A703

AIR-7/8

SERVICE MANUAL

AIR-7:
Canadian Model
AEP Model
E Model

AIR-8:
US Model

SPECIFICATIONS

Circuit system	AIR/PSB/AM: Dual conversion superheterodyne FM: Superheterodyne
Frequency range	AIR: 108–136 MHz PSB: 144–174MHz (Canadian and AEP-2 models of AIR-7, AIR-8) FM: 76.0–108.0MHz AM: 150–2,194 kHz LW: 150–530 kHz (150–529 kHz*) MW: 531–1602 kHz (530–1600 kHz*) SW: 1602–2194 kHz (1601–2194 kHz*) * MW tuning interval: 10 kHz
Antennas	AIR/PSB/FM: Helical antenna MW/LW/SW: Built-in ferrite bar antenna External antenna jack AIR/PSB/FM: BNC connector AM (LW/MW/SW): minijack
Speaker	Approx. 7×3.5 cm (2⅞ x 1⅜ inches)
Power output	400 mW (at 10% harmonic distortion)
Output	Earphone jack (minijack)
Power requirements	6 V dc Four IEC designation R6 batteries (size AA) (for radio/computer back-up) BP-23 rechargeable battery pack (optional) DC IN 6V jack accepts: Appropriate ac power adaptor listed on page 2 for use on house current DCC-127A or DCC-120 car battery cord (optional) for use with 12V car battery DCC-240 car battery cord (optional) for use with 24V car battery EBP-6 battery case (optional) using four IEC designation R14 batteries (size C)
Battery life	Approx. 9 hours for air band, PSB and AM reception Approx. 10 hours for FM reception When listening for four hours a day at normal volume, using Sony SUM-3(NS) New Super batteries
Dimensions	Approx. 90×179×50 mm (w/h/d) (3⅝×7⅛×2 inches) including projecting parts and controls, not including the helical antenna
Weight	Approx. 600 g (1 lb 5 oz) including batteries, shoulder strap and the helical antenna

Note: There are two types of AEP mode.
These differences are as follows.
AEP-1: 3 bands (AIR, AM and FN)
AEP-2: 4 bands (AIR, PSB, AM and FM)

AIR BAND/FM/AM PLL SYNTHESIZED RECEIVER
PSB/AIR/FM/AM PLL SYNTHESIZED RECEIVER

SONY®

MICROFILM

A 103 TR

HOUSE CURRENT

Where used	AC power adaptor	Input voltage of adaptor
Canadian	AC-9	120 V ac, 60 Hz
AEP	AC-456C	220 V ac, 50 Hz (110 V ac adjustable, 50/60 Hz
E	AC-4A	110, 120, 220 or 240 V ac adjustable, 50/60 Hz
US	AC-12	120 V ac, 60 Hz

FEATURES

- The AIR-7 and AIR-8 portable receiver receives the air traffic control frequencies, 108–136MHz, as well as standard FM and AM broadcasts. With Canadian, AEP-2 models of AIR-7 and AIR-8, PSB (144–174MHz) can also be received.
- The quartz controlled PLL (Phase Locked Loop) synthesizer system uses a microcomputer to make pinpoint tuning easy.
The tuned frequency is displayed digitally.
- Choice of direct, scan, manual or memory tuning.
- Up to 40 (Canadian, AEP-2 models of AIR-7 and AIR-8) or 30 (AEP-1, E models of AIR-7) stations can be memorized so that they can be tuned in at the press of a key.
- Air band and PSB can be received more easily with the memory scanning, program function, priority function and delay function.
- Squelch control to suppress noise while tuning and during intervals between communications.
- The key protect function operates at the press of a key to lock the keys on the front face so they cannot be operated by accident.
- Helical antenna for high sensitivity and selectivity has BNC connector for attachment to the receiver.
- Four different power sources: batteries, house current, rechargeable battery pack or car battery.

* PSB (Public Service Band)
On the PSB, you can monitor police, fire, forestry conservation, VHF weather, marine, highway maintenance, land mobile, and other public safety radio services. The general frequency allocation is shown on the dial scale.
NOTICE: In certain localities, it is illegal to listen to police or other governmental transmissions. Check with your local authorities.

MELF (Metal Electrodes Face-Bonding) Components

Warning

If MELF components are forcibly removed from the printed circuit board with pincers or pliers, the circuit board pattern is likely to peel away. Always remove MELF components according to the procedure described on the next page.

MELF components are soldered directly to the surface of the printed circuit board.

MELF resistors and capacitors have the same dimensions and are distinguished by their background colors: light brown for resistors, and pink or light green for capacitors.

The MELF resistor color coding is the same as for conventional resistors, and MELF capacitor color coding is the same as for tube-type ceramic capacitors.

Components larger than resistors and without a color code are cross conductors, which are used instead of jumper wires.

1. Structure

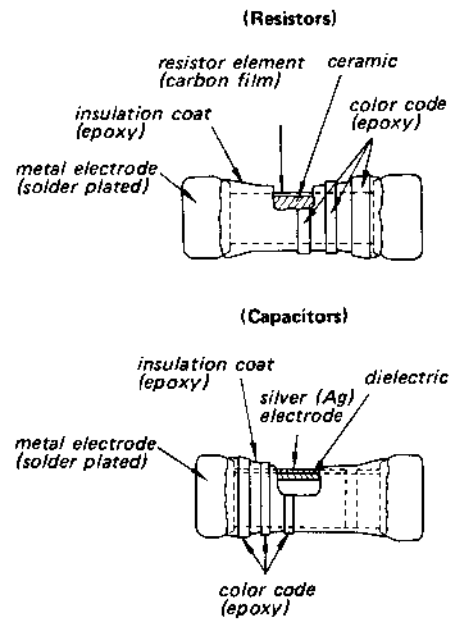
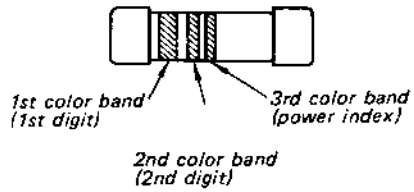
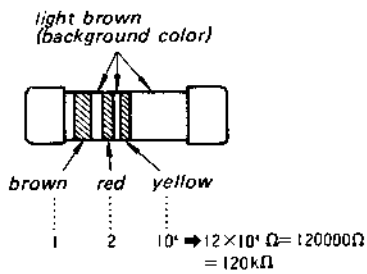


Fig. 1

2. Color Code Reading



(Example of Resistor)



(Example of Capacitor)

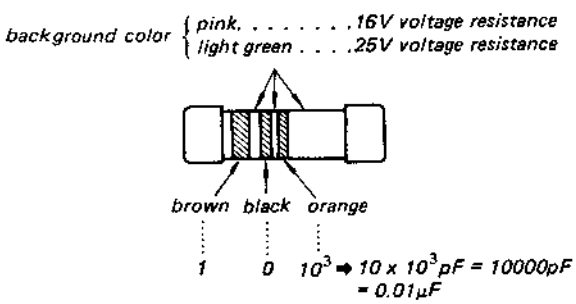


Fig. 2

3. How to Remove MELF Components and Mount Replacements

Use a soldering iron of at least 40 W with an iron tip 4 mm in diameter and file the tip down to the angle shown in the diagram.

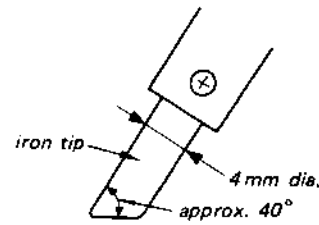


Fig. 3

1. Bring the flat surface of the soldering iron in equal contact with both soldered ends of the component.
2. The solder should melt in about 4 seconds. (The solder will melt more readily if a small amount of solder is attached to the iron tip and the iron tip is placed against the component.)
3. Once the solder has melted, tap the component aside with the tip of the soldering iron, and remove it from the board.

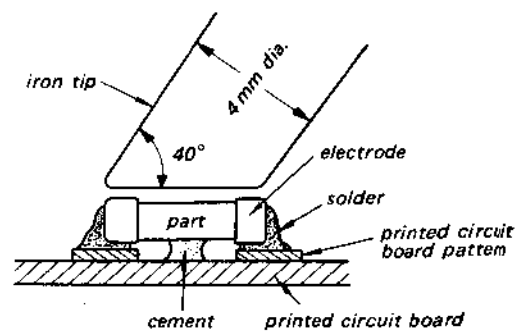


Fig. 4

4. Use lead type resistors to replace the MELF components.
   This replacement may be mounted with short leads (see Fig. 5).

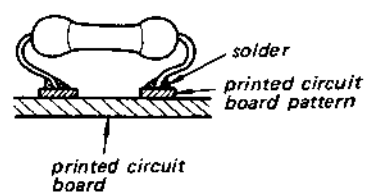


Fig. 5

Note: Use 3216 type chip components to replace the MIL F capacitor components.
See page 4 for mounting of chip components.

Replacing chip components

All chip components should be connected and disconnected, using a tapered soldering iron [temperature of the iron tip: less than 280°C (536°F)], a pair of tweezers and braided wire.

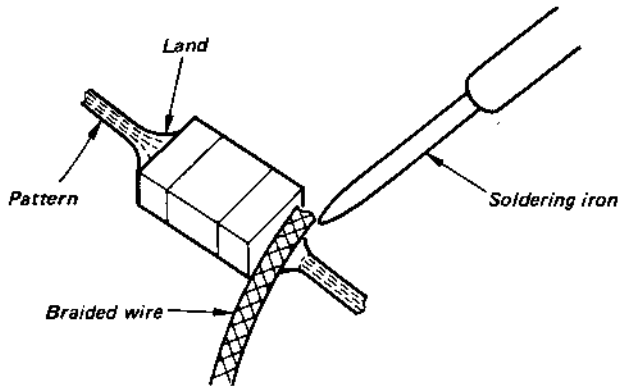
Precautions for replacement

1. **Do not disconnect the chip component forcefully. Otherwise, the pattern may peel off.**
2. **Never re-use a disconnected chip component. Dispose of all old chip components.**
3. **To protect the chip component, heating time for attaching the component should be within 3 seconds.**

○ Removing chip components

(1) Removing solder at electrode

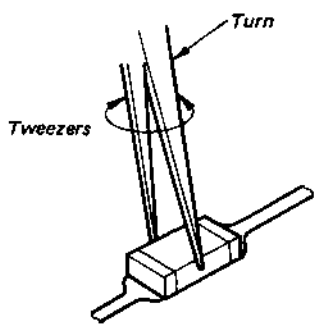
Remove the solder at the electrode, using a thin braided wire. Do not remove the solder of the part (chip component) attached adjacent to the electrode.



(2) Disconnecting chip components

Turn the tweezers with the soldering iron alternately applied to both electrodes, and the chip component will be disconnected. Take careful precautions while disconnecting, because if the chip component is forcefully removed the land may peel off.

Never re-use a disconnected chip component.



(3) Smoothing the soldered surface

After disconnecting the chip component, remove the solder by using a braided wire to smooth the land surface.

○ Connecting chip components

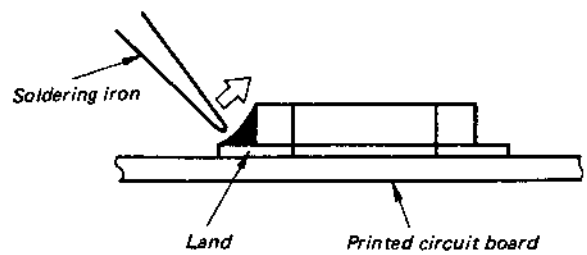
The value of chip components is not displayed on the main body. Take due precautions to avoid mixing new chip components with other ones.

(1) Applying solder to land on one side

Apply a thin layer of solder to the land on one side where the chip component is to be connected. Too much solder may cause bridging.

(2) Speedy soldering

Hold the chip component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the chip component, heating time should be within 3 seconds.



(3) Speedy soldering of electrode on the other side

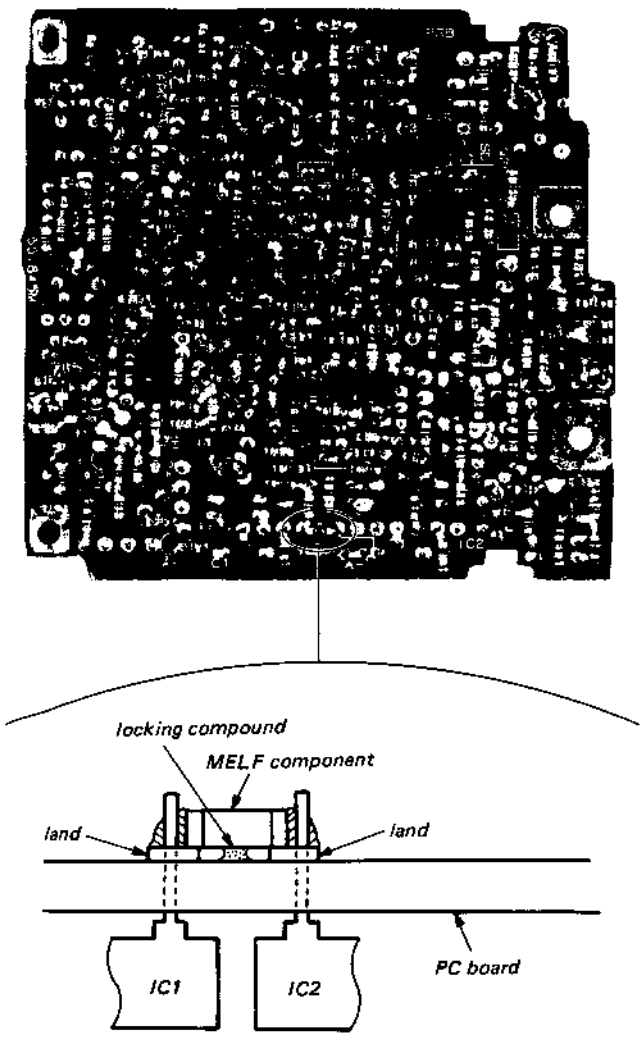
Solder the electrode on the other side in the same way as in (2) above.

—SERVICING NOTE—

Note on Parts Replacement

This set uses MELF components. To increase the mounting density of components on PC board, the land where MELF component is to be connected is common to the land where ordinary component is to be connected.
Accordingly, when removing the ordinary components, the MELF component will be also removed. Be sure to solder MELF components when replacing the parts.

Note: The MELF components are secured with locking compound.



Note on Variable Capacitance Diodes Replacement in Antenna Tank Circuit and First Local Oscillator VCO Circuit

Variable capacitance diodes in antenna tank circuit and first local oscillator VCO circuit have the same voltage-capacitance characteristic.

- FM/AM/PSB band
  D6, 7, 14, 15, 16, 17, 205, 206, 207: 1T33 (to be same characteristic)
- AIR band
  D8, 9, 203, 204: 1T32 (to be same characteristic)

When replacing these variable capacitance diodes, same characteristic diodes should be used.
(If not, tracking error or sensitivity change will be occured.)

– Replacement parts –

- For FM/AM/PSB band ..... One set (9 diodes)
  Part No. 8-713-309-00
- For AIR band ..... One set (4 diodes)
  Part No. 8-713-240-00

LOCATION AND FUNCTION OF CONTROLS

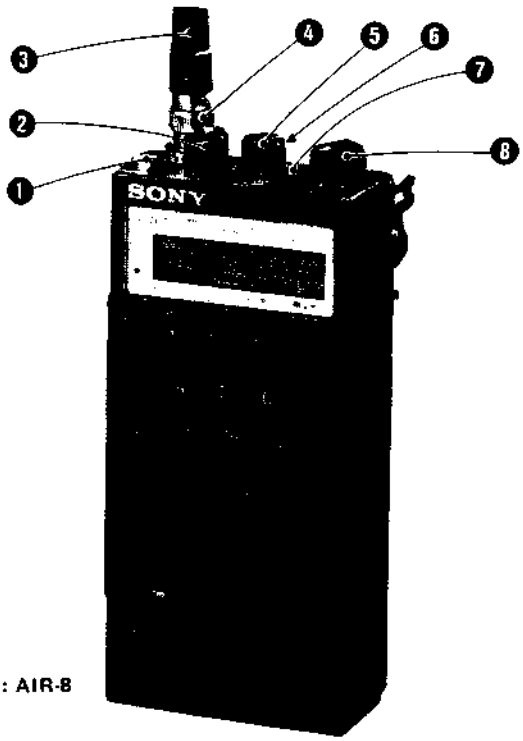
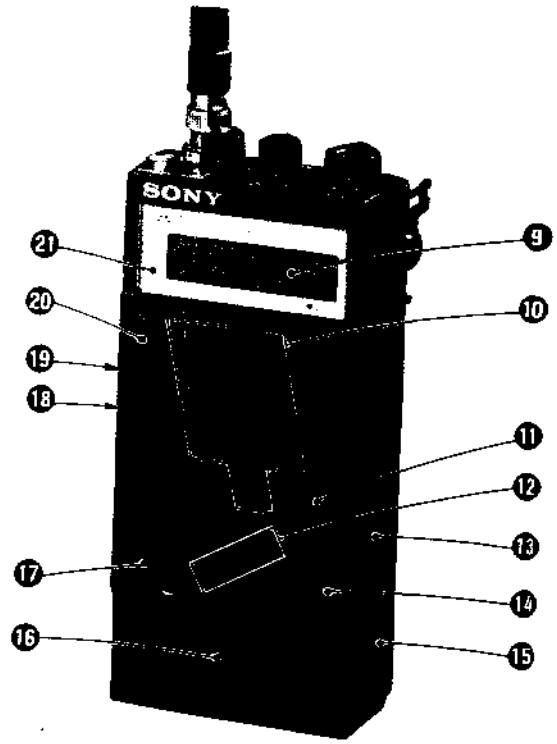


Photo : AIR-8



❶ POWER switch
Depress to turn on the receiver (▲ ON).
To turn the receiver off, press it again (■ OFF).

❷ VOL (volume) control
Turn clockwise for more volume. It can be depressed (▲) to allow the SQL (squelch) control to be adjusted more easily.

❸ Helical antenna (supplied)
Used for AIR band, PSB and FM reception.

❹ ANT (antenna) connector
Connect the supplied helical antenna or the BNC connector of an optional external antenna for AIR band, PSB and FM reception.

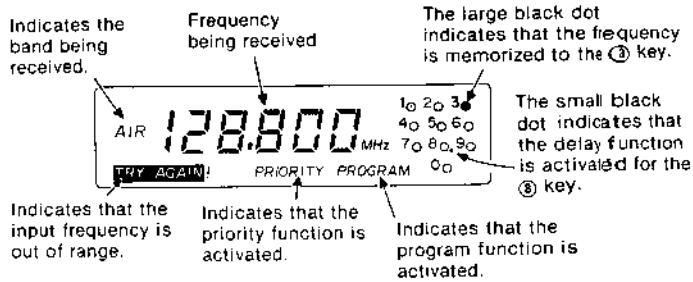
❺ SQL (squelch) control
Used for cutting background noise while tuning and during intervals between communications. Normally, depress the control (▲ AUTO). Press it again to set to ■ MANUAL, and adjust the squelch level manually.
When performing auto tuning or memory scan tuning or program scan tuning, set the SQL control at the position where the RECEIVE indicator goes out.

❻ Ⓟ (earphone) jack
Connect the supplied earphone for private listening.
This jack is also used for connecting an external speaker or recording broadcast on a tape recorder.

❼ AM EXT (external) ANTENNA jack
Connect an optional external antenna for AM reception.

❽ Band selector
Select the desired band: PSB, AIR, FM or AM

❾ Display (LCD)
Displayed as follows:



❿ Counter keys
Used to input a frequency for direct tuning, to memorize a station and to receive a memorized station.

⓫ EXECUTE key
Used for direct tuning.
After pressing the DIRECT key and inputting the desired frequency with the counter keys, press this key to tune in the frequency.

⓬ SCAN keys
Used for scan tuning and manual tuning.
When you press the ⊕ (plus) or ⊖ (minus) key, the frequency is increased or decreased by the intervals shown on page 9.
If you keep the key pressed, the frequency changes continuously.

⓭ LIGHT switch
The display is illuminated when this switch is pressed.

⑭ KEY PROTECT key
When this key is pressed once, the keys on the front face are locked and no longer function.
To release this key, press it again.

⑮ DC IN 6 V (external power input) jack
For operation from an external power source.

⑯ Speaker

⑰ ENTER key
Used to memorize a frequency.
After inputting the desired frequency, while pressing this key, press the counter keys at which the frequency is to be memorized.

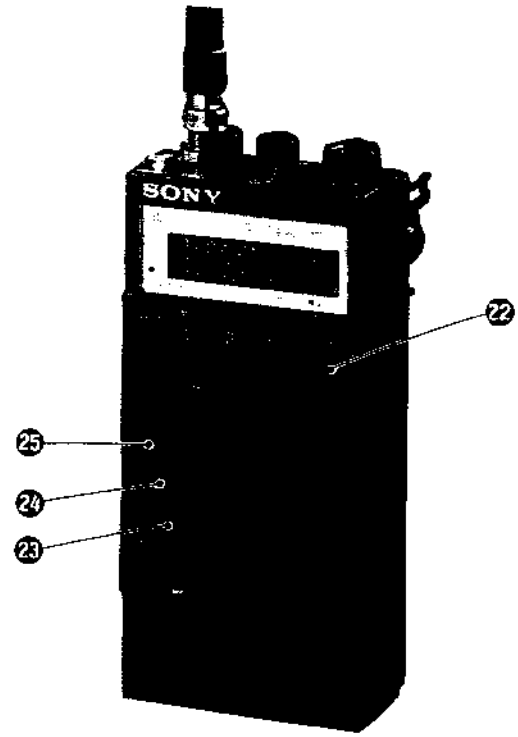
⑱ Battery compartment (rear)

⑲ 9 kHz/10 kHz selector (inside battery compartment)
Used to change the MW tuning interval.

⑳ DIRECT key
Used for direct tuning.

㉑ RECEIVE indicator (LED)
When a signal or a noise is received, this indicator lights in red.

KEYS FOR AIR BAND AND PSB RECEPTION
(indicated in green)



㉒ MEMORY SCAN key
Used for memory scan tuning.

㉓ PROGRAM key
Used to initiate the program function. See page 13.

㉔ DELAY key
Used to initiate the delay function. See page 14.

㉕ PRIORITY key
Used to initiate the priority function. See page 14.

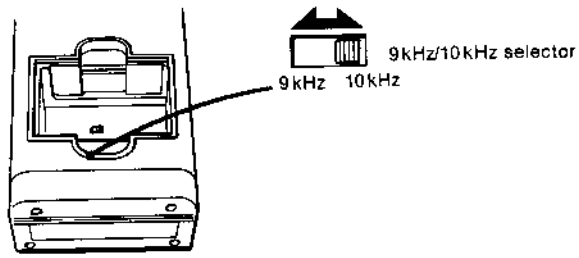
POWER SOURCES

The internal batteries are also used to back up the built-in microcomputer. Be sure to keep the batteries installed even when the receiver is operated on other power sources.

HOW TO CHANGE THE MW TUNING INTERVAL

The MW tuning interval is factory preset to 10kHz or 9kHz to match the local frequency allocation system.
If you use the receiver in an area where the frequency allocation system is based on the other interval, change the position of the 9 kHz/10 kHz selector in the battery compartment as follows.

rear



1 Remove the batteries.
2 Switch the selector.
3 Wait at least 10 minutes, then put back the batteries in the compartment and close the lid.

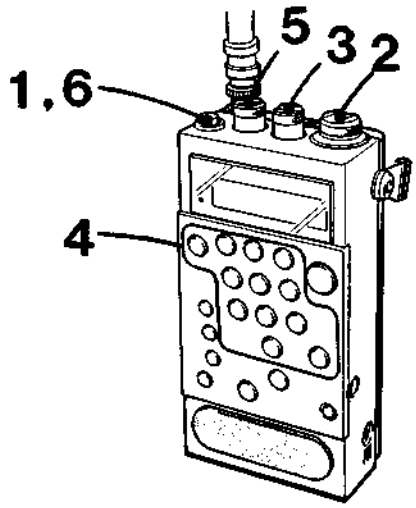
Notes

- If you replace the batteries within approx. 10 minutes after the batteries are removed, the tuning interval will not be changed although the selector has been switched. Be sure to wait for at least 10 minutes.
- After changing the MW tuning interval, memorize the stations and functions again, as the previous memory may have been erased.

FM/AM/AIR/PSB reception

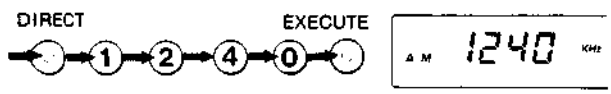
DIRECT TUNING

If you know the frequency of a station to be received, you can tune in the station easily by direct tuning.
The numbers in the illustration refer to the sequence of operation.



1 Depress the POWER switch (▬ ON).
2 Set the band selector to the desired band.
3 Set the SQL control to MIN with ▙ MANUAL set.
4 Press the DIRECT key, input the frequency of the station to be received using the counter keys, then press the EXECUTE key. The station will be tuned in.

Example: AM 1240 kHz

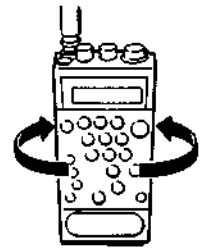


AM 2000 kHz

FM 90.10 MHz

5 Adjust the volume with the VOL control.
6 After listening, press the POWER switch again to turn the receiver off (▙ OFF).

For AM reception, the built-in ferrite bar antenna functions. Since this antenna is directional, rotate the set horizontally for optimum reception, if necessary.



Note: After pressing the DIRECT key or a counter key, press the next key within 5 seconds. If you do not, the previous station will return.

The frequency received by this receiver is displayed in steps of the following intervals, depending on the bands.
AIR: 0.025 MHz
PSB: 0.005 MHz
FM: 0.050 MHz
LW: 1 kHz
MW: 9kHz or 10kHz *
SW: 1 kHz
This is because the frequencies are allocated at these intervals. Therefore, if you input a frequency between the interval, the frequency at the interval just below will be tuned in and displayed. For example, if you input AM 1242 kHz with the tuning interval set to 10 kHz, AM 1240 kHz will be tuned in and displayed.

* This tuning interval can be also set to 10kHz or 9kHz by switching the 9kHz/10kHz selector in the battery compartment. See page 8.

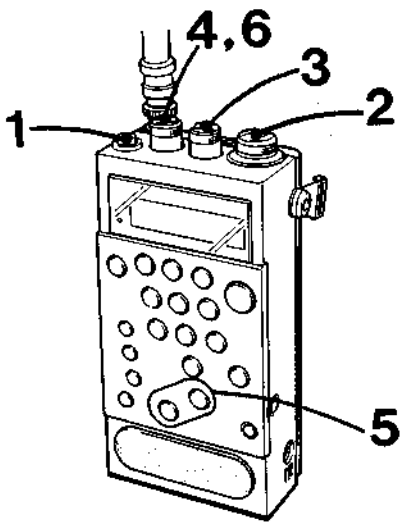
If you input a wrong frequency
Press the DIRECT key again and input the correct frequency.

The TRY AGAIN! indication
If you input a frequency outside the frequency range (AIR 108 - 136 MHz, PSB 144 - 174 MHz, FM 76.0 - 108.0 MHz, AM 150 - 2194 kHz), the indication TRY AGAIN! will blink in the display. When you input a proper frequency, TRY AGAIN! indication will disappear. If you leave TRY AGAIN! indication blinking, it will disappear after about 5 seconds, and the tuned station's frequency will reappear.

FM/AM/AIR/PSB reception

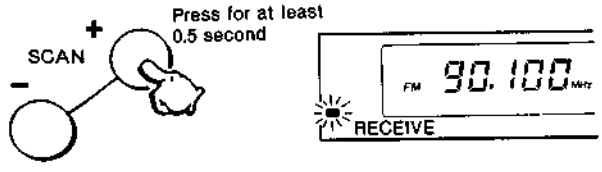
SCAN TUNING

Use scan tuning to automatically scan the stations in the frequency range of the band being received. Scanning stops automatically at each station.
The numbers in the illustration refer to the sequence of operations.



1 Depress the POWER switch (▬ ON).
2 Set the band selector to the desired band.
3 Depress the SQL control (▬ AUTO).
4 Turn the VOL control slightly clockwise.
5 Press the SCAN ⊕ or ⊖ key for at least 0.5 second to start scanning, then release the key. The display changes continuously and stops automatically when a station is received.

Pressing the ⊕ key, the tuned frequency is increased.
Pressing the ⊖ key, the frequency is decreased.



Repeat step 5 until the desired station is received.
6 Adjust the volume with the VOL control.

● For AM reception, if necessary rotate the set horizontally for optimum reception.
● To stop scanning, press the ⊕ or ⊖ key momentarily.

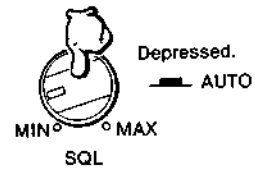
After listening, set the POWER switch to ■ OFF.

If stations cannot be tuned in by scan tuning with the SQL control set to ▬ AUTO, press the SQL control again (■ MANUAL) and turn the control slowly counterclockwise (towards MIN). Be careful not to turn this control too far counterclockwise.

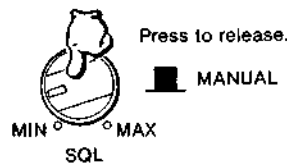
If scanning stops a little before a station, tune in the frequency more precisely by manual tuning (See page 11.).

Note on scanning
Scanning is performed in the range of the band being received, at the intervals shown on page 9. When the upper limit of the frequency of that band is reached, the dial is scanned back to the lower limit, and vice versa.

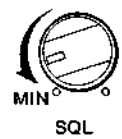
HOW TO USE THE SQL CONTROL
Normally, depress the SQL control (▬ AUTO).
Signals and noise below the factory-set level will be suppressed.



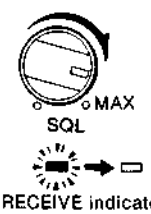
Press this control again to release it (■ MANUAL), and adjust the squelch level.



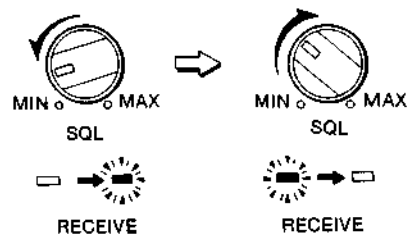
Turn the control counterclockwise (towards MIN) to receive weaker signals.



● **If you attempt to perform scan tuning or memory scan tuning and scanning does not begin when the SQL control is in the ▬ AUTO position,** set the control to ■ MANUAL and turn the control slowly clockwise (towards MAX). At the level at which the RECEIVE indicator goes out, scanning will begin. Be careful not to turn the control too far clockwise or weak signals will not be received.



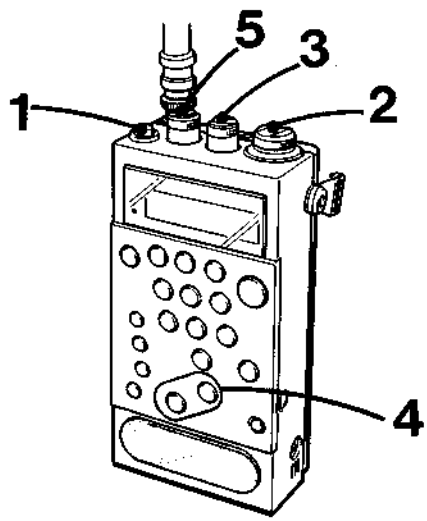
● **If scanning does not stop when the SQL control is in the ▬ AUTO position,** turn the control slowly counterclockwise (towards MIN). When the RECEIVE indicator lights up, turn the control clockwise again until the indicator goes out.



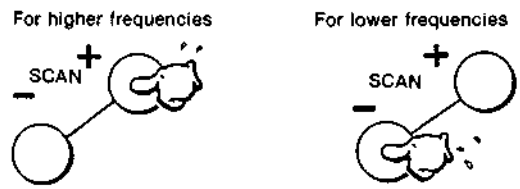
FM/AM/AIR/PSB reception

MANUAL TUNING

Use manual tuning when you do not know the frequency of the station you want to tune in, or when you want to tune in a station more precisely after scan tuning.
The numbers in the illustration refer to the sequence of operations.



1 Depress the POWER switch (▬ ON).
2 Set the band selector to the desired band.
3 Set the SQL control to MIN.
4 ① Keep the SCAN ⊕ or ⊖ key pressed until the desired station is received.



② Press the SCAN key momentarily to tune the station precisely. Each time the key is pressed, the frequency is increased or decreased by the intervals shown on page 9.

5 Adjust the volume with the VOL control.

After listening, set the POWER switch to ■ OFF.

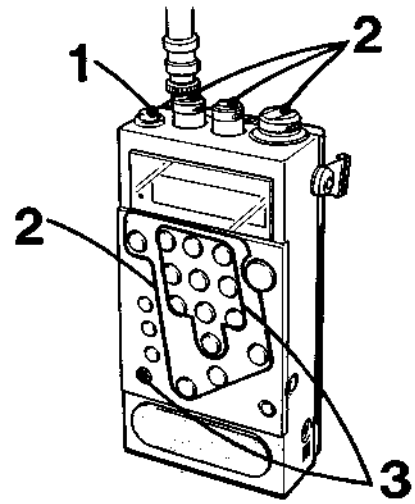
FM/AM/AIR/PSB reception

MEMORY TUNING

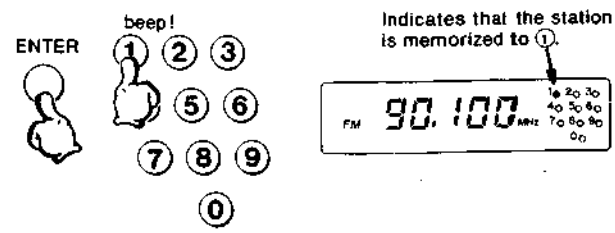
Once the frequencies of the stations you want to tune in are memorized, all you have to do is to push a key.
One FM, one AM, one AIR and one PSB station can be memorized to a key, or a total of 40 stations (Canadian, AEP-2 models of AIR-7 and AIR-8) or 30 stations (AEP-1, E models of AIR-7) to all the counter keys.

HOW TO MEMORIZE A STATION

The numbers in the illustration refer to the sequence of operations.



1 Depress the POWER switch (▬ ON).
2 Tune in the desired station using any tuning method—direct tuning (page 9), scan tuning (page 10) or manual tuning (page 11).
3 While pressing the ENTER key, press one of the counter keys. A beep sounds and the corresponding dot appears.

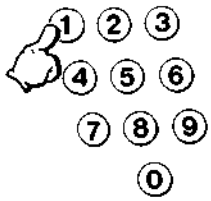


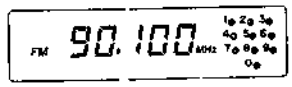
Notes

- The frequencies memorized to all the counter keys at the factory are as follows:
  AIR: 108 MHz
  PSB: 144 MHz
  FM: 76 MHz
  AM: 531 kHz (530kHz in Canadian model of AIR-7 and AIR-8)
- If you memorize another station of the same band to a key on which you have already memorized a station, the previous station will be erased.
  You cannot erase a station without memorizing another station.

To check your memory
After memorizing the stations, press each counter key in turn to check that the desired stations have been memorized correctly. You can recall a station any time by pressing its counter key.

HOW TO RECEIVE A MEMORIZED STATION
Turn the power on, select the band and press the appropriate counter key. The memorized station will be received.





Note: If no batteries are installed for more than 3 minutes, all memorized stations will be erased.

AIR/PSB reception

You can monitor aviation communications between aircraft and airport towers, such as a pilot's request for instructions, report of his position, and filling of his flight plans.

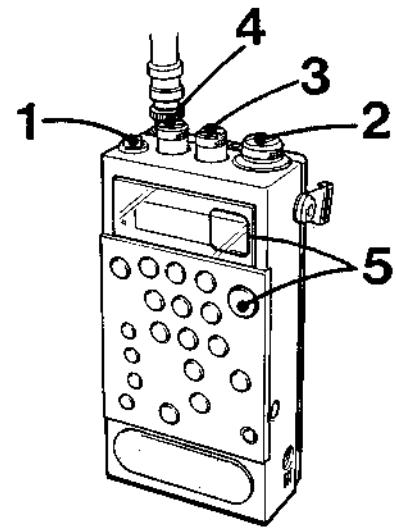
For type 1 and 2 models, you can monitor police, fire, forestry conservation, VHF weather, traffic and other public safety radio services, as well as the air band.

Direct tuning, scan tuning, manual tuning and memory tuning
Tuning procedure is the same as for FM or AM reception. See pages 9 to 12.
If necessary, set the SQL control to ■ MANUAL and adjust it. (See page 10.)

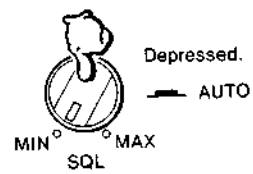
AIR/PSB reception

MEMORY SCAN TUNING

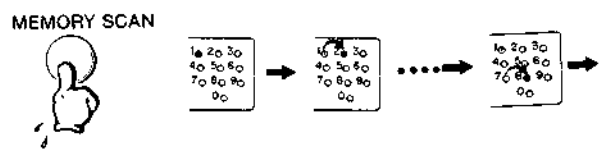
The stations memorized on the counter keys are scanned in sequence at the press of the MEMORY SCAN key and scanning stops automatically when a signal is received.
Memorize frequencies to all counter keys. (See "How to memorize a station" on page 11.)
Follow the numbered sequence.



1 Depress the POWER switch (▲ ON).
2 Set the band selector to AIR or PSB.
3 Depress the SQL control (▲ AUTO*).



4 Adjust the volume with the VOL control.
5 Keep the MEMORY SCAN key pressed for at least 0.5 second, then release it. The memorized stations will be tuned in continuously in the sequence 1→2→3···→0→1···*.



When there is a signal, scanning will stop. If the signal disappears, scanning begins again.

To stop scanning, press the MEMORY SCAN key again.

To start scanning again when memory scanning has automatically stopped, keep the MEMORY SCAN key pressed for at least 0.5 second and release it.

Each time you press the MEMORY SCAN key momentarily, a memorized station is tuned in.

Using the program function, you can change the sequence of memory scanning. (See page 13.)

* When noise is heard while tuning, set the SQL control to ■ MANUAL and turn it slowly clockwise.

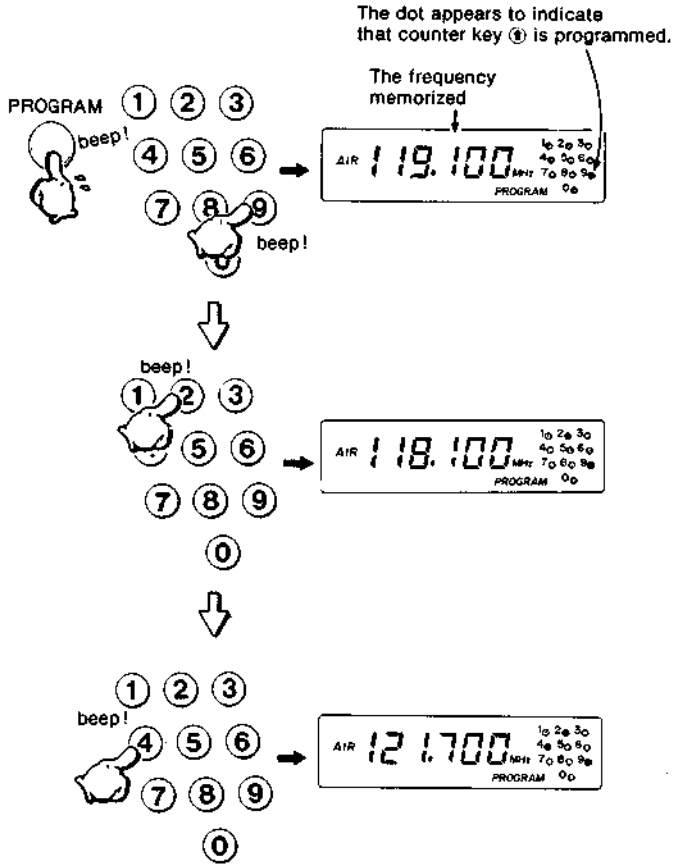
AIR/PSB reception

PROGRAM FUNCTION

The program function is used to change the sequence of memory scanning or scan only certain keys.

How to activate the program function
Memorize frequencies to all counter keys.
Follow the numbered sequence.

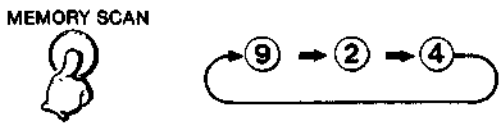
1 While pressing the PROGRAM key, press the counter keys in the desired sequence.



- During programming, the previous station is received.
- You can program the counter keys in any desired sequence of up to 10 scanning points, including programming the same counter key more than once.

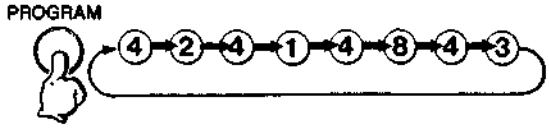
2 Press the MEMORY SCAN key to start memory scanning.

To scan stations ⑨, ② and ④

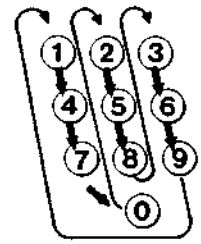


Example of programming

To tune in a certain station memorized to the ④ key



- The sequence of programmed scanning is factory set as follows.



- Since only 10 keys can be programmed, even if the eleventh key is pressed, it is not programmed.
- The program function can be activated and cancelled while another station is being received.

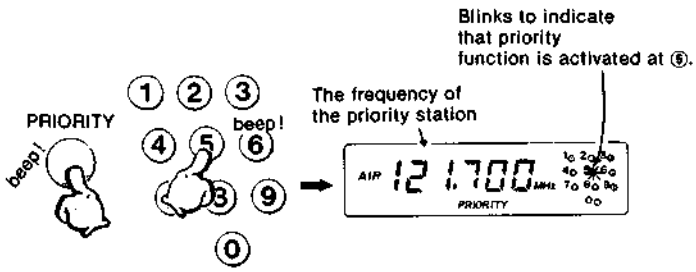
To cancel the program function
Press the PROGRAM key again. The PROGRAM indication in the display disappears. In this case, the sequence of memory scanning reverts to ①→②→③···→⓪→①···.

AIR/PSB reception

PRIORITY FUNCTION

If you are particularly interested in listening to a certain station, designate it as the priority station.
The set automatically tunes to the station every 3 seconds to check whether there is a signal or not, even while another station is being received.

To designate the priority station
Memorize frequencies to all counter keys.
While pressing the PRIORITY key, press the counter key to which the desired frequency is memorized.
If more than two counter keys are pressed, the last key pressed designates the priority station.



- The PRIORITY indication appears in the display.

A beep sounds and the corresponding dot blinks.

- When the priority station is tuned in every 3 seconds, the station being received will be interrupted for a fraction of a second.

To cancel the priority station
Press the PRIORITY key again. The PRIORITY indication and the dot in the display disappear.

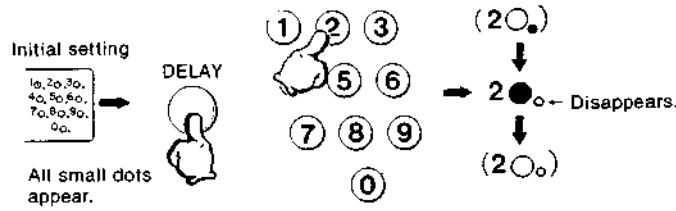
- The priority function can be activated and cancelled while another station is being received.

AIR/PSB reception

DELAY FUNCTION

Using the delay function, the station being received will be kept tuned in during memory scanning after the signal stops for approx. 2 seconds, i.e. during the interval between communications. The delay function is activated on all counter keys at the factory.

To cancel the delay function
While pressing the DELAY key, press the counter key on which the delay function is to be cancelled.



The corresponding small dot in the display disappears.

To activate the delay function again
While pressing the DELAY key, press the counter key on which you want the delay function to activate. The small dot in the display appears.

- The delay function can be activated and cancelled while another station is being received.
- Using the delay and priority functions simultaneously, you can receive a station continuously.

• IC301's (PLL CONTROL IC μPD7503-136) TERMINAL FUNCTIONS

Terminal No.	Terminal Name	Function	Terminal No.	Terminal Name	Function
1	NC	This terminal is not used on this set.	33	S21	Signal output for LCD segment.
2	SW		34	S20	
3	MW		35	S19	
4	LW		36	S18	
5	LP	Signal input for PLL lock detector.	37	S17	
6	DAT	Dividing number (N) serial data output of PLL IC (IC201).	38	S16	
			39	S15	
7	CLK/KS0	Signal output for synchronous clock pulse of above serial data or signal output for initial key source.	40	S14	
			41	S13	
			42	S12	
8	LAT	Signal output for above serial data latch.	43	S11	
9	MT	Signal output for sound muting. muted: L, otherwise: H	44	S10	
			45	S9	
10	SD	Signal input for station detector. tuned: H, detuned: L	46	S8	
			47	S7	
11	KS1	Signal output for key matrix scanning.	48	S6	
12	KS2		49	S5	
13	KS3		50	S4	
14	KS4		51	S3	
15	KS5		52	S2	
16	K0	Signal input for key matrix scanning.	53	S1	
17	K1		54	S0	
18	K2		55	PSB	Input for PSB band switching. PSB mode: H, otherwise: L For 3 band model, fix to L.
19	K3				
20	X2	This terminal is not used on this set.	56	RESET	Reset terminal
21	X1	Connected to the ground.	57	CK	System clock pulse oscillation terminal. (Approx. 120kHz)
22	VSS	Ground terminal			
23	VLC3	Input for LCD power supply.	58	VDD	Power supply terminal.
24	VLC2		59	CK	System clock pulse oscillation terminal. (Approx. 120kHz)
25	VLC1				
26	VDD	Power supply terminal.	60	AIR	Input for AIR band switching. AIR mode: H, otherwise: L
27	COM3	This terminal is not used on this set.			
28	COM2	Common signal output for LCD.	61	FM	Input for FM band switching. FM mode: H, otherwise: L
29	COM1				
30	COM0		62	AM	Input for AM band switching. AM mode: H, otherwise: L
31	S23	This terminal is not used on this set.	63	PON	Input for power supply switching. POWER ON: H, OFF: L
32	S22		64	BEEP	Signal output for beep sound. (Approx. 2kHz)

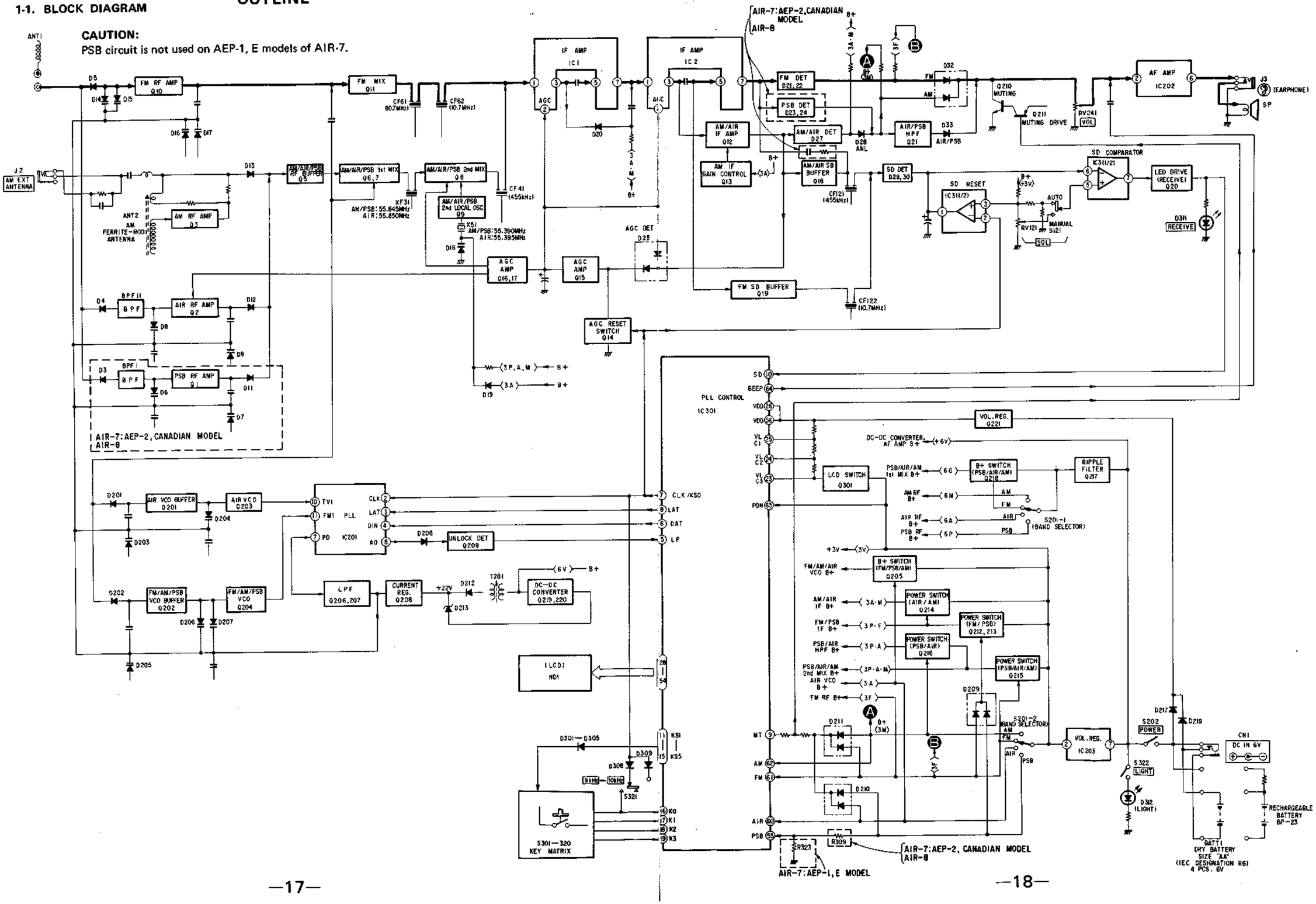
• KEY MATRIX TABLE

Output \ Input	⑲ K3	⑱ K2	⑰ K1	⑯ K0	REMARKS
⑦ KS0	———	———	———	MW CH STEP 9kHz↔10kHz	INITIAL KEY
⑪ KS1	DELAY (SET/RESET)	PRIORITY (SET/RESET)	PROGRAM (SET/RESET)	ENTER	DOUBLE KEY
⑫ KS2	DIRECT	MEMORY SCAN START/STOP	SCAN – (DOWN)	SCAN + (UP)	
⑬ KS3	1	2	3	4	
⑭ KS4	5	6	7	8	
⑮ KS5	9	0	EXECUTE	KEY PROTECT	

SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM

CAUTION:
PSB circuit is not used on AEP-1, E models of AIR-7.



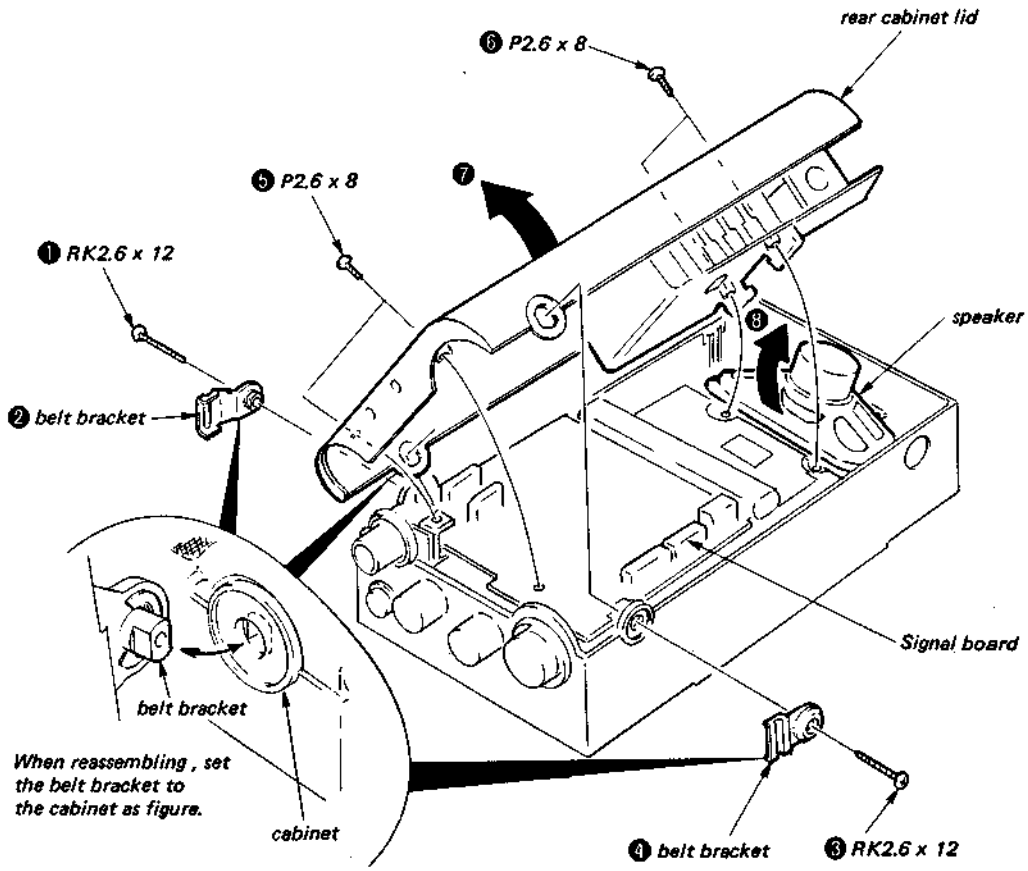
SECTION 2
DISASSEMBLY

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

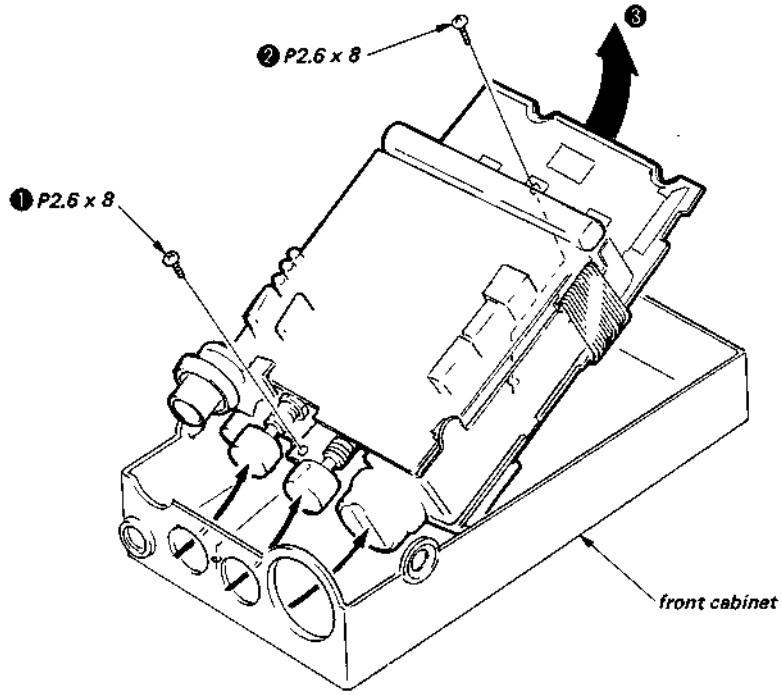
Remove the battery holder.

REAR CABINET LID, SPEAKER

Conductor side of signal board can be checked.

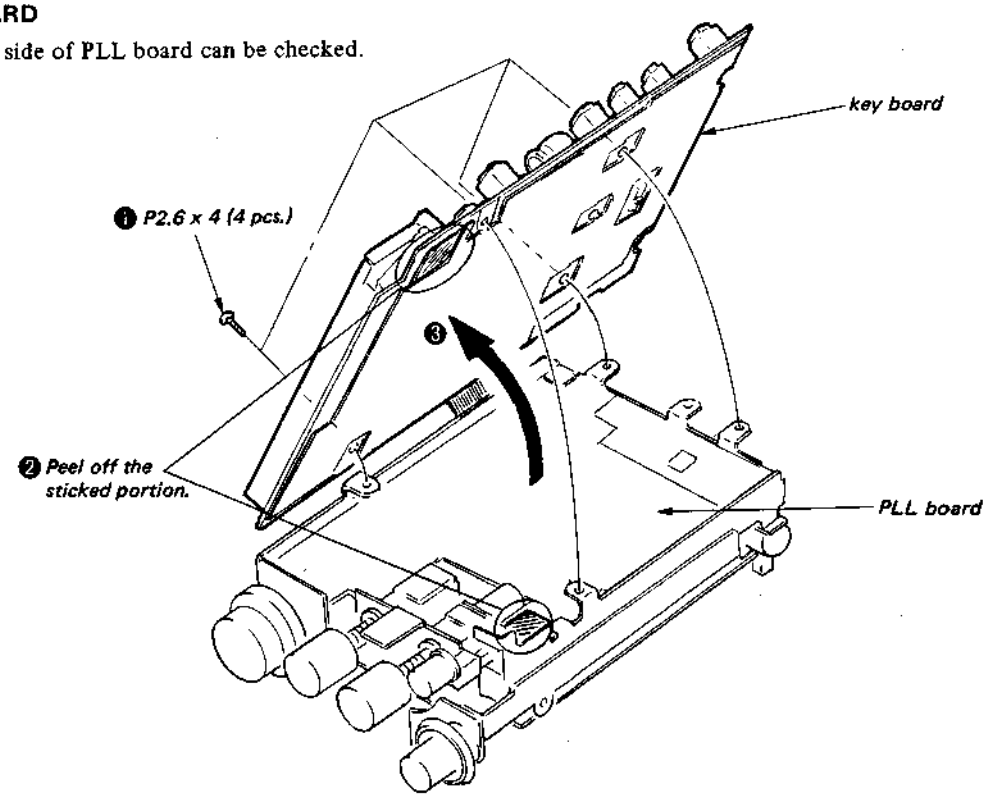


FRONT CABINET



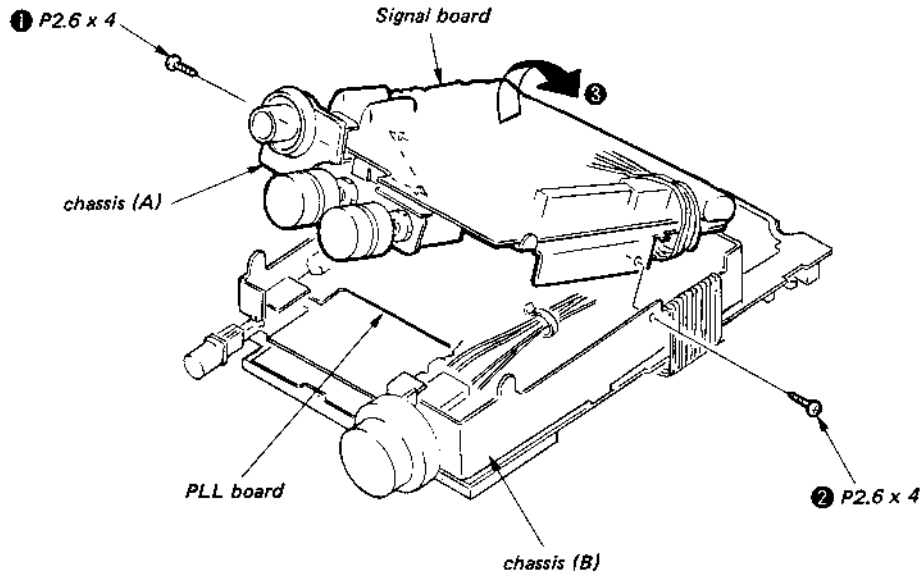
KEY BOARD

Conductor side of PLL board can be checked.



CHASSIS (A)

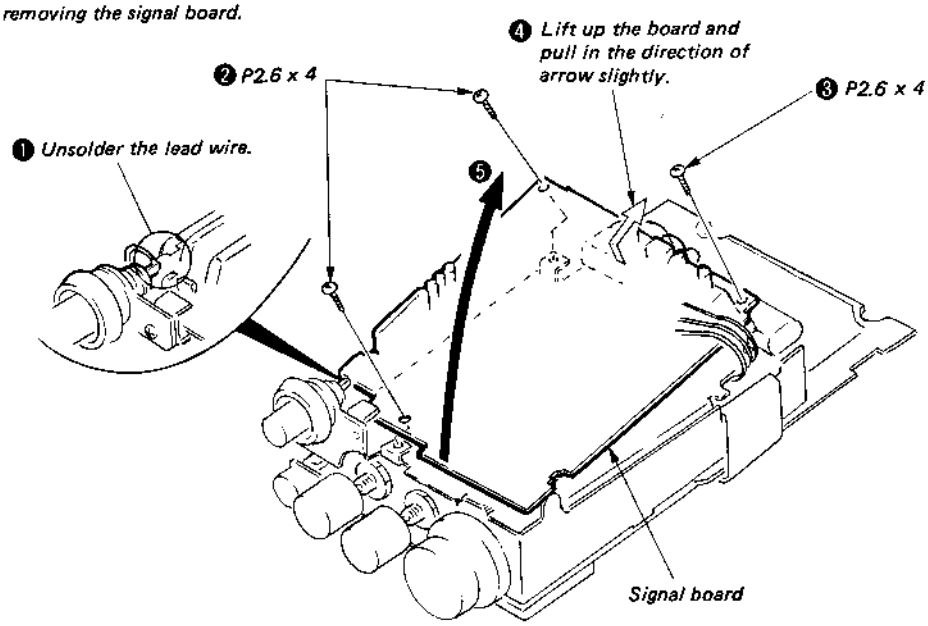
Conductor side of PLL board can be checked.



SIGNAL BOARD

Conductor side of signal board can be checked.

Note: Be careful not to break the lead wire when removing the signal board.



SECTION 3
ADJUSTMENTS

3-1. ELECTRICAL ADJUSTMENTS

Note On Adjustment

1. Adjustments should be made in the order given in this service manual.
2. Tracking adjustments should be made with signal board set to chassis A, and PLL board and key board set to chassis B. (If not, adjustment values will be out of the specifications after setting the board to the chassis.)

3. When FM section adjustments are made, connect 10pF capacitor to the following point and connect FM RF SSG input to the antenna input terminals. After adjustment, unsolder the 10pF capacitor and reconnect lead wire.

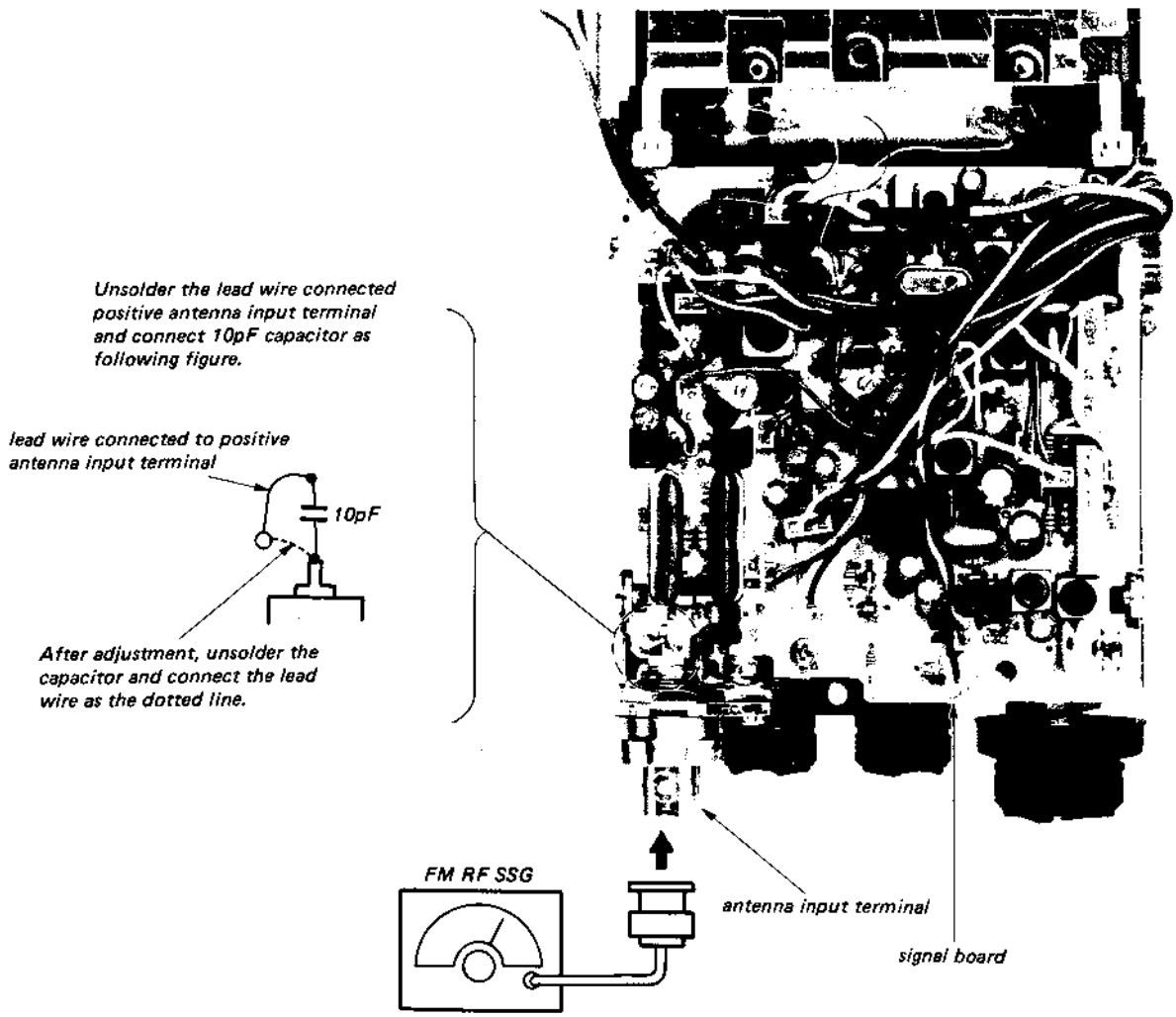


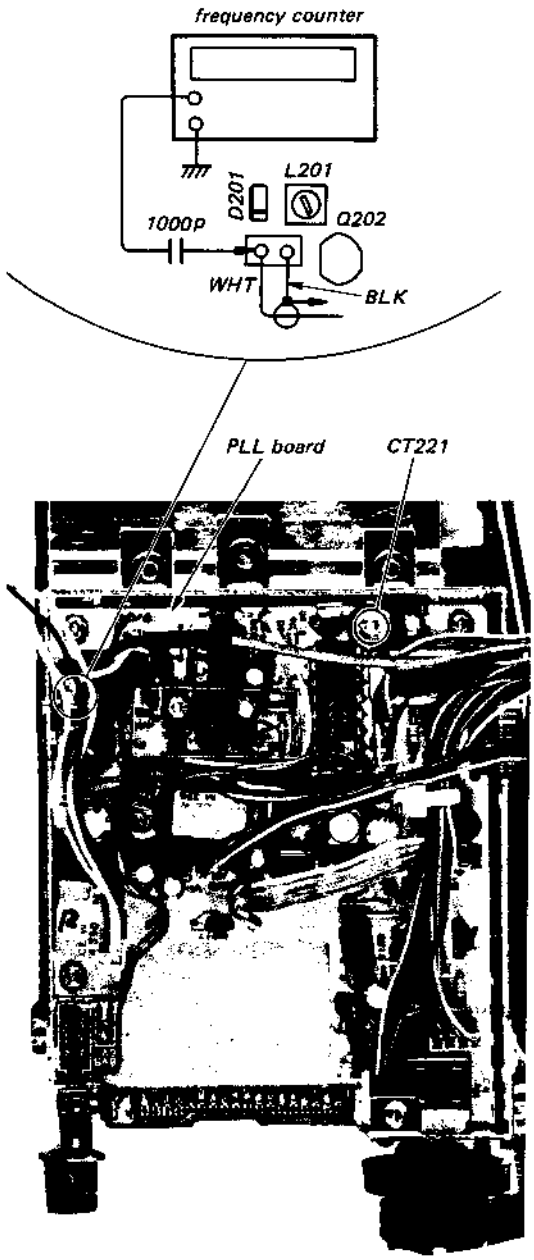
Fig. 6 Connecting point of 10pF capacitor for FM section adjustments

Reference Frequency Adjustment

Setting: Band selector: FM

Procedure:

1. Set the receiving frequency to 76MHz.
2. Adjust CT221 so that the frequency counter reads 86.7 ±0.0001MHz.

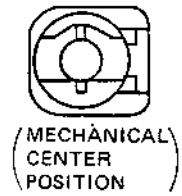


AIR VCO Adjustment

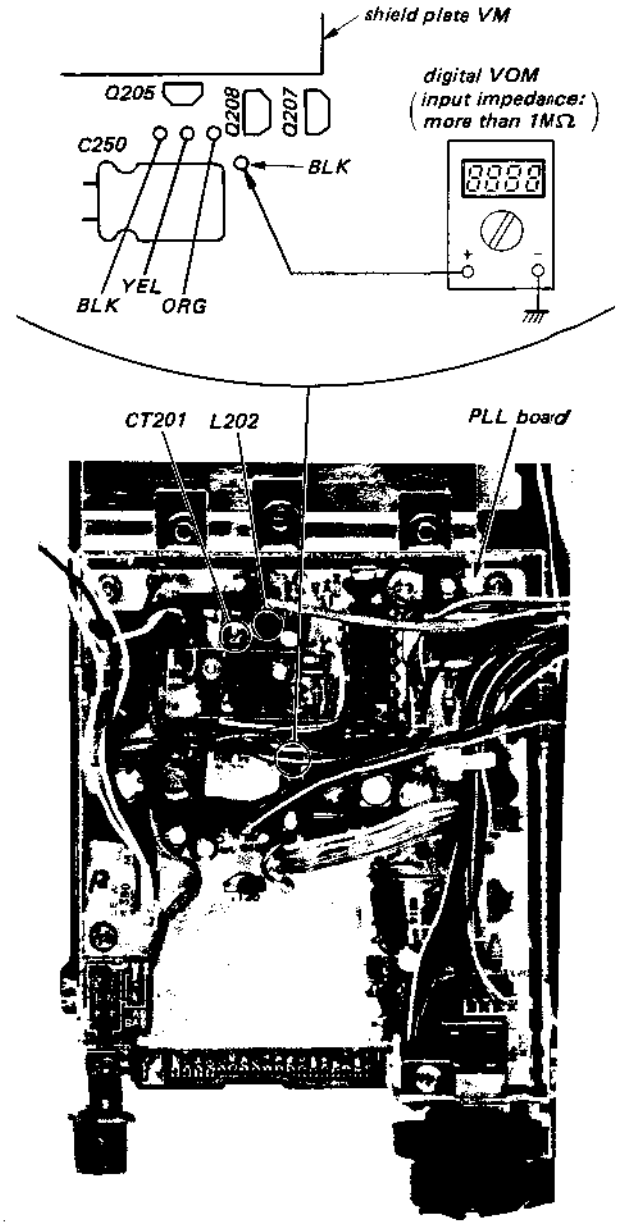
Setting: Band selector: AIR

Procedure:

1. Set the receiving frequency to 108MHz.
2. Set CT201 to the mechanical center.



3. Adjust L202 so that the digital VOM reads 3.25V.

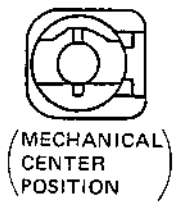


FM/PSB/AM VCO Adjustment

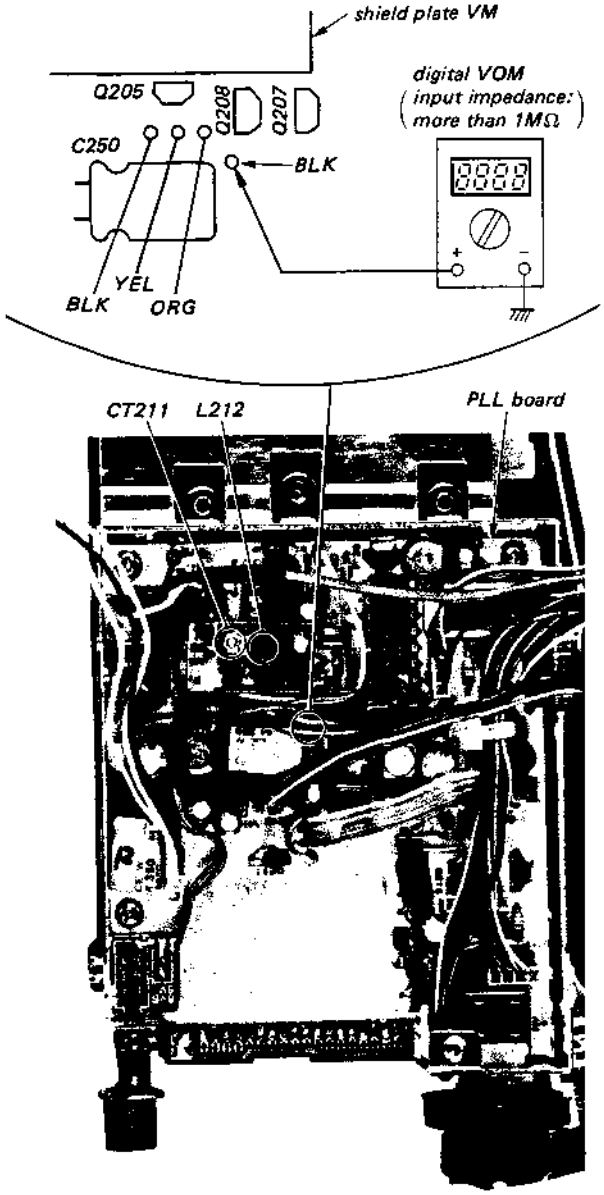
Setting: Band selector: AM

Procedure:

1. Set the receiving frequency to 150kHz.
2. Set CT211 to the mechanical center.



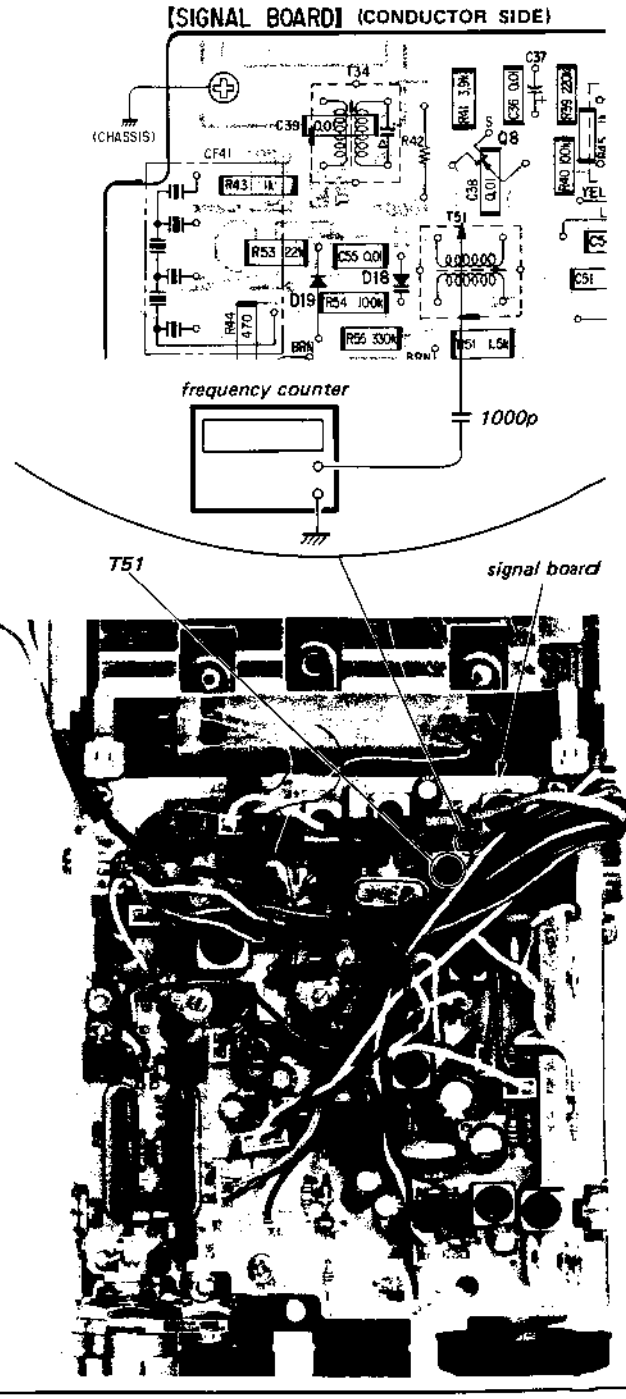
3. Adjust L212 so that the digital VOM reads 1.25V.



PSB/AIR/AM Second Local Oscillator VCXO Adjustment

Procedure:

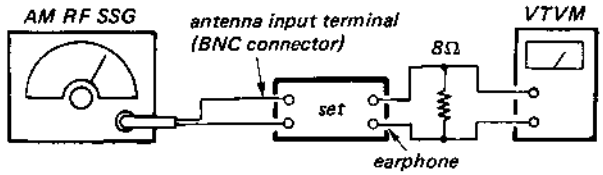
1. Band selector: AM
   Receiving frequency is free.
2. Adjust T51 so that the frequency counter reads 55.390 ±0.0001MHz.
3. Band selector: AIR
   Receiving frequency is free.
4. Confirm that the frequency counter reads 55.395 ±0.001MHz.



PSB/AIR/AM IF Adjustment

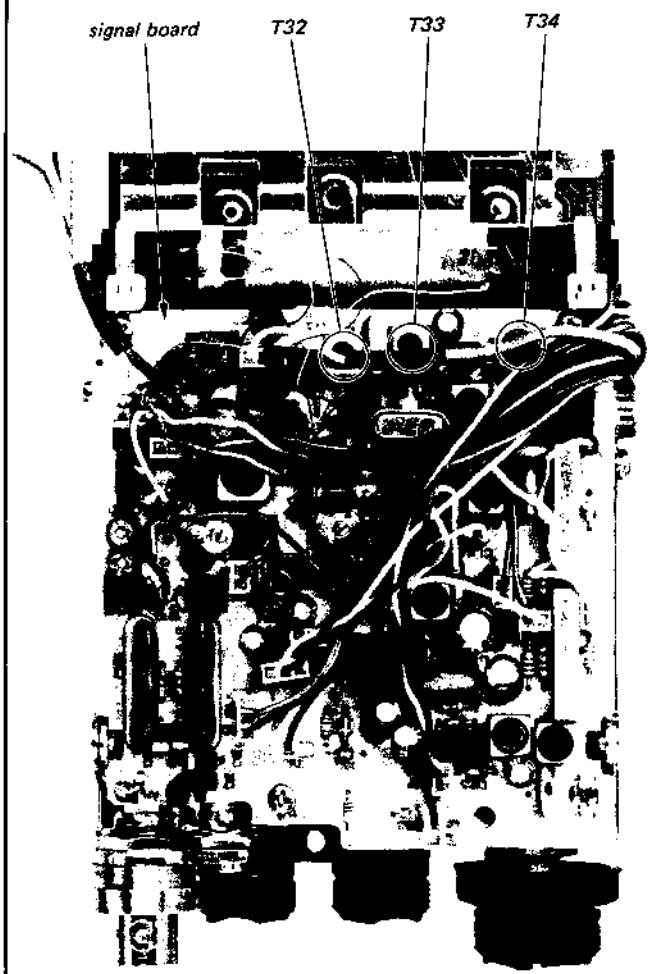
Setting: Band selector: AIR

Procedure:



Carrier frequency: *122MHz*
Modulation: *30% amplitude modulation by 1kHz signal*
Output level: *As low as possible around 0dB*

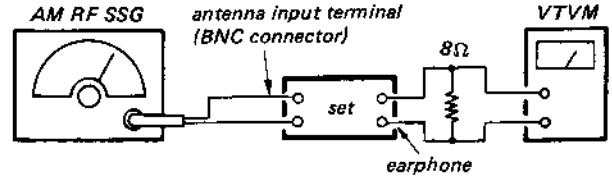
1. Tune the set to 122MHz.
2. Adjust T32, T33, T34 for a maximum reading on VTVM.



AIR/AM Detector Adjustment

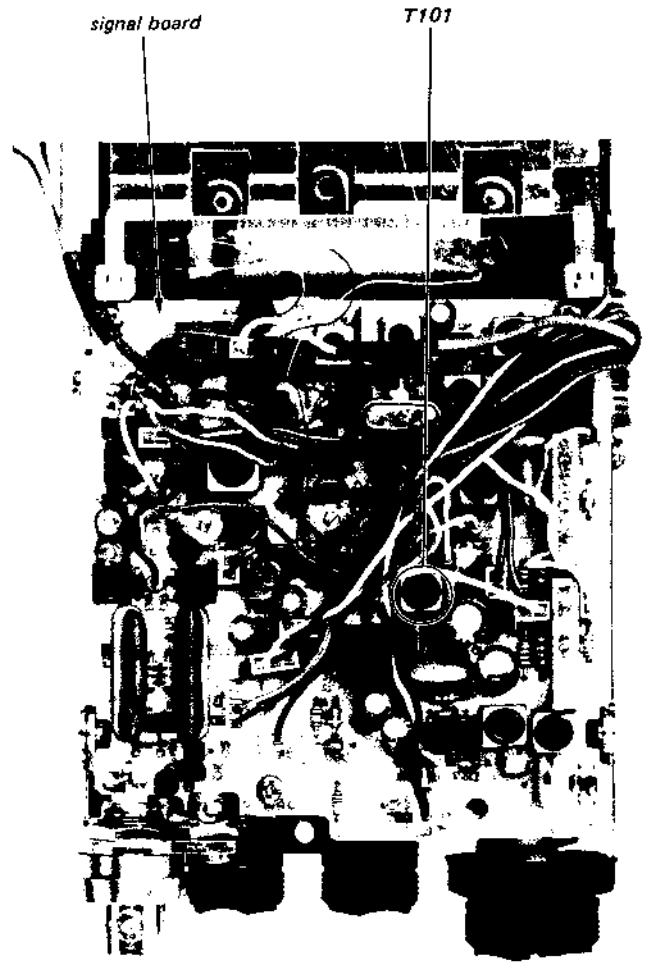
Setting: Band selector: AIR

Procedure:



Carrier frequency: *122MHz*
Modulation: *30% amplitude modulation by 1kHz signal*
Output level: *As low as possible around 0dB*

1. Tune the set to 122MHz.
2. Adjust T101 for a maximum reading on VTVM.



AIR Tracking Adjustment

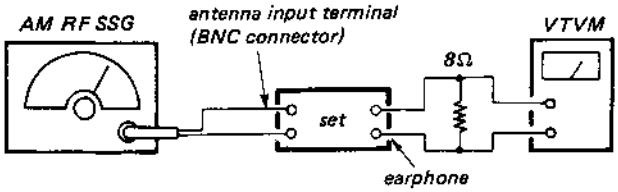
Setting:

1. This adjustment should be made after AIR VCO Adjustment (See page 23).
2. Band selector: AIR

PRECAUTION:

Adjustments should be made with signal board set to chassis A, and PLL board and key board set to chassis B.

Procedure:



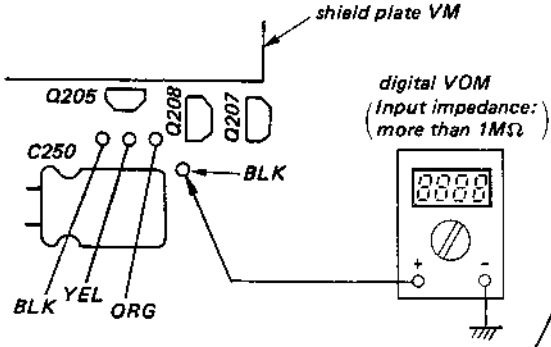
Modulation: 30% amplitude modulation by 1kHz signal
Output level: As low as possible around 0dB

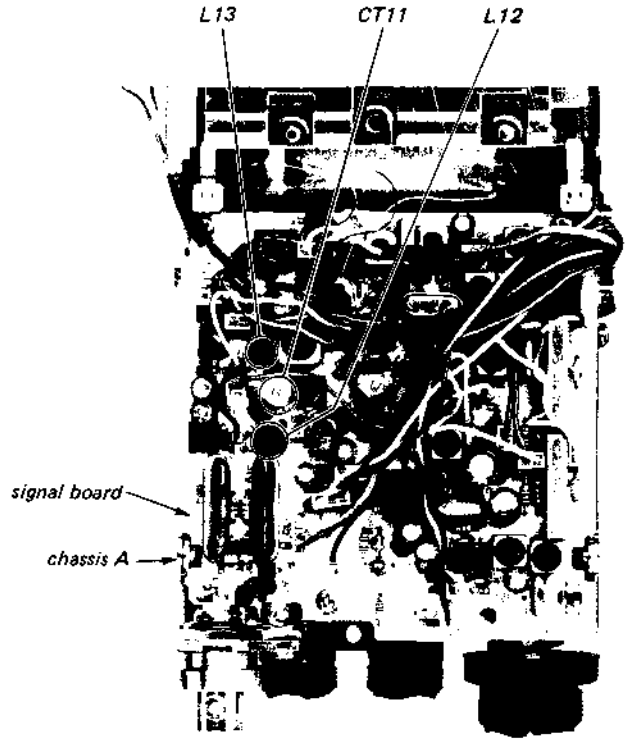
1. Carrier frequency of AM RF SSG: 109MHz
2. Tune the set to 109MHz.
3. Adjust L12, L13 for a maximum reading on VTVM.
4. Carrier frequency of AM RF SSG: 136MHz
5. Tune the set to 136MHz.
6. Adjust CT11, CT201 for a maximum reading on VTVM.
7. Repeat steps 1 – 6 two or three times.

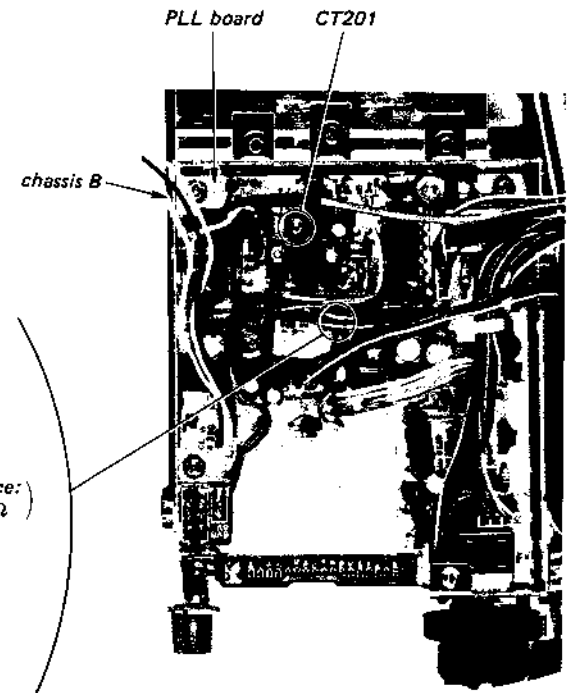
   Note: The adjustment should be finally done at step 6.
8. After adjustment, make sure that AIR VCO dc voltage is as follows at the receiving frequency of 108MHz and 136MHz.

receiving frequency	AIR VCO dc voltage
108MHz	3.25 ±0.5V
136MHz	13.4 $^{+2}_{-1.5}$V

If necessary, make AIR VCO adjustment (See page 23). After that, make AIR tracking adjustment again.



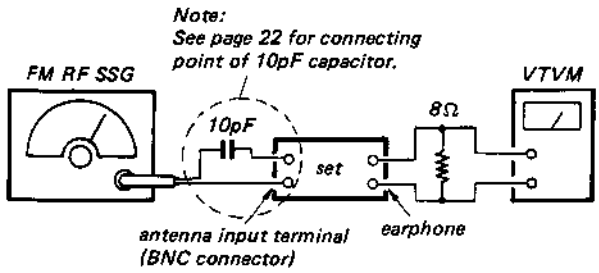




FM IF Adjustment

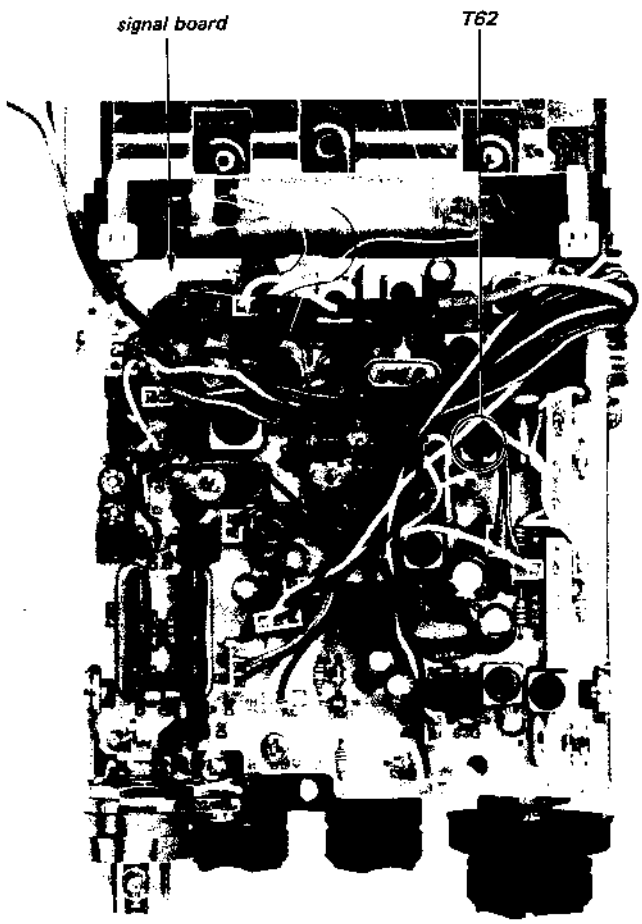
Setting: Band selector: FM

Procedure:



Carrier frequency: 93MHz
Modulation: ±22.5kHz frequency deviation by 400Hz signal (30%)
Output level: As low as possible around 10dB

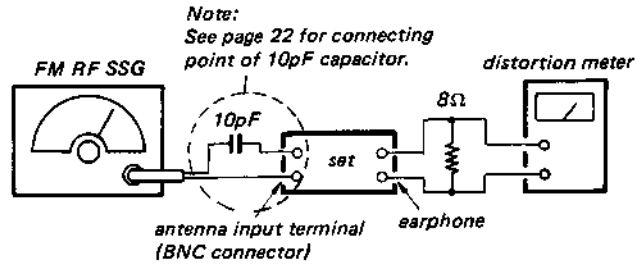
1. Tune the set to 93MHz.
2. Adjust T62 for a maximum reading on VTVM.



FM Discriminator Adjustment

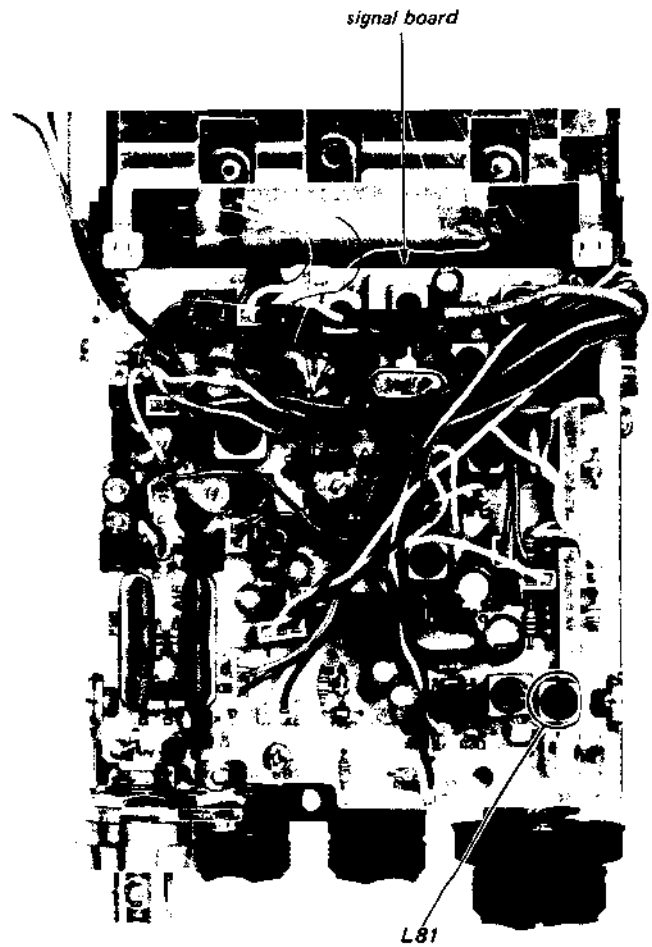
Setting: Band selector: FM

Procedure:



Carrier frequency: 93MHz
Modulation: ±22.5kHz frequency deviation by 400Hz signal (30%)
Output level: 54dB

1. Tune the set to 93MHz.
2. Adjust L81 for a minimum reading on distortion meter.



FM Tracking Adjustment

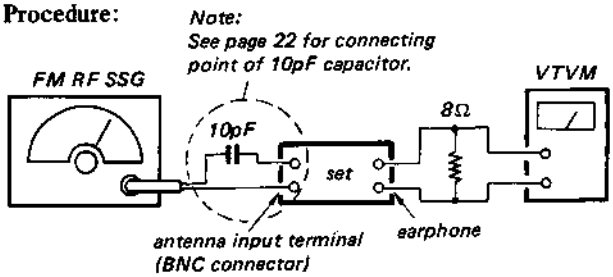
Setting:

- This adjustment should be made after FM/PSB/AM VCO adjustment (See page 24).
- Band selector: FM

PRECAUTION:

Adjustments should be made with signal board set to chassis A, and PLL board and key board set to chassis B.

Procedure:



Modulation: ±22.5kHz frequency deviation by 400Hz signal (30%)
Output level: As low as possible around 10dB.

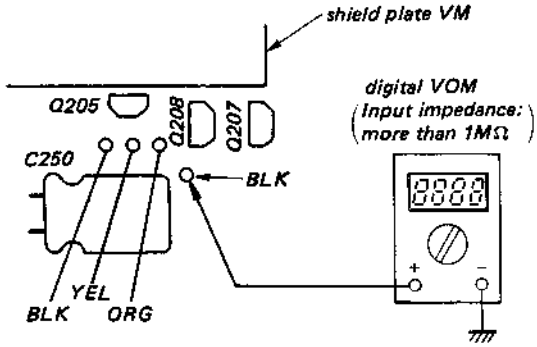
1. Carrier frequency of FM RF SSG: 76MHz
2. Tune the set to 76MHz.
3. Adjust T61, L61 for a maximum reading on VTVM.
4. Carrier frequency of FM RF SSG: 108MHz
5. Tune the set to 108MHz.
6. Adjust CT61, CT211 for a maximum reading on VTVM.
7. Repeat steps 1 – 6 two or three times.

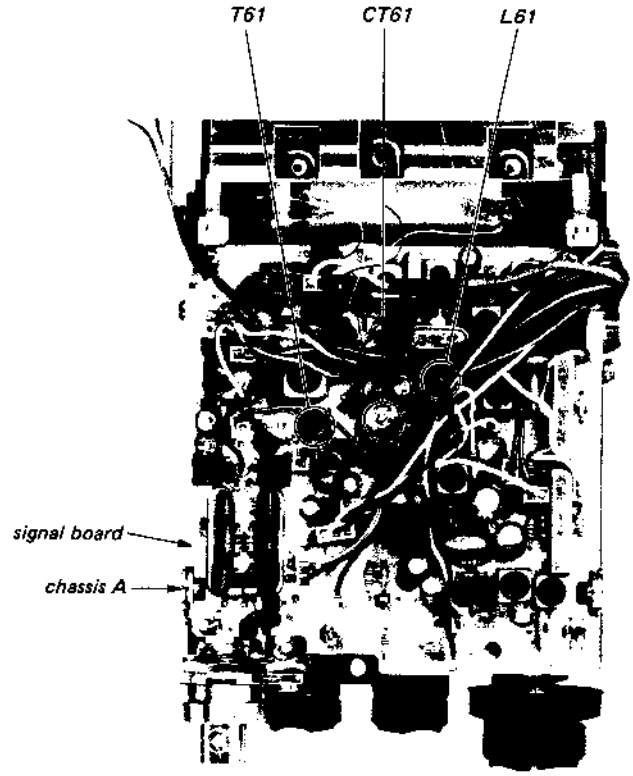
   Note: The adjustment should be finally done at step 6.

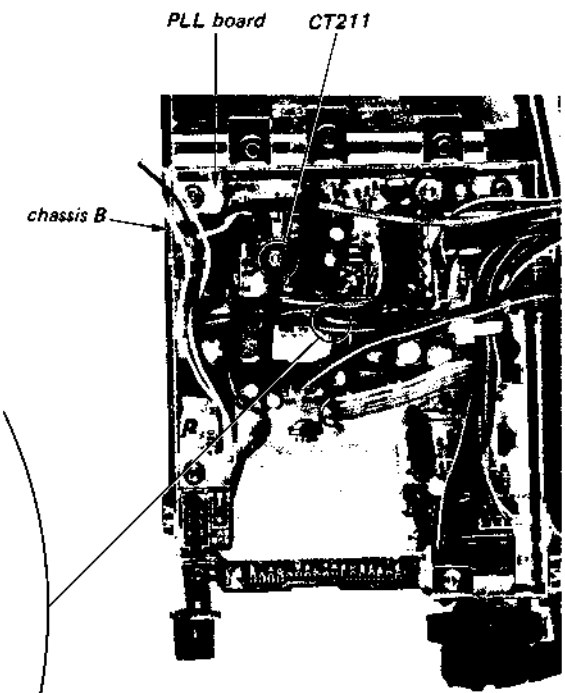
8. After adjustment, make sure that FM/PSB/AM VCO dc voltage is as follows at the receiving frequency of 76MHz and 108MHz.

receiving frequency	FM/PSB/AM VCO dc voltage
76MHz	8.5 ±0.7V
108MHz	17.4 ±1.5V

If necessary, make FM/PSB/AM VCO adjustment (See page 24). After that, make FM tracking adjustment again.



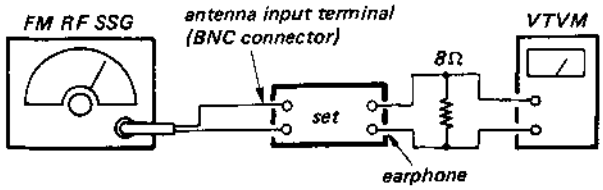




PSB Discriminator Adjustment

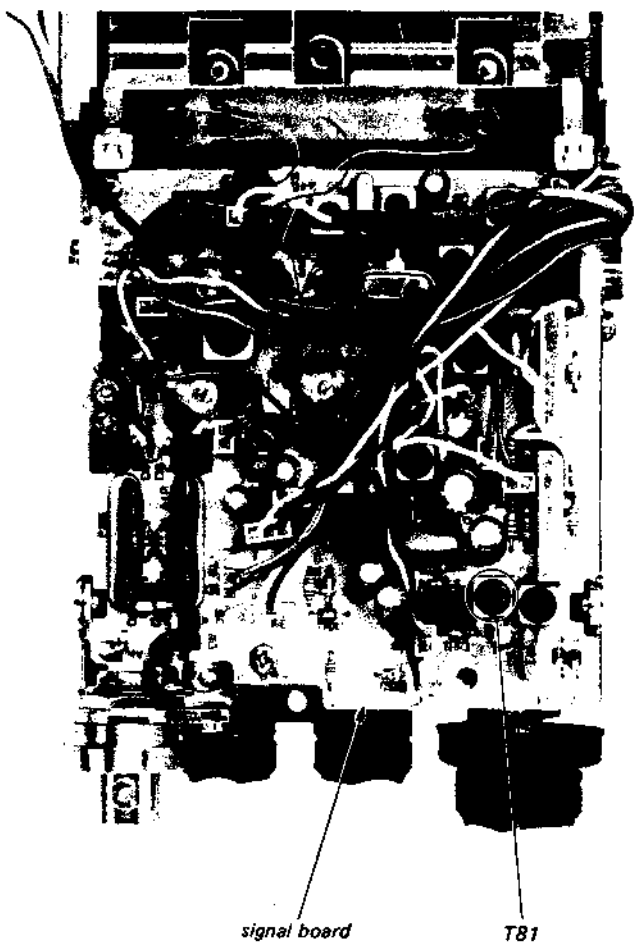
Setting: Band selector: PSB

Procedure:



Carrier frequency: *150MHz*
Modulation: *3.5kHz frequency deviation by 1kHz signal*
Output level: *As low as possible around −5dB*

1. Tune the set to 150MHz.
2. Adjust T81 for a maximum reading on VTVM.



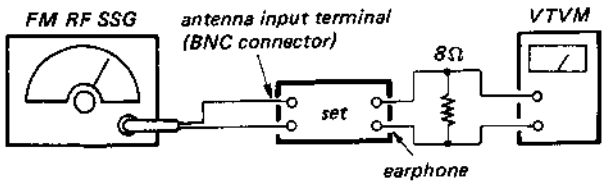
PSB Tracking Adjustment

Setting:

- This adjustment should be made after FM/PSB/AM VCO adjustment and FM tracking adjustment. (See page 24 and 28.)
- Band selector: PSB

PRECAUTION:
Adjustments should be made with signal board set to chassis A, and PLL board and key board set to chassis B.

Procedure:



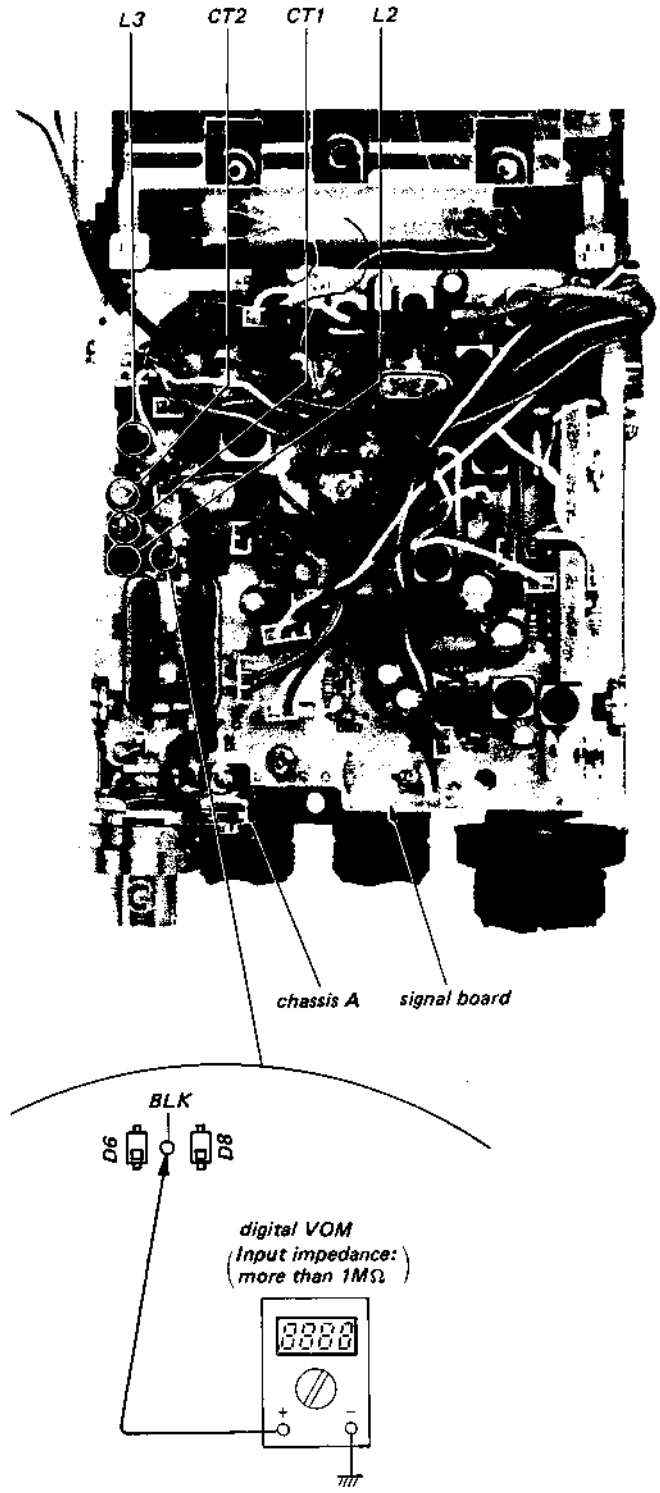
Modulation: *3.5kHz frequency deviation by 1kHz signal*
Output level: *As low as possible around −5dB*

1. Carrier frequency of FM RF SSG: 150MHz
2. Tune the set to 150MHz.
3. Adjust L2, L3 for a maximum reading on VTVM.
4. Carrier frequency of FM RF SSG: 174MHz
5. Tune the set to 174MHz.
6. Adjust CT1, CT2 for a maximum reading on VTVM.
7. Repeat 1 – 6 steps two or three times.

   Note: The adjustment should be finally done at step 6.

8. After adjustment, make sure that FM/PSB/AM VCO dc voltage is as follows at the receiving frequency of 144MHz and 174MHz.

receiving frequency	FM/PSB/AM VCO dc voltage
144MHz	8.9 ±0.7V
174MHz	17.1 ±1.5V



SECTION 4
DIAGRAMS

Location for MELF and Chip Components on Mounting Diagram

The table below shows the location for MELF and chip components to look for them easily on the mounting diagram.

Note: The parts marked with * are mounted on PC board for 3 band model (AEP-1, E model), but they are not used.

SIGNAL BOARD

SEMICONDUCTORS

Ref. No.	Location No.
IC3	F-7
Q16	F-5
Q17	E-5
Q20	G-8
Q21	E-9
D25	D-5
D32	D-9

CAPACITORS

Ref. No.	Location No.
C1	I-9
C2	H-9
*C3	I-8
*C4	I-7
*C5	I-6
*C6	I-6
*C7	I-4
*C8	I-4
C11	H-8
C12	H-7
C13	H-6
C14	H-6
C15	H-5
C16	H-4
C17	H-5
C24	G-3
C26	G-4
C31	I-2
C32	H-2
C33	G-2
C34	G-2
C36	D-1
C38	C-2
C39	B-2
C51	D-3
C52	E-3
C53	E-3
C54	D-2
C55	C-2
C61	G-5
C62	F-4
C63	E-4
C64	E-4
C65	D-4
C66	D-4
C67	D-3
C68	D-4
C72	A-5
C73	B-5
C74	B-5
C75	A-5
C76	C-5
C78	B-7
C79	A-7
C82	C-7
C84	B-8
C85	A-9
C86	B-9
C88	C-8
C89	D-8
C90	D-8
C101	C-6
C103	D-6
C105	E-6
C107	G-6
C109	G-6
C111	C-5
C113	D-5
C121	E-6
C122	E-6
C123	C-7
C124	D-7
C131	E-8
C132	E-8
C151	F-9
C152	F-9
C154	E-10
C155	E-10

RESISTORS

Ref. No.	Location No.
R1	I-9
R2	I-8
*R3	H-6
*R4	I-6
*R5	I-4
*R6	I-4
R11	H-6
R12	H-6
R13	H-5
R14	H-4
R15	H-4
R21	F-3
R22	H-3
R23	G-4
R31	I-3
R32	H-1
R33	H-2
R34	F-2
R35	F-2
R36	F-2
R37	F-1
R39	D-1
R40	D-2
R41	C-1
R43	B-2
R44	B-3
R45	D-2
R51	C-3
R52	E-3
R53	B-2
R54	C-3
R55	C-3
R61	E-4
R62	G-4
R63	D-3
R64	D-4
R65	E-4
R66	D-4
R67	C-3
R68	C-4
R69	D-4
R71	A-3
R74	B-5
R75	B-6
R76	C-5
R83	C-8
R84	B-8
R85	B-9
R86	A-10
R87	B-9
R88	B-10
R89	B-9
R90	C-9
R91	D-8
R92	D-8
R101	C-6
R102	C-6
R103	D-6
R104	E-6
R105	F-6
R106	F-6
R107	G-6
R108	F-6
R111	D-5
R112	E-5
R113	E-5
R114	F-5
R116	F-5
R117	F-6
R118	F-6
R119	G-5
R121	D-6
R122	E-6
R123	E-6
R124	E-7
R125	C-7
R127	C-7
R131	F-8
R132	E-8
R133	G-7
R134	G-7
R135	F-8
R138	F-7
R139	F-8
R140	G-8
R141	F-7
R142	F-7
R151	D-9
R152	D-9
R153	F-9
R154	E-9
R155	E-10
R156	E-9
R157	D-10

PLL BOARD

IC

Ref. No.	Location No.
IC203	C-7

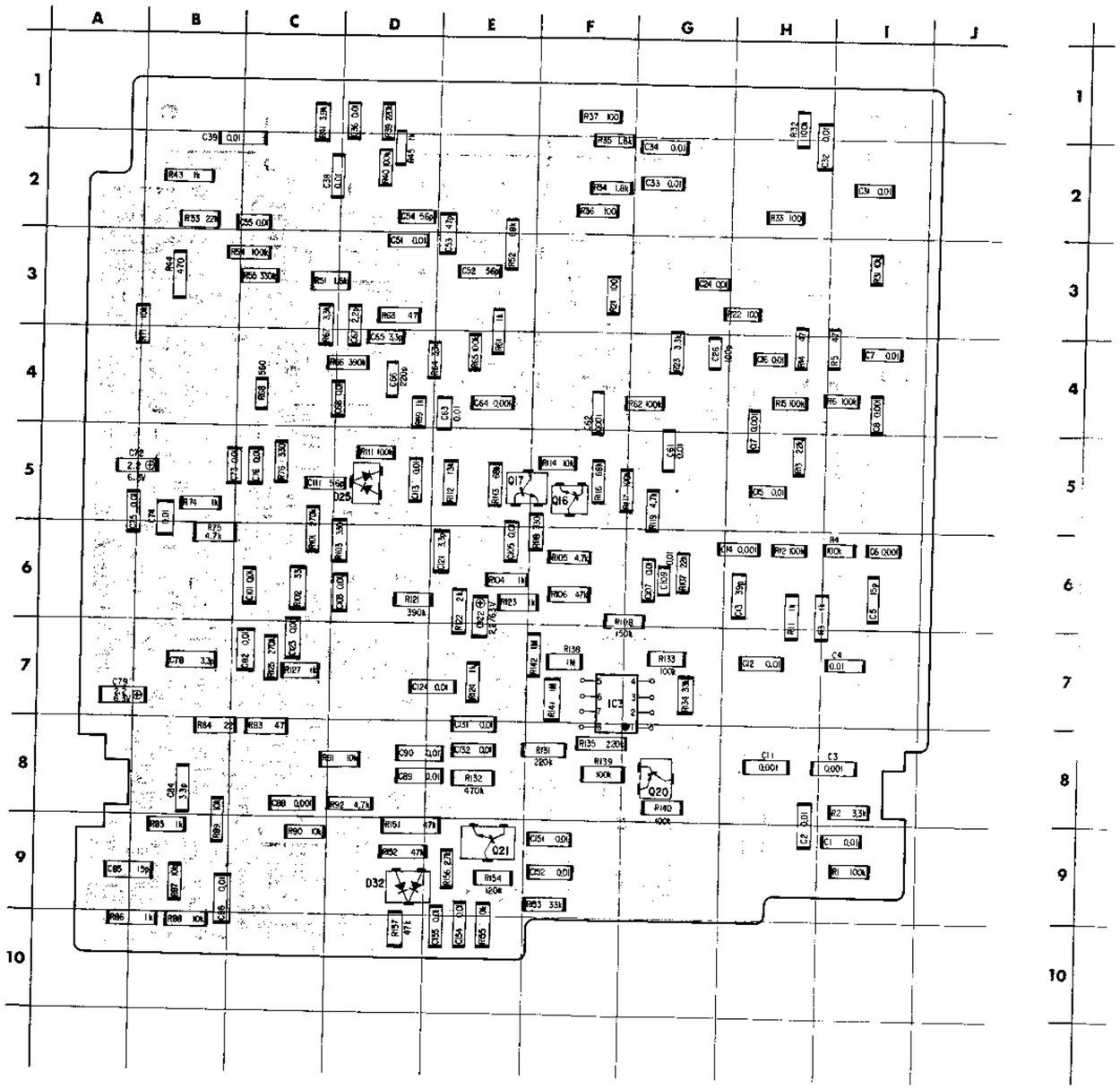
CAPACITORS

Ref. No.	Location No.
C201	G-2
C202	H-2
C203	G-2
C204	G-1
C206	F-2
C207	E-2
C209	E-2
C210	G-2
C211	H-3
C212	H-3
C213	G-3
C214	G-3
C216	F-3
C222	D-3
C223	D-3
C224	D-2
C225	D-2
C231	D-3
C233	D-1
C234	E-4
C242	G-6
C244	G-5
C251	H-7
C261	D-6
C263	C-7
C283	D-4
C285	D-5
C288	C-5

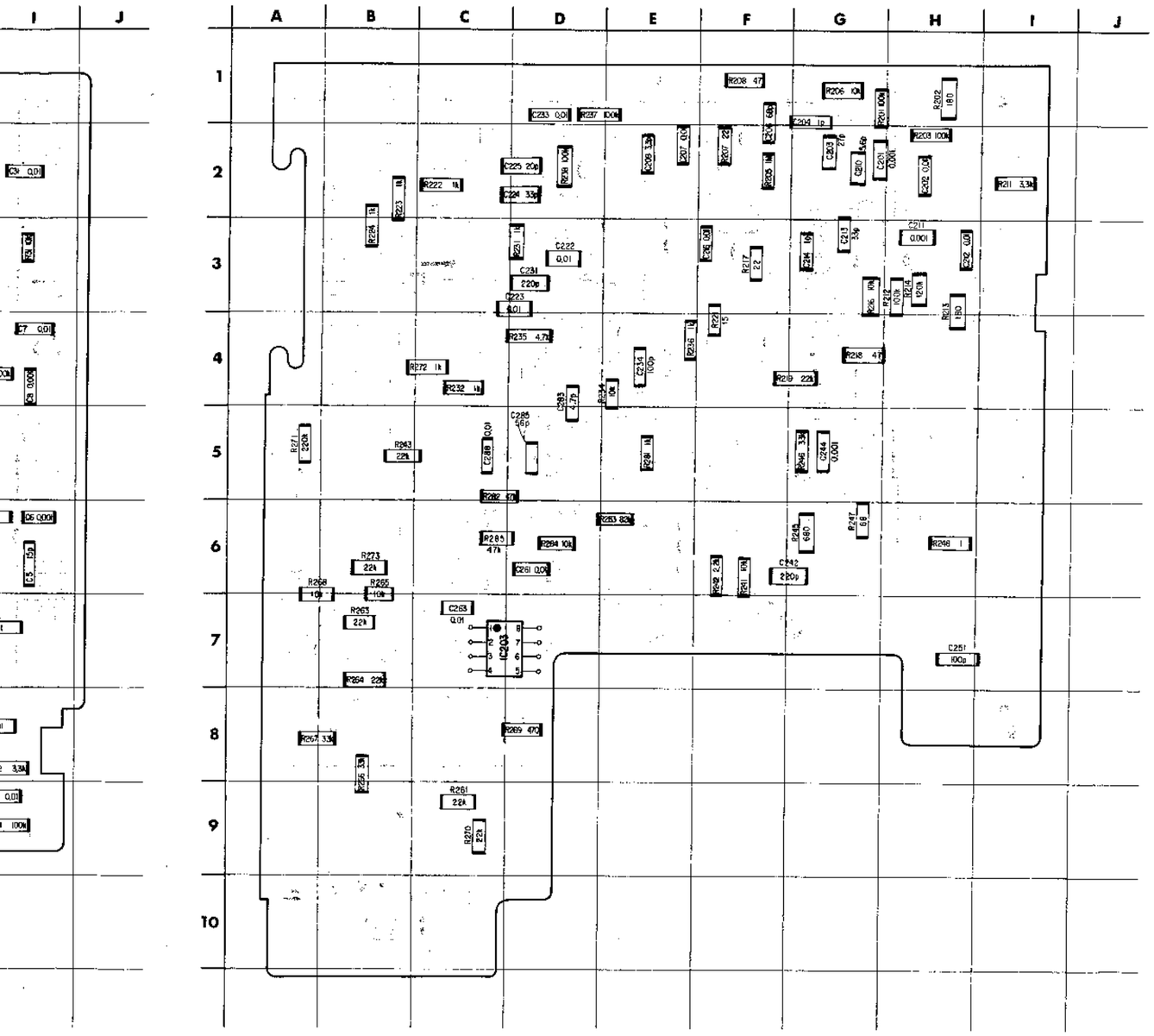
RESISTORS

Ref. No.	Location No.
R201	G-1
R202	H-1
R203	H-2
R205	F-2
R206	G-1
R207	F-2
R208	F-1
R211	I-2
R212	H-3
R213	H-3
R214	H-3
R216	G-3
R217	F-3
R218	G-4
R219	G-4
R221	F-4
R222	C-2
R223	B-2
R224	B-3
R231	D-3
R232	C-4
R234	E-4
R235	D-4
R236	E-4
R237	D-1
R238	D-2
R241	F-6
R242	F-6
R243	B-5
R245	G-6
R246	G-5
R247	G-6
R248	H-6
R261	C-9
R263	B-7
R264	B-7
R265	B-6
R266	B-8
R267	A-8
R268	A-6
R269	D-8
R270	C-9
R271	A-5
R272	C-4
R273	B-6
R281	E-5
R282	C-5
R283	E-6
R284	D-6
R285	C-6

4-1. MOUNTING DIAGRAM — Signal Board —

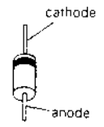


4-2. MOUNTING DIAGRAM – PLL Board –

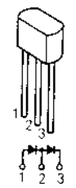


• Semiconductor Lead Layouts

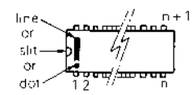
1SS119
1SS198
HZ20-2L



MC931



CX7961-1



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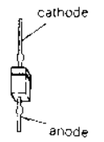
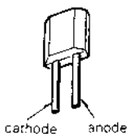
2SC2839-E
DTC144ES

2SK439-D

1T26N
1T32-4
1T33-09



SVC201SP-BG



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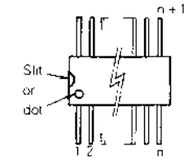
μPC393G2



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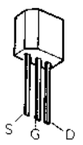

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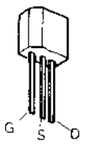
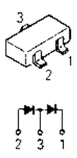
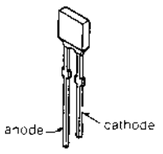


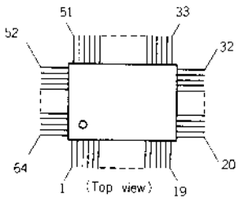
1SS123



SLP178B



μPD7503G-136



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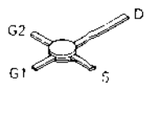
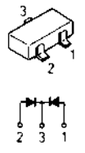
2SC2712
2SC2712-G

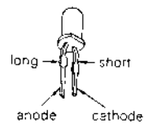
1T33-09



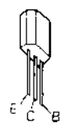
1S2837



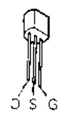
TLUG163



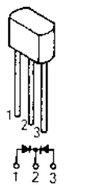
2SA1027R



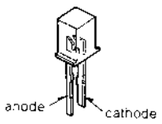
2SK152-2



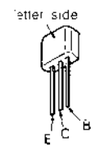
MC921



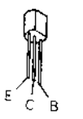
TLR209



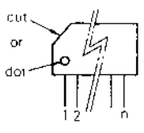
2SA1175-F
2SC2785-E
2SC2786-L
2SD1020-F



2SC3112-A



CX075B
LA4145

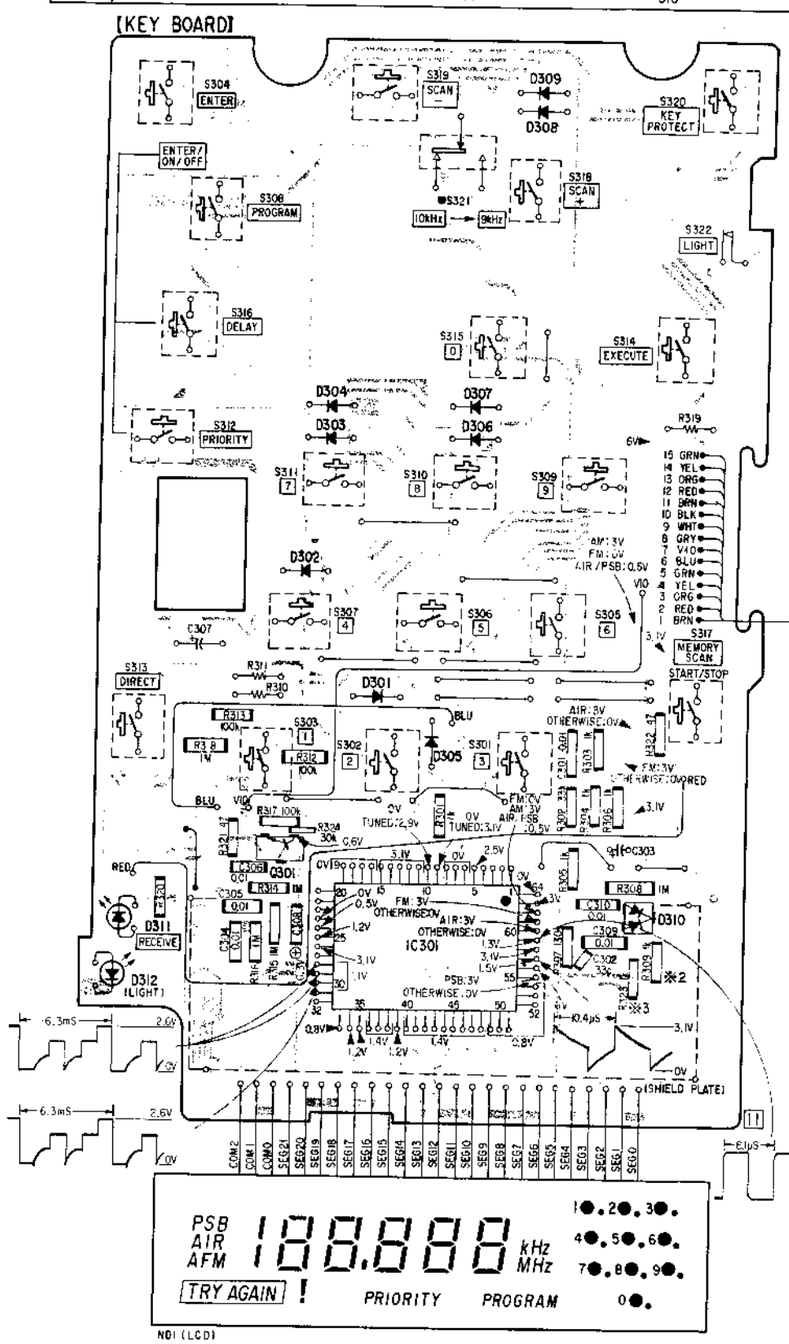


4-3. MOUNTING DIAGRAM

See page 43 for notes marked with ✳ 1 – 4.

Note:

- ○— : parts extracted from the component side.
- —● : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- [ ]⊢ : indicates side identified with part number.
- ——→—— : signal path
- ※※ : B + pattern



15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

A B C D E F G H I J

[SIGNAL BOARD]

[DC-IN BOARD]

[TRANSLATION BOARD]

[POWER BOARD]

[JACK BOARD]

FM OUTPUT

FM INPUT

ANT2 AM FERRITE-ROD ANTENNA

SP

(CHASSIS)

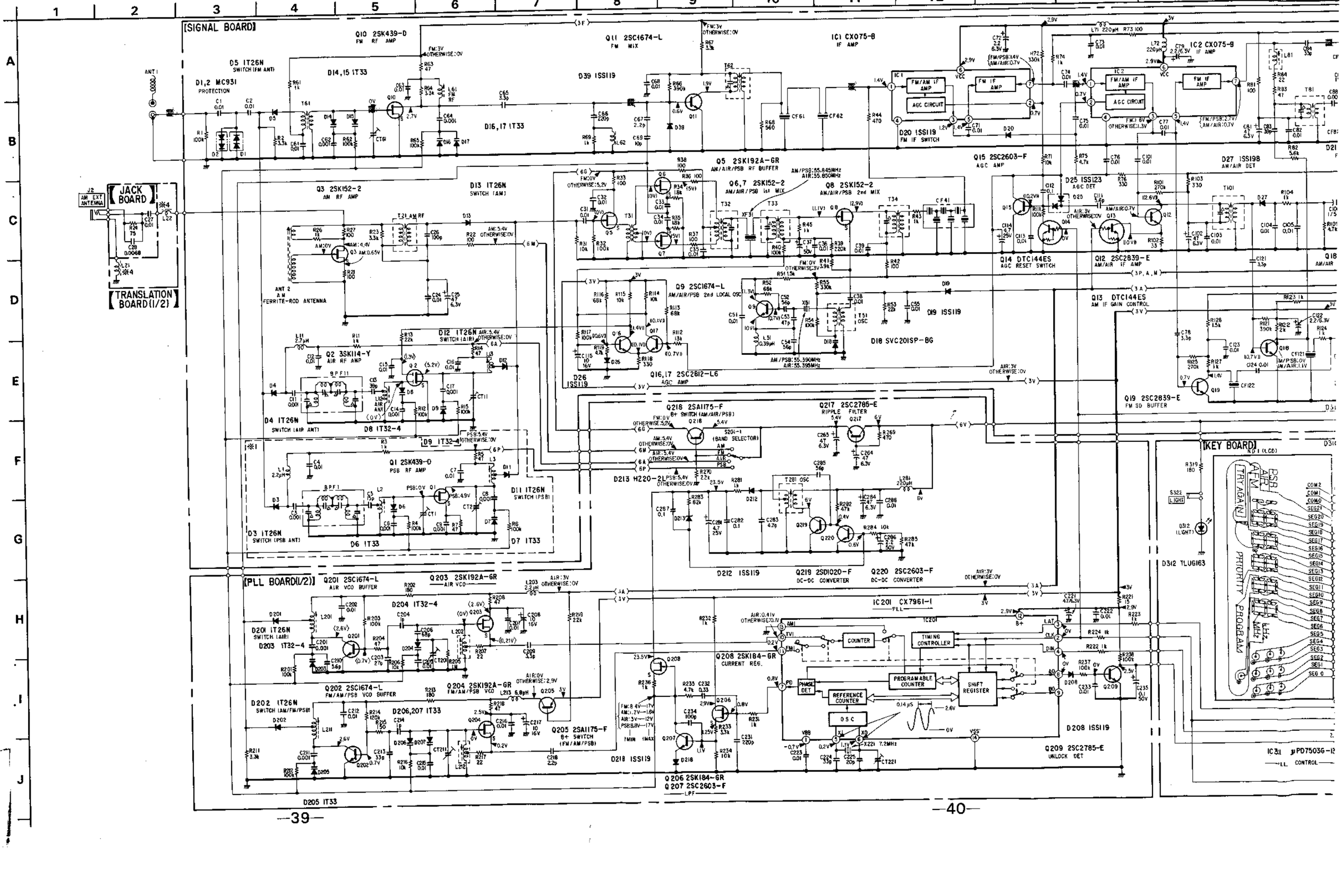
TOTAL CURRENT
FM: 62mA
AM: 76mA
AIR: 75mA
PSB: 78mA

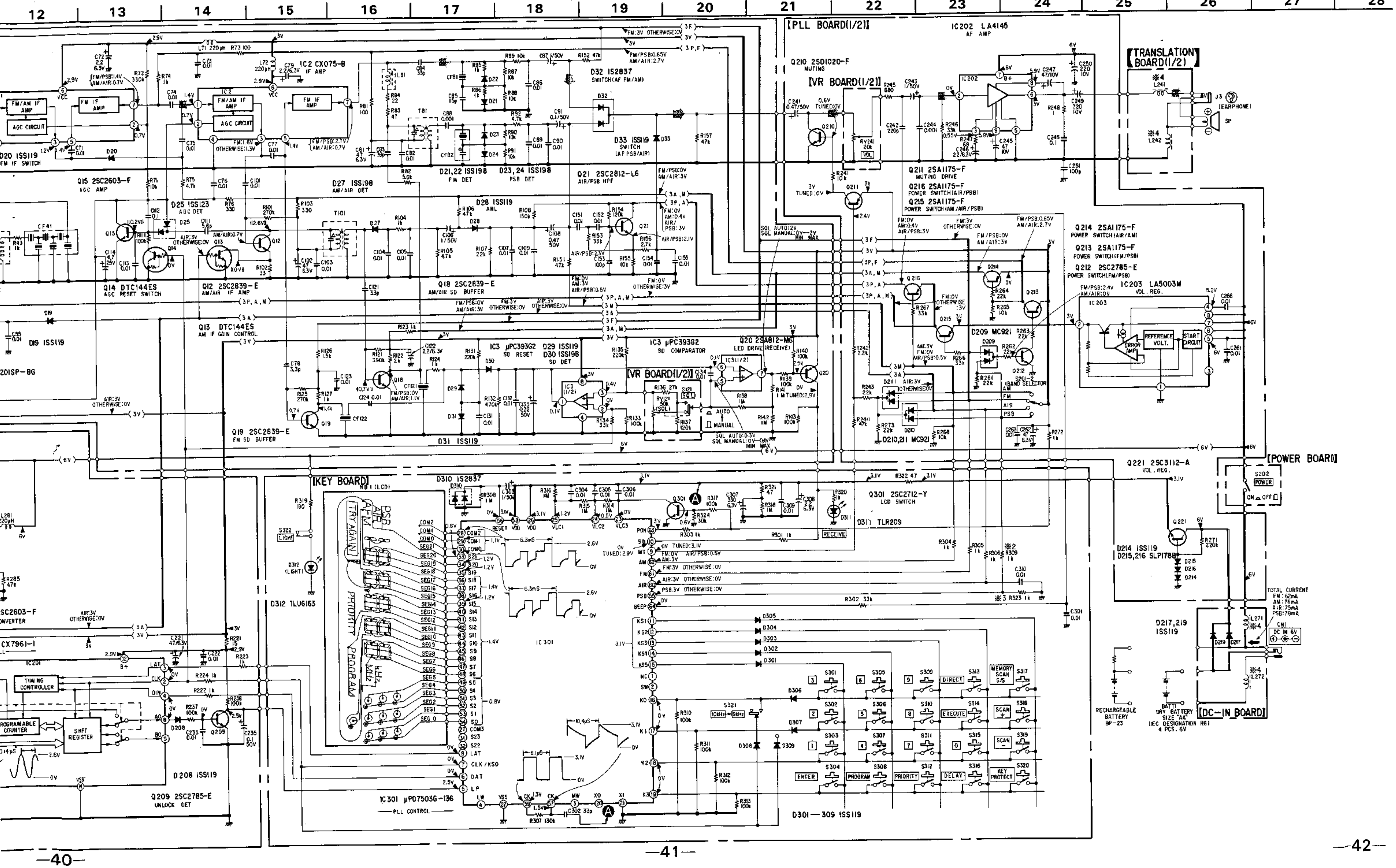
BATT1 DRY BATTERY SIZE "AA" IEC DESIGNATION R6) 4 PCS. 6V

RECHARGEABLE BATTERY BP-23

AM EXT ANTENNA

4-4. SCHEMATIC DIAGRAM




12
13
14
15
16
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18
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21
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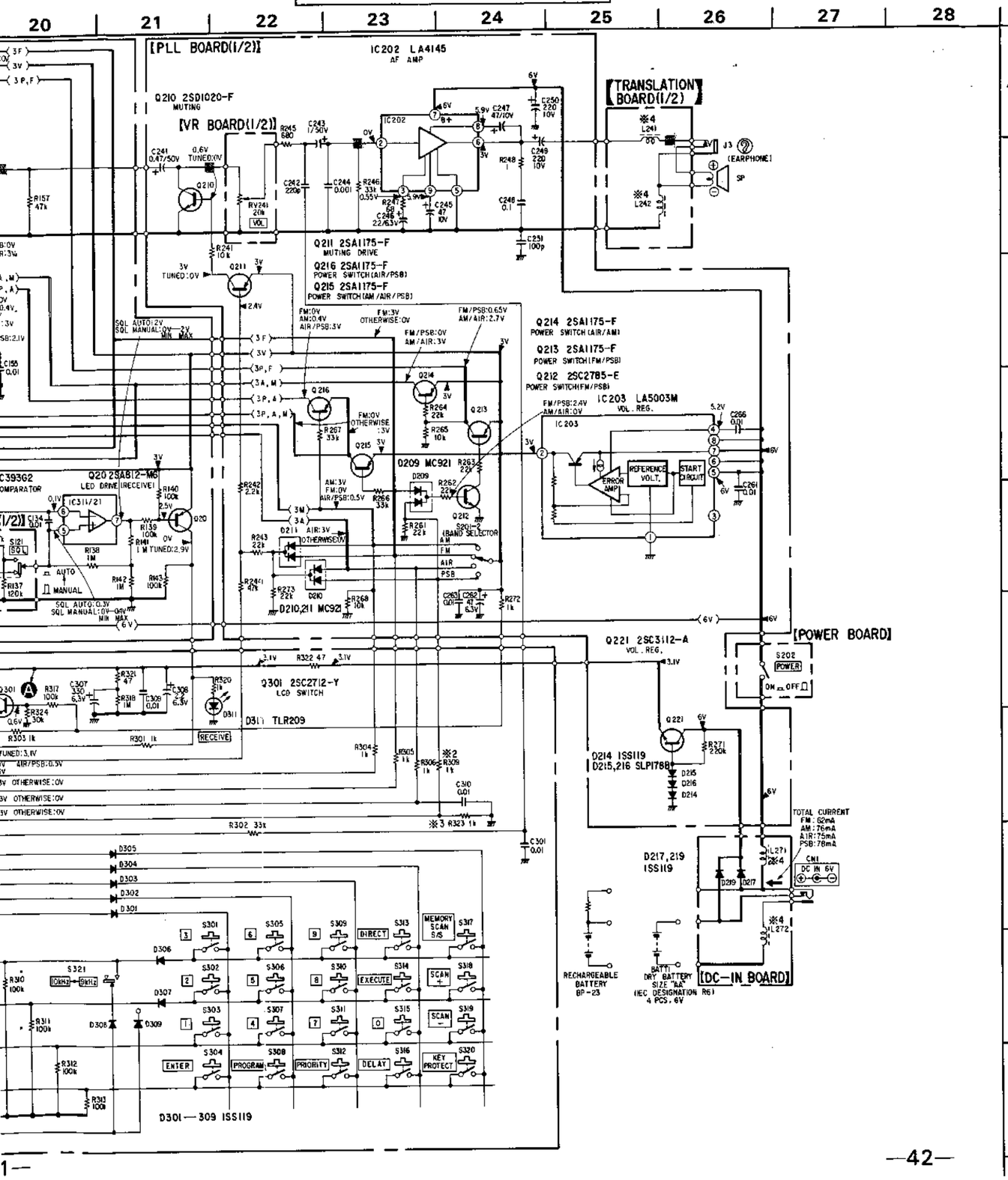
23
24
25
26
27
28
[PLL BOARD(1/2)]
IC202 LA4145 AF AMP
[TRANSLATION BOARD(1/2)]
[VR BOARD(1/2)]
IC2 CX075-B IF AMP
FM/AM IF AMP
AGC CIRCUIT
FM IF AMP
D20 1SS119 FM IF SWITCH
Q15 2SC2603-F AGC AMP
D25 1SS123 AGC DET
D27 1SS198 AM/AIR DET
D21,22 1SS198 FM DET
D23,24 1SS198 PSB DET
D32 1S2837 SWITCH (AF FM/AM)
D33 1SS119 SWITCH (AF PSB/AIR)
Q21 2SC2812-L6 AIR/PSB HPF
D28 1SS119 ANL
Q14 DTC144ES AGC RESET SWITCH
Q12 2SC2839-E AM/AIR IF AMP
Q13 DTC144ES AM IF GAIN CONTROL
Q18 2SC2839-E AM/AIR SD BUFFER
IC3 μPC393G2 SD RESET
D29 1SS119
D30 1SS198 SD DET
IC3 μPC393G2 SD COMPARATOR
Q20 2SA812-M6 LED DRIVE (RECEIVE)
Q19 2SC2839-E FM SD BUFFER
D31 1SS119
D19 1SS119
Q210 2SD1020-F MUTING
Q211 2SA1175-F MUTING DRIVE
Q216 2SA1175-F POWER SWITCH (AIR/PSB)
Q215 2SA1175-F POWER SWITCH (AM/AIR/PSB)
Q214 2SA1175-F POWER SWITCH (AIR/AM)
Q213 2SA1175-F POWER SWITCH (FM/PSB)
Q212 2SC2785-E POWER SWITCH (FM/PSB)
IC203 LA5003M VOL. REG.
REFERENCE VOLT.
START CIRCUIT
ERROR AMP
D209 MC921
D210,211 MC921
Q221 2SC3112-A VOL. REG.
[POWER BOARD]
S202 POWER
ON OFF
D214 1SS119
D215,216 SLP178B
TOTAL CURRENT FM: 62mA AM: 76mA AIR: 75mA PSB: 78mA
D217,219 1SS119
[DC-IN BOARD]
CN1 DC IN 6V
J3 (EARPHONE)
SP
RECHARGEABLE BATTERY BP-23
BATT DRY BATTERY SIZE "AA" (IEC DESIGNATION R6) 4 PCS. 6V
[KEY BOARD]
ND1 (LCD)
D310 1S2837
Q301 2SC2712-Y LCD SWITCH
D311 TLR209
RECEIVE
S322 LIGHT
D312 (LIGHT)
D312 TLUG163
IC301
IC301 μPD7503G-136 PLL CONTROL
D301—309 1SS119
DIRECT
MEMORY SCAN S/S
EXECUTE
SCAN +
SCAN -
ENTER
PROGRAM
PRIORITY
DELAY
KEY PROTECT
TIMING CONTROLLER
PROGRAMABLE COUNTER
SHIFT REGISTER
D208 1SS119
Q209 2SC2785-E UNLOCK DET
IC201
CX7961-1



Note:

- 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 ¼W or less unless otherwise specified.
- ▨: signal path.
- Δ : internal component.
- ▬: B+ bus.
- ▭: adjustment for repair.
- Total current is measured at detuned mode with VOL knob turned to the counterclockwise (MIN).
- Power voltage is 6V and fed with regulated dc power supply from DC IN 6V (external power input) jack. Voltages are dc with respect to ground in detuned mode. Voltage variations may be noted due to normal production tolerances.
  Measured at FM 76.000MHz on LCD.
  no mark: FM
  ( ) : AM/AIR/PSB
  (( )) : AM/AIR
  < > : AIR
- Switch

Ref. No.	Switch	Position
S121	SQL	MANUAL
S201	BAND SELECTOR	FM
S202	POWER	OFF
S301	3	OFF
S302	2	OFF
S303	1	OFF
S304	ENTER	OFF
S305	6	OFF
S306	5	OFF
S307	4	OFF
S308	PROGRAM	OFF
S309	9	OFF
S310	8	OFF
S311	7	OFF
S312	PRIORITY	OFF
S313	DIRECT	OFF
S314	EXECUTE	OFF
S315	0	OFF
S316	DELAY	OFF
S317	MEMORY SCAN S/S	STOP
S318	SCAN +	OFF
S319	SCAN −	OFF
S320	KEY PROTECT	OFF
S321	10kHz/9kHz SELECT	10kHz
S322	LIGHT	OFF

NOTE:
Parts marked ※ 1 to 4 differ from each model.

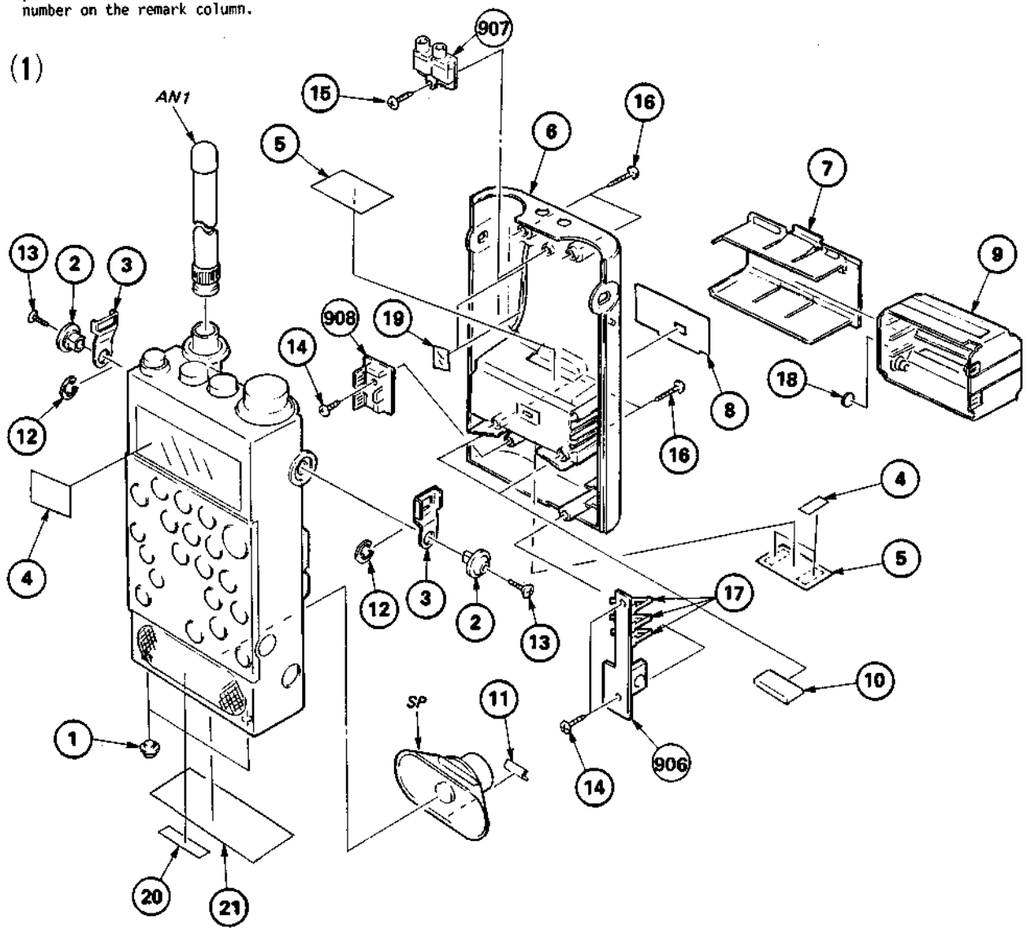
	AIR-7		AIR-8
	AEP-1, E model	Canadian, AEP-2 model	
※1 (PSB RF CIRCUIT)	mounted on PC board, but not used	used	
※2 (R309)	not mounted	mounted	
※3 (R323)	mounted	not mounted	
※4 (L21, 22, 241, 242, 271, 272)	shorted		mounted

AIR-7/8 AIR-7/8

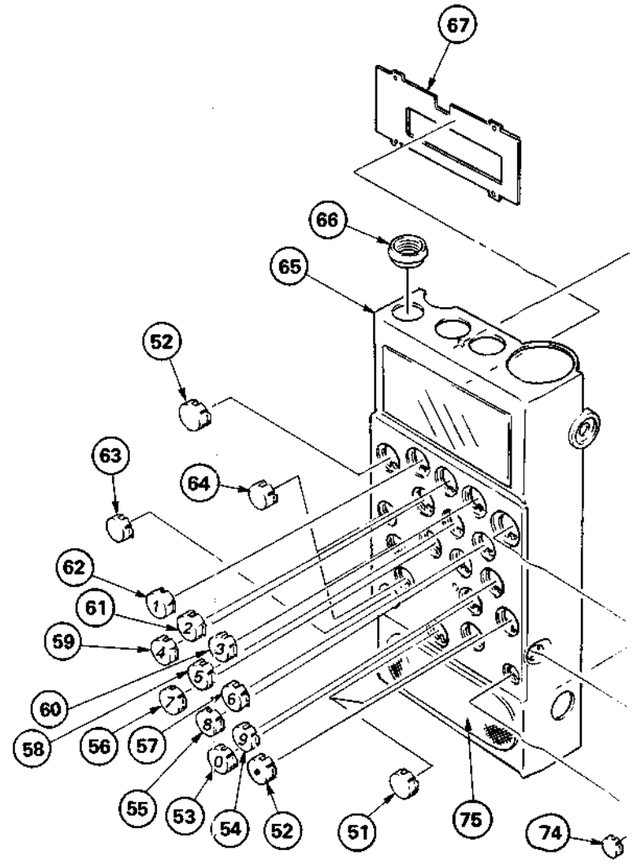
SECTION 5
EXPLODED VIEWS

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.
- The construction parts of an assembled part are indicated with a collation number on the remark column.

(1)



(2)



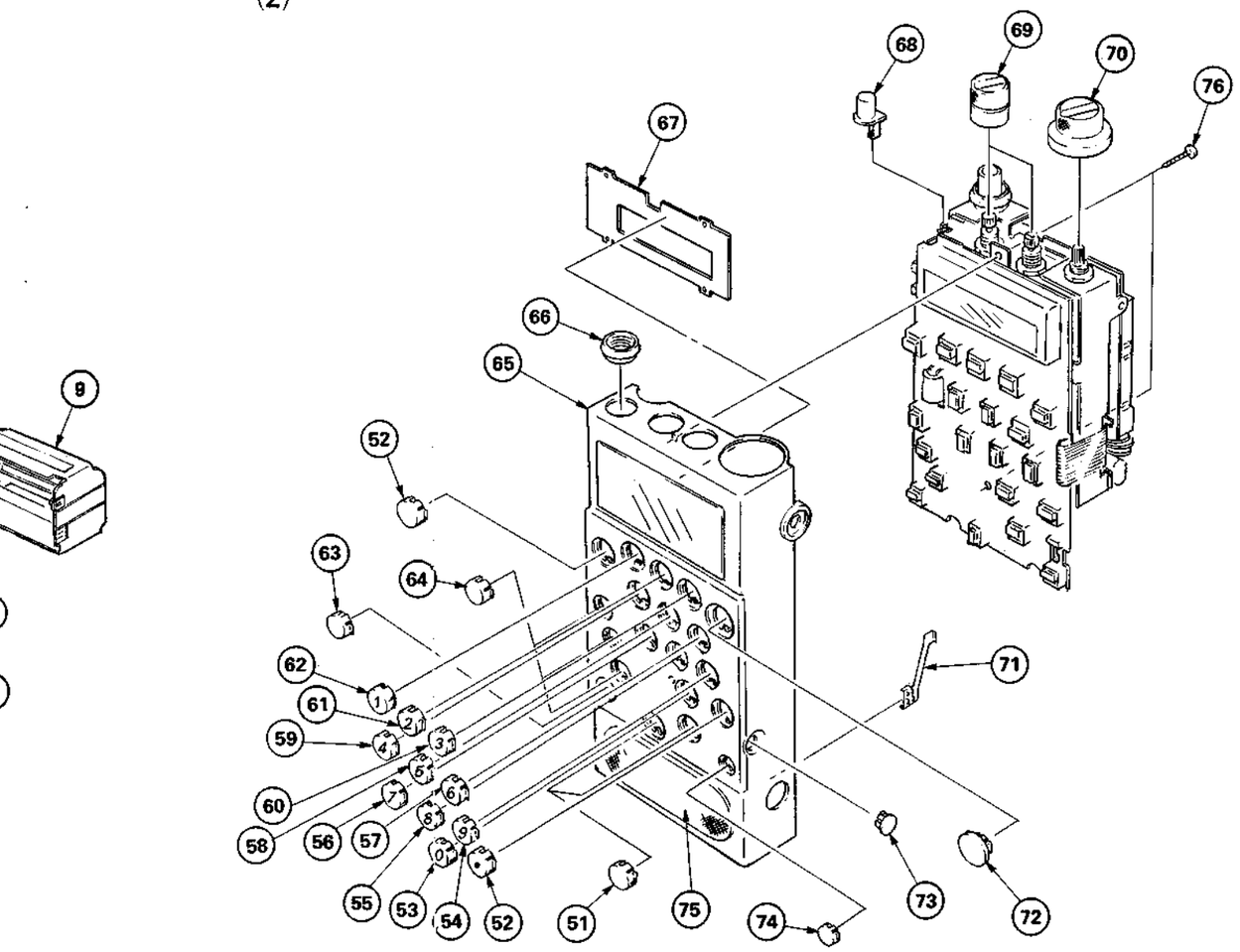
No.	Part No.	Description	REMARKS
1	3-427-542-00	STOPER	
2	3-893-726-01	COLLAR, BELT	
3	3-893-730-01	BRACKET, BELT	
4	*3-703-709-01	STICKER, SONY SYMBOL (15)	
5	3-893-722-01	PLATE, BLIND	
6	3-893-710-01	LID, REAR, CABINET	
7	3-893-706-01	HOLDER, BATTERY	
8	3-893-736-01	LABEL, STEP, MW CH	
9	X-3564-820-0	HOLDER ASSY, BATTERY	
10	3-881-931-00	CUSHION, SPEAKER	
11	9-911-838-XX	CUSHION, SPEAKER	
12	7-624-109-04	STOP RING 5.0, TYPE -E	
13	7-621-662-80	SCREW +RK 2.6X12	

No.	Part No.	Description	REMARKS
14	7-685-134-14	SCREW +P 2.6X8 TYPE2 SLIT	
15	7-621-773-86	SCREW +P 2.6X4	
16	7-621-284-30	+P 2.6X8	
17	3-893-723-01	PLATE, POLE	
18	3-527-126-00	MARK, BATTERY CASE	
19	3-831-441-XX	CUSHION	
20	3-701-999-00	LABEL, SERIAL NUMBER	
21	3-893-735-01	(Canadian,AEP-2)...LABEL, MODEL NUMBER	
	3-893-738-01	(AEP-1,E).....LABEL, MODEL NUMBER	
	3-893-747-01	(AIR-8).....LABEL, MODEL NUMBER (U)	
906	*1-613-291-11	PC BOARD, DC-IN	
907	*1-613-292-11	PC BOARD, JACK	
908	*1-613-293-11	PC BOARD, TRANSLATION	

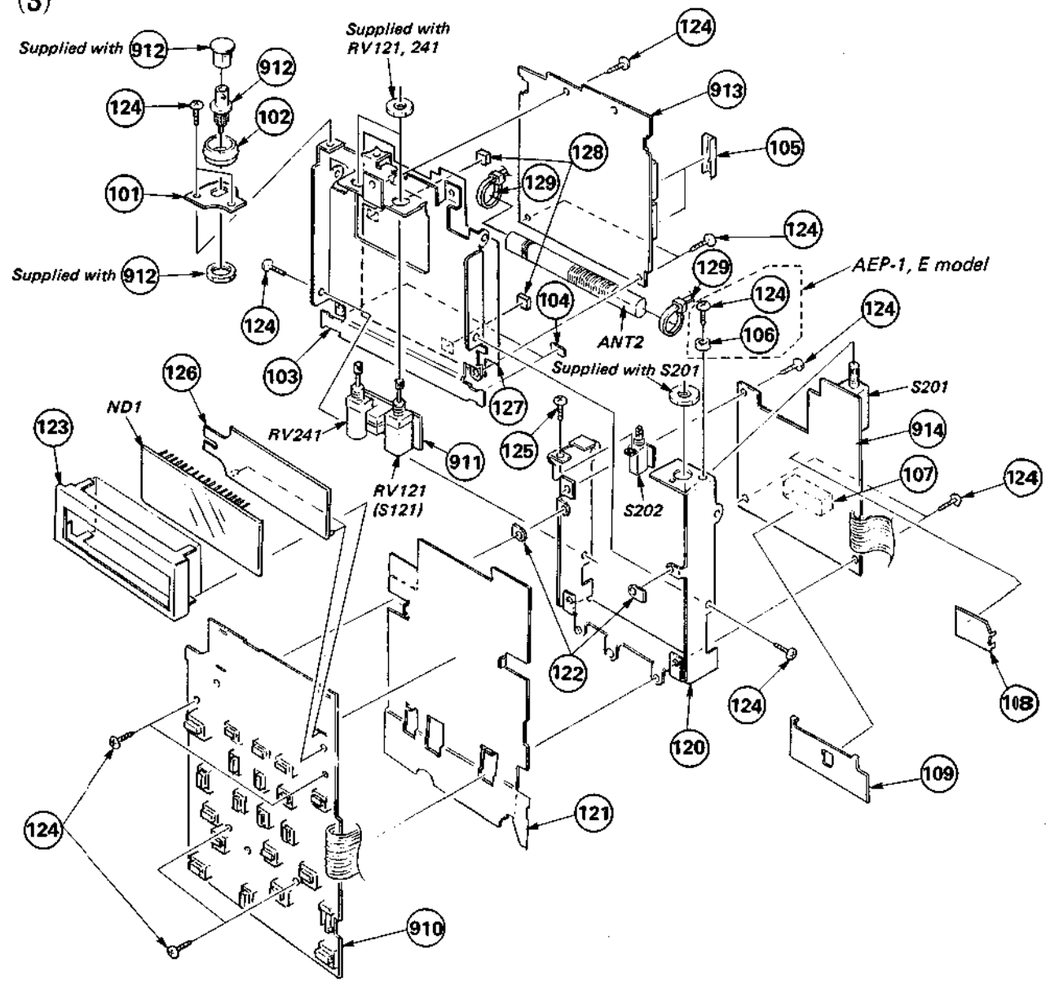
No.	Part No.	Description	REMARKS
51	3-893-704-11	BUTTON (B), MEMORY	
52	3-893-704-01	BUTTON (B), MEMORY	
53	3-893-703-01	BUTTON (A), MEMORY	
54	3-893-703-91	BUTTON (A), MEMORY	
55	3-893-703-81	BUTTON (A), MEMORY	
56	3-893-703-71	BUTTON (A), MEMORY	
57	3-893-703-61	BUTTON (A), MEMORY	
58	3-893-703-51	BUTTON (A), MEMORY	
59	3-893-703-41	BUTTON (A), MEMORY	
60	3-893-703-31	BUTTON (A), MEMORY	
61	3-893-703-21	BUTTON (A), MEMORY	
62	3-893-703-11	BUTTON (A), MEMORY	
63	3-893-716-11	BUTTON, DOUBLE KEY	
64	3-893-716-01	BUTTON, DOUBLE KEY	

No.	Pa
65	X-
	X-
	X-
66	3-
67	3-
	3-
68	3-
69	3-
70	3-
71	3-
72	3-
73	3-
74	3-
75	3-
76	7-

(2)



(3)



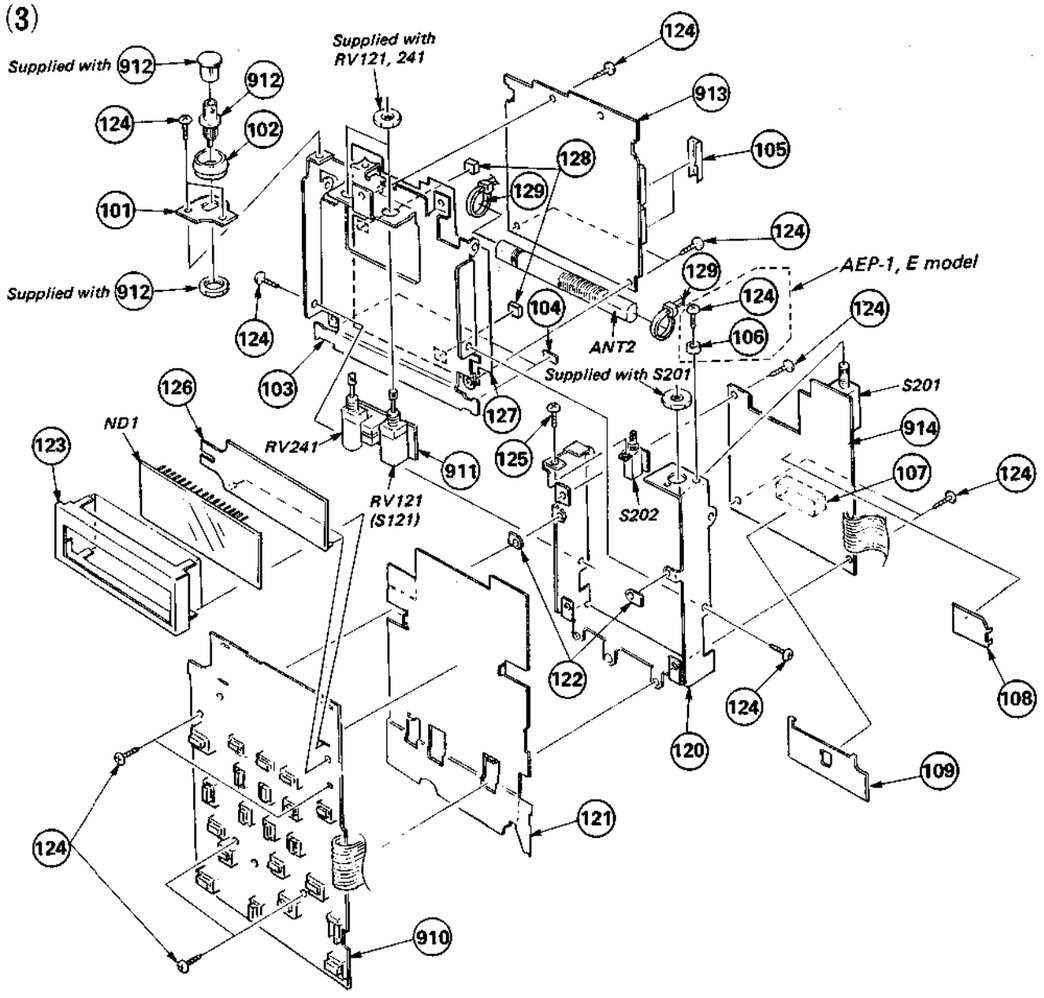
REMARKS	No.	Part No.	Description
	51	3-893-704-11	BUTTON (B), MEMORY
	52	3-893-704-01	BUTTON (B), MEMORY
LIT	53	3-893-703-01	BUTTON (A), MEMORY
	54	3-893-703-91	BUTTON (A), MEMORY
	55	3-893-703-81	BUTTON (A), MEMORY
	56	3-893-703-71	BUTTON (A), MEMORY
	57	3-893-703-61	BUTTON (A), MEMORY
	58	3-893-703-51	BUTTON (A), MEMORY
	59	3-893-703-41	BUTTON (A), MEMORY
L, MODEL NUMBER	60	3-893-703-31	BUTTON (A), MEMORY
L, MODEL NUMBER	61	3-893-703-21	BUTTON (A), MEMORY
L NUMBER (U)	62	3-893-703-11	BUTTON (A), MEMORY
	63	3-893-716-11	BUTTON, DOUBLE KEY
	64	3-893-716-01	BUTTON, DOUBLE KEY

REMARKS	No.	Part No.	Description	REMARKS
	65	X-3893-702-1	(Canadian,AEP-2)....CABINET (FRONT) ASSY	
		X-3893-704-1	(AEP-1,E)...CABINET (FRONT) ASSY	
		X-3893-706-1	(AIR-8).....CABINET (FRONT) ASSY	
	66	3-893-728-01	RING, POWER	
	67	3-893-725-01	(AIR-8,Canadian,AEP-2)...PLATE, BACK	
		3-893-725-11	(AEP-1,E).....PLATE, BACK	
	68	3-893-714-01	BUTTON (POWER)	
	69	3-893-713-01	KNOB (A)	
	70	3-893-702-01	KNOB (B)	
	71	3-893-727-01	SPRING	
	72	3-893-715-01	BUTTON, S/S	
	73	3-893-717-11	BUTTON, KP	
	74	3-893-717-01	BUTTON, KP	
	75	3-893-718-01	PANEL, SPEAKER	
	76	7-621-284-30	SCREW +P 2.6X8	

No.	Part No.	Description	REMARKS
101	*3-893-720-01	HOLDER, ANTENNA	
102	3-893-719-01	RING, ANTENNA	
103	*3-893-711-01	CHASSIS (A)	
104	9-911-838-XX	CUSHION, SPEAKER	
105	*3-893-734-01	PLATE (I), SHIELD	
106	3-893-733-01	(AEP-1,E)...STOPPER, COLLER	
107	*3-893-751-01	PLATE (VM), SHIELD	
108	*X-3893-705-1	PLATE (D) ASSY, SHIELD	
109	*X-3893-703-1	PLATE (V) ASSY, SHIELD	
120	*3-893-712-01	CHASSIS (B)	
121	*X-3893-701-1	PLATE (K) ASSY, SHIELD	
122	*3-893-750-01	INSULATOR (K)	

No.	Part No.	Description	REMARKS
123	*3-893-724-01	PLATE (L), SHIELD	
124	7-621-773-86	SCREW +P 2.6X4	
125	7-621-255-25	SCREW +P 2X4	
126	*3-893-721-01	CHIP, ILLUMINATION	
127	*3-893-755-01	INSULATOR (C)	
128	9-911-840-XX	SPACER, RUBBER	
129	*3-671-893-00	CLAMP (LOW TYPE)	
910	*1-613-296-11	PC BOARD, KEY	
911	*1-613-297-11	PC BOARD, VR	
912	1-562-261-21	CONNECTOR, COAXIAL (BNC)	
913	*A-3660-519-A	MOUNTED PCB, SIGNAL	
914	*A-3661-009-A	MOUNTED PCB, PLL	

(3)



REMARKS
ET (FRONT) ASSY
T) ASSY
T) ASSY
PLATE, BACK
BACK

No.	Part No.	Description	REMARKS
101	*3-893-720-01	HOLDER, ANTENNA	
102	3-893-719-01	RING, ANTENNA	
103	*3-893-711-01	CHASSIS (A)	
104	9-911-838-XX	CUSHION, SPEAKER	
105	*3-893-734-01	PLATE (I), SHIELD	
106	3-893-733-01	(AEP-1,E)...STOPPER, COLLER	
107	*3-893-751-01	PLATE (VM), SHIELD	
108	*X-3893-705-1	PLATE (D) ASSY, SHIELD	
109	*X-3893-703-1	PLATE (V) ASSY, SHIELD	
120	*3-893-712-01	CHASSIS (B)	
121	*X-3893-701-1	PLATE (K) ASSY, SHIELD	
122	*3-893-750-01	INSULATOR (K)	

No.	Part No.	Description	REMARKS
123	*3-893-724-01	PLATE (L), SHIELD	
124	7-621-773-86	SCREW +P 2.6X4	
125	7-621-255-25	SCREW +P 2X4	
126	*3-893-721-01	CHIP, ILLUMINATION	
127	*3-893-755-01	INSULATOR (C)	
128	9-911-840-XX	SPACER, RUBBER	
129	*3-671-893-00	CLAMP (LOW TYPE)	
910	*1-613-296-11	PC BOARD, KEY	
911	*1-613-297-11	PC BOARD, VR	
912	1-562-261-21	CONNECTOR, COAXIAL (BNC)	
913	*A-3660-519-A	MOUNTED PCB, SIGNAL	
914	*A-3661-009-A	MOUNTED PCB, PLL	

SECTION 6
ELECTRICAL PARTS LIST

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.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

REISITORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···,
UPC···: μPC,
UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	*1-508-995-00	PIN, CONNECTOR
902	*1-560-456-00	PIN, CONNECTOR 2P
903	*1-560-466-00	PIN, CONNECTOR 3P
904	.....	
905	*1-560-467-00	PIN, CONNECTOR 4P
906	*1-613-291-11	PC BOARD, DC-IN
907	*1-613-292-11	PC BOARD, JACK
908	*1-613-293-11	PC BOARD, TRANSLATION
909	.....	
910	*1-613-296-11	PC BOARD, KEY
911	*1-613-297-11	PC BOARD, VR
912	1-562-261-21	CONNECTOR, COAXIAL (BNC)
913	*A-3660-519-A	MOUNTED PCB, SIGNAL
914	*A-3661-009-A	MOUNTED PCB, PLL
ANT1	1-501-322-11	ANTENNA
ANT2	1-402-120-11	ANTENNA, FERRITE-ROD(AM)
BPF1	1-235-401-11	FILTER, BAND PASS
BPF11	1-235-402-11	FILTER, BAND PASS
C1	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C2	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C3	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C4	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C5	1-163-161-00	CERAMIC(CHIP)15PF 5% 50V
C6	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C7	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C8	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C9	1-162-110-00	CERAMIC 0.001MF 10% 50V
C11	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C12	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C13	1-163-171-00	CERAMIC(CHIP)39PF 5% 50V
C14	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C15	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C16	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C17	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C24	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C25	1-123-647-00	ELECT 47MF 20% 6.3V
C26	1-163-181-00	CERAMIC(CHIP)100PF 10% 50V
C27	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C28	1-162-402-11	CERAMIC 0.0068MF 30% 16V
C31	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C32	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C33	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C34	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C35	1-161-032-00	CERAMIC(CHIP)0.01MF 20% 25V
C36	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C37	1-123-611-00	ELECT 1MF 20% 50V
C38	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C39	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C51	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C52	1-163-175-00	CERAMIC(CHIP)56PF 5% 50V
C53	1-163-173-00	CERAMIC(CHIP)47PF 5% 50V
C54	1-163-175-00	CERAMIC(CHIP)56PF 5% 50V
C55	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C61	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C62	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C63	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C64	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C65	1-162-327-00	CERAMIC(CHIP)3.3PF 10% 50V
C66	1-163-189-00	CERAMIC(CHIP)220PF 10% 50V
C67	1-162-325-00	CERAMIC(CHIP)2.2PF 10% 50V
C68	1-163-059-00	CERAMIC 0.01MF 30% 16V
C69	1-162-199-31	CERAMIC 10PF 5% 50V
C71	1-162-306-31	CERAMIC(CHIP)0.01MF 20% 16V
C72	1-135-099-00	TANTAL(CHIP) 2.2MF 20% 6.3V
C73	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C74	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C75	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C76	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C77	1-162-306-31	CERAMIC 0.01MF 20% 16V
C78	1-162-327-00	CERAMIC 3.3PF 10% 50V
C79	1-135-099-00	TANTAL(CHIP) 2.2MF 20% 6.3V
C81	1-123-647-00	ELECT 47MF 20% 6.3V
C82	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C83	1-162-213-31	CERAMIC 39PF 5% 50V
C84	1-163-169-00	CERAMIC(CHIP)33PF 5% 50V
C85	1-163-161-00	CERAMIC(CHIP)15PF 5% 50V
C86	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C87	1-123-611-00	ELECT 1MF 20% 50V
C88	1-163-205-00	CERAMIC(CHIP)0.001MF 10% 50V
C89	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C90	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C91	1-123-607-00	ELECT 0.1MF 20% 50V
C101	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C102	1-123-647-00	ELECT 47MF 20% 6.3V
C103	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C104	1-162-306-31	CERAMIC 0.01MF 20% 16V
C105	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C106	1-123-611-00	ELECT 1MF 10% 50V
C107	1-163-059-00	CERAMIC(CHIP)0.01MF 30% 16V
C108	1-123-610-00	ELECT 0.47MF 10% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C109	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C111	1-162-330-00	CERAMIC	5.6PF	10%	50V
C112	1-136-165-00	FILM	0.1MF	5%	50V
C113	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C114	1-123-616-00	ELECT	4.7MF	20%	25V
C115	1-123-617-00	ELECT	10MF	20%	16V
C121	1-162-327-00	CERAMIC	3.3PF	10%	50V
C122	1-135-099-00	TANTAL(CHIP)	2.2MF	20%	6.3V
C123	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C124	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C131	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C132	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C133	1-123-608-00	ELECT	0.22MF	20%	50V
C134	1-162-306-31	CERAMIC	0.01MF	20%	16V
C151	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C152	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C153	1-162-282-31	CERAMIC	100PF	10%	50V
C154	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C155	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C201	1-163-205-00	CERAMIC(CHIP)	0.001MF	10%	50V
C202	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C203	1-163-167-00	CERAMIC(CHIP)	27PF	5%	50V
C204	1-163-147-00	CERAMIC(CHIP)	1PF	20%	50V
C205	1-161-013-00	CERAMIC	0.01MF	10%	25V
C206	1-162-190-31	CERAMIC	68PF	5%	50V
C207	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C208	1-123-617-00	ELECT	10MF	20%	16V
C209	1-162-327-00	CERAMIC	3.3PF	10%	50V
C210	1-162-330-00	CERAMIC	5.6PF	10%	50V
C211	1-163-205-00	CERAMIC(CHIP)	0.001MF	10%	50V
C212	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C213	1-163-169-00	CERAMIC(CHIP)	33PF	5%	50V
C214	1-163-147-00	CERAMIC(CHIP)	1PF	20%	50V
C215	1-161-013-00	CERAMIC	0.01MF	10%	25V
C216	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C217	1-123-617-00	ELECT	10MF	20%	16V
C218	1-162-191-31	CERAMIC	2.2PF	10%	50V
C221	1-123-647-00	ELECT	47MF	20%	6.3V
C222	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C223	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C224	1-163-169-00	CERAMIC(CHIP)	33PF	5%	50V
C225	1-163-164-00	CERAMIC	20PF	5%	50V
C231	1-163-189-00	CERAMIC(CHIP)	220PF	10%	50V
C232	1-136-171-00	FILM	0.33MF	5%	50V
C233	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C234	1-163-181-00	CERAMIC(CHIP)	100PF	10%	50V
C235	1-123-607-00	ELECT	0.1MF	20%	50V
C241	1-123-610-00	ELECT	0.47MF	20%	50V
C242	1-163-189-00	CERAMIC(CHIP)	220PF	10%	50V
C243	1-123-611-00	ELECT	1MF	20%	50V
C244	1-163-205-00	CERAMIC(CHIP)	0.001MF	10%	50V
C245	1-123-822-00	ELECT	47MF	20%	10V
C246	1-123-618-00	ELECT	22MF	20%	6.3V
C247	1-123-822-00	ELECT	47MF	20%	10V
C248	1-136-165-00	FILM	0.1MF	5%	50V
C249	1-123-308-00	ELECT	220MF	20%	10V
C250	1-123-308-00	ELECT	220MF	20%	10V
C251	1-163-181-00	CERAMIC(CHIP)	100PF	10%	50V
C261	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C262	1-123-647-00	ELECT	47MF	20%	6.3V
C263	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C264	1-123-647-00	ELECT	47MF	20%	6.3V
C265	1-123-647-00	ELECT	47MF	20%	6.3V
C266	1-162-306-31	CERAMIC	0.01MF	20%	16V
C281	1-123-616-00	ELECT	4.7MF	20%	25V
C282	1-136-165-00	FILM	0.1MF	5%	50V
C283	1-162-329-00	CERAMIC	4.7PF	10%	50V
C284	1-123-647-00	ELECT	47MF	20%	6.3V
C285	1-163-175-00	CERAMIC	56PF	5%	50V
C286	1-123-612-00	ELECT	2.2MF	20%	50V
C287	1-136-165-00	FILM	0.1MF	5%	50V
C288	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C301	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C302	1-163-169-00	CERAMIC(CHIP)	33PF	5%	50V
C303	1-123-611-00	ELECT	1MF	20%	50V
C304	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C305	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C306	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C307	1-123-297-00	ELECT	330MF	20%	6.3V
C308	1-135-099-00	TANTAL. CHIP	2.2MF	20%	6.3V
C309	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
C310	1-163-059-00	CERAMIC(CHIP)	0.01MF	30%	16V
CF41	1-527-392-00	FILTER, CERAMIC			
CF61	1-527-795-71	FILTER, CERAMIC			
CF62	1-527-795-71	FILTER, CERAMIC			
CF81	1-567-050-00	FILTER, CERAMIC			
CF82	1-567-308-11	FILTER, CERAMIC			
CF121	1-527-290-00	FILTER, CERAMIC			
CF122	1-527-483-00	FILTER, CERAMIC			
CN1	1-507-459-00	JACK, DC IN 6V			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
CT1	1-141-272-00	CAP, TRIMMER
CT2	1-141-272-00	CAP, TRIMMER
CT11	1-141-257-00	CAP, TRIMMER
CT61	1-141-257-00	CAP, TRIMMER
CT201	1-141-272-00	CAP, TRIMMER
CT211	1-141-293-11	CAP, TRIMMER
CT221	1-141-227-00	TRIMAR, CERAMIC
D1	8-719-000-12	DIODE MC931
D2	8-719-000-12	DIODE MC931
D3	8-719-104-15	DIODE 1T26N
D4	8-719-104-15	DIODE 1T26N
D5	8-719-104-15	DIODE 1T26N
D6	8-713-309-00	DIODE 1T33-09
D7	8-713-309-00	DIODE 1T33-09
D8	8-713-240-00	DIODE 1T32-4
D9	8-713-240-00	DIODE 1T32-4
D11	8-719-104-15	DIODE 1T26N
D12	8-719-104-15	DIODE 1T26N
D13	8-719-104-15	DIODE 1T26N
D14	8-713-309-00	DIODE 1T33-09
D15	8-713-309-00	DIODE 1T33-09
D16	8-713-309-00	DIODE 1T33-09
D17	8-713-309-00	DIODE 1T33-09
D18	8-719-912-03	DIODE SVC201SP-BG
D19	8-719-911-19	DIODE 1SS119
D20	8-719-911-19	DIODE 1SS119
D21	8-719-918-88	DIODE 1SS198
D22	8-719-918-88	DIODE 1SS198
D23	8-719-918-88	DIODE 1SS198
D24	8-719-918-88	DIODE 1SS198
D25	8-719-101-23	DIODE 1SS123
D26	8-719-911-19	DIODE 1SS119
D27	8-719-918-88	DIODE 1SS198
D28	8-719-911-19	DIODE 1SS119
D29	8-719-911-19	DIODE 1SS119
D30	8-719-918-88	DIODE 1SS198
D31	8-719-911-19	DIODE 1SS119
D32	8-719-100-05	DIODE 1S2837
D33	8-719-911-19	DIODE 1SS119
D39	8-719-911-19	DIODE 1SS119
D201	8-719-104-15	DIODE 1T26N
D202	8-719-104-15	DIODE 1T26N
D203	8-713-240-00	DIODE 1T32-4
D204	8-713-240-00	DIODE 1T32-4
D205	8-713-309-00	DIODE 1T33-09
D206	8-713-309-00	DIODE 1T33-09

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D207	8-713-309-00	DIODE 1T33-09
D208	8-719-911-19	DIODE 1SS119
D209	8-719-000-06	DIODE MC921
D210	8-719-000-06	DIODE MC921
D211	8-719-000-06	DIODE MC921
D212	8-719-911-19	DIODE 1SS119
D213	8-719-910-03	DIODE HZ20-3L
D214	8-719-911-19	DIODE 1SS119
D215	8-719-912-43	DIODE SLP178B
D216	8-719-912-43	DIODE SLP178B
D217	8-719-911-19	DIODE 1SS119
D218	8-719-911-19	DIODE 1SS119
D219	9-719-911-19	DIODE 1SS119
D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D306	8-719-911-19	DIODE 1SS119
D307	8-719-911-19	DIODE 1SS119
D308	8-719-911-19	DIODE 1SS119
D309	8-719-911-19	DIODE 1SS119
D310	8-719-100-05	DIODE 1S2837
D311	8-719-800-67	DIODE TLR209
D312	8-719-800-14	DIODE TLUG163
IC1	8-759-600-75	IC CX-075B
IC2	8-759-600-75	IC CX-075B
IC3	8-759-100-93	IC UPC393G2
IC201	8-757-961-01	IC CX-7961-1
IC202	8-759-801-65	IC LA4145
IC203	8-759-801-15	IC LA5003M
IC301	8-759-102-04	IC UPD7503G-136
J2	1-507-917-00	JACK, AM EXT ANTENNA
J3	1-507-921-00	JACK, EARPHONE
L1	1-410-013-11	MICRO INDUCTOR 2.2UH
L2	1-459-551-11	COIL (WITH CORE)
L3	1-459-556-11	COIL (WITH CORE)
L11	1-410-014-11	MICRO INDUCTOR 2.7UH
L12	1-459-558-11	COIL (WITH CORE)
L13	1-459-559-11	COIL (WITH CORE)
L21	1-407-882-00	(AIR-8)....COIL
L22	1-407-882-00	(AIR-8)....COIL
L51	1-408-903-11	MICRO INDUCTOR 0.39UH
L61	1-459-555-11	COIL (WITH CORE)
L62	1-407-882-00	COIL
L71	1-408-579-31	MICRO INDUCTOR 220UH

ELECTRICAL PARTS

Ref.No.	Part No.	Description
L72	1-408-579-31	MICRO INDUCTOR 220UH
L81	1-404-567-11	TRANSFORMER, IF
L201	1-459-553-11	COIL (WITH CORE)
L202	1-459-552-11	COIL (WITH CORE)
L203	1-408-555-00	MICRO INDUCTOR 2.2UH
L211	1-459-554-11	COIL (WITH CORE)
L212	1-459-550-11	COIL
L213	1-408-561-11	MICRO INDUCTOR 6.8UH
L241	1-407-882-00	(AIR-8)...COIL
L242	1-407-882-00	(AIR-8)...COIL
L271	1-407-882-00	(AIR-8)...COIL
L272	1-407-882-00	(AIR-8)...COIL
L281	1-408-579-31	MICRO INDUCTOR 220UH
ND1	1-806-918-11	DISPLAY PANEL, LIQUID CRYSTAL
Q1	8-729-301-27	TRANSISTOR 2SK439-D
Q2	8-729-203-19	TRANSISTOR 3SK114-Y
Q3	8-729-800-42	TRANSISTOR 2SK152-2
Q5	8-729-200-66	TRANSISTOR 2SK192A-GR
Q6	8-729-800-42	TRANSISTOR 2SK152-2
Q7	8-729-800-42	TRANSISTOR 2SK152-2
Q8	8-729-800-42	TRANSISTOR 2SK152-2
Q9	8-729-178-62	TRANSISTOR 2SC2786-L
Q10	8-729-301-27	TRANSISTOR 2SK439-D
Q11	8-729-178-62	TRANSISTOR 2SC2786-L
Q12	8-729-883-92	TRANSISTOR 2SC2839-E
Q13	8-729-900-89	TRANSISTOR DTC144ES
Q14	8-729-900-89	TRANSISTOR DTC144ES
Q15	8-729-606-33	TRANSISTOR 2SC2603-F
Q16	8-729-100-66	TRANSISTOR 2SC1623
Q17	8-729-100-66	TRANSISTOR 2SC1623
Q18	8-729-883-92	TRANSISTOR 2SC2839-E
Q19	8-729-883-92	TRANSISTOR 2SC2839-E
Q20	8-729-100-76	TRANSISTOR 2SA812-M6
Q21	8-729-100-66	TRANSISTOR 2SC1623
Q201	8-729-178-62	TRANSISTOR 2SC2786-L
Q202	8-729-178-62	TRANSISTOR 2SC2786-L
Q203	8-729-200-66	TRANSISTOR 2SK192A-GR
Q204	8-729-200-66	TRANSISTOR 2SK192A-GR
Q205	8-729-117-54	TRANSISTOR 2SA1175-F
Q206	8-729-218-43	TRANSISTOR 2SK184-GR
Q207	8-729-606-33	TRANSISTOR 2SC2603-F
Q208	8-729-218-43	TRANSISTOR 2SK184-GR
Q209	8-729-178-55	TRANSISTOR 2SC2785-E
Q210	8-729-102-03	TRANSISTOR 2SD1020-F

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q211	8-729-612-77	TRANSISTOR 2SA1027R			
Q212	8-729-178-55	TRANSISTOR 2SC2785-E			
Q213	8-729-612-77	TRANSISTOR 2SA1027R			
Q214	8-729-612-77	TRANSISTOR 2SA1027R			
Q215	8-729-612-77	TRANSISTOR 2SA1027R			
Q216	8-729-612-77	TRANSISTOR 2SA1027R			
Q217	8-729-178-55	TRANSISTOR 2SC2785-E			
Q218	8-729-612-77	TRANSISTOR 2SA1027R			
Q219	8-729-102-03	TRANSISTOR 2SD1020-F			
Q220	8-729-606-33	TRANSISTOR 2SC2603-F			
Q221	8-729-201-83	TRANSISTOR 2SC3112-A			
Q301	8-729-271-22	TRANSISTOR 2SC2712-G			
R1	1-247-879-00	CARBON	100K	5%	1/6W
R2	1-247-843-00	CARBON	3.3K	5%	1/6W
R3	1-247-831-00	CARBON	1K	5%	1/6W
R4	1-247-879-00	CARBON	100K	5%	1/6W
R5	1-247-799-00	CARBON	47	5%	1/6W
R6	1-247-879-00	CARBON	100K	5%	1/6W
R7	1-247-799-00	CARBON	47	5%	1/6W
R11	1-247-831-00	CARBON	1K	5%	1/6W
R12	1-247-879-00	CARBON	100K	5%	1/6W
R13	1-247-863-00	CARBON	22K	5%	1/6W
R14	1-247-799-00	CARBON	47	5%	1/6W
R15	1-247-879-00	CARBON	100K	5%	1/6W
R21	1-247-807-00	CARBON	100	5%	1/6W
R22	1-247-807-00	CARBON	100	5%	1/6W
R23	1-247-843-00	CARBON	3.3K	5%	1/6W
R24	1-247-804-00	CARBON	75	5%	1/6W
R26	1-247-831-00	CARBON	1K	5%	1/6W
R27	1-247-807-00	CARBON	100	5%	1/6W
R31	1-247-855-00	CARBON	10K	5%	1/6W
R32	1-247-879-00	CARBON	100K	5%	1/6W
R33	1-247-807-00	CARBON	100	5%	1/6W
R34	1-247-837-00	CARBON	1.8K	5%	1/6W
R35	1-247-837-00	CARBON	1.8K	5%	1/6W
R36	1-247-807-00	CARBON	100	5%	1/6W
R37	1-247-807-00	CARBON	100	5%	1/6W
R38	1-247-807-00	CARBON	100	5%	1/6W
R39	1-247-887-00	CARBON	220K	5%	1/6W
R40	1-247-879-00	CARBON	100K	5%	1/6W
R41	1-247-845-00	CARBON	3.9K	5%	1/6W
R42	1-247-807-00	CARBON	100	5%	1/6W
R43	1-247-831-00	CARBON	1K	5%	1/6W
R44	1-247-823-00	CARBON	470	5%	1/6W
R45	1-247-831-00	CARBON	1K	5%	1/6W
R51	1-247-835-00	CARBON	1.5K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R52	1-247-875-00	CARBON	68K	5%	1/6W
R53	1-247-863-00	CARBON	22K	5%	1/6W
R54	1-247-879-00	CARBON	100K	5%	1/6W
R55	1-247-891-00	CARBON	330K	5%	1/6W
R61	1-247-831-00	CARBON	1K	5%	1/6W
R62	1-247-879-00	CARBON	100K	5%	1/6W
R63	1-247-799-00	CARBON	47	5%	1/6W
R64	1-247-843-00	CARBON	3.3K	5%	1/6W
R65	1-247-879-00	CARBON	100K	5%	1/6W
R66	1-247-893-00	CARBON	390K	5%	1/6W
R67	1-247-843-00	CARBON	3.3K	5%	1/6W
R68	1-247-825-00	CARBON	560	5%	1/6W
R69	1-247-831-00	CARBON	1K	5%	1/6W
R71	1-247-855-00	CARBON	10K	5%	1/6W
R72	1-247-891-00	CARBON	330K	5%	1/6W
R73	1-247-807-00	CARBON	100	5%	1/6W
R74	1-247-831-00	CARBON	1K	5%	1/6W
R75	1-247-847-00	CARBON	4.7K	5%	1/6W
R76	1-247-819-00	CARBON	330	5%	1/6W
R81	1-247-807-00	CARBON	100	5%	1/6W
R82	1-247-849-00	CARBON	5.6K	5%	1/6W
R83	1-247-799-00	CARBON	47	5%	1/6W
R84	1-247-791-00	CARBON	22	5%	1/6W
R85	1-247-831-00	CARBON	1K	5%	1/6W
R86	1-247-831-00	CARBON	1K	5%	1/6W
R87	1-247-855-00	CARBON	10K	5%	1/6W
R88	1-247-855-00	CARBON	10K	5%	1/6W
R89	1-247-855-00	CARBON	10K	5%	1/6W
R90	1-247-855-00	CARBON	10K	5%	1/6W
R91	1-247-855-00	CARBON	10K	5%	1/6W
R92	1-247-847-00	CARBON	4.7K	5%	1/6W
R101	1-247-889-00	CARBON	270K	5%	1/6W
R102	1-247-795-00	CARBON	33	5%	1/6W
R103	1-247-819-00	CARBON	330	5%	1/6W
R104	1-247-831-00	CARBON	1K	5%	1/6W
R105	1-247-847-00	CARBON	4.7K	5%	1/6W
R106	1-247-871-00	CARBON	47K	5%	1/6W
R107	1-247-863-00	CARBON	22K	5%	1/6W
R108	1-247-883-00	CARBON	150K	5%	1/6W
R111	1-247-879-00	CARBON	100K	5%	1/6W
R112	1-247-858-00	CARBON	13K	5%	1/6W
R113	1-247-875-00	CARBON	68K	5%	1/6W
R114	1-247-855-00	CARBON	10K	5%	1/6W
R115	1-247-855-00	CARBON	10K	5%	1/6W
R116	1-247-875-00	CARBON	68K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R117	1-247-879-00	CARBON	100K	5%	1/6W
R118	1-247-819-00	CARBON	330	5%	1/6W
R119	1-247-847-00	CARBON	4.7K	5%	1/6W
R121	1-247-893-00	CARBON	390K	5%	1/6W
R122	1-247-838-00	CARBON	2K	5%	1/6W
R123	1-247-831-00	CARBON	1K	5%	1/6W
R124	1-247-831-00	CARBON	1K	5%	1/6W
R125	1-247-889-00	CARBON	270K	5%	1/6W
R126	1-247-835-00	CARBON	1.5K	5%	1/6W
R127	1-247-831-00	CARBON	1K	5%	1/6W
R131	1-247-887-00	CARBON	220K	5%	1/6W
R132	1-247-895-00	CARBON	470K	5%	1/6W
R133	1-247-879-00	CARBON	100K	5%	1/6W
R134	1-247-867-00	CARBON	33K	5%	1/6W
R135	1-247-887-00	CARBON	220K	5%	1/6W
R136	1-247-865-00	CARBON	27K	5%	1/6W
R137	1-247-881-00	CARBON	120K	5%	1/6W
R138	1-247-903-00	CARBON	1M	5%	1/6W
R139	1-247-879-00	CARBON	100K	5%	1/6W
R140	1-247-879-00	CARBON	100K	5%	1/6W
R141	1-247-903-00	CARBON	1M	5%	1/6W
R142	1-247-903-00	CARBON	1M	5%	1/6W
R143	1-247-879-00	CARBON	100K	5%	1/6W
R151	1-247-871-00	CARBON	47K	5%	1/6W
R152	1-247-871-00	CARBON	47K	5%	1/6W
R153	1-247-867-00	CARBON	33K	5%	1/6W
R154	1-247-881-00	CARBON	120K	5%	1/6W
R155	1-247-855-00	CARBON	10K	5%	1/6W
R156	1-247-841-00	CARBON	2.7K	5%	1/6W
R157	1-247-871-00	CARBON	47K	5%	1/6W
R201	1-247-879-00	CARBON	100K	5%	1/6W
R202	1-247-813-00	CARBON	180	5%	1/6W
R203	1-247-879-00	CARBON	100K	5%	1/6W
R204	1-247-799-00	CARBON	47	5%	1/6W
R205	1-247-903-00	CARBON	1M	5%	1/6W
R206	1-247-855-00	CARBON	10K	5%	1/6W
R207	1-247-791-00	CARBON	22	5%	1/6W
R208	1-247-799-00	CARBON	47	5%	1/6W
R211	1-247-843-00	CARBON	3.3K	5%	1/6W
R212	1-247-879-00	CARBON	100K	5%	1/6W
R213	1-247-813-00	CARBON	180	5%	1/6W
R214	1-247-881-00	CARBON	120K	5%	1/6W
R215	1-247-811-00	CARBON	150	5%	1/6W
R216	1-247-855-00	CARBON	10K	5%	1/6W
R217	1-247-791-00	CARBON	22	5%	1/6W
R218	1-247-799-00	CARBON	47	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R219	1-247-863-00	CARBON	22K	5%	1/6W
R221	1-247-787-00	CARBON	15	5%	1/6W
R222	1-247-831-00	CARBON	1K	5%	1/6W
R223	1-247-831-00	CARBON	1K	5%	1/6W
R224	1-247-831-00	CARBON	1K	5%	1/6W
R231	1-247-831-00	CARBON	1K	5%	1/6W
R232	1-247-831-00	CARBON	1K	5%	1/6W
R233	1-247-843-00	CARBON	3.3K	5%	1/6W
R234	1-247-855-00	CARBON	10K	5%	1/6W
R235	1-247-847-00	CARBON	4.7K	5%	1/6W
R236	1-247-831-00	CARBON	1K	5%	1/6W
R237	1-247-879-00	CARBON	100K	5%	1/6W
R238	1-247-879-00	CARBON	100K	5%	1/6W
R241	1-247-855-00	CARBON	10K	5%	1/6W
R242	1-247-839-00	CARBON	2.2K	5%	1/6W
R243	1-247-863-00	CARBON	22K	5%	1/6W
R244	1-247-871-00	CARBON	47K	5%	1/6W
R245	1-247-827-00	CARBON	680	5%	1/6W
R246	1-247-867-00	CARBON	33K	5%	1/6W
R247	1-247-803-00	CARBON	68	5%	1/6W
R248	1-249-001-00	CARBON	1	5%	1/6W
R261	1-247-863-00	CARBON	22K	5%	1/6W
R262	1-247-863-00	CARBON	22K	5%	1/6W
R263	1-247-863-00	CARBON	22K	5%	1/6W
R264	1-247-863-00	CARBON	22K	5%	1/6W
R265	1-247-855-00	CARBON	10K	5%	1/6W
R266	1-247-867-00	CARBON	33K	5%	1/6W
R267	1-247-867-00	CARBON	33K	5%	1/6W
R268	1-247-855-00	CARBON	10K	5%	1/6W
R269	1-247-823-00	CARBON	470	5%	1/6W
R270	1-247-863-00	CARBON	22K	5%	1/6W
R271	1-247-887-00	CARBON	220K	5%	1/6W
R272	1-247-831-00	CARBON	1K	5%	1/6W
R273	1-247-863-00	CARBON	22K	5%	1/6W
R281	1-247-831-00	CARBON	1K	5%	1/6W
R282	1-247-871-00	CARBON	47K	5%	1/6W
R283	1-247-877-00	CARBON	82K	5%	1/6W
R284	1-247-855-00	CARBON	10K	5%	1/6W
R285	1-247-871-00	CARBON	47K	5%	1/6W
R301	1-247-831-00	CARBON	1K	5%	1/6W
R302	1-247-867-00	CARBON	33K	5%	1/6W
R303	1-247-831-00	CARBON	1K	5%	1/6W
R304	1-247-831-00	CARBON	1K	5%	1/6W
R305	1-247-831-00	CARBON	1K	5%	1/6W
R306	1-247-831-00	CARBON	1K	5%	1/6W
R307	1-247-882-00	CARBON	130K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R308	1-247-903-00	CARBON	1M	5%	1/6W
R309	1-247-831-00	(AIR-8,Canadian,AEP-2)...CARBON	1K	5%	1/6W
R310	1-247-879-00	CARBON	100K	5%	1/6W
R311	1-247-879-00	CARBON	100K	5%	1/6W
R312	1-247-879-00	CARBON	100K	5%	1/6W
R313	1-247-879-00	CARBON	100K	5%	1/6W
R314	1-247-903-00	CARBON	1M	5%	1/6W
R315	1-247-903-00	CARBON	1M	5%	1/6W
R316	1-247-903-00	CARBON	1M	5%	1/6W
R317	1-247-879-00	CARBON	100K	5%	1/6W
R318	1-247-903-00	CARBON	1M	5%	1/6W
R319	1-247-813-00	CARBON	180	5%	1/6W
R320	1-247-831-00	CARBON	1K	5%	1/6W
R321	1-247-799-00	CARBON	47	5%	1/6W
R322	1-247-799-00	CARBON	47	5%	1/6W
R323	1-247-831-00	(AEP-1,E)....CARBON	1K	5%	1/6W
R324	1-247-866-00	CARBON	30K	5%	1/6W
RV121	1-230-538-11	RES, VAR, CARBON (WITH SW) 50K, SQL			
RV241	1-230-537-11	RES, VAR, CARBON (WITH SW) 20K, VOL			
S121	1-230-538-11	RES, VAR, CARBON (WITH SW) 50K, SQL			
S201	1-554-955-11	SWITCH, ROTARY, BAND SELECT			
S202	1-554-957-11	SWITCH, PUSH (1 KEY)			
S301	1-553-349-00	SWITCH, PUSH, 3			
S302	1-553-349-00	SWITCH, PUSH, 2			
S303	1-553-349-00	SWITCH, PUSH, 1			
S304	1-553-349-00	SWITCH, PUSH, ENTER			
S305	1-553-349-00	SWITCH, PUSH, 6			
S306	1-553-349-00	SWITCH, PUSH, 5			
S307	1-553-349-00	SWITCH, PUSH, 4			
S308	1-553-349-00	SWITCH, PUSH, PROGRAM			
S309	1-553-349-00	SWITCH, PUSH, 9			
S310	1-553-349-00	SWITCH, PUSH, 8			
S311	1-553-349-00	SWITCH, PUSH, 7			
S312	1-553-349-00	SWITCH, PUSH, PRIORITY			
S313	1-553-349-00	SWITCH, PUSH, DIRECT			
S314	1-553-349-00	SWITCH, PUSH, EXECUTE			
S315	1-553-349-00	SWITCH, PUSH, 0			
S316	1-553-349-00	SWITCH, PUSH, DELAY			
S317	1-553-349-00	SWITCH, PUSH, MEMORY SCAN S/S			
S318	1-553-349-00	SWITCH, PUSH, SCAN +			
S319	1-553-349-00	SWITCH, PUSH, SCAN -			
S320	1-553-349-00	SWITCH, PUSH, KEY PROTECT			
S321	1-553-977-31	SWITCH, SLIDE, 10kHz/9kHz SELECT			
S322	1-554-956-11	SWITCH, LEAF, LIGHT			
SP	1-503-374-11	SPEAKER			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
T21	1-426-194-11	TRANSFORMER, HIGH-FREQUENCY
T31	1-426-193-11	TRANSFORMER, HIGH-FREQUENCY
T32	1-404-448-00	TRANSFORMER, IF
T33	1-404-568-11	TRANSFORMER, IF
T34	1-404-191-00	TRANSFORMER, IF
T51	1-406-052-00	COIL (OSC)
T61	1-459-557-11	COIL (WITH CORE)
T62	1-404-126-00	IFT (SMALL TYPE)
T81	1-404-191-00	TRANSFORMER, IF
T101	1-404-127-00	IFT (SMALL TYPE)
T281	1-406-112-11	COIL (OSC)
X51	1-567-302-11	VIBRATOR, CRYSTAL, 55.400MHz
X221	1-567-310-11	VIBRATOR, CRYSTAL, 7.2MHz
XF31	1-527-372-00	FILTER, CRYSTAL, 55.845MHz

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description	REMARKS
151	1-504-059-11	MAGNETIC EARPHONE(ME-20H)	
152	3-701-295-00	BAC, POLYEYHYLENE (FOR PRINTED MATTER)	
153	3-890-830-00	BAG, POLYETHYLENE (FOR SET)	
154	3-893-708-01	BELT, CARRYING	
155	3-893-736-01	LABEL, STEP, MW CH	
156	3-893-740-01	CASE, ACCESSORY	
157	3-893-745-01	CUSHION (UPPER)	
158	3-893-742-01	(Canadian,AEP-2)...INDIVIDUAL CARTON	
	3-893-743-01	(AEP-1,E).....INDIVIDUAL CARTON	
	3-893-748-01	(AIR-8).....INDIVIDUAL CARTON	
159	*3-893-744-01	CUSHION (LOWER)	
160	3-990-002-12	(Canadian,AEP,E)...MANUAL, INSTRUCTION	
	3-990-002-21	(AIR-8)....MANUAL, INSTRUCTION	
	3-990-002-41	(AEP).....MANUAL, INSTRUCTION	

SONY
SERVICE MANUAL

US Model
AIR-8
Canadian Model
AEP Model
UK Model
E Model
AIR-7

SUPPLEMENT-2

File this supplement with the Service Manual.

Subject: PC BOARD CHANGE
(Except Canadian Model)

MELF components used as resistors, capacitors, and diode have been changed to chip components on the production.

Because of this, pc board have been changed.

1. S

CX07

CX79

LA414

LA50

μPC3

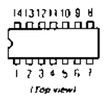
μPD7

DTC1
2SA1
2SC2
2SC6

1. SEMICONDUCTOR LEAD LAYOUTS

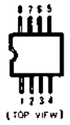
CX075B

CX7961A-1

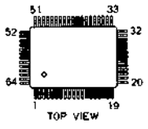


LA4145

LA5003M
μPC393G2



μPD7503G-136



DTC144ES
2SA1048-GR
2SC2839
2SC634SP

2SA1175
2SC2785
2SC2786
2SC2786-L
2SD1020-F

2SA812
2SC1623

2SC3112

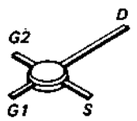
2SK152-2

2SK184-GR

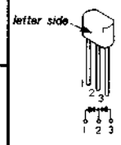
2SK192A

2SK439-D

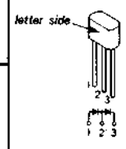
3SK114-Y



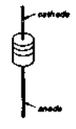
MC921



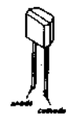
MC931



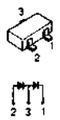
RD20ES-B2
1SS119
1SS198



SVC201SP-BG

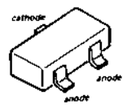


1SS123

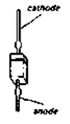


1SS279

1S2837



1T32-4
1T33-09



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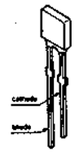

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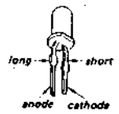

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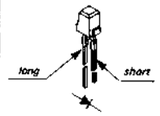
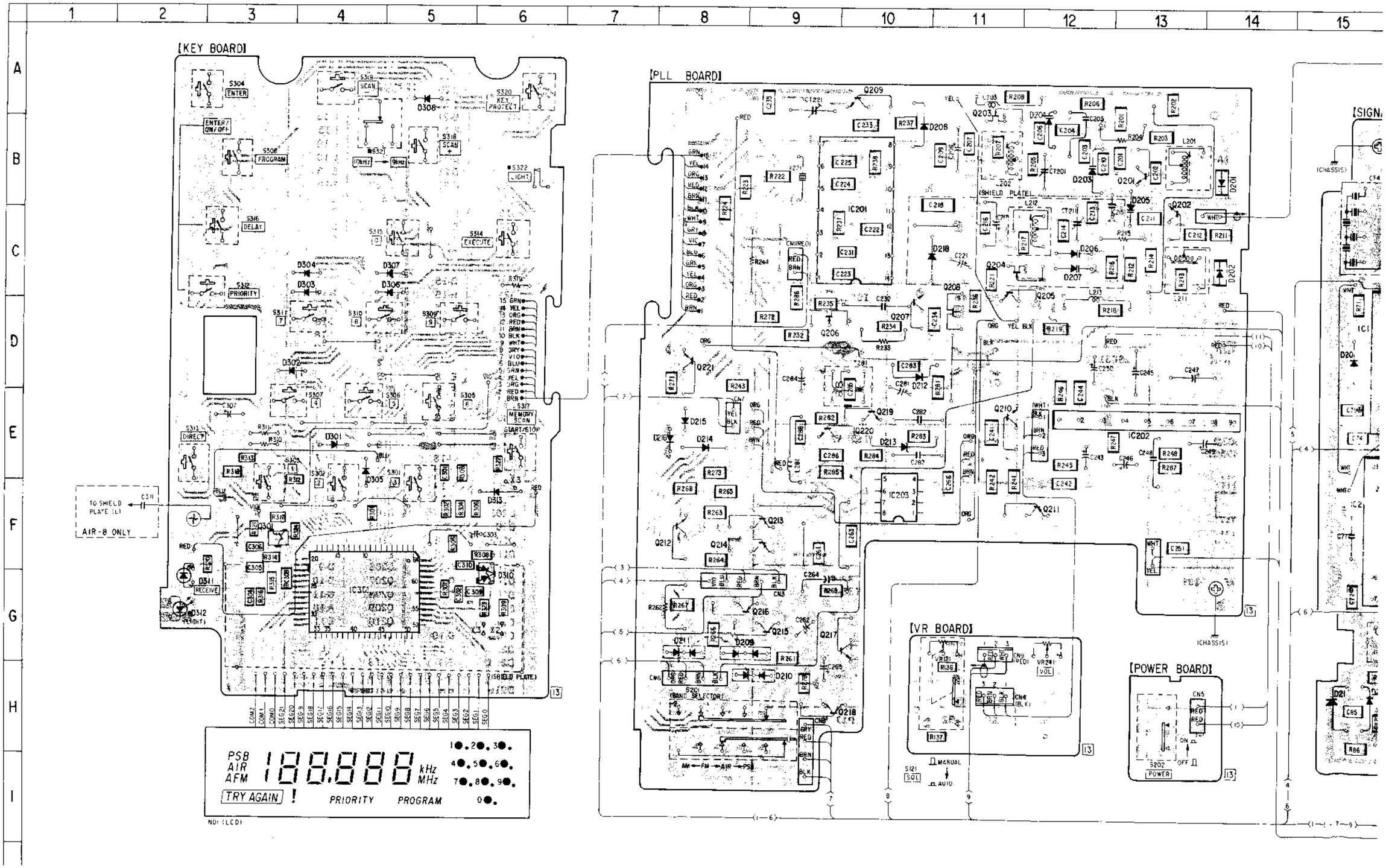


• Semiconducfor Location

Ref. No.	Location	Ref. No.	Location
D1	H-21	D308	A-5
D2	H-20	D310	G-6
D3	G-21	D311	G-2
D4	G-21	D312	G-2
D5	G-20	D313	F-6
D6	E-21		
D7	D-21	IC1	D-15
D8	E-21	IC2	F-15
D9	D-20	IC3	G-19
D11	C-21	IC201	B-10
D12	C-21	IC202	E-13
D13	C-21	IC203	F-10
D14	D-19	IC301	G-4
D15	D-19		
D16	D-18	Q1	E-21
D17	D-18	Q2	E-20
D18	C-16	Q3	C-19
D19	C-16	Q5	B-21
D20	D-15	Q6	C-19
D21	H-15	Q7	B-19
D22	H-15	Q8	B-17
D23	H-17	Q9	C-18
D24	G-17	Q10	D-18
D25	E-17	Q11	D-17
D26	E-20	Q12	E-17
D27	E-18	Q13	F-16
D28	F-19	Q14	D-17
D29	G-18	Q15	E-17
D30	G-18	Q16	E-19
D31	F-18	Q17	E-18
D32	H-18	Q18	F-17
D33	H-18	Q19	F-17
D39	D-17	Q20	G-20
D201	B-14	Q21	H-18
D202	C-14	Q201	B-13
D203	B-12	Q202	C-13
D204	B-12	Q203	A-11
D205	B-13	Q204	C-11
D206	C-12	Q205	C-12
D207	C-12	Q206	D-9
D208	B-10	Q207	D-10
D209	G-9	Q208	D-11
D210	H-9	Q209	A-10
D211	G-8	Q210	E-11
D212	D-10	Q211	F-12
D213	E-10	Q212	F-8
D214	E-8	Q213	F-9
D215	E-8	Q214	F-9
D216	E-8	Q215	G-9
D217	B-23	Q216	G-9
D218	C-11	Q217	G-10
D301	E-4	Q218	H-9
D302	D-3	Q219	E-10
D303	C-4	Q220	E-10
D304	C-4	Q221	D-8
D305	E-4	Q301	F-3
D306	C-5		
D307	C-5		

2. PRINTED WIRING BOARDS

- Refer to page 3 for semiconductor lead layouts.
- Refer to page 4 for semiconductor location.



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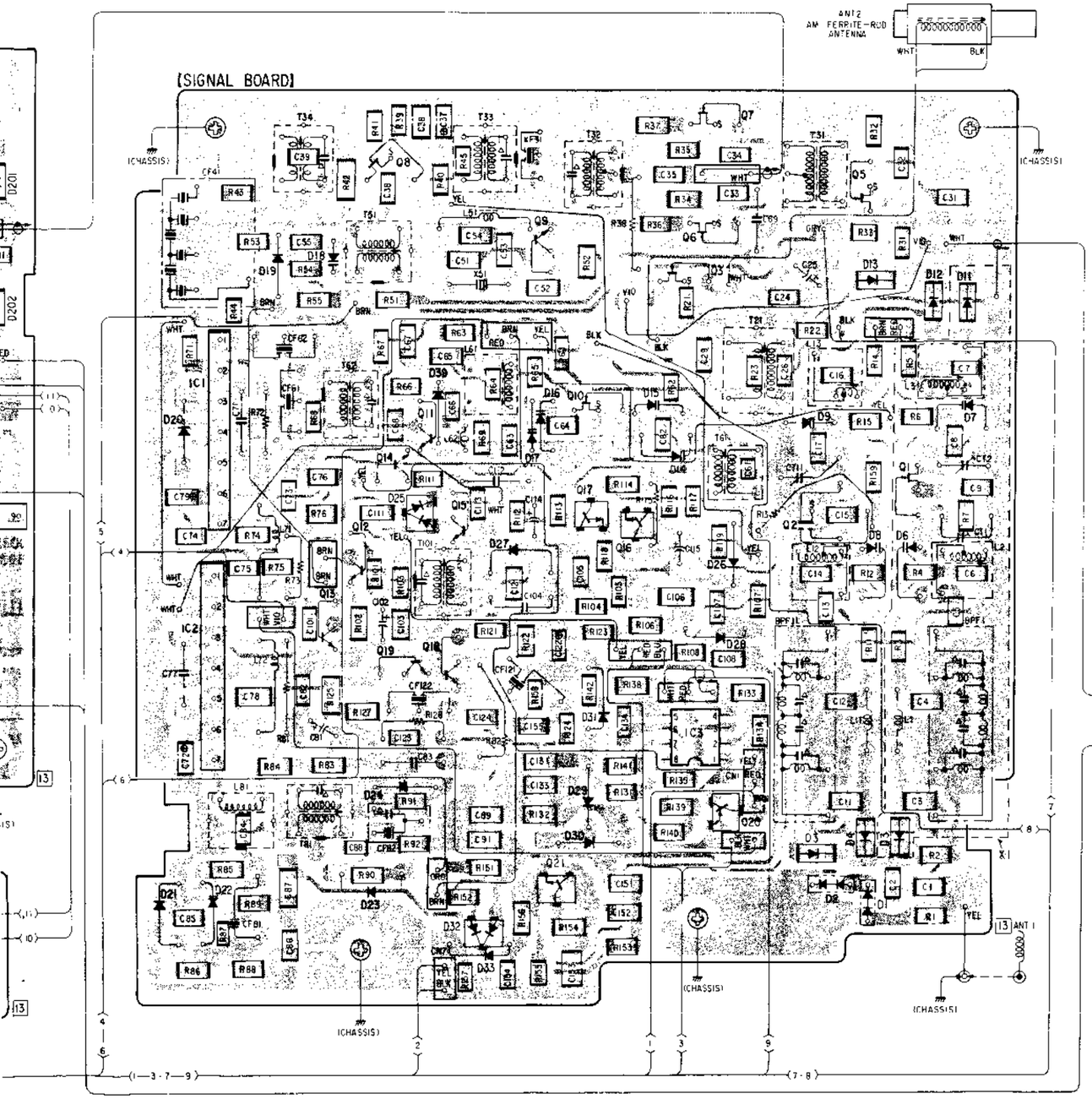
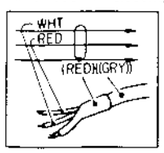


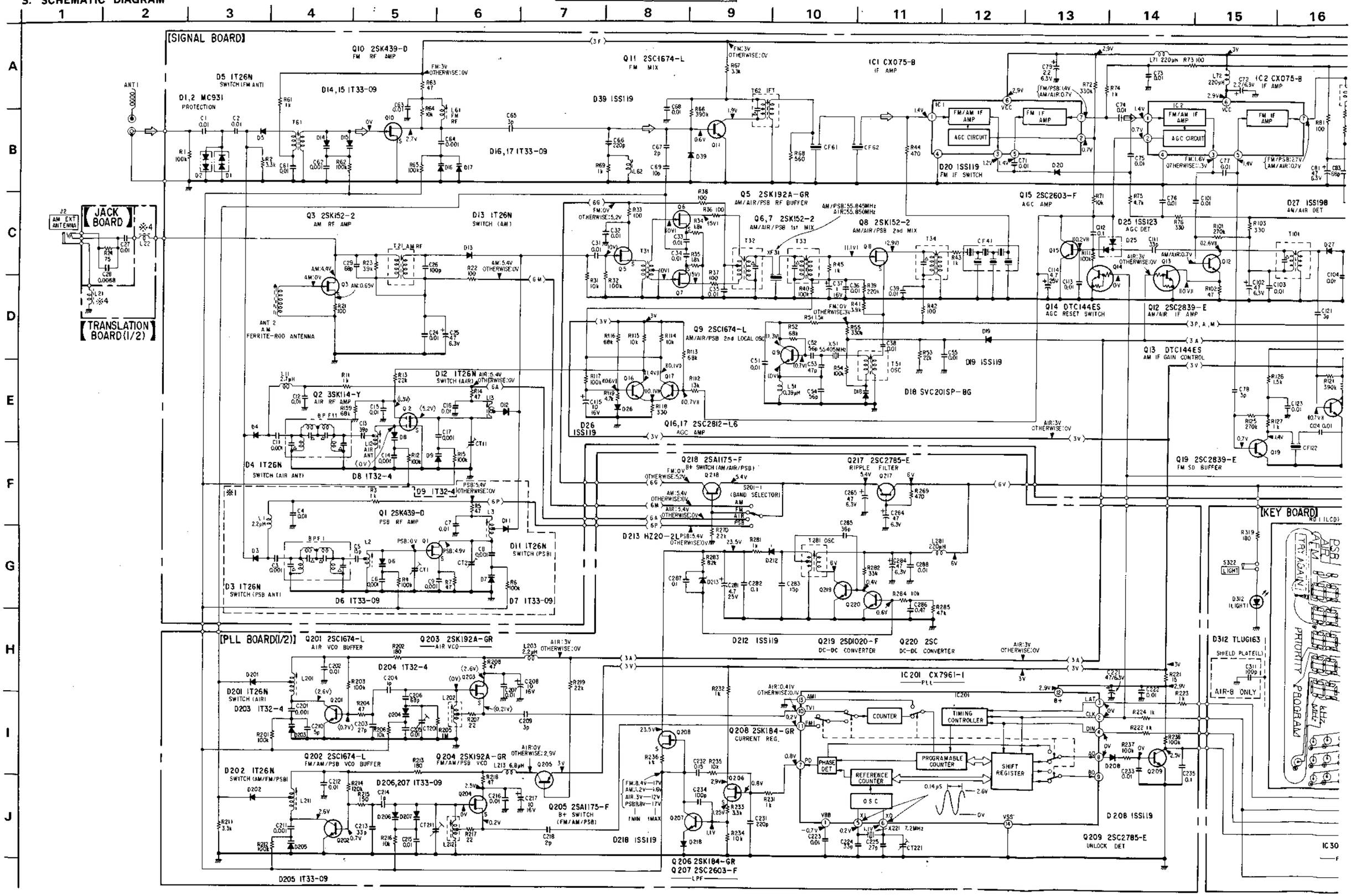
Note:

- Color code or sleeving over the end of the jacket.



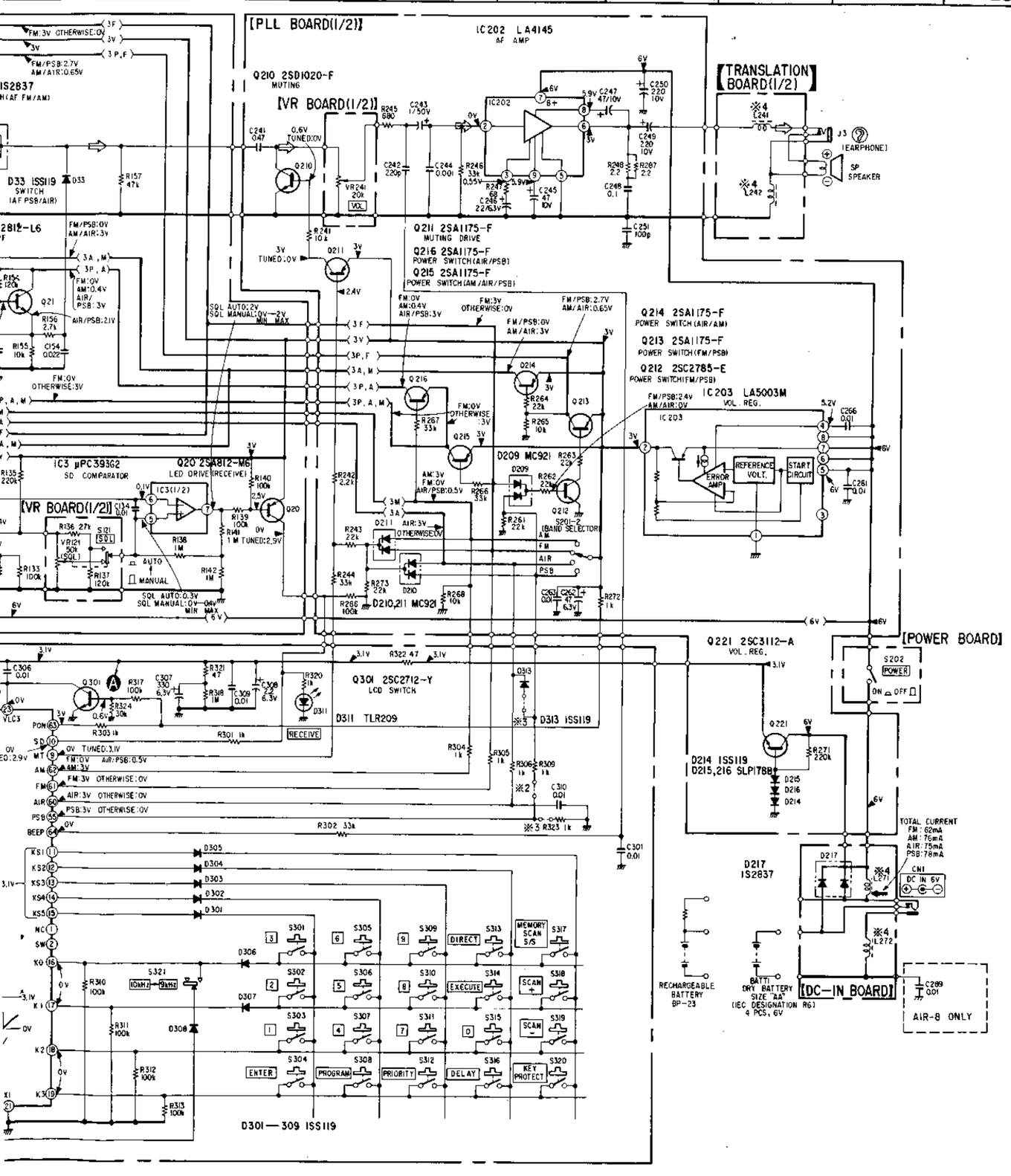
- ○—— : parts extracted from the component side.
- ⬚ indicates side identified with part number.

3. SCHEMATIC DIAGRAM



12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

[PLL BOARD(1/2)]
IC202 LA4145 AF AMP
Q210 2SD1020-F MUTING
[VR BOARD(1/2)]
[TRANSLATION BOARD(1/2)]
J3 EARPHONE
SP SPEAKER
D20 ISS119 FM IF SWITCH
IC2 CX075-B IF AMP
D32 IS2837 SWITCH(AF FM/AM)
D33 ISS119 SWITCH(AF PSB/AIR)
D21,22 ISS198 FM DET
D23,24 ISS198 PSB DET
Q21 2SC2812-L6 AIR/PSB HPF
D27 ISS198 AM/AIR DET
D28 ISS119 ANL
Q15 2SC2603-F AGC AMP
D25 ISS123 AGC DET
Q14 DTC144ES AGC RESET SWITCH
Q12 2SC2839-E AM/AIR IF AMP
Q18 2SC2839-E AM/AIR SD BUFFER
Q13 DTC144ES AM IF GAIN CONTROL
D19 ISS119
Q19 2SC2839-E FM SD BUFFER
IC3 μPC393G2 SD RESET
D29 ISS119 D30 ISS198 SD DET
IC3 μPC393G2 SD COMPARATOR
Q20 2SA812-M6 LED DRIVE(RECEIVE)
[VR BOARD(1/2)]
Q211 2SA1175-F MUTING DRIVE
Q216 2SA1175-F POWER SWITCH(AIR/PSB)
Q215 2SA1175-F POWER SWITCH(AM/AIR/PSB)
Q214 2SA1175-F POWER SWITCH(AIR/AM)
Q213 2SA1175-F POWER SWITCH(FM/PSB)
Q212 2SC2785-E POWER SWITCH(FM/PSB)
IC203 LA5003M VOL. REG.
D209 MC921
D210,211 MC921
S201-2 (BAND SELECTOR) AM FM AIR PSB
Q221 2SC3112-A VOL. REG.
[POWER BOARD]
S202 POWER ON OFF
D214 ISS119
D215,216 SLP178B
D217 IS2837
CN1 DC IN 6V
TOTAL CURRENT FM:62mA AM:76mA AIR:75mA PSB:78mA
[DC-IN BOARD]
RECHARGEABLE BATTERY BP-23
BATT DRY BATTERY SIZE "AA" IEC DESIGNATION R6) 4 PCS, 6V
C289 0.01 AIR-8 ONLY
[KEY BOARD]
D310 IS2837
D312 TLUG163
S322 LIGHT
D313 ISS119
D311 TLR209
Q301 2SC2712-Y LCD SWITCH
IC301 μPD7503G-136 PLL CONTROL
D301—309 ISS119
S301 S302 S303 S304 S305 S306 S307 S308 S309 S310 S311 S312 S313 S314 S315 S316 S317 S318 S319 S320 S321
D305 D304 D303 D302 D301 D306 D307 D308
IC201 TIMING CONTROLLER
SHIFT REGISTER
D208 ISS119
Q209 2SC2785-E UNLOCK DET
CX7961-I



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ▬▬ : B+ Line
- Total current is measured at detuned mode with VOL knod turned to the counterclock wise (MIN).
- Power voltage is dc 6V and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  Measured at FM 76,000MHz on LCD.
  no mark : FM
  ( ) : AM/AIR/PSB
  《 》: AM/AIR
  〈 〉 : AIR
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

• Switch

Ref. No.	Switch	Position
S121	SQL	MANUAL
S201	BAND SELECTOR	FM
S202	POWER	OFF
S301	3	OFF
S302	2	OFF
S303	1	OFF
S304	ENTER	OFF
S305	6	OFF
S306	5	OFF
S307	4	OFF
S308	PROGRAM	OFF
S309	9	OFF
S310	8	OFF
S311	7	OFF
S312	PRIORITY	OFF
S313	DIRECT	OFF
S314	EXECUTE	OFF
S315	0	OFF
S316	DELAY	OFF
S317	MEMORY SCAN S/S	STOP
S318	SCAN+	OFF
S319	SCAN—	OFF
S320	KEY PROTECT	OFF
S321	10kHz/9kHz SELECT	10kHz
S322	LIGHT	OFF

NOTE:
Parts marked ※ 1 to 4 differ from each model.

	AIR-7		AIR-8
	AEP-1, E model	AEP-2, UK model	
※ 1 (PSB RF CIRCUIT)	mounted on PC board, but not used	used	
※ 2 (R309)	mounted on PC board, but not used	used	
※ 3 (R323, D313)	used	mounted on PC board, but not used	
※ 4 (L21, 22, 241, 242, 271, 272)	shorted		mounted

4. ELECTRICAL PARTS LIST

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.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

Ref.No	Part No.	Description
901	*1-508-995-00	PIN, CONNECTOR
902	*1-560-456-00	PIN, CONNECTOR 2P
903	*1-560-466-00	PIN, CONNECTOR 3P
905	*1-560-468-00	PIN, CONNECTOR 5P
906	*1-613-291-11	PC BOARD, DC-IN
907	*1-613-292-11	PC BOARD, JACK
908	1-613-293-11	(AIR-7)....PC BOARD, TRANSLATION
908	1-613-293-21	(AIR-8)....PC BOARD, TRANSLATION
910	*1-613-296-11	PC BOARD, KEY
911	*1-613-297-11	PC BOARD, VR
912	1-562-261-21	CONNECTOR, COAXIAL (BNC)
913	A-3660-519-A	MOUNTED PCB, SIGNAL
914	A-3661-009-A	MOUNTED PCB, PLL
ANT1	1-501-322-11	ANTENNA
ANT2	1-402-120-12	ANTENNA, FERRITE-ROD (LW/MW/SW)
BPF1	1-235-401-11	FILTER, BAND PASS
BPF11	1-235-402-11	FILTER, BAND PASS

CAPACITOR

Ref.No	Part No.	Description			
C1	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C2	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C3	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C4	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C5	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C6	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C7	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C8	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C9	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C11	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C12	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C13	1-163-107-00	CERAMIC CHIP	39PF	5%	50V
C14	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C15	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C16	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C17	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C24	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C25	1-126-154-11	ELECT	47MF	20%	6.3V
C26	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C27	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C28	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C29	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C31	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C32	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C33	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C34	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C35	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C36	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C37	1-135-091-00	TANTAL CHIP	1MF	20%	16V
C38	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C39	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C51	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V

Ref.No	Part No.	Description			
C52	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C53	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C54	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C55	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C61	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C62	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C63	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C64	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C65	1-163-086-00	CERAMIC CHIP	3PF	0.25PF	50V
C66	1-163-125-00	CERAMIC CHIP	220PF	10%	50V
C67	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V
C68	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C69	1-162-199-31	CERAMIC	10PF	5%	50V
C71	1-161-379-00	CERAMIC	0.01MF	20%	16V
C72	1-135-099-00	TANTAL CHIP	2.2MF	20%	6.3V
C73	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C74	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C75	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C76	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C77	1-161-379-00	CERAMIC	0.01MF	20%	16V
C78	1-163-086-00	CERAMIC CHIP	3PF	0.25PF	50V
C79	1-135-099-00	TANTAL CHIP	2.2MF	20%	6.3V
C81	1-126-154-11	ELECT	47MF	20%	6.3V
C82	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C83	1-162-219-31	CERAMIC	68PF	5%	50V
C84	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C85	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C86	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C87	1-162-638-11	CERAMIC CHIP	1MF		16V
C88	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C89	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C91	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C101	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C102	1-126-154-11	ELECT	47MF	20%	6.3V
C103	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C104	1-161-379-00	CERAMIC	0.01MF	20%	16V
C105	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C106	1-162-638-11	CERAMIC CHIP	1MF		16V
C107	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C108	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C111	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C112	1-136-165-00	FILM	0.1MF	5%	50V
C113	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C114	1-126-094-11	ELECT	4.7MF	20%	25V
C115	1-126-157-11	ELECT	10MF	20%	16V
C121	1-163-086-00	CERAMIC CHIP	3PF	0.25PF	50V
C122	1-135-099-00	TANTAL CHIP	2.2MF	20%	6.3V
C123	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C124	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C131	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C133	1-162-993-11	CERAMIC CHIP	0.22MF	10%	16V
C134	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V

Ref.No	Part No.	Description			
C151	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C152	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C153	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C154	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C155	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C201	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C202	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C203	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C204	1-163-083-00	CERAMIC CHIP	1PF	0.25PF	50V
C205	1-161-051-00	CERAMIC	0.01MF	10%	25V
C206	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C207	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C208	1-126-157-11	ELECT	10MF	20%	16V
C209	1-163-086-00	CERAMIC CHIP	3PF	0.25PF	50V
C210	1-163-088-00	CERAMIC CHIP	5PF	0.25PF	50V
C211	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C212	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C213	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C214	1-163-083-00	CERAMIC CHIP	1PF	0.25PF	50V
C215	1-161-051-00	CERAMIC	0.01MF	10%	25V
C216	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C217	1-126-157-11	ELECT	10MF	20%	16V
C218	1-163-149-00	CERAMIC CHIP	2PF	0.25PF	50V
C221	1-126-154-11	ELECT	47MF	20%	6.3V
C222	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C223	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C224	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C225	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C231	1-163-125-00	CERAMIC CHIP	220PF	10%	50V
C232	1-136-167-00	FILM	0.15MF	5%	50V
C233	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C234	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C235	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C241	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C242	1-163-125-00	CERAMIC CHIP	220PF	10%	50V
C243	1-123-611-00	ELECT	1MF	20%	50V
C244	1-163-141-00	CERAMIC CHIP	0.001MF	10%	50V
C245	1-124-589-11	ELECT	47MF	20%	10V
C246	1-124-638-11	ELECT	22MF	20%	6.3V
C247	1-124-589-11	ELECT	47MF	20%	10V
C248	1-136-165-00	FILM	0.1MF	5%	50V
C249	1-126-176-11	ELECT	220MF	20%	10V
C250	1-126-176-11	ELECT	220MF	20%	10V
C251	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C261	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C262	1-126-154-11	ELECT	47MF	20%	6.3V
C263	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C264	1-126-154-11	ELECT	47MF	20%	6.3V
C265	1-126-154-11	ELECT	47MF	20%	6.3V
C266	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C281	1-126-094-11	ELECT	4.7MF	20%	25V
C282	1-136-165-00	FILM	0.1MF	5%	50V
C283	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C284	1-126-154-11	ELECT	47MF	20%	6.3V
C285	1-163-106-00	CERAMIC CHIP	36PF	5%	50V
C286	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C287	1-136-165-00	FILM	0.1MF	5%	50V
C288	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C289	1-161-051-00	(AIR-8)....CERAMIC	0.01MF	10%	25V
C301	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C302	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C303	1-123-611-00	ELECT	1MF	20%	50V
C304	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C305	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C306	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C307	1-124-141-00	ELECT	330MF	20%	6.3V
C308	1-135-099-00	TANTAL CHIP	2.2MF	20%	6.3V
C309	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V

Ref.No	Part No.	Description			
C310	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C311	1-102-973-00	(AIR-8)....CERAMIC	100PF	5%	50V
CF41	1-527-392-00	FILTER, CERAMIC			
CF61	1-567-389-11	FILTER, CERAMIC			
CF62	1-567-389-11	FILTER, CERAMIC			
CF81	1-567-050-00	FILTER, CERAMIC			
CF82	1-567-308-11	FILTER, CERAMIC			
CF121	1-527-982-00	FILTER, CERAMIC			
CF122	1-567-415-11	FILTER, CERAMIC			
CN1	1-507-954-11	JACK, EXTERNAL POWER (DC IN 6V)			
CT1	1-141-298-11	CAP, TRIMMER			
CT2	1-141-298-11	CAP, TRIMMER			
CT11	1-141-299-11	CAP, TRIMMER			
CT201	1-141-298-11	CAP, TRIMMER			
CT211	1-141-299-11	CAP, TRIMMER			
CT221	1-141-227-00	CAP, CERAMIC TRIMMER			
D1	8-719-000-12	DIODE MC931			
D2	8-719-000-12	DIODE MC931			
D3	8-719-123-79	DIODE 1SS279			
D4	8-719-123-79	DIODE 1SS279			
D5	8-719-123-79	DIODE 1SS279			
D6	8-713-309-00	DIODE 1T33-09			
D7	8-713-309-00	DIODE 1T33-09			
D8	8-713-240-00	DIODE 1T32-4			
D9	8-713-240-00	DIODE 1T32-4			
D11	8-719-123-79	DIODE 1SS279			
D12	8-719-123-79	DIODE 1SS279			
D13	8-719-123-79	DIODE 1SS279			
D14	8-713-309-00	DIODE 1T33-09			
D15	8-713-309-00	DIODE 1T33-09			
D16	8-713-309-00	DIODE 1T33-09			
D17	8-713-309-00	DIODE 1T33-09			
D18	8-719-912-03	DIODE SVC201SP-BG			
D19	8-719-911-19	DIODE 1SS119			
D20	8-719-911-19	DIODE 1SS119			
D21	8-719-918-88	DIODE 1SS198			
D22	8-719-918-88	DIODE 1SS198			
D23	8-719-918-88	DIODE 1SS198			
D24	8-719-918-88	DIODE 1SS198			
D25	8-719-101-23	DIODE 1SS123			
D26	8-719-911-19	DIODE 1SS119			
D27	8-719-918-88	DIODE 1SS198			
D28	8-719-911-19	DIODE 1SS119			
D29	8-719-911-19	DIODE 1SS119			
D30	8-719-918-88	DIODE 1SS198			
D31	8-719-911-19	DIODE 1SS119			
D32	8-719-100-05	DIODE 1S2837			
D33	8-719-911-19	DIODE 1SS119			
D39	8-719-911-19	DIODE 1SS119			
D201	8-719-123-79	DIODE 1SS279			
D202	8-719-123-79	DIODE 1SS279			
D203	8-713-240-00	DIODE 1T32-4			
D204	8-713-240-00	DIODE 1T32-4			
D205	8-713-309-00	DIODE 1T33-09			
D206	8-713-309-00	DIODE 1T33-09			
D207	8-713-309-00	DIODE 1T33-09			
D208	8-719-911-19	DIODE 1SS119			
D209	8-719-000-06	DIODE MC921			
D210	8-719-000-06	DIODE MC921			
D211	8-719-000-06	DIODE MC921			
D212	8-719-911-19	DIODE 1SS119			
D213	8-719-110-53	DIODE RD20ES-B2			
D214	8-719-911-19	DIODE 1SS119			
D215	8-719-912-43	DIODE SLP178B			

Ref.No	Part No.	Description
C310	1-163-021-00	CERAMIC CHIP 0.01MF 10% 50V
C311	1-102-973-00	(AIR-8)....CERAMIC 100PF 5% 50V
CF41	1-527-392-00	FILTER, CERAMIC
CF61	1-567-389-11	FILTER, CERAMIC
CF62	1-567-389-11	FILTER, CERAMIC
CF81	1-567-050-00	FILTER, CERAMIC
CF82	1-567-308-11	FILTER, CERAMIC
CF121	1-527-982-00	FILTER, CERAMIC
CF122	1-567-415-11	FILTER, CERAMIC
CN1	1-507-954-11	JACK, EXTERNAL POWER (DC IN 6V)
CT1	1-141-298-11	CAP, TRIMMER
CT2	1-141-298-11	CAP, TRIMMER
CT11	1-141-299-11	CAP, TRIMMER
CT201	1-141-298-11	CAP, TRIMMER
CT211	1-141-299-11	CAP, TRIMMER
CT221	1-141-227-00	CAP, CERAMIC TRIMMER
D1	8-719-000-12	DIODE MC931
D2	8-719-000-12	DIODE MC931
D3	8-719-123-79	DIODE 1SS279
D4	8-719-123-79	DIODE 1SS279
D5	8-719-123-79	DIODE 1SS279
D6	8-713-309-00	DIODE 1T33-09
D7	8-713-309-00	DIODE 1T33-09
D8	8-713-240-00	DIODE 1T32-4
D9	8-713-240-00	DIODE 1T32-4
D11	8-719-123-79	DIODE 1SS279
D12	8-719-123-79	DIODE 1SS279
D13	8-719-123-79	DIODE 1SS279
D14	8-713-309-00	DIODE 1T33-09
D15	8-713-309-00	DIODE 1T33-09
D16	8-713-309-00	DIODE 1T33-09
D17	8-713-309-00	DIODE 1T33-09
D18	8-719-912-03	DIODE SVC201SP-BG
D19	8-719-911-19	DIODE 1SS119
D20	8-719-911-19	DIODE 1SS119
D21	8-719-918-88	DIODE 1SS198
D22	8-719-918-88	DIODE 1SS198
D23	8-719-918-88	DIODE 1SS198
D24	8-719-918-88	DIODE 1SS198
D25	8-719-101-23	DIODE 1SS123
D26	8-719-911-19	DIODE 1SS119
D27	8-719-918-88	DIODE 1SS198
D28	8-719-911-19	DIODE 1SS119
D29	8-719-911-19	DIODE 1SS119
D30	8-719-918-88	DIODE 1SS198
D31	8-719-911-19	DIODE 1SS119
D32	8-719-100-05	DIODE 1S2837
D33	8-719-911-19	DIODE 1SS119
D39	8-719-911-19	DIODE 1SS119
D201	8-719-123-79	DIODE 1SS279
D202	8-719-123-79	DIODE 1SS279
D203	8-713-240-00	DIODE 1T32-4
D204	8-713-240-00	DIODE 1T32-4
D205	8-713-309-00	DIODE 1T33-09
D206	8-713-309-00	DIODE 1T33-09
D207	8-713-309-00	DIODE 1T33-09
D208	8-719-911-19	DIODE 1SS119
D209	8-719-000-06	DIODE MC921
D210	8-719-000-06	DIODE MC921
D211	8-719-000-06	DIODE MC921
D212	8-719-911-19	DIODE 1SS119
D213	8-719-110-53	DIODE RD20ES-B2
D214	8-719-911-19	DIODE 1SS119
D215	8-719-912-43	DIODE SLP178B

Ref.No	Part No.	Description
D216	8-719-912-43	DIODE SLP178B
D217	8-719-100-05	DIODE 1S2837
D218	8-719-911-19	DIODE 1SS119
D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D306	8-719-911-19	DIODE 1SS119
D307	8-719-911-19	DIODE 1SS119
D308	8-719-911-19	DIODE 1SS119
D310	8-719-100-05	DIODE 1S2837
D311	8-719-800-67	DIODE TLR209
D312	8-719-920-05	DIODE SLP281C-50
D313	8-719-911-19	DIODE 1SS119
IC1	8-759-600-75	IC CX075B
IC2	8-759-600-75	IC CX075B
IC3	8-759-100-93	IC UPC393G2
IC201	8-757-961-11	IC CX7961A-1
IC202	8-759-801-65	IC LA4145
IC203	8-759-801-15	IC LA5003M
IC301	8-759-102-04	IC UPD7503G-136
J2	1-507-917-00	JACK, STEREO (AM EXT ANTENNA)
J3	1-507-921-00	JACK (EARPHONE)
L1	1-410-320-11	INDUCTOR 2.2UH
L2	1-459-551-11	COIL (WITH CORE)
L3	1-459-556-11	COIL (WITH CORE)
L11	1-410-502-11	INDUCTOR 2.7UH
L12	1-459-558-11	COIL (WITH CORE)
L13	1-459-559-11	COIL (WITH CORE)
L21	1-407-882-00	(AIR-8)....COIL
L22	1-407-882-00	(AIR-8)....COIL
L51	1-408-903-11	INDUCTOR 0.39UH
L61	1-459-555-11	COIL (WITH CORE)
L62	1-407-882-00	COIL
L71	1-408-579-31	INDUCTOR 220UH
L72	1-408-579-31	INDUCTOR 220UH
L81	1-404-567-11	TRANSFORMER, IF
L201	1-459-553-11	COIL (WITH CORE)
L202	1-459-552-11	COIL (WITH CORE)
L203	1-408-555-00	INDUCTOR 2.2UH
L211	1-459-554-11	COIL (WITH CORE)
L212	1-459-550-11	COIL
L213	1-408-561-11	INDUCTOR 6.8UH
L241	1-407-882-00	(AIR-8)....COIL
L242	1-407-882-00	(AIR-8)....COIL
L271	1-407-882-00	(AIR-8)....COIL
L272	1-407-882-00	(AIR-8)....COIL
L281	1-408-579-31	INDUCTOR 220UH
ND1	1-806-918-11	DISPLAY PANEL, LIQUID CRYSTAL
Q1	8-729-301-27	TRANSISTOR 2SK439-D
Q2	8-729-203-19	TRANSISTOR 3SK114-Y
Q3	8-769-162-00	TRANSISTOR 2SK152-2
Q5	8-729-200-66	TRANSISTOR 2SK192A
Q6	8-769-162-00	TRANSISTOR 2SK152-2
Q7	8-769-162-00	TRANSISTOR 2SK152-2
Q8	8-769-162-00	TRANSISTOR 2SK152-2
Q9	8-729-178-62	TRANSISTOR 2SC2786-L
Q10	8-729-301-27	TRANSISTOR 2SK439-D
Q11	8-729-178-62	TRANSISTOR 2SC2786-L
Q12	8-729-883-92	TRANSISTOR 2SC2839
Q13	8-729-900-89	TRANSISTOR DTC144ES
Q14	8-729-900-89	TRANSISTOR DTC144ES
Q15	8-729-178-54	TRANSISTOR 2SC2785

Ref.No	Part No.	Description
Q16	8-729-100-66	TRANSISTOR 2SC1623
Q17	8-729-100-66	TRANSISTOR 2SC1623
Q18	8-729-883-92	TRANSISTOR 2SC2839
Q19	8-729-883-92	TRANSISTOR 2SC2839
Q20	8-729-100-76	TRANSISTOR 2SA812
Q21	8-729-100-66	TRANSISTOR 2SC1623
Q201	8-729-178-61	TRANSISTOR 2SC2786
Q202	8-729-178-62	TRANSISTOR 2SC2786-L
Q203	8-729-200-66	TRANSISTOR 2SK192A
Q204	8-729-200-66	TRANSISTOR 2SK192A
Q205	8-729-204-83	TRANSISTOR 2SA1048-GR
Q206	8-729-218-43	TRANSISTOR 2SK184-GR
Q207	8-729-178-54	TRANSISTOR 2SC2785
Q208	8-729-218-43	TRANSISTOR 2SK184-GR
Q209	8-729-600-27	TRANSISTOR 2SC634SP
Q210	8-729-102-04	TRANSISTOR 2SD1020-F
Q211	8-729-117-54	TRANSISTOR 2SA1175
Q212	8-729-600-27	TRANSISTOR 2SC634SP
Q213	8-729-117-54	TRANSISTOR 2SA1175
Q214	8-729-117-54	TRANSISTOR 2SA1175
Q215	8-729-117-54	TRANSISTOR 2SA1175
Q216	8-729-117-54	TRANSISTOR 2SA1175
Q217	8-729-600-27	TRANSISTOR 2SC634SP
Q218	8-729-117-54	TRANSISTOR 2SA1175
Q219	8-729-102-04	TRANSISTOR 2SD1020-F
Q220	8-729-178-54	TRANSISTOR 2SC2785
Q221	8-729-201-83	TRANSISTOR 2SC3112
Q301	8-729-100-66	TRANSISTOR 2SC1623

RESISTOR

Ref.No	Part No.	Description			
R1	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R2	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R4	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R5	1-216-017-00	METAL GLAZE	47	5%	1/10W
R6	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R7	1-216-017-00	METAL GLAZE	47	5%	1/10W
R11	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R13	1-249-433-11	CARBON	22K	5%	1/4W
R14	1-216-017-00	METAL GLAZE	47	5%	1/10W
R15	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R21	1-216-025-00	METAL GLAZE	100	5%	1/10W
R22	1-216-025-00	METAL GLAZE	100	5%	1/10W
R23	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R24	1-216-022-00	METAL GLAZE	75	5%	1/10W
R31	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R32	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R33	1-216-025-00	METAL GLAZE	100	5%	1/10W
R34	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R35	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R36	1-216-025-00	METAL GLAZE	100	5%	1/10W
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W
R38	1-249-405-11	CARBON	100	5%	1/4W
R39	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R40	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R41	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R42	1-216-174-00	METAL GLAZE	100	5%	1/8W
R43	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R44	1-216-041-00	METAL GLAZE	470	5%	1/10W
R45	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R51	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R52	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R53	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R54	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R55	1-216-109-00	METAL GLAZE	330K	5%	1/10W

Ref.No	Part No.	Description			
R61	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R62	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R63	1-216-017-00	METAL GLAZE	47	5%	1/10W
R64	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R65	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R66	1-216-111-00	METAL GLAZE	390K	5%	1/10W
R67	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R68	1-216-043-00	METAL GLAZE	560	5%	1/10W
R69	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R71	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R72	1-247-891-00	CARBON	330K	5%	1/4W
R73	1-249-405-11	CARBON	100	5%	1/4W
R74	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R75	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R76	1-216-037-00	METAL GLAZE	330	5%	1/10W
R81	1-249-405-11	CARBON	100	5%	1/4W
R82	1-249-422-11	CARBON	2.7K	5%	1/4W
R83	1-216-017-00	METAL GLAZE	47	5%	1/10W
R84	1-216-009-00	METAL GLAZE	22	5%	1/10W
R85	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R86	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R87	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R88	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R89	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R90	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R91	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R92	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R101	1-216-107-00	METAL GLAZE	270K	5%	1/10W
R102	1-216-017-00	METAL GLAZE	47	5%	1/10W
R103	1-216-037-00	METAL GLAZE	330	5%	1/10W
R104	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R105	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R106	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R107	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R108	1-216-748-11	METAL GLAZE	39K	5%	1/10W
R111	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R112	1-216-076-00	METAL GLAZE	13K	5%	1/10W
R113	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R115	1-249-429-11	CARBON	10K	5%	1/4W
R116	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R117	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R118	1-216-037-00	METAL GLAZE	330	5%	1/10W
R119	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R121	1-216-111-00	METAL GLAZE	390K	5%	1/10W
R122	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R123	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R124	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R125	1-216-107-00	METAL GLAZE	270K	5%	1/10W
R126	1-249-419-11	CARBON	1.5K	5%	1/4W
R127	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R131	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R132	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R133	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R134	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R135	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R136	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R137	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R138	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R139	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R140	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R141	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R142	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R151	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R152	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R153	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R154	1-216-099-00	METAL GLAZE	120K	5%	1/10W

Ref.No	P:
R155	1-
R156	1-
R157	1-
R158	1-
R159	1-
R201	1-
R202	1-
R203	1-
R204	1-
R205	1-
R206	1-
R207	1-
R208	1-
R211	1-
R212	1-
R213	1-
R214	1-
R215	1-
R216	1-
R217	1-
R218	1-
R219	1-
R221	1-
R222	1-
R223	1-
R224	1-
R231	1-
R232	1-
R233	1-
R234	1-
R235	1-
R236	1-
R237	1-
R238	1-
R24	1-
R242	1-
R243	1-
R244	1-
R245	1-
R246	1-
R24	1-
R24	1-
R26	1-
R26	1-
R26	1-
R26	1-
R265	
R266	1-
R267	1-
R268	1-
R269	1-
R270	1-
R271	1-
R272	1-
R273	1-
R281	1-
R282	1-
R283	1-
R284	1-
R285	1-
R286	1-
R287	1-
R301	1-
R302	1-
R303	1-
R304	1-
R305	1-

Ref.No	Part No.	Description
Q16	8-729-100-66	TRANSISTOR 2SC1623
Q17	8-729-100-66	TRANSISTOR 2SC1623
Q18	8-729-883-92	TRANSISTOR 2SC2839
Q19	8-729-883-92	TRANSISTOR 2SC2839
Q20	8-729-100-76	TRANSISTOR 2SA812
Q21	8-729-100-66	TRANSISTOR 2SC1623
Q201	8-729-178-61	TRANSISTOR 2SC2786
Q202	8-729-178-62	TRANSISTOR 2SC2786-L
Q203	8-729-200-66	TRANSISTOR 2SK192A
Q204	8-729-200-66	TRANSISTOR 2SK192A
Q205	8-729-204-83	TRANSISTOR 2SA1048-GR
Q206	8-729-218-43	TRANSISTOR 2SK184-GR
Q207	8-729-178-54	TRANSISTOR 2SC2785
Q208	8-729-218-43	TRANSISTOR 2SK184-GR
Q209	8-729-600-27	TRANSISTOR 2SC634SP
Q210	8-729-102-04	TRANSISTOR 2SD1020-F
Q211	8-729-117-54	TRANSISTOR 2SA1175
Q212	8-729-600-27	TRANSISTOR 2SC634SP
Q213	8-729-117-54	TRANSISTOR 2SA1175
Q214	8-729-117-54	TRANSISTOR 2SA1175
Q215	8-729-117-54	TRANSISTOR 2SA1175
Q216	8-729-117-54	TRANSISTOR 2SA1175
Q217	8-729-600-27	TRANSISTOR 2SC634SP
Q218	8-729-117-54	TRANSISTOR 2SA1175
Q219	8-729-102-04	TRANSISTOR 2SD1020-F
Q220	8-729-178-54	TRANSISTOR 2SC2785
Q221	8-729-201-83	TRANSISTOR 2SC3112
Q301	8-729-100-66	TRANSISTOR 2SC1623

RESISTOR

Ref.No	Part No.	Description			
R1	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R2	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R4	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R5	1-216-017-00	METAL GLAZE	47	5%	1/10W
R6	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R7	1-216-017-00	METAL GLAZE	47	5%	1/10W
R11	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R13	1-249-433-11	CARBON	22K	5%	1/4W
R14	1-216-017-00	METAL GLAZE	47	5%	1/10W
R15	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R21	1-216-025-00	METAL GLAZE	100	5%	1/10W
R22	1-216-025-00	METAL GLAZE	100	5%	1/10W
R23	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R24	1-216-022-00	METAL GLAZE	75	5%	1/10W
R31	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R32	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R33	1-216-025-00	METAL GLAZE	100	5%	1/10W
R34	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R35	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R36	1-216-025-00	METAL GLAZE	100	5%	1/10W
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W
R38	1-249-405-11	CARBON	100	5%	1/4W
R39	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R40	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R41	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R42	1-216-174-00	METAL GLAZE	100	5%	1/8W
R43	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R44	1-216-041-00	METAL GLAZE	470	5%	1/10W
R45	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R51	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R52	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R53	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R54	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R55	1-216-109-00	METAL GLAZE	330K	5%	1/10W

Ref.No	Part No.	Description			
R61	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R62	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R63	1-216-017-00	METAL GLAZE	47	5%	1/10W
R64	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R65	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R66	1-216-111-00	METAL GLAZE	390K	5%	1/10W
R67	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R68	1-216-043-00	METAL GLAZE	560	5%	1/10W
R69	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R71	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R72	1-247-891-00	CARBON	330K	5%	1/4W
R73	1-249-405-11	CARBON	100	5%	1/4W
R74	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R75	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R76	1-216-037-00	METAL GLAZE	330	5%	1/10W
R81	1-249-405-11	CARBON	100	5%	1/4W
R82	1-249-422-11	CARBON	2.7K	5%	1/4W
R83	1-216-017-00	METAL GLAZE	47	5%	1/10W
R84	1-216-009-00	METAL GLAZE	22	5%	1/10W
R85	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R86	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R87	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R88	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R89	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R90	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R91	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R92	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R101	1-216-107-00	METAL GLAZE	270K	5%	1/10W
R102	1-216-017-00	METAL GLAZE	47	5%	1/10W
R103	1-216-037-00	METAL GLAZE	330	5%	1/10W
R104	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R105	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R106	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R107	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R108	1-216-748-11	METAL GLAZE	39K	5%	1/10W
R111	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R112	1-216-076-00	METAL GLAZE	13K	5%	1/10W
R113	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R115	1-249-429-11	CARBON	10K	5%	1/4W
R116	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R117	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R118	1-216-037-00	METAL GLAZE	330	5%	1/10W
R119	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R121	1-216-111-00	METAL GLAZE	390K	5%	1/10W
R122	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R123	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R124	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R125	1-216-107-00	METAL GLAZE	270K	5%	1/10W
R126	1-249-419-11	CARBON	1.5K	5%	1/4W
R127	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R131	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R132	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R133	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R134	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R135	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R136	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R137	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R138	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R139	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R140	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R141	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R142	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R151	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R152	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R153	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R154	1-216-099-00	METAL GLAZE	120K	5%	1/10W

Ref.No	Part No.	Description			
R155	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R156	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R157	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R158	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R159	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R201	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R202	1-216-031-00	METAL GLAZE	180	5%	1/10W
R203	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R204	1-249-401-11	CARBON	47	5%	1/4W
R205	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R206	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R207	1-216-009-00	METAL GLAZE	22	5%	1/10W
R208	1-216-017-00	METAL GLAZE	47	5%	1/10W
R211	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R212	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R213	1-216-031-00	METAL GLAZE	180	5%	1/10W
R214	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R215	1-249-407-11	CARBON	150	5%	1/4W
R216	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R217	1-216-009-00	METAL GLAZE	22	5%	1/10W
R218	1-216-017-00	METAL GLAZE	47	5%	1/10W
R219	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R221	1-216-005-00	METAL GLAZE	15	5%	1/10W
R222	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R223	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R231	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R232	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R233	1-249-423-11	CARBON	3.3K	5%	1/4W
R234	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R235	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R236	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R237	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R238	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R241	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R242	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R243	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R244	1-249-435-11	CARBON	33K	5%	1/4W
R245	1-216-045-00	METAL GLAZE	680	5%	1/10W
R246	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R247	1-216-021-00	METAL GLAZE	68	5%	1/10W
R248	1-216-298-00	METAL GLAZE	2.2	5%	1/10W
R261	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R262	1-249-433-11	CARBON	22K	5%	1/4W
R263	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R264	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R265	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R266	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R267	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R268	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R269	1-216-041-00	METAL GLAZE	470	5%	1/10W
R270	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R271	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R272	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R273	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R281	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R282	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R283	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R284	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R285	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R286	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R287	1-216-298-00	METAL GLAZE	2.2	5%	1/10W
R301	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R302	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R303	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R304	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W

Ref.No	Part No.	Description			
R306	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R307	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R308	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R309	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R310	1-249-441-11	CARBON	100K	5%	1/4W
R311	1-249-441-11	CARBON	100K	5%	1/4W
R312	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R313	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R314	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R315	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R316	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R317	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R318	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R319	1-249-408-11	CARBON	180	5%	1/4W
R320	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R321	1-216-017-00	METAL GLAZE	47	5%	1/10W
R322	1-216-017-00	METAL GLAZE	47	5%	1/10W
R323	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R324	1-216-084-00	METAL GLAZE	30K	5%	1/10W

Ref.No	Part No.	Description
S201	1-554-955-11	SWITCH, ROTARY (BAND SELECTOR)
S202	1-554-957-11	SWITCH, PUSH (1 KEY) (POWER)
S301	1-553-349-00	SWITCH, PUSH (3)
S302	1-553-349-00	SWITCH, PUSH (2)
S303	1-553-349-00	SWITCH, PUSH (1)
S304	1-553-349-00	SWITCH, PUSH (ENTER)
S305	1-553-349-00	SWITCH, PUSH (6)
S306	1-553-349-00	SWITCH, PUSH (5)
S307	1-553-349-00	SWITCH, PUSH (4)
S308	1-553-349-00	SWITCH, PUSH (PROGRAM)
S309	1-553-349-00	SWITCH, PUSH (9)
S310	1-553-349-00	SWITCH, PUSH (8)
S311	1-553-349-00	SWITCH, PUSH (7)
S312	1-553-349-00	SWITCH, PUSH (PRIORITY)
S313	1-553-349-00	SWITCH, PUSH (DIRECT)
S314	1-553-349-00	SWITCH, PUSH (EXECUTE)
S315	1-553-349-00	SWITCH, PUSH (0)
S316	1-553-349-00	SWITCH, PUSH (DELAY)
S317	1-553-349-00	SWITCH, PUSH (MEMORY SCAN S/S)
S318	1-553-349-00	SWITCH, PUSH (SCAN +)
S319	1-553-349-00	SWITCH, PUSH (SCAN −)
S320	1-553-349-00	SWITCH, PUSH (KEY PROTECT)
S321	1-553-977-31	SWITCH, SLIDE (10KHz/9KHz SELECT)
S322	1-554-956-11	SWITCH, LEAF (LIGHT)
SP	1-503-374-11	SPEAKER
T21	1-426-194-11	TRANSFORMER, HIGH-FREQUENCY
T31	1-426-193-11	TRANSFORMER, HIGH-FREQUENCY
T32	1-404-448-00	TRANSFORMER, IF
T33	1-404-568-11	TRANSFORMER, IF
T34	1-404-191-00	TRANSFORMER, IF
T51	1-406-052-00	COIL (OSC)
T61	1-459-557-11	COIL (WITH CORE)
T62	1-404-126-00	IFT (SMALL TYPE)
T81	1-404-191-00	TRANSFORMER, IF
T101	1-404-127-00	IFT (SMALL TYPE)
T281	1-406-112-11	COIL (OSC)
VR121	1-230-538-11	RES, VAR, CARBON (WITH S121) 50K (SQL)
VR241	1-230-537-11	RES, VAR, CARBON (WITH SW) 20K (VOL)
X51	1-567-302-11	VIBRATOR, CRYSTAL 55.405MHz
X221	1-567-310-11	VIBRATOR, CRYSTAL 7.2MHz
XF31	1-567-922-11	FILTER, CRYSTAL

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