

# **PORTABLE DELUXE**

## **12-BAND RADIO**



## **INSTRUCTION MANUAL**

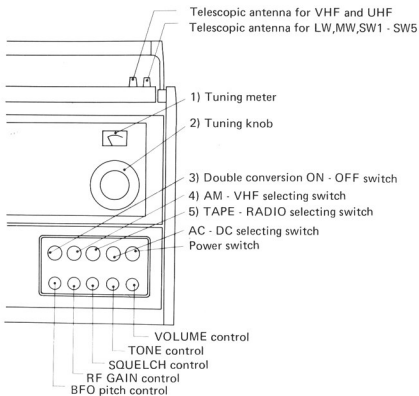
## **Introduction**

This radio is used to receive broadcasts and communications of every field that use the radio wave. It covers the reception of standard FM/AM broadcasts, fishery communications and broadcasts in the long wave band, commercial broadcasts, amateur radio communications and international SW broadcasts from all over the world including SSB and CW communications, aeronautical and weather communications in VHF band as well as it receives the radio wave transmitted from the artificial satellites, which makes this all-wave transistor radio classed as the highest in the world. Its ultra-high sensitivity delivers excellent performance with enough output power and superb tone quality. The employment of the dual conversion superheterodyne system facilitates the tuning in of the short-wave bands and assures the stable reception for your pleasure in SW1.

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## LOCATION OF CONTROLS



1) Tuning meter:

When tuning in, the pointer will swing to the right for better tuning.

2) Tuning knob:

Rotate the knob until the desired station appears in the dial scale. This tuning has double cored with different tuning ratio knob. Center knob has greater tuning ratio than out-sider which will provide you smoother selection of station.

3) DOUBLE CONVERSION ON - OFF switch:

Normally keep this switch at OFF position for FM. A weak signal such as HUM, then put it to ON position for high sensitivity. This will perform greater in UHF as triple conversion and super heterodyne circuit. Please note that all AM bands have nothing to do with this switch.

4) AM - VHF selecting switch:

Keep this switch to AM position for LW,MW,SW1 - SW5 and for L-PB, FM, AIR, H-PB and UHF switch it to VHF position.

5) TAPE - RADIO selecting switch:

Usually keep this switch at RADIO position. However, if recording or playback is desired then connect IN - OUT terminal (on right side of radio) to a tape recorder with a right size of connecting cord and switch it to TAPE position.

6) BFO pitch control:

This is used for SSB/CW reception. Place a pit of the knob between LSB(Lower Side Band) and USB(Upper Side Band) then turn it very slowly either clockwise or counterclockwise until the contents of the transmission is heard clearly.

7) RF GAIN control:

Used for SSB/CW reception with BFO pitch control. However, for all AM bands reception, place a pit of the knob to AUTO position.

8) SQUELCH control:

Effects on all VHF bands. This will eliminate noise when receiving no signal. Slowly slide the control to the right until the noise just cuts off. Do not slide further beyond this point as this may also eliminate the incoming signals.

9) TONE control:

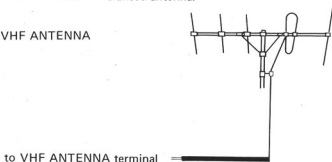
The normal mid-position of the control will usually furnish the most natural tonal quality of speech and music. Slide the control to the left for bass and to the right for treble.

### Connection of outdoor antenna

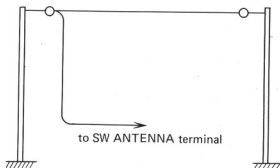
There are two antenna terminals for VHF and SW on right side of the set.

VHF: Use 50 - 100 ohm balanced antenna.

VHF ANTENNA



SW: Connect the antenna wire of more than 5 meters long to SW antenna terminal and extend it outdoors as high as possible.

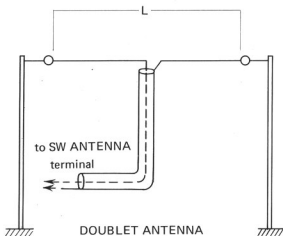


It is recommendable to use Doublet antenna for receiving specified broadcast.

The length of "L" can be found with following formation.

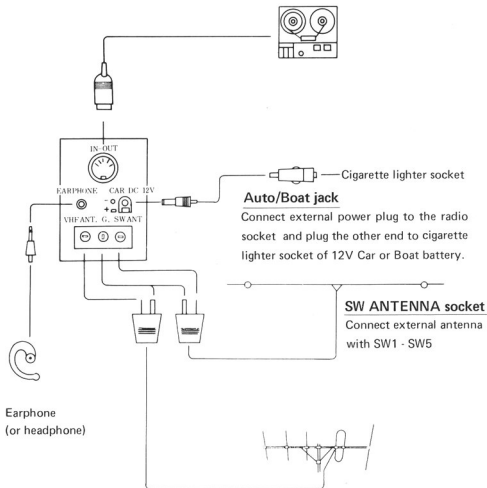
$$L(m) = \frac{143}{\text{Tuning frequency (Mhz)}}$$

Use feeder wire with 50 or 75 ohm coaxial antenna cable.



## CONNECTIONS OF EXTERNAL TERMINALS

Connect the tape recorder to this terminal to record from the radio and place the TAPE - RADIO selecting switch to RADIO position. In case of playback then switch it to TAPE position.



Earphone  
(or headphone)

### VHF ANTENNA socket

Connect VHF external antenna.

UHF external antenna is also connected to VHF ANTENNA socket.



### **To install batteries**

Battery compartment is located on the rear panel. Press battery compartment cover down and remove. Install 8 pcs. UM 1 (D cell) type batteries into each cylinder and place these cylinders into the compartment with correct polarity. Press negative side of the batteries to the spring connector and push other end down. Replace the rear panel and put power switch to DC position.

### **To operate on house current**

AC power cord is located in the same compartment of batteries. Connect this AC power cord plug into a house current and put POWER SWITCH to AC position.

### **To operate on 12V current**

Connections of external terminals of previous page will show you how to handle this. When you connect with 12V then AC, DC will automatically disconnected.

## **Operation**

### **For LW, MW, SW1 - SW5 band**

1. Place the power switch to ON position.
2. Select power switch to AC or DC or you can use 12V current.
3. Place TAPE - RADIO selecting switch to RADIO position.
4. AM - VHF selecting switch should be on AM position.
5. Press one of seven buttons, LW, MW, SW1 - SW5 for your desired band and turn the tuning knob for selection of a station and adjust VOLUME and TONE with each control.

For LW, MW, SW1 ferrite antenna is built-in so turn and adjust the direction and location of radio for better reception.

For SW2 - SW5 put BFO pitch control to OFF position and RF-GAIN control to AUTO position. Also extend LW, MW, SW1 - SW5 Telescopic antenna to its full length and stand it vertically.

## **For SSB and CW**

Each operation is same as AM bands. Catch SSB or CW broadcast, very slowly turn BFO pitch control knob either to LSB or to USB side from center of the control until the contents of the transmission is heard clearly. If the wave is too strong and can not re-tune then adjust it with RF GAIN control.

## **For L-PB, FM, AIR, H-PB, UHF band**

1. AM-VHF selecting switch to be on VHF position.
2. Press one of five buttons L-PB, FM, AIR, H-PB, UHF for your desired band and turn the tuning knob for selection of a station.
3. Extend VHF and UHF telescopic antenna and adjust the direction and angle for better reception. However length of the telescopic antenna must be adjusted to about  $\frac{1}{4}$  of its frequency on AIR, H-PB and UHF band.

For FM reception put the DOUBLE CONVERSION switch to OFF position.

## **Double Conversion**

Affects all VHF bands, L-PB, FM, AIR, H-PB and UHF. Put DOUBLE CONVERSION switch to ON position which will provide you better, clear and noiseless sound.

This feature is not workable on all AM bands but only for SW5 (18-30 MHz) has automatic (built-in) DOUBLE CONVERSION circuit.

It is recommendable not to have DOUBLE CONVERSION with FM.

## **MAINTENANCE**

Your unit is reggedly built and uses conservatively rated parts. So it will require little if any service or repair--provided you treat it with care. It is a delicate electronic instrument - do not be rough with it. Do not expose it to temperature extremes - either hot or cold. And do not use it in areas of excessive dust or dirt. Never leave weak or dead batteries in the set, even "leakproof" types can leak damaging chemicals. If you are not going to use your unit for a period of weeks or months, remove the batteries.

