



Pocket World Radio  
with SSB  
AR-1780  
User Manual

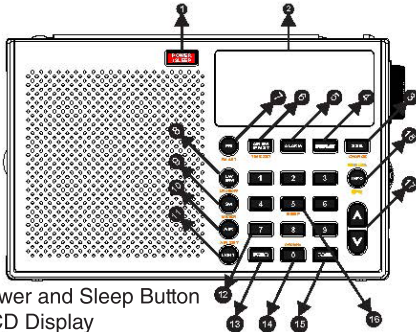
## WARNING

- Do not expose this appliance to rain or moisture
- Do not submerge or expose to water
- Protect from high humidity and rain
- Only operate within specified temperature range (0°C to 40°C)
- Unplug immediately if liquid has been spilled or debris have fallen into the unit
- Clean only with a dry cloth. Do not use detergents or chemical solvents as this might damage the finish
- Do not attempt to open the unit

## QUICK START GUIDE

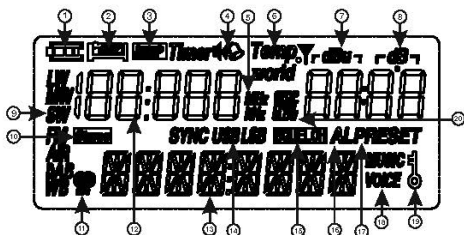
1. Install 4 x AA batteries in the battery compartment, paying attention to the polarity of batteries' + and - ends
2. Turn on the radio by pressing the 'POWER' button
3. Adjust the volume by rotating the 'VOLUME' knob
4. Select band by pressing the band button
5. Use the 'TUNING' knob to locate a desired station or by directly entering a frequency:
  - a) First, select the band you desire
  - b) Quick press the 'FREQ' button
  - c) Enter the frequency on the keyboard

## RADIO - FRONT VIEW



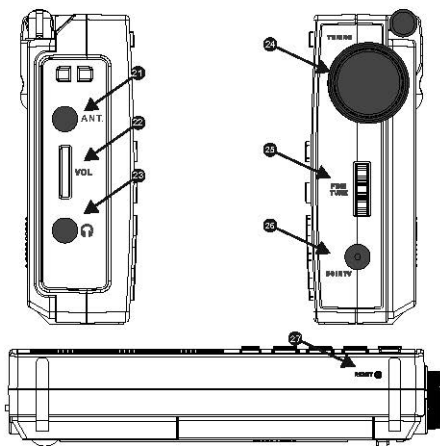
1. Power and Sleep Button
2. LCD Display
3. SSB/Battery Charge Button
4. Display Button (Clock, Alarm, signal Strength Level, Temp.)
5. Alarm Button (Radio & Buzzer)
6. AM Bandwidth Selection, FM Stereo/Mono, Time Set
7. FM Band, ATS, FM Freq Range Selection
8. LW/MW Band Selection, ATS
9. SW BAND, Meter Band Selection, ATS
10. Air Band, ATS
11. Back Light Button
12. 0-9 Key, Page and Memory Button
13. 'FREQ' Entry Button
14. 0, 9/10kHz Step Selection Button
15. Page Selection Button
16. Beep On/Off Button
17. Up/Down Selection Button
18. RDS Information, USB/LSB Selection, Lock Button

## RADIO VIEW - LCD DISPLAY



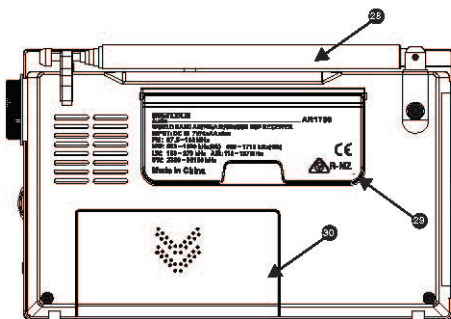
1. Battery Icon / Charge Indicator
2. Sleep Timer is Activated
3. Beep is Activated
4. Alarm Set for Radio Station or Buzzer
5. kHz Indicates kilohertz while in MW and SW bands MHz indicates Megahertz while in FM, LW and Air band
6. Indicates Temperature
7. Reception Signal Strength
8. Signal-to-noise Ratio Indicator
9. Band Indicators (AM, FM, SW, LW, AIR)
10. Stereo FM Reception
11. RDS Icon
12. Frequency/Time
13. RDS Information Display
14. USB/LSB Indicator for SSB
15. Air Squelch
16. Alarm is Activated
17. Station Memories 0-9
18. Audio Filter for voice or music
19. Radio is locked
20. Tuning Speed with Knob

## RADIO VIEW - SIDE VIEW



- 21. External Antenna Jack (3.5mm)
- 22. Volume Control Knob
- 23. Earphone Jack (3.5mm)
- 24. Tuning Knob
- 25. Fine Tuning Knob
- 26. DC IN Jack (3.5mm)
- 27. Reset Hole for resetting radio (located on bottom of radio)

## RADIO VIEW - BACK VIEW



- 28. Whip Antenna used for FM, SW bands
- 29. Back stand-up
- 30. Battery Compartment, insert 4 x AA Batteries

## FUNCTIONS & OPERATIONS EXPLAINED

### Power/Sleep Button

- To turn the radio 'ON', just press the red power button.
- To use the Sleep Timer, quick press the red button. The Sleep Timer will automatically shut off the radio after the set amount of time expires. The display will cycle through minutes 120, 90, 60, 45, 30.

## **Tuning Knob**

- Rotated Tuning Knob to tune into a different frequency while the radio is on.
- Press the knob 'IN' towards the body of the radio (once quickly) to change among 'STOP', 'FAST' and 'SLOW' tuning increments when rotating the knob.
- Squelch Mode only works on the Air band. Press and hold the tuning knob "IN" towards the body of the radio (for 2 seconds) to activate. "OFF" will appear on the display screen. Rotate the knob to adjust the level of squelch desired. The optimal level is usually the lowest number that does not have background noise. With squelch turned 'OFF', you may be able to receive some very weak signal that does not register when the squelch is enabled. Press the tuning knob 'IN' towards the body of the radio one time to save the current squelch setting.

## **Up and Down Tuning Buttons**

- Press once quickly to tune to the next frequency increment.
- Press and hold for 2 seconds to automatically tune to the next strong station.
- Hold continuously to cycle through the whole band. Press once quickly again to stop at current frequency.

### **Lock Button**

- With the radio off, press and hold for 2 seconds to enable lock, except the volume control. A lock icon will display on the screen when the radio is locked.
- To disable lock, press and hold the lock button again for 2 seconds.
- With the radio on, press quickly the lock button to display RDS information (i.e. PS, DATE, RT, PTY).
- In SSB mode, press quickly this button to cycle USB and LSB

### **Display Button**

- Press quickly the button to cycle display alarm/time/temperature/signal strength level.

### **AM Bandwidth / FM Stereo Button**

- Bandwidth Filters (for AM, SW, LW and Air band only): On AM, SW, LW and AIR bands there are 6 bandwidth settings that can be used to filter out unwanted noise or adjacent overlapping stations. Quickly press the button to view the current bandwidth selection (500Hz, 1K, 1.2K, 2.2K, 3K, 4K) in cycle. Release the button to choose the displayed selection.

### **NOTE:**

A narrow bandwidth of 1K or 1.2K may work best when receiving a weak or noisy signal. For a strong local signal, 4kHz is usually best, especially for music. If the station is changed then the radio will return to the default bandwidth setting at 1kHz for SSB mode only. The default bandwidth is 3kHz in other mode.



### **Stereo or Mono Reception**

- In the FM band, press quickly the button to cycle between 'MONO' and 'AUTO'. Typically, FM mono will have better reception than FM stereo.

#### **NOTE:**

If a station does not broadcast in stereo, or radio cannot lock onto the stereo signal, the radio will only receive FM mono and the stereo symbol will not be displayed.

### **Time Set**

- If the radio is off, press quickly the button then UP or DOWN button to cycle between 'AUTO' and 'MANUAL' to update time ('AUTO' indicates time automatically updates for RDS station). In Manual mode, the user can use UP or DOWN button to adjust the time.
- Press and hold for 2 seconds to set up time with 0-9 key, 'TIME' is flashing for time setting until finished.

### **Setting the Alarm**

- With the radio powered off, press and hold ALARM button for 2 seconds. Use 0-9 key to directly enter the alarm time you desire.
- Press quickly ALARM button then 'ALARM' icon will flash. Press UP or DOWN button to select alarm method: alarm by radio or buzzer and alarm off.
- By default, the alarm will wake you with a beep. A speaker icon displays on the screen indicating that the alarm will wake to the previous radio station played. It is best to check the station frequency and adjust the volume level to your wake up preference before going to sleep to ensure that it is to your liking. When the alarm sounds, press the power button to turn the alarm off, or press any other button to sleep for 10 more minutes.

### **FM Band / FM Set Button**

- With the radio off, press and hold FM button to select FM frequency band as "64 ~ 108MHz; 76~108MHz; 87~108MHz; 87.5~108MHz according to different countries.
- With the radio on, press quickly to tune in FM band; press and hold for 2 seconds to activated ATS (Auto Tuning System) function.

### **LW / MW Button**

- When the radio is powered off, press and hold for 2 seconds to turn on or off LW.
- With the radio on, quickly press to switch between LW and MW band; press and hold for 2 seconds to activate ATS and scan the entire LW or MW band.

### **SW / Meter Button**

- With the radion on, quickly press to start SW band and select meter band and change between frequencies according to popular meter bands.
- Press and hold SW band for 2 seconds to activate ATS feature.
- With shortwave you can listen to radio signals from around the world. Signals are usually received best at night and early morning when the earth's ionosphere does not cause interference with the bouncing signals. This radio has several bandwidth filters to reduce interference. Select which one sounds best by pressing the 'BANDWIDTH' button after a station is tuned in.

### **AIR Button**

- With the radio on, quickly press this button to activate AIR band, press and hold for 2 seconds to start ATS to scan the entire Air bands. Once the station is available, it will stop scanning to play this station.

### **LIGHT Button**

- Quickly press this button to turn on the backlight of the LCD display, the backlight will be on all the time. Quick press again to turn off the light.

## **Activate 9/10kHz Tuning Button - Expand FM Band**

- Switch tuning steps by holding the 9/10kHz button for 2 seconds with the radio turned off. When tuning, steps are set to 9kHz, the FM band will also be expanded to cover 76-108MHz FM band in Japan). Many parts of the world, including Europe, use 9kHz tuning steps from the AM band. 10kHz tuning steps for AM are used in the USA and other regions.

## **Frequency Button**

- When you are in your selected band, this button lets you directly enter the frequency number of your desired station using the number buttons, For example, to play 1520kHz in the AM band, quickly press the FREQ button and then enter 1, 5, 2, 0 using the number buttons.

**NOTE:** When manually entering SW frequencies 2300 to 26100, you must press the FREQ button after entry.. If entry is incorrect, the LCD will display 'Error'..

## **Memory Preset Button 0-9**

- Save your favourite stations to memory buttons. To save a station, press and hold any memory button for 2 seconds while the station is playing. The radio is a "smart" radio and will remember current settings when a station is preset into memory. The current settings that will be saved with your station are:
  1. Stereo or Mono selection on FM
  2. Bandwidth selection on AM, Shortwave, LW, or Air bands

### **Beep Button**

- When radio powered off, press and hold 'BEEP' button ('5' key) for 3 seconds to switch between beep on and off. If Beep is on, 'BEEP' icon will be displayed.

### **Charge Button**

- Use this radio to recharge your NiMH type batteries. Supply power to the radio from AC power adapter (not included). With the radio powered off, press and hold CHARGE button for two seconds. The battery icon on the display will begin to cycle indicating that the batteries are charging. Charging will continue for 10 hours or until the batteries are full. If you turn the radio on during the charge cycle, the battery icon may indicate charging although it is not. Please be sure to keep radio tuned off when charging.

### **WARNING! DO NOT ATTEMPT TO CHARGE ALKALINE OR OTHER NON-NIMH BATTERIES**

### **Tuning Knob**

- Rotate knob to tune in the next frequency increment. Press the knob 'IN' towards the body of the radio (once quickly) to change between 'FAST' and 'SLOW' tuning step when rotating the knob. 'FAST' tuning will use larger incremental steps between frequency 'SLOW' tuning can improve AM stations that are slightly off frequency on poor signals. Try tuning 1kHz higher or lower than the actual station frequency to see if reception improves.

### **Fine Tuning**

- In SSB mode, rotate the fine tuning knob to adjust the level of fine tuning.
- In other band mode, rotate the fine tuning knob to make slight adjustment to receive some very weak signals with slow tuning increments, especially for MW band.

### **Volume Control**

- Rotate the small wheel up for more volume and down for less volume.

### **Earphone Jack**

- For private listening, use headphones or earbuds. This jack can also be used as an audio output to another device.

### **DC Jack**

- You can power your radio with a correct pins and polarity of AC wall adapter via this DC jack. Please make sure the DC volt is the same as marking on the radio. Otherwise the radio will not work or may be damaged.

### **External Antenna Jack**

- You can connect an external antenna with this jack to improve the reception on MW, SW, LW and AIR band.

### **Back Stand**

- Flip this panel out to prop up your radio for easy use of control, best audio and for viewing positioning.

### **Battery Compartment**

- Requires 4 AA alkaline or NiMH batteries. Do not use lithium batteries.

### **Reset Hole**

- Quickly press into the reset hole on the bottom of the radio to reset the microprocessor. It is recommended to use a toothpick or other soft device to reset the radio.
- Do not press too hard as you might damage the radio.

### **FM/MW/AIR/SW Antenna**

- Flip up and fully extend the whip antenna. For most stations, reception is best when antenna is positioned vertically. Other stations may have better reception with the antenna positioned differently.

### **Handle Carry**

- Use this carry strap for easy carrying when walking or camping outdoors.

### **Temperature Display**

- When the radio is off, press and hold down #3 button for 2 seconds and then quick press to change the display between °C and °F.

## SPECIFICATIONS

### Radio Bands

FM:	87.5 - 108MHz
AM (MW):	522 - 1620kHz (9k Step) 520 - 1710kHz (10k step)
SW:	2300 - 26100kHz
LW:	153 - 279kHz
AIR:	118 - 137MHz

### S/N (Signal to Noise) Sensitivity:

FM:	>3uV
MW:	>0.5mV/m
LW:	>10mV/m
SW:	>10uV
AIR:	>0.5uV

AM Selectivity:	>80dB
Number of Memories:	500
Batteries:	4 x AA (Not Included)
DC In:	7V
Built-in Speaker:	16ohm 0.5W
Earphone Jack:	3.5mm 32ohm
Dimensions:	150(W) x 95(H) x 30(D)mm

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