ICF-SW35

SERVICE MANUAL

Ver 1.0 2000. 03

US Model
Canadian Model
AEP Model
E Model

SPECIFICATIONS

Circuit system
FM: Super heterodyne
LW/MW/SW: Dual conversion super heterodyne

Frequency range
FM: 76.00 - 108.00 MHz
87.50 - 108.00 MHz*1
SW: 2250 - 26100 kHz*2
3850 - 26100 kHz*3
MW: 530 - 1710 kHz
530 - 1620 kHz
LW: 150 - 285 kHz

Speaker
Approx. 66 mm (2 1/8 in.) diameter, 8 Ohms

Maximum output
240 mW (at 10 % harmonic distortion)

Output
🎧 (headphones) jack (ø3.5 mm stereo mini jack)
16 Ohms

Power requirements
DC 4.5 V, three R6 (size AA) batteries

External power source
DC IN 4.5 V

Battery Life (approximate hours)

	Sony R6 (size AA)	Sony LR6 alkaline (size AA)
FM reception	17	46
SW reception	12	33
LW/MW reception	12	33

Dimensions
Approx. 168 × 106 × 35 mm (W × H × D)
(6 5/8 × 4 1/4 × 1 7/16 in.) incl. projecting parts

Mass
Approx. 405 g (14.3 oz) incl. batteries

Supplied Accessories
Carrying case (1)
Short wave guide (1)

Design and specifications are subject to change without notice.

The AC power adaptor's operating voltage varies depending upon the country in which it is sold.
Buy the AC power adaptor in the country you intend to use it.

Your Sony dealer may not handle all of the above listed optional accessories. Please ask your dealer for detailed information on the optional accessories available in your country.

*1 Italy, Saudi Arabia and Malaysia
*2 Countries except for Italy
*3 Italy only

FM STEREO/SW/MW/LW PLL SYNTHESIZED RECEIVER

SONY®

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.

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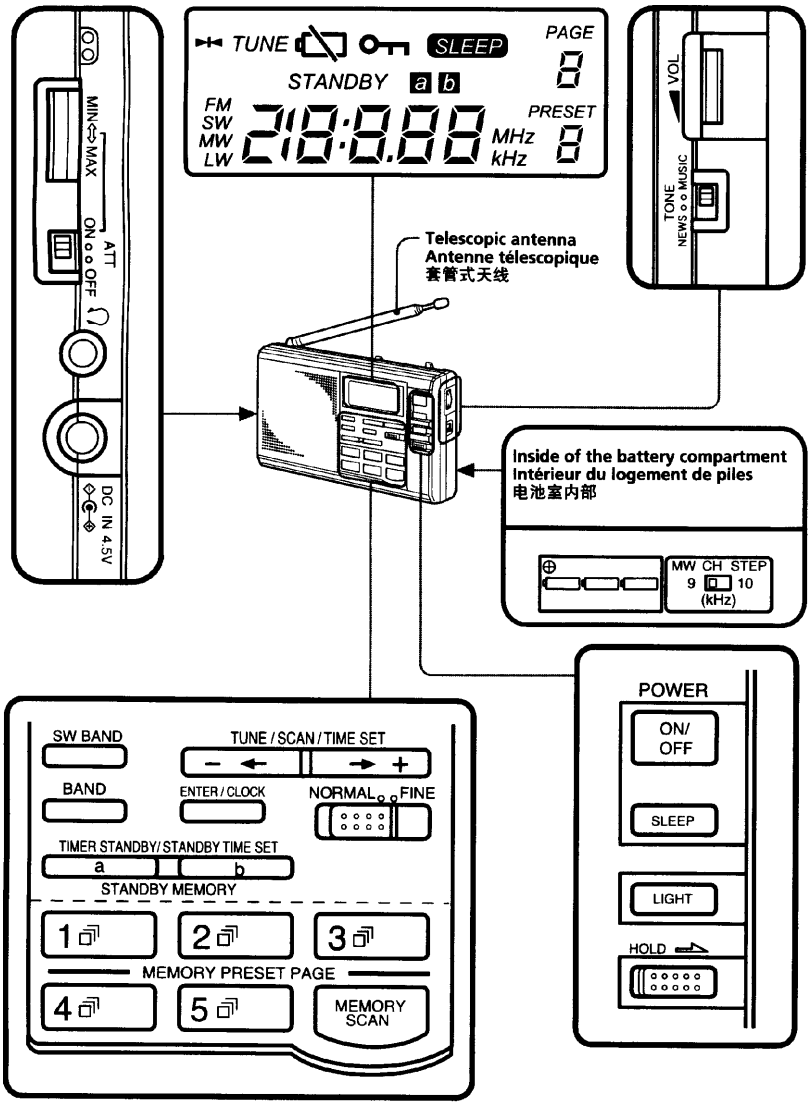
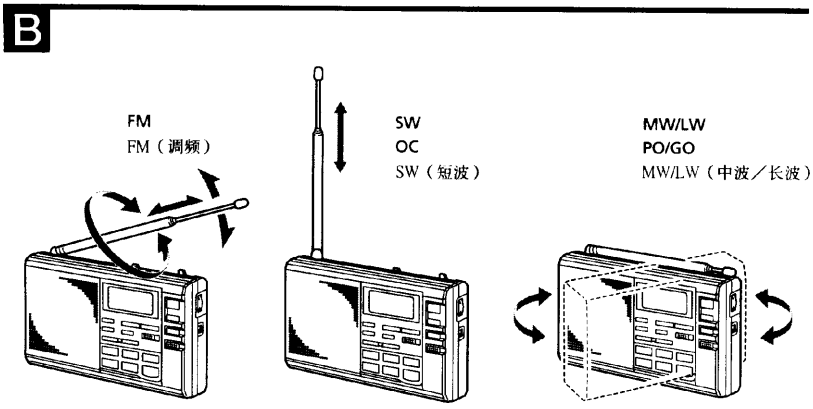
This section is extracted from instruction manual.





English

Operating the Radio

Before operating the radio, make sure of your location. In some countries, the MW channel step must be changed. (For details, see "Changing the MW channel step".)

Manual Tuning

1 Press ON/OFF to turn on the radio.

2 Press BAND to select the band. Each press changes the display as follows:

LW→MW→SW→FM

A double-beep sounds when you select LW. (The last frequency selected in each band appears on the display.)

3 When you select SW: press – ← or → + under TUNE/SCAN/TIME SET while pressing SW BAND to select a meter band. See "Scan Tuning" for details on the meter band.

When you select LW, MW and FM, follow the step 4.

4 Tune into the desired station by pressing – ← or → +.

A double-beep sounds when the minimum frequency of each band is received during tuning. When a broadcast is received, "▶◀TUNE" is displayed on the display.

5 Turn the VOL (volume) to adjust the volume.

About frequency step

The frequency step used by pressing – ← or → + under TUNE/SCAN/TIME SET can be changed with the NORMAL/FINE.

Band	NORMAL	FINE
LW	9 kHz	1 kHz
MW	9 kHz/10 kHz*	1 kHz
SW	5 kHz	1 kHz
FM	0.05 MHz	0.05 MHz

* See "Changing the MW channel step" for details on the MW channel step.

- Scan tuning is started by keeping – ← or → + hold down while NORMAL is selected. (See "Scan tuning".)
- The frequency changes continuously by keeping – ← or → + hold down while FINE is selected. If you stop pressing – ← or → +, the frequency stops changing.

To turn off the radio

Press ON/OFF.

To enjoy FM stereo reception

Plug the stereo headphones (not supplied) into the ∩ (headphones) jack.

When listening to news

Set the TONE selector to NEWS for optimum results. Vocal output will be sharper and clearer. When listening to music, set the TONE selector to MUSIC for optimum results.

Changing the MW channel step

This radio's frequency channel step in the MW band is set to 9 kHz/10 kHz before the radio is shipped from the factory. The default setting varies depending on the country where the radio is sold. Change the MW channel step when listening in countries in these regions.

Area	channel step
North/South America	10 kHz
Other countries	9 kHz

1 Press ON/OFF to turn off the radio.

2 Remove the batteries from the unit.

3 Change the position of the MW CH STEP in the battery compartment to the desired channel step.

4 Install the batteries and press ON/OFF.

Notes

- Completely perform steps 2 to 4 within 60 seconds. If you do not perform the operations in 60 seconds, the clock setting will be erased.
- Reception of around 10250 kHz and 20500 kHz may be difficult because of spurious internal signals generated by the built-in oscillators.

Scan Tuning

Use scan tuning to automatically scan the stations in the frequency range of a broadcast band.

1 Press ON/OFF to turn on the radio.

2 Press BAND to select the band.
If you select SW, select the meter band too.

3 Set NORMAL/FINE to NORMAL.

4 Press and hold – ← or → + under TUNE/SCAN/TIME SET. Release the button when the frequency indication starts changing.
Scan tuning will begin within the frequency range table in the "Frequency range", and pause automatically for about three seconds when a station is received.

5 When the radio tunes into the desired station, press – ← or → + again to stop scanning.
Until you press – ← or → +, scan tuning will continue. If necessary, tune the station more precisely by pressing either – ← or → +.

- The unit scans the frequencies in descending order when you hold down – ← for two seconds or more, and in ascending order when you hold down → + for two seconds or more.
- To change the scanning direction, hold down either – ← or → + opposite to the current direction for two seconds or more. This is convenient when, for example, you want to return to the previous reception after the unit has resumed scanning.
- When scanning MW broadcasts at night when reception is intense, or when scanning under prevailing interference, the scanning will pause frequently. If it occurs, switch the ATT switch to ON and adjust sensitivity with the ATT control (see "Controlling scan pauses", below). Under normal conditions, set the ATT switch to OFF.

Controlling scan pauses–using the ATT switch and the ATT control

Use the ATT (attenuator) switch and the ATT control to control reception sensitivity when the scanning pauses frequently or scanning under prevailing interference. Under normal conditions, set the ATT switch to OFF (i.e., with maximum sensitivity).
The ATT control is activated when the ATT switch is switched to ON. Turn the ATT control toward MAX to reduce sensitivity. The radio will skip weak signals and stop at only strong ones.

Note
If the ATT control is turned too for toward MAX, the radio will not stop at any weak signals at all. Set the ATT switch to OFF if you do not need to use the attenuator.

English

Frequency range (LW, MW, SW: kHz, FM: MHz)

Band	Frequency range*1	Scan tuning range	Meter band
LW	150-285	153-279	
MW	530-1710*2	531-1710*3	
		530-1710*5	
	530-1620*3	531-1620*4	
		530-1620*5	
SW	2250-26100*6	2250-2550*6	120 m
		3150-3450*6	90 m
		3850-4050	75 m
		4700-5100	60 m
		5900-6250	49 m
		7100-7400	41 m
	3850-26100*7	9400-10000	31 m
		11500-12150	25 m
		13500-13900	22 m
		15000-15900	19 m
		17450-18000	16 m
		18850-19100	15 m
		21450-21950	13 m
		25600-26100	11 m
FM	76.00-108.00*2	76.00-108.00	
	87.50-108.00*3	87.50-108.00	

*1 The LW and MW frequency ranges are the same as the scan tuning range when NORMAL/FINE is set to NORMAL.
*2 Countries except for Italy, Saudi Arabia and Malaysia
*3 Italy, Saudi Arabia and Malaysia
*4 9 kHz channel step
*5 10 kHz channel step
*6 Countries except for Italy
*7 Italy only

Preset Tuning

You can preset up to 10 stations on each MEMORY PRESET PAGE (50 stations in total.) Once you preset a station to memory, you can receive the broadcast merely by pressing MEMORY PRESET PAGE.
The page number is displayed as 1-5, the preset number is displayed as 1-0. (0 indicates 10.)

To preset stations

1 Tune into the station you want to preset.
Refer to "Manual Tuning" or "Scan Tuning" for more details.

2 Press and hold ENTER/CLOCK down until you hear a beep.
Page number 1 and preset number 1 flash when you are presetting a station for the first time or when you have preset 50 stations. In other cases, the number flashes as follows:
Page number: the smallest page number among the pages that have a free preset number
Preset number: the smallest preset number that has not been preset in the page displayed adove

3 Press the desired page number of MEMORY PRESET PAGE.
For example, press page number 3. The display changes as illustrated bellow.

4 Press the number under the MEMORY PRESET PAGE you have selected repeatedly to display the desired preset number.
The preset number changes as follows:
1→2→3→4→5→6→7→8→9→0
A double-beep sounds when the display returns to "1".
For example, select preset number 7. The display changes as illustrated below.

5 Press ENTER/CLOCK until a double-beep sounds.
The page number and the preset number stop flashing.

Note
If you leave the radio for 30 seconds with no operation while the page number and preset number are flashing, the unit returns to the previous mode.

To change the preset station

Follow the same procedure to store a new station to the selected preset number. The previous preset station is overwritten by the new preset station.

To interrupt and cancel presetting

Press ON/OFF to turn off the radio, and then press it again to turn the unit on. The unit returns to the previous mode.

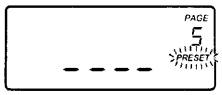
Tuning into a preset station

1 Press ON/OFF to turn on the radio.

2 Press MEMORY PRESET PAGE repeatedly to display the desired preset number. Numbers that have not been preset cannot be displayed. A double-beep sounds if the smallest preset number is selected.

3 Turn VOL (volume) to adjust the volume.

Note
A double-beep sounds and the display changes as illustrated below for about three seconds when you select a page number that has no preset station, and then returns to the previous mode.



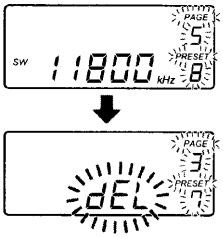
Deleting a preset station

Preset tuning works faster if you delete unnecessary preset stations as deleted preset stations are not selected during tuning.

1 Press ON/OFF to turn on the radio.

2 Press MEMORY PRESET PAGE repeatedly to display the preset number you want to delete.

3 Press and hold ENTER/CLOCK down until "dEL" flashes.
"dEL" flashes on the display by keeping ENTER/CLOCK held down longer while the page number and preset number are flashing. While these numbers are flashing, the radio stands by for presetting the station.



4 Press ENTER/CLOCK again until a double-beep sounds.
The page number and preset number disappear from the display.

Note
If you leave the radio for 30 seconds with no operation while the page number, preset number and "dEL" are flashing, the unit returns to the previous mode.

To interrupt and cancel deleting

Press ON/OFF to turn off the radio, and then press it again to turn the unit on. The unit returns to the previous mode.

Memory Scan Tuning

Use memory scan tuning to scan the preset stations automatically in one page.

1 Press ON/OFF to turn on the radio.

2 Press the page number of MEMORY PRESET PAGE you want to scan.

3 Press MEMORY SCAN.
Scanning stops when the radio receives a preset station in the page. If you want to select other preset stations, press MEMORY SCAN again. The preset numbers have not been preset will be skipped.

- Scanning works faster if you preset frequencies in descending or ascending order in preset number oders.

To interrupt and cancel memory scan tuning

Press MEMORY SCAN during memory scan tuning.

When preset stations cannot be received by memory scan tuning

A double-beep sounds and scanning stops when the first preset number you start scanning is returned to.
For example: you scan page 1 that has stations preset to preset numbers 2, 4, 6 and 8, and start scanning from preset number 6. A double-beep sounds when 6 is returned to.

- When scanning MW broadcasts at night when reception is intense, or scanning under prevailing interference, scanning will pause frequently. If it occurs, switch the ATT switch to ON and adjust sensitivity with the ATT control (see "Controlling scan pauses"). Under normal conditions, use the radio with the ATT switch set to OFF.

Improving Reception (See fig. B)

Adjusting the antenna

FM : Extend the telescopic antenna and adjust the direction and angle for the best reception.
SW : Extend the telescopic antenna to its full length and set it vertically.
MW, LW : Rotate the unit horizontally for optimum reception. A ferrite bar antenna is built in the unit.

Using an external antenna

Use the wide-range antenna AN-1, AN-102 or the SW active antenna AN-LP1 (not supplied). For details, refer to the operating instructions of the each antenna.

Notes

- Keep the unit and antenna away from fluorescent lights, TVs, computers, and other equipment which may generate noise.
- Retract the telescopic antenna when using an external antenna.
- Set up the external antenna as far away from the street as possible.
- Note that the SW active antenna AN-LP1 may not function as usual when it is connected to this radio and memory scan tuning is in use. This is because AN-LP1 selects frequencies by the antenna controller.

Setting the Standby Time

Standby function

You can turn on the radio and tune into your favorite station at the desired time.
- Before you set standby, make sure that the radio's clock setting is correct.
- Two standby times can be stored to STANDBY MEMORY a and b.
- Before you set the standby time, adjust VOL (volume) to set the volume when the radio is turned on.

1 Receive the desired broadcast station.

2 Press ENTER/CLOCK until you hear a beep.
The page number and preset number start flashing.

3 Press STANDBY MEMORY a or b.
For example, when you press STANDBY MEMORY a, "PRESET" and "a" start flashing.

4 Press ENTER/CLOCK until you hear a double-beep.
"PRESET" and "a" or "b" light.

5 Press ON/OFF to turn off the radio.

6 Press STANDBY MEMORY a or b until you hear a beep.
For example, when you press STANDBY MEMORY a:
The display returns to the clock setting display, "STANDBY", "a" and the hour indication start flashing.

7 Press – ← or → + under TUNE/SCAN/TIME SET to set the hour.

8 Press STANDBY MEMORY a or b you selected in step 6 until you hear a beep.
The hour is set, and the minute starts flashing.

9 Press – ← or → + to set the minute.

10 Press STANDBY MEMORY a or b you selected in step 6 until you hear a double-beep.
The minute is set, and "STANDBY" and "a" or "b" light.

When the standby time is reached

The radio turns on and "SLEEP" is displayed. The unit will turn off automatically after about 60 minutes.

When you have set STANDBY MEMORY a and b

If the second preset standby time is reached while the first standby time is operating, the most recent standby time will have priority over the other and the radio will tune into the appropriate station. If you have set STANDBY MEMORY a and b to the same time, STANDBY MEMORY a will have priority.

To cancel the standby function

Press STANDBY MEMORY a or b with the radio turned off so that "STANDBY" and "a" or "b" are cleared from the display.
Be sure to release the button within one second. If the button is pressed continuously, the radio enters the standby setting mode.

To cancel temporarily the standby function

Slide HOLD in the direction of the arrow with the radio turned off to make "⊶" appear. When the hold is canceled and "⊶" disappears, the standby function is operational. (see "Using Other Functions")

Notes

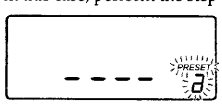
- Once a standby time is set, the radio turns on at the preset standby time everyday unless the standby setting is canceled.
- The standby function activates even while you are listening to other stations.

Activating the Alarm

To activate the alarm instead of the radio at the desired time, delete the station assigned to either STANDBY MEMORY a or b as necessary.

1 Press ON/OFF to turn on the radio.

2 Press STANDBY MEMORY a or b.
The radio receives the preset station. If there is no preset station, a double-beep sounds and the display changes as illustrated below. In this case, perform the step 5.



3 Press and hold ENTER/CLOCK down until "dEL" flashes.

4 Press ENTER/CLOCK again until a double-beep sounds.
The display "PRESET" and "a" or "b" will disappear. (See "Preset tuning-Deleting a preset station".)

5 Perform steps 5 to 10 of the procedure described in "Setting the Standby Time".
When the standby time is reached and the standby is activated, the alarm sounds. The unit then turns off automatically after 60 seconds.

To stop the alarm

Press any button except LIGHT.

Notes

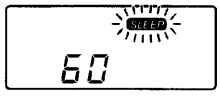
- The alarm volume is not adjustable.
- When the standby time is reached while you are listening to the radio, the radio turns off and the alarm sounds.

Setting the Sleep Timer

Sleep Timer Function

Enjoy falling asleep to the radio using sleep timer. The radio turns off automatically after the sleep timer setting (60, 45, 30 or 15 minutes) is reached.

1 Press SLEEP.
The sleep timer setting of "60" minutes is displayed and "SLEEP" flashes.
The radio turns on if it was turned off.



2 Press SLEEP repeatedly to select the desired sleep timer setting while "SLEEP" is flashing.
Each press changes the display as follows:
┌→60→45→30→15┐
A double-beep sounds when the display returns to "60". "SLEEP" lights three seconds after you select the sleep timer setting while "SLEEP" is flashing. After the sleep timer indication disappears and the frequency indication appears, the sleep timer activates.

3 Tune into the desired station, and adjust the VOL (volume).
The radio will turn off automatically after the sleep timer setting is reached.

To turn off the radio before the sleep timer setting is reached

Press ON/OFF.

To reset or extend the sleep timer setting

Press SLEEP again and select the desired sleep timer setting.

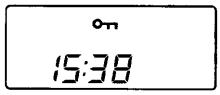
Using Other Functions

Hold Function

When the hold function is used, the buttons are not operational. Use the hold function to prevent accidental operation.
The hold function can also be used to temporarily cancel the standby function.

To use the hold function

Slide HOLD in the direction of the arrow.
"⊶" appears on the display and all buttons are no longer operational.



To cancel the hold function

Slide HOLD in the opposite direction of the arrow. "⊶" disappears from the display.

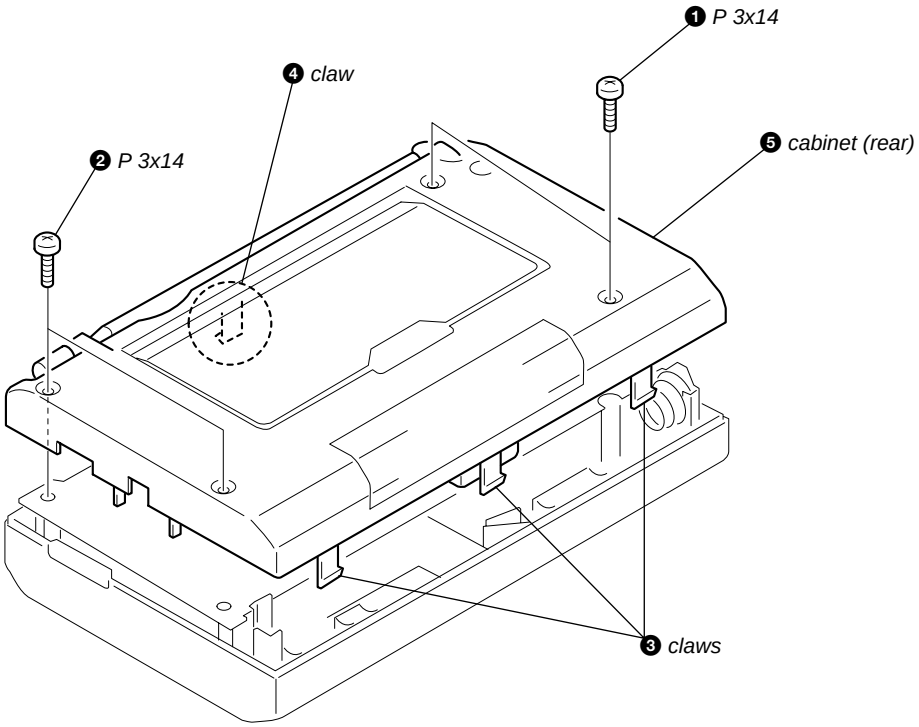
Light Function

Press LIGHT to turn on the light for about 20 to 30 seconds to view the display in the dark.

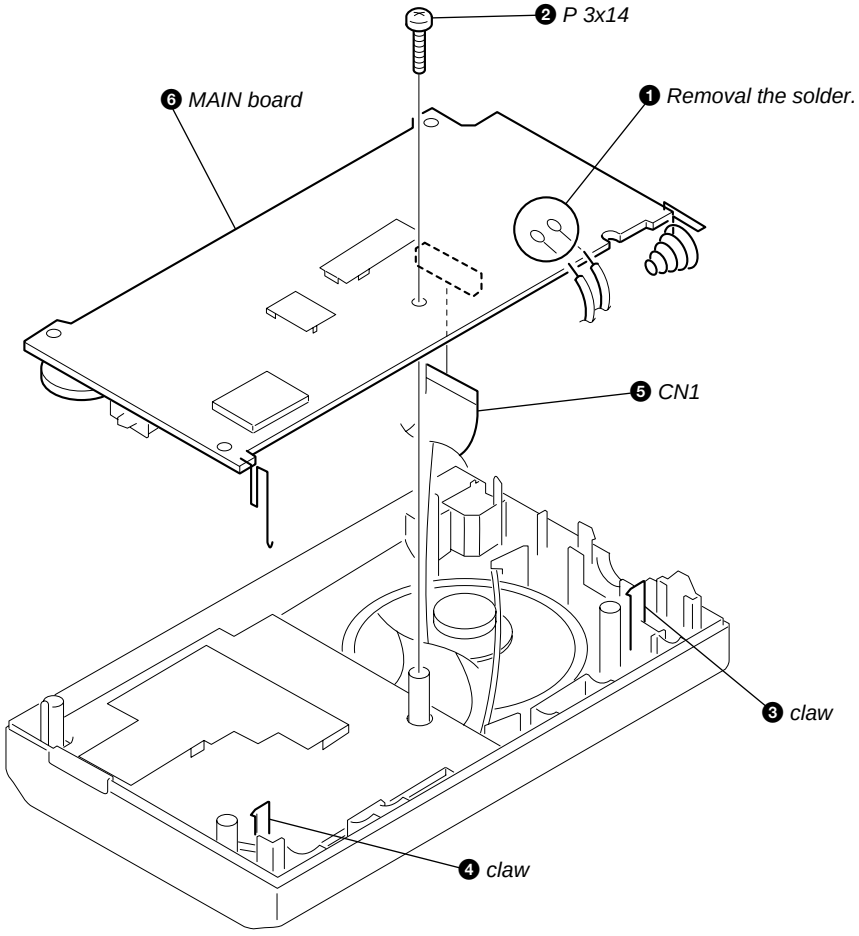
SECTION 2
DISASSEMBLY

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

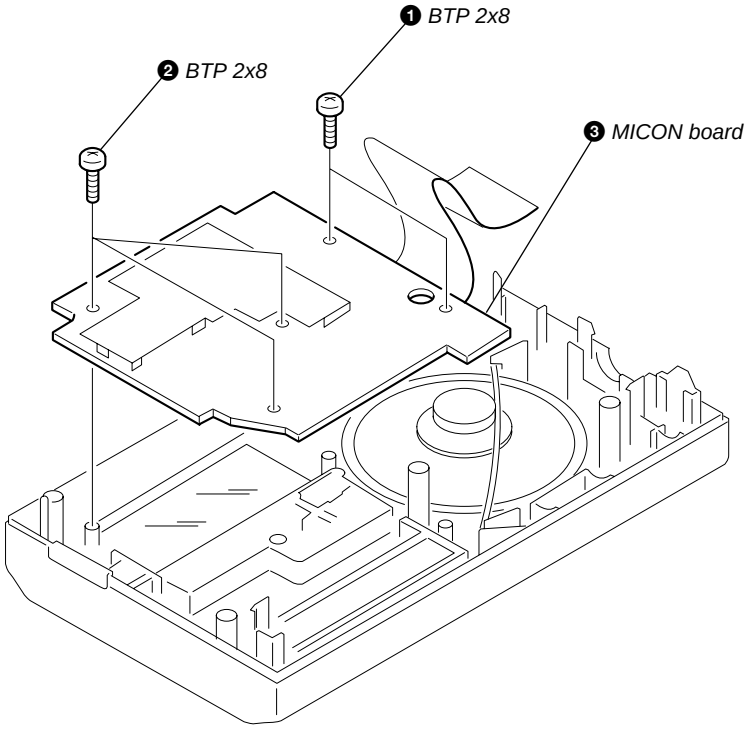
2-1. CABINET (REAR)



2-2. MAIN BOARD



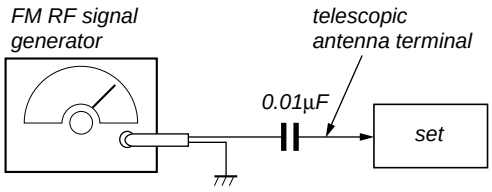
2-3. MICON BOARD



SECTION 3
ELECTRICAL ADJUSTMENTS

FM SECTION | 0 dB = 1 µV

Setting:
BAND switch: FM
VOLUME: MAX
ATT: OFF
TONE: MUSIC

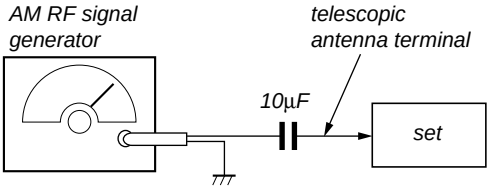


400Hz, 30% FM modulation
frequency deviation ±22.5kHz
Output level: as low as possible

SW/MW/LW SECTION

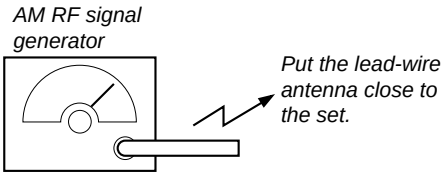
Setting:
BAND switch: SW or MW or LW
VOLUME: MAX
ATT: OFF
TONE: MUSIC

(SW)



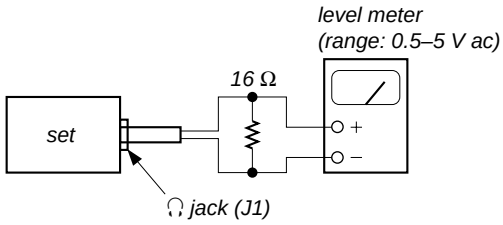
400Hz, 30%
AM modulation
Output level: as low as possible

(MW/LW)

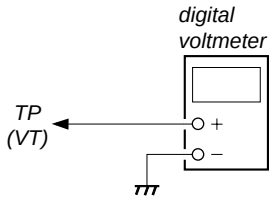


400Hz, 30%
AM modulation
Output level: as low as possible

- **Connecting Level Meter (FM, SW, MW and LW)**



- **Connecting Digital Voltmeter (FM, SW, MW and LW)**



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

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter.	
Frequency Display	11,800 kHz
Adjustment Part	T1, T4

LW FREQUENCY COVERAGE CHECK	
Frequency Display	150 kHz
Reading on Digital voltmeter	1.0 - 1.3 V
Adjustment Part	<confirmation>

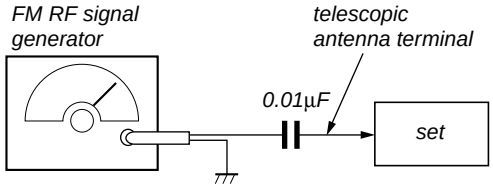
SW FREQUENCY COVERAGE CHECK	
Frequency Display	26,100 kHz
Reading on Digital voltmeter	8.0 - 9.0 V
Adjustment Part	<confirmation>

FM FREQUENCY COVERAGE CHECK		
Frequency Display	76 MHz	108 MHz
Reading on Digital voltmeter	2.8 - 4.0 V	9.5 - 11.0 V
Adjustment Part	<confirmation>	<confirmation>

FM TRACKING ADJUSTMENT		
Adjust for a maximum reading on level meter.		
Frequency Display	76 MHz	108 MHz
Adjustment Part	L11	CT1

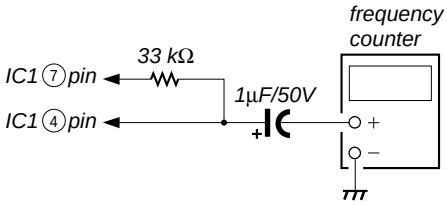
Adjustment Location: See page 9.

FM VCO ADJUSTMENT



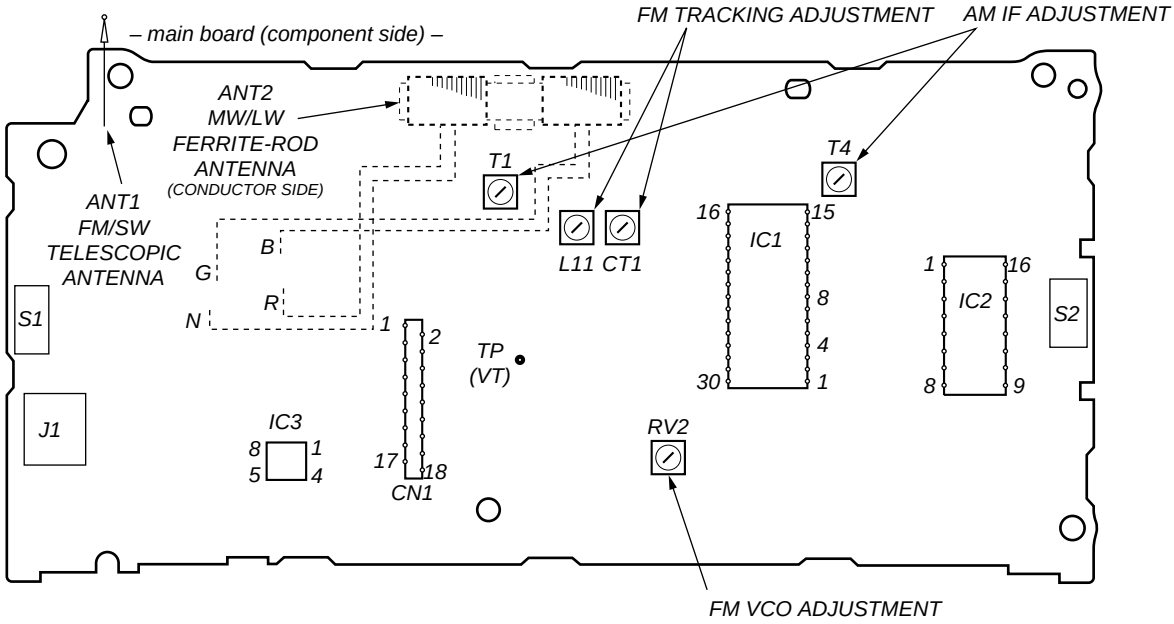
98MHz, non-modulation
Output level: 0.1v(100dB)

• **Connecting Frequency counter**

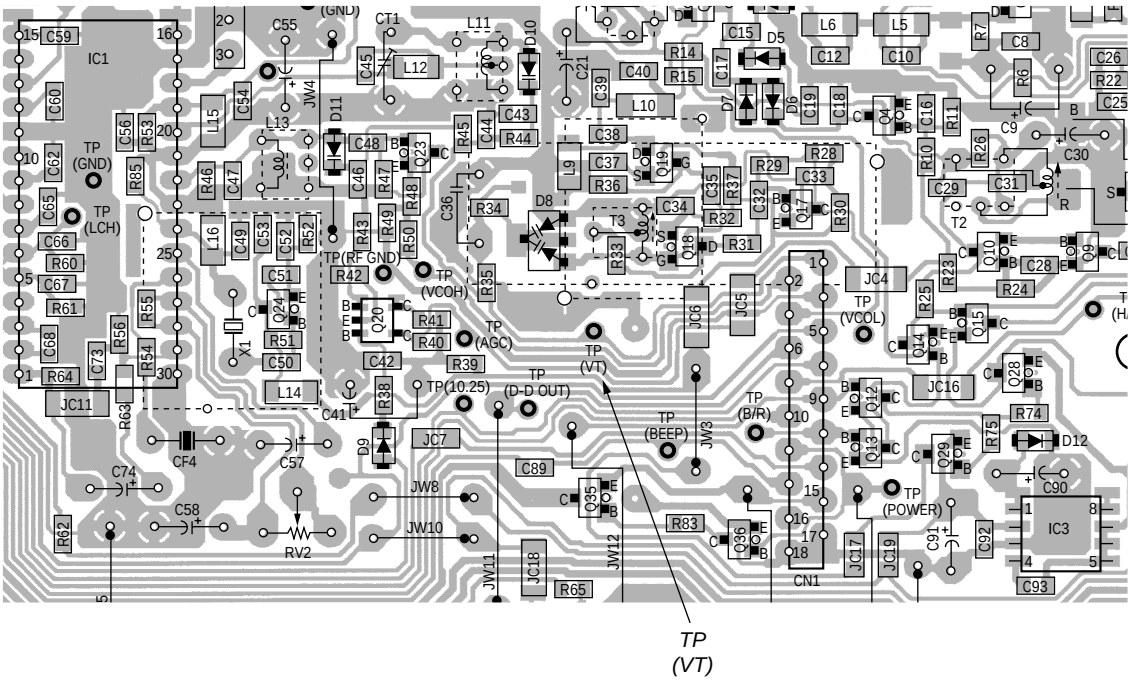


FM VCO ADJUSTMENT	
Reading on Frequency counter	76 kHz ± 200 Hz
Adjustment Part	RV2

Adjustment Location:



– main board (conductor side) –



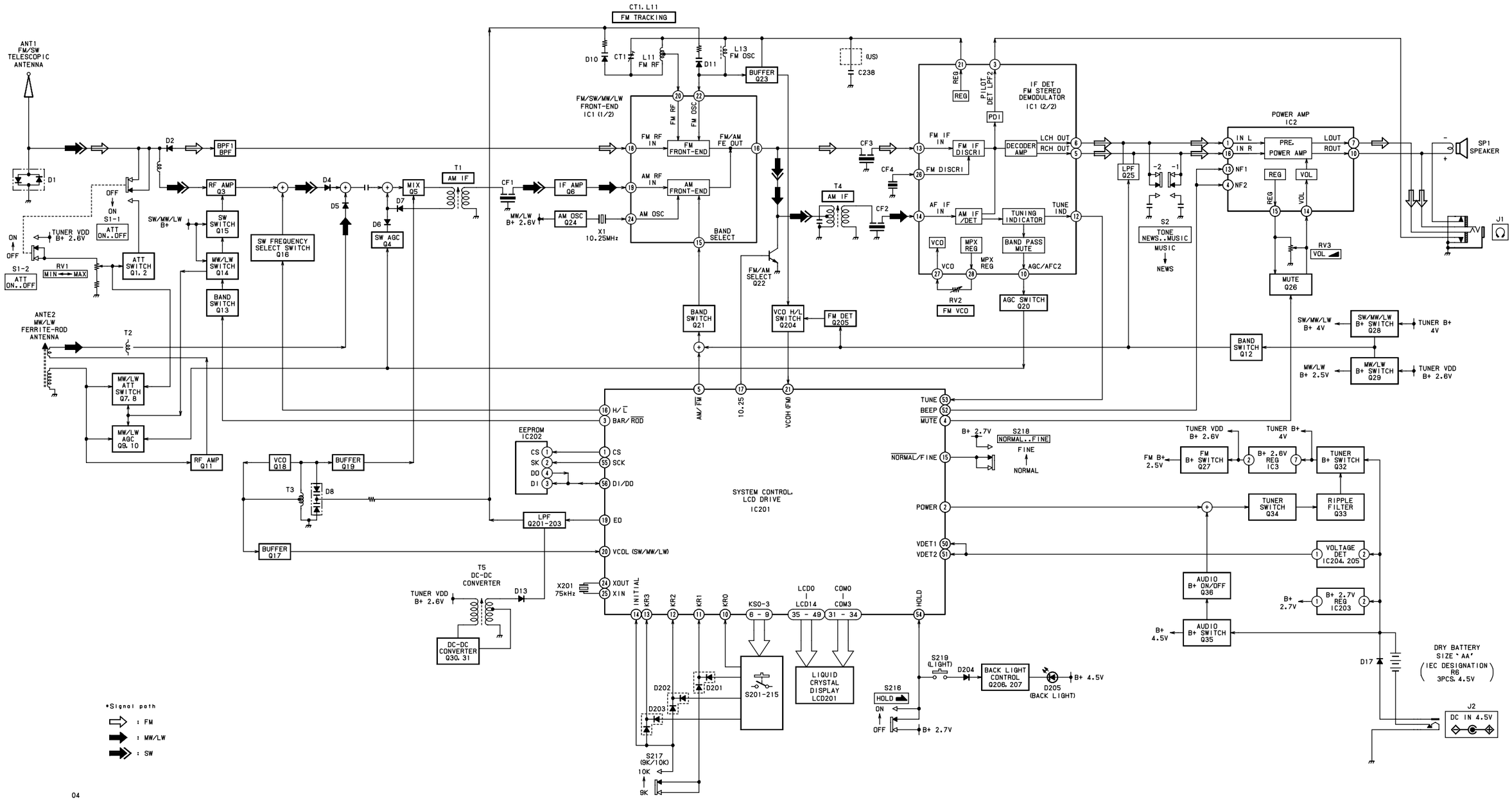
SECTION 4
DIAGRAMS

4-1. IC PIN DESCRIPTION

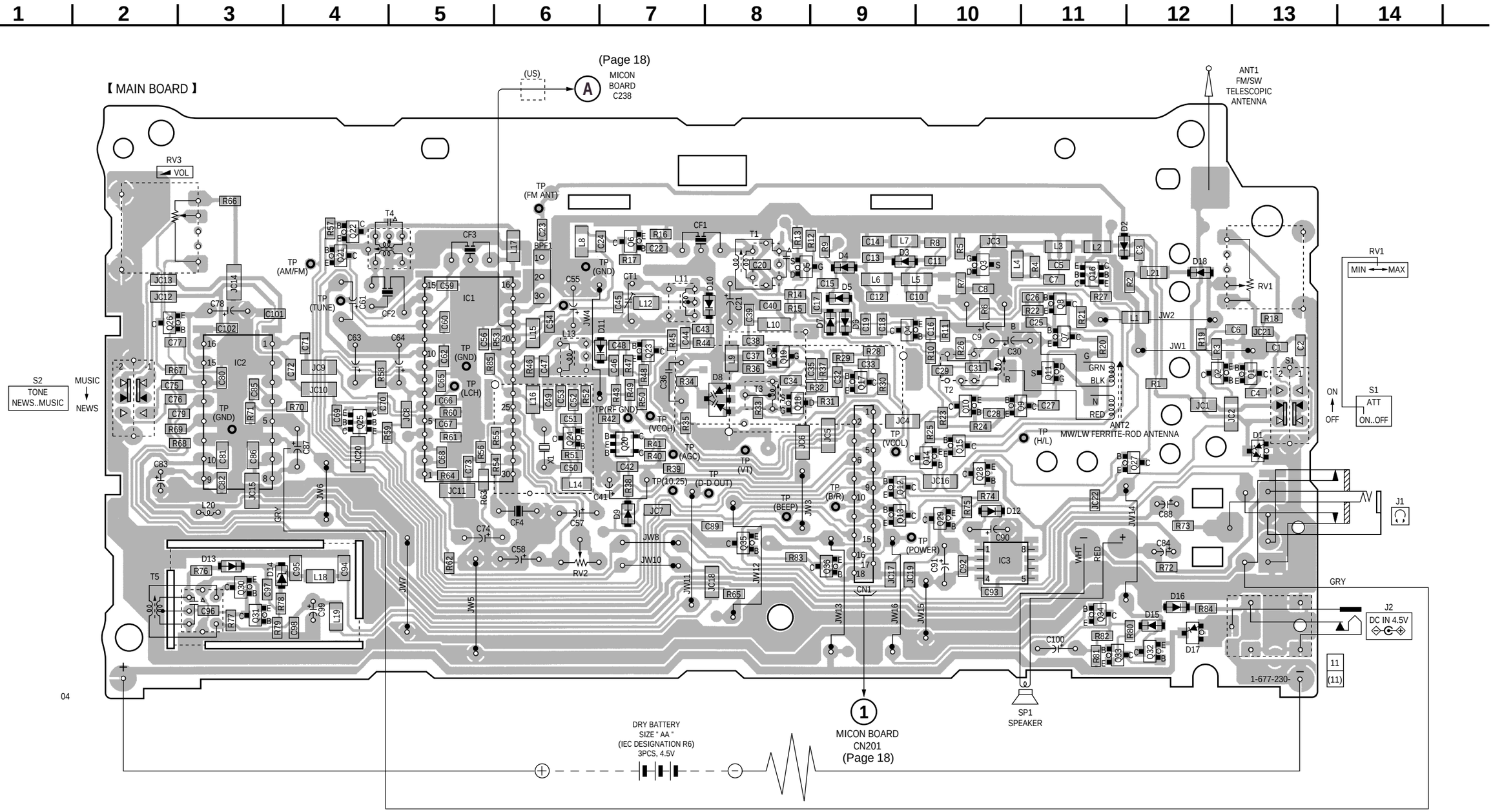
• IC201 uPD17072GB-017-1A7 (SYSTEM CONTROL, LCD DRIVER)

Pin No.	Pin Name	I/O	Pin Description
1	CS	O	EEPROM CS control output
2	POWER	O	Power supply (for signal) start output H: Radio ON L: Radio OFF
3	BAR/$\overline{\text{ROD}}$	O	Antenna switch output H: BAR ANTENNA L: ROD ANTENNA
4	$\overline{\text{MUTE}}$	O	MUTE output H: MUTE OFF L: MUTE ON
5	AM/$\overline{\text{FM}}$	O	Band switch signal output H: SW, MW, LW L: FM
6 – 9	KS0 – 3	O	Key source output
10 – 13	KR0 – 3	I	Key return input
14	INITIAL	O	9K/10K read output
15	$\overline{\text{NORMAL}}$/FINE	I	Frequency step switch input H: FINE L: NORMAL
16	H/$\overline{\text{L}}$	O	SW filter switch signal output H: SW L: FM, MW. LW
17	10.25	O	Attenator output
18	GND	—	GND
19	EO	O	Tuner PLL error output
20	VCOL (LW/MW/SW)	I	VCO (SW/MW/LW band) input
21	VCOH (FM)	I	VCO (FM band) input
22	REG0	—	Capacitor terminal (regulator circuit)
23	VDD	—	Power supply terminal (+2.7 V)
24	XOUT	O	Oscillation output (75 kHz)
25	XIN	I	Oscillation input (75 kHz)
26	REG1	—	Capacitor terminal (regulator circuit)
27	REGLCD0	—	LCD driving power supply terminal
28, 29	CAPLCD0, 1	—	LCD driving power supply terminal
30	REGLCD1	—	LCD driving power supply terminal
31 – 34	COM0 – 3	O	LCD drive common output
35 – 49	LCD0 – 14	O	LCD drive segment output
50, 51	VDET1, 2	I	Reducing voltage information input
52	BEEP	O	Beep output
53	TUNE	I	Receive information input
54	HOLD	I	Hold input
55	SCK	O	Serial clock output
56	DI/DO	I/O	Serial data input/output

4-2. BLOCK DIAGRAM



4-3. PRINTED WIRING BOARD — MAIN SECTION —



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	D-13	D13	F-3	Q2	D-12	Q14	E-10	Q26	C-2
D2	B-12	D14	F-3	Q3	C-10	Q15	E-10	Q27	E-12
D3	C-9	D15	F-12	Q4	C-9	Q16	C-11	Q28	E-10
D4	C-9	D16	F-12	Q5	C-9	Q17	D-9	Q29	E-10
D5	C-9	D17	F-12	Q6	C-7	Q18	D-8	Q30	F-3
D6	C-9	D18	C-12	Q7	D-11	Q19	D-8	Q31	F-3
D7	C-9			Q8	C-11	Q20	D-7	Q32	F-12
D8	D-8	IC1	C-5	Q9	D-11	Q21	C-4	Q33	F-12
D9	E-7	IC2	D-3	Q10	D-10	Q22	B-4	Q34	F-11
D10	C-8	IC3	F-10	Q11	D-11	Q23	D-7	Q35	E-8
D11	C-7			Q12	E-9	Q24	D-6	Q36	F-9
D12	E-10	Q1	D-13	Q13	E-9	Q25	D-4		

Note on Printed Wiring Boards:

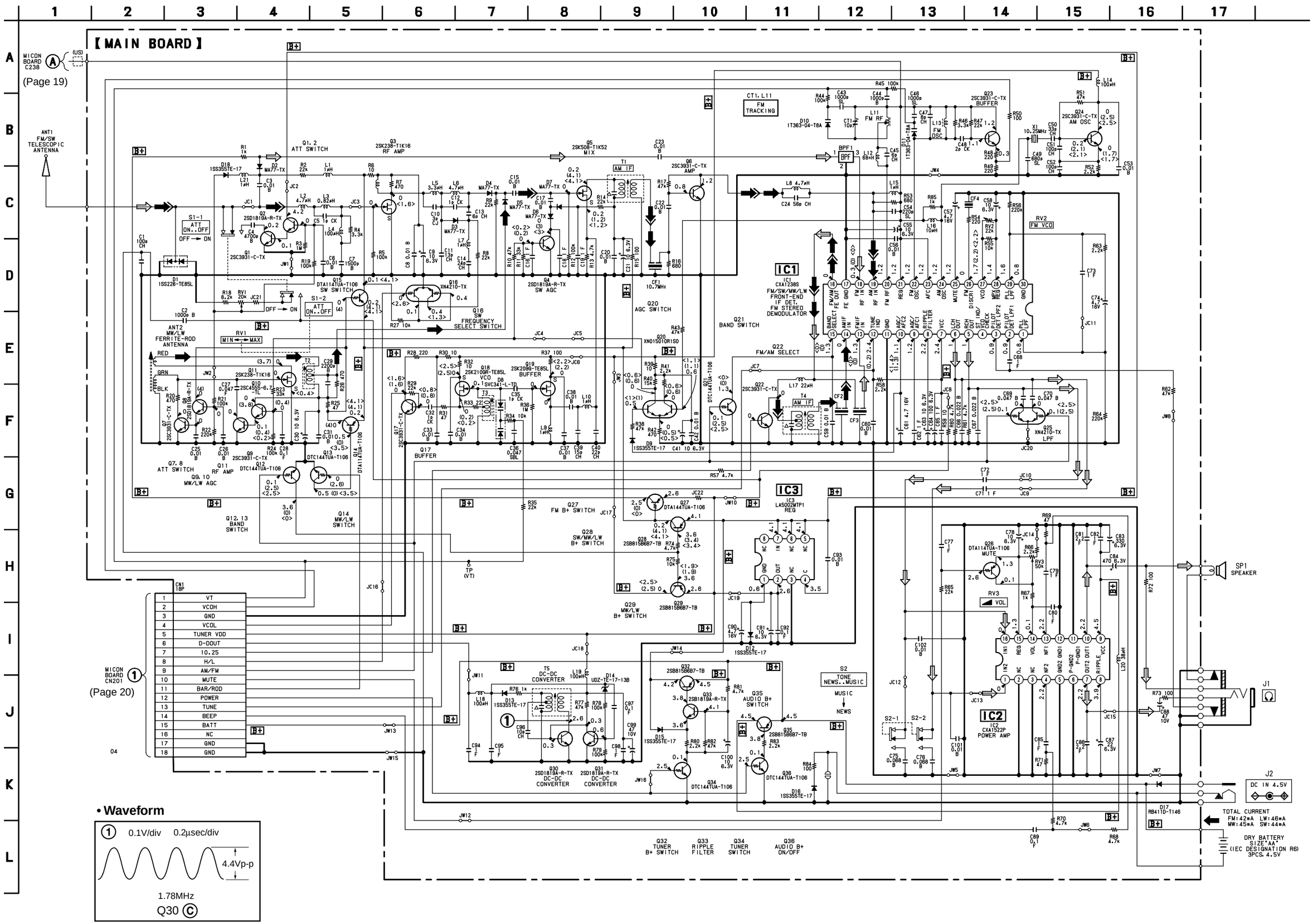
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▒▒ : Pattern from the side which enables seeing.

Note on Schematic Diagram:

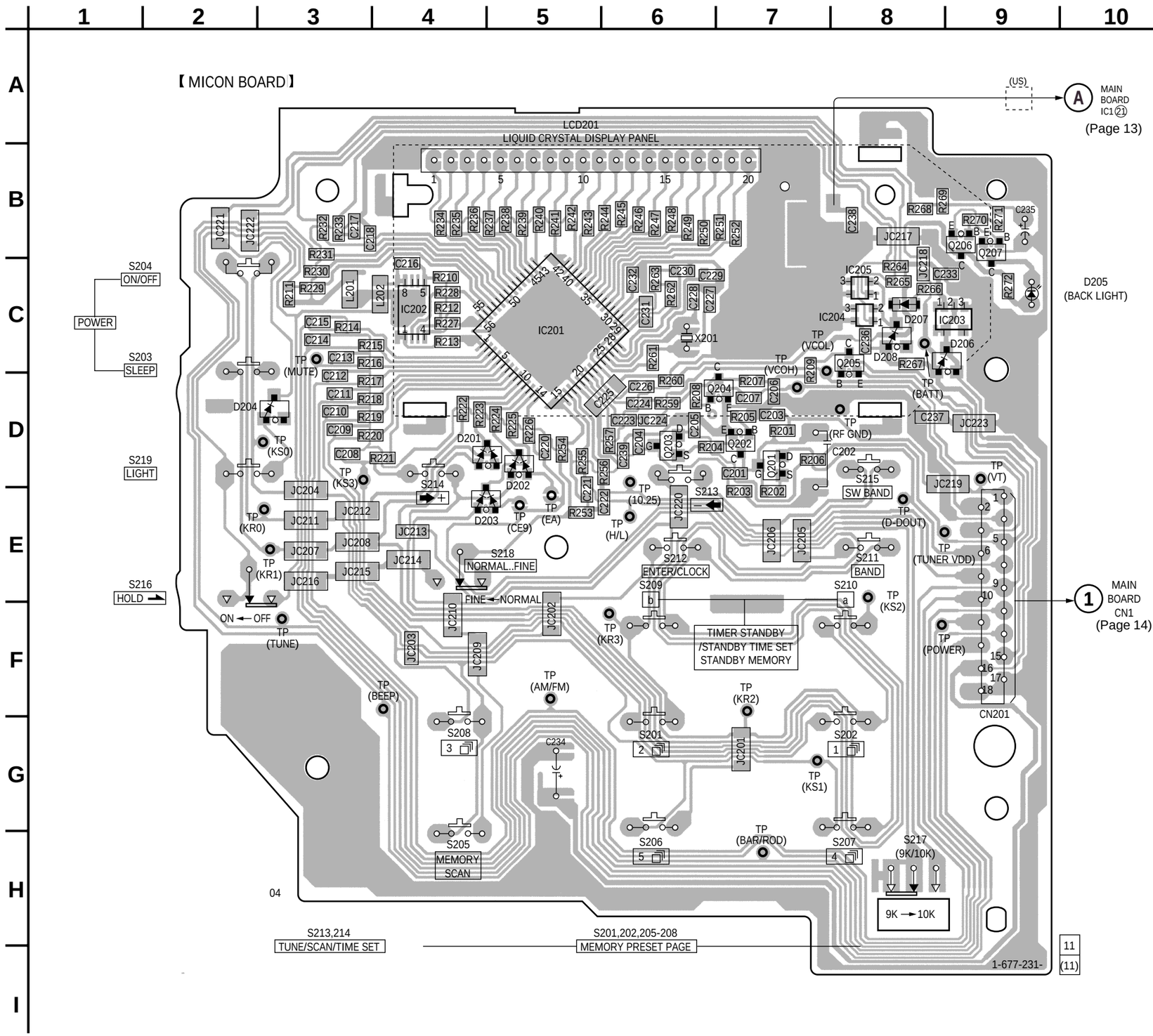
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.

- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : MW/LW
  < > : SW
- Signal path.
  ⇨ : FM
  ➡ : MW/LW
  ⇛ : SW

4-4. SCHEMATIC DIAGRAM — MAIN SECTION — • Refer to page 21 for IC Block Diagrams.



4-5. PRINTED WIRING BOARD — MICON SECTION —

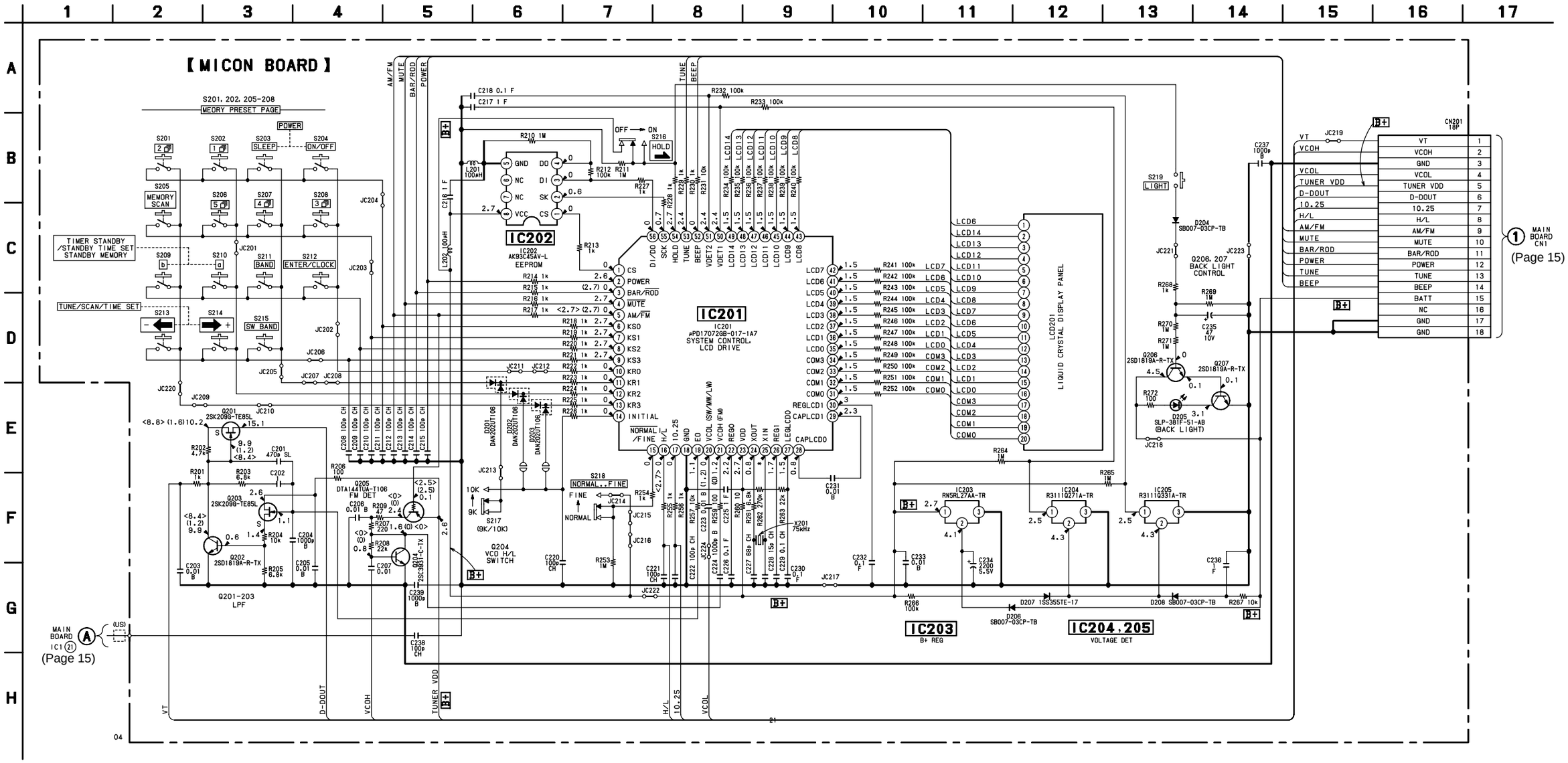


- **Semiconductor Location**

Ref. No.	Location
D201	D-4
D202	D-5
D203	D-5
D204	D-2
D205	C-10
D206	C-9
D207	C-8
D208	C-8
IC201	C-5
IC202	C-4
IC203	C-9
IC204	C-8
IC205	C-8
Q201	D-7
Q202	D-7
Q203	D-6
Q204	D-7
Q205	C-8
Q206	B-9
Q207	B-9

Note on Printed Wiring Boards:
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- △ : internal component.
- ▒ : Pattern from the side which enables seeing.

4-6. SCHEMATIC DIAGRAM — MICON SECTION — • Refer to page 21 for IC Block Diagrams.

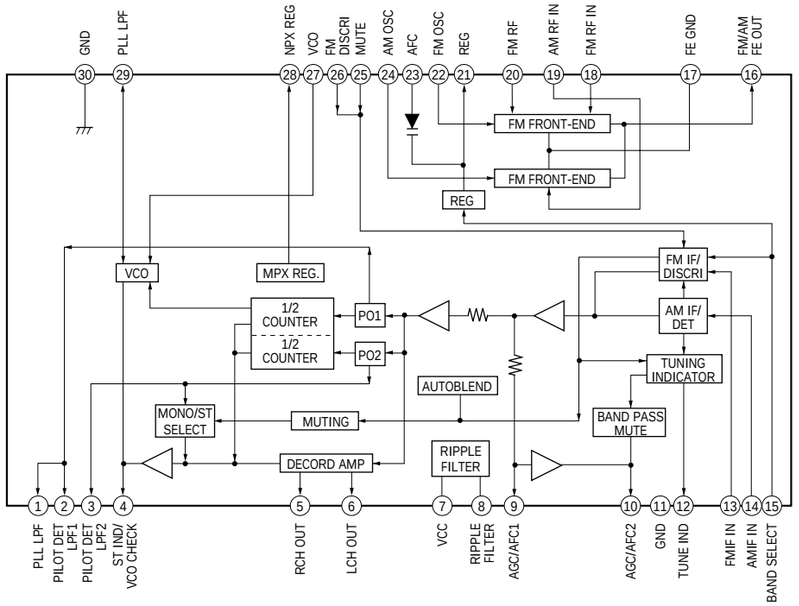


Note on Schematic Diagram:

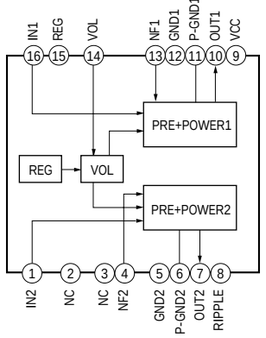
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B + : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : MW/LW
  < > : SW

• IC Block Diagrams

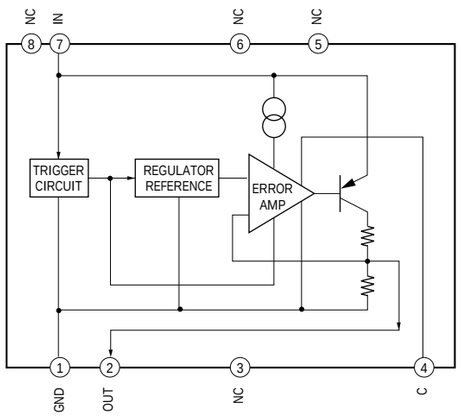
IC1 CXA1238S



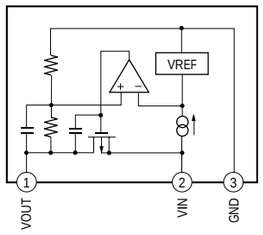
IC2 CXA1522P



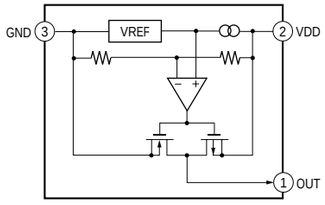
IC3 LA5002MTP1



IC203 RN5RL27AA-TR



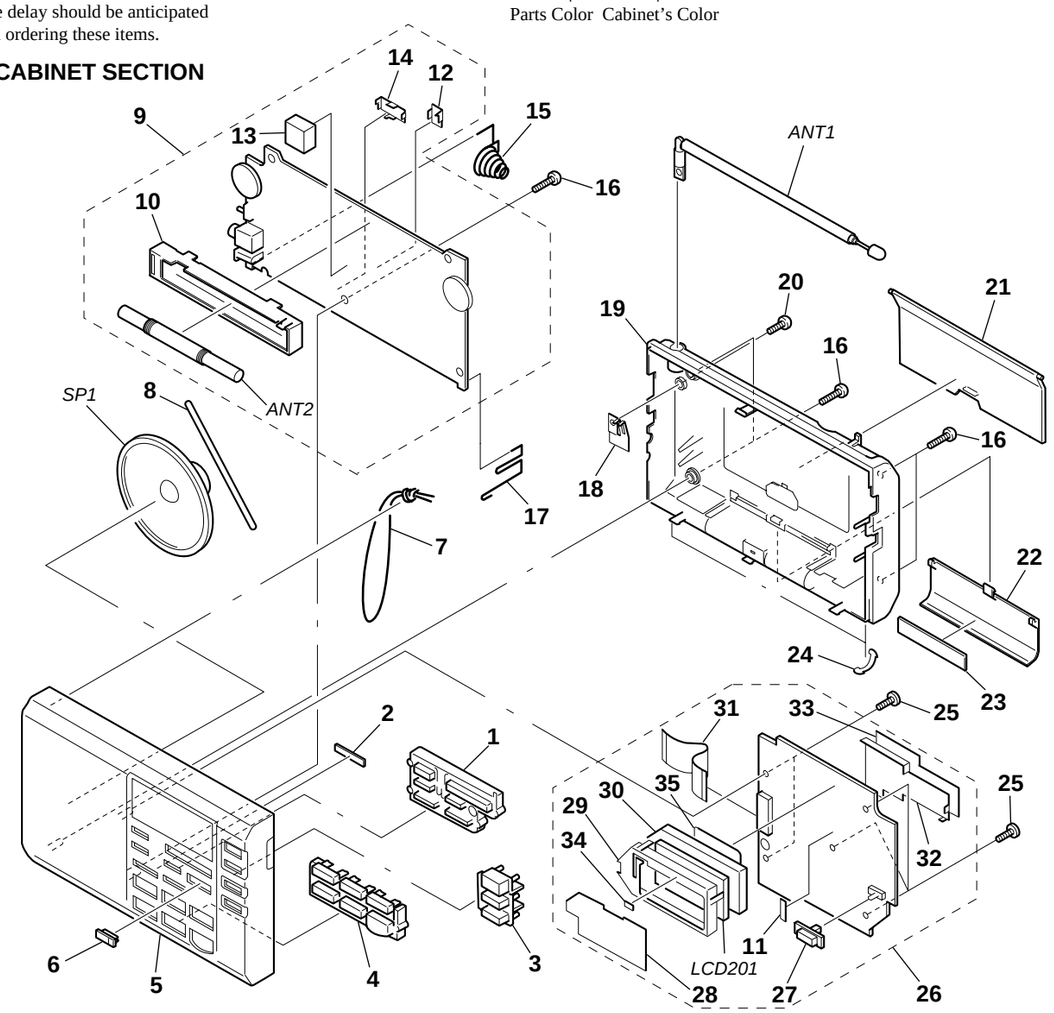
IC204 R3111Q271A-TR
IC205 R3111Q331A-TR



SECTION 5
EXPLODED VIEW

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials are given in the last of this parts list.

5-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	3-042-909-01	BUTTON (+/–)	
2	3-044-852-01	CUSHION (B)	
3	3-042-907-01	BUTTON (POWER)	
4	3-042-910-01	BUTTON (PAGE)	
5	X-3378-376-1	CABINET (FRONT) ASSY	
6	3-042-911-01	KNOB (N/F)	
7	3-385-660-11	STRAP, HAND	
8	3-389-575-01	SPRING (SPEAKER), WIRE	
* 9	A-3683-159-A	MAIN BOARD, COMPLETE	
10	3-042-904-01	HOLDER (ANTENNA)	
11	3-047-311-01	SPACER (T)	
* 12	3-042-898-01	CASE (2ND B)	
* 13	3-042-896-01	CASE (1ST A)	
* 14	3-042-897-01	CASE (1ST B)	
15	3-042-900-01	TERMINAL (–), BATTERY	
16	7-685-649-79	SCREW +P 3X14 TYPE2 NON-SLIT	
17	3-042-899-01	TERMINAL (+), BATTERY	
18	3-383-877-01	PLATE (ANT), CONTACT	
19	3-042-902-01	CABINET (REAR)	
20	7-682-546-09	SCREW +P 3X5	

Ref. No.	Part No.	Description	Remark
21	3-893-839-21	STAND	
22	3-042-903-01	LID, BATTERY CASE	
23	3-312-059-11	CUSHION, BATTERY	
24	3-042-916-01	FOOT, RUBBER	
25	3-371-765-21	SCREW (2X8), +BTP	
* 26	A-3663-471-A	MICON BOARD, COMPLETE	
27	3-042-908-01	KNOB (HOLD)	
28	3-042-913-01	SHEET (LCD)	
* 29	3-042-894-01	CASE (LCD)	
30	3-042-906-01	HOLDER (LCD)	
31	1-792-459-11	CABLE, FLAT (FFC) 18P	
* 32	3-042-895-01	CASE (MICROCOMPUTER)	
33	3-045-127-01	LEAF (MICRO COMPUTER), COPPER	
34	3-044-853-01	SHEET (4 X 15)	
35	3-045-971-01	LEAF (LCD), COPPER	
ANT1	1-501-222-81	ANTENNA, TELESCOPIC (FM/SW)	
ANT2	1-501-793-21	ANTENNA, FERRITE-ROD (MW/LW)	
LCD201	1-803-943-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP1	1-529-645-11	SPEAKER (6.6cm)	

SECTION 6
ELECTRICAL PARTS LIST

MAIN

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.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

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

- Abbreviation
  CND : Canadian model
  EE : East European model
  EA : Saudi Arabia model
  5E : Country of origin is show in E model
  IT : Italian model

Ref. No.	Part No.	Description			Remark
*	A-3683-159-A	MAIN BOARD, COMPLETE			
		**********			
*	3-042-896-01	CASE (1ST A)			
*	3-042-897-01	CASE (1ST B)			
*	3-042-898-01	CASE (2ND B)			
	3-042-904-01	HOLDER (ANTENNA)			
		< ANTENNA >			
ANT2	1-501-793-21	ANTENNA, FERRITE-ROD (MW/LW)			
		< FILTER >			
BPF1	1-234-024-11	FILTER, BAND PASS			
		< CAPACITOR >			
C1	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C2	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C4	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C5	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C8	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C9	1-126-157-11	ELECT	10uF	20%	16V
C10	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C11	1-164-185-11	CERAMIC CHIP	13PF	5%	50V
C12	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C13	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C14	1-162-975-11	CERAMIC CHIP	24PF	5%	50V
C15	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C16	1-115-156-11	CERAMIC CHIP	1uF		10V
C17	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C18	1-115-156-11	CERAMIC CHIP	1uF		10V
C19	1-115-156-11	CERAMIC CHIP	1uF		10V
C20	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C21	1-126-157-11	ELECT	10uF	20%	16V
C22	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C23	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C24	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C25	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C26	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C28	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C29	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C30	1-126-157-11	ELECT	10uF	20%	16V
C31	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C32	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C33	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C35	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C36	1-162-847-11	CERAMIC	0.047uF	10%	16V
C37	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C38	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C39	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C40	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C41	1-126-157-11	ELECT	10uF	20%	16V
C42	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C43	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C44	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C45	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C46	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C47	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C48	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
C49	1-164-471-11	CERAMIC CHIP	680PF	5%	50V
C50	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C51	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C52	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C53	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C54	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C55	1-126-157-11	ELECT	10uF	20%	16V
C56	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C57	1-124-259-11	ELECT	4.7uF	20%	16V
C58	1-126-157-11	ELECT	10uF	20%	16V
C59	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C60	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C61	1-124-259-11	ELECT	4.7uF	20%	16V
C62	1-115-156-11	CERAMIC CHIP	1uF		10V
C63	1-126-157-11	ELECT	10uF	20%	16V
C64	1-124-584-00	ELECT	100uF	20%	10V
C65	1-115-156-11	CERAMIC CHIP	1uF		10V
C66	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C67	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C68	1-115-156-11	CERAMIC CHIP	1uF		10V
C69	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C70	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C71	1-115-156-11	CERAMIC CHIP	1uF		10V
C72	1-115-156-11	CERAMIC CHIP	1uF		10V
C73	1-115-156-11	CERAMIC CHIP	1uF		10V
C74	1-124-259-11	ELECT	4.7uF	20%	16V
C75	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V

MAIN

Ref. No.	Part No.	Description			Remark
C76	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C77	1-115-156-11	CERAMIC CHIP	1uF		10V
C78	1-126-157-11	ELECT	10uF	20%	16V
C79	1-115-156-11	CERAMIC CHIP	1uF		10V
C80	1-115-156-11	CERAMIC CHIP	1uF		10V
C81	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C82	1-115-156-11	CERAMIC CHIP	1uF		10V
C83	1-128-057-11	ELECT	330uF	20%	6.3V
C84	1-126-935-11	ELECT	470uF	20%	6.3V
C85	1-115-156-11	CERAMIC CHIP	1uF		10V
C86	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C87	1-126-153-11	ELECT	22uF	20%	6.3V
C88	1-104-664-11	ELECT	47uF	20%	10V
C89	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C90	1-124-259-11	ELECT	4.7uF	20%	16V
C91	1-126-157-11	ELECT	10uF	20%	16V
C92	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C93	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C94	1-164-346-11	CERAMIC CHIP	1uF		16V
C95	1-164-346-11	CERAMIC CHIP	1uF		16V
C96	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C97	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C98	1-115-156-11	CERAMIC CHIP	1uF		10V
C99	1-124-589-11	ELECT	47uF	20%	16V
C100	1-126-157-11	ELECT	10uF	20%	16V
C101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< FILTER >			
CF1	1-577-687-11	FILTER, CERAMIC (10.7MHz)			
CF2	1-577-601-11	FILTER, CERAMIC			
CF3	1-760-238-11	FILTER, CERAMIC			
CF4	1-760-238-11	FILTER, CERAMIC			
		< CONNECTOR >			
CN1	1-691-050-21	HOUSING, CONNECTOR 18P			
		< TRIMMER >			
CT1	1-141-304-21	CAP, TRIMMER	10PF		
		< DIODE >			
D1	8-719-800-76	DIODE	1SS226		
D2	8-719-421-40	DIODE	MA77		
D3	8-719-421-40	DIODE	MA77		
D4	8-719-421-40	DIODE	MA77		
D5	8-719-421-40	DIODE	MA77		
D6	8-719-421-40	DIODE	MA77		
D7	8-719-421-40	DIODE	MA77		
D8	8-719-945-31	DIODE	SVC341-L		
D9	8-719-988-61	DIODE	1SS355TE-17		
D10	8-719-002-81	DIODE	1T363		
D11	8-719-002-81	DIODE	1T363		

Ref. No.	Part No.	Description			Remark
D12	8-719-988-61	DIODE	1SS355TE-17		
D13	8-719-988-61	DIODE	1SS355TE-17		
D14	8-719-977-40	DIODE	UDZ-TE-17-13B		
D15	8-719-988-61	DIODE	1SS355TE-17		
D16	8-719-988-61	DIODE	1SS355TE-17		
D17	8-719-975-40	DIODE	RB411D		
D18	8-719-988-61	DIODE	1SS355TE-17		
		< IC >			
IC1	8-752-050-20	IC	CXA1238S		
IC2	8-752-059-51	IC	CXA1522P		
IC3	8-759-804-76	IC	LA5002M		
		< JACK >			
J1	1-566-891-11	JACK (🎧)			
J2	1-580-681-21	JACK, DC (POLARITY UNIFIED TYPE)			(DC IN 4.5V)
		< JUMPER RESISTOR >			
JC1	1-216-295-00	SHORT	0		
JC2	1-216-296-00	SHORT	0		
JC3	1-216-295-00	SHORT	0		
JC4	1-216-296-00	SHORT	0		
JC5	1-216-296-00	SHORT	0		
JC6	1-216-296-00	SHORT	0		
JC7	1-216-295-00	SHORT	0		
JC8	1-216-295-00	SHORT	0		
JC9	1-216-296-00	SHORT	0		
JC10	1-216-296-00	SHORT	0		
JC11	1-216-296-00	SHORT	0		
JC12	1-216-295-00	SHORT	0		
JC13	1-216-295-00	SHORT	0		
JC14	1-216-296-00	SHORT	0		
JC15	1-216-296-00	SHORT	0		
JC16	1-216-296-00	SHORT	0		
JC17	1-216-295-00	SHORT	0		
JC18	1-216-296-00	SHORT	0		
JC19	1-216-295-00	SHORT	0		
JC20	1-216-296-00	SHORT	0		
JC21	1-216-864-11	METAL CHIP	0	5%	1/16W
JC22	1-216-864-11	METAL CHIP	0	5%	1/16W
		< COIL >			
L1	1-412-939-11	INDUCTOR	1uH		
L2	1-412-947-11	INDUCTOR	4.7uH		
L3	1-412-938-11	INDUCTOR	0.82uH		
L4	1-412-963-11	INDUCTOR	100uH		
L5	1-412-945-11	INDUCTOR	3.3uH		
L6	1-412-947-11	INDUCTOR	4.7uH		
L7	1-412-939-11	INDUCTOR	1uH		
L8	1-412-947-11	INDUCTOR	4.7uH		
L9	1-412-939-11	INDUCTOR	1uH		
L10	1-412-939-11	INDUCTOR	1uH		

Ref. No.	Part No.	Description			Remark
L11	1-402-815-11	COIL (WITH CORE) (FM RF)			
L12	1-412-925-11	INDUCTOR	68nH		
L13	1-406-786-11	COIL, FM (OSC)			
L14	1-412-963-11	INDUCTOR	100uH		
L15	1-412-939-11	INDUCTOR	1uH		
L16	1-412-951-11	INDUCTOR	10uH		
L17	1-412-955-11	INDUCTOR	22uH		
L18	1-412-963-11	INDUCTOR	100uH		
L19	1-412-963-11	INDUCTOR	100uH		
L20	1-410-294-11	INDUCTOR	38uH		
L21	1-412-939-11	INDUCTOR	1uH		
		< TRANSISTOR >			
Q1	8-729-423-52	TRANSISTOR	2SC3931-C		
Q2	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q3	8-729-123-86	FET	2SK238-K16		
Q4	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q5	8-729-116-64	FET	2SK508-K51		
Q6	8-729-423-52	TRANSISTOR	2SC3931-C		
Q7	8-729-423-52	TRANSISTOR	2SC3931-C		
Q8	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q9	8-729-423-52	TRANSISTOR	2SC3931-C		
Q10	8-729-034-58	TRANSISTOR	2SC4555-6.7-TL		
Q11	8-729-123-86	FET	2SK238-K16		
Q12	8-729-029-15	TRANSISTOR	DTC144TUA-T106		
Q13	8-729-029-15	TRANSISTOR	DTC144TUA-T106		
Q14	8-729-028-74	TRANSISTOR	DTA114TUA-T106		
Q15	8-729-028-74	TRANSISTOR	DTA114TUA-T106		
Q16	8-729-403-24	TRANSISTOR	XN4210		
Q17	8-729-423-52	TRANSISTOR	2SC3931-C		
Q18	8-729-208-47	FET	2SK210-GR		
Q19	8-729-220-93	FET	2SK209-G		
Q20	8-729-051-84	TRANSISTOR	XN015010R1SO		
Q21	8-729-029-15	TRANSISTOR	DTC144TUA-T106		
Q22	8-729-423-52	TRANSISTOR	2SC3931-C		
Q23	8-729-423-52	TRANSISTOR	2SC3931-C		
Q24	8-729-423-52	TRANSISTOR	2SC3931-C		
Q25	8-729-403-24	TRANSISTOR	XN4210		
Q26	8-729-028-74	TRANSISTOR	DTA114TUA-T106		
Q27	8-729-028-92	TRANSISTOR	DTA144TUA-T106		
Q28	8-729-800-71	TRANSISTOR	2SB815B7-TB		
Q29	8-729-800-71	TRANSISTOR	2SB815B7-TB		
Q30	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q31	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q32	8-729-800-71	TRANSISTOR	2SB815B7-TB		
Q33	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q34	8-729-029-15	TRANSISTOR	DTC144TUA-T106		
Q35	8-729-800-71	TRANSISTOR	2SB815B7-TB		
Q36	8-729-029-15	TRANSISTOR	DTC144TUA-T106		
		< RESISTOR >			
R1	1-216-821-11	METAL CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R2	1-216-837-11	METAL CHIP	22K	5%	1/16W
R3	1-216-857-11	METAL CHIP	1M	5%	1/16W
R4	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R5	1-216-845-11	METAL CHIP	100K	5%	1/16W
R6	1-216-797-11	METAL CHIP	10	5%	1/16W
R7	1-216-817-11	METAL CHIP	470	5%	1/16W
R8	1-216-837-11	METAL CHIP	22K	5%	1/16W
R9	1-216-837-11	METAL CHIP	22K	5%	1/16W
R10	1-216-841-11	METAL CHIP	47K	5%	1/16W
R11	1-216-839-11	METAL CHIP	33K	5%	1/16W
R12	1-216-845-11	METAL CHIP	100K	5%	1/16W
R13	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R14	1-216-837-11	METAL CHIP	22K	5%	1/16W
R15	1-216-809-11	METAL CHIP	100	5%	1/16W
R16	1-216-819-11	METAL CHIP	680	5%	1/16W
R17	1-216-841-11	METAL CHIP	47K	5%	1/16W
R18	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R19	1-216-845-11	METAL CHIP	100K	5%	1/16W
R20	1-216-817-11	METAL CHIP	470	5%	1/16W
R21	1-216-845-11	METAL CHIP	100K	5%	1/16W
R22	1-216-849-11	METAL CHIP	220K	5%	1/16W
R23	1-216-839-11	METAL CHIP	33K	5%	1/16W
R24	1-216-845-11	METAL CHIP	100K	5%	1/16W
R25	1-216-805-11	METAL CHIP	47	5%	1/16W
R26	1-216-817-11	METAL CHIP	470	5%	1/16W
R27	1-216-833-11	RES-CHIP	10K	5%	1/16W
R28	1-216-813-11	METAL CHIP	220	5%	1/16W
R29	1-216-837-11	METAL CHIP	22K	5%	1/16W
R30	1-216-797-11	METAL CHIP	10	5%	1/16W
R31	1-216-805-11	METAL CHIP	47	5%	1/16W
R32	1-216-797-11	METAL CHIP	10	5%	1/16W
R33	1-216-801-11	METAL CHIP	22	5%	1/16W
R34	1-216-833-11	RES-CHIP	10K	5%	1/16W
R35	1-216-837-11	METAL CHIP	22K	5%	1/16W
R36	1-216-857-11	METAL CHIP	1M	5%	1/16W
R37	1-216-809-11	METAL CHIP	100	5%	1/16W
R38	1-216-841-11	METAL CHIP	47K	5%	1/16W
R39	1-216-797-11	METAL CHIP	10	5%	1/16W
R40	1-216-835-11	METAL CHIP	15K	5%	1/16W
R41	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R42	1-216-817-11	METAL CHIP	470	5%	1/16W
R43	1-216-841-11	METAL CHIP	47K	5%	1/16W
R44	1-216-845-11	METAL CHIP	100K	5%	1/16W
R45	1-216-845-11	METAL CHIP	100K	5%	1/16W
R46	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R47	1-216-837-11	METAL CHIP	22K	5%	1/16W
R48	1-216-813-11	METAL CHIP	220	5%	1/16W
R49	1-216-813-11	METAL CHIP	220	5%	1/16W
R50	1-216-809-11	METAL CHIP	100	5%	1/16W
R51	1-216-841-11	METAL CHIP	47K	5%	1/16W
R52	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R53	1-216-819-11	METAL CHIP	680	5%	1/16W
R54	1-216-813-11	METAL CHIP	220	5%	1/16W

MAIN **MICON**

Ref. No.	Part No.	Description			Remark
R55	1-216-833-11	RES-CHIP	10K	5%	1/16W
R56	1-216-849-11	METAL CHIP	220K	5%	1/16W
R57	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R58	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R59	1-216-797-11	METAL CHIP	10	5%	1/16W
R60	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R61	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R62	1-216-841-11	METAL CHIP	47K	5%	1/16W
R63	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R64	1-216-849-11	METAL CHIP	220K	5%	1/16W
R65	1-216-837-11	METAL CHIP	22K	5%	1/16W
R66	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R67	1-216-821-11	METAL CHIP	1K	5%	1/16W
R68	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R69	1-216-805-11	METAL CHIP	47	5%	1/16W
R70	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R71	1-216-805-11	METAL CHIP	47	5%	1/16W
R72	1-216-809-11	METAL CHIP	100	5%	1/16W
R73	1-216-809-11	METAL CHIP	100	5%	1/16W
R74	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R75	1-216-833-11	RES-CHIP	10K	5%	1/16W
R76	1-216-821-11	METAL CHIP	1K	5%	1/16W
R77	1-216-841-11	METAL CHIP	47K	5%	1/16W
R78	1-216-845-11	METAL CHIP	100K	5%	1/16W
R79	1-216-845-11	METAL CHIP	100K	5%	1/16W
R80	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R81	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R82	1-216-841-11	METAL CHIP	47K	5%	1/16W
R83	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R84	1-216-809-11	METAL CHIP	100	5%	1/16W
R85	1-216-821-11	METAL CHIP	1K	5%	1/16W
		< VARIABLE RESISTOR >			
RV1	1-227-175-11	RES, VAR, CARBON	20K (MIN↔MAX (ATT ON))		
RV2	1-241-765-11	RES, ADJ, CARBON	22K		
RV3	1-227-174-11	RES, VAR, CARBON	50K (◢ VOL)		
		< SWITCH >			
S1	1-572-552-11	SWITCH, SLIDE (ATT ON...OFF)			
S2	1-572-552-11	SWITCH, SLIDE (TONE NEWS...MUSIC)			
		< TRANSFORMER >			
T1	1-404-764-11	TRANSFORMER, IF			
T2	1-411-760-11	COIL (MW/LW RF)			
T3	1-419-539-11	COIL, OSCILLATION			
T4	1-404-444-31	TRANSFORMER, IF			
T5	1-435-410-11	TRANSFORMER, DC-DC CONVERTER			
		< VIBRATOR >			
X1	1-760-018-21	VIBRATOR, CRYSTAL (10.25MHz)			

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Ref. No.	Part No.	Description			Remark
*	A-3663-471-A	MICON BOARD, COMPLETE			
		**********			
	1-792-459-11	CABLE, FLAT (FFC) 18P			
*	3-042-894-01	CASE (LCD)			
*	3-042-895-01	CASE (MICROCOMPUTER)			
	3-042-906-01	HOLDER (LCD)			
	3-042-908-01	KNOB (HOLD)			
	3-042-913-01	SHEET (LCD)			
	3-044-853-01	SHEET (4 X 15)			
	3-045-127-01	LEAF (MICRO COMPUTER), COPPER			
	3-045-971-01	LEAF (LCD), COPPER			
	3-047-311-01	SPACER (T)			
		< CAPACITOR >			
C201	1-164-362-11	CERAMIC CHIP	470PF	5%	50V
C202	1-136-177-00	MYLAR	1uF	5%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C204	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C205	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C206	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C207	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C208	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C209	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C210	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C211	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C212	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C213	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C214	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C215	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C216	1-115-156-11	CERAMIC CHIP	1uF		10V
C217	1-115-156-11	CERAMIC CHIP	1uF		10V
C218	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C220	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C221	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C222	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C223	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C224	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C225	1-162-638-11	CERAMIC CHIP	1uF		16V
C226	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C227	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C228	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C229	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C230	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C231	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C232	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C233	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C234	1-126-166-11	ELECT	2200uF		5.5V
C235	1-124-589-11	ELECT	47uF	20%	16V
C236	1-115-156-11	CERAMIC CHIP	1uF		10V
C237	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C238	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C239	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
* CN201	1-691-077-21	HOUSING, CONNECTOR 18P			
		< DIODE >			
D201	8-719-941-86	DIODE DAN202U			
D202	8-719-941-86	DIODE DAN202U			
D203	8-719-941-86	DIODE DAN202U			
D204	8-719-941-04	DIODE SB007-03CP			
D205	8-719-980-90	LED SLP381F-51-AB (BACK LIGHT)			
D206	8-719-941-04	DIODE SB007-03CP			
D207	8-719-988-61	DIODE 1SS355TE-17			
D208	8-719-941-04	DIODE SB007-03CP			
		< IC >			
IC201	8-759-665-46	IC uPD17072GB-017-1A7			
IC202	8-759-457-68	IC AK93C45AV-L			
IC203	8-759-662-77	IC RN5RL27AA-TR			
IC204	8-759-662-79	IC R3111Q271A-TR			
IC205	8-759-662-78	IC R3111Q331A-TR			
		< JUMPER RESISTOR >			
JC201	1-216-296-00	SHORT	0		
JC202	1-216-296-00	SHORT	0		
JC203	1-216-295-00	SHORT	0		
JC204	1-216-296-00	SHORT	0		
JC205	1-216-296-00	SHORT	0		
JC206	1-216-296-00	SHORT	0		
JC207	1-216-296-00	SHORT	0		
JC208	1-216-296-00	SHORT	0		
JC209	1-216-296-00	SHORT	0		
JC210	1-216-296-00	SHORT	0		
JC211	1-216-296-00	SHORT	0		
JC212	1-216-296-00	SHORT	0		
JC213	1-216-295-00	SHORT	0		
JC214	1-216-296-00	SHORT	0		
JC215	1-216-296-00	SHORT	0		
JC216	1-216-296-00	SHORT	0		
JC217	1-216-296-00	SHORT	0		
JC218	1-216-295-00	SHORT	0		
JC219	1-216-296-00	SHORT	0		
JC220	1-216-296-00	SHORT	0		
JC221	1-216-296-00	SHORT	0		
JC222	1-216-296-00	SHORT	0		
JC223	1-216-296-00	SHORT	0		
JC224	1-216-864-11	METAL CHIP	0	5%	1/16W
		< COIL >			
L201	1-412-963-11	INDUCTOR	100uH		
L202	1-412-963-11	INDUCTOR	100uH		
		< LIQUID CRYSTAL DISPLAY >			
LCD201	1-803-943-11	DISPLAY PANEL, LIQUID CRYSTAL			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q201	8-729-220-93	FET 2SK209-G			
Q202	8-729-402-32	TRANSISTOR 2SD1819A-R			
Q203	8-729-220-93	FET 2SK209-G			
Q204	8-729-423-52	TRANSISTOR 2SC3931-C			
Q205	8-729-028-92	TRANSISTOR DTA144TUA-T106			
Q206	8-729-402-32	TRANSISTOR 2SD1819A-R			
Q207	8-729-402-32	TRANSISTOR 2SD1819A-R			
		< RESISTOR >			
R201	1-216-821-11	METAL CHIP	1K	5%	1/16W
R202	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R203	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R204	1-216-833-11	RES-CHIP	10K	5%	1/16W
R205	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R206	1-216-809-11	METAL CHIP	100	5%	1/16W
R207	1-216-813-11	METAL CHIP	220	5%	1/16W
R208	1-216-837-11	METAL CHIP	22K	5%	1/16W
R209	1-216-805-11	METAL CHIP	47	5%	1/16W
R210	1-216-857-11	METAL CHIP	1M	5%	1/16W
R211	1-216-857-11	METAL CHIP	1M	5%	1/16W
R212	1-216-845-11	METAL CHIP	100K	5%	1/16W
R213	1-216-821-11	METAL CHIP	1K	5%	1/16W
R214	1-216-821-11	METAL CHIP	1K	5%	1/16W
R215	1-216-821-11	METAL CHIP	1K	5%	1/16W
R216	1-216-821-11	METAL CHIP	1K	5%	1/16W
R217	1-216-821-11	METAL CHIP	1K	5%	1/16W
R218	1-216-821-11	METAL CHIP	1K	5%	1/16W
R219	1-216-821-11	METAL CHIP	1K	5%	1/16W
R220	1-216-821-11	METAL CHIP	1K	5%	1/16W
R221	1-216-821-11	METAL CHIP	1K	5%	1/16W
R222	1-216-821-11	METAL CHIP	1K	5%	1/16W
R223	1-216-821-11	METAL CHIP	1K	5%	1/16W
R224	1-216-821-11	METAL CHIP	1K	5%	1/16W
R225	1-216-821-11	METAL CHIP	1K	5%	1/16W
R226	1-216-821-11	METAL CHIP	1K	5%	1/16W
R227	1-216-821-11	METAL CHIP	1K	5%	1/16W
R228	1-216-821-11	METAL CHIP	1K	5%	1/16W
R229	1-216-821-11	METAL CHIP	1K	5%	1/16W
R230	1-216-821-11	METAL CHIP	1K	5%	1/16W
R231	1-216-833-11	RES-CHIP	10K	5%	1/16W
R232	1-216-845-11	METAL CHIP	100K	5%	1/16W
R233	1-216-845-11	METAL CHIP	100K	5%	1/16W
R234	1-216-845-11	METAL CHIP	100K	5%	1/16W
R235	1-216-845-11	METAL CHIP	100K	5%	1/16W
R236	1-216-845-11	METAL CHIP	100K	5%	1/16W
R237	1-216-845-11	METAL CHIP	100K	5%	1/16W
R238	1-216-845-11	METAL CHIP	100K	5%	1/16W
R239	1-216-845-11	METAL CHIP	100K	5%	1/16W
R240	1-216-845-11	METAL CHIP	100K	5%	1/16W
R241	1-216-845-11	METAL CHIP	100K	5%	1/16W
R242	1-216-845-11	METAL CHIP	100K	5%	1/16W

MICON

Ref. No.	Part No.	Description			Remark
R243	1-216-845-11	METAL CHIP	100K	5%	1/16W
R244	1-216-845-11	METAL CHIP	100K	5%	1/16W
R245	1-216-845-11	METAL CHIP	100K	5%	1/16W
R246	1-216-845-11	METAL CHIP	100K	5%	1/16W
R247	1-216-845-11	METAL CHIP	100K	5%	1/16W
R248	1-216-845-11	METAL CHIP	100K	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	1-216-845-11	METAL CHIP	100K	5%	1/16W
R253	1-216-857-11	METAL CHIP	1M	5%	1/16W
R254	1-216-821-11	METAL CHIP	1K	5%	1/16W
R255	1-216-821-11	METAL CHIP	1K	5%	1/16W
R256	1-216-821-11	METAL CHIP	1K	5%	1/16W
R257	1-216-833-11	RES-CHIP	10K	5%	1/16W
R259	1-216-809-11	METAL CHIP	100	5%	1/16W
R260	1-216-797-11	METAL CHIP	10	5%	1/16W
R261	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R262	1-216-850-11	METAL CHIP	270K	5%	1/16W
R263	1-216-837-11	METAL CHIP	22K	5%	1/16W
R264	1-216-857-11	METAL CHIP	1M	5%	1/16W
R265	1-216-857-11	METAL CHIP	1M	5%	1/16W
R266	1-216-845-11	METAL CHIP	100K	5%	1/16W
R267	1-216-833-11	RES-CHIP	10K	5%	1/16W
R268	1-216-821-11	METAL CHIP	1K	5%	1/16W
R269	1-216-857-11	METAL CHIP	1M	5%	1/16W
R270	1-216-857-11	METAL CHIP	1M	5%	1/16W
R271	1-216-857-11	METAL CHIP	1M	5%	1/16W
R272	1-216-809-11	METAL CHIP	100	5%	1/16W
		< SWITCH >			
S201	1-692-444-11	SWITCH, KEY BOARD (2 (MEMORY PRESET PAGE))			
S202	1-692-444-11	SWITCH, KEY BOARD (1 (MEMORY PRESET PAGE))			
S203	1-692-444-11	SWITCH, KEY BOARD (SLEEP (POWER))			
S204	1-692-444-11	SWITCH, KEY BOARD (ON/OFF (POWER))			
S205	1-692-444-11	SWITCH, KEY BOARD (MEMORY SCAN (MEMORY PRESET PAGE))			
S206	1-692-444-11	SWITCH, KEY BOARD (5 (MEMORY PRESET PAGE))			
S207	1-692-444-11	SWITCH, KEY BOARD (4 (MEMORY PRESET PAGE))			
S208	1-692-444-11	SWITCH, KEY BOARD (3 (MEMORY PRESET PAGE))			
S209	1-692-444-11	SWITCH, KEY BOARD (b (TIMER STANDBY /STANDBY TIME SET STANDBY MEMORY))			
S210	1-692-444-11	SWITCH, KEY BOARD (a (TIMER STANDBY /STANDBY TIME SET STANDBY MEMORY))			
S211	1-692-444-11	SWITCH, KEY BOARD (BAND)			
S212	1-692-444-11	SWITCH, KEY BOARD (ENTER/CLOCK)			
S213	1-692-444-11	SWITCH, KEY BOARD (– ← (TUNE/SCAN/TIME SET))			
S214	1-692-444-11	SWITCH, KEY BOARD (→ + (TUNE/SCAN/TIME SET))			
S215	1-692-444-11	SWITCH, KEY BOARD (SW BAND)			
S216	1-553-977-00	SWITCH, SLIDE (HOLD →)			
S217	1-553-510-11	SWITCH, SLIDE (9K/10K)			
S218	1-553-977-00	SWITCH, SLIDE (NORMAL..FINE)			
S219	1-692-444-11	SWITCH, KEY BOARD (LIGHT)			
		< VIBRATOR >			
X201	1-767-517-11	VIBRATOR, CRYSTAL (75kHz)			
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		MISCELLANEOUS			
		**********			
31	1-792-459-11	CABLE, FLAT (FFC) 18P			
ANT1	1-501-222-81	ANTENNA, TELESCOPIC (FM/SW)			
SP1	1-529-645-11	SPEAKER (6.6cm)			
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		ACCESSORIES & PACKING MATERIALS			
		**********			
	3-042-774-01	MANUAL, INSTRUCTION (JAPANESE, ITALIAN, ARABIC) (IT, EA)			
	3-042-774-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN) (AEP)			
	3-042-774-21	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE, DUTCH) (AEP, E, 5E)			
	3-042-774-31	MANUAL, INSTRUCTION (SWEDISH, DANISH, FINNISH) (AEP)			
	3-042-774-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SIMPLIFIED CHINESE) (US, CND, E, 5E, EA)			
	3-042-774-51	MANUAL, INSTRUCTION (ENGLISH, RUSSIAN, HUNGARIAN) (EE)			
	3-043-151-01	CASE, CARRYING			
	3-912-863-06	GUIDE, SHORT WAVE			