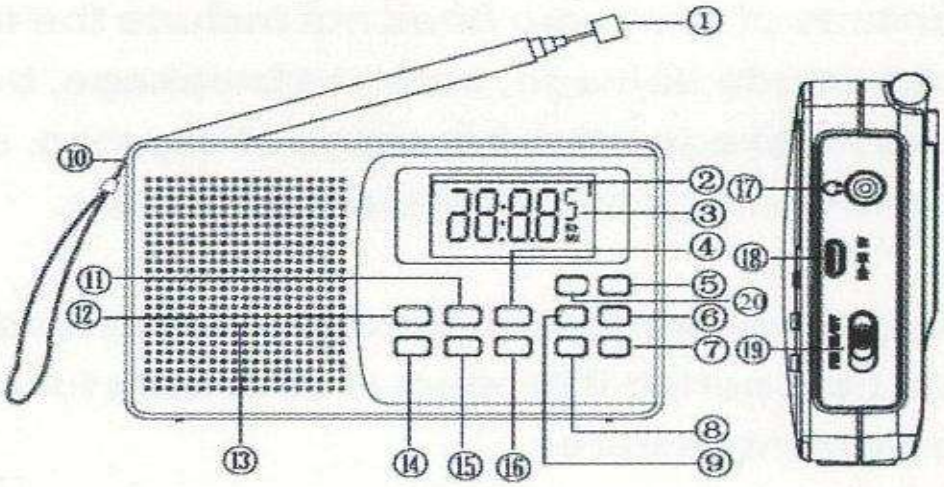
Full Band Digital Demodulation Stereo Radio Receiver

Instructions Manual

Thank you for purchasing our full band digital demodulation stereo radio. Please read this manual before use, and keep it for future reference.

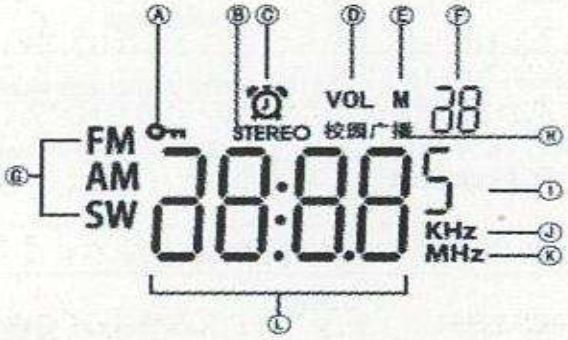
Product appearance and component description:



① 360 degree rotating telescopic antenna
② Light lamp
③ LCD liquid crystal display
④ Memory button
⑤ On/off button
⑥ Tuning + button
⑦ Tuning – button
⑧ Volume – button
⑨ Volume + button
⑩ The hand strap
⑪ M+(Channel Shift)/Lock Button
⑫ M1(favorite)
⑬ Mono speaker
⑭ SW(Short wave) / Time Preset button
⑮ MW(Medium wave) / Hour setting button

⑯ FM / Minutes setting button
⑰ Stereo earphone jack (3.5MM) – side
⑱ Power DC–5V USB Jack – side
⑲ Power lock – side
⑳ Mute button

LCD display symbols descriptions:



A Key lock indicator
B Stereo mode indicator
C Alarm clock indicator
D Volume adjustment instructions
E Store/ Channel Shift indicator
F Band number /Store Address Indicator
G Spectrum indicating: Frequency Modulation(FM), Amplitude Modulation(AM), Short Wave (SW)
H Campus radio station indicator
I The lowest accurate frequency number
J MW frequency unit
K SW / FM frequency unit
L Frequency or clock display area* on: display the radio frequency

Instructions for buttons function:

Key labeling rules: All keys labeled in white use a short press to use their function. Keys labeled in red use a long press to use their function. Some functions can be activated when the radio is off, such as clock setting and a few other functions that will be described later. Most other functions work only when the radio is on.

Note that the power switch on the side of the radio must be on for all of the keys to work. The On/Off button is used to activate the radio itself.

④Memory button:

Short press ④ for manual search function: In the On state, the short press ④ activates the memory function. The memory function is used to store radio stations, such as SW, MW, FM and LW. And all quantity of memory stations can be stored up to 100. The frequency band of any of the stations can be adjusted up or down using ⑥ and ⑦ to find the target, or best frequency. When the target frequency is found, using a short press ④ will store the station, and the letter "M" will appear in the upper right corner, confirming that the station has been stored.

LONG PRESS ④ FOR AUTOMATIC STATION SEARCH FUNCTION (JUST SUITABLE FOR FM): Short press FM button, then long press ④, the radio auto search for the stations available, and store them meanwhile.

In the on state,radio voice with stereo sound. whether loud speaker, or insert earphone.

⑤On/Off button :

Put the power lock in the on state,and Long press ⑤ for 2 seconds turns on the radio to receive radio stations. To turn off the radio, long press ⑤ again for 2 seconds. When off, the radio will then display the clock. Short pressing mutes the sound from the radio.Short pressing it again restores the sound from the radio.

⑥Tuning + button and ⑦Tuning - button :

[Short wave default step value of 0.005MHZ. Medium wave default step value of 10KHZ/9KHZ. Frequency Modulation default step value of 0.05MHZ.]

Adjusting the frequency band using the ⑥ and ⑦ tuning buttons uses three modes of operation:

1.Short press mode: short pressing ⑥ or ⑦ tuning button tunes the frequency upward or downward in single steps each time the button is pressed.

2.Automatic mode: long pressing ⑥ or ⑦ tuning button but releasing it in 1 second activates an automatic station search, up or down from the original frequency, depending on the button pressed. The search moves 0.1MHZ automatically and stops when a clear signal is reached, showing the frequency in the LCD display. At this point, the station can be stored, or the automatic search can continue once again as described above.

3.Long press mode: long pressing ⑥ or ⑦ tuning button beyond the 2 seconds and continuing holding the button down, the frequency will automatically search up or down, depending on the button used, and will stop when the button is released. The FM step is 1MHz, after release, stopping when a clear frequency is found. It then shows the frequency in the LCD display.

The three modes of operation function independently and can be used in any order desired.

The volume keys ⑧ down and ⑨ up: Use a short press to change the volume by a single step. Use a long press (more than 2 seconds) to change the volume quickly until the key is released. The highest volume stops at the 32 level. The lowest is 0.

⑫M1 the Favorite button: also knows as The Campus Station button

In the On state, pressing this button will bring up the lowest and the default frequency in this band, which is 85MHZ. This default frequency is used for those who look for Campus Stations by slowly increasing the frequency until a station is located. The design features of the radio can adapt to the different key types of Campus Stations.

and there are the campus station in some country's university, just like China,and if you want to use it in other country,maybe this Campus Stations function is useful for you.

The default frequency can also be customized to set any other "Favorite" frequency as the default frequency. This is a very useful button, because once you have chosen your favorite frequency from the FM band and have set that frequency in this button as the new default frequency, pressing it, even when the radio is off, the radio will turn on and immediately bring up your favorite station. Naturally, you will need to have batteries installed and meanwhile the power lock ⑲ in the on state, and which in order to use this button.

To change the default frequency, press tuning button + ⑥ or tuning button - ⑦ to the frequency desired. Then, long press the ⑫ button and hold it for at least 2 seconds as it automatically stores the frequency you have chosen as the default frequency. Note that only one default frequency can be used at a time.

In case you are not familiar with Campus Stations, some universities all over the world use if for many student purposes, including using it for college entrance examinations in radio frequency, foreign language listening, test frequencies of different institutions, and many other things. More information is available about Campus Stations on the Internet. Wikipedia is a good source to read about them.

⑭ SW(Short wave) / Time Preset button: In the On state of the radio, using short presses on this ⑭ button will cycle through the short wave (SW) band. The short wave frequency range is 3.2MHZ--21.9MHZ. The band is divided into seven meters band: 4.75MHZ, 5.95MHZ, 9.50MHZ, 11.65MHZ, 15.10MHZ, 17.5MHZ, 21.45MHZ.
To set the clock (**Time Preset**), the radio must be in the Off state. Use a long press ⑭ change to the clock setting. When the digital clock starts blinking on the display, use the ⑮MW button to set the hour and use the ⑯ FM button to set the minutes. When finished, you can either short press button ⑭ or wait for a few seconds and it will revert back to normal and show the correct time.

To set the alarm clock, the radio must again be in the Off state. This time, use a short press ⑭ to show the status of the alarm (see indicator **C** on the display).
While the alarm is showing, using a long press causes the alarm time to start blinking, allowing you to set the alarm time, similar to the way the time was set above. When finished setting the alarm, you can either leave it on so that the alarm sounds at the set time, or you can again use a short press ⑭ to disable the alarm so that it does not sound at the set time.

Channel Shift M+/Lock Button: In the On state, short press ⑪ for channel shift, long press ⑪ for the lock function.

Channel Shift: When activating the Channel Shift, the letter M appears in the upper right corner of display and stores the address in memory. Then in 2 seconds, continue to press the button to see the next channel that was earlier put in memory using the ⑥+ and the ⑦− buttons, to increase or decrease the station memory addresses. Using the Channel Shift button, stored channels will circularly change in the order of in frequencies stored. Frequencies not stored will be skipped and not appear. When done storing the frequencies wanted, stop operating for 2 seconds, or press any other keys. The M logo will then disappear.
⑪ **Lock button functions:** long press ⑪ to lock the function keys, making all other buttons invalid except for keys ⑤ (Mute /On/Off key) and ⑪, which will remain active.

⑮ **MW(Medium wave)/ hour setting button:** In the On state, short press ⑮ to activate the medium wave band circular switch. MW is divided into two bands:
1) 522KHZ--1620KHZ and 2) 153KHz--279 KHz.
In the Off state, long press ⑭ to reset the time clock or the alarm clock. Using a short press on button ⑮ will increase the hours. Using the buttons ⑥ (tuning +) and ⑦ (tuning -) will allow you set the hours both upward or downward.
⑯ **FM / minutes setting button :** In the On state, short pressing ⑯ can circularly change the FM band. The frequency band is divided into:
1) 50MHZ-- 88MHZ, 2) 87MHZ--108MHZ, 3) 56.25MHZ - 91.75MHZ, and 4) 174.25MHZ--222.25MHZ.

FM bands 3 and 4 bands are television sound frequencies.

In the Off state, long press ⑭ enter clock setting or alarm clock setting condition, short press ⑯ can increase the number of minutes and also can be used in conjunction with the ⑥ (tuning + button) and the ⑦ (tuning - key) to upward or downward increase or decrease minutes.
⑲ **Power lock switch:** Use this switch to completely turn off the power to the radio and all functions, including the time on the clock display. This saves the battery and prevents the radio from inadvertently turning on by accidentally pressing using the ON/OFF buttons or any other keys and loosing power or damaging the radio.

PS: all the described of key functions in this text, state are on or off is the on/off key in the front of the keyboard, but it also need put the power on / off button in the on state, because if the power on / off key is the master switch.And if it in the off state,and all keys can't work.

About the antenna

The antenna can rotate 360 degrees and the antenna can telescope using it's seven sections. The antenna is used to receive noise free FM radio stations. After pulling out the antenna, change the length and the direction until you find the optimal location for the reception.

Optimal Medium Wave frequencies should be found by rotating the direction of the radio itself using the built-in magnetic antenna inside the radio.

Short Wave frequencies should use the same procedure used for the FM frequencies.

The orange light lamp

The orange light in the display can be activated by short pressing the Mute/On/Off button to see the time in the dark. The light will stay on for approximately five seconds and then turn back off.

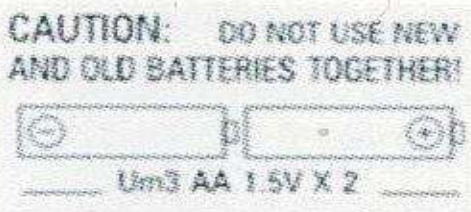
Characteristic memory function review and other information

The radio receiving bands are divided into short wave band (SW), medium wave(MW), and frequency modulation(FM). short wave has 7 bands, medium wave has 2, and Frequency modulation has 4 bands.

When switching to different frequencies in the bands, you can clearly see the band number at the top right corner of the display screen.

When listening to a frequency in any band of FM and MW, switching to other frequency band or wave band and then returning again, the frequency of the band listened before will still show the frequency from your last listening.

Installing the batteries



Open the battery cover on the back of the radio, and insert the batteries and follow the image at the left in order to place the batteries (AA 1.5V x 2) in the right direction

When listening to the radio, if the radio volume becomes unstable or the display becomes dark or flashing, the batteries will need to be replaced.

Note:

● Do not mix old and new batteries.

● When the radio is not to be used for a long time, remove the battery to avoid battery leakage, corrosion, or damage to the radio.

● In case of battery leakage, use a soft cloth to wipe away the electrolyte inside the battery compartment before loading the new batteries.

⑱ **USB power DC-5V Power Jack (not included):** This radio can be powered using any universal DC-5V power supply with a USB connection. Connect the external power to the 5V DC-IN port in the side of the radio and then connect to a power outlet. To disconnect the power jack, power down the radio and then remove the USB cable from the radio.

● Before using an external power supply, please check the external power supply voltages noted on the cable. External power supply voltages for this radio can range between 3V-5V. Any voltage beyond the 5V will cause the radio not to work properly and could cause damage to the radio.

● Rechargeable batteries can be used, but recharging them needs to be done outside of the radio itself.

Receiving television sounds

TV sound belongs to band FM3 and band FM4, as described in a previous section. The fundamental difference between television and general FM radio is that the TV sounds starts at around 50KHZ and above. The frequency used depends on where you are. The charts below will show the different TV sound frequencies in many places in several countries.

Special note: Since TV sound is within the FM band, it is affected largely by the environmental wireless radio interference and has strong regional transmission distances relative to the other bands. The band therefore has some limitations, and the signal coverage of adjacent areas or cities is often different.

Television	Count						
	China	U.S.A	Australi	New	Indone	Italy	CCIR
TV channel	56.25		62.75	50.75	53.75	59.25	46.75
TV channel	64.25	59.75	69.75	60.75	60.75	67.75	53.75
TV channel	72.25	65.75	91.75	67.75	67.75	87.75	60.75
TV channel	83.75	71.75	100.75	180.75	180.75	180.75	67.75
TV channel	91.75	81.75	107.75	187.75	187.75	188.75	180.75
TV channel	174.75	87.75	180.75	194.75	194.75	197.75	187.75
TV channel	182.75	---	---	---	---	---	---
TV channel	190.75	---	---	---	---	---	---
TV channel	198.75	---	---	---	---	---	---
TV channel	206.75	---	---	---	---	---	---
TV channel	214.75	---	---	---	---	---	---
TV channel	222.75	---	---	---	---	---	---

The main technical parameters

T e					
	Favorite Station	50 – 108	MH	Sensitivity	MW Better than
	FM1	50 – 88	MH		FM Better than 18 dB
	FM2	87 – 108	MH		SW Better than 60μV
	FM3 (TV sound1)	56.25 - 91.75	MH Z	Single signal selection	Better than10 dB
	FM4 (TV	174.2 - 222.25	MH	Machine speaker	φ57mm/8Ω/0.5W
	MW (Medium Wave)	522-1620 (9k) 520-1710 (10k)	KHZ	External earphone	φ3.5mm/32Ω×2
	LW (Long	153 – 279	KHZ	Battery	2 section five AA
	SW1	3.20 - 5.945	MH Z	External power	External 3V-5V DC
	SW2	5.95 - 9.495	MH Z	Lowest operating voltage	2V
	SW3	9.5 - 11.645	MH Z	Stereo	≥32dB
	SW4	11.65 - 15.095	MH	Distortion degree	≤0.1%
	SW5	15.10 - 17.495	MH Z	Working	-15 – 80 (℃)
	SW6	17.50 - 21.445	MH	Output power	≤220mW
	SW7	21.45 - 21.90	MH Z	Dimensions	125×77.25×21(mm)

Final Notes

◆ When the radio is not in use, be sure to remove the battery to prevent battery leakage.

◆ When the sound becomes weaker or distorted, or if a beep is heard, the batteries need to be replaced with new ones.

◆ Do not hit or drop the radio or impact it in any other violent way, or allow the radio to be put in water.

◆ Do not set it in the sun, or in a high temperature, or humidity, and also do not use or store in the temperature below -5C, or higher than the +50C temperature.

◆ Please do not use any chemical agent to wipe the case, or in the case of corrosion. Use only a soft, dry cloth to clean the radio.

◆ Do not take apart the radio or adjust the internal components.

◆ The warranty of this radio does not include the following: obvious man- made damage, antenna breakage, bending, falling, battery leakage, shell breakage of any kind, exposure to liquids, and damage to the crystal panels, etc.

◆ The product warranty period is one year, extending beyond that time period if product is sent back for repair before the warranty expires.