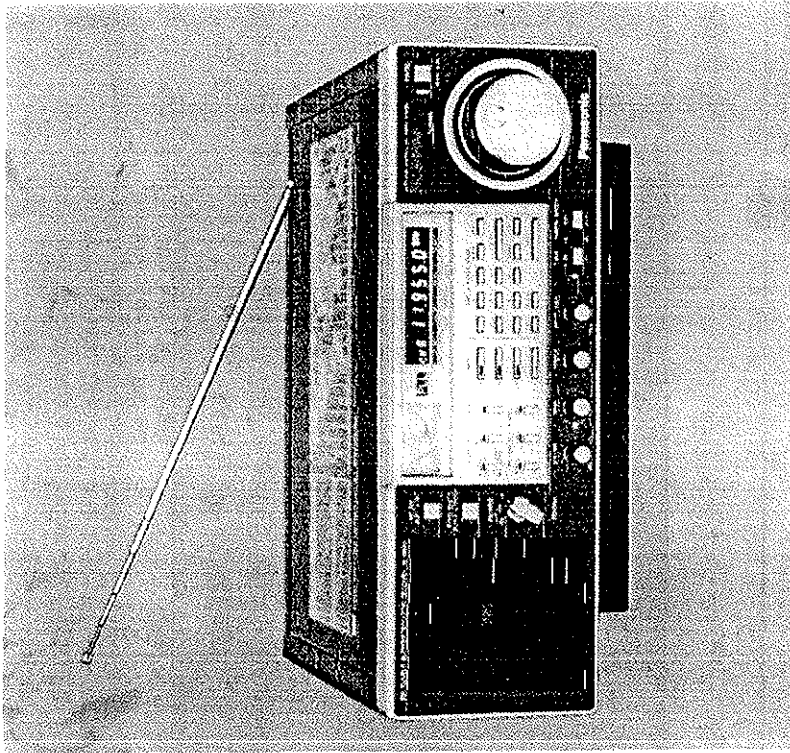


Operating Instructions

Mode d'emploi
Bedienungsanleitung
Gebruiksaanwijzing
Bruksanvisning
Brugsvejledning

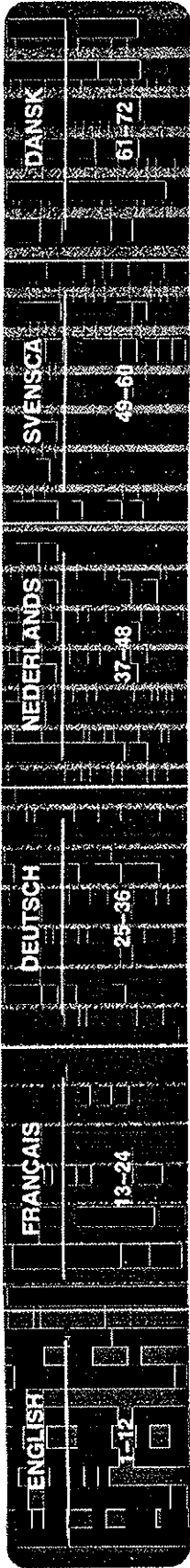
FM-LW-MW-SW Full-Band Coverage
Communications Receiver

MODEL NO. **RF-B600LBS/LBE**



Panasonic

Read these instructions completely before operating this set.



Thank you for purchasing this Panasonic Radio. For optimum performance, follow these operating instructions carefully.

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IMPORTANT (FOR U.K.)

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

• The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

• The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Note:

Disconnect the mains plug from the supply socket when not in use.

PRECAUTIONS

- For your safety and to prevent damage to the set:
- Do not connect the set to any AC outlet other than the type supplying the specified voltage.
 - Avoid cuts, scratches, or poor connections in the AC power cord, as they may result in possible fire or electric shock hazard. Also, excessive bending, pulling or slicing of the cord should be avoided.
 - Do not unplug the AC power cord by pulling on the cord. To do so may cause premature failure or shock hazard.
 - Do not operate the set on AC power in a bathroom, as a potential shock hazard may result.
 - When not in use, disconnect the AC power cord from the AC power outlet.

HELPFUL HINTS

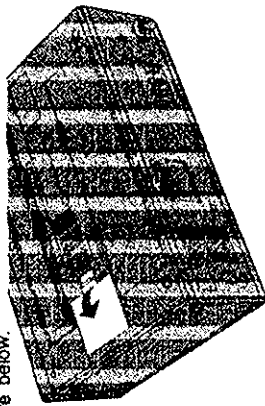
- If the set is not used for a long period of time or is used only from an AC power source, remove all the batteries to prevent potential damage due to possible battery leakage.
- When the sound begins to lower, it is advisable to replace all the main batteries with new ones before they are completely discharged.
- Do not subject the set to a temperature of over 60°C (140°F), because characteristics of the internal parts may be adversely affected by heat. Especially, never leave the set in a car exposed to direct sunlight for a long period of time with all the doors and windows closed. The cabinet may become deformed, and deterioration of the performance may result.
- Do not use benzene, thinner or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth moistened with a mild soap and water solution.
- If this unit is moved from a cold area (say 0°C) to a warm place it may not operate normally. This is the result of moisture in certain areas. In approximately 60 minutes, the unit will be operating correctly.

POWER SOURCE

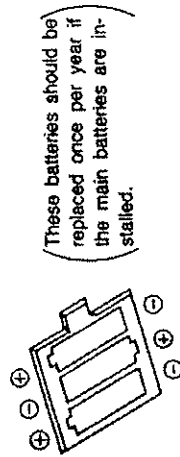
Before use, make sure that the memory back-up batteries are installed.

Memory back-up batteries

- 1) Open the battery compartment cover as shown in the figure below.



- 2) Insert 3 "AA" size batteries (National UM-3 or equivalent) into the battery compartment, making sure that the proper polarities (+ and -) are maintained.



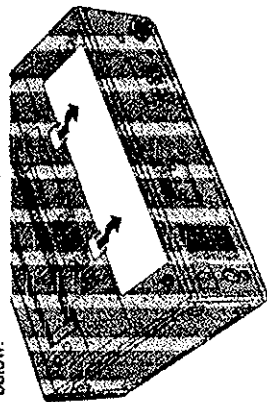
- 3) Replace the compartment cover.

Note:

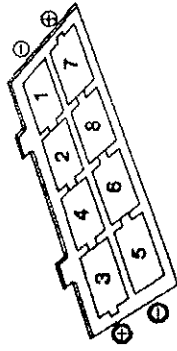
When replacing the memory back-up batteries, make sure that the AC power cord is in an AC outlet. Otherwise, the memory will be lost.

Battery Operation

- 1) Open the battery compartment cover as shown in the figure below.



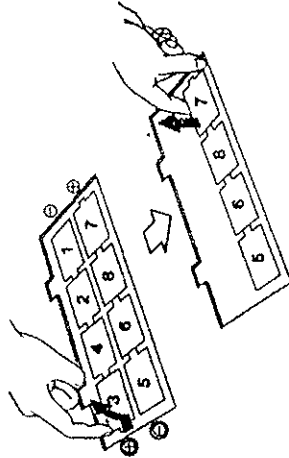
- 2) Insert 8 "D" size (National UM-1 or equivalent) batteries into the battery compartment, making sure that the batteries are installed in the designated numerical order and that the proper polarities (+ and -) are maintained.



- 3) Replace the compartment cover.

Battery removal

Remove the batteries as shown in the figure below.



Battery life

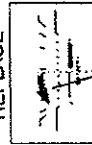
- 1) Set the Radio Switch to "ON".
 - 2) Set the Indicator Switch to "BATT".
- The Battery Check/Tuning/Signal Indicator will then show the battery condition.

NORMAL



When the meter points within the range as shown, the batteries can be used.

REPLACE



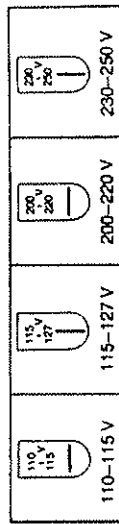
When the meter points within the range as shown, replace all the batteries with new ones.

Note:

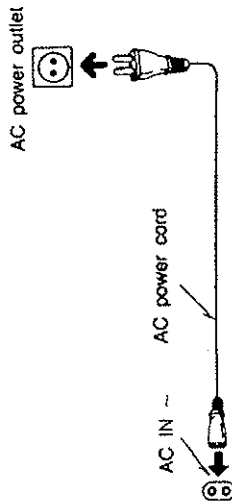
To operate on battery power, unplug the AC power cord from the household AC power outlet and the AC Socket on the unit, the unit will automatically switch to the batteries.

AC Power Operation

- 1) First, check the AC Voltage Selector to insure that it is set to the voltage which corresponds to your household AC voltage. If not, select the proper voltage by inserting a small screwdriver into the slot provided and turning the screwdriver until the desired voltage appears through the opening.

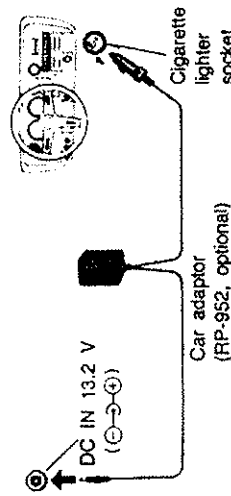


- 2) Connect the accessory AC power cord to the AC Socket in the unit and your household AC power outlet. Upon plugging the power cord into the AC Socket, the unit will automatically switch from battery to AC operation.



Car Battery Operation

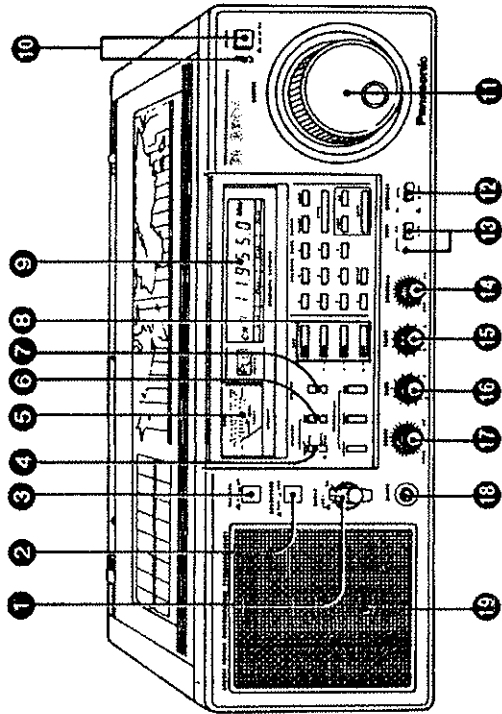
- 1) Insert the plug of the car adaptor cord into the DC Input Jack.
- 2) Plug the opposite end of the cord into the cigarette lighter socket in your car. Upon plugging the car adaptor cord into the DC Input Jack, the unit will automatically switch from internal battery to car battery operation.



Note:

For the connection of an adaptor cord, follow the instructions provided with the cord.

LOCATION OF CONTROLS AND THEIR FUNCTIONS



1 AM Mode Selector (AM MODE)

This is used for selecting between the LSB/CW, USB/CW, and AM modes.

2 AM Band Width Selector (BAND WIDTH)

This function is used when receiving AM (LW, MW, SW) broadcasts, and normally is set in the "WIDE" position. When frequencies are very close together and signal mixing occurs, set to the "NARROW" position.

When receiving LSB/CW or USB/CW broadcast, it is automatically set to the "NARROW" position.

3 (AM ANL) (Automatic Noise Limiter) Switch

When receiving AM (LW, MW, SW) broadcasts, this switch is used to eliminate unwanted noise caused by automobile ignitions, etc.

4 Indicator Selector (SELECTOR)

This is used to select between the battery check, tuning, and signal strength indicator functions.

■ **BATT:** In this position, the meter indicates the battery consumption level for radio operation.

■ **TUNING/SIGNAL:** In this position, the meter indicates the frequency tuning accuracy and the signal strength.

5 Battery Check/Tuning/Signal Indicator (INDICATOR)

This indicates battery consumption level, tuning accuracy, and signal strength.

6 Indicator Light Switch (LIGHT)

When depressed to the "ON" position, meter illumination is turned on. Use this function at night when the meters are hard to read. When not in use, depress it to the "OFF" position.

7 Display Switch (DISPLAY)

When depressed to the "ON" position, the digital frequency display will appear. Depress it to "OFF" position to save the battery life.

8 Band Select Keys/Indicators (BAND)

These keys are used for selecting the desired band. When each key is pressed, its corresponding indicator will light.

9 Digital Frequency Display (DIGITAL FREQUENCY DISPLAY)

This display shows the frequency and the number of the memory channel.

10 Radio Switch/Indicator (RADIO)

When depressed to the "ON" position, the indicator lights, and power is supplied to the unit.

Always set the switch to the "OFF" position after use.

11 Tuning Control (TUNING)

This control dial is used for Manual Tuning.

12 Fast/Slow Tuning Speed Selector (TUNING SPEED)

This is used in the following way to select the tuning steps or increments:

Band Position	FM	LW/MW	SW
■ FAST	100 kHz	10 kHz	1 kHz
■ SLOW	50 kHz	1 kHz	100 Hz

(This function does not operate during SW Zone Auto Tuning)

13 Tuning Lock Switch/Indicator (LOCK)

Usually set this switch to the "OFF" position. When set to the "ON" position, the indicator lights, the frequency presently being received will be locked and can not be drifted accidentally.

14 AM RF Gain Control (AM RF GAIN)

Normally, it is set in the "DX" position. When signals are weak and accompanied by distortion, or when signal mixing occurs, turn the control toward the "LOCAL" direction, and adjust to the position for optimum listening.

15 Treble Control (TREBLE)

16 Bass Control (BASS)

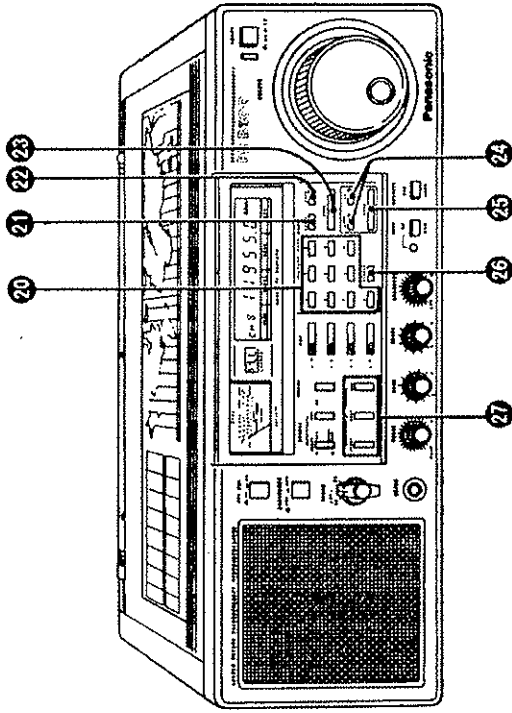
17 Volume Control (VOLUME)

18 Headphone Jack (PHONES)

This jack is used for connecting headphones with an RCA (Ø6.3 mm) plug.

Avoid listening to sound at high levels for prolonged periods. This may injure your ears.

19 Built-in Speaker



- ⑳ **Key (Number 1-9 are used for memory and 0 for frequencies)**
These keys are pressed to enter the frequency of a desired station, or to enter the memory channels.
- ㉑ **Memory Key (MEMORY)**
This key is pressed first when entering the frequency number of a desired station into the memory channel.
- ㉒ **Direct Key (DIRECT)**
This key is pressed before pressing in the frequency number of your desired station. Also, if you make a mistake when pressing the Number Keys, this key can be pressed to cancel the mistaken selections.
- ㉓ **Enter Key (ENTER)**
After entering the frequency number of your desired station, this key is pressed to begin receiving the broadcast of the station.
- ㉔ **Tuning Keys (DOWN, UP)**
These keys are pressed when performing SW Zone Auto Tuning.

㉕ **Stop Key (STOP)**

This key is pressed to stop the Memory Scan Tuning, Seek Tuning or Memory Scan Tuning.

㉖ **Decimal Point/Memory Scan Key (·/M-SCAN)**

This key is pressed for entering the decimal fraction portion of a frequency number and for playing back the memory channels.

When this key is pressed, the stations previously memorized in the memory channels will be played back for about 3 seconds each, moving in order from one channel frequency to the next (1CH→2CH.....9CH→1CH→2CH...). To cancel this operation, press either the Stop Key or one of the Memory Channel Keys.

㉗ **SW Zone Auto Tuning Selector (SW ZONE AUTO TUNING)**

When receiving short-wave broadcasts, these keys are used to tune up or down in 5 kHz increments within a ± 150 kHz zone around a selected central frequency.

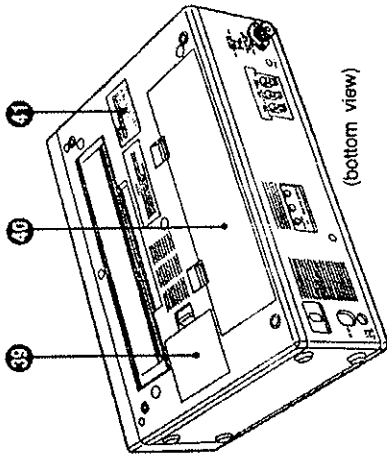
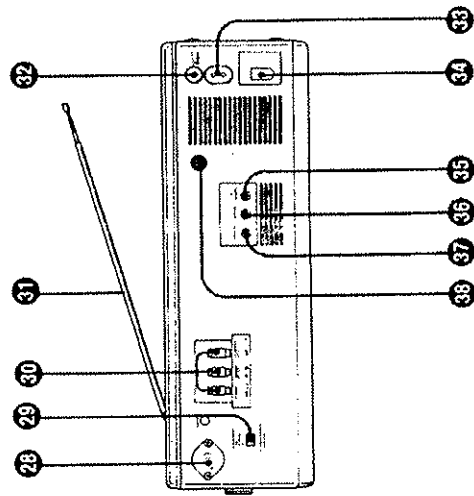
MANUAL : This allows you to perform tuning at every 5 kHz within the zone by one touch of the Tuning Keys.

SCAN :

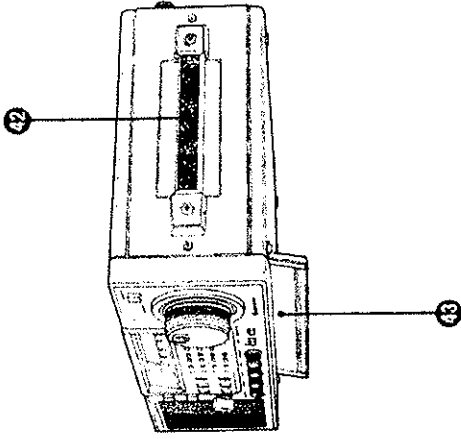
When one of the Tuning Keys is pressed once, the unit will scan for signals within the selected zone if any, playing each station for about 3 seconds before moving automatically to the next station in the zone. To stop this operation, press the Stop Key.

SEEK :

When one of the Tuning Keys is pressed once, the unit will receive signals within the selected zone if any, and stop the Auto Tuning Function.
To Stop the operation before receiving the signals, press the Stop Key.

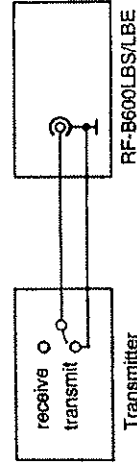


(bottom view)



- 28 **AM Low Impedance External Antenna Terminal (LW/MW/SW ANT 50-75Ω)**
- 29 **SW Antenna Selector (SW INT ANT/SW ANT)**
This is used for switching between the short-wave built-in and outdoor antennas, and for selecting HIGH or LOW impedance. When set to "LOW IMP", the telescopic antenna connection will be disconnected.
- 30 **External Antenna Terminals (LW/MW/SW ANT, SW ANT, FM ANT)**
(LOW IMP)
(HIGH IMP)
When reception is difficult with the built-in antenna alone, an optional outdoor antenna can be connected to these terminals.
- 31 **Telescopic Antenna**
- 32 **DC Input Jack (DC IN 13.2 V ⊖ ⊕ ⊕)**
This jack is used when connecting a car adaptor (RP-952, optional) for use with an automobile battery (DC 12 V).
- 33 **AC Socket (AC IN ~)**
The accessory AC power cord is connected here when using the unit with household current.
- 34 **Voltage Selector (VOLTAGE SELECTOR)**
- 35 **External Speaker/Earphone Jack (8Ω IMP 8Ω ONLY)**
When an optional external speaker or earphone is connected here, the built-in speaker is disconnected, allowing you to listen from the external speaker or earphone.
When connecting the Headphones, the earphone connected to this jack is automatically disconnected.
•Adjust the volume to lower level when using an ear-

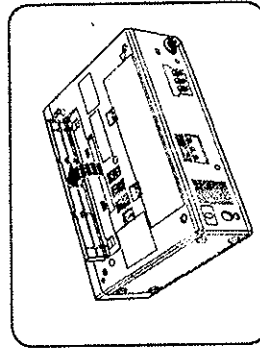
- 36 **Recording Output Jack (REC OUT)**
If a tape recorder is connected to this jack, you can record radio broadcasts while listening to them at the same time. Depending on the kind of input jack on your tape recorder, the connection cord required may differ.
- Note:**
The output level during recording is fixed regardless of the position of this unit's Volume Control.
- 37 **Stand-by Jack (STAND BY)**
When using the unit as a receiver of an amateur station by connecting the stand by jack of a transmitter to this jack, radio operation is automatically muted during reception.



- 38 **Recording Output Jack (REC OUT)**
May be connected to any external audio-equipment (such as a tape deck, record player, amplifier, etc.) with a DIN connector.
- 39 **Battery Case (For Memory Back-up)**
3 "AA" size batteries are inserted here.
- 40 **Battery Compartment (For Radio Power)**
6 "D" size (National UM-1 or equivalent) batteries are inserted here.
- 41 **Name Plate**

- 42 **Carrying Handle**
- 43 **Stand**

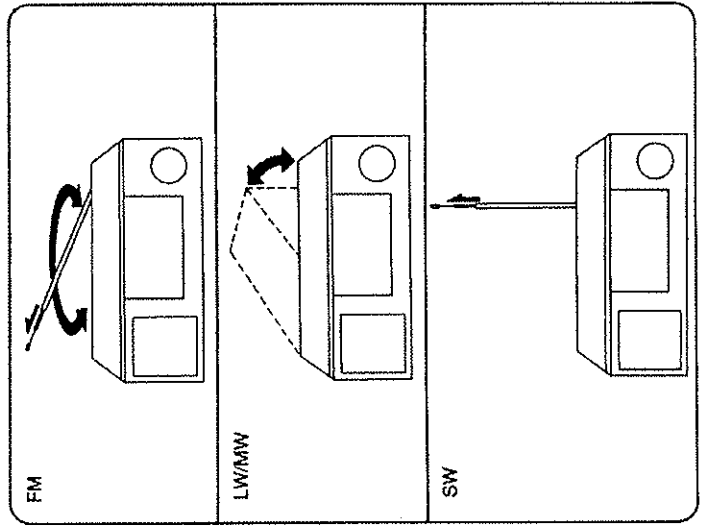
For easy operation, set the unit on the table by the stand.



ANTENNAS

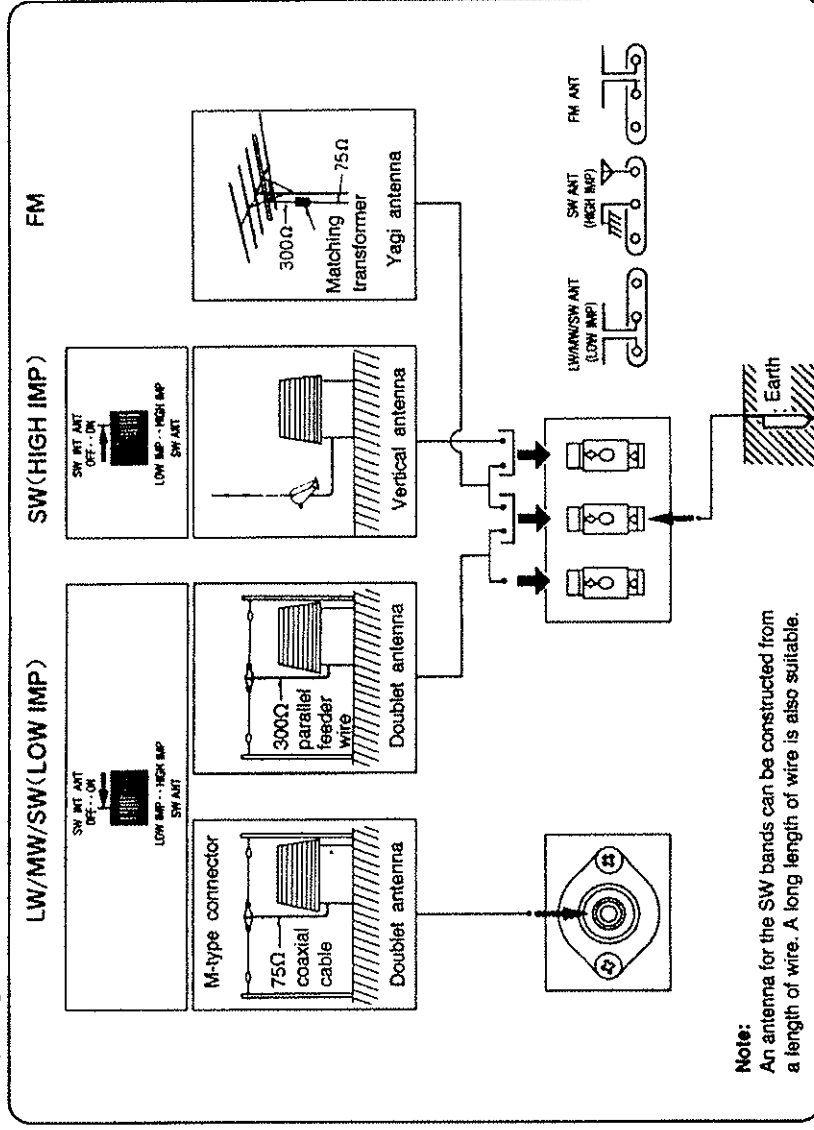
■ Built-in Antennas

- FM:**
- Extend the Telescopic Antenna completely and adjust its length and angle for optimum reception.
- LW/MW:**
- The sensitive ferrite core antenna inside the set will provide excellent LW/MW reception in most areas. For optimum reception, turn the set in the direction which gives the best results, since the ferrite core antenna is directional.
- SW:**
- Extend the Telescopic Antenna completely, keeping it vertical.



■ External Antennas

- To improve reception further: Refer to the figure below for proper connection of the different kinds of antenna.
- If an AM (LW, MW, SW) External Antenna is connected, be sure to set the SW Antenna Selector to the position corresponding to the antenna used.

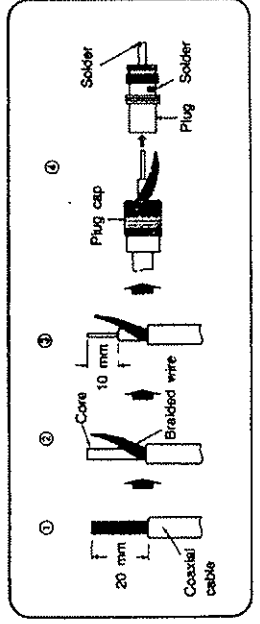


Note:
An antenna for the SW bands can be constructed from a length of wire. A long length of wire is also suitable.

● Connecting an M-type connector

(Use 75Ω coaxial cable for connection.)

- ① Remove the cover of the Coaxial cable by about 20 mm.
- ② Untie the Braided wire (shield wire) and separate it from the Core.
- ③ Remove the cover of the Core by about 10 mm.
- ④ Solder the Core and Braided wire to the supplied M-type connector.



CAUTION:

External Antenna Terminals are not available on the model sold in W. Germany.

RECEIVER OPERATION

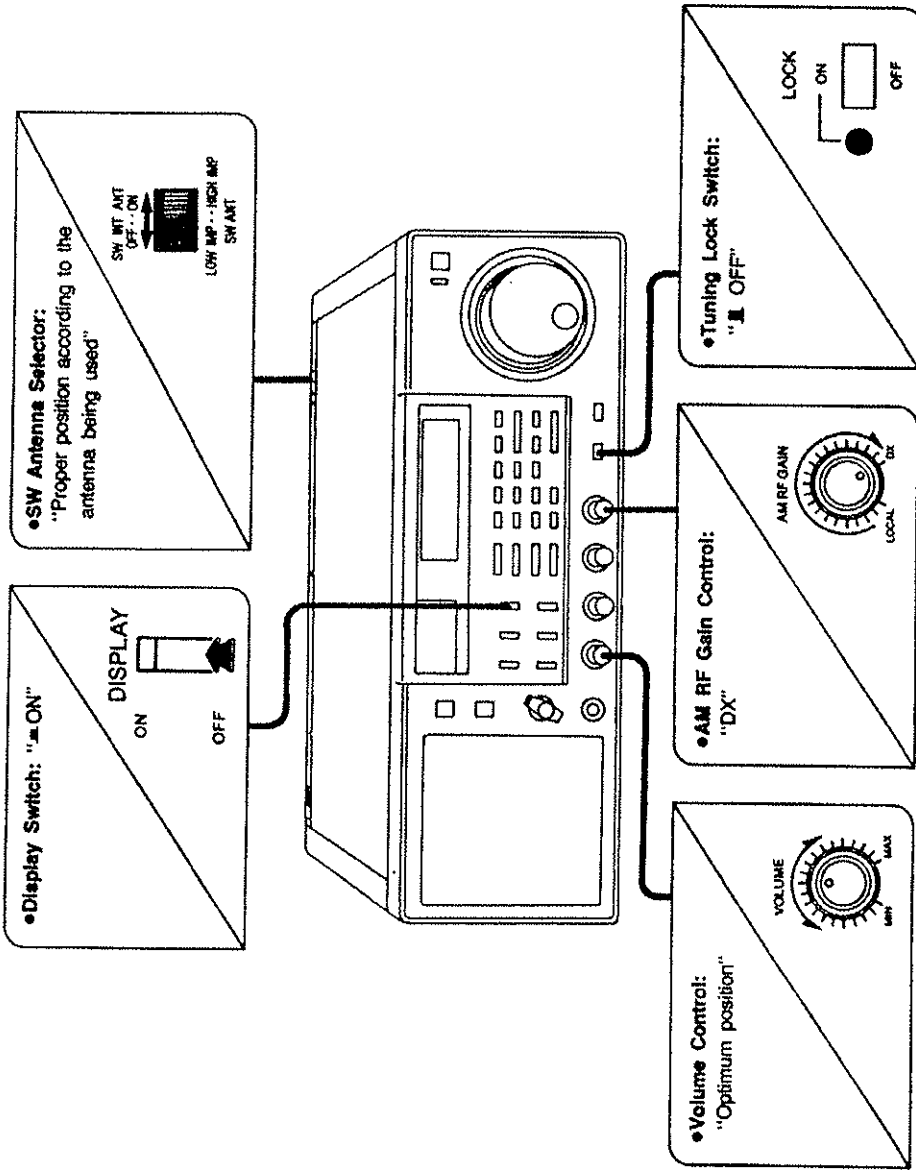
Perform the appropriate receiver operations in accordance with the type of broadcast you wish to listen to.

- A Direct-Access Tuning**
When you know the frequency number of your desired station.
- B Manual Tuning**
When you do not know the frequency number of your desired station.
- C Memory Tuning**
For performing one-touch tuning of memorized stations.
- D Memory Scan Tuning**
For performing automatic scanning of memorized stations.
- E SW Zone Auto Tuning**
Use during short-wave reception, when you wish to look for stations within a ± 150 kHz range of a central frequency.

SW broadcast is greatly affected by any slight change in solar spots and by different seasons. In these cases, reception is often impossible, but this does not mean there is any defect of the unit. In this case, please wait until proper receiving conditions are present.

Before Tuning Operation

Be sure to check the following points before operating this unit.



Note:
After tuning: If the Tuning Lock Switch is set to "ON", its indicator will light, and the frequency presently being received will be locked. In this way, even if you accidentally touch the Tuning Control, the frequency will not be affected.

A Direct-Access Tuning

Use this tuning mode when you know the frequency number of your desired station.

Note:

After pressing the Direct Key, or between pressing one Number Key and the next, if more than 5~6 seconds is allowed to elapse, the Digital Frequency Display will return to the display of the last station frequency received.

1

Set the Radio Switch to the "ON" position.



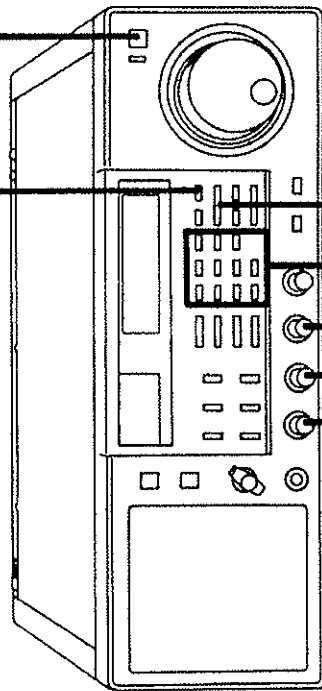
After use, set to the "OFF" position.

2

Press the Direct Key.



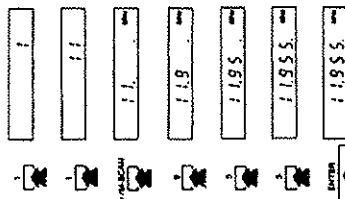
(The digital frequency display contents will disappear.)



3

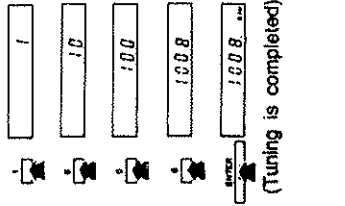
Use the Number Keys to enter in the desired station frequency, and then press the Enter Key.

Example: SW 11.955 MHz



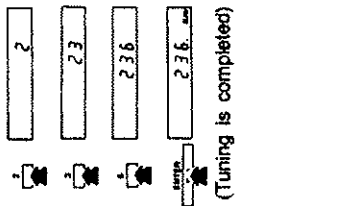
(Tuning is completed)

Example: MW 1008 kHz



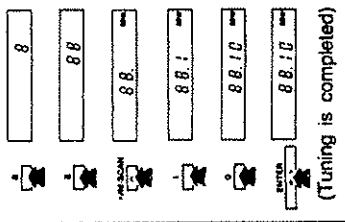
(Tuning is completed)

Example: LW 236 kHz



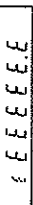
(Tuning is completed)

Example: FM 88.10 MHz



(Tuning is completed)

About the Error Display



During Direct-Access Tuning mode, the Error Display will occur when the reception frequency band is set outside of the broadcasting band or the Enter Key is pressed while the frequency band has not been set. In this case, enter the correct frequency band.

The frequency ranges of this unit are as follows:

FM: 87.5~108 MHz

LW: 150~420 kHz

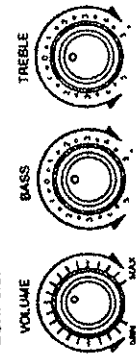
MW: 520~1610 kHz

SW: 1.611~29.9999 MHz

(Direct-Access Tuning enables reception up to 29.999 MHz.)

4

Adjust the Volume, Bass and Treble Controls.



Memory Tuning

When broadcast stations selected with either the Direct-Access Tuning or Manual Tuning modes are entered into the memory channels (channels 1~9), you can recall those selected channels easily, merely by pressing the corresponding Memory Channel Key.



Memory Scan Tuning

The memory scan function plays in order each of the stations memorized in the memory channels. It is a convenient feature when you wish to scan the program contents presently being broadcast on each of the memory channels, or when you wish to search for a particular broadcast.

How to memorize the channel

1 Use the Direct-Access Tuning or Manual Tuning mode to select a channel you wish to memorize.

88.10 MHz

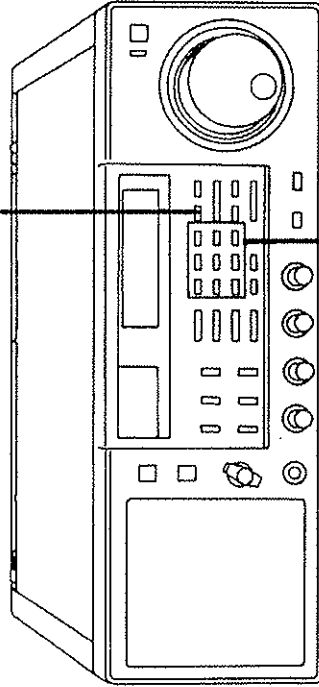
(When 88.10 MHz is received)

2

Press the Memory Key (The memory display "ME" will appear).

ME 88.10 MHz

If you wish to cancel the station, press the Memory Key again.



4

With these steps, the memorization of one channel is completed. Repeat steps 1~3 to memorize stations in each of the remaining Memory Channel Keys.

• When a new frequency is memorized in a given channel, the frequency previously memorized in the channel will be cancelled.

2

Press the Memory Key (The memory display "ME" will appear).

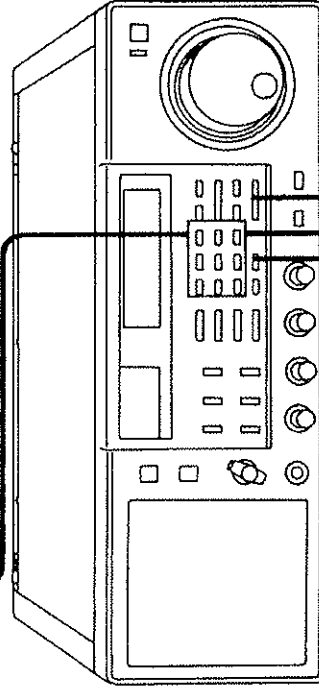
ME 88.10 MHz

If you wish to cancel the station, press the Memory Key again.



Press the Memory Channel Key to receive your desired station.

CH 5 88.10 MHz



7

Press the Decimal Point/Memory Scan Key.



The channels will change in the order CH1→CH2...CH8→CH9→CH1→CH2... to each channel broadcasting for about 3 seconds.

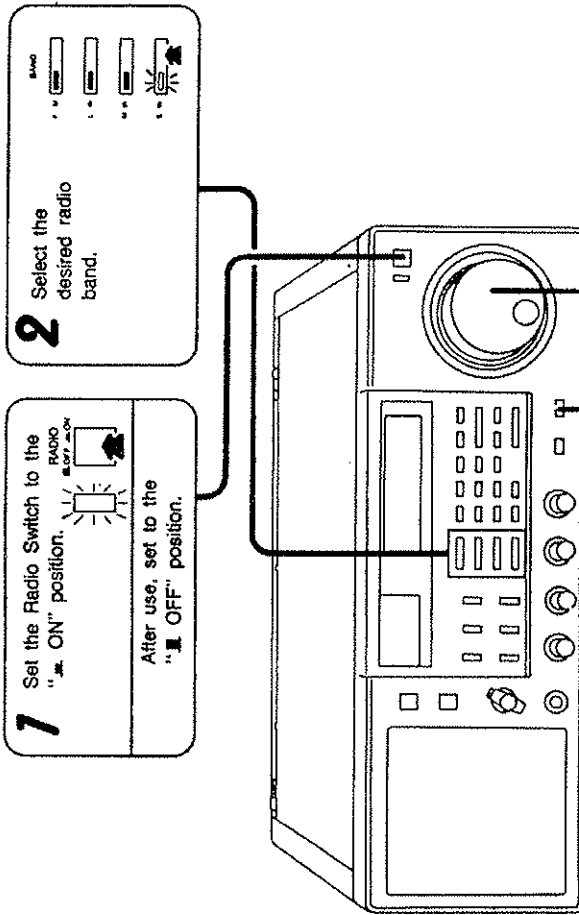
2

When your desired memory channel is displayed, pressing the Stop Key or the Memory Channel Key will allow you to receive that broadcast.

STOP or CH 7 100.0 KHz

Manual Tuning

Use this tuning mode when you do not know the frequency of your desired station.



1 Set the Radio Switch to the "ON" position.
After use, set to the "OFF" position.

2 Select the desired radio band.

3 Rotate the Tuning Control to tune in the desired station.

According to the frequency number you wish to receive, set the Tuning Speed Selector either to "SLOW" or "FAST".

• When receiving SW broadcasts in 100 Hz steps (increments), set to "SLOW".

During SW reception, if you want to change to the distant frequency, it is convenient to use both Direct-Access Tuning and Manual Tuning. For example, if you want to set to the frequency near 10 MHz after receiving a 4 MHz broadcast, first set to 10 MHz by Direct-Access Tuning, and then adjust by Manual Tuning.

If the upper or lower limits of each band are exceeded, the receiving frequency will automatically switch respectively to the lower and upper ends of the frequency scale.

FM: 87.5 MHz → 108 MHz

LW: 150 kHz → 420 kHz

MW: 520 kHz → 1610 kHz

SW: 1.611 MHz → 29.9999 MHz

SSB and CW Reception

- 1) Receive SW broadcast by the Manual Tuning.
- 2) Set the AM Mode Selector to "LSB/CW" or "USB/CW" position.
- 3) Set the Tuning Speed Selector to "SLOW" position.
- 4) Adjust to receive signals by rotating the Tuning Control. SSB... Rotate this control until the received signal becomes clear.

CW... Adjust for the desired tone. Usually for amateur communication, LSB is used under 10 MHz and USB used over 10 MHz.

Note:
In receiving two-way communication signals, a possible difference between the two frequencies may demand further adjustment of the Tuning Control.

E SW Zone Auto Tuning

During SW reception, if you do not know the precise frequency of your desired broadcast, you can use this tuning method in combination with the manual, scan or seek tuning modes to search for your desired station within a ± 150 kHz range of a selected central frequency.

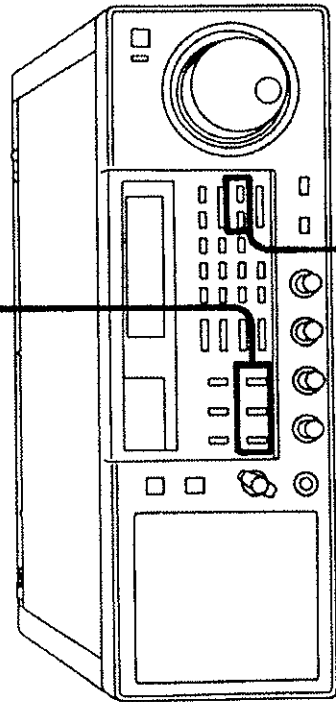
1 Manual Mode

1 Use the Direct-Access Tuning mode or Manual Tuning mode to tune in a frequency in the vicinity of your desired station.

9.670. MHz
(Tuned to 9.670 MHz)

2 Press the "MANUAL" button of the SW Zone Auto Tuning Selector.

SW ZONE AUTO TUNING
MANUAL SCAN SEEK



3 Press one of the Tuning Keys (UP or DOWN) one by one to search for your desired station. When the Tuning Key is pressed, the Digital Frequency Display will change in 5 kHz steps (increments). While the Tuning Key is being depressed, the Digital Frequency Display will change in faster mode.

DOWN UP

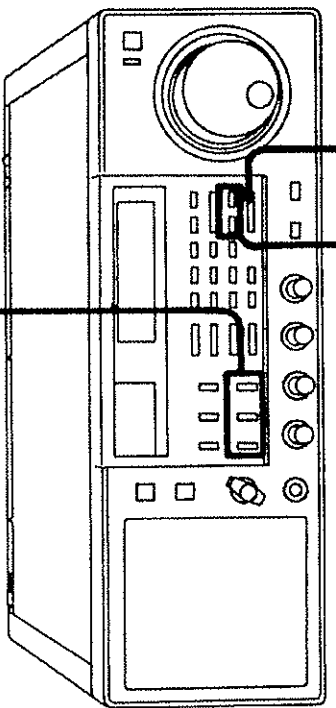
2 Scan Mode

1 Use the Direct-Access Tuning mode or Manual Tuning mode to tune in a frequency in the vicinity of your desired station.

9.670. MHz
(Tuned to 9.670 MHz)

2 Press the "SCAN" button of the SW Zone Auto Tuning Selector.

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3 Press one of the Tuning Keys (UP or DOWN).

- The Digital Frequency Display will automatically change in 5 kHz steps.
- When a broadcast is received, the scan will stop for about 3 seconds, and then begin scanning again automatically.

DOWN UP

4 When you have found your desired station, or if you wish to cancel the scanning operation, press the Stop Key.

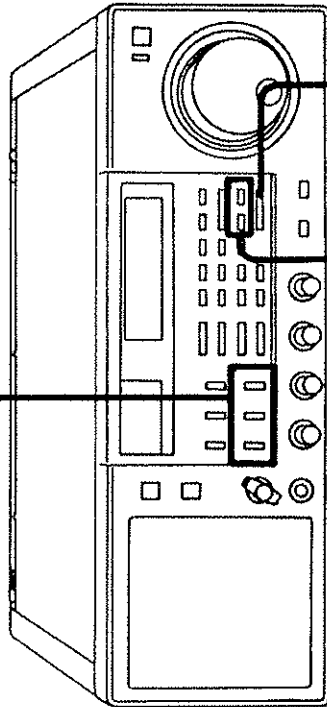
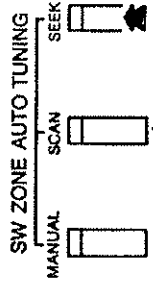
STOP

3 Seek Mode

1 Use the Direct-Access Tuning mode or Manual Tuning mode to tune in a frequency in the vicinity of your desired station.

9.670. MHz
(Tuned to 9.670 MHz)

2 Press the "SEEK" button of the SW Zone Auto Tuning Selector.



3 Press one of the Tuning Keys (UP or DOWN).

- The Digital Frequency Display will change automatically in 5 kHz steps.
- When a broadcast is received, the Up or Down tuning operation will stop.

4 Press the Stop Key if you wish to cancel the seek operation.



Notes:

- During SW Zone Auto Tuning, the Tuning Speed Selector does not operate. The digital frequency display will change in 5 kHz steps, regardless of the position of the switch ("FAST" or "SLOW").
- During the Seek operation, when a strong signal is received, the operation will automatically stop, but possibly not at the signal's central frequency. For example, if a strong 6.055 MHz signal is received, the seek operation will stop at 6.050 MHz or 6.060 MHz. In this case, use the Tuning Control for fine tuning.
- During Seek or Scan operation, when the noise is too loud, the operation will automatically stop at every 5 kHz step. In this case, turn the AM RF Gain Control a little toward the "LOCAL" direction.