUAL INSTRUCTION (ENGLISH)(SAF)	
	4-981-643-01	COVER, BATTERY (FOR RM-SE2AV)(SAF)	

Ref. No.	Part No.	Description	Remark

HARDWARE LIST			

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-872-09	SCREW +BVTT 3X8 (S)	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	
#5	7-685-862-09	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.