

ZHIWHIS®

Broadband Multi-functional Radio

FM/MW/SW/USB/LSB/LW/VHF/UHF/AIR/CB/WB

Radio Recorder

Bluetooth/TF Card/AUX-in Play

APP Intelligent Remote Control

User's Manual

(Model: ZWS-C919)

Thank you for buying our product. Before use, please read this manual carefully and keep it properly.



LIST

1: Product overview	1
2: Product features	1
3: Packing list	2
4: Get started	2
5: Functions of buttons	3
6: Symbols on LCD	7
7: Functions	11
7.1: POWER ON/POWER OFF.....	11
7.2: Volume adjust.....	12
7.3: Listen to the radio.....	12
8: Bluetooth mode	23
9: TF card play	23
10: EQ effect setting in the mode of Bluetooth and TF card of all bands	24
11: Use of the lock button	25
12: Set the running time	25
13: Set the alarm clock	26
14: In the mode of time, you can set the following content in the menu	27
15: TYPE-C USB charging	29
16: Used as a card reader	30
17: AUX input play	30
18: Temperature display	30
19: Sound recording	30
20: Antenna	31
20-1: Built-in antenna	31
20-2: External antenna sockets.....	31
20-3: Receiving circuit block diagram.....	31
20-4: About the top input MW/SW of RF channel.....	32
20-5: Manual antenna tuning method	33
21: Frequencies of some radio stations	34
22: Download of mobile APP	36
23: Key technical parameters	37
24: Matters needing attention	37

Thank you for purchasing the ZHIWHIS ZWS-C919 broadband multi-functional radio. Please read this manual before use and keep it properly for future reference.

1: Product overview

Our aim in new product R&D has always been continuous innovation and meeting the needs of users. We hope you like our meticulously crafted ZWS-C919 radio which will bring more happiness to people who like to listen to the radio.

2: Product features

2.1: This product can receive wireless signals of FM, MW, SW, USB, LSB, LW, VHF, UHF, AIR, CB and WB by means of software programming.

It supports DEMOD mode, BW value, LOCAL, DX, double shuttle quick/slow tuning, MW/SW magnetic rod antenna receiving, DIY MW/SW loop antenna and so on, showing extremely high playability.

2.2: This product supports multiple ways of choosing a channel: pressing the number key, shuttle fine tuning, shuttle quick tuning, number key slow tuning, pressing the number key to choose automatically and searching and storing a channel automatically.

2.3: This product has two screens of the primary screen (display various working conditions) and the secondary screen (display the marquee, time, signal intensity, etc.).

The primary screen is FSTN all-sight screen with VA color, giving users better visual effect.

The primary screen is a 3.54inch large screen: (size of window displayed: 82.9mmx45.2mm)

Size of window displayed of the secondary screen: 47.5x35.56mm

2.4: This product supports mobile APP intelligent remote control, realizing intelligent close control of radio intelligently within 20m.

2.5: This product uses advanced audio technology to realize Bluetooth connection for wireless music play.

2.6: This product supports TF card music play, music plays of MP3, WMA, WAV, APE and FLA, and 256G memory maximally.

2.7: This product uses two 18650 5000mAH lithium batteries which can be replaced and has long time of endurance.

2.8: AIR has 5 meter waves, SW has 15 meter waves, VHF has 8 meter waves, and UHF has 8 meter waves, which allows you to switch between frequencies and search you channel quickly.

2.9: FM has 3 frequencies for you to choose and AM has 2 frequencies for you to choose without national boundary limitation.

1): FM1: 87.5-108MHz

FM2: 76.0-108MHz

FM3: 64.0-108MHz

2): AM frequency receiving range: 522-1710KHz (step value: 9KHz):

AM: 520-1710KHz (step value: 10KHz)

2.10: The marquee can be turned on in state of music play, giving you beautiful melody.

2.11: This product has a 3-inch all-band 20W speaker with BASS effect and supports listening with the earphone, meeting all users' needs.

2.12: This product supports four modes of play in the state of TF card play:

: (Repeat all tracks),

: (Repeat current track),

: (Repeat tracks in current folder),

 : (Play random track)

2.13: This product supports the function of lock.

2.14: The sleep power-off time can be set as 90, 80, 70, 60, 50, 40, 30, 20 and 10 minutes.

2.15: Two modes of scheduled power-on and scheduled alarm clock can be set. Two sets of time of scheduled power on and scheduled alarm clock can be set.

2.16: After choosing scheduled power-on, the power-off time after scheduled power-on can be set

2.17: The backlight and backlight display of number key are convenient for you to use in darkness.

2.18: In the mode of receiving, this product has a large memory of storing channels and can store 1,600 channels (FM/MW/SW/VHF/UHF/LW/CB/AIR: 200 channels for each)

2.19: This product supports EQ play.

2.20: This product displays temperature, time and perpetual calendar.

2.21: Adjustable color of display screen, multiple kinds of light ON time, multiple choices of alarm clock...humanized design increases playability.

2.22: This product supports factory data reset.

3: Packing list

Name	Quantity
ZWS-C919 high-performance all-band radio	1
Carrying Strap	1
Dust Brush	1
Small screwdriver	1
3.5mm External T-shaped Antenna	1
USB Type-C Data Charging Cable	1
User's Manual	2 (User's Manual/APP User's Manual)
Carrying Case	1
Exquisite Packing Box	1

4: Get started

This chapter is only intended for customers who wish to start listening to certain FM radio stations with their ZWS-C919 without reading the full manual first.



- 1) Unfold the rod antenna on top of the radio and extend the rod antenna as far as possible.
- 2) Short press any key to activate the backlight.
- 3) Immediately thereafter, short press [SLEEP] to power on the radio.
- 4) Press [RADIO BAND] until it is in “FM” receive mode.
- 5) Long press [SCAN] for 2 seconds to automatically search/store all found stations to channels. This process may take some minutes. “ PRESET ” will be blinking on the primary display during the process. You will hear the first radio station found as soon as the scan process has completed.
- 6) Short press [PRESET] until “ PRESET ” is constantly displayed on the primary screen. This turns on the channel mode with the channels stored in the previous step being easily available.
- 7) Press [TUNE+] or [TUNE-] to select one of the stored radio stations.
- 8) Press [VOL+] or [VOL-] to align the volume as required.
- 9) Long press [SLEEP] to turn off the radio.

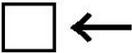
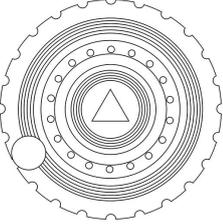
For more information on product operation, please read the remaining pages of this manual.

5: Functions of buttons

SLEEP 	<ol style="list-style-type: none"> 1) ON/OFF: Press any button to turn on the light and show the time. When the time is displayed, lightly press the button to turn on the radio. In the mode of receiving, long press the button to turn off the radio (see Section 7.1.1). 2) Time display state, Long press the button to set the sleep power-off time (see Section 7.1.2).
RADIO BAND	<p>In the mode of receiving, lightly press this button to switch between FM, SW, MW, LW</p>

	<p>In the mode of receiving, lightly press this button to switch between VHF, UHF, AIR, CB and WB.</p>
	<ol style="list-style-type: none"> 1) In the mode of FM/AM, short press to choose the FM&AM frequency receiving range. Please see Section 7.3.2/7.3.3. 2) In the mode of SW/UHF/VHF/AIR, short press to switch between SW&UHF&VHF&AIR meter waves (see Section 7.3.5). 3) In the mode of TF card, short press to switch between play modes: “Repeat current folder”, “Play random track”, “Repeat all tracks” and “Repeat current track”. 4) Insert TF card, after radio recording, long press to enter the recording folder. 5) In the mode of UHF, long press the key to enter the free civilian walkie-talkie frequency selection. Press the key again to select: FRS-CHA-CH-00---indicates selecting the free intercom frequency point in China. FRS-EUR-CH-00----indicates selecting the free intercom frequency point in European. FRS-USA-CH-00----Indicates selecting the free intercom frequency point in the United States. At this time, press the [TUNE+] or [TUNE-] keys to select (specific frequency details on page 37).
	<ol style="list-style-type: none"> 1) In the mode of any band, lightly press this button to set the bandwidth. See Section 7.3.14. 2) In the mode of FM/SW: long press this button to set the tuning mode. See Section 7.3.11.
	<p>In the mode of FM/SW/UHF/VHF/AIR/CB, press this button to select from LOCAL and DX mode.</p>
	<ol style="list-style-type: none"> 1) Radio /AUX-IN/PC Working mode: Tap to enable/disable Mute. 2) Bluetooth /TF card working mode: Tap pause/play switch 3) In the mode of VHF/UHF/AIR/CB/SW, long press this button for 2 seconds to start/stop SQ(squelch function).
	<ol style="list-style-type: none"> 1) When the radio is working, lightly press this button to switch between Bluetooth, TF and PC and long press it to disconnect Bluetooth. 2) When the radio is turned off and the time is displayed, long press this button to disconnect APP.
	<p>In SW, MW, LW, VHF, CB, WB and UHF mode, short press this button to choose the mode of antenna:</p> <ol style="list-style-type: none"> 1)  Antenna signal will pre pre-amplified by +20dB to allow reception of weak signals 2)   manual tuning of built-in antenna (including rod antenna/magnetic rod) 3)  External antenna (including WT antenna and external loop antenna)
	<ol style="list-style-type: none"> 1) Set the time. See Section 12.

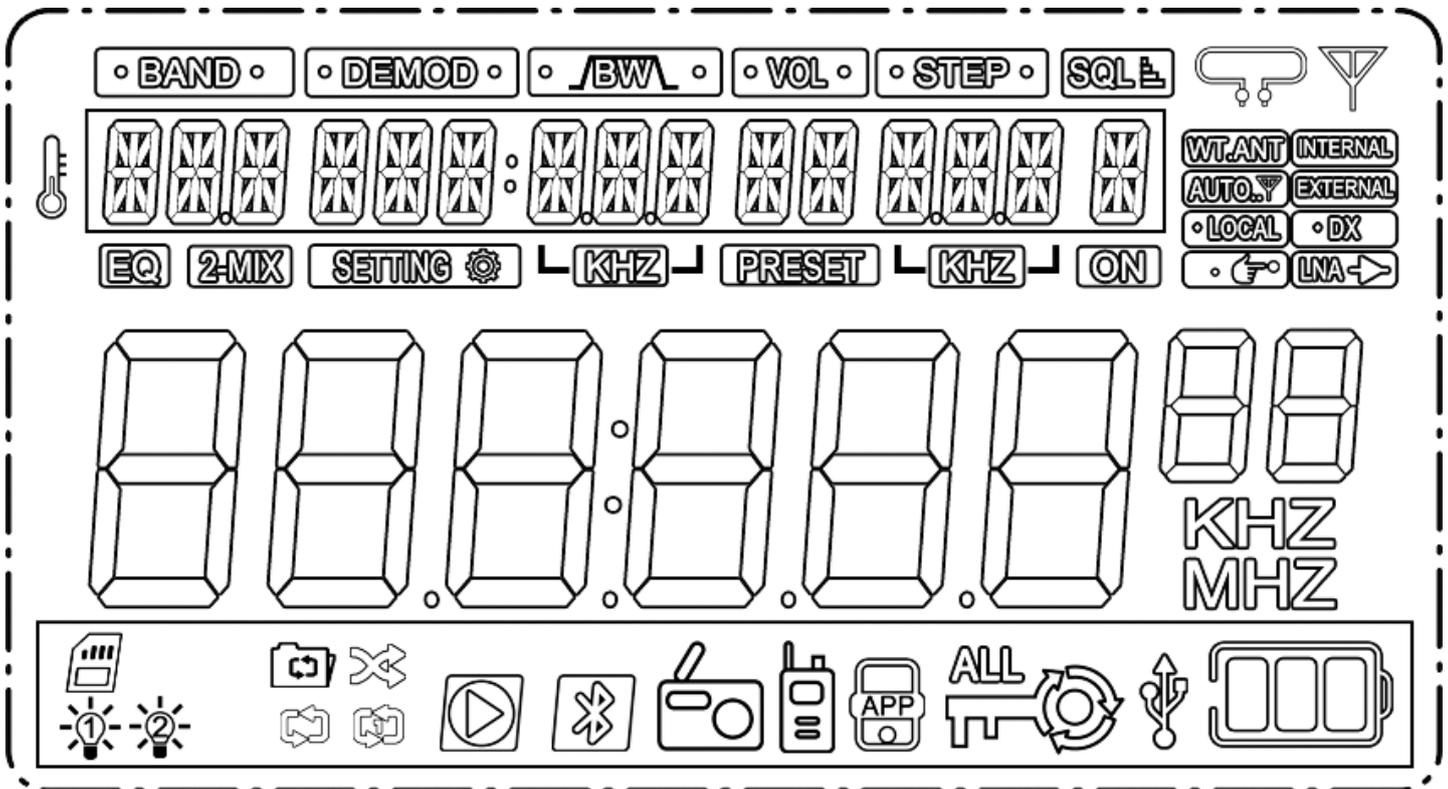
<p>TIME/SET</p>	<p>2) When the primary screen of the radio is set to be lit for 5-30 seconds in the menu [see operation point 14 for details; A-LCD SETTING operation introduction]. Short press [TIME/SET] to enable the backlight long brightness shortcut key. The "☼" symbol is displayed in the lower left corner of the home screen. Short press [TIME/SET] again to disable the "☼" symbol and restore the preset backlight screen time.</p> <p>When the menu sets the primary screen of the radio to be steady on (select FULL). See operation point 14 in detail;</p> <p>A-LCD SETTING The "☼" symbol is displayed in the lower left corner of the home screen. Short press the [TIME/SET] key to quickly turn the backlight on for 30 seconds and turn off the screen. Short press [TIME/SET] again to switch to the long light state</p>
<p>ALARM</p>	<p>1) Set the alarm clock. See Section 13.</p> <p>2) In the menu set the radio second screen lighting time is 5-30 seconds [see operation point 14 for details; B-LCD SETTING operation introduction]. If you press [ALARM], the shortcut key is enabled. The "☼" symbol is displayed in the lower left corner of the primary screen. Press [ALARM] again to disable the "☼" symbol and restore the preset backlight duration.</p> <p>3) When the menu sets the radio second screen light time to be steady on (select FULL). See operation point 14 in detail; A-LCD SETTING The "☼" symbol is displayed in the lower left corner of the home screen. Press the [ALARM] key to quickly turn the backlight on for 30 seconds and turn off the screen. Press [ALARM] again to switch to the long light state.</p>
<p>DISPLAY</p>	<p>1) In the mode of time/Bluetooth/TF card, lightly press this button to see the alarm clock time.</p> <p>2) In the mode of receiving, lightly press this button to display the time/signal intensity.</p>
<p> VOL+</p>	<p>When the radio is working, lightly press/long press to increase the volume.</p>
<p> VOL-</p>	<p>When the radio is working, lightly press/long press to decrease the volume.</p>
<p>SCAN... ATS</p>	<p>1) In the mode of receiving (excluding WB), long press this button for 2 seconds to automatically search/store a channel.</p> <p>2) VHF/UHF/AIR Working mode: Tap to quickly enter the Scan-FREQ mode, SCAN for stations with signals, if no signal stations are detected, they will always be searched. Press this key again to exit SCAN-FREQ mode.</p> <p>3) In the mode of WB, long press this button for 2 seconds to start/stop automatic search of WB channels.</p>
<p>SETTING</p> <p></p>	<p>1) When the radio is turned on, press this button to enter the menus setting. See Section 7.3.10.</p> <p>2) When the time is displayed, press this button to enter the menu setting. See Section 14.</p>
	<p>1) In the mode of receiving, enter the mode of taking a channel and long press this button for 2 seconds to delete a channel.</p> <p>2) In the mode of TF card, select the music to be deleted and long press</p>

<p>DEL</p> 	<p>this button for 2 seconds. When “del” appears on the primary screen, tap press this button again to confirm deletion.</p> <p>3) Radio digit dot frequency error If the input digit /TF card digit selection is incorrect, tap to remove the incorrect digit.</p>
<p></p> <p>PRESET</p>	<p>1) Long press this button for 2 seconds to store a channel, and lightly press it again to confirm.</p> <p>2) Lightly press this button to take a channel.</p>
<p>TUNE+ NEXT ▲</p>	<p>1) In the mode of receiving, lightly press this button to progressively increase the min step value of frequency at all brands. Long press is for 2 seconds to search channels up automatically.</p> <p>2) In the mode of TF card, lightly press this button to play the next music, and long press it to play fast-forward.</p> <p>3) In the mode of Bluetooth play: lightly press this button to play the next music.</p>
<p>TUNE- PREV ▼</p>	<p>1) In the mode of receiving, lightly press this button to progressively decrease the min step value of frequency at all brands. Long press is for 2 seconds to search channels down automatically.</p> <p>2) In the mode of TF card, lightly press this button to play the previous music, and long press it to play fast-backward.</p> <p>3) In the mode of Bluetooth play: lightly press this button to play the previous music.</p>
<p></p> <p>Big and small Shuttle Button</p>	<p>1) In the mode of receiving, rotate the internal and external shuttle button to select a receiving frequency.</p> <p>2) Lightly press the internal button “⊙” to change the step value. Lightly press the “⊙” to select the step value needed. Rotate the big shuttle button to progressively increase/decrease at the min step value of frequency ranges.</p> <p>3) Rotate the internal button “⊙”, the last frequency number flashes. Every time you lightly press this button “⊙”, Digital shift flicker. Rotate the button to quickly search the target frequency.</p> <p>4) In the mode of TF card play, rotate the internal and external shuttle button to select a music and press “⊙” to confirm your selection.</p> <p>5) When setting the time/alarm clock/menu, press this button to set in conjunction with the task command.</p>
<p>7 8 9 4 5 6 1 2 3 0</p> <p>[Number key]</p>	<p>1) In the mode of receiving:</p> <p>a) Select a frequency: it's not the mode of taking a channel. Lightly press “EN” to enter frequency selection with number key and press “EN” to confirm.</p> <p>b) Take a channel: After channels are stored, press “PRESET” to take a channel. Directly press the number key to take a channel and press “EN” to confirm. Can also directly enter the valid number of the digital key, press the EN key to directly take the station</p> <p>c) Address of manually storing a channel: long press “PRESET” to enter the mode of manual channel storing. Press the number key to select an address of channel storing, and lightly press “PRESET” to confirm.</p> <p>2) In the mode of TF card, lightly press this button and “EN” to select a music.</p>

<p style="text-align: center;">EN</p>	<ol style="list-style-type: none"> 1) Radio working mode: Tap [EN] to enable digital key dot frequency. After tapping the dot frequency, press [EN] confirm 2) TF card playback mode: After direct digital key selection, tap [EN] to confirm the selection of track playback.
<p>○ UN-LOCK ○ RS-LOCK ○LOCK</p> <p>[Push lock]</p>	<ol style="list-style-type: none"> 1) Push the switch to the position of “UN” and all keys and knobs are not locked. 2) Push the switch to the position of “RS-LOCK”, and the shuttle knobs  are locked. 3) Push the switch to the position of “.....LOCK’ and all keys and knobs are locked (the state of lock)
<p style="text-align: center;">EQ</p>	<p>When the radio is working, lightly press this button to switch between NORMAL, POP, ROCK, JAZZ, CLASSIC, COUNTRY, NEWS, VOICE, DAC-ANALOG AND CW</p>
<p style="text-align: center;"></p> <p>[Jack of TF card]</p>	<p>When the radio is working, insert the TF card to play the music in TF card first.</p>
<p style="text-align: center;"></p> <p>[Earphone output]</p>	<p>When the radio is working, insert the 3.5MM earphone to listen to the radio and cancel the loud speaker.</p>
<p style="text-align: center;">AUX</p> <p>[Audio input]</p>	<p>When the radio is working, inset the 3.5mm external audio source and play the music of external source first.</p>
<p style="text-align: center;"></p> <p>[TYPE-C jack]</p>	<ol style="list-style-type: none"> 1) Charging jack 2) Connect to the audio-in jack of computer 3) Connect to the computer with USB cable. Used as the TF card reader.
<p style="text-align: center;"></p> <p>[On the right of the radio]</p>	<p>When external T-shaped antenna is used in the mode of MW/SW, press this button to adjust the signal to noise ratio and antenna field intensity. The higher RSSI and SNR values are, the better.</p>

6: Symbols on LCD

6-1: The primary screen



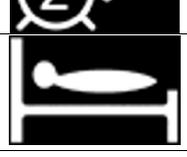
	Use of loop antenna (magnetic rod loop antenna)
	Use of two-way radio SMA socket input
	Automatic antenna mode
	Local receiving (Antenna attenuation 10/20dB)
	Manual antenna tuning
	Rod antenna (including the external antenna)
	Built-in antenna (including rod antenna/magnetic rod) receiving
	External antenna (including WT.AT and external ear antenna input) receiving
	Remote receiving (default)
	Volume
	Search and store a channel automatically Store a channel manually (character flashing) Take a channel (character always on)
	Battery level
	Charging status
	Unit
	Unit
	Lock (lock the shuttle[], locks all)
	Bluetooth connection (“ ” means waiting for connection; “always on” means successful connection)

	Bluetooth & TF card play (means pause, “always on” means play)
ALE	Weather band alarm of North American countries
 	MW; LW; FM; SW; AIR; VHF; UHF; CB; WB
 	Demodulation mode
 	Bandwidth
 	Step value
 	  Squelch level (“  ” squelch is on, “  ” squelch is off) 
	Standby time: show the time When the radio is working: FM mode: show the address of frequency/channel storing/channel taking. Bluetooth mode: “ bL ” shows the status of Bluetooth TF Card mode: show the time of play Insert the 3.5mm audio cable: AUX shows the external audio input play
A-LCD SETTING	Set the light-on time of primary screen/the color of backlight
B-LCD SETTING	Set the light-on time of secondary screen
C-KEY SETTING	Set the light-on time of button
APP ENABLE	Available APP connection
APP DISABLE	Unavailable APP connection
TONE ENABLE	Enable the tone when turning on the radio
TONE DISABLE	Turn off the tone when turning on the radio
TIMER DISPLAY	Start the time display or stop the time display on the primary screen
SYSTEM RESET	Factory data reset
VETSION-*-*	Version number
	This product is successfully connected to the mobile APP
	TF card is inserted
ATT-SETING	Set the receiving of antenna
ANT-CHANNLE	Select the antenna channel

ANT-KEEP-PASS	Keep antenna pass
ANT-LNA1-GAIN	LNA1 antenna channel gain selection
ANT-LNA1-GAIN-L	LNA1 antenna channel low gain
ANT-LNA1-GAIN-H	LNA1 antenna channel high gain
ANT-LNA2-GAIN	LNA2 antenna channel gain selection
ANT-LNA2-GAIN-L	LNA2 antenna channel low gain
ANT-LNA2-GAIN-H	LNA2 antenna channel high gain
ATT-GAIN antenna attenuation selection	ANT-10DB: antenna attenuation 10DB; ANT-20DB: antenna attenuation 20DB
ANT-LNA1: antenna LNA1 channel	ANT-LPF: antenna LPF channel; ANT-HPF: antenna HPF channel
	Indicator for the primary screen to be steady on
	Secondary screen steady on symbol
	Loop the current folder
	random play
	play in order
	single cycle

6.2: The secondary screen



	Audio level indicator
	Signal to Noise ratio
	Received Signal Strength Indication
	Alarm clock 1 activated
	Alarm clock 2 activated
	Sleep timer has been activated
	<p>When radio turned off (":" shown):</p> <ul style="list-style-type: none"> •Display of current time (same as on primary screen) <p>When radio operating (":" not shown):</p> <ul style="list-style-type: none"> •Left two digits: Signal Noise Ratio (SNR) •Right two digits: Received Signal Strength Indicator (RSSI)

7: Functions

7.1 SLEEP : POWER ON/POWER OFF

7.1.1: ON/OFF:

When you receive the machine for the first time, first turn the machine lock button

 UN-LOCK
 RS-LOCK
LOCK] to the [UN-LOCK] position to unlock the radio.

The lithium battery has been installed at the factory.

Short press any key to activate the time display. Short press [**SLEEP **] to turn on the radio. You will hear a short Morse-code ("CQ") as confirmation.

When the radio is working, long press [**SLEEP **] for 2 seconds to turn it off. You will also hear a short Morse-code ("QRT") as confirmation.

Note: Before using the radio for the first time, please fully charge the batteries.

7.1.2: Set the sleep time:

When the time is displayed, long press [**SLEEP **] for 2 seconds to set the sleep time. "90 " appears on the secondary screen. Lightly press [**SLEEP **] to choose the sleep time: 90, 80, 70, 60, 50, 40, 30, 20 and 10 minutes.

After choosing the sleep time, [] appears on the secondary screen.

Note: The light of the power button will have different colors in different working states. The actual object prevails

7.2: **VOL+** **VOL-** **Volume adjust.**

When the radio is working, lightly press or long press [ **VOL+** &  **VOL-**] to adjust the volume. Volume level: 00-32.

7.3: Listen to the radio

7.3.1: This product can receive the following bands. Lightly press

[RADIO BAND] & [UHF VHF] to select a band.

FM: 64-108MHz (demodulation mode supports ST/WFM selection)
SW: 2.3-30.0MHz (demodulation mode supports AM/LSB/USB). See Section 7.3.11.
MW: 520-1710KHz
LW: 153-522KHz
VHF: 20.0-250.00MHz
UHF:250.0-999.00MHz
CB: 25-28MHz
AIR: 118-138MHz
WB: 162.4-162.55MHz

7.3.2: FM frequency receiving range can be adjusted as needed

In the mode of FM, lightly press [SUB BAND] to show “64.0MHZ” on the primary screen. Continuously press [SUB BAND] to see three number of 64MHZ, 76MHZ and 87.5MHZ on the primary screen in turn. If 64MHZ is selected, it means the frequency receiving range is 64-108MHZ, and so forth.

Value on the primary screen	The default working frequency range
64MHz	FM1: 64-108MHz
76MHz	FM2: 76-108MHz
87.5MHz	FM3: 87.5-108MHz

You will exit setting automatically after stopping operation. The finally selected frequency range will be the default one.

7.3.3: MW step value, 9KHZ/10KHZ can be adjusted as needed

In the mode of MW, lightly press [**SUB BAND**] to show “520MHZ” on the primary screen. Continuously press [**SUB BAND**] to see two number of 520KHZ and 522KHZ on the primary screen in turn.

Value on the primary screen	The default working frequency range	The default MW step value
522KHz	522-1710KHz	9KHz
520KHz	520-1710KHz	10KHz

You will exit setting automatically after selecting the AM frequency range and stopping operation. The finally selected frequency range will be the default one.

Note: AM step value is 10KHz In America, Canada, Mexico and other countries of North America and South America and is 9KHz in other countries.

7:3.4: Method of searching channels

Search channels manually using the button/search channels automatically using the button/search and store channels automatically using the button/the number key/search channels by rotating the shuttle button.

7.3.4.1: Search channels manually using the button

Lightly press [**TUNE+ NEXT** Δ] or [**TUNE- PREV** ∇] to decrease or increase progressively at the minimum step value of wave band.

FM min step value: 0.1MHz,

MW min step value: 9KHz / 10KHz

VHF min step value: 0.0125MHz

UHF min step value: 0.0125MHz

LW min step value: 9KHz

AIR min step value: 0.025MHz

SW (Demodulation is AM state) min step value: 0.005MHz

SW (Demodulation is LSB state) min step value:0.001MHz

SW (Demodulation is LSB state) min step value:0.001MHz

CB min step value: 0.005MHz

7.3.4.2: Search channels automatically using the button

Long press [$\frac{\text{TUNE+}}{\text{NEXT}} \Delta$] or [$\frac{\text{TUNE-}}{\text{PREV}} \nabla$] for 2 seconds to search channels at the minimum step value of wave band. Search will stop after finding a channel, and this channel will be played.

7.3.4.3: Search and store channels automatically using the button

In the mode of receiving, long press [$\frac{\text{SCAN...}}{\text{ATS}}$] for 2 seconds to search and store channels automatically.

In process of automatic search, “PRESET” flashes on the primary screen. After a channel is successfully found, “CH***” appears on the primary screen, which is the address of storing channels.

After a round of search, search will stop automatically, and the first channel stored will be played.

Every band can store 200 channels, 1,600 channels in total (excluding WB).

Note: the number of channels stored depends on local signal intensity.

7.3.4.4: The shuttle button

In the mode of receiving, rotate the internal and external shuttle button at the front of radio to select a channel.

----Lightly press the internal button [], the step value changes. Lightly press this button to select a step value. Rotate the big shuttle button [] to select the frequency you need clockwise or anti-clockwise according to the step value selected.

The adjustable step values at all bands:

Band	Step Value	Default Value
FM	10KHz, 50KHz, 100KHz	100KHz
SW (AM/LSB/USB)	0.01KHz, 0.02KHz, 0.1KHz, 1KHz, 5KHz	5KHz
MW step value is 9KHz	3KHz, 9KHz	9KHz or 10KHz
MW step value is 10KHz	5KHz, 10KHz,	
LW	3KHz, 9KHz	9KHz
VHF	1KHz, 5.0KHz, 6.2KHz, 7.5KHz, 12.5KHz,	12.5KHz

	25KHz	
UHF	1KHz, 5.0KHz, 6.2KHz, 7.5KHz, 12.5KHz, 25KHz	12.5KHz
AIR	8.3KHz, 12.5KHz, 25KHz	25KHz
CB	0.01KHz, 0.02KHz, 0.1KHz, 1KHz, 5KHz	5KHz
WB	25KHz	25KHz

--Rotate the small shuttle button [], the last frequency number flashes. Lightly press the internal button [], the number flashes. Rotate the small shuttle button to see quick changes at the position of number flashing until finding the target frequency.

7.3.5: Quick switch between [SUB BAND] meter waves

SW, VHF, UHF, and AIR all have meter waves:

Band	Meter Wave
SW (Demodulation is AM state)	2.3MHz.3.2MHz.3.75MHz.3.9MHz.4.75MHz.5.73MHz. 7.1MHz.9.25MHz.11.5MHz.13.57MHz. 15.03MHz. 17.48MHz. 18.9MHz. 21.45MHz. 25.67MHz (15 meter waves)
SW (Demodulation is LSB, USB state)	2.3MHz,3.5MHz,5.3510MHz,7.0MHz,10.10MHz,14.0MHz, 18.068MHz,21.0MHz,24.89MHz,28.0MHz(10 meter waves)
VHF	30.0MHz.42.0MHz.55.0MHz.68.0MHz.100.0MHz.136.0MHz, 218.0MHz. 250.0MHz (8 meter waves)
UHF	250.0MHz.320.0MHz.460MHz.580.0MHz.620.0MHz.730.0MHz, 800.0MHz.999.0MHz (8 meter waves)
AIR	118MHz.123MHz.128MHz. 133MHz.138MHz(5 meter waves)

Lightly press [SUB BAND] and press [$\frac{TUNE+}{NEXT} \Delta$], [$\frac{TUNE-}{PREV} \nabla$] or the shuttle button to quickly find the frequency you need.

7.3.6: Store channels manually

---When the radio is working, find a target frequency with the method in Section 7.3.4. Long press [ PRESET] for 2 seconds to enter the mode of storing channels. “PRESET ***” flashes on the primary screen. Lightly press [ PRESET] to confirm.

---Long press [ PRESET] for 2 seconds. “PRESET ***” flashes on the primary screen. Lightly press [$\frac{\text{TUNE+}}{\text{NEXT}} \Delta$] or [$\frac{\text{TUNE-}}{\text{PREV}} \nabla$] to choose an address of storing channels (or the number of channel to be replaced). Lightly press “” again to confirm.

---Long press [ PRESET] for 2 seconds. “PRESET ***” flashes on the primary screen. Lightly press [$\frac{789}{456} \frac{123}{0}$] to enter the address of storing channels. Lightly press [ PRESET] again to confirm, and now a channel is stored successfully.

7.3.7: Take channels

After channels are stored with the methods in Section 7.3.4.3 and 7.3.6, lightly press [ PRESET] to enter the mode of taking channels. When “PRESET CH ***” appears on the primary screen, lightly press [$\frac{\text{TUNE+}}{\text{NEXT}} \Delta$] or [$\frac{\text{TUNE-}}{\text{PREV}} \nabla$] to choose an address of taking channels.

---In the mode of “PRESET” taking channels, you can also use [$\frac{789}{456} \frac{123}{0}$] to enter a valid address of storing channels, and press “EN” again to confirm the frequency of address of taking channels.

If the number you select is not a valid address of storing channels, “null” appears on the primary screen.

Exit the mode of taking channels: Lightly press “PRESET”, “PRESET” disappears on the primary screen, which means exiting the mode of taking channels.

7.3.8: Delete channels

Select a channel you don't need according to Section 7.3.7. Long press [], then [**dEL**] appears on the primary screen, which means the channel is deleted.

7.3.9: WB of North America

Lightly press [] to switch to WB. Lightly press [] or [] or rotate the shuttle button [] to choose the weather frequency to receive. Receiving frequencies:

1 - 162.400MHz, 2 - 162.425MHz, 3 - 162.450MHz, 4 - 162.475MHz,
5 - 162.500MHz, 6 - 162.525MHz, 7 - 162.550MHz

7.3.9.1: Search WB channels automatically

In the mode of WB, long press [] for 2 seconds to automatically search WB channels. "ALE" appears on LCD. In the state of "ALE", if no WB channel is found, long press [] for 2 seconds again to exit "ALE" automatic search.

(Note: All buttons don't work in the mode of automatic search. You must use other receiving functions by long pressing [] for 2 seconds to cancel automatic search)

7.3.10: Enter the setting function when the radio is working at all bands

In the mode of receiving, long press [] to enter the setting function and enter the main menu.

Rotate the shuttle button [] clockwise or anti-clockwise to select in the main menu

Lightly press shuttle button [] to enter the sub-menu.

Rotate the shuttle button [] clockwise or anti-clockwise to select and lightly press this button to confirm your selection. "SETTING OK" appears on the primary screen.

Exit setting:

In order to exit setting in the mode of main menu, directly lightly press [] to exit. Or wait for about 10 seconds, then the system will exit automatically.

Band	Tasks in the main menu on the primary screen	Select in the sub-menu
FM	ANT-KEEP-PASS Keep antenna pass	Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.
	ANT-CHANNLE Antenna channel selection	Lightly press the shuttle button [⊙] to enter the sub-menu to select: ANT-HPF (HPF filter) ANT-LNA1 (LNA1 channel) Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.
	ANT-LNA1-GAIN LNA1 antenna channel gain selection	Lightly press the shuttle button [⊙] to enter the sub-menu and rotate the button to select: ANT-LNA1-GAIN-L (LNA1 antenna channel low gain) ANT-LNA1-GAIN-H (LNA1 antenna channel high gain) Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.
	ANT-LNA2-GAIN LNA2 antenna channel gain selection	Lightly press the shuttle button [⊙] to enter the sub-menu and rotate the button to select: ANT-LNA2-GAIN-L (LNA2 antenna channel low gain) ANT-LNA2-GAIN-H (LNA2 antenna channel high gain) Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.
	ATT-GAIN Antenna attenuation	Lightly press the shuttle button [⊙] to enter the sub-menu and rotate the button to select: ANT-10DB: antenna attenuation 10DB ANT-20DB: antenna attenuation 20DB Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.
	ANT-DEFAULT Default antenna	Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.

Band	Tasks in the main menu on the primary screen	Select in the sub-menu
SW (When DX state is selected)/ CB	ANT-KEEP-PASS Keep antenna pass	Lightly press the shuttle button[⊙] to show “SETTING OK”, which means setting is finished.
	ANT-CHANNLE Antenna channel selection	Lightly press the shuttle button[⊙] to enter the sub-menu to select: ANT-LPF(HPF filter) ANT-LNA1(LNA1 channel) Lightly press the shuttle button[⊙] to show “SETTING OK”, which means setting is finished.
	ANT-LNA1-GAIN LNA1 antenna channel gain selection	Lightly press the shuttle button [⊙] to enter the sub-menu and rotate the button to select: ANT-LNA1-GAIN-L (LNA1 antenna channel low gain) ANT-LNA1-GAIN-H (LNA1 antenna channel high gain) Lightly press the shuttle button[⊙] to show “SETTING OK”, which means setting is finished.
	ANT-LNA2-GAIN LNA2 antenna channel gain selection	Lightly press the shuttle button[⊙] to enter the sub-menu and rotate the button to select: ANT-LNA2-GAIN-L (LNA2 antenna channel low gain) ANT-LNA2-GAIN-H (LNA2 antenna channel high gain) Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.
	ATT-GAIN Antenna attenuation	Lightly press the shuttle button [⊙] to enter the sub-menu and rotate the button to select: ANT-10DB: antenna attenuation 10DB ANT-20DB: antenna attenuation 20DB Lightly press the shuttle button[⊙] to show “SETTING OK”, which means setting is finished.
	SQL-LEVEL	Lightly press the shuttle button [⊙] to enter the sub-menu and rotate the button to select: SQL-LEVEL 00-01-02-03-04-05-06-07-08-09 (9 squelch levels) Lightly press the shuttle button [⊙]to show “SETTING OK”, which means setting is finished.
	ANT-DEFAULT Default antenna	Lightly press the shuttle button [⊙] to show “SETTING OK”, which means setting is finished.

Band	Tasks in the main menu on the primary screen	Select in the sub-menu
AIR	ANT-KEEP-PASS Keep antenna pass	Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.
	ANT-CHANNLE Antenna channel selection	Lightly press the shuttle button [] to enter the sub-menu to select: ANT-LPF (HPF filter), ANT-LNA1 (LNA1 channel) Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.
	ANT-LNA1-GAIN LNA1 antenna channel gain selection	Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: ANT-LNA1-GAIN-L (LNA1 antenna channel low gain) ANT-LNA1-GAIN-H (LNA1 antenna channel high gain) Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.
	ANT-LNA2-GAIN LNA2 antenna channel gain selection	Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: ANT-LNA2-GAIN-L (LNA2 antenna channel low gain) ANT-LNA2-GAIN-H (LNA2 antenna channel high gain) Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.
	ATT-GAIN Antenna attenuation	Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: ANT-10DB: antenna attenuation 10DB ANT-20DB: antenna attenuation 20DB Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.
	SQL-LEVEL	Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: SQL-LEVEL 00-01-02-03-04-05-06-07-08-09 (9 squelch levels) Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.
	WT-SCAN-MODE	Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: WT-SCAN-MODE-FREQ frequency scanning mode (Gently press the SCAN key to SCAN a signal station before stopping the search. Press the scan key again to stop the scan signal.) WT-SCAN-MODE-PRESET stored channel scanning mode (when the radio performs a fully automatic search for stored radio stations, the machine already has signal radio stations stored in it. In this mode, short press the SCAN button to quickly scan for radio stations with signals, and short again Press the SCAN key to stop scanning signals. If there is no station stored in advance, [null] will be displayed). Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.
	ANT-DEFAULT Default antenna	Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.

Band	Tasks in the main menu on the primary screen	Select in the sub-menu
VHF/ UHF	ATT-GAIN Antenna attenuation	<p>Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: ANT-10DB: antenna attenuation 10DB ANT-20DB: antenna attenuation 20DB</p> <p>Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.</p>
	SQL-LEVEL	<p>Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: SQL-LEVEL 00-01-02-03-04-05-06-07-08-09 (9 squelch levels)</p> <p>Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.</p>
	WT-SCAN-MODE	<p>Lightly press the shuttle button [] to enter the sub-menu and rotate the button to select: WT-SCAN-MODE-FREQ frequency scanning mode (Gently press the SCAN key to SCAN a signal station before stopping the search. Press the scan key again to stop the scan signal.) WT-SCAN-MODE-PRESET stored channel scanning mode (when the radio performs a fully automatic search for stored radio stations, the machine already has signal radio stations stored in it. In this mode, short press the SCAN button to quickly scan for radio stations with signals, and short again Press the SCAN key to stop scanning signals. If there is no station stored in advance, [null] will be displayed).</p> <p>Lightly press the shuttle button [] to show “SETTING OK”, which means setting is finished.</p>

Note: If SQ function is started, long press [] for 2 seconds to cancel the function. [] shows 0 on the primary screen. Long press [] for 2 seconds again, [] shows the recovered SQ value of current SQ.

7.3.11: Demodulation modes of SW

This product supports the following three demodulation modes in the SW receiving mode: AM, LSB and USB.

In the mode of SW receiving, long press [$\overset{BW}{\text{DEMOD}}$] for 2 seconds, then “AM” flashes on the primary screen. Lightly press [$\overset{BW}{\text{DEMOD}}$] within 2 seconds, then “USB” flashes. “[]” means searching. About 2 seconds later, it is switched to “USB”.

In the mode of USB, long press [$\overset{BW}{\text{DEMOD}}$] for 2 seconds, then “USB” flashes, and lightly press [$\overset{BW}{\text{DEMOD}}$] again to switch to “LSB”.

In the mode of LSB, long press [$\overset{BW}{\text{DEMOD}}$] for 2 seconds, then “LSB” flashes, and lightly press [$\overset{BW}{\text{DEMOD}}$] again to switch to “AM” ordinary receiving mode.

7.3.13: Demodulation modes of other bands

In the mode of receiving, long press [$\overset{BW}{\text{DEMOD}}$], then [] flashes on the primary screen. Lightly press [$\overset{BW}{\text{DEMOD}}$] to select the demodulation mode you need (For demodulation modes of SW, please see Section 7.3.11). The demodulation modes of all bands are described in the following table:

FM Mode	MW Mode	SW Mode	LW Mode	WB Mode	CB Mode	AIR Mode	VHF Mode	UHF Mode
WFM(MONO)	AM	AM	AM	NFM	AM	AM	NFM	NFM
ST (STEREO)		USB						
		LSB						

7.3.14: Select the BW bandwidth of all bands

In the mode of receiving, lightly press [$\overset{BW}{\text{DEMOD}}$] to select the BW bandwidth of every band.

Lightly press [$\overset{BW}{\text{DEMOD}}$], “BW” flashes on the primary screen. Lightly press [$\overset{BW}{\text{DEMOD}}$], then the numbers change in turn. Wait for 2 seconds, then the final choice will be the default one.

BW values can be founded in the following table:

Band	BW value is optional
FM mode	110KHz, 84KHz, 60KHz, 40KHz
SW Demodulation is AM mode	1.00KHz, 1.80KHz, 2.00KHz, 2.50KHz, 3.00KHz, 4.00KHz, 6.00KHz
SW Demodulation is LSB or USB mode	0.50KHz, 1.00MHz, 1.20MHz, 2.20KHz, 3.00KHz, 4.00KHz,

MW mode	1.00KHz, 1.80KHz, 2.00KHz, 2.50KHz, 3.00KHz, 4.00KHz, 6.00KHz
LW mode	1.00KHz, 1.80KHz, 2.00KHz, 2.50KHz, 3.00KHz, 4.00KHz, 6.00KHz
VHF mode	1.70KHz, 2.00KHz, 2.50KHz, 3.00KHz, 3.75KHz, 4.00KHz, 4.25KHz, 4.50KHz
UHF mode	1.70KHz, 2.00KHz, 2.50KHz, 3.00KHz, 3.75KHz, 4.00KHz, 4.25KHz, 4.50KHz
AIR mode	1.00KHz, 1.80KHz, 2.00KHz, 2.50KHz, 3.00KHz, 4.00KHz, 6.00KHz
CB mode	1.00KHz, 1.80KHz, 2.00KHz, 2.50KHz, 3.00KHz, 4.00KHz, 6.00KHz
WB mode	3.0KHz

8: Bluetooth mode

- Bluetooth name: “ZWS-C919”.
- When the radio is working, lightly press [] to switch to “bL” mode.
- The Bluetooth symbol [] flashes, which means waiting for connection.
- Turn on Bluetooth and connect to ZWS-C919. After successful connection, [] is always displayed and [] flashes. Turn on the mobile music player and connect to Bluetooth to play.
- Lightly press [$\overset{\text{TUNE+}}{\text{NEXT}} \Delta$] to play the next music and [$\overset{\text{TUNE-}}{\text{PREV}} \nabla$] to play the previous one.
- Lightly press [] to switch between pause and play or use your phone to control.
- Disconnect Bluetooth:** In the state of Bluetooth connection, long press [] to exit.

9: TF card play

- Insert the TF card, lightly push it in place at the direction of [] and lightly push it again to take it out.
- In and mode of turning on the radio, the music in the TF card will be played first after inserting the TF card. [] appears on the screen.
- In other working modes, lightly press [] to switch to TF card play mode; lightly press [] to switch between pause/play.
- Lightly press [$\overset{\text{TUNE+}}{\text{NEXT}} \Delta$] to play the next music, and lightly press [$\overset{\text{TUNE-}}{\text{PREV}} \nabla$] to play the previous music. Long press [$\overset{\text{TUNE+}}{\text{NEXT}} \Delta$] to play fast-forward, and long press [$\overset{\text{TUNE-}}{\text{PREV}} \nabla$] to play fast-backward.
- In the mode of TF card play, rotate the internal and external shuttle button to select music. Lightly press [] to confirm your selection.

---You can also directly enter the valid music number using the number key and lightly press “EN” to play.

---Delete the music in the TF card: Find the music you want to delete using the above three modes, long press [DEL] for 2 seconds, then “del” appears on the primary screen, and lightly press [DEL] again to delete it.

---In the mode of TF card play, you can choose the play mode:

Lightly press [^{SUB}BAND], current play mode, “

Lightly press [^{SUB}BAND], the four symbols appear in turn.

 (Repeat all tracks),  (Repeat current track),

 (Repeat tracks in current folder), : (Play random track)

---TF card supports 256G maximally.

---TF card supports MP3, WMA, WAV, APE and FLAC.

---TF card supports 65,535 files maximally

Note:

When the radio is playing music in TF card mode, in case of sound vibration for reason of music source, please adjust the volume.

When the radio is receiving in Bluetooth mode, music play fails after inserting the TF card and “0000” appears. It is possibly caused by music source or maybe the TF card is broken. If the TF card is broken, please replace it with a new one.

10: EQ effect setting in the mode of Bluetooth and TF card of all bands

In the mode of working, lightly press [^{EQ}/●]to select an EQ effect.

EQ \ Working mode	Working mode											
	FM	MW	SW	LW	WB	CB	AIR	VHF	UHF	BT Bluetooth	TF card	
EQ-NORMAL	■	■	■	■	■	■	■	■	■	■	■	■
EQ-POP	■					■				■		■
EQ-ROCK	■					■				■		■
EQ-JAZZ	■					■				■		■
EQ-CLASSIC	■					■				■		■
EQ-COUNTRY	■					■				■		■
EQ-NEWS	■	■	■	■	■	■	■	■	■			
EQ-VOICE	■	■	■	■	■	■	■	■	■			

DAC-ANALOG	■	■	■	■	■	■	■	■	■		
EQ -CW		■	■	■		■		■	■		

[■] means the EQ effect to be selected in the working mode.

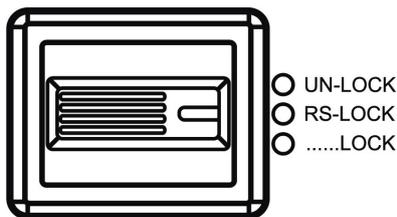
Note: NEWS filter: audio filter: 150-4000HZ

VOICE filter: audio filter: 250-2500HZ

CW filter: audio filter: 500-1100HZ

11: Use of the lock button “”

The three positions on the right side of radio have the following functions:



[UN-LOCK] means being not locked/unlock.

[RS-LOCK] means only the big and small shuttle buttons [] are locked. “” flashes on the primary screen.

[.....LOCK] means all buttons are locked (APP is not locked. Connect to []. “ALL” of the symbol “” appears in the primary screen. Now all buttons are locked.

12: Set the running time

In the mode of time display, long press [TIME/SET] for 2 seconds to set the running time/date as follows:

Step1: On the time display state. WED 2024 01 03 <div style="text-align: center; font-size: 2em;">12:37</div>
Step2: Long press the [TIME/SET] button
Step3: Hour digit [] is flashing
Step4: Turn the big/small shuttle knob [] to adjust to hour
Step5: Short press [TIME/SET] button
Step6: Minute [] digit flashing
Step7: Turn the big/small shuttle knob [] to adjust to Minute
Step8: Short press [TIME/SET] button
Step9: Year digit [] flashing
Step10: Turn the big/small shuttle knob [] to adjust to Year
Step11: Short press [TIME/SET] button

Step12: Month digit [01] flashing
Step13: Turn the big/small shuttle knob [] to adjust to Month
Step14: Short press [TIME/SET] button
Step15: Date digit [03] flashing
Step16: Turn the big/small shuttle knob [] to adjust to Date
Step17: Short press [TIME/SET] button for confirm

Note: The day of week including MON, TUE, WED, THU, FRI, SAT and SUN will be updated automatically as the date is updated.

13: Set the alarm clock

After setting the running time as shown in Section 12, in the state of time display, long press “ALARM” for 2 seconds to set the alarm clock time/scheduled power on (Two sets of alarm clocks can be set as needed) as follows:

Step1: On the time display state WED 2024 01 03 12:37	
Step2: Long press [ALARM] button	
Step3: When the digit 1 or 2 is flashing Turn the big/small shuttle knob [] to adjust set any set of alarms	ALARM 1 ON ALARM 2 ON
Step4: Short press [ALARM] button	
Step5: When ON/OFF is flashing Turn the big/small shuttle knob [] to elect turn on the alarm or turn off the alarm [ON] is turn on the Alarm. [OFF] is turn off the Alarm.	ALARM 2 OFF ALARM 1 OFF ALARM 2 ON ALARM 1 ON
Step6: After elect [ON] to turn on the Alarm, short press [Alarm] button	
Step7: Alarm hour digit [12:] is flashing	
Step8: Turn the big/small shuttle knob [] to adjust alarm hour.	
Step9: Short press [Alarm] button	
Step10: Alarm Minute [37] is flashing	
Step11: Turn the big/small shuttle knob [] to adjust alarm minute.	
Step12: Short press [Alarm] button elect [Alarm time] or [timed power on time] Turn the big/small shuttle knob [] to elect either one [BU2] symbol is Alarm time. [rAd] symbol is timed power on time	
Step13: After elect the [BU2] Short press [Alarm] button, Turn the big/small shuttle knob [] to elect Four ringtones [01 02 03 04] Short press [Alarm]button for confirm	

After elect the [rAd]
 Short press [Alarm] button, Turn the big/small shuttle knob [] to elect Timed shutdown time after timed power on.
 Can be elected:10-20-30-40-50-60-70-80-90-FULL (Unit: minute)
 If elect FULL (mean the radio will not automatically shut down after automatic power on)

Step14: After setting alarm function. the Alarm symbol [ / ] is display on the Second screen.

If you set one alarm group, one alarm symbol is displayed. If you set two alarm groups, two alarm symbols are displayed on the secondary screen.

Turn off the alarm clock: select 1 OFF/2 OFF as shown in the above figure.

After selecting OFF, the alarm clock symbol of the secondary screen will disappear.

Note: If scheduled power on [rAd] is selected and scheduled power off time of 10-20-30-40-50-60-70-80-90 minutes are selected, the radio will be turned off on schedule, and the sleep symbol “  ” will appear on the secondary screen.

After the radio is turned off, “  ” will disappear.

※ After setting the scheduled power on and the alarm clock time, in the state of power on or time display, lightly press [DISPLAY]to check the time of “  ” and “  ”.

14: In the mode of time, you can set the following content in the menu

In the state of time display, long press “  ” to set functions. Enter the main menu which has the following options.

Rotate the shuttle button “  ” clockwise or anti-clockwise to select in the main menu.

After selecting the main menu task to be set, lightly press the shuttle button “  ” to select in the sub-menu.

Rotate the shuttle button “  ” clockwise or anti-clockwise to select the sub-menu task and lightly press this button to confirm.

The main menu	Sub-menu options
A-LCD SETTING (Set the backlight color/light on time of the primary screen)	Lightly press the shuttle button [] to enter the sub-menu to set the light off time of the primary screen. The time unit is “s”. 1: TIME SET 05-S/06-S/07-S/08-S.....30-S/FULL Rotate the shuttle button [] to select the time. “FULL” means the backlight of the primary screen is always

	<p>on.</p> <p>After selection, the lower left corner of the primary screen will display “  ”</p> <p>Lightly press the shuttle button “” to set the backlight color of the primary screen:</p> <p>2: COLOUR SET 1.....7</p> <p>Seven colors for you to choose: 1): Fresh grass green, 2): Elegant brown, 3): Soft blue, 4): Light green, 5): Pure light blue, 6): Luxury purple, 7): Joyful yellow</p> <p>Rotate the shuttle button “” to select the backlight color of the primary screen.</p> <p>In case of no operation within 10 seconds, the final choice will be confirmed automatically. Time display will be recovered.</p>
<p>B-LCD SETTING (Set the light on time of the secondary screen)</p>	<p>Lightly press the shuttle button “” to enter the sub-menu to set the light off time of the secondary screen. The time unit is “s”.</p> <p>1: TIME SET 05-S/06-S/07-S/08-S.....30-S/FULL</p> <p>Rotate the shuttle button “” to select the time.</p> <p>”FULL” means the backlight of the secondary screen is always on. After selection, the lower left corner of the primary screen will display “  ”</p> <p>In case of no operation within 10 seconds, the final choice will be confirmed automatically. Time display will be recovered.</p>
<p>C-KEY SETTING (Set the light on time in working state)</p>	<p>Lightly press the shuttle button “” to enter the sub-menu to set the working state and light on time of button. The time unit is “s”.</p> <p>1: TIME SET 05-S/06-S/07-S/08-S.....30-S/FULL</p> <p>Rotate the shuttle button “” to select the time.</p> <p>”FULL” means the backlight of the secondary screen is always on.</p> <p>In case of no operation within 10 seconds, the final choice will be confirmed automatically. Time display will be recovered.</p>
<p>APP ENABLE</p>	<p>Lightly press the shuttle button “” to enter the sub-menu and rotate the button to select:</p>

(Connect/disconnect APP)	<p>APP DISABLE----APP doesn't work (it is helpful for power saving and interference reduction)</p> <p>APP ENABLE----APP works normally</p> <p>In case of no operation within 10 seconds, the final choice will be confirmed automatically. Time display will be recovered.</p>
TONE ENABLE (Enable the tone when turning on the radio)	<p>Lightly press the shuttle button “” to enter the sub-menu and rotate the button to select:</p> <p>TONE ENABLE ----- Enable the tone when turning on the radio</p> <p>TONE DISABLE ----- Turn off the tone when turning on the radio</p> <p>After selection, the final selection will be automatically confirmed if no operation is performed within 10 seconds. Recovery time is displayed.</p>
TIMER OFF (Display/off of the primary screen)	<p>Lightly press the shuttle button “” to enter the sub-menu and rotate the button to select:</p> <p>TIMER DISPLAY---The time of the primary screen is always displayed</p> <p>TIMER OFF-----The time of the primary screen is off</p> <p>In case of no operation within 10 seconds, the final choice will be confirmed automatically. Time display will be recovered.</p>
SYSTEM RESET	<p>Lightly press the shuttle button “” to enter the sub-menu and rotate the button to select:</p> <p>YES---Factory data reset</p> <p>NO---Factory data reset is abandoned</p> <p>In case of no operation within 10 seconds, the final choice will be confirmed automatically. Time display will be recovered.</p>
VERSION-***	Version

15: TYPE-C USB charging

This product has overvoltage protection function in charging. Charging voltage:
 $\cong 6.2V$.

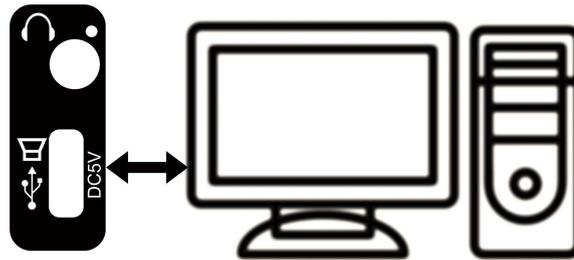
Please use the charging device with output voltage of DC5V/1A-DC3A to charge the batteries.

If the lithium battery is not in use for a long time, please charge it once a month or remove it.

Insert the USB cable, then “ ” appears and the charging indication symbol “ ” flashes on LCD, which means it’s charging. When the batteries are charged fully, “ ” appears and stops flashing. The charging time is generally 4-5 hours.

16: Used as a card reader

When the TF card is inserted into the radio, connect the radio to the computer using a data USB cable for file transmission and deletion of files in the TF card.



17: AUX input play

When the radio is turned on, insert the 3.55MM sound source device (such as mobile phone and computer) into the right jack “AUX” of the radio using a 3.5MM audio cable. “AUX” appears on the primary screen, and the “AUX” audio files will be played first.

(Note: We don’t provide the audio cable)

18: Temperature display

In the state of time display or power on, lightly press [], then [] appears on the left upper corner of the primary screen. Press [] to exit temperature display.

19: Sound recording

When the radio is working, insert the TF card, long press “ ” to record sound, then “RECORDING” flashes on LCD and the time of sound recording is displayed on the secondary screen.

After sound recording is finished, long press “ ” to exit sound recording.

Take the sound file: Press “ ” to enter the mode of TF card play and select from TF music list.

In TF card playback mode, you can long press the “ **SUB BAND** ” key to quickly enter the recording folder.

Note: If no valid TF card or no TF card is inserted, “em” appears on the secondary screen.

Delete the contents of the TF card:

TF card playback mode, long press [**SUB BAND**] key to switch recording file playback, tap [$\frac{\text{TUNE}^+}{\text{NEXT}}\Delta$ or $\frac{\text{TUNE}^-}{\text{PREV}}\nabla$] key or rotate the big/small fly button, press [] button to select the recording file to be deleted, long press [DEL] key, the character "del" will be displayed on the main screen, and tap [DEL] key again to confirm deletion.

20: Antenna

20-1: Built-in antenna

When listening to FM, VHF, UHF, SW, AIR, CB and WB, pull out the rod antenna, change the length of antenna, try the direction and find a position with the best receiving effect.

*In case of channel chaos due to strong interference, please shorten the antenna.

Listen to AM and LW: This product uses the built-in magnetic antenna to receive AM. The magnetic antenna may be affected by direction to receive signals, so you can properly rotate the radio when listening to AM/LW to find a position with the best receiving effect.

In the mode of receiving, short press “DISPLAY” to turn the signal-to-noise ratio (SNR) and Received Signal Strength Indicator (RSSI) on the secondary screen on or off.

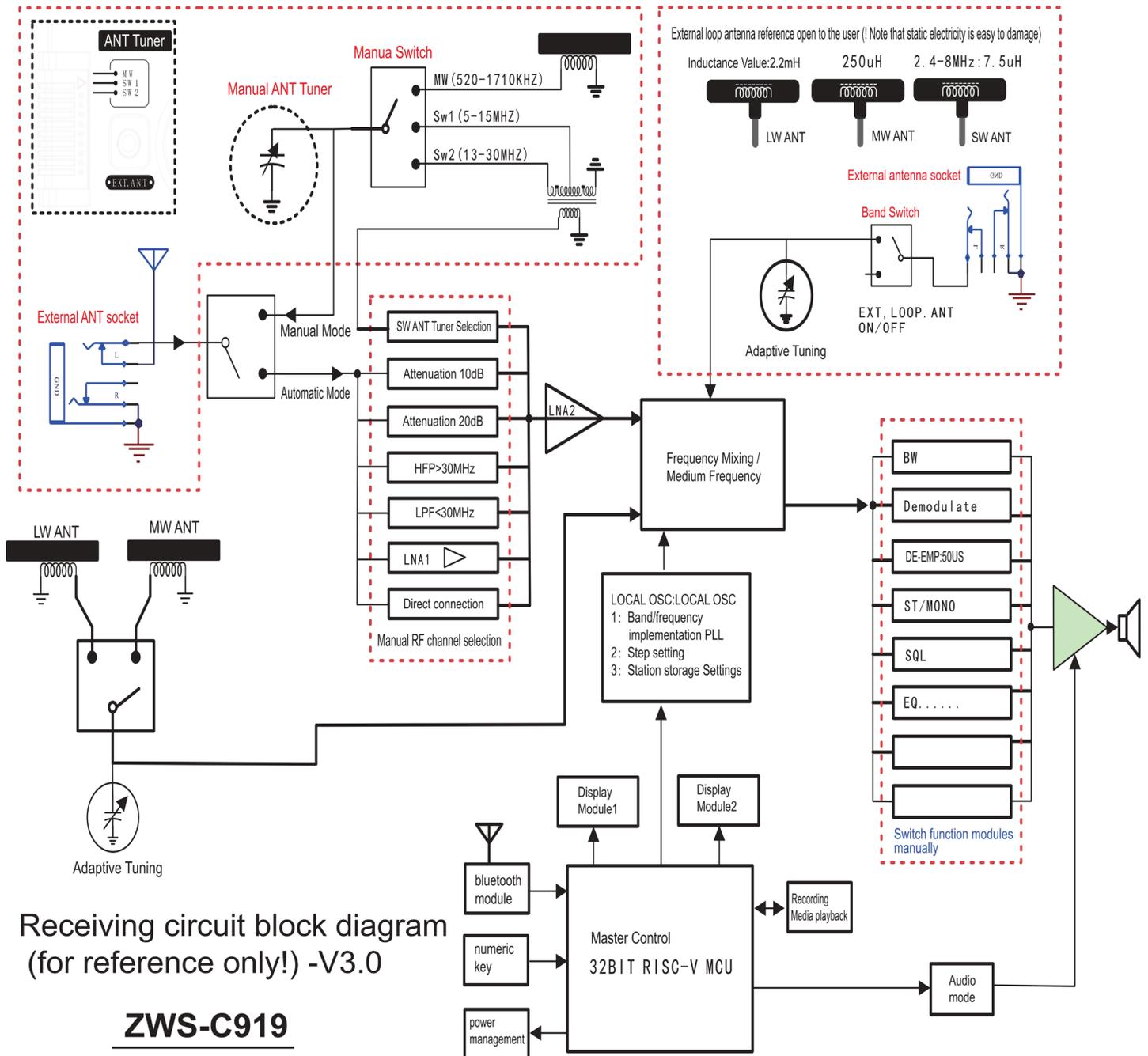
20-2: External antenna sockets

The ZWS-C919 has a total of three external antenna connectors. The following table provides their details:

Location	Connector	Purpose
Backside of radio	3.5 mm TRS	MW, SW
Top of radio	3.5 mm TRS	LW, MW, SW
Top of radio	SMA-m	Walky-Talky bands

20-3: Receiving circuit block diagram (for reference only!)

The purpose of providing the below circuit block diagram is to give professional users more reference, according to this block diagram can facilitate the understanding of the ZWS-C919 whole signal process.

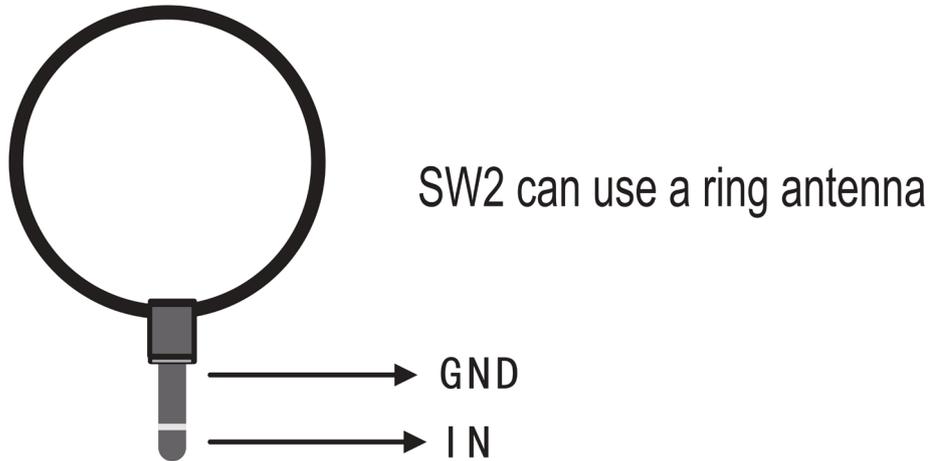
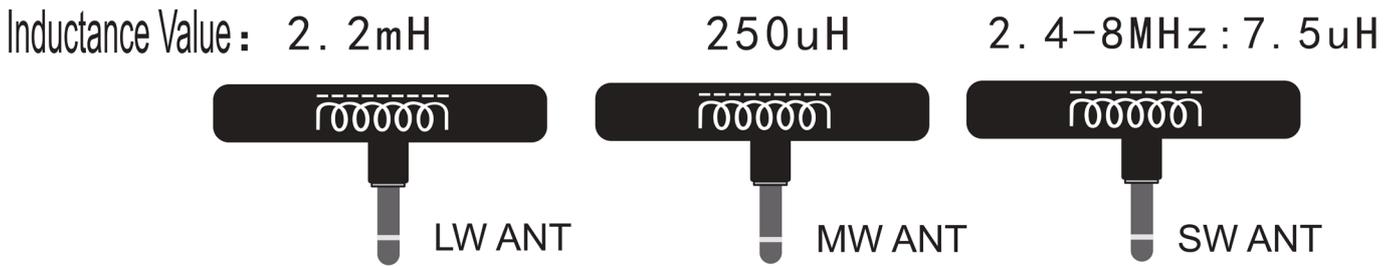


20-4: About the top input MW/SW of RF channel

The unit provides MW, LW, SW1, SW2 input channel along the top for Users with hands-on ability can wind the receiving antenna by themselves.

Note: Inside the machine LW, MW, SW1 comes with adaptive tuning function (requires the antenna inductance to be large to the exact range), SW2 is off by default.

External loop antenna reference open to the user (! Note that static electricity is easy to damage)



Method of application

- 1): The top switch is turned to “ON” []
- 2): Press [] Select the ring antenna icon []

! Please be aware of electrostatic and voltage damage

Attention! This user damaged the input interface and does not provide repair.

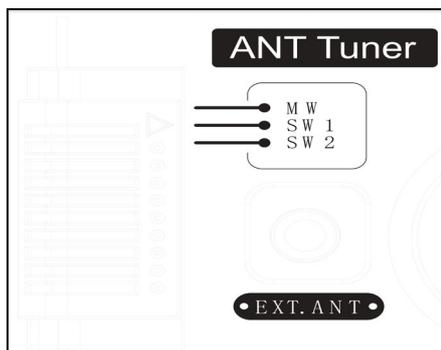
This input channel built-in three ESD devices, but it cannot absolutely avoid damage caused by static electricity and high power signals.

20-5: Manual antenna tuning method

The machine supports manual antenna tuning functions in MW, SW1, SW2.

Can improve the receiving sensitivity to a certain extent (but need to be used correctly).

Please Attention: If the tuning method is not correct, the receiving performance may be worse than if the external antenna is not used.



- MW Manual tuning range: 510-1720KHz
- SW1 Manual tuning range: 5-15MHz
- SW2 Manual tuning range: 13-30MHz

MW Manual Tuning: When the switch is turned to the MW position, turn the right rotation knob [] of the machine to observe the RSSI/SNR value, the higher the value, the better, and the accurate position of manual tuning can be determined by listening to the clarity of the sound.

SW Manual Tuning: When the switch is turned to SW1(5-15MHz) or SW2(13-30MHz), then press the ANT-SEL [] button to select the manual tuning channel. LCD display []

At this time, turn the tuning side rotation knob [] and observe the RSSI/SNR value. The higher the value, the best. The precise location of the manual tuning can also be determined by the clarity of the received sound.

21: Frequencies of some radio stations:

21-1: Shortwave stations in some countries

Country	Frequency (kHz)	Modulation
USA	4930, 4960, 5960, 6080, 6105, 6110, 7125, 7175, 7205, 7405, 9645, 9760, 9785, 9885, 11655, 11885, 11890, 11975, 12015, 12150, 13600, 13640, 13710, 13735, 13755, 15150, 15185, 15205, 15290, 15445, 15580, 17640, 17715, 17730, 17895	AM
USA	4319, 5446.5, 5765, 6350, 7811.5, 10320, 12133.5, 12759, 13362	USB
USA	5110, 9330, 18910	LSB
UNITED NATIONS	9565, 17810	AM
CANADA	9610, 9755, 9770, 13650, 15365, 17740	AM
FRANCE	5920, 7315, 9720, 9765, 9805, 9865, 11615, 11725, 13680, 11995, 15160, 15275, 15605, 21620	AM
GERMANY	5905, 6140, 6180, 7225, 7240, 7280, 7285, 9565, 9735, 9755, 11690, 12045, 15275	AM
GREECE	7475, 9420, 9935, 12105, 15630, 17525	AM
ITALY	5965, 6010, 6035, 6090, 6120, 7170, 9760, 11800	AM
POLAND	7130, 9525	AM
SPAIN	6055, 6125, 9680, 11625, 11680	AM
SWEDEN	6010, 7420, 11550, 15240	AM

U K	5875, 5975, 6005, 6040, 6130, 6195, 7130, 7160, 7320, 9410, 9480, 9660, 9740, 9750, 11675, 11750, 11765, 11920, 12095, 15105, 15285, 15360, 15400, 15575, 17640, 17830, 17885, 21470	AM
TURKEY	5960, 6020, 6055, 7240, 9525, 11735, 12035	AM
UKRAINE	5820, 5830, 9925	AM
AUSTRALIA	2310, 2325, 2485, 4835, 4910, 5025, 5995, 6020, 6080, 7240, 9475, 9560, 9580, 9590, 9660, 9710, 11650, 11880, 12080, 13630, 13670, 15160, 15230, 15240, 15515, 17715, 17750, 17775, 17785, 17795, 21725	AM
CHINA	5960, 5990, 6005, 6020, 6040, 6080, 6115, 6190, 7285, 9570, 9580, 9690, 9730, 9785, 9790, 9870, 11885, 11900, 11970, 13675, 13740, 15230, 15240	AM
CHINA	8716, 8773, 8782, 13092, 13107, 13149, 13182, 17398, 19772, 19793, 22735	USB

21-2: GMRS/FRS frequencies

The Family Radio Service (FRS) has been available in the US since 1996 (later also in Canada and Mexico due to its popularity). In Europe, it is comparable to Freenet, PMR radio (PMR446) or SRD radio (formerly LPD).

The General Mobile Radio Service (GMRS) is a mobile UHF 2-way radio service in the US that requires users to obtain a license. The below frequency chart also applies to FRS, as GMRS and FRS use the same frequencies and thus, can communicate with each other.

Channel	Frequency	Channel	Frequency
1	462.5625 MHz	16	462.5750 MHz
2	462.5875 MHz	17	462.6000 MHz
3	462.6125 MHz	18	462.6250 MHz
4	462.6375 MHz	19	462.6500 MHz
5	462.6625 MHz	20	462.6750 MHz
6	462.6875 MHz	21	462.7000 MHz
7	462.7125 MHz	22	462.7250 MHz
8	467.5625 MHz	15RP	467.5500 MHz
9	467.5875 MHz	16RP	467.5750 MHz
10	467.6125 MHz	17RP	467.6000 MHz
11	467.6375 MHz	18RP	467.6250 MHz
12	467.6625 MHz	19RP	467.6500 MHz
13	467.6875 MHz	20RP	467.6750 MHz
14	467.7125 MHz	21RP	467.7000 MHz
15	462.5500 MHz	22RP	467.7250 MHz

21-3: PMR446 frequencies

PMR446, often referred to simply as PMR (short for Personal Mobile Radio, Private Mobile Radio or Professional Mobile Radio), is an everyman radio application (in Germany since 1999) to which the UHF frequency range 446.000-446.200 MHz is allocated. PMR446 is the European equivalent of the US GMRS/FRS.

Channel	Frequency	Channel	Frequency
1	446.00625 MHz	9	446.10625 MHz
2	446.01875 MHz	10	446.11875 MHz
3	446.03125 MHz	11	446.13125 MHz
4	446.04375 MHz	12	446.14375 MHz
5	446.05625 MHz	13	446.15625 MHz
6	446.06875 MHz	14	446.16875 MHz
7	446.08125 MHz	15	446.18125 MHz
8	446.09375 MHz	16	446.19375 MHz

22: Download of mobile APP (see APP Installation on the attached sheet)

<p>Step1: Turn on the radio</p>	
<p>Step2: Download the APP</p>	 <p>Android:QR code Radio-c IOS:APP Store Radio-ct</p>
<p>Step3: Install the APP on the mobile device</p>	 <p>Radio-c</p>
<p>Step4: Click the APP, click  in the bottom right corner to connect with "ZWS-C919-BLE"</p>	

To disconnect the APP, long press "  **SLEEP** " to turn off the radio and display the clock, long press "  " for 2 seconds to exit the APP after the APP connection symbol "  " disappears on LCD. You can also exit the APP in the system menu (For details, please see Section 14 about how to exit the APP).

For more functions of APP, please see the attached APP User's Manual.

23: Key technical parameters

Band	Frequency range	Demodulation mode	Receiving sensitivity	Description
FM	64-108MHz	WFM/ST	2uV	FM BAND
SW	2.30-30.00MHz	AM/USB/LSB	20uV	SW BAND/USB/LSB
MW	520-1710KHz	AM	1mV/m	MW BAND
LW	153-522KHz	AM	1mV/m	LW BAND
VHF	20-250MHz	NFM	-9dBuV	VHF
UHF	250-999MHz	NFM	-9dBuV	UHF
AIR	118-138MHz	AM	1uV	AIR BAND
CB	25-28MHz	AM	10dBuV	CITY BAND
WB	162.4-162.55MHz	NFM	-9dBuV	WB
Speaker: 3inch 3Ω 20W				
Number of channels stored: 1,600				
Bluetooth version: V5.3				
Bluetooth receiving distance: ≤20m				
Min operating voltage:3.5V				
External input voltage: DC5V				
Lithium batteries: 3.7v 5000mAh (2500mAh x 2)				
TF card supports MP3, WMA, WAV, APE and FLAC				
Maximum TF card capacity: 256G				
Product dimension: 170x190x85mm				
Net weight: 1,090g (including two batteries)				

24: Matters needing attention

Please comply with the following safety tips to use this product, ensuring safe and reliable use.

- ◆ Read and know all safety instructions and use information.
- ◆ When the battery symbol “” appears or the frame of the symbol flashes, it means low battery level. Please charge the battery timely to ensure normal use.
- ◆ Please use the charging device with input voltage of DC5V/1A-DC3A to charge the battery, or the battery or the device will be probably damaged.
- ◆ If the radio is not in use for a long time, please charge it once a month.
- ◆ Keep the product away from rainwater and damp. Do not drop or splash any liquid onto the product.

◆ Keep the product away from high-temperature heat source. Do not bake or blow the product at high temperature.

◆ Avoid direct sunlight for a long time.

ZHIWHIS Service Center:

Monday - Saturday, 10:30a.m. - 7:00 p.m. (PST), except holidays

- **ZHIWHIS@GMAIL.com**
- **www.amazon.com/zhiwhis** **www.zhiwhis.com**
- **TWITTER : ZHIWHIS**