

WORLD BAND RADIO AR-1946

AM/FM RDS/SW/LW/DAB radio with LCD backlight display and keypad direct entry

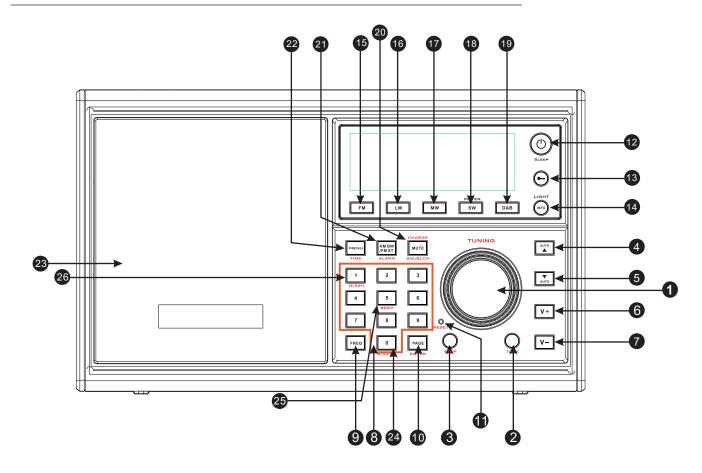
OWNER'S MANUAL



WARNING

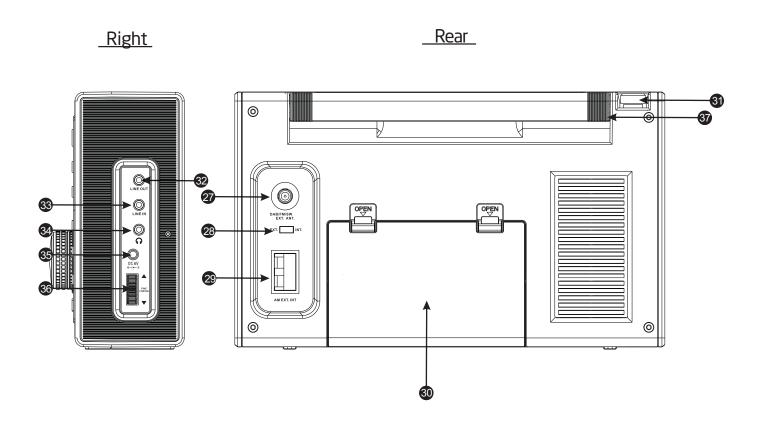
- Do not expose this appliance to rain or moisture
- Do not submerge or expose to water.
- Protect from high humidity and rain.
- Only operate within specified temperature range (0 $^{\circ}$ C to 40 $^{\circ}$ C).
- Unplug immediately if liquid has been spilled or object have fallen into the apparatus.
- Clean only with a dry cloth. Do not use detergents or chemical solvents as this might damage the finish.
- Unplug and disconnect external antennas during lightning storms.
- Do not remove cover [or back].
- Refer servicing to qualified service personnel.





- 1 Tuning knob
- 2 Tone button
- **3** Dial Speed selection
- **4** UP button
- **5** Down button
- **6** Volume up button
- **7** Volume down button
- 8 Numeric key button
- Prequency button
- 10 Page/Enter button
- 11 Reset button
- Power/Sleep button
- **B** Lock button

- 14 Info/Light button
- **15** FM band button
- 16 LW band button
- MW band button
- **13** SW band button
- DAB band button
- Charge/Air Squelch/Mute button
- AM Bandwidth/FM Stereo/Alarm button
- 22 Menu/Time set button
- Speaker grill
- 24 9/10kHz step button
- Beep button
- 25 12/24 Hour button



- DAB/FM/SW External Antenna
- Antenna Sens Ext./Int. switch
- AM External Antenna
- Battery Compartment
- 3 DAB/FM Whip Antenna

- Line out jack
- 3 Line in jack
- Earphone jack (3.5mm)
- **35** DC In jack (5.5mm)
- 35 Fine Tuning Knob
- Carry handle

INSTALLING BATTERIES

The battery compartment is on the back of the radio. Remove it by pressing the two tabs and pulling up. Install only fresh, new alkaline D cells, all of the same brand and type. To prevent battery acid leakage, follow these instructions. Battery acid leakage is not covered by the radios warranty. Never install or replace with batteries of different brands and types. Never intermix old batteries with new ones. When not using the radio for more than 30 days, remove the batteries.

USING BATTERIES

Use 4 D size alkaline batteries. Install them with correct polarity using the diagram inside the battery compartment on the back of the radio. Replace them if the battery strength indicator in the display shows one bar or the sound becomes distorted. The radio will turn off automatically if the batteries become too weak.

BATTERY LEVEL INDICATOR

The battery level indicator is in the upper left corner of the display. When batteries are full, will be displayed in the LCD; if sahes, it indicates that batteries are low and the radio will soon turn off automatically.

USING AC POWER

Plug AC adapter into the socket on the right side of the radio. Use only the AC adapter supplied. When the AC adapter is plugged in, the full power level will show in the upper left corner of the display, looking like a full battery. If you lose the AC adapter that came with the radio, use one with 6Volt DC output, negative polarity, 600 milliampere and a plug with 5.5 millimeter outer diameter, 2.1 millimeter inner diameter.

POWERING FROM A CAR OR BOAT

Use a DC to DC converter. Output: **6**Volt DC, negative polarity, outer diameter 5.5 millimeter; inner diameter 2.1 millimete

TURNING ON AND OFF / SETTING AND DEACTIVATING THE SLEEP TIMER

Turn on the radio by pressing thered POWER & SLEEP button on the front top right corner of the radio. When it turns on you will briefly see a sleep timer symbol in the upper left corner of the display, this is the sleep time and the radio will play for this amount of minutes and then shut off. It can be deactivated by continuously pressing the power button until 'on' appears in the bottom of the display; with each press you will see the numbers going down from 120 to 90 to to 60 to 45 to 30 to 15 minutes and then to 'on'. When 'on' appears, stop pressing the button. The sleep timer is now disengaged and you don't have to change it unless you want a sleep time to appear.

When the alarm is activated, press 'POWER' button to shut off alarm and snooze function.

To activate the sleep timer, turn the radio on and press the POWER & SLEEP button continuously until the desired sleep time appears. The radio will play for the specified length of time and automatically shut off. The sleep timer symbol will show in the display, "

LOCK SETTING

Quickly press the button to lock out the operations of all buttons except back light. The "lock" icon will be displayed.

Press and release the "LOCK" button for 2 seconds unlock the operations for all buttons, the "lock" icon will disappear.

SETTING TIME

When the radio is off, quick press "TIME" button, LCD displays "AUTO" or "MANUAL", use "UP" or "DOWN" button to select "AUTO" or "MANUAL".

NOTE:

"AUTO" indicates LCD displays RDS icon, the local time can be updated through local FM RDS or DAB station automatically.

"MANUAL" indicates the user can set time manually, the local time will not be updated automatically.

When the radio is off, hold "TIME" button down for 2 seconds, "TIME" will flash and release to enter time setting. Directly enter hour and minute digits to complete setting. For 12 hour format, also enter 4 digits directly like 0-8-3-0.

SETTING THE ALARM CLOCK

There are two different alarm modes to choose from, You can choose to wake up the radio or to buzzer tone.

1) Quickly press "ALARM" button," ALARM" will display ,then press UP or or DOWN button to select wake up to radio or to buzzer bone, the and will flash.

Note:

- (a) icon indicates wake up to buzzer tone;
- icon indicates wake up to radio;

If there is no icon display, it indicates alarm is off

2) When the radio is off, hold "ALARM" button down for 2 seconds till "ALARM" flash and release to enter alarm setting. Directly enter hour and minute digits to set alarm. For 12 hour format, just enter 4 digits also like 0-7-3-0.

SETTING 12/24H FORMAT

When the radio is off, hold 1# button (i.e. 12/24H button) down for 2 seconds, the LCD will display "12H" or "24H" by turn.

SHUT DOWN ALARM OR SNOOZE FUNCTION

When the alarm is activated, quick press "POWER" button to shut down alarm.

When the alarm is on, press any button except POWER & SLEEP button to enter snooze status, after 5 minutes, the alarm will turn on again.

ACTIVATE OR DEACTIVATE BEEP SOUND

When the radio is off, hold 5# button (i.e. BEEP button) down for 2 seconds, the LCD will display "BEEP ON" or "BEEP OFF" by turn.

NOTE:

BEEP ON indicates BEEP sound is activated, so pressing any button, the user will hear beep sound; "BEEP" icon will be displayed all the time;

BEEP OFF indicates BEEP sound is deactivated, so there is no beep sound when pressing any button; "BEEP" icon will disappear.

USING THE NUMERIC KEYPAD (0-9)

With the radio 'off', there are used to directly enter a frequency or memory channel. See TIME or ALARM SETTING to direct enter digits to set time and alarm.

With the radio 'on', quickly press numeric buttons (0-9) to recall presets; hold the buttons down for 2 seconds to preset stations. Quickly press "PAGE" button then select the desired numeric key (0-9) to set page.

BAND SELECTION

When the radio is on, press FM, LW. MW, SW and DAB button to select your desired band.

TUNING IN STATION

When the radio ON, user has five ways of tuning into desired station.

MANUAL TUNING

Select your desired band, short press UP▲ or DOWN▼ button, the frequency will be changed as per the following step:

FM step: 100kHz, LW step: 3kHz, SW step: 5kHz, AM step: 9kHz or 10kHz

AUTO TUNE TUNING

Select your desired band, hold down UP▲or DOWN▼ button for 2 seconds, the frequency will be changed per same step as manual tuning. The radio will stop automatically when tuning in station.

AUTOMATIC TUNING SYSTEM(ATS)

Select your desired band ,hold down FM, LW, MW or SW band button for 2 seconds until you hear a 'beep' sound then release the button, "ATS , , ," will be displayed; when the radio receive a real station, the LCD displays "P00 SAVE","P01 SAVE"..... by turn. When ATS process is completed, the LCD displays "P00 LOAD" .

USING TUNING KNOB

Select your desired band, rotate tuning knob to tune in frequency. At the same time, the user can press "STEP" button to select tuning frequency speed as STOP/FAST/SLOW.

Set "STOP", when rotate the tuning knob, the frequency will not change; Set "FAST", when rotate the tuning knob, the frequency will change as per specified step: FM 100kHz, LW: 3kHz,SW: 5kHz, AM:9k/10kHz Set "SLOW", when rotate the tuning knob, the frequency will change as per specified step: FM 10kHz, LW/MW/SW;1kHz

The user also can rotate "FINE Tuning knob" up or down on the lower right sight of unit to tune in accurate frequency per 1kHz step as a subsidiary help.

USING 0~9 numeric keypad

Select your desired band, quickly press "FREQ" button to key in desired frequency, When input completed frequency, the system will confirm automatically. e.g. FM 98.55MHz, when key in 9-8-5-5, the LCD will display 98.55MHz automatically. If the frequency isn't completed, e.g. FM 98.50MHz, the user needs to key in 9-8-5-0 to confirm it.

Note: If the user keys in incorrect frequency out of FM, LW, MW or SW specified range, the system will display "Error".

Preset/Recall Memory - FM/LW/MW/SW

Each band can save 100 memories (P0~P99), total 10 pages (Page-00~Page-09), each page can save 10 channels (PX0~PX9), "X" means page, for example, if this station is in page-01, then 10 channels mean P10~P19.

Preset Station

There are two methods to preset station as under:

- ATS Automatic Tuning System, please see 'TUNING IN STATION' on Page 9;
- 2)Manual preset select your desired band, quickly press "PAGE" button, LCD displays "PAGE--00", then quickly press numeric button (0~9) to select your desired preset page, hold down this numeric button for 2 seconds to save this station to one channel on this page, LCD displays "PXX SAVE". For example, If you want to save 107.5MHz to 1st channel on 3rd page. Quickly press 'PAGE' button then #3 button, thereafter hold down 1# button for 2 seconds. Then LCD displays "P31 SAVE".

Recall Memory

Quickly press "PAGE" button, LCD displays "PAGE-XX", then quickly press numeric button (0~9) to select saved page, then continue to press numeric button (0~9) to select saved channel on selected page, so the LCD displays "PXX LOAD", and so on.

STEREO/ MONO/BANDWIDTH SELECTION

When the radio is on,

FM Stereo/Mono

Quickly press "AM BW/FM ST" button, LCD will display "--AUTO--" or "--MONO--". "--AUTO--" indicates FM Stereo mode; when tuning in a stereo station, STEREO icon will be displayed.

"--MONO--" indicates FM Mono mode.

LW/MW/SW bandwidth selection

Quickly press " AM BW/FM ST" button in sequence and LCD displays "BW 6K, BW 4K, BW 3K,BW 2.5K,BW 2K,BW 1.8K,BW1K".

SQUELCH FUNCTION

When the radio is on, hold down "SQUELCH" button for 2 seconds. LCD displays "SQUELCH OFF or 1~9", then rotate tuning knob to select your desired squelch level (1~9) or "OFF" to shut down squelch function. Quickly press "SQUELCH" button again to exit SQUELCH function.

When the strength of signal is lower than selected squelch level, the radio will be mute automatically and LCD displays "SQUELCH". VS "SQUELCH" will not be mute

SW METER Band

When the radio is on, select SW band, quickly press "SW/METER" button to select different meter band as 120--90--75--60--49--41--31--25--22 --19--16--13--11", LCD displays" MET XXM" corresponding.

MW 9/10kHz Selection

When the radio is off, hold down "0" button for 2 seconds, LCD displays, "MW --9K" then quickly press this button again to "MW --10K". The factory default is "MW--9K".

FM FREQUENCY RANGE SELECTION

When the radio is off, hold down "FM" button for 2 seconds to enter selection, Then quickly press this button to select FM range, The LCD displays as follows by turn:

"FM--64,0M" indicates FM Range is 64~108MHz "FM--87.5M" indicates FM Range is 87,5-108MHz "FM--76.0M" indicates FM Range is 76~108MHz

Quickly press this button again to exit.

FM RDS/INFO FUNCTION

Turn on the radio and select "FM" band, this radio supports RDS streaming while tune in FM station with RDS data.

- 1) If the radio tunes in FM station with RDS, icon will be displayed in the left lower side;
- Quickly press "INFO" button to look through RDS information (PS/RT/DATE/PTY);

PS: Station name, if no PS, just displays "NO PS";

RT: Radio text, if no RT, just displays "NO RT";

DATE: time, date, weekly information, if no, just displays "NO DATE";

PTY: Programm category, if no PTY, just displays "PTY".

3) If the DATE information is available, the display information is: "Station call Weekly MM-DD-YY Hour:Minute"

Weekly format: "MON","TUE","WED","THU","FRI","SAT","SUN", for example, the LCD will roll to display "WGSS 06-15-2015 2:15"

DAB/DAB+ STATION SCAN

Quick press "DAB" button to enter DAB band. If the radio is operated in the first time, hold down UP or DOWN button to fully scan DAB stations. LCD displays" SCAN 5A,5B,.....13F", then LCD display "Found XX", "XX" indicates available stations, fox example, "FOUND 30" means the radio finds 30 programs.

"FOUND 0" indicates no available station, then display "NO SERV".

DAB STATION TUNING

There are two tuning methods: manual and autoscan>

Hold down "STEP" button for 2 seconds and release till LCD displays "AUTO ON" or "AUTO OFF";

- 1) Select "AUTO ON", hold down UP or DOWN button, Or rotate tuning knob to go through station then enter playing station automatically;
- 2)Select "AUTO OFF",hold down UP or DOWN button, Or rotate tuning knob to go through station then return back playing station; Quickly press "ENTER" button to switch scanned station.

SAVE/RECALL/DELETE DAB PRESETS

There are total 20 presets for DAB band, saved at 2 pages, 10 presets for each page (P00~P19).

When the radio is on, in DAB mode, quickly press "PAGE" button to switch "PAGE 00" and "PAGE 01";

Select your desired station, quickly press "PAGE" button to select one page, then long press numeric button (0~9) then LCD displays "PXX SAVE".

"PXX SAVE" indicates DAB station saving is successful; "NO SAVE" indicates DAB station saving is not successful.

Select your desired station, quickly press "PAGE" button to select one page, quickly press numeric button (0~9) then LCD displays "PXX LOAD", if no preset station, LCD displays "EMPTY".

DAB/DAB+ INFO

In DAB mode, quickly press "INFO" button each time to display the following information:

- 1.Station Name: display the station name being played;
- 2.Station Information indicates that the scrolling text message such as song title, artist name, traffic report, website address etc.;
- 3. Program type indicates types of program being played;
- 4.Ensemble name indicates the name of station broadcasting on the same frequency the number of ensembles you can receive depends on your location;
- 5. Time and Date indicates that time and date obtained automatically from a DAB transmission in your country or region.
- 6.Frequency and channel indicates the frequency and channel number for the current DAB broadcasts.

SECONDARY SERVICE - DAB/DAB+

Certain radio stations have one or more secondary services associate with them, If a station has a secondary service with it, the display will show ">>", next to the station name on the station list. The secondary service will then appear immediately after the primary service as your rotate the tuning control knob.

Rotate the tuning knob to select the station.

MANUAL TUNING -DAB/DAB+

Manual tuning allows you to tune in various Band III channel from 5A to 13F:

- 1) In DAB mode, quickly press "MENU" button then rotate tuning knob or press "UP" button to select "MANUAL";
- 2) Quickly press "ENTER" button to enter channel selection;
- 3) Rotate tuning knob or short press UP or DOWN button to select the channel range from "174.9 5A,....239.2 13F";
- 4) Quickly press "ENTER" button again to enter channel tuning. after tuning completion, the system will display "FOUND XX", "XX" indicates found the quantity of available stations;
- 5) Quickly press "MENU" button again to exit current operation;

STATION SORTING - DAB/DAB+

You can sort the stations in the main list either by alphanumeric or by type of "ensemble".

Quickly press "MENU" button to enter menu selection, then short press UP or DOWN button or rotate tuning knob to select "STA SORT", then short press "ENTER" button to enter sorting method selection. Select "ALPHANUMERIC" or "ENSEMBLE" by short press UP or DOWN button or rotate tuning knob. Quickly press "MENU" button again to exit operation.

RESET - DAB/DAB+

If you radio fails to operate or erase your setting on radio, including presets, alarm & sleep timer settings. After a system reset, all settings will be back to factory default.

Quickly press MENU button, rotate tuning knob and short press UP or DOWN button to select "RESET", quickly press "ENTER" reset mode. After the reset is completed, the system starts auto scan DAB stations, the LCD display "SCAN 5A,...,13F", short press "MENU" again to exit current operation.

SOFTWARE VERSION

The user can check software version and also the software may vary:

- 1) In DAB mode, quickly press "MENU" button then rotate tuning knob or press "UP" button to select "VERSION";
- 2) Quickly press "ENTER" button to display software version;
- 3) Quickly press "MENU" button again to exit current operation;

LINE IN/LINE OUT OUTPUT

In radio on, connect external audio source to LINE IN JACK(right side of unit), LCD displays "AUX IN", the audio output from speaker is an external source.

The Line-out socket can be used to feed audio from the radio to amplified external speakers. The internal speaker will still be functional when a device is connected to the Line-out socket.

USING EARPHONE JACK

The earphone jack can be used with stereo headphones using an 1/8 inch (3.5mm)plug. FM sound is in stereo if the signal is sent in stereo and the ST position is selected with the "AM BW/FM ST" switch. The internal speaker will be muted when a device is connected to the Earphone jack.

USING VOLUME UP/DOWN

Quickly press volume (V+/V-) button to adjust volume UP or volume DOWN step by step. Press and hold down volume (V+/V-) button to adjust volume UP or DOWN continuously.

ADJUST AUDIO TONE - TREBLE/BASS

Quickly press "TONE" button, select Treble setting, LCD displays "TREB: XX", rotate the FINE Tuning knob on the right side of unit to adjust treble volume;

Quickly press "TONE" button, select Bass setting, LCD displays "BASS: XX", rotate the FINE Tuning knob on the right side of unit to adjust bass volume;

MUTE ON/OFF

When the radio is playing, quickly press "MUTE", LCD displays "MUTE ON" or "MUTE OFF".

Note:

MUTE ON: indicates the radio is mute, no audio ouput; MUTE OFF: indicates the radio can play sound normally.

INT./EXT. ANTENNA - FM/SW/DAB

Use this switch to enable the use of FM/SW/DAB internal or external antennas. When the signal is weak, use external antenna to improve the reception,

CHARGING

Plug AC adapter into the wall socket, when the radio is off, quickly press "CHARGE" button, the battery icon will be displayed, which indicates the system is charging rechargeable batteries. When the battery is charged fully or charging time countdown is over, it means the charging is over. During the charging, quickly press this button to stop charging.

Caution: Do not charge non-rechargeable battery.

FM/SW/DAB EXTERNAL ANTENNAS

This socket locates on the back of the radio is primarily for antennas designed to be fed with 50 or 70 ohm coaxial cable, such as dipoles or comparable antennas, It can also be used for long wire antennas. Use PAL type connector for feeding this socket.

MW(AM) EXTERNAL ANTENNA/GND Jack

If you are in a brick or metal building, AM can be greatly improved with the addition of a simple antenna. A small diameter insulated stranded wire, about 60" in length is a good place to start. Antenna wire can be attached by pressing the spring loaded lever and inserting the wire.

The "GND" jack is used with the "MW(AM) EXT. ANT.". Attached one end of a length of wire to be Ground jack and the other end to a good earth ground.

Caution: Do not use external antenna when it is in thunder storm.

BACKLIGHT ON/OFF OPERATION

Press and hold down INFO/LIGHT button to select light on all the time or off. Press this button for 2 or 3 seconds, the backlight will flash one time, which indicates the backlight keeps on all the time. If the backlight is off, which indicates it will be on when pressing this button. If no operation, the backlight will be off after 10 seconds.

SPECIFICATIONS:

FREQUENCY COVERAGE

FM Band: 87.5 - 108 MHZ (default) AM(MW) Band: 522 - 1620 kHz (9kHz step)

520 - 1710 kHz (10kHz step)

SW Band: 1711 - 29999 kHz LW Band: 150 - 450 kHz Band III: 5A - 13F

MEMORY PRESETS

FM/MW/SW/LW: 400 total (100 Per Band)

Band III: 20 total

SPEAKER

5 Watt 4 ohm

INPUT POWER

4 "D" size batteries (not included) 6V DC 600mA tip negative

EARPHONE JACK

3.5mm 32 ohm

DIMENSIONS

W 295mm x H 175mm x D 76mm

WEIGHT

1.65 kg without batteries

ACCESSORIES

Owner's manual AC/DC adapter D size battery adapter x4

* Specifications subject to change without notice.