

# ICF-SW7600GR

## SERVICE MANUAL

Ver 1.1 2001.08

**Self Diagnosis**  
Supported model



*US Model  
Canadian Model  
AEP Model  
Chinese Model  
E Model  
Tourist Model*

### SPECIFICATIONS

Circuit system	FM: Super heterodyne AM: Dual conversion super heterodyne
Frequency range	FM: 76–108 MHz 87.50–108 MHz (Saudi Arabia and Malaysia) SW: 1 621–29 999 kHz 2 250–26 100 kHz (Saudi Arabia and Malaysia) MW: 530–1 620 kHz LW: 150–529 kHz 150–285 kHz (Saudi Arabia and Malaysia)
Output	LINE OUT jack (stereo minijack) × 1 Recording output level approx. 245 mV, output impedance less than 10 k $\Omega$ $\Omega$ (headphones) jack (stereo minijack) × 1 16 $\Omega$
Speaker	Approx. 77 mm diameter, 8 $\Omega$ × 1
Maximum output	380 mW (at 10 % harmonic distortion)
Power requirements	DC 6 V, four R6 (size AA) batteries
External power source (Except Chinese)	DC IN 6V
Dimensions	Approx. 190 × 118.8 × 35.3 mm incl. projecting parts (w/h/d)
Mass	Approx. 536 g Approx. 608 g (incl. four R6 (size AA) batteries)

#### Supplied accessories

Carrying case (1)  
Batteries (4) (Tourist)  
Stereo headphones (1) (Tourist)  
Ear pads (2) (Tourist)  
AC power adaptor (1) (Tourist)  
AC plug adaptor (1) (Tourist)  
Compact antenna AN-71 (1)  
Antenna connector (1) (Tourist)  
Wave Handbook (1) (Except Saudi Arabia and Malaysia)  
Short Wave Guide (1) (Saudi Arabia and Malaysia)

Design and specifications are subject to change without notice.

**FM STEREO/SW/MW/LW  
PLL SYNTHESIZED RECEIVER**

9-873-099-12  
2001H1600-1  
© 2001.8

**Sony Corporation**  
Personal Audio Company  
Shinagawa Tec Service Manual Production Group

**SONY**<sup>®</sup>

for free by  
RadioAmateur.eu

## TABLE OF CONTENTS

<b>1. GENERAL</b> .....	3
<b>2. DISASSEMBLY</b>	
2-1. Cabinet (Rear) .....	6
<b>3. ELECTRICAL ADJUSTMENTS</b> .....	6
<b>4. DIAGRAMS</b>	
4-1. Block Diagram .....	9
4-2. Printed Wiring Board	
– Main Board (Conductor Side) – .....	10
4-3. Printed Wiring Board	
– Main Board (Component Side) – .....	11
4-4. Schematic Diagram – Main Board (1/2) – .....	12
4-5. Schematic Diagram – Main Board (2/2) – .....	13
4-6. Printed Wiring Board – KEY Board – .....	14
4-7. Schematic Diagram – KEY Board – .....	15
4-8. IC Pin Function Description .....	16
<b>5. EXPLODED VIEWS</b>	
5-1. Cabinet Section .....	17
5-2. Chassis Section .....	18
<b>6. ELECTRICAL PARTS LIST</b> .....	19

### SAFETY-RELATED COMPONENT WARNING!!

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

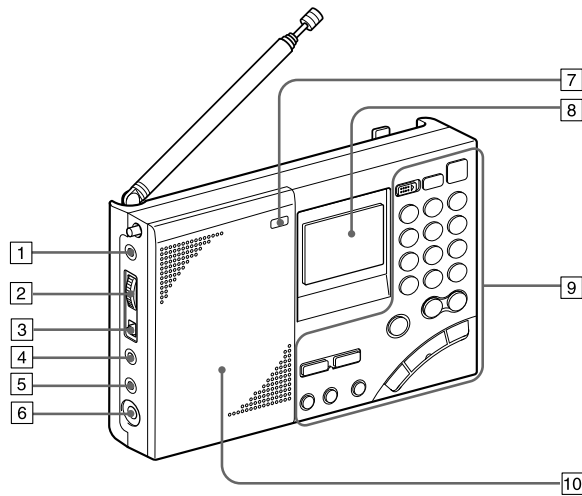
### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

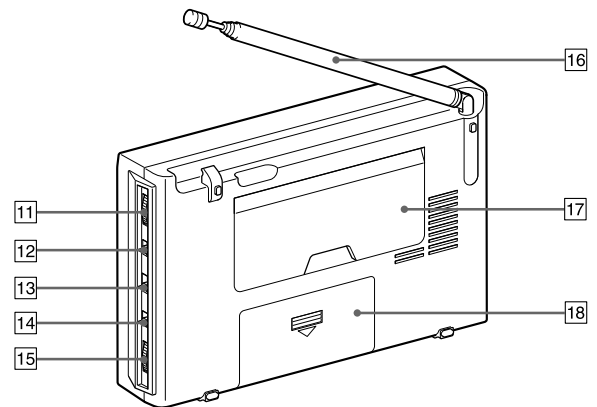
**SECTION 1  
GENERAL**

This section is extracted from instruction manual.

**Front**

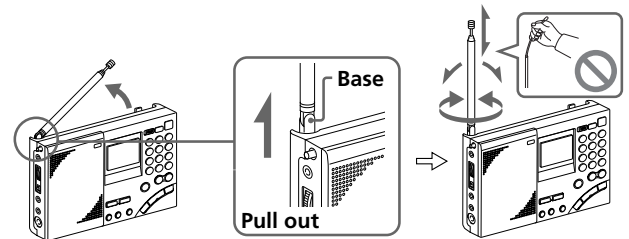


**Rear**

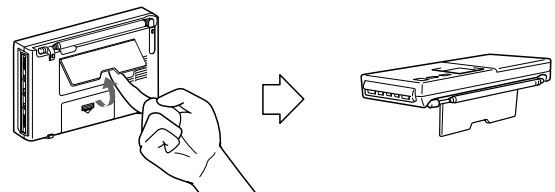


- 1 AM EXT ANT (AM external antenna) jack (35)
- 2 ATT (attenuator) control (21)
- 3 ATT (attenuator) ON/OFF switch (21)
- 4 LINE OUT (recording output) jack (33)
- 5 (headphones) jack (17, 33)  
You can enjoy FM stereo broadcasting by connecting the optional stereo headphones to the unit . When using headphones, sound from the speaker will be muted.
- 6 DC IN 6V (external power input) jack (10)
- 7 LIGHT button  
When the display is difficult to see, press this button to light up the display for approximately 10 seconds. Pressing the button again while the light is on will turn off the light. Performing button operations while the light is on will extend the lighting time.
- 8 Display (7)
- 9 Controls (6)
- 10 Speaker

- 11 SSB FINE TUNE control (26)
- 12 LSB/USB selector (26, 27)
- 13 AM MODE selector (26, 27)
- 14 TONE selector (33)
- 15 VOLUME control
- 16 Telescopic antenna  
Always pull out the base of the antenna before use. Furthermore, do not use unnecessary force when storing the antenna. At this time, be sure to push in the base as well.

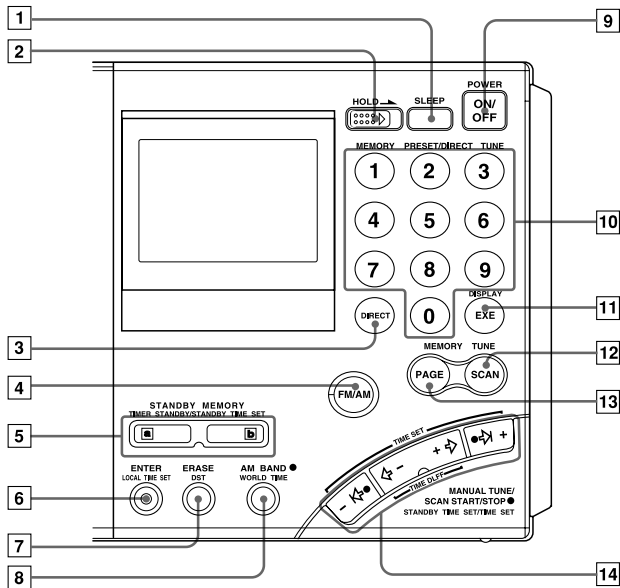


- 17 Stand



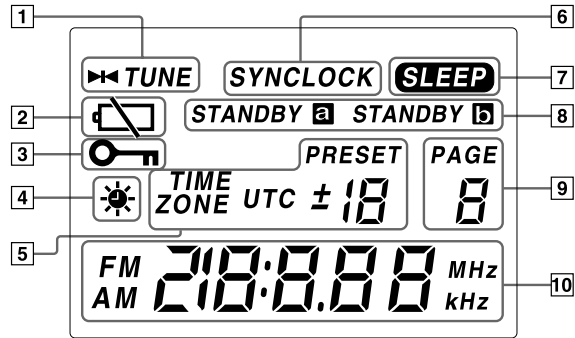
- 18 Battery compartment

## Controls



- 1** SLEEP button (31)
- 2** HOLD switch (32)
- 3** DIRECT button (15, 16)
- 4** FM/AM button (16, 18, 20)
- 5** STANDBY MEMORY, TIMER STANDBY/STANDBY TIME SET buttons (28, 30)
- 6** ENTER, LOCAL TIME SET button (11, 22, 28)
- 7** ERASE, DST (Daylight Saving Time) button (11, 13, 30)
- 8** AM BAND, WORLD TIME button (13, 18, 20)
- 9** POWER ON/OFF button
- 10** Number buttons (15, 16, 22, 23, 24)
- 11** DISPLAY, EXE button (13, 15, 16)  
Press to switch to clock display while operating the radio. Press again to return to the previous display. If you do not press the button, the display will return to the previous condition in about 10 seconds.
- 12** SCAN button (24)
- 13** PAGE button (22, 24)
- 14** MANUAL TUNE/SCAN START/STOP, STANDBY TIME SET/TIME SET buttons (11, 13, 18, 20, 28)

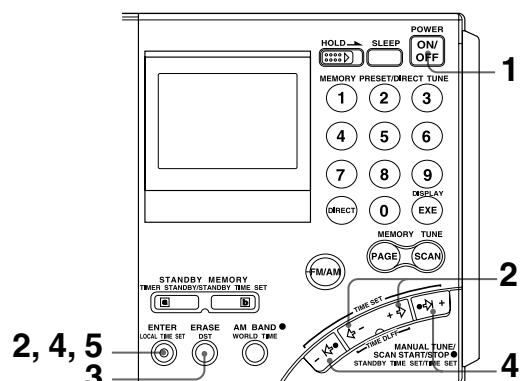
## Display



- 1** TUNE indicator (16, 18)  
Appears when a station is tuned in.
- 2** Battery indicator (9)
- 3** HOLD indicator (32)  
Appears when HOLD is in effect. All buttons will be inoperative.
- 4** ☀ (Daylight Saving Time) indicator (12)  
Appears when the time display is adjusted to the Daylight Saving Time.
- 5** Preset number/time difference display (11, 22, 23)
- 6** SYNCLOCK (synchronous detection lock) indicator (27)  
Appears when synchronous detection is in effect.
- 7** SLEEP indicator (31)  
Appears when the sleep timer is in effect.
- 8** STANDBY **a**, STANDBY **b** indicators (28, 29, 30)  
Light up when the standby timer is set.
- 9** PAGE number display  
Appears constantly when the radio is on.
- 10** Time/frequency display

## Setting the Current Time

"0:00" flashes in the display when installing the batteries for the first time or when the unit has been reset. Set the clock to the current time.



This unit can display local time, which is the time for your time zone, as well as world time, which is the time for any other area in the world. For the calculation of the time in other areas of the world, the time difference\* between the local time and the UTC (Universal Time Coordinated) is used (see page 14, "Time difference with UTC for each area"). To find out the correct time, set the correct time and time difference of the area you are in.

\* This unit uses time zones to pinpoint specific areas.

- 1 If the radio is turned on, press POWER ON/OFF to turn it off.

### Note

You cannot set the clock when the radio is turned on.

- 2 Hold down LOCAL TIME SET and press  $\leftarrow$  or  $\rightarrow$  to choose the time difference between your local time and the UTC.

TIME ZONE indicator will appear. Each time you press  $\leftarrow$  or  $\rightarrow$ , the time difference (UTC + or -) and the "hour" of the clock will increase or decrease accordingly.

Two short beeps will be heard when adjusting the time difference to  $\pm 0$ .

When you release LOCAL TIME SET, the TIME ZONE indicator will disappear and the time difference with UTC will be determined.



- 3 To set the daylight saving time, press DST to display the indicator.

If daylight saving time is not used in your area, daylight saving time is not currently in effect, or is already displayed, proceed to Step 4.

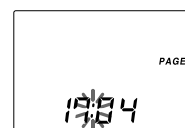
- 4 Hold down LOCAL TIME SET and press  $\leftarrow$  or  $\rightarrow$  to set the local time.

Each time you press  $\leftarrow$  or  $\rightarrow$ , the current time will decrease or increase by a minute. To change the digits rapidly, hold down  $\leftarrow$  or  $\rightarrow$ .

Two short beeps will be heard when adjusting the time to "0:00".

- 5 Release LOCAL TIME SET.

" : " starts flashing and the clock starts running.



### To switch to clock display while the radio is turned on

Press EXE. The display returns to the previous condition automatically after about 10 seconds or when EXE is pressed again. The time display period is extended when the WORLD TIME button is pressed during clock display, or when  $\leftarrow$  or  $\rightarrow$  is pressed during world time display. During clock display, radio operations such as changing frequencies are not possible. The clock will not be displayed during auto scan (page 20) or memory scan (page 24).

### For areas adopting the daylight saving time (summer time)

Press DST to display the indicator if you are now in the summer time period. When the summer time period has ended, press DST to clear the indicator. The time display will be adjusted automatically.

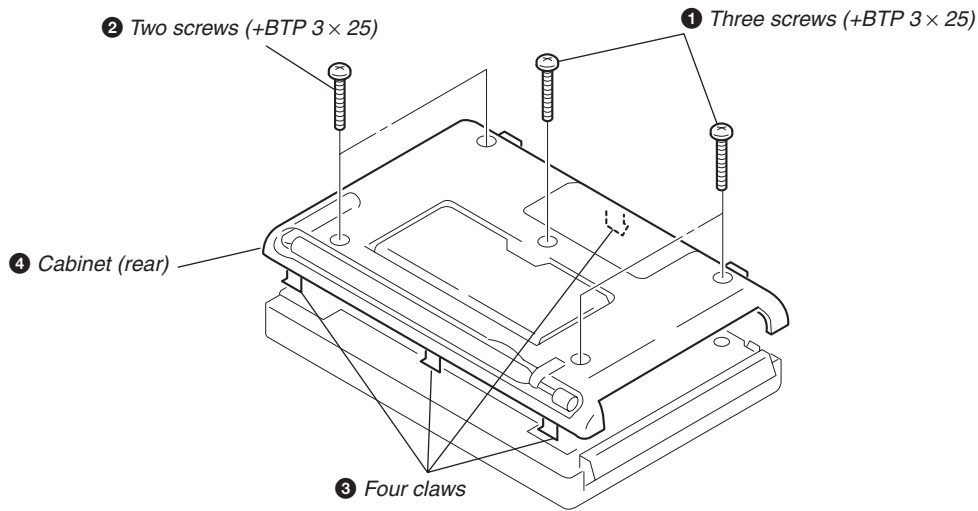
### Tips

- The clock is displayed in the 24 hour system.
- Press LOCAL TIME SET to stop the flashing of "0:00".
- To adjust the time to the second, release LOCAL TIME SET at the time of the tone.

## SECTION 2 DISASSEMBLY

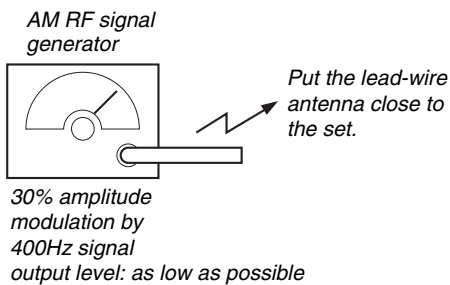
**Note :** Follow the disassembly procedure in the numerical order given.

### 2-1. CABINET (REAR)

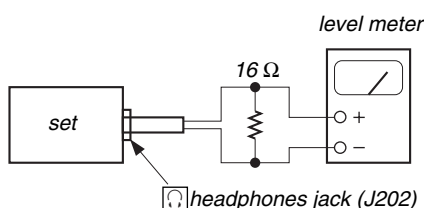
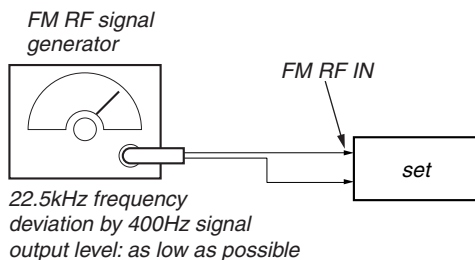


## SECTION 3 ELECTRICAL ADJUSTMENTS

### • AM Section



### • FM Section



### (1) AM / FM VCO Check and Adjustment

**Setting:**

**ATT** switch : OFF  
**TONE** switch : MUSIC  
**AM MODE** switch : NORM

**Procedure:**

1. Connect digital voltmeter to the TP VT.
2. Tune the set to AM 150kHz.
3. Confirm that the reading on the digital voltmeter becomes in more than 2.2V.
4. Tune the set to AM 29999kHz.
5. Confirm that the reading on the digital voltmeter becomes in less than 13V.
6. Tune the set to FM 108.00MHz.
7. Confirm that the reading on the digital voltmeter becomes in less than 13V.
8. IF the value is more than 13V, adjust T202 so that the reading on the digital voltmeter becomes in 12.5V.

**Adjustment Location:** MAIN board (See page 8)

### (2) 1st IF Adjustment

**Setting :**

**ATT** switch : OFF  
**TONE** switch : MUSIC  
**AM MODE** switch : NORM

**Procedure:**

1. Set the frequencies of the AM RF signal generator and the frequency display of the set to AM 150kHz.
2. Adjust T104 and T105 so that the reading on level meter becomes in maximum.

**Adjustment Location:** MAIN board (See page 8)

**(3) 2nd Local Adjustment****Setting:**

[ATT]switch : OFF  
 [TONE]switch : MUSIC  
 [AM MODE]switch : NORM

**Procedure:**

1. Connect frequency counter to the TP OSC2 through the high input impedance amplifier.
2. Tune the set to AM 150kHz.
3. Adjust CT202 so that the reading on the frequency counter becomes in  $53.39000\text{MHz} \pm 30\text{Hz}$ . (55.38997 to 55.39003MHz)

**Adjustment Location:** MAIN board (See page 8)

**(4) FM Tracking Adjustment****Setting:**

[ATT]switch : OFF  
 [TONE]switch : MUSIC

**Procedure:**

1. Set the frequency of the FM RF signal generator and the frequency display of the set to FM 108.00MHz.
2. Adjust CT101 and CT102 so that the reading on level meter becomes in maximum.
3. Set the frequency of the FM RF and the frequency display of the set to FM 76.00MHz.
4. Adjust T101 and T102 so that the reading on level meter becomes in maximum.
5. Repeat the above steps 1 to 4 several times.

**Adjustment Location:** MAIN board (See page 8)

**(5) 76kHz (MPX) Adjustment****Setting:**

[ATT]switch : OFF  
 [TONE]switch : MUSIC

**Procedure:**

1. Insert Headphones plug into headphones jack (J202) (for VCO operation).
2. Connect a capacitor (10 $\mu$ F) between IC202 pin① and GND.
3. Connect frequency counter to the TP 76K (VCO) through the high input impedance amplifier.
4. Tune the set to FM 108.00MHz.
5. Adjust RV203 so that the reading on the frequency counter becomes in  $76\text{kHz} \pm 300\text{Hz}$ .
6. Remove the headphones plug.

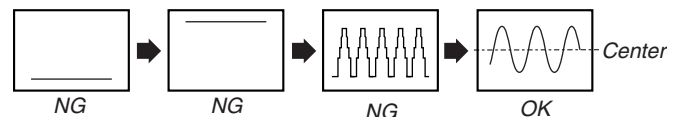
**Adjustment Location:** MAIN board (See page 8)

**(6) Just Tune Adjustment****Setting :**

[ATT]switch : OFF  
 [TONE]switch : MUSIC  
 (FM RF signal generator)  
 Frequency : 93.025MHz  
 Moduration : 22.5kHz  
 Output level : 54dB

**Procedure:**

1. Connect an oscilloscope to the TP SD.
2. Tune the set to FM 93.00MHz.
3. Adjust RV202 so that the waveform on the oscilloscope satisfy as shown the figure.



**Adjustment Location:** MAIN board (See page 8)

**(7) SSB 0 Beat Adjustment****Setting :**

[ATT]switch : OFF  
 [TONE]switch : MUSIC  
 (AM RF signal generator)  
 Frequency : AM 150kHz  
 Moduration : None  
 Output level : 44dB

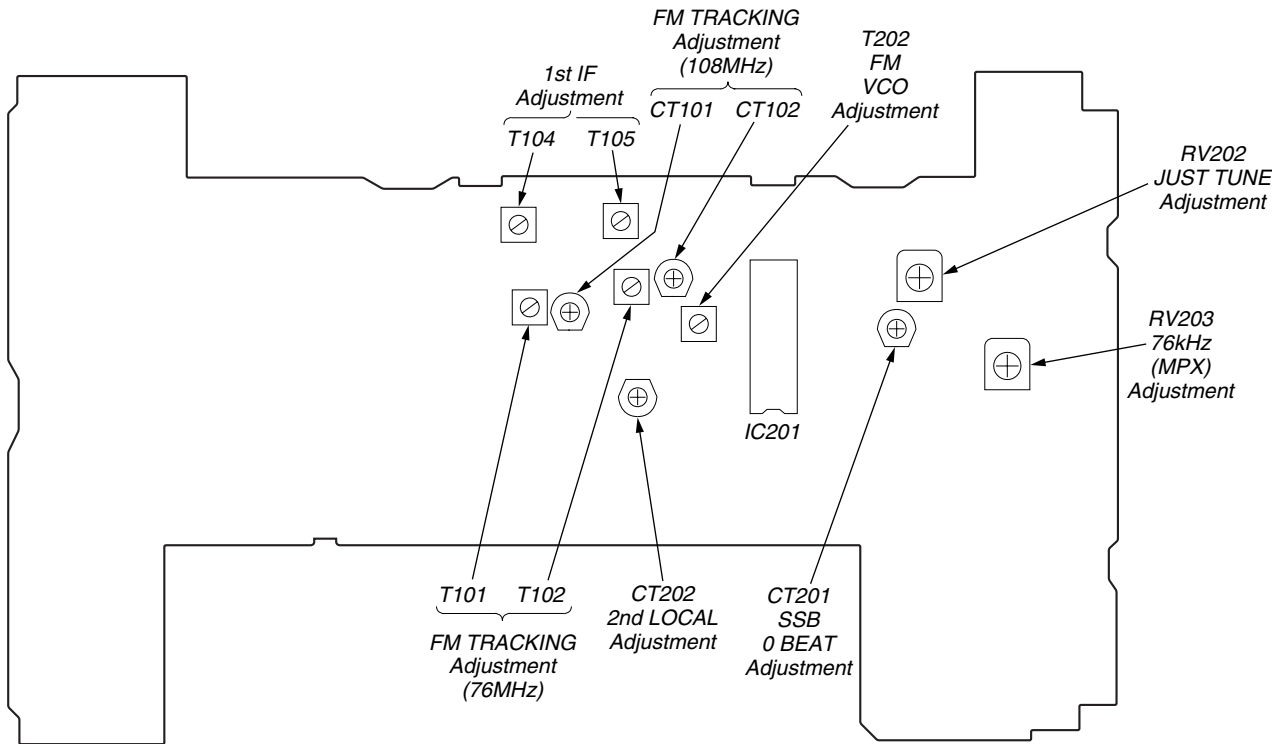
**Procedure:**

1. Connect an oscilloscope to the TP DET.
2. Tune the set to AM 150kHz.
3. Set the [AM MODE]switch to SYNC.
4. Set the [SYNC] switch to USB.
5. Adjust CT201 so that the waveform on the oscilloscope is minimized.
6. Set the [LSB/USB]switch to LSB.
7. Adjust CT201 so that the waveform on the oscilloscope is minimized.
8. Repeat the above steps 4 to 7 several times.
9. Set the [AM MODE]switch to SSB.
10. Confirm that the beat sound is changed by turning the [SSB FINE TUNE]control.

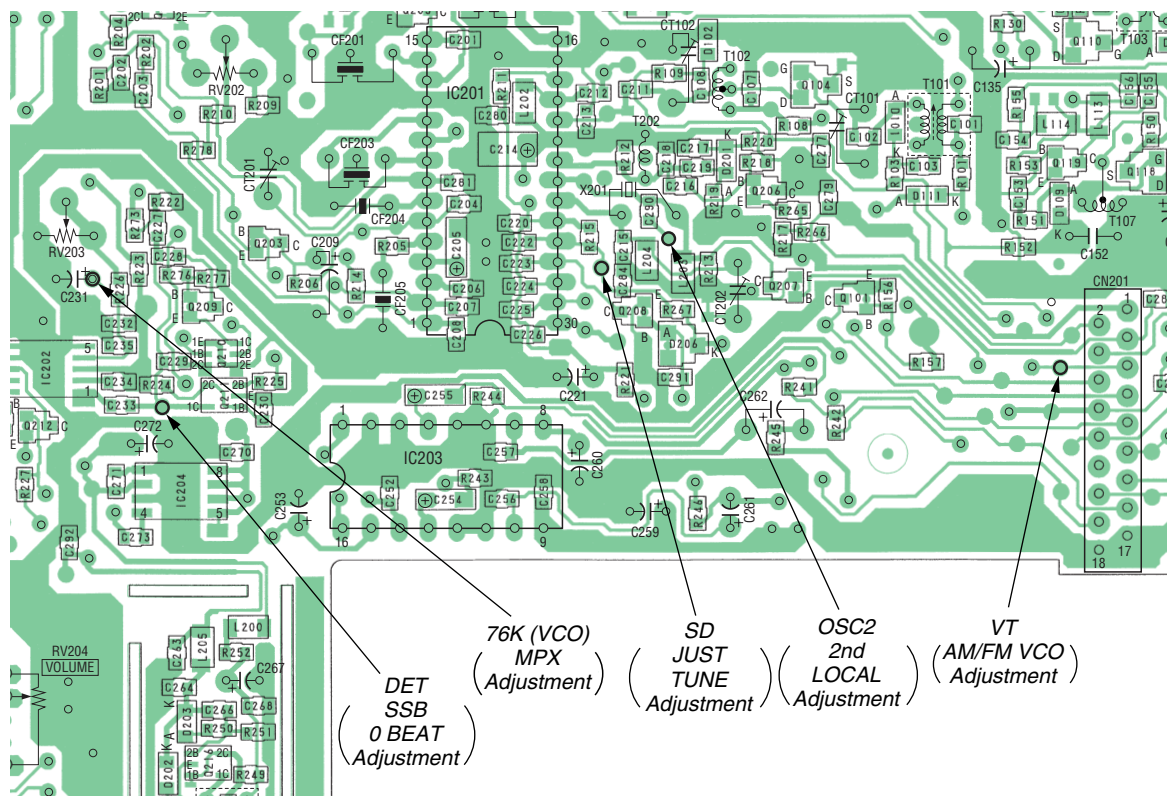
**Adjustment Location:** MAIN board (See page 8)

# ICF-SW7600GR

**Adjustment Location :**  
**[MAIN BOARD]** — Component Side —



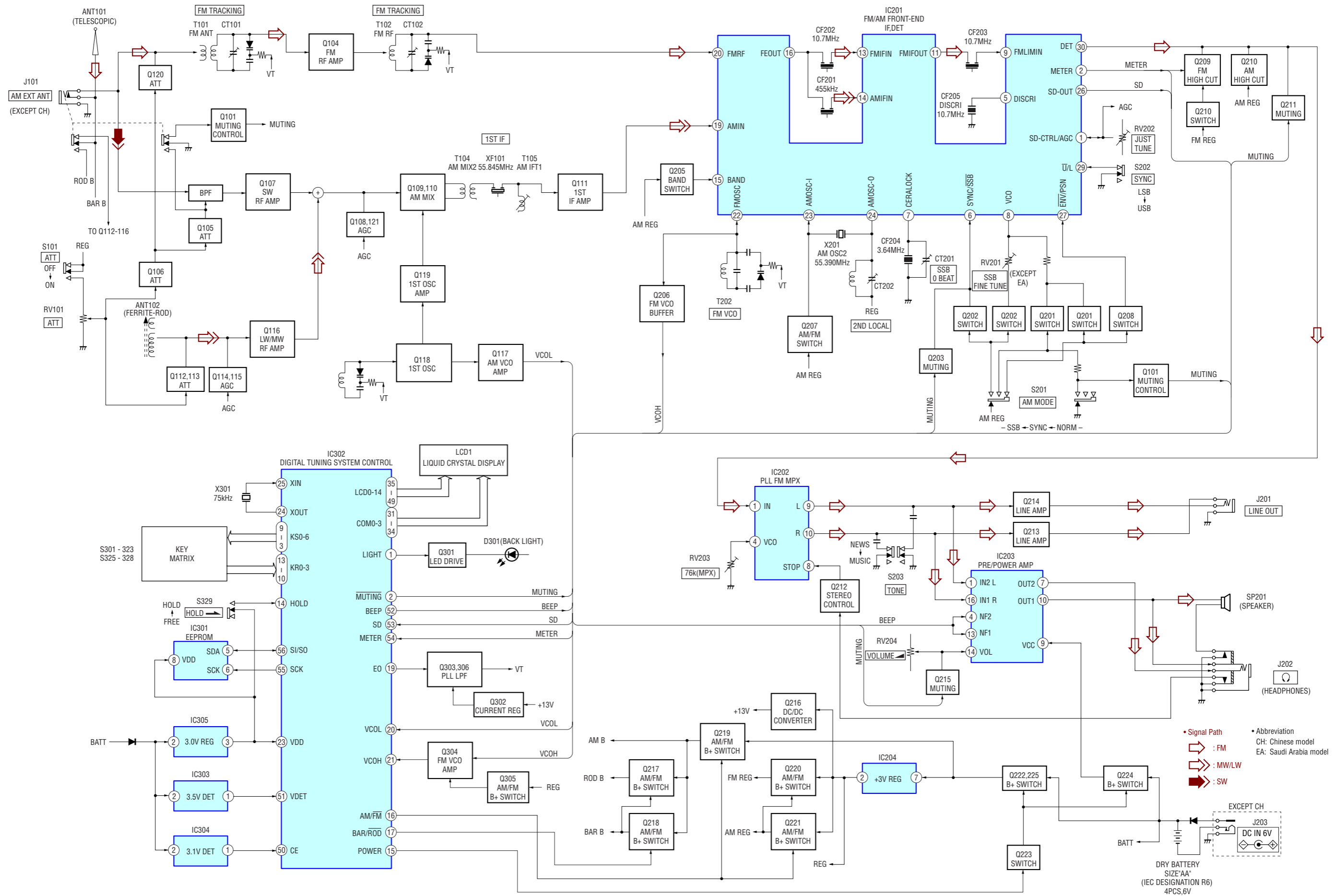
**[MAIN BOARD]** — Conductor Side —





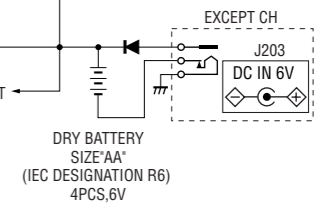
SECTION 4  
DIAGRAMS

4-1. BLOCK DIAGRAM



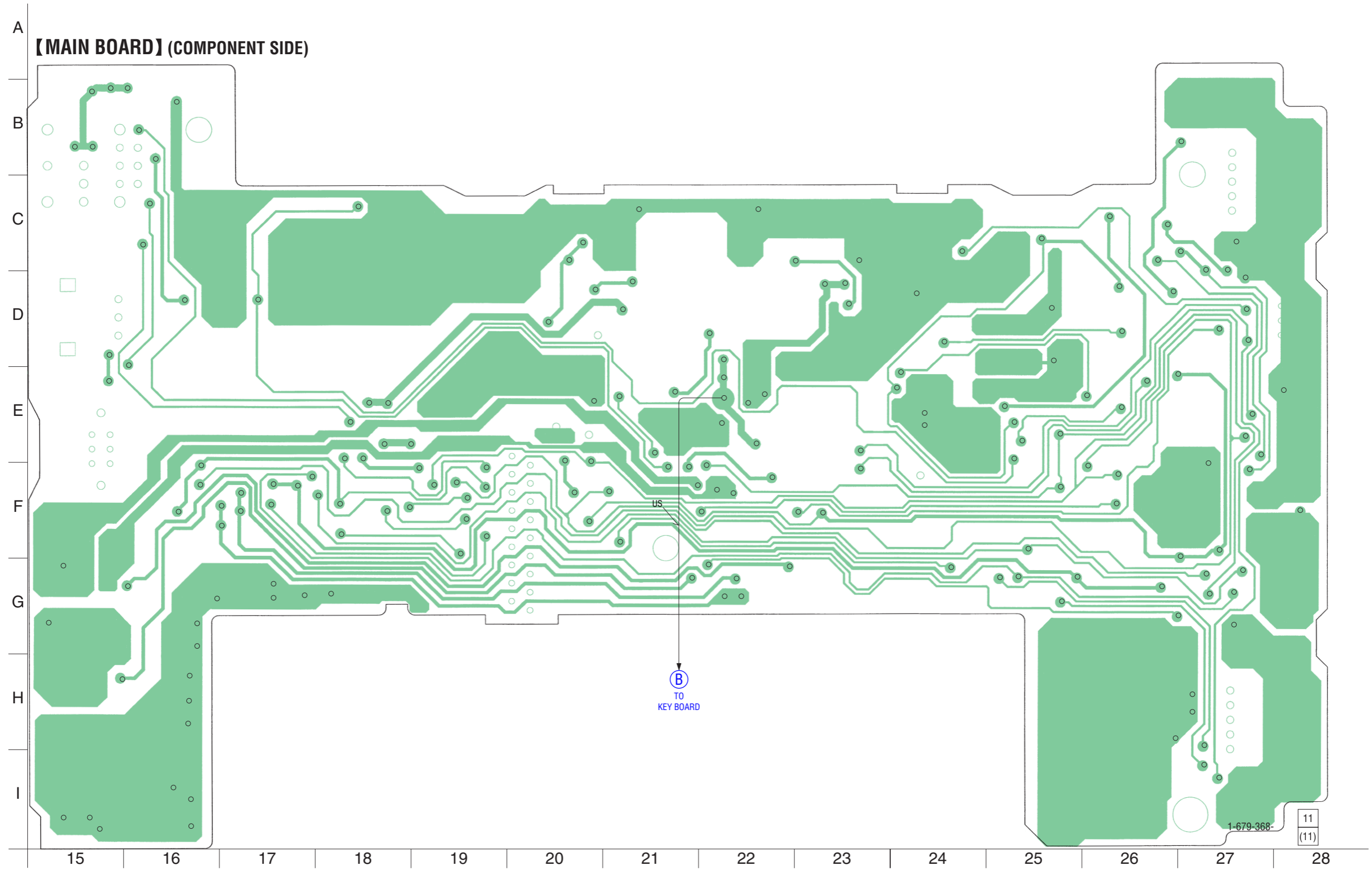
• Signal Path  
 • Abbreviation  
 CH: Chinese model  
 EA: Saudi Arabia model

→ FM  
 → MW/LW  
 → SW





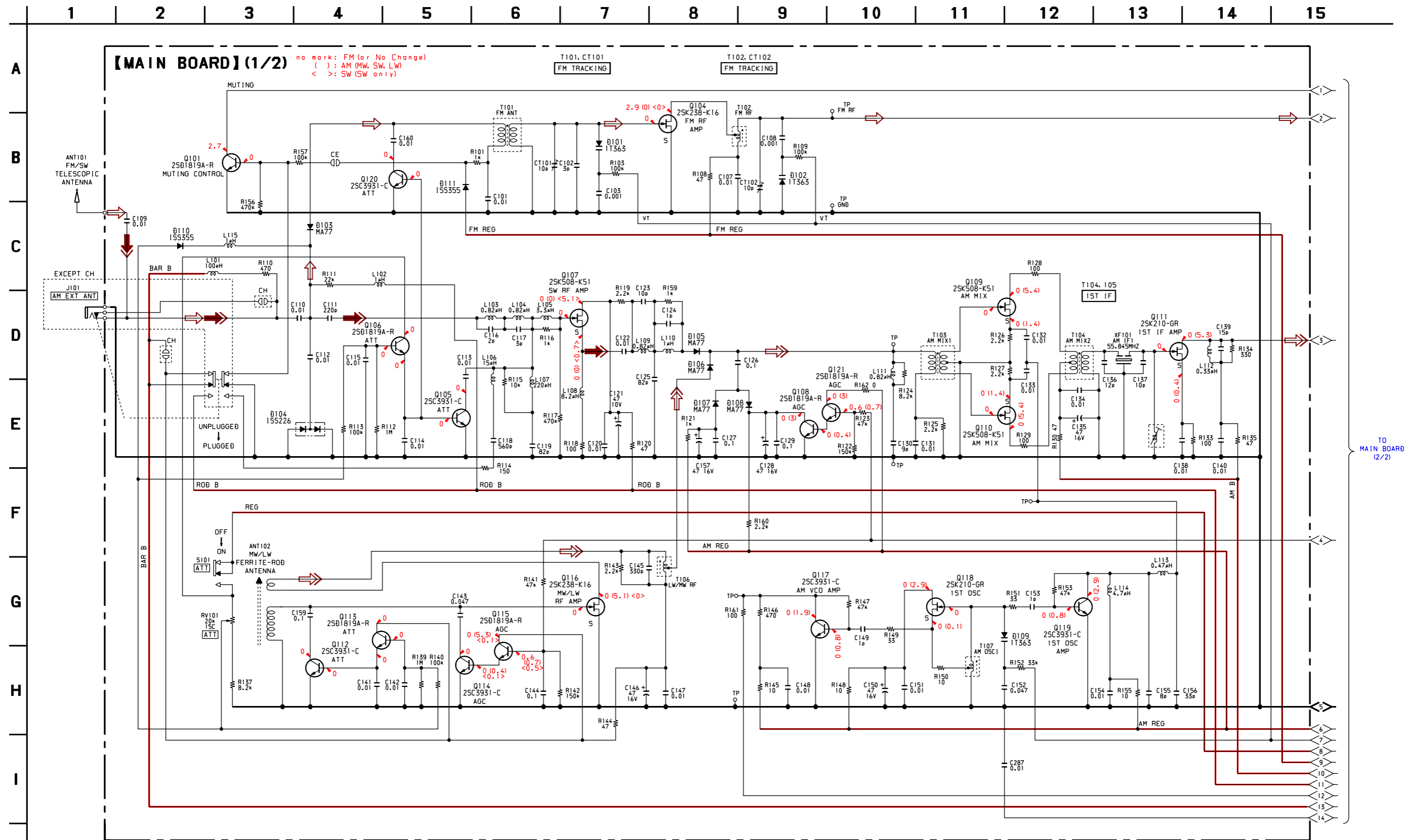
4-3. PRINTED WIRING BOARD – MAIN BOARD (COMPONENT SIDE) –



**Note on Printed Wiring Boards:**  
 • — : parts extracted from the component side.  
 • ○ : Through hole.  
 • ■ : Pattern from the side which enables seeing.  
 (The other layers' patterns are not indicated.)

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

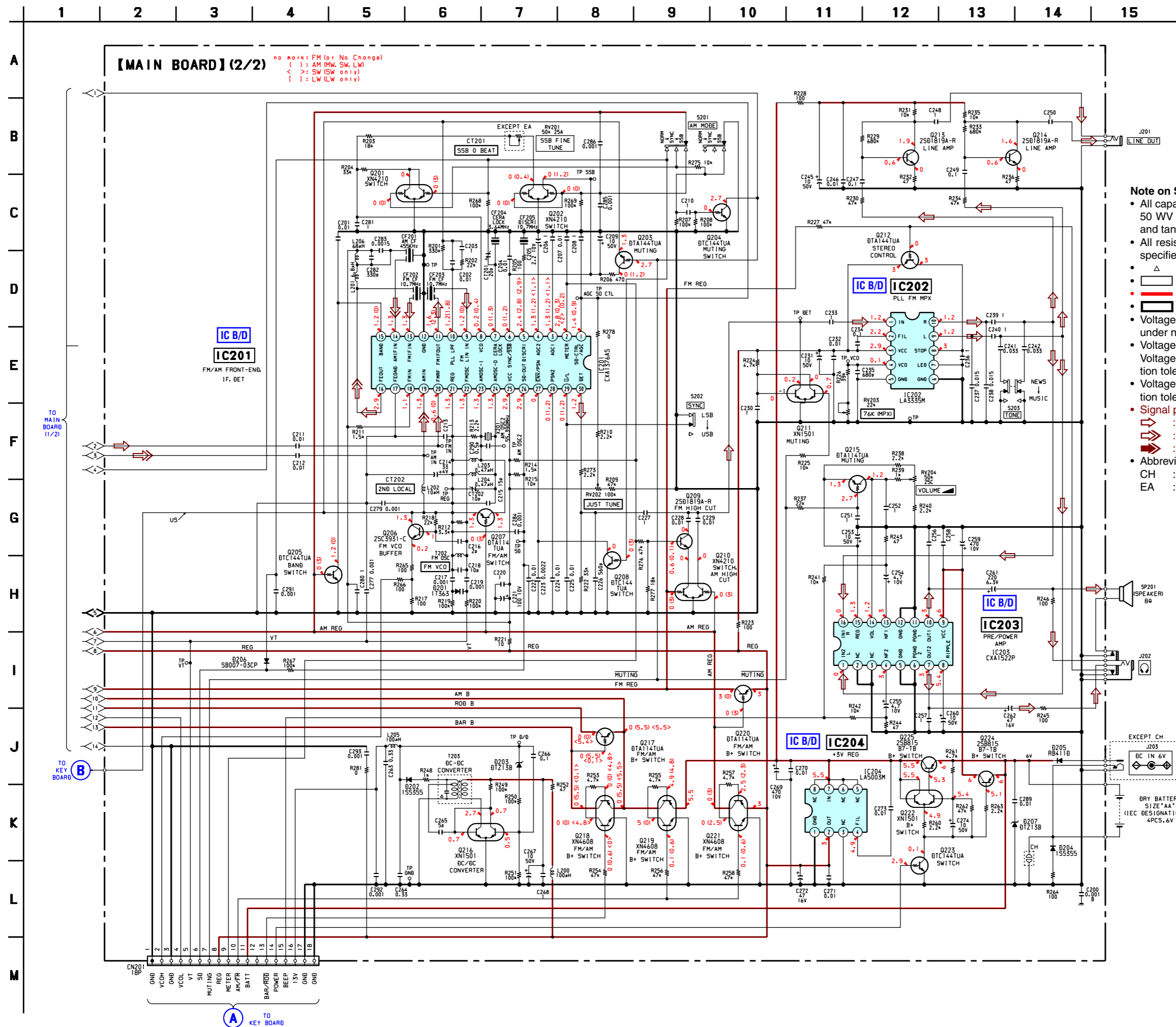
4-4. SCHEMATIC DIAGRAM – MAIN BOARD (1/2) –

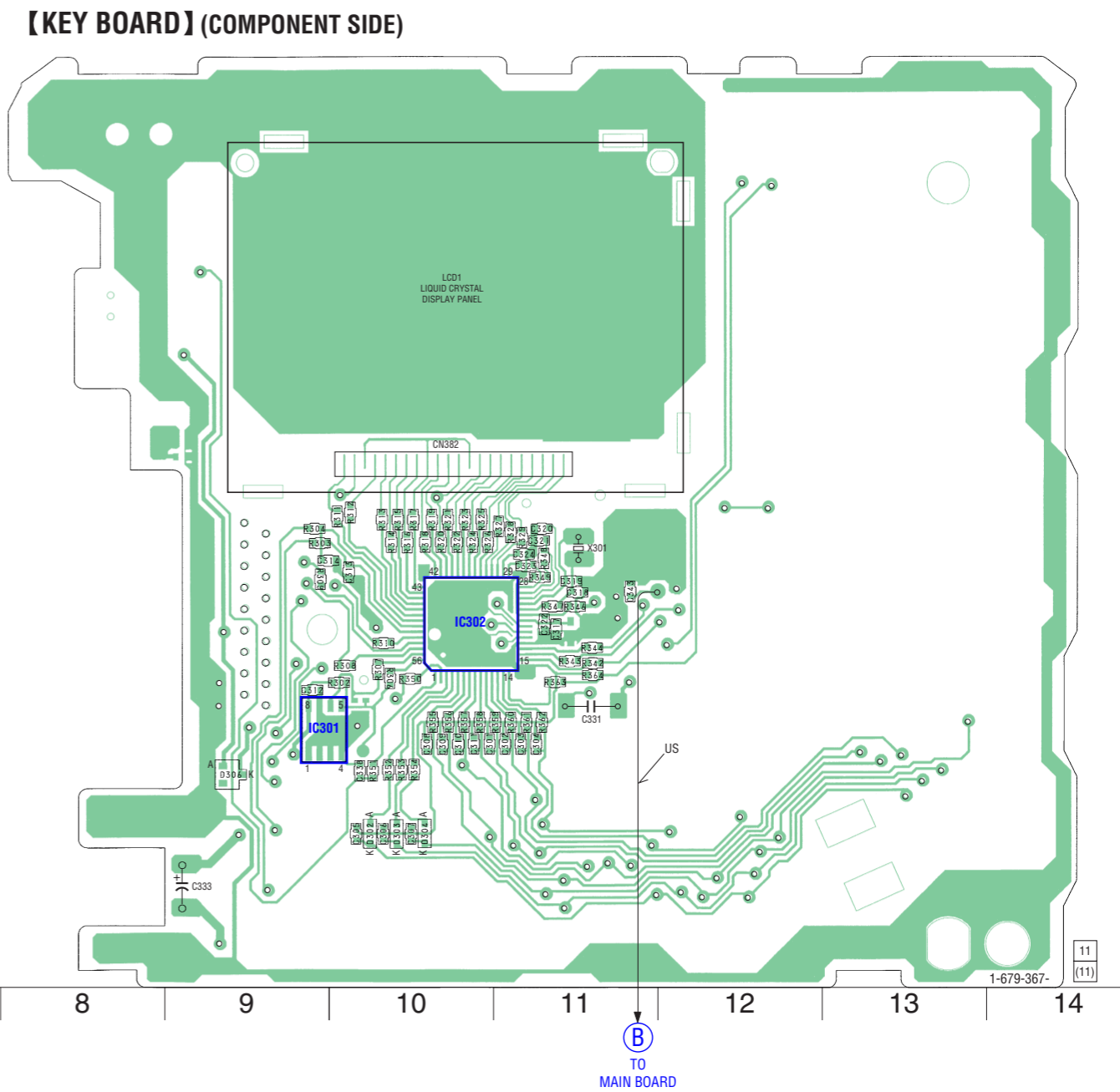
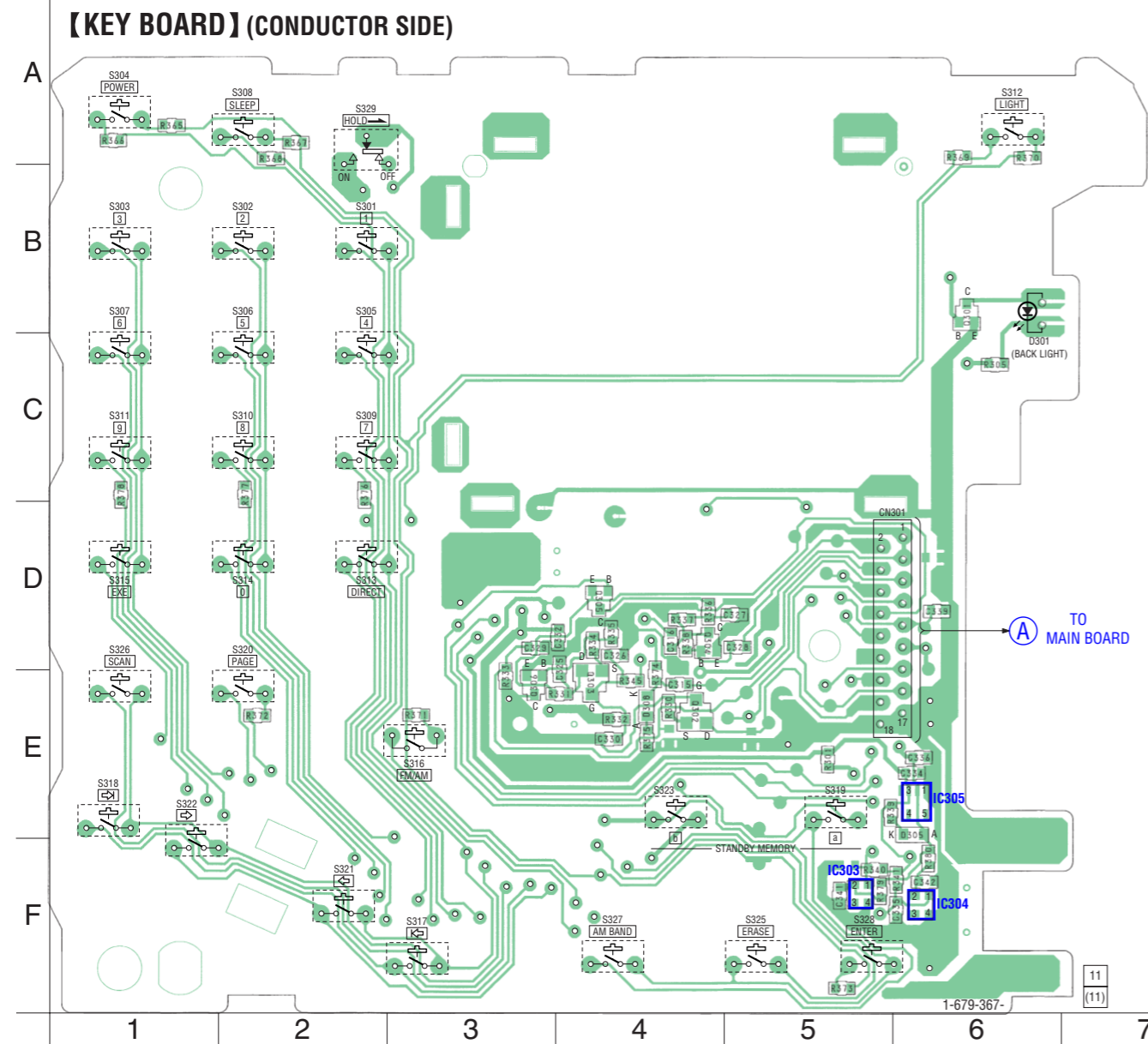


**Note on Schematic Diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- Panel designation.
- B+ Line.
- adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - FM
  - MW/LW
  - SW
- Abbreviation  
CH : Chinese model

4-5. SCHEMATIC DIAGRAM – MAIN BOARD (2/2) – Refer to page 16 for IC Block Diagrams.





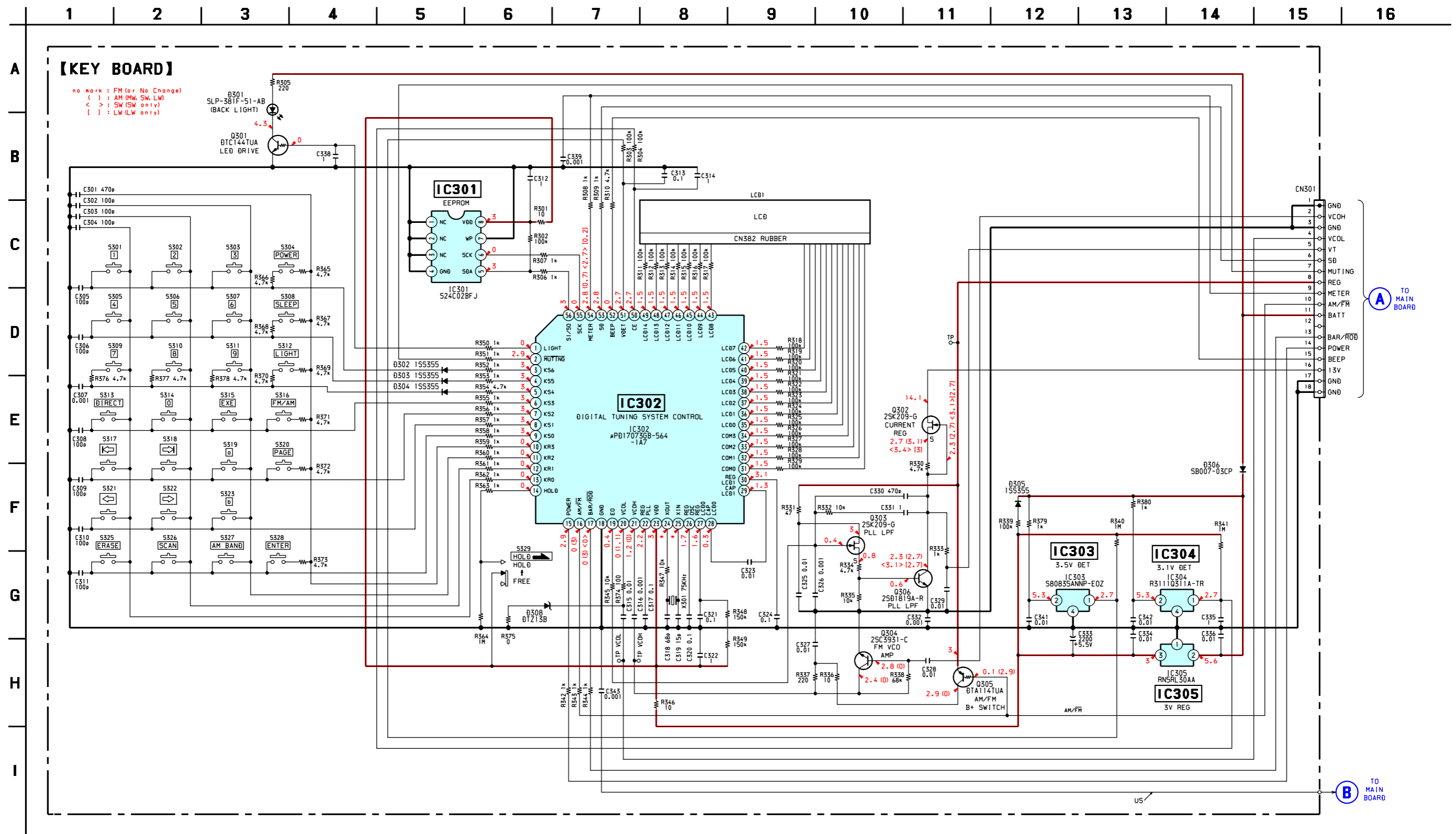
• Semiconductor Location

Ref. No.	Location
D301	B-6
D302	F-10
D303	F-10
D304	F-10
D305	E-6
D306	E-9
D308	E-4
IC301	E-9
IC302	D-10
IC303	E-5
IC304	F-6
IC305	E-6
Q301	B-6
Q302	E-4
Q303	E-4
Q304	D-4
Q305	D-4
Q306	E-3

**Note on Printed Wiring Boards:**  
 • — : parts extracted from the component side.  
 • ○ : Through hole.  
 • ■ : Pattern from the side which enables seeing.  
 (The other layers' patterns are not indicated.)

**Caution:**  
 Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.  
 Parts face side: Parts on the parts face side seen from the parts face are indicated.

4-7. SCHEMATIC DIAGRAM – KEY BOARD – • Refer to page 16 for IC Pin Function.



**Note on Schematic Diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- : panel designation.
- — : B+ Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Voltage variations may be noted due to normal production tolerances.
- Abbreviation CH : Chinese model





## SECTION 5 EXPLODED VIEWS

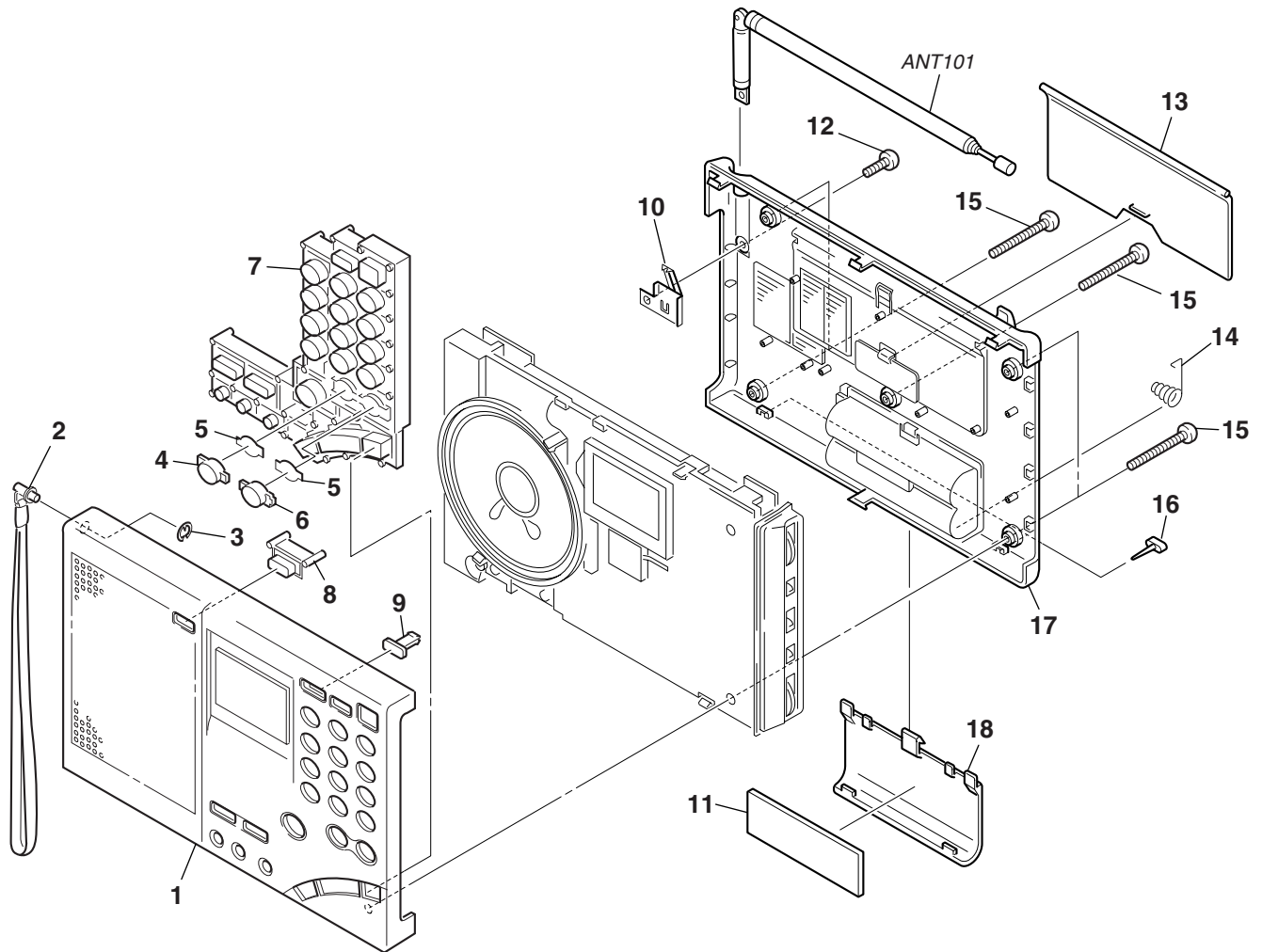
### NOTE:

- -XX, -X mean standardized parts, so they may have some differences 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.

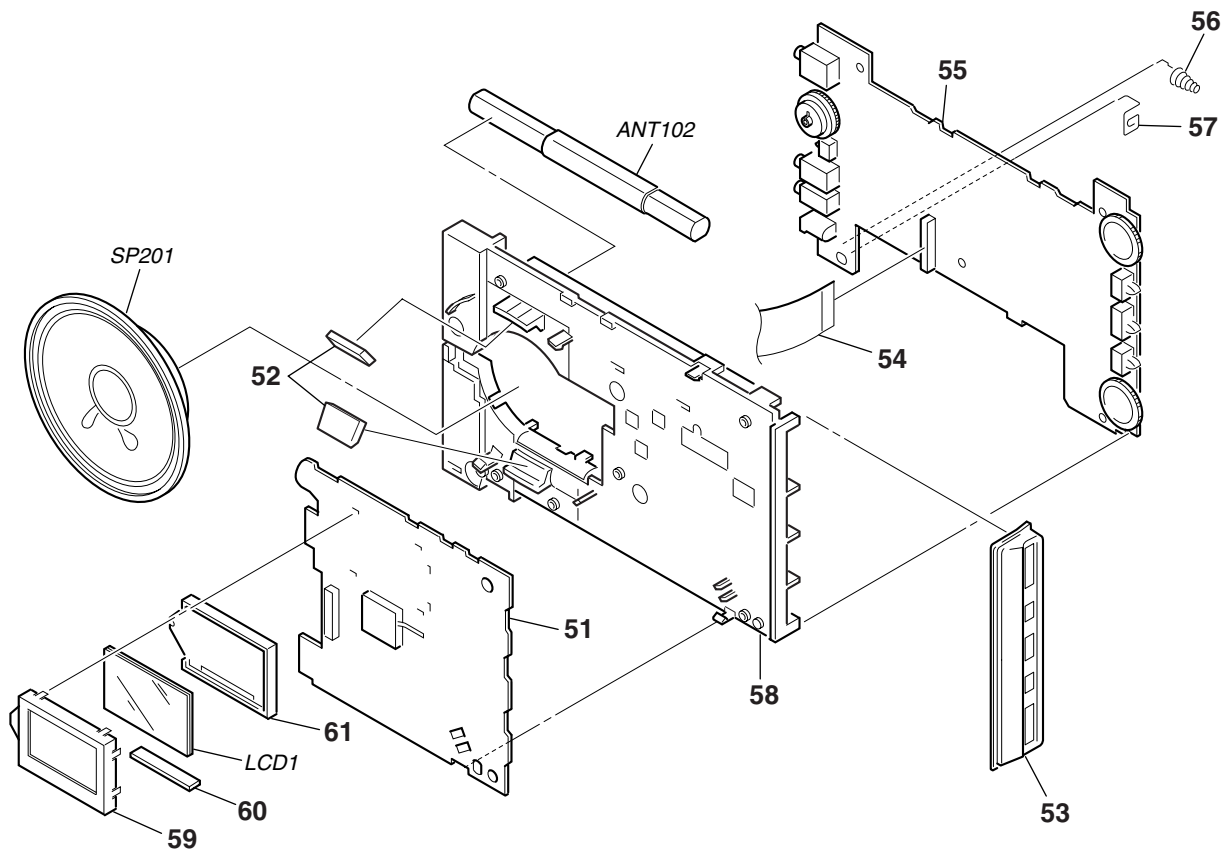
- Abbreviation  
CH : Chinese model  
CND : Canadian model  
EA : Saudi Arabia model

### 5-1. CABINET SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	X-3380-592-1	CABINET (FRONT) ASSY (EXCEPT CND)		11	3-893-852-01	CUSHION (BATTERY CASE LID)	
1	X-3380-593-1	CABINET (FRONT) ASSY (CND)		12	3-918-696-01	SCREW (M3X6 LOCK ACE)	
2	3-881-938-00	STRAP, HAND		13	3-227-402-01	STAND	
3	7-624-104-04	STOP RING 2.0, TYPE -E		14	3-227-403-01	TERMINAL (+/-), BATTERY	
4	3-227-386-01	BUTTON (PAGE)		15	7-685-152-19	SCREW +BTP 3X25 TYPE2 N-S	
5	3-227-387-01	SHEET (BUTTON), ADHESIVE		16	3-893-846-01	FOOT, RUBBER	
6	3-227-385-01	BUTTON (SCAN)		17	3-227-400-01	CABINET (REAR) (EXCEPT CH)	
7	3-227-384-01	BUTTON (10 KEY)		17	3-227-400-11	CABINET (REAR) (CH)	
8	3-227-388-01	BUTTON (LIGHT)		18	3-227-404-01	LID, BATTERY CASE	
9	3-227-405-01	KNOB (HOLD)		ANT101	1-501-712-11	ANTENNA, TELESCOPIC	
10	3-227-401-01	PLATE (ANT), CONTACT					

## 5-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* 51	A-4440-289-A	KEY BOARD, COMPLETE		57	3-227-396-01	TERMINAL (+), BATTERY	
52	4-910-502-01	CUSHION, ANTENNA		58	3-227-392-01	CHASSIS	
53	3-227-395-01	PANEL (SIDE) (EXCEPT EA)		* 59	3-227-389-01	HOLDER (LCD)	
53	3-227-395-11	PANEL (SIDE) (EA)		* 60	1-694-751-11	CONDUCTIVE BOARD, CONNECTION	
54	1-757-510-11	WIRE (FLAT TYPE) (18 CORE)		* 61	3-227-390-01	CASE (LCD)	
* 55	A-4440-288-A	MAIN BOARD, COMPLETE (EXCEPT CH,EA)		ANT102	1-402-479-21	ANTENNA, FERRITE-ROD (LW/MW)	
* 55	A-4440-290-A	MAIN BOARD, COMPLETE (EA)		LCD1	1-804-194-11	DISPLAY PANEL, LIQUID CRYSTAL	
* 55	A-4440-291-A	MAIN BOARD, COMPLETE (CH)		SP201	1-529-942-11	SPEAKER (7.7cm)	
56	3-227-397-01	TERMINAL (-), BATTERY					

## SECTION 6 ELECTRICAL PARTS LIST

KEY

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -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.
- CAPACITORS:  
uF:  $\mu$ F
- RESISTORS  
All resistors are in ohms.  
METAL: metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F: nonflammable

- COILS  
uH:  $\mu$ H
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...,  $\mu$ A..., uPA...,  $\mu$ PA...,  
uPB...,  $\mu$ PB..., uPC...,  $\mu$ PC...,  
uPD...,  $\mu$ PD...
- Abbreviation  
CH : Chinese model  
CND : Canadian model  
EA : Saudi Arabia model  
JE : Tourist model  
SP : Singapore model

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

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-4440-289-A	KEY BOARD, COMPLETE *****		C336	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
*	1-694-751-11	CONDUCTIVE BOARD, CONNECTION		C338	1-115-156-11	CERAMIC CHIP 1uF	10V
*	3-227-389-01	HOLDER (LCD)		C339	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
*	3-227-390-01	CASE (LCD)		C341	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
		< CAPACITOR >		C342	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C301	1-164-315-11	CERAMIC CHIP 470PF	5.00%	50V			
C302	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C303	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C304	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C305	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C306	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C307	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V			
C308	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C309	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C310	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C311	1-162-927-11	CERAMIC CHIP 100PF	5%	50V			
C312	1-115-156-11	CERAMIC CHIP 1uF		10V			
C313	1-164-156-11	CERAMIC CHIP 0.1uF		25V			
C314	1-115-156-11	CERAMIC CHIP 1uF		10V			
C315	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V			
C316	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V			
C317	1-164-156-11	CERAMIC CHIP 0.1uF		25V			
C318	1-162-925-11	CERAMIC CHIP 68PF	5.00%	50V			
C319	1-162-917-11	CERAMIC CHIP 15PF	5%	50V			
C320	1-164-156-11	CERAMIC CHIP 0.1uF		25V			
C321	1-164-156-11	CERAMIC CHIP 0.1uF		25V			
C322	1-115-156-11	CERAMIC CHIP 1uF		10V			
C323	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V			
C324	1-164-156-11	CERAMIC CHIP 0.1uF		25V			
C325	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V			
C326	1-115-416-11	CERAMIC CHIP 0.001uF	5.00%	25V			
C327	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V			
C328	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V			
C329	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V			
C330	1-164-315-11	CERAMIC CHIP 470PF	5.00%	50V			
C331	1-136-177-00	FILM 1uF	5.00%	50V			
C332	1-162-964-11	CERAMIC CHIP 0.001uF	10%	50V			
C333	1-126-166-11	ELECT 2200uF		5.5V			
C334	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V			
C335	1-115-156-11	CERAMIC CHIP 1uF		10V			
		< CONNECTOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					
		< IC >					
		< LIQUID CRYSTAL DISPLAY >					
		< TRANSISTOR >					
		< RESISTOR >					
		< CAPACITOR >					
		< DIODE >					

**KEY**

Ref. No.	Part No.	Description	Remarks
R305	1-216-813-11	METAL CHIP	220 5% 1/16W
R306	1-216-821-11	METAL CHIP	1K 5% 1/16W
R307	1-216-821-11	METAL CHIP	1K 5% 1/16W
R308	1-216-821-11	METAL CHIP	1K 5% 1/16W
R309	1-216-821-11	METAL CHIP	1K 5% 1/16W
R310	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R311	1-216-845-11	METAL CHIP	100K 5% 1/16W
R312	1-216-845-11	METAL CHIP	100K 5% 1/16W
R313	1-216-845-11	METAL CHIP	100K 5% 1/16W
R314	1-216-845-11	METAL CHIP	100K 5% 1/16W
R315	1-216-845-11	METAL CHIP	100K 5% 1/16W
R316	1-216-845-11	METAL CHIP	100K 5% 1/16W
R317	1-216-845-11	METAL CHIP	100K 5% 1/16W
R318	1-216-845-11	METAL CHIP	100K 5% 1/16W
R319	1-216-845-11	METAL CHIP	100K 5% 1/16W
R320	1-216-845-11	METAL CHIP	100K 5% 1/16W
R321	1-216-845-11	METAL CHIP	100K 5% 1/16W
R322	1-216-845-11	METAL CHIP	100K 5% 1/16W
R323	1-216-845-11	METAL CHIP	100K 5% 1/16W
R324	1-216-845-11	METAL CHIP	100K 5% 1/16W
R325	1-216-845-11	METAL CHIP	100K 5% 1/16W
R326	1-216-845-11	METAL CHIP	100K 5% 1/16W
R327	1-216-845-11	METAL CHIP	100K 5% 1/16W
R328	1-216-845-11	METAL CHIP	100K 5% 1/16W
R329	1-216-845-11	METAL CHIP	100K 5% 1/16W
R330	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R331	1-216-805-11	METAL CHIP	47 5% 1/16W
R332	1-216-833-11	METAL CHIP	10K 5% 1/16W
R333	1-216-821-11	METAL CHIP	1K 5% 1/16W
R334	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R335	1-216-833-11	METAL CHIP	10K 5% 1/16W
R336	1-216-797-11	METAL CHIP	10 5% 1/16W
R337	1-216-813-11	METAL CHIP	220 5% 1/16W
R338	1-216-843-11	METAL CHIP	68K 5% 1/16W
R339	1-216-845-11	METAL CHIP	100K 5% 1/16W
R340	1-216-857-11	METAL CHIP	1M 5% 1/16W
R341	1-216-857-11	METAL CHIP	1M 5% 1/16W
R342	1-216-821-11	METAL CHIP	1K 5% 1/16W
R343	1-216-821-11	METAL CHIP	1K 5% 1/16W
R344	1-216-821-11	METAL CHIP	1K 5% 1/16W
R345	1-216-833-11	METAL CHIP	10K 5% 1/16W
R346	1-216-797-11	METAL CHIP	10 5% 1/16W
R347	1-216-833-11	METAL CHIP	10K 5% 1/16W
R348	1-216-847-11	METAL CHIP	150K 5% 1/16W
R349	1-216-847-11	METAL CHIP	150K 5% 1/16W
R350	1-216-821-11	METAL CHIP	1K 5% 1/16W
R351	1-216-821-11	METAL CHIP	1K 5% 1/16W
R352	1-216-821-11	METAL CHIP	1K 5% 1/16W
R353	1-216-821-11	METAL CHIP	1K 5% 1/16W
R354	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R355	1-216-821-11	METAL CHIP	1K 5% 1/16W
R356	1-216-821-11	METAL CHIP	1K 5% 1/16W
R357	1-216-821-11	METAL CHIP	1K 5% 1/16W
R358	1-216-821-11	METAL CHIP	1K 5% 1/16W
R359	1-216-821-11	METAL CHIP	1K 5% 1/16W
R360	1-216-821-11	METAL CHIP	1K 5% 1/16W
R361	1-216-821-11	METAL CHIP	1K 5% 1/16W

Ref. No.	Part No.	Description	Remarks
R362	1-216-821-11	METAL CHIP	1K 5% 1/16W
R363	1-216-821-11	METAL CHIP	1K 5% 1/16W
R364	1-216-857-11	METAL CHIP	1M 5% 1/16W
R365	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R366	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R367	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R368	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R369	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R370	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R371	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R372	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R373	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R374	1-216-809-11	METAL CHIP	100 5% 1/16W
R375	1-216-864-11	SHORT	0
R376	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R377	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R378	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R379	1-216-821-11	METAL CHIP	1K 5% 1/16W
R380	1-216-821-11	METAL CHIP	1K 5% 1/16W
< SWITCH >			
S301	1-762-196-21	SWITCH, TACT (1)	
S302	1-762-196-21	SWITCH, TACT (2)	
S303	1-762-196-21	SWITCH, TACT (3)	
S304	1-762-196-21	SWITCH, TACT (POWER)	
S305	1-762-196-21	SWITCH, TACT (4)	
S306	1-762-196-21	SWITCH, TACT (5)	
S307	1-762-196-21	SWITCH, TACT (6)	
S308	1-762-196-21	SWITCH, TACT (SLEEP)	
S309	1-762-196-21	SWITCH, TACT (7)	
S310	1-762-196-21	SWITCH, TACT (8)	
S311	1-762-196-21	SWITCH, TACT (9)	
S312	1-762-196-21	SWITCH, TACT (LIGHT)	
S313	1-762-196-21	SWITCH, TACT (DIRECT)	
S314	1-762-196-21	SWITCH, TACT (0)	
S315	1-762-196-21	SWITCH, TACT (EXE)	
S316	1-762-196-21	SWITCH, TACT (FM/AM)	
S317	1-762-196-21	SWITCH, TACT (K⇐)	
S318	1-762-196-21	SWITCH, TACT (⇐I)	
S319	1-762-196-21	SWITCH, TACT (a)	
S320	1-762-196-21	SWITCH, TACT (PAGE)	
S321	1-571-760-11	SWITCH, KEY BOARD (⇐)	
S322	1-571-760-11	SWITCH, KEY BOARD (⇐)	
S323	1-762-196-21	SWITCH, TACT (b)	
S325	1-762-196-21	SWITCH, TACT (ERASE)	
S326	1-762-196-21	SWITCH, TACT (SCAN)	
S327	1-762-196-21	SWITCH, TACT (AM BAND)	
S328	1-762-196-21	SWITCH, TACT (ENTER)	
S329	1-553-977-00	SWITCH, SLIDE (HOLD →)	
< VIBRATOR >			
X301	1-767-517-11	VIBRATOR, CRYSTAL (75kHz)	
*****			

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-4440-288-A	MAIN BOARD, COMPLETE (EXCEPT CH, EA)		C156	1-162-921-11	CERAMIC CHIP 33PF	5% 50V
*	A-4440-290-A	MAIN BOARD, COMPLETE (EA)		C157	1-124-589-11	ELECT 47uF	20% 16V
*	A-4440-291-A	MAIN BOARD, COMPLETE (CH)		C159	1-164-156-11	CERAMIC CHIP 0.1uF	25V
		*****					
		< CAPACITOR >					
C101	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C160	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C102	1-162-908-11	CERAMIC CHIP 3PF	0.25PF 50V	C200	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C103	1-115-416-11	CERAMIC CHIP 0.001uF	5.00% 25V	C201	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C107	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C202	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C108	1-115-416-11	CERAMIC CHIP 0.001uF	5.00% 25V	C203	1-115-156-11	CERAMIC CHIP 1uF	10V
C109	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C204	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C110	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C205	1-104-915-11	TANTALUM CHIP 2.2uF	20% 10V
C111	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V	C206	1-115-156-11	CERAMIC CHIP 1uF	10V
C112	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C207	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C113	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C208	1-115-156-11	CERAMIC CHIP 1uF	10V
C114	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C209	1-124-261-00	ELECT 10uF	20% 50V
C115	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C210	1-115-156-11	CERAMIC CHIP 1uF	10V
C116	1-162-907-11	CERAMIC CHIP 2PF	0.25PF 50V	C211	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C117	1-162-908-11	CERAMIC CHIP 3PF	0.25PF 50V	C212	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C118	1-164-739-11	CERAMIC CHIP 560PF	5.00% 50V	C213	1-115-156-11	CERAMIC CHIP 1uF	10V
C119	1-162-926-11	CERAMIC CHIP 82PF	5% 50V	C214	1-104-752-11	TANTAL. CHIP 33uF	20.00% 4V
C120	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C215	1-162-917-11	CERAMIC CHIP 15PF	5% 50V
C121	1-124-589-11	ELECT 47uF	20% 16V	C216	1-162-907-11	CERAMIC CHIP 2PF	0.25PF 50V
C122	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C217	1-115-416-11	CERAMIC CHIP 0.001uF	5.00% 25V
C123	1-162-915-11	CERAMIC CHIP 10PF	0.5PF 50V	C218	1-162-915-11	CERAMIC CHIP 10PF	0.5PF 50V
C124	1-162-905-11	CERAMIC CHIP 1PF	0.25PF 50V	C219	1-115-416-11	CERAMIC CHIP 0.001uF	5.00% 25V
C125	1-162-926-11	CERAMIC CHIP 82PF	5% 50V	C220	1-115-156-11	CERAMIC CHIP 1uF	10V
C126	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C221	1-124-584-00	ELECT 100uF	20% 10V
C127	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C222	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C128	1-124-589-11	ELECT 47uF	20% 16V	C223	1-162-966-11	CERAMIC CHIP 0.0022uF	10% 50V
C129	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C224	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C130	1-162-914-11	CERAMIC CHIP 9PF	0.50PF 50V	C225	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C131	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C226	1-164-739-11	CERAMIC CHIP 560PF	5.00% 50V
C132	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C227	1-115-156-11	CERAMIC CHIP 1uF	10V
C133	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C228	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C134	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C229	1-164-245-11	CERAMIC CHIP 0.015uF	10.00% 25V
C135	1-124-589-11	ELECT 47uF	20% 16V	C230	1-115-156-11	CERAMIC CHIP 1uF	10V
C136	1-162-916-11	CERAMIC CHIP 12PF	5% 50V	C231	1-124-261-00	ELECT 10uF	20% 50V
C137	1-162-915-11	CERAMIC CHIP 10PF	0.5PF 50V	C232	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C138	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C233	1-115-156-11	CERAMIC CHIP 1uF	10V
C139	1-162-917-11	CERAMIC CHIP 15PF	5% 50V	C234	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C140	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C235	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C141	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C236	1-115-156-11	CERAMIC CHIP 1uF	10V
C142	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C237	1-164-245-11	CERAMIC CHIP 0.015uF	10.00% 25V
C143	1-165-176-11	CERAMIC CHIP 0.047uF	10.00% 16V	C238	1-164-245-11	CERAMIC CHIP 0.015uF	10.00% 25V
C144	1-164-156-11	CERAMIC CHIP 0.1uF	25V	C239	1-115-156-11	CERAMIC CHIP 1uF	10V
C145	1-162-959-11	CERAMIC CHIP 330PF	5% 50V	C240	1-115-156-11	CERAMIC CHIP 1uF	10V
C146	1-124-589-11	ELECT 47uF	20% 16V	C241	1-164-677-11	CERAMIC CHIP 0.033uF	10.00% 16V
C147	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C242	1-164-677-11	CERAMIC CHIP 0.033uF	10.00% 16V
C148	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C245	1-124-261-00	ELECT 10uF	20% 50V
C149	1-162-905-11	CERAMIC CHIP 1PF	0.25PF 50V	C246	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C150	1-124-589-11	ELECT 47uF	20% 16V	C247	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C151	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C248	1-115-156-11	CERAMIC CHIP 1uF	10V
C152	1-161-021-11	CERAMIC 0.047uF	10% 25V	C249	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C153	1-162-905-11	CERAMIC CHIP 1PF	0.25PF 50V	C250	1-115-156-11	CERAMIC CHIP 1uF	10V
C154	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C251	1-115-156-11	CERAMIC CHIP 1uF	10V
C155	1-162-913-11	CERAMIC CHIP 8PF	0.50PF 50V	C252	1-115-156-11	CERAMIC CHIP 1uF	10V
				C253	1-124-261-00	ELECT 10uF	20% 50V
				C254	1-135-210-11	TANTALUM CHIP 4.7uF	20% 10V
				C255	1-135-210-11	TANTALUM CHIP 4.7uF	20% 10V

## MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks	
C256	1-115-156-11	CERAMIC CHIP	1uF	10V	D107	8-719-421-40	DIODE MA77	
C257	1-115-156-11	CERAMIC CHIP	1uF	10V	D108	8-719-421-40	DIODE MA77	
C258	1-115-156-11	CERAMIC CHIP	1uF	10V	D109	8-719-002-81	DIODE 1T363	
C259	1-126-935-11	ELECT	470uF	20.00%	10V	D110	8-719-988-61	DIODE 1SS355TE-17
C260	1-124-261-00	ELECT	10uF	20%	50V			
C261	1-124-635-00	ELECT	220uF	20.00%	6.3V	D111	8-719-988-61	DIODE 1SS355TE-17
C262	1-124-589-11	ELECT	47uF	20%	16V	D201	8-719-002-81	DIODE 1T363
C263	1-165-112-11	CERAMIC CHIP	0.33uF	16V	D202	8-719-988-61	DIODE 1SS355TE-17	
C264	1-165-112-11	CERAMIC CHIP	0.33uF	16V	D203	8-719-977-40	DIODE DTZ13B	
C265	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V	D204	8-719-988-61	DIODE 1SS355TE-17
C266	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D205	8-719-975-40	DIODE RB411D	
C267	1-124-261-00	ELECT	10uF	20%	50V	D206	8-719-941-04	DIODE SB007-03CP
C268	1-115-156-11	CERAMIC CHIP	1uF	10V	D207	8-719-977-40	DIODE DTZ13B	
C269	1-126-935-11	ELECT	470uF	20.00%	10V		< IC >	
C270	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	IC201	8-752-064-31	IC CXA1376AS
C271	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	IC202	6-700-363-01	IC LA3335M-TE-L
C272	1-124-589-11	ELECT	47uF	20%	16V	IC203	8-752-059-51	IC CXA1522P
C273	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	IC204	6-700-364-01	IC LA5003M-TE-L
C274	1-124-261-00	ELECT	10uF	20%	50V		< JACK >	
C277	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	J101	1-569-187-11	JACK (AM EXT ANT) (EXCEPT CH)
C279	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	J201	1-573-670-11	JACK 1P (LINE OUT)
C280	1-115-156-11	CERAMIC CHIP	1uF	10V	J202	1-566-891-11	JACK (HEADPHONE)	
C281	1-115-156-11	CERAMIC CHIP	1uF	10V	J203	1-580-681-21	JACK,DC(POLARITY UNIFIED TYPE) (DC IN 6V) (EXCEPT CH)	
C282	1-162-959-11	CERAMIC CHIP	330PF	5%	50V		< COIL >	
C283	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	L101	1-412-963-11	INDUCTOR 100uH
C284	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	L102	1-412-939-11	INDUCTOR 1uH
C285	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	L103	1-412-938-11	INDUCTOR 0.82uH
C286	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	L104	1-412-938-11	INDUCTOR 0.82uH
C287	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	L105	1-412-945-11	INDUCTOR 3.3uH
C289	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	L106	1-412-953-11	INDUCTOR 15uH
C290	1-162-904-11	CERAMIC CHIP	0.5PF	0.25PF	50V	L107	1-410-658-31	INDUCTOR CHIP 220uH
C291	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	L108	1-412-950-11	INDUCTOR 8.2uH
C292	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	L109	1-412-938-11	INDUCTOR 0.82uH
C293	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	L110	1-412-939-11	INDUCTOR 1uH
		< FILTER >				L111	1-412-938-11	INDUCTOR 0.82uH
CF201	1-577-030-11	FILTER, CERAMIC (455kHz)				L112	1-412-933-11	INDUCTOR 0.33uH
CF202	1-577-574-11	FILTER, CERAMIC (10.7MHz)				L113	1-412-935-11	INDUCTOR 0.47uH
CF203	1-577-574-11	FILTER, CERAMIC (10.7MHz)				L114	1-412-947-11	INDUCTOR 4.7uH
CF204	1-760-478-11	VIBRATOR, CERAMIC (3.64MHz)				L115	1-412-939-11	INDUCTOR 1uH
CF205	1-567-163-11	FILTER, CERAMIC (10.7MHz)				L200	1-412-963-11	INDUCTOR 100uH
		< CONNECTOR >				L201	1-412-949-21	INDUCTOR 6.8uH
CN201	1-691-050-21	HOUSING, CONNECTOR 18P				L202	1-412-951-11	INDUCTOR 10uH
		< TRIMMER >				L203	1-412-935-11	INDUCTOR 0.47uH
CT101	1-141-304-21	CAP, TRIMMER 10PF				L204	1-412-935-11	INDUCTOR 0.47uH
CT102	1-141-304-21	CAP, TRIMMER 10PF				L205	1-412-963-11	INDUCTOR 100uH
CT201	1-141-442-91	CAP, CERAMIC TRIMMER 20PF				L206	1-412-961-11	INDUCTOR 68uH
CT202	1-141-304-21	CAP, TRIMMER 10PF					< TRANSISTOR >	
		< DIODE >				Q101	8-729-402-32	TRANSISTOR 2SD1819A-R
D101	8-719-002-81	DIODE 1T363				Q104	8-729-123-86	TRANSISTOR 2SK238-K16
D102	8-719-002-81	DIODE 1T363				Q105	8-729-423-52	TRANSISTOR 2SC3931-C
D103	8-719-421-40	DIODE MA77				Q106	8-729-402-32	TRANSISTOR 2SD1819A-R
D104	8-719-800-76	DIODE 1SS226				Q107	8-729-116-64	TRANSISTOR 2SK508-K51
D105	8-719-421-40	DIODE MA77				Q108	8-729-402-32	TRANSISTOR 2SD1819A-R
D106	8-719-421-40	DIODE MA77				Q109	8-729-116-64	TRANSISTOR 2SK508-K51

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
Q110	8-729-116-64	TRANSISTOR	2SK508-K51	R125	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q111	8-729-208-47	TRANSISTOR	2SK210-GR	R126	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q112	8-729-423-52	TRANSISTOR	2SC3931-C	R127	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q113	8-729-402-32	TRANSISTOR	2SD1819A-R	R128	1-216-809-11	METAL CHIP	100 5% 1/16W
Q114	8-729-423-52	TRANSISTOR	2SC3931-C	R129	1-216-809-11	METAL CHIP	100 5% 1/16W
Q115	8-729-402-32	TRANSISTOR	2SD1819A-R	R130	1-216-805-11	METAL CHIP	47 5% 1/16W
Q116	8-729-123-86	TRANSISTOR	2SK238-K16	R133	1-216-809-11	METAL CHIP	100 5% 1/16W
Q117	8-729-423-52	TRANSISTOR	2SC3931-C	R134	1-216-815-11	METAL CHIP	330 5% 1/16W
Q118	8-729-208-47	TRANSISTOR	2SK210-GR	R135	1-216-805-11	METAL CHIP	47 5% 1/16W
Q119	8-729-423-52	TRANSISTOR	2SC3931-C	R137	1-216-832-11	METAL CHIP	8.2K 5% 1/16W
Q120	8-729-423-52	TRANSISTOR	2SC3931-C	R139	1-216-857-11	METAL CHIP	1M 5% 1/16W
Q121	8-729-402-32	TRANSISTOR	2SD1819A-R	R140	1-216-845-11	METAL CHIP	100K 5% 1/16W
Q201	8-729-403-24	TRANSISTOR	XN4210	R141	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q202	8-729-403-24	TRANSISTOR	XN4210	R142	1-216-847-11	METAL CHIP	150K 5% 1/16W
Q203	8-729-028-92	TRANSISTOR	DTA144TUA-T106	R143	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q204	8-729-029-15	TRANSISTOR	DTC144TUA-T106	R144	1-216-805-11	METAL CHIP	47 5% 1/16W
Q205	8-729-029-15	TRANSISTOR	DTC144TUA-T106	R145	1-216-797-11	METAL CHIP	10 5% 1/16W
Q206	8-729-423-52	TRANSISTOR	2SC3931-C	R146	1-216-817-11	METAL CHIP	470 5% 1/16W
Q207	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R147	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q208	8-729-029-15	TRANSISTOR	DTC144TUA-T106	R148	1-216-797-11	METAL CHIP	10 5% 1/16W
Q209	8-729-402-32	TRANSISTOR	2SD1819A-R	R149	1-216-803-11	METAL CHIP	33 5% 1/16W
Q210	8-729-403-24	TRANSISTOR	XN4210	R150	1-216-797-11	METAL CHIP	10 5% 1/16W
Q211	8-729-402-13	TRANSISTOR	XN1501	R151	1-216-803-11	METAL CHIP	33 5% 1/16W
Q212	8-729-028-92	TRANSISTOR	DTA144TUA-T106	R152	1-216-839-11	METAL CHIP	33K 5% 1/16W
Q213	8-729-402-32	TRANSISTOR	2SD1819A-R	R153	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q214	8-729-402-32	TRANSISTOR	2SD1819A-R	R155	1-216-797-11	METAL CHIP	10 5% 1/16W
Q215	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R156	1-216-853-11	METAL CHIP	470K 5% 1/16W
Q216	8-729-402-13	TRANSISTOR	XN1501	R157	1-216-845-11	METAL CHIP	100K 5% 1/16W
Q217	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R159	1-216-821-11	METAL CHIP	1K 5% 1/16W
Q218	8-729-402-16	TRANSISTOR	XN4608	R160	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q219	8-729-402-16	TRANSISTOR	XN4608	R161	1-216-809-11	METAL CHIP	100 5% 1/16W
Q220	8-729-028-74	TRANSISTOR	DTA114TUA-T106	R162	1-216-864-11	SHORT	0
Q221	8-729-402-16	TRANSISTOR	XN4608	R201	1-216-851-11	METAL CHIP	330K 5% 1/16W
Q222	8-729-402-13	TRANSISTOR	XN1501	R202	1-216-837-11	METAL CHIP	22K 5% 1/16W
Q223	8-729-029-15	TRANSISTOR	DTC144TUA-T106	R203	1-216-836-11	METAL CHIP	18K 5% 1/16W
Q224	8-729-800-71	TRANSISTOR	2SB815B7-TB	R204	1-216-839-11	METAL CHIP	33K 5% 1/16W
Q225	8-729-800-71	TRANSISTOR	2SB815B7-TB	R205	1-216-809-11	METAL CHIP	100 5% 1/16W
		< RESISTOR >		R206	1-216-817-11	METAL CHIP	470 5% 1/16W
R101	1-216-821-11	METAL CHIP	1K 5% 1/16W	R207	1-216-845-11	METAL CHIP	100K 5% 1/16W
R103	1-216-845-11	METAL CHIP	100K 5% 1/16W	R208	1-216-845-11	METAL CHIP	100K 5% 1/16W
R108	1-216-805-11	METAL CHIP	47 5% 1/16W	R209	1-216-841-11	METAL CHIP	47K 5% 1/16W
R109	1-216-845-11	METAL CHIP	100K 5% 1/16W	R210	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R110	1-216-817-11	METAL CHIP	470 5% 1/16W	R211	1-216-823-11	METAL CHIP	1.5K 5% 1/16W
R111	1-216-837-11	METAL CHIP	22K 5% 1/16W	R212	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
R112	1-216-857-11	METAL CHIP	1M 5% 1/16W	R213	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R113	1-216-845-11	METAL CHIP	100K 5% 1/16W	R214	1-216-823-11	METAL CHIP	1.5K 5% 1/16W
R114	1-216-811-11	METAL CHIP	150 5% 1/16W	R215	1-216-833-11	METAL CHIP	10K 5% 1/16W
R115	1-216-833-11	METAL CHIP	10K 5% 1/16W	R217	1-216-809-11	METAL CHIP	100 5% 1/16W
R116	1-216-821-11	METAL CHIP	1K 5% 1/16W	R218	1-216-837-11	METAL CHIP	22K 5% 1/16W
R117	1-216-853-11	METAL CHIP	470K 5% 1/16W	R219	1-216-845-11	METAL CHIP	100K 5% 1/16W
R118	1-216-809-11	METAL CHIP	100 5% 1/16W	R220	1-216-845-11	METAL CHIP	100K 5% 1/16W
R119	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	R221	1-216-797-11	METAL CHIP	10 5% 1/16W
R120	1-216-805-11	METAL CHIP	47 5% 1/16W	R222	1-216-839-11	METAL CHIP	33K 5% 1/16W
R121	1-216-821-11	METAL CHIP	1K 5% 1/16W	R223	1-216-809-11	METAL CHIP	100 5% 1/16W
R122	1-216-847-11	METAL CHIP	150K 5% 1/16W	R224	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R123	1-216-841-11	METAL CHIP	47K 5% 1/16W	R225	1-216-833-11	METAL CHIP	10K 5% 1/16W
R124	1-216-832-11	METAL CHIP	8.2K 5% 1/16W	R226	1-216-840-11	METAL CHIP	39K 5% 1/16W

**MAIN**

Ref. No.	Part No.	Description	Remarks
R227	1-216-841-11	METAL CHIP 47K 5%	1/16W
R228	1-216-809-11	METAL CHIP 100 5%	1/16W
R229	1-216-855-11	METAL CHIP 680K 5%	1/16W
R230	1-216-841-11	METAL CHIP 47K 5%	1/16W
R231	1-216-833-11	METAL CHIP 10K 5%	1/16W
R232	1-216-805-11	METAL CHIP 47 5%	1/16W
R233	1-216-855-11	METAL CHIP 680K 5%	1/16W
R234	1-216-841-11	METAL CHIP 47K 5%	1/16W
R235	1-216-833-11	METAL CHIP 10K 5%	1/16W
R236	1-216-805-11	METAL CHIP 47 5%	1/16W
R237	1-216-837-11	METAL CHIP 22K 5%	1/16W
R238	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R239	1-216-821-11	METAL CHIP 1K 5%	1/16W
R240	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R241	1-216-833-11	METAL CHIP 10K 5%	1/16W
R242	1-216-833-11	METAL CHIP 10K 5%	1/16W
R243	1-216-805-11	METAL CHIP 47 5%	1/16W
R244	1-216-805-11	METAL CHIP 47 5%	1/16W
R245	1-216-809-11	METAL CHIP 100 5%	1/16W
R246	1-216-809-11	METAL CHIP 100 5%	1/16W
R248	1-216-821-11	METAL CHIP 1K 5%	1/16W
R249	1-216-845-11	METAL CHIP 100K 5%	1/16W
R250	1-216-845-11	METAL CHIP 100K 5%	1/16W
R251	1-216-845-11	METAL CHIP 100K 5%	1/16W
R252	1-216-805-11	METAL CHIP 47 5%	1/16W
R253	1-216-829-11	METAL CHIP 4.7K 5%	1/16W
R254	1-216-841-11	METAL CHIP 47K 5%	1/16W
R255	1-216-829-11	METAL CHIP 4.7K 5%	1/16W
R256	1-216-841-11	METAL CHIP 47K 5%	1/16W
R257	1-216-829-11	METAL CHIP 4.7K 5%	1/16W
R258	1-216-841-11	METAL CHIP 47K 5%	1/16W
R260	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R261	1-216-829-11	METAL CHIP 4.7K 5%	1/16W
R262	1-216-841-11	METAL CHIP 47K 5%	1/16W
R263	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R264	1-216-809-11	METAL CHIP 100 5%	1/16W
R265	1-216-809-11	METAL CHIP 100 5%	1/16W
R266	1-216-809-11	METAL CHIP 100 5%	1/16W
R267	1-216-845-11	METAL CHIP 100K 5%	1/16W
R268	1-216-845-11	METAL CHIP 100K 5%	1/16W
R269	1-216-845-11	METAL CHIP 100K 5%	1/16W
R273	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R275	1-216-833-11	METAL CHIP 10K 5%	1/16W
R276	1-216-841-11	METAL CHIP 47K 5%	1/16W
R277	1-216-836-11	METAL CHIP 18K 5%	1/16W
R278	1-216-864-11	SHORT 0	
R281	1-216-864-11	SHORT 0	
< VARIABLE RESISTOR >			
RV101	1-227-317-11	RES, VAR, CARBON 20K (ATT)	
RV201	1-227-388-11	RES, VAR, CARBON 50K (SSB FINE TUNE) (EXCEPT CH, EA)	
RV202	1-241-767-21	RES, ADJ, CARBON 100K	
RV203	1-241-765-11	RES, ADJ, CARBON 22K	
RV204	1-227-174-11	RES, VAR CARBON 50K (VOLUME ▲)	

Ref. No.	Part No.	Description	Remarks
< SWITCH >			
S101	1-571-850-81	SWITCH, SLIDE (ATT)	
S201	1-786-100-11	SWITCH, SLIDE (AM MODE)	
S202	1-571-850-81	SWITCH, SLIDE (SYNC)	
S203	1-571-850-81	SWITCH, SLIDE (TONE)	
< TRANSFORMER >			
T101	1-460-037-11	COIL (WITH CORE)	
T102	1-460-038-11	COIL (WITH CORE)	
T103	1-426-357-11	TRANSFORMER, RF	
T104	1-404-780-21	TRANSFORMER, IF	
T105	1-426-158-00	COIL (RF)	
T106	1-435-847-11	TRANSFORMER, HIGH-FREQUENCY	
T107	1-416-825-11	COIL (OSC)	
T202	1-460-039-11	COIL (WITH CORE)	
T203	1-435-410-11	TRANSFORMER, DC-DC CONVERTER	
< VIBRATOR >			
X201	1-795-253-21	VIBRATOR, CRYSTAL (55.390MHz)	
XF101	1-795-254-11	FILTER, CRYSTAL (55.545MHz)	
*****			
MISCELLANEOUS			
*****			
54	1-757-510-11	WIRE (FLAT TYPE) (18 CORE)	
* 60	1-694-751-11	CONDUCTIVE BOARD, CONNECTION	
ANT101	1-501-712-11	ANTENNA, TELESCOPIC	
ANT102	1-402-479-21	ANTENNA, FERRITE-ROD (LW/MW)	
LCD1	1-804-194-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP201	1-529-942-11	SPEAKER (7.7cm)	
ACCESSORIES & PACKING MATERIALS			
*****			
△	1-476-122-12	ADAPTOR, AC (AC-E601) (JE)	
△	1-476-127-11	ADAPTOR, AC (AC-114) (SP)	
△	1-506-443-00	ADAPTOR, PLUG (JE)	
△	1-569-007-11	ADAPTOR, CONVERSION 2P (JE)	
	3-227-586-01	MANUAL, INSTRUCTION (JAPANESE/ENGLISH/ARABIC/KOREAN/CHINESE)(CH,JE,EA)	
	3-227-586-11	MANUAL, INSTRUCTION (ENGLISH/FRENCH/GERMAN/SPANISH/ITALIAN/PORTUGUESE) (US,CND,AEP,E,SP)	
	3-227-586-21	MANUAL, INSTRUCTION (ENGLISH/DUTCH/SWEDISH/RUSSIAN/FINNISH)(AEP)	
	3-229-205-01	CASE, CARRYING	
	3-893-802-14	BOOK, GUIDE, WAVE (US,CND,AEP,CH,E,JE,SP)	
	3-912-863-05	GUIDE, SHORT WAVE (EA)	
	8-953-130-90	HEADPHONE MDR-E805LP/K (JE)	
*	A-3638-036-A	ANTENNA, WIRE (SW)	
	X-3329-657-1	ATTACHMENT(JE)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
--	--



# ICF-SW7600GR

SONY®

## SERVICE MANUAL

Ver 1.1 2001.08

*US Model  
Canadian Model  
AEP Model  
Chinese Model  
E Model  
Tourist Model*

## SUPPLEMENT-1

**Subject : Addition of Self-diagnosis and Service Note.**

(ENG-01014)

### **Self-diagnosis display**

When a dry battery is put in first and "E-00" is displayed on liquid crystal, the error has occurred by communication of IC301(EEPROM) and IC302(microcomputer). In this case, failure of IC301, disconnection of a communication course, etc. can be considered.

## SERVICE NOTE

The cautions when carrying out exchange of IC302 (6-800-111-01), or exchange of KEY board (A-4440-289-A).

When carrying out exchange of IC302, or exchange of KEY board, a setup of destination is needed.

Procedure of a setup :

1. A power supply is supplied and a clock is displayed. (Once it turns ON a power supply, it is made to turn off, if it is in power saving.)
2. Two test lands of KEY board are made to short-circuit. (Fig.1)
3. A liquid-crystal display lights up altogether except PAGE No.
4. By the difference to destination, 1 to 3 is inputted by 10 keys. (The difference to destination is as follows.)
5. The beep sound "pi" carries out and it returns to a usual clock display.

BAND		Destination 1 Others	Destination 2 US, Canadian	Destination 3 Saudi Arabia
AM	LW	150-529kHz	150-529kHz	150-285kHz
	MW	530-1620kHz	530-1620kHz	530-1620kHz
	SW	1621-29999kHz	1621-29999kHz	2250-26100kHz
	MW step	9kHz	10kHz	9kHz
FM		76.0-108.0MHz	76.0-108.0MHz	87.5-108.0MHz

### [KEY BOARD] (CONDUCTOR SIDE)

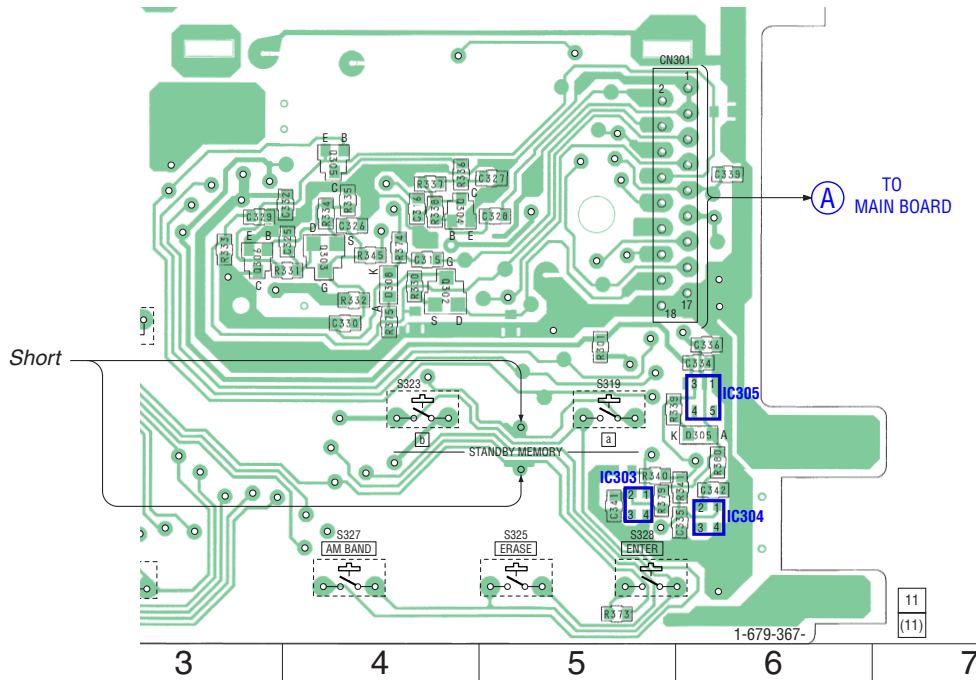


Fig. 1

MEMO

