

**FM/AM PLL SYNTHESIZED RECEIVER**

# ICF-2001



## **OPERATING INSTRUCTIONS**

Before operating this high quality electronic unit, please read this operating manual thoroughly so that you can obtain the maximum of enjoyment from it.

This manual should be retained for future reference and used to answer your operational questions as they arise.

## OWNER'S RECORD

The model number is located at the rear and the serial number is located in the Radio Battery Compartment. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. ICF-2001

Serial No. \_\_\_\_\_

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## FEATURES

- An AM/FM portable SWL (Short Wave Listener) radio with world-wide band coverage.
- Crystal-locked PLL (Phase Locked Loop) Synthesizer System uses a microcomputer to make pinpoint tuning easy. The tuned frequency is digitally displayed.
- Choice of Direct, Scan, Preset or Manual Tuning.
- Up to six stations can be preset so that they can be tuned in with the press of a button.
- Sleep timer turns the radio off automatically at any time up to 90 minutes.
- Three different power sources: internal batteries, house current or a car battery.

## PRECAUTIONS

- Do not open the case. Refer servicing to qualified personnel only.
  - Operate the computer only on 3V dc with two AA size batteries (IEC designation R6).
  - Operate the radio only on 4.5V dc. **The computer must have batteries for the radio to operate.**
- For ac operation, use the ac power adaptor supplied with this set. For car battery operation, use the car battery cord recommended for this set. Do not use any other car battery cord.
- When the set is not to be used for a long period of time, remove the batteries to avoid set damage from battery leakage.
- Caution:** When the computer batteries are removed, preset stations and the limits of the scanning range will be erased. So input this information again, when you reinstall the computer batteries. See pages 11 and 12.
- When the set is to be operated extensively on power sources other than batteries, remove the radio batteries.
  - Disconnect the ac power adaptor from the wall outlet when the set is not to be used for a long period of time.
  - The nameplate indicating operating voltage, etc., is located on the back of the set.
  - Use the set within a temperature range of 0°C to 40°C (32°F to 104°F). If it is used in temperatures outside this range, numbers may appear on the Frequency Display which have nothing to do with the frequency being received. If it is used in temperatures lower than this range, the numbers displayed may change very slowly. These irregularities will disappear and there will be no damage to the set when the set is used in its recommended temperature range.
  - Do not leave the set near heat sources, such as radiators or air-ducts, or in a place subject to direct sunlight, excessive dust, moisture, rain, mechanical vibration, or shock.
  - Should any solid object or liquid fall into the set, remove the batteries, and have the set checked by qualified personnel before operating it any further.
  - Since a strong magnet is used for the speaker, metallic objects such as pins, etc., may cling to the set. Keep personal credit cards using magnetic coding, recorded tapes, and spring-wound watches away from the set to prevent damage by the magnet.
  - When the case becomes soiled, clean it with a soft cloth dampened with a mild detergent solution. Never use abrasive cleansers or chemical solvents, as they may mar the case.
  - In vehicles or in buildings, radio reception may be difficult or noisy. Try listening near a window.
  - When there is lightning and you are using an external antenna, immediately disconnect the AC power adaptor (if connected) from the wall outlet. Never touch the antenna wire when there is a lightning storm.
  - Never connect a ground wire to a gas pipe.
  - Reception of 299 kHz, 350 kHz, 400 kHz, 5,760 kHz, 11,520 kHz, 10,700 kHz and 21,400 kHz may be difficult because of internal spurious signals generated by the built-in oscillators.

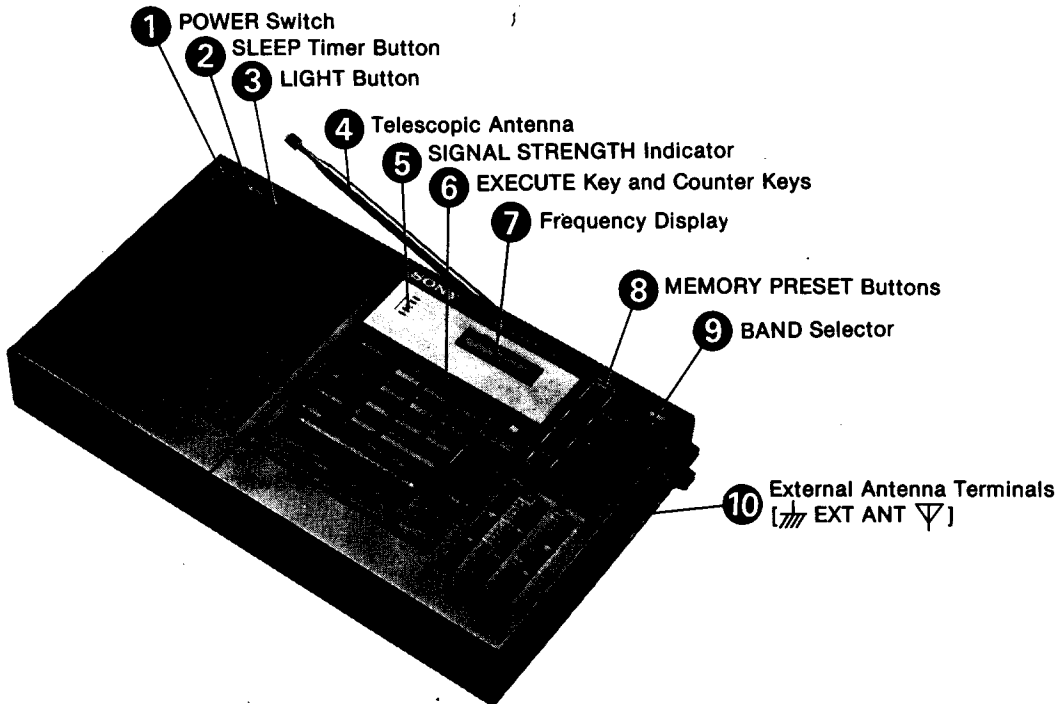
If you have any question or problem concerning your set that is not covered in this manual, please consult your nearest Sony dealer.

# LOCATION AND FUNCTION OF CONTROLS

## Front panel and right side

### Green key marks on the radio

- for scanning or presetting
- for AM (LW, MW, SW) reception
- for SSB/CW reception



#### 1 POWER Switch

Set this switch to ON to turn on the radio. To turn off, set it to OFF.

#### 2 SLEEP Timer Button

Press this button to set the sleep timer. See page 13.

#### 3 LIGHT Button

If you press this button when the POWER switch is set to ON, the Frequency Display will be illuminated.

#### 4 Telescopic Antenna

Used for both FM and AM (LW, MW, SW) reception.

#### 5 SIGNAL STRENGTH Indicator

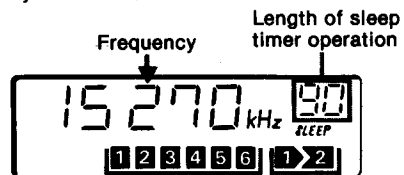
The 5 LED indicators show the strength of the tuned signal—the more LEDs illuminated, the better the tuning.

#### 6 EXECUTE Key and Counter Keys

Used to input a frequency. If you punch in a desired frequency with the Counter Keys, the frequency will appear in the Frequency Display. Press the EXECUTE key to tune the frequency in. This is called "Direct Tuning".

#### 7 Frequency Display

Displayed as follows:



Memorized numbers of MEMORY PRESET buttons are input to the L<sub>1</sub> and L<sub>2</sub> keys. Indicates if low and high limits of a frequency range for Scan Tuning are input to the L<sub>1</sub> and L<sub>2</sub> keys.

#### 8 MEMORY PRESET Buttons

After tuning a station in, first hold down the ENTER key, then press one of the six MEMORY PRESET buttons to memorize the station. One FM station or one AM station can be preset to each button.

#### 9 BAND Selector

Choose the desired band.

FM: for FM reception

AM: for LW, MW or SW reception

SSB/CW: for SSB (single sideband) or CW (International Morse Code) reception.

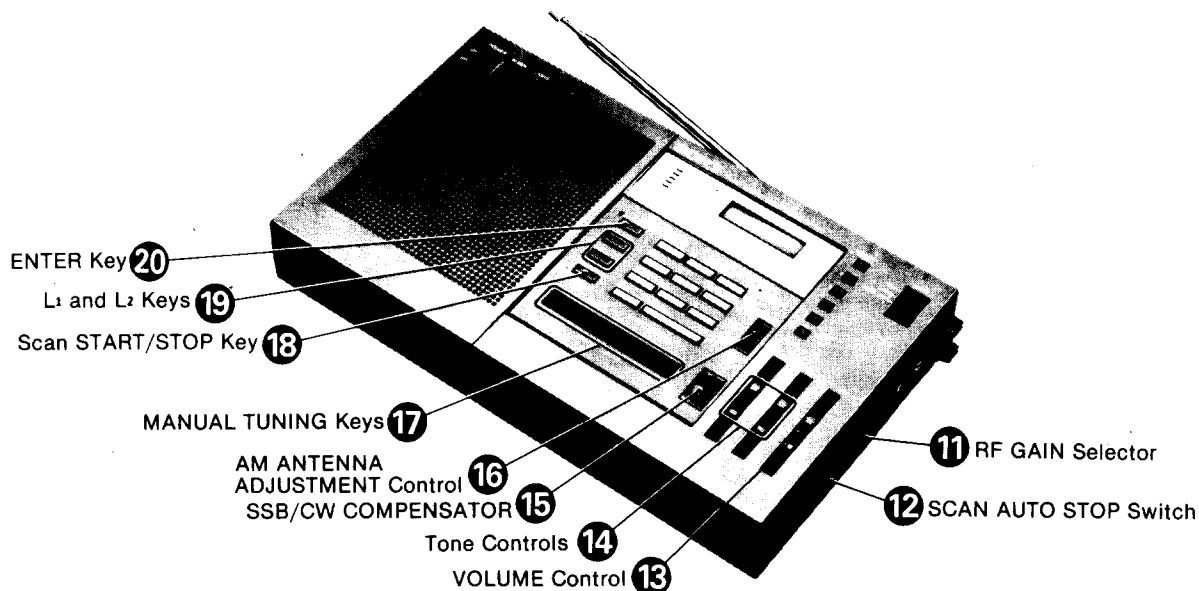
#### 10 External Antenna Terminals [EXT ANT and ground symbol]

For connecting an external antenna. The ground symbol terminal is for the antenna and the EXT ANT terminal for the ground. See page 14.

## Front panel and right side

### Green key marks on the radio

- for scanning or presetting
- for AM (LW, MW, SW) reception
- for SSB/CW reception



#### 11 RF GAIN Selector

Used for AM reception, which means MW, LW and SW (including SSB/CW) reception.

SW: Usually set this selector to DX.

MW/LW: Usually set this selector to NORMAL. When receiving a weak signal, set it to DX.

- When receiving a strong signal, or at night when it is difficult to pick up a weak signal because of interference from many other signals, set this selector to NORMAL or LOCAL.

#### 12 SCAN AUTO STOP Switch

When this switch is set to ON, scanning stops automatically when a station is received during the scanning mode.

#### 13 VOLUME Control

#### 14 Tone Controls

**BASS:** Slide this control towards  $\overset{+}{10}$  for more bass and towards  $\overset{-}{10}$  for less bass.

**TREBLE:** Slide this control towards  $\overset{+}{10}$  for more treble and towards  $\overset{-}{10}$  for less treble.

#### 15 SSB/CW COMPENSATOR

Use this control to tune more accurately to SSB/CW frequencies by adding or subtracting up to 6 kHz to the frequency displayed in the Frequency Display. The Frequency Display itself will not change, however.

#### 16 AM ANTENNA ADJUSTMENT Control

Used for adjusting the AM antenna. Turn this control for optimum AM reception: MW, LW and SW (including SSB/CW).

#### 17 MANUAL TUNING Keys

##### Count Up Key [UP ►] and Count Down Key [◄ DOWN]

If you press the UP ► (or ◄ DOWN) key once, the tuned frequency will be increased (or decreased) by the following intervals:

FM: 0.1 MHz

AM: 1 kHz

If you keep the key depressed, the frequency changes continuously.

##### FAST Key

If you keep the FAST and UP ► (or ◄ DOWN) keys depressed simultaneously, the frequency changes by following intervals:

FM: 0.2 MHz

AM: 10 kHz

#### 18 Scan START/STOP Key

After inputting the high and low limits of a frequency range to the L1 and L2 keys, if you press the START/STOP key, the radio begins searching for a station scanning from the low limit of the frequency range to the high.

With the SCAN AUTO STOP switch on the right side set to ON, scanning stops automatically when a station is received. With the SCAN AUTO STOP switch set to OFF, scanning does not stop automatically. Press the START/STOP key again to stop the scanning. Refer to "SCAN TUNING", page 11.

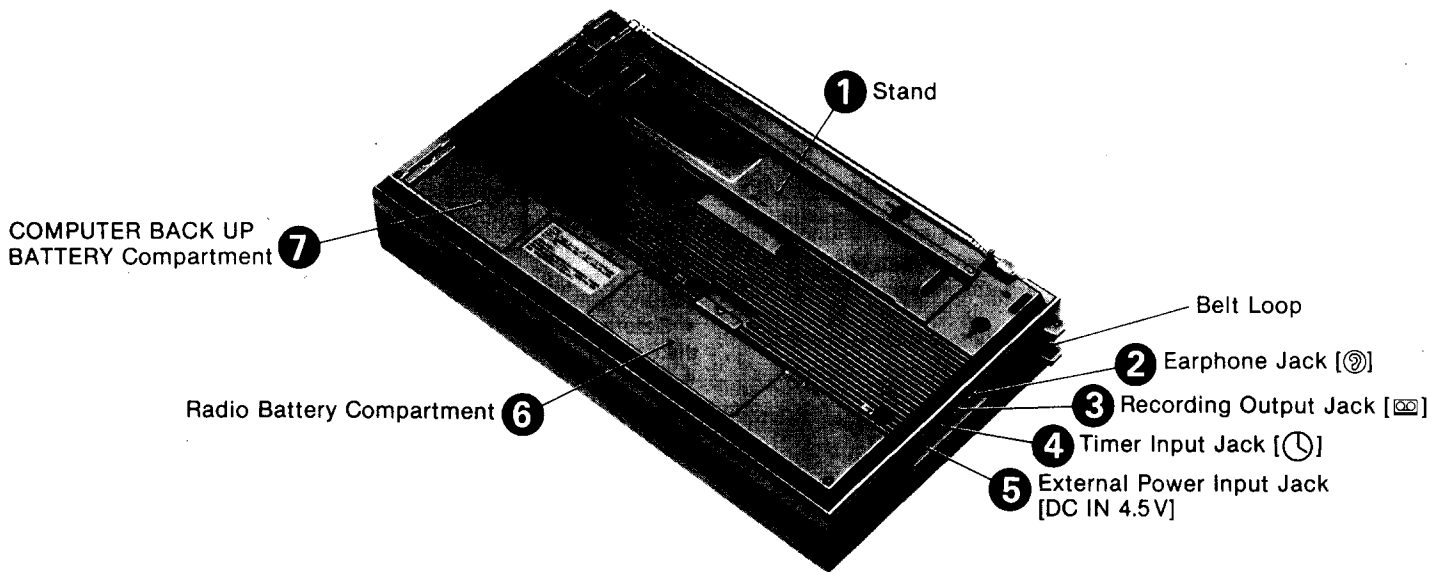
#### 19 L1 and L2 Keys

Used with the ENTER key to input high and low limits of the frequency range necessary for Scan Tuning.

#### 20 ENTER Key

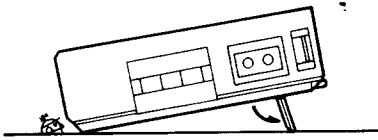
Used to input a station to a MEMORY PRESET button, or with the L1 and L2 keys the limits of a frequency range.

Rear and left side



**1 Stand**

Raise the stand as illustrated for easy use.



**2 Earphone Jack [🎧]**

For private listening with an earphone. When the earphone is plugged in, the speaker is automatically disconnected.

**3 Recording Output Jack [📻]**

For recording radio programs with a tape recorder. Connect this jack to the microphone input jack of the tape recorder with a suitable cord. In the case of a Sony tape recorder, use the Sony Connecting Cord RK-69A (optional).

**4 Timer Input Jack [🕒]**

For turning the radio on or off automatically at the desired time using a suitable timer. Such timers are not currently produced by Sony.

**5 External Power Input Jack [DC IN 4.5V]**

For operation from an external power source.

**6 Radio Battery Compartment**

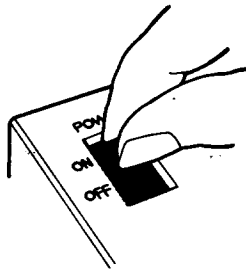
**7 COMPUTER BACK UP BATTERY Compartment**

# DIRECT TUNING

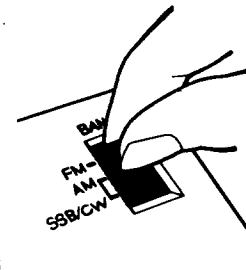
If you know the frequency of a station to be received, you can tune in the station easily by Direct Tuning. Refer to "HOW TO INPUT A FREQUENCY".

● The numbers in the illustration refer to the sequence of operation.

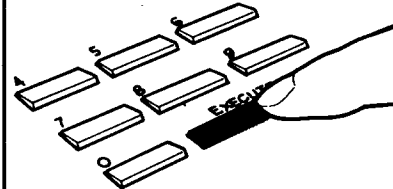
**1** Set the POWER switch to ON.

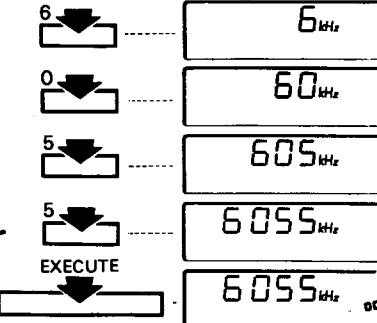


**2** Choose the desired band.



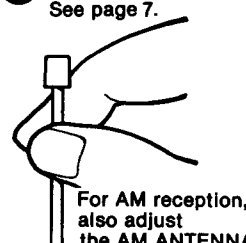
**3** Input the frequency of the station to be received.  
 Ex: to input AM 6,055 kHz  
 Press the Counter Keys in the order 6, 0, 5, 5.  
 Then, within 10 seconds, press the EXECUTE key.





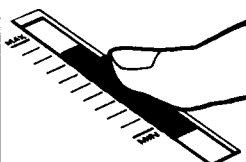
The station is tuned in.

**4** Adjust the Telescopic Antenna. See page 7.



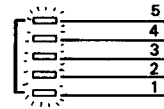
For AM reception, also adjust the AM ANTENNA ADJUSTMENT control.

**5** Adjust the volume and tone quality.

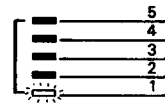


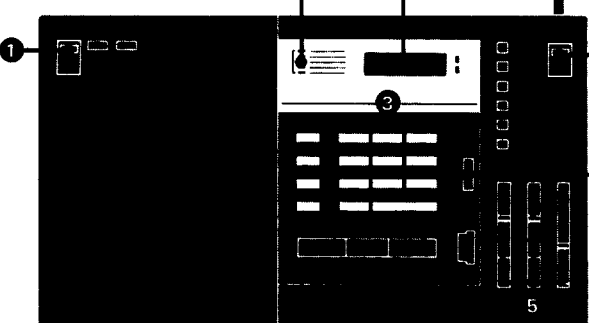
**SIGNAL STRENGTH indicator**

Good reception



Signal is weak.





Frequency Display

AM ANTENNA ADJUSTMENT control

**Note:** For AM-360 kHz to 2,143 kHz reception, the built-in ferrite bar antenna also operates. Lay the set down and rotate it to find the optimum position.

## HOW TO INPUT A FREQUENCY

The frequency range of this radio is:

FM 76.00 to 108.00 MHz

AM 150 to 29,999 kHz

Press the Counter Keys, then press the EXECUTE key. You can now hear the station whose frequency you have just input.

**Note:** Press the EXECUTE key within 10 seconds after pressing the Counter Keys. If you do not, the previous station will come back again.

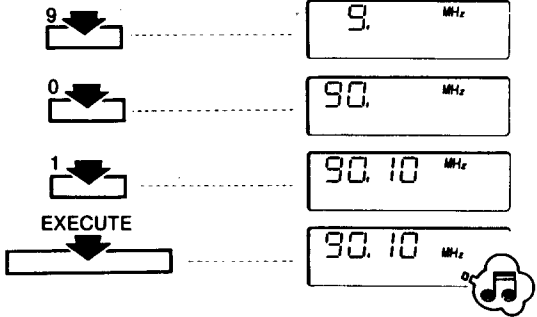
**Input a frequency beginning at the digit farthest to the left.**

Example 1: FM 90.1 MHz

① Press the Counter Keys in the order 9, 0, 1.

"90.10 MHz" is displayed in the Frequency Display.

② Press the EXECUTE key.



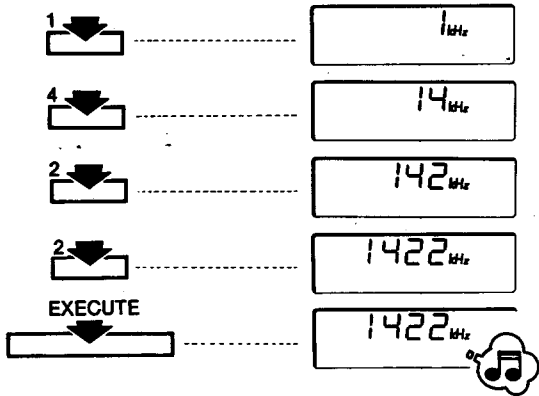
● When you input a frequency whose figures to the right of the decimal point are 00, as 90.00 MHz, simply press the Counter Keys 9 and 0, and press the EXECUTE key.

Example 2: AM 1,422 kHz

① Press the Counter Keys in the order 1, 4, 2, 2.

"1422 kHz" is displayed in the Frequency Display.

② Press the EXECUTE key.

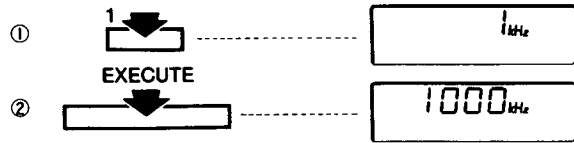


To input an AM frequency whose three righthand digits are 000

Example 1: AM 1,000 kHz

① Press the 1 Counter Key.

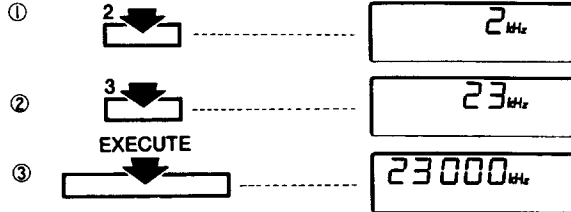
② Press the EXECUTE key. "1000 kHz" is displayed in the Frequency Display.



Example 2: AM 23,000 kHz

① Press the 2 and 3 Counter Keys.

② Press the EXECUTE key. "23000 kHz" is displayed in the Frequency Display.



**Note:** If you input a number higher than 30, **TRY AGAIN** will flash on and off in the Frequency Display, as a frequency higher than 30,000 kHz cannot be received.

### If you input a wrong frequency

Press the EXECUTE key and input the correct frequency.

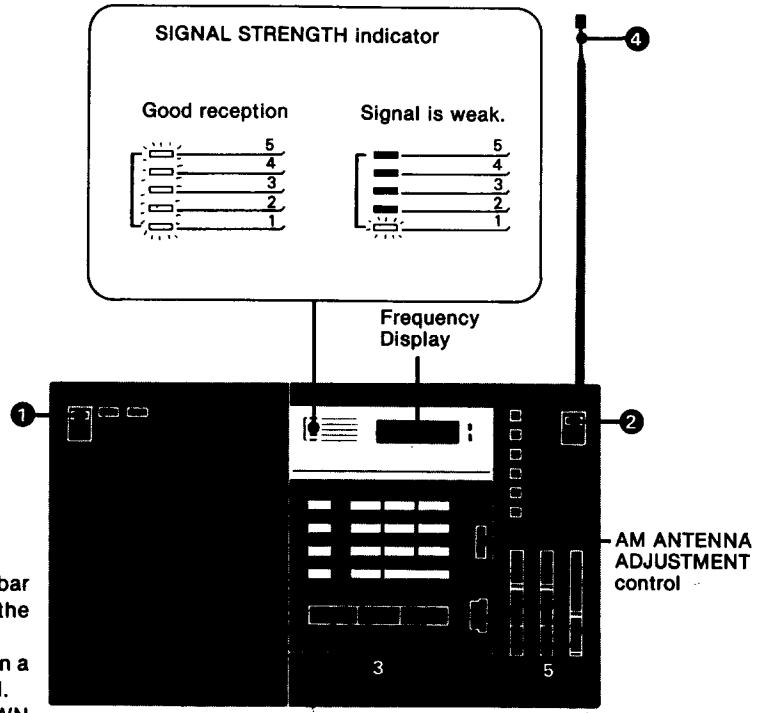
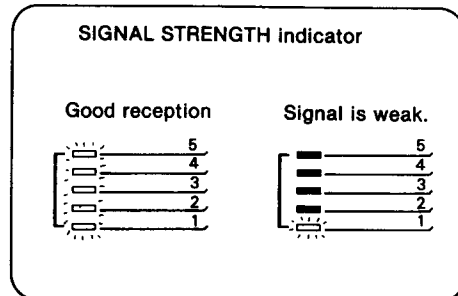
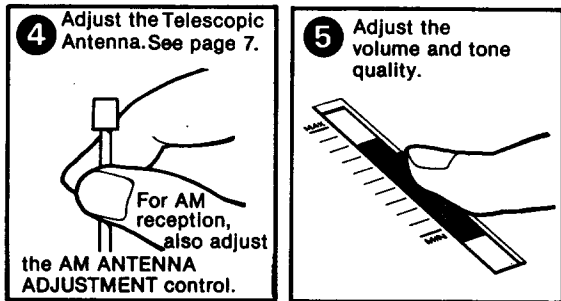
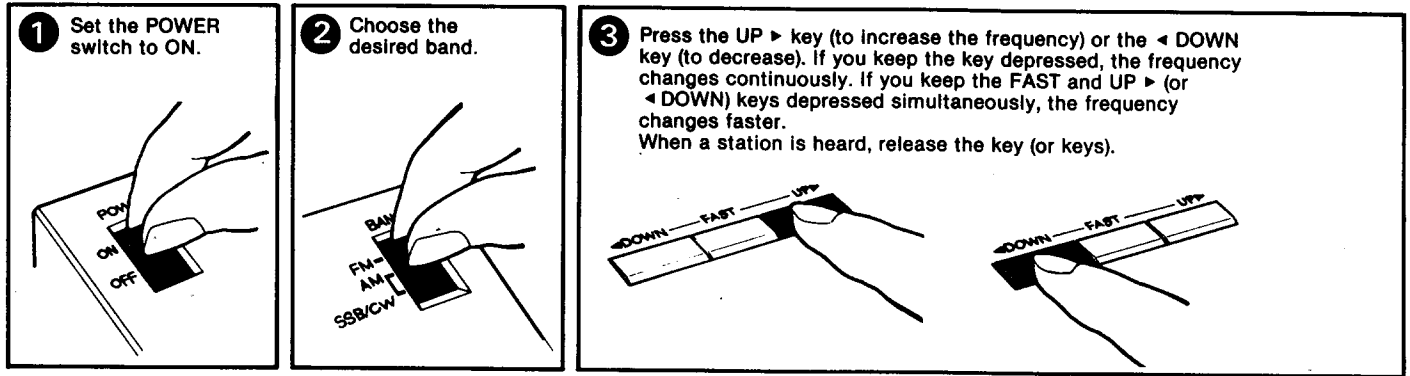
### The **TRY AGAIN** indication

If you input a frequency outside the frequency range (FM 76 to 108 MHz, AM 150 to 29,999 kHz), the indication **TRY AGAIN** will flash on and off in the Frequency Display. When you input a proper frequency, the **TRY AGAIN** indication will disappear. If you leave the **TRY AGAIN** indication flashing, it will disappear after about 10 seconds, and the previously tuned station's frequency will reappear.

# 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.



### Notes

- For AM 360 kHz to 2,143 kHz reception, the built-in ferrite bar antenna also operates. Lay the set down and rotate it to find the best position.
- Adjust the Telescopic Antenna when reception is poor or when a station cannot be heard even though its frequency is displayed.
- To tune in the station more precisely, press the UP or DOWN key once or more, observing the SIGNAL STRENGTH indicator. Tune so that as many LEDs as possible are lit.

# SCAN TUNING

Input to the L<sub>1</sub> and L<sub>2</sub> keys the low and high limits of the frequency range which includes the stations you most often listen to. Then, use Scan Tuning.

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

**1** Set the POWER switch to ON.

**2** Choose the desired band.

**3** Slide the VOLUME control towards MAX to get sound.

**4** Input the low and high limits of the desired frequency range.  
Ex: to input the frequency range of the International SW 31 meter band\* —AM 9,500 to 9,775 kHz.

**1. Input 9,500 kHz to the L<sub>1</sub> key.**  
Press the Counter Keys in the order 9, 5, 0, 0, and press the EXECUTE key. Then, while pressing the ENTER key, press the L<sub>1</sub>\*\* key.

Indicates that the frequency is input to the L<sub>1</sub> key.

**2. Input 9,775 kHz to the L<sub>2</sub> key.**  
Press the Counter Keys in the order 9, 7, 7, 5, and press the EXECUTE key. Then, while pressing the ENTER key, press the L<sub>2</sub>\*\* key.

Indicates that the frequency is input to the L<sub>2</sub> key.

**3. Check your inputting.**  
Press the L<sub>1</sub> (or L<sub>2</sub>) key. If the frequency input to the key appears in the Frequency Display when the key is pressed, you know the inputting is correct.

**5** Set the SCAN AUTO STOP switch to ON or OFF.

**6** Press the START/STOP key. The radio begins scanning.

- With the SCAN AUTO STOP switch set to ON, scanning stops automatically when a station is tuned in.
- With the SCAN AUTO STOP switch set to OFF, scanning does not stop automatically. To stop scanning, press the START/STOP key again.

**7** To tune in the station more precisely, press the UP ► or DOWN ◀ key once or more.

\* The limits of SW broadcasting frequency bands are written in black and those of amateur broadcasting frequency bands in blue on the frequency band limit scale under the Frequency Display.

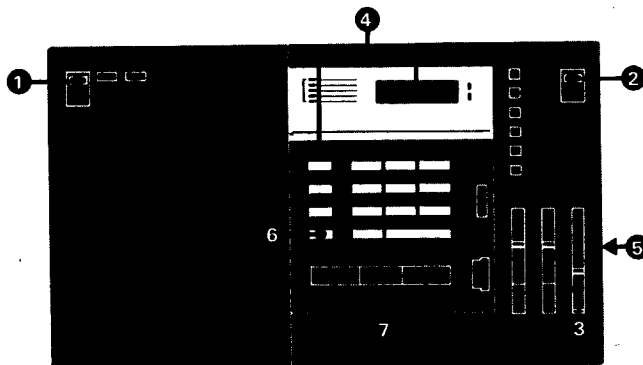
\*\* Scanning begins from the low limit of a frequency range even if you input the low limit to the L<sub>1</sub> key and the high limit to the L<sub>2</sub> key.

● Adjust the Telescopic Antenna. See page 7.  
For optimum AM reception, adjust the AM ANTENNA ADJUSTMENT control also.

If reception is unsatisfactory with the Telescopic Antenna, connect an external antenna. See page 14.

● Adjust the volume with the VOLUME control and the tone quality with the BASS and TREBLE controls.


**Note:** For AM 360 kHz to 2,143 kHz reception, the built-in ferrite bar antenna also operates. Lay the set down and rotate it to find the best position.



## MEMORY PRESET AND PRESET TUNING

### Notes on inputting a frequency to the L<sub>1</sub> and L<sub>2</sub> keys

- The AM 150 kHz frequency is preset at the factory to both L<sub>1</sub> and L<sub>2</sub> keys.
- Once input, the frequency will not be cancelled until another frequency is input.
- You can change the frequency input to either the L<sub>1</sub> or the L<sub>2</sub> key.
- If you input AM frequencies to the keys, any previously input FM frequencies will be erased\*, or vice versa. When next scan tuning the FM band, input them again if required.

\* Check the  indication in the Frequency Display. If this indication does not appear when the BAND selector set to FM, FM frequencies are not input to the L<sub>1</sub> and L<sub>2</sub> keys.





### Scan Start/Stop Key and Scan Tuning

If you press the START/STOP key, the radio begins scanning from the low limit of the frequency range. When scanning reaches the high limit, it will come back to the low limit and begin scanning again. The frequency changes by an interval of 0.1 MHz on the FM band and 3 kHz on the AM band. To stop scanning, press the START/STOP key again.

**Note:** When automatic scanning with the SCAN AUTO STOP switch set to ON, the following may happen:

- Scanning may not stop at weak stations.
- Scanning stops at a noise.

### To tune in a station precisely

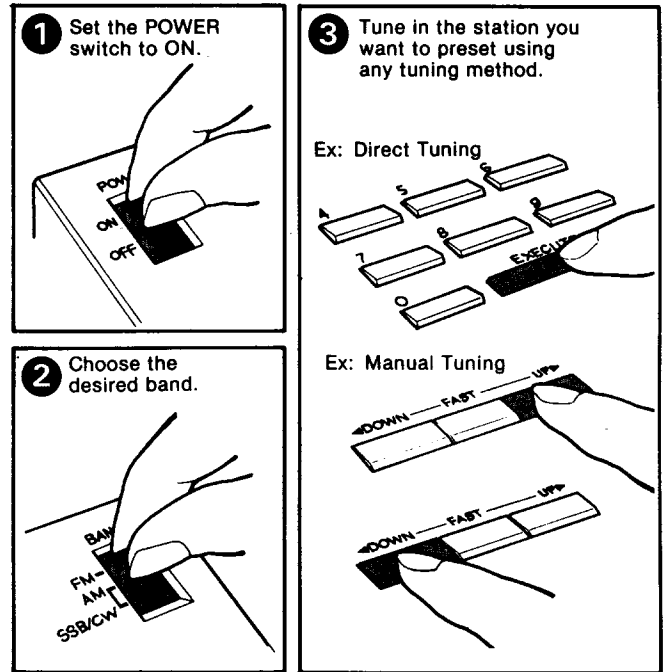
- When automatic scanning with the SCAN AUTO STOP switch set to ON, scanning may stop a little before or after the exact frequency of the station. When this happens, press the UP  or  key as necessary to tune in precisely.
- When scan tuning with the SCAN AUTO STOP switch set to OFF, scanning stops a little after the exact frequency of the station, even if you press the START/STOP key immediately after the station is heard. Press the  or  key as necessary to tune in precisely.
- When AM reception is difficult, check that the RF GAIN selector is set to a position other than LOCAL.

### Scan Tuning and the other tuning methods

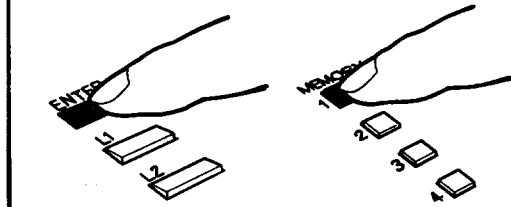
During scan tuning, you can tune in a station by any of three other methods—Direct, Manual or Preset Tuning. When you proceed with Scan Tuning after using another method, if the frequency of the last station tuned in is inside the scanning frequency range, scanning begins from the frequency of the last station.

### HOW TO PRESET

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

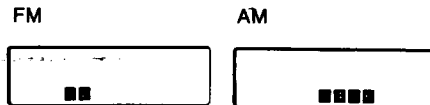


- 4** To preset the station, hold down the ENTER key and press a MEMORY PRESET button.



The **1** to **6** indications in the Frequency Display show that a station has been preset to the MEMORY PRESET button with the same number as that of the indication.

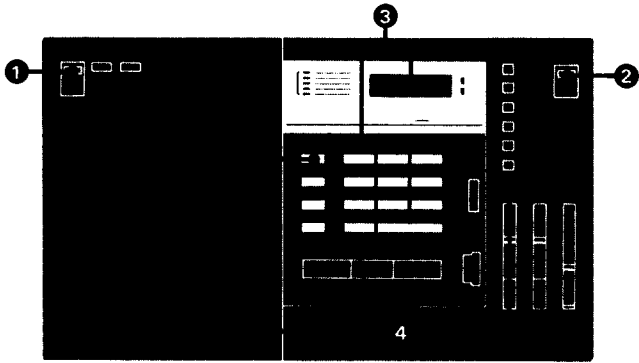
Ex: If you preset FM stations to the buttons 1 and 2, AM stations to the buttons 3, 4, 5 and 6, the indications are displayed as follows.



## HOW TO TURN THE RADIO OFF AUTOMATICALLY

Use the sleep timer of this radio to turn it off automatically.

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



### Notes

- The AM 150 kHz frequency is preset to all MEMORY PRESET buttons at the factory.
- Either an FM station or an AM station can be preset to a MEMORY PRESET button, for a total of 6 stations. The L<sub>1</sub> and L<sub>2</sub> keys can be used as MEMORY PRESET buttons, making it possible to preset 8 stations in all.
- If you want to add a new station and all MEMORY PRESET buttons have already been preset, the presetting of one button will have to be changed.

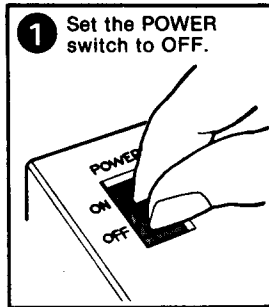
### TO CHECK YOUR PRESETTING

Use the following steps to be sure a station is entered in a MEMORY PRESET button. And you can get this station anytime by pressing the MEMORY PRESET button.

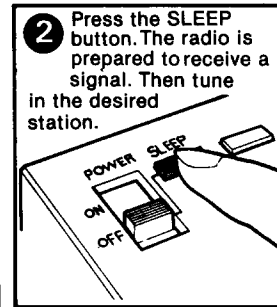
- 1 Tune in a station different from the station just preset by Direct, Manual or Scan Tuning.
- 2 Press the MEMORY PRESET button to which you have just preset a station.

### TO TUNE IN A PRESET STATION

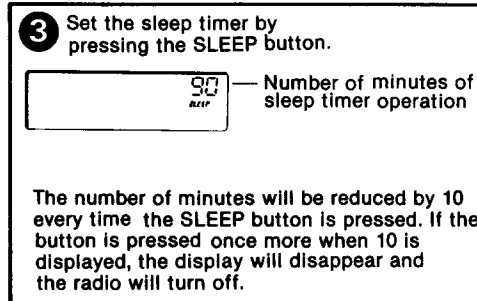
- 1 Set the POWER switch to ON.
- 2 Choose the desired band with the BAND selector.
- 3 Press the appropriate MEMORY PRESET button. The preset station will be tuned in.



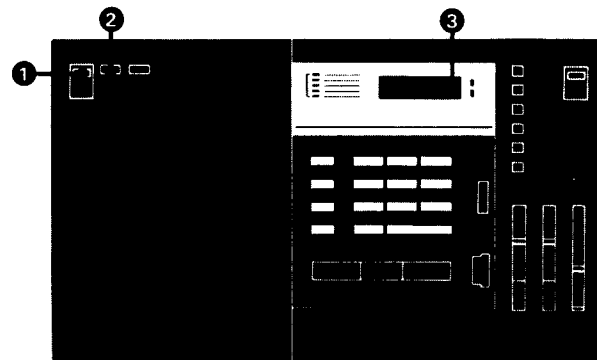
- 1 Set the POWER switch to OFF.



- 2 Press the SLEEP button. The radio is prepared to receive a signal. Then tune in the desired station.



- 3 Set the sleep timer by pressing the SLEEP button.



- To turn off the radio before the end of the sleep timer operation, set the POWER switch to ON and return it to OFF.

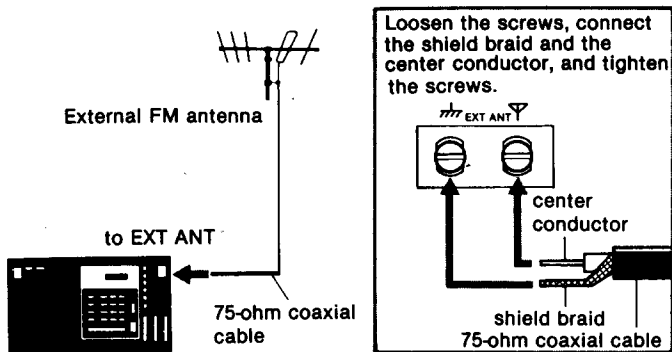
### Notes

- If you set the POWER switch to ON during the sleep timer operation, the sleep timer will be cancelled and the radio will not be turned off automatically.
- Check that nothing is connected to the Timer input Jack [⊙] on the left side. The sleep timer will not operate if the plug of a timer is connected to this jack.

## EXTERNAL ANTENNA CONNECTION

### FOR FM RECEPTION

In a steel-frame building, a mountainous area, at a distance from the transmitter or in a location where ignition noise is severe, FM reception may be unsatisfactory with the Telescopic Antenna. In this case, connect a commercially available external FM antenna to the EXT ANT terminals on the right side of the set as illustrated. Use a 75-ohm coaxial cable for the lead-in.

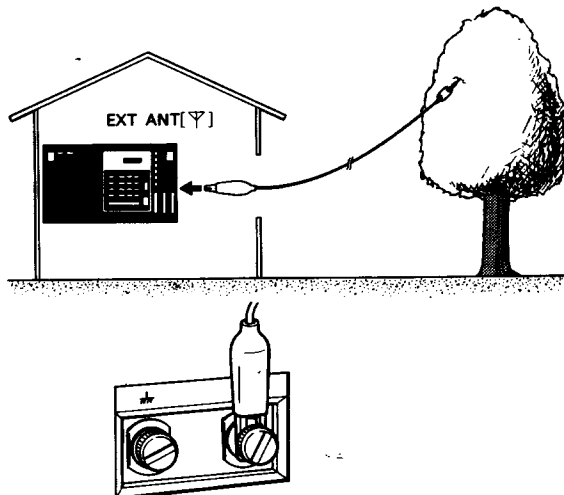


### Notes

- When using an external antenna, retract the Telescopic Antenna.
- Locate an outdoor antenna as far away from the street as possible.
- For further details, see the antenna's instruction manual.

### FOR AM RECEPTION

Usually the Telescopic Antenna is sufficient for AM reception. However, in a building or for more stable AM reception, the use of the supplied AM External Antenna is recommended. Connect the alligator clip to the  $\nabla$  terminal of the EXT ANT terminals on the right side. Extend the wire outdoors as high as possible. When reception is noisy, connect a ground wire. Connect the end of the ground wire to the  $\text{///}$  terminal of the EXT ANT terminals, and the other end directly to a convenient earth ground.

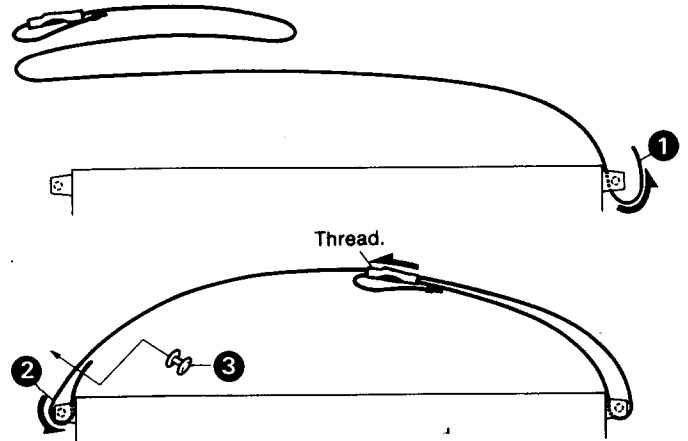


### NOTES

- You could cause a fire if you connect a ground wire to a gas pipe. Never do it.
- When there is lightning and you are using an external antenna, immediately disconnect the AC power adaptor (if connected) from the wall outlet. Never touch the antenna wire when there is a lightning storm.

## ATTACHING THE SHOULDER STRAP

- 1 Unbutton the button at the end of the strap, and with the seamless side up, thread the strap through one of the belt loops on the top of the radio.
- 2 Thread the other end of the strap through the other belt loop on the radio.
- 3 Insert the button.



## SPECIFICATIONS

Semiconductors	Signal circuit: 4 ICs, 11 FETs, 23 transistors, 16 diodes Auxiliary circuit: 1 LSI, 5 ICs, 25 transistors, 9 diodes (5 LEDs included)
Circuit system	FM: Superheterodyne AM: Dual conversion superheterodyne
Frequency range	FM 76 to 108 MHz AM 150 to 29,999 kHz (2,000 to 10 m)
Antennas	Telescopic antenna (AM/FM) Built-in ferrite bar antenna (AM 360 to 2,143 kHz) External antenna terminals (AM/FM)
Speaker	Approx. 10 cm (4 inches) diameter
Power output	1,200 mW (at 10% harmonic distortion), 1,600 mW (max.)
Input	Timer input jack (minijack)
Outputs	Recording output jack (minijack) output level 0.8 mV (-60 dB) output impedance 1 kilohm Earphone jack (minijack) for 8 ohm earphone
Power requirements	Radio: 4.5V dc, three D size batteries (IEC designation R 20) ✓ 120V ac, 60 Hz with supplied Sony AC-120W AC Power Adaptor <i>600 AmPS</i> 12V car battery with optional Sony DCC-127A Car Battery Cord Computer: 3V dc, two AA size batteries (IEC designation R6)
Power consumption	7W ac with Sony AC-120W AC Power Adaptor
Battery life	Radio: with Eveready Batteries No. 1050: Approx. 9 hours, if tuned to AM Approx. 10 hours, if tuned to FM Computer: with Eveready Batteries No. 1015, approx. 1 year of continuous operation
Dimensions	Approx. 310×171×56 mm (w/h/d) (12¼×6¾×2¼ inches) including projecting parts and controls
Weight	Approx. 1,800 g (4 lb) including batteries
Accessories supplied	1 Earphone 1 Shoulder Strap 1 AM External Antenna 1 AC-120W AC Power Adaptor
Optional accessories	DCC-127A Car Battery Cord RK-69A Connecting Cord (miniplug to miniplug)

Design and specifications subject to change without notice.

## TROUBLESHOOTING GUIDE

Should any problem occur with the set, make the following simple tests to determine whether or not servicing is required. If the problem persists after you have made these tests, consult the nearest Sony dealer for further information.

### Frequency Display section

#### No display or incorrect display

- Incorrect polarity of computer batteries.
- Weak computer batteries.
- Computer batteries were replaced within a minute after their removal. In this case, remove computer batteries, and after a minute or more, insert the batteries again.

#### Display is dim.

- Weak computer batteries.
- Replace computer batteries once a year.
- The set is being used in extremely high temperatures or in a place with excessive moisture.

### Radio section

#### Sound is not heard at all.

- The VOLUME control is set on MIN.
- The earphone is plugged in.
- Incorrect polarity of radio batteries.
- Weak radio batteries.
- The ac power adaptor is not connected on ac operation.
- Battery operation is attempted while an ac power adaptor or a car battery cord is connected to the set, but not to a wall outlet or a cigarette lighter socket.
- A timer is connected to the  $\odot$  jack.

#### Very weak or interrupted sound, or unsatisfactory reception.

- Weak radio batteries.
  - Tuning or antenna adjustment is not correct.
  - Weak signal.
- When in a vehicle or in a building, listen near a window.
- Figures on the Frequency Display differ a little from the actual station frequency.
- Tune more precisely with the UP ► or ◀ DOWN key.

#### Frequency cannot be input when Direct Tuning.

- The EXECUTE key was not pressed within 10 seconds after the Counter Keys have been pressed.

#### Scanning or presetting frequency cannot be input.

- The EXECUTE key was not pressed after the Counter Keys have been pressed.
- To input a frequency, while pressing the ENTER key, press the L<sub>1</sub> or L<sub>2</sub> key, or one of the MEMORY PRESET buttons.

#### The set will not scan.

- No frequency is input to the L<sub>1</sub> and L<sub>2</sub> keys.
- Check that the **1>2** indication is displayed on the Frequency Display.

#### Scanning does not stop automatically during automatic scanning.

- The SCAN AUTO STOP switch on the right side of the set is set to OFF.
- Weak signal.
- The RF GAIN switch is set to LOCAL.

#### Preset station cannot be tuned in, even though the MEMORY PRESET button is pressed.

- Incorrect setting of the BAND selector.
  - The memory has been erased.
- Preset again after replacing computer batteries.

#### The radio does not turn off at the time set by the SLEEP button.

- The POWER switch is set to ON.