Radioddity

HD-1

Walkie Talkie

USER'S MANUAL

catalogs

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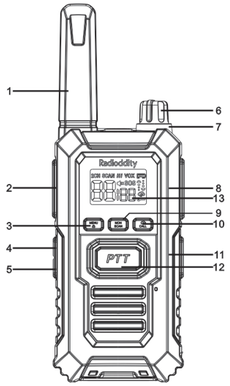
1.0 Introduction

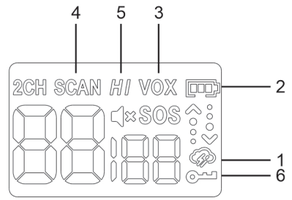


1. Antenna	2. PTT Key
3. Menu / Key Lock Key	4. Groupcall / ▲
5. WARN / ▼ / PF2 Key	6 Power / Volume Switch
7. SOS	8. Speaker/Mic Port
9. Monitor / Scan Key	10. CALL / NOAA
11. Type C Charging Port	12. PTT2 Key
13. LCD Display	

1.1 main feature

IP67 Waterproof
LCD Backlight Display
22 Channels
CTCSS/DCS Codes
Channel Busy Lock
Earpiece Jack
VOX
High/Low Power Selection
Channel Scan
Keypad Lock
English Voice Broadcast
Low Battery Alert
TOT
Call Vibration
One-key Group Call
Double PTT
Allow Transmission Prompt
NOAA
Monitor
Roger Beep
Squelch

2.0 Basic Operations



LCD icon summary

1.NOAA	2.Battery level indicator
3.VOX	4. Scan
5.HI/LO Power	6.Keypad lock

2.1 Power On / Off:

1. Power On: Turn the "Power/Volume Switch" knob clockwise to power on the radio. You will hear a "da" sound, followed by a pleasant tone, and then the current channel will be announced.
2. Power Off: Turn the "Power/Volume Switch" knob counterclockwise until you hear a "da" sound, indicating the radio has been powered off.

2.2 Volume Adjustment:

Turn the "Power/Volume Switch" knob clockwise to increase the volume; turn it counterclockwise to decrease the volume.

2.3 Channel Select:

(1) Press the "Menu" key once to enter the channel selection menu.

(2) Then, use the ▲ key or the ▼ key to to select the desired channel. If the voice announcement feature is enabled, the device will audibly announce the current channel

(3) Press the PTT key to save the selection and exit the menu. .

(Note: Short press to increase or decrease the channel. The operation loops through the channel numbers — when pressing the UP key: 1 → 22 → 1 → 22 → ...; when pressing the DOWN key: 22 → 1 → 22 → 1 → ...).

2.4 Key Functions:

PTT key: Utilize dual PTT keys for transmission: a smaller PTT key located on the side and a larger PTT key positioned on the front. In menu mode, pressing the PTT key saves your settings and exits the menu.

▲ key: Press and hold for rapid increment when adjusting CTCSS tones. In other situations, press and hold to set functions (refer to the programming software).

▼ key: Press and hold for rapid decrement when adjusting CTCSS tones. In other situations, press and hold to set functions (refer to the programming software) .

Menu key: Short press to switch menus; press and hold to lock the keys

Monitor key: Short press to activate scanning; press and hold to monitor.

CALL / NOAA Key: Short press to activate the call tone; press and hold for the weather forecast

Top SOS key: press and hold to activate the alarm .

Menu Functions:

Menu 1: Channel switching

Menu 2: CTCSS/DCS tone switching

Menu 3: CALL tone switching

Menu 4: VOX level adjustment

Menu 5: High/Low power selection

Menu 6: Scan on/off

Menu 7: Roger beep on/off

Menu 8: Call Vibration On/Off. When enabled, the radio will vibrate upon receiving the first call while in standby mode.

Menu 9: Talk Around on/off

2.5 Transmit & Receive:

Press and hold the [PTT] key to transmit, and the transmission indicator light will turn on. Speak in a normal tone, and release the [PTT] key when you finish speaking. The device will then switch to receive mode. When speaking, maintain a distance of 3 to 8 cm between your mouth and the radio.

2.6 One-key Group Call:

Long press the " ▲ " key to active this function, then speak. All HD-1 devices within the effective communication range will receive the group call signal.

2.7 Voice Announcement:

The voice announcement function helps you quickly identify the current channel of your radio when operating in the dark or at night. This function can be enabled through the programming software.

2.8 NOAA Receive

The NOAA function is available for use in the USA and Canada as needed. When receiving a NOAA channel, the radio will not receive two-way radio channel signals.

Entering NOAA Mode: long press the ground call/NOAA key to activate.

Setting the NOAA Channel

(1) In NOAA mode, press the Menu key briefly; the NOAA channel number will start flashing.
(2) Use the ▲ or ▼ keys to select the appropriate NOAA channel for your area.
(3) Long press the all/NOAA key to exit the menu.

NOAA Weather Alert

When the NOAA weather alert function is enabled, the radio will monitor the standby NOAA channel in two-way radio mode. If a weather alert is broadcast, the radio will respond by sending an alert and activating the NOAA receiver to provide instant weather and emergency updates. When NOAA mode is active, the NOAA icon will appear on the display.

To enable or disable the NOAA weather alert:

(1) In NOAA mode, press the Menu key twice. The ON or OFF option will begin flashing.
(2) Use the ▲ or ▼ keys to select ON or OFF for the NOAA alert.
(3) Press the Menu key to exit the NOAA menu settings.

2.9 Low Battery Warning

The low battery warning activates when the battery needs to be charged or replaced.
If the battery is running low and the radio is in use, a voice prompt saying "Please charge" will sound every

15 seconds. If the voice announcement feature is disabled, three beeps ("di, di, di") will be emitted, and the LED indicator will flash red, signaling the user to either replace the battery or recharge it.

2.10 Time-outtimer(TOT)

The purpose of the Timeout Timer (TOT) is to prevent a single user from occupying a channel for an extended period.

The TOT duration can be configured using programming software and can be set between 15 seconds, 30 seconds, up to 600 seconds (in 15-second increments). If you continuously transmit beyond the preset TOT duration, the radio will stop transmitting and emit a warning tone.

To stop the warning tone, release the [PTT] key. Press the [PTT] key again to resume transmission.

2.11 VOX

When the VOX function is enabled, simply speak towards the microphone, and the radio will automatically transmit without needing to press the PTT key.

Follow these steps to set the VOX sensitivity level:

(1) In standby mode, press the Menu key four times to access the VOX setting, which will appear on the display.
(2) Use the ▲ or ▼ key to select the VOX level from 0-9:
9: High sensitivity level
5: Medium sensitivity level
1: Low sensitivity level
0: OFF
(3) Press the PTT key to save the current setting and exit the menu.

2.12 Companding

Compander: compresses certain transmitted signals effectively before transmission and then expands them at the receiving end. This process maximizes the system's signal-to-noise ratio, significantly reduces background noise, and enhances the audio quality at the receiver..

2.13 DCS Tail Tone

In the optional features, there is a DCS tone selection (Standard and Special). The standard tone is 134.4Hz, while the special tone is 55.0Hz (these are the two most common DCS tones used in most devices on the market).

2.14 High and Low Power Switching

Each channel can be individually set to high or low power. When a longer communication range is needed, you can set it to high power. For shorter communication distances, you can set it to low power to extend continuous usage time.

Follow these steps to set:

(1) In standby mode, press the Menu key five times to display "Pr" on the screen.
(2) Use the ▲ or ▼ key to select LO (Low Power) or HI (High Power).
(3) Press the PTT key to save the setting and exit the menu.

2.15 Battery Saving:

The battery-saving feature helps reduce power consumption when no signal is received, and no operations are performed (such as pressing keys or turning channel switches).
market).
The battery power saving function turns on when the channel is not busy and when no operation has been performed for 10 seconds.

When a signal is received or an operation is performed, the battery power saving function is turned off.

2.16 Analog Subtone (CTCSS)/Digital Subtone (DCS):

HD-1 supports the optional installation of 50 standard analog CTCSS tones. Additionally, it allows input of custom sub-audio tones within the range of 60.0260 Hz using the keypad, and 105 digital DCS codes with custom input within the range of D000D777. These settings can be configured via programming software.

Some channels may have pre-programmed CTCSS/DCS codes. CTCSS/DCS signals are sub-audible tones that enable you to ignore transmissions (calls) from third parties using the same channel.

When receiving a signal with a CTCSS/DCS tone that differs from the one set on your radio, you won't hear the transmission. Similarly, the signals you transmit can only be heard by other radios with the same CTCSS/DCS tone set.

Note: While using CTCSS/DCS tones can help you avoid unwanted calls, it does not ensure that your communication remains private.

2.17 Programming Encryption:

The programming encryption feature safeguards your frequency and sub-audio data from being accessed by others. It also protects your and your clients' information. Specific settings can be configured through the programming software.

3.0 Technical Specifications

General	
Frequency Range	FRS
Number of Channels	22
Channel Spacing	12.5KHz
Operating Voltage	3.7V
Battery Capacity	2400mAh (Li-Ion)
Operating Temperature	-20°C+60°C
Antenna Impedance	50Ω
Radio Dimensions	180*60*33mm(with antenna)

Transmitter	
Output Power	High: 2.0W Low: 0.5W
Frequency Stability	±2.5ppm
Neighborhood Power	60dBm@12.5KHz
Modulation Method	FM (12.5KHz@11K0F3E)
Electric Current (e.g. electrostatic)	≤1500mA
Receiver	
Receiver Sensitivity	0.25uV/-119dBm (20dB SINAD)
Audio Power	≥300mW
Audio Distortion	≤3%
Receiving Current	≤410mA

Annex 1 Default Frequency (FRS) 22CH

Channel Number	Frequency (MHz)	Power (output)
1	462.5625	2W
2	462.5875	2W
3	462.6125	2W
4	462.6375	2W
5	462.6625	2W
6	462.6875	2W
7	462.7125	2W
8	467.5625	0.5W
9	467.5875	0.5W
10	467.6125	0.5W
11	467.6375	0.5W
12	467.6625	0.5W
13	467.6875	0.5W
14	467.7125	0.5W
15	462.5500	2W
16	462.5750	2W
17	462.6000	2W
18	462.6250	2W
19	462.6500	2W
20	462.6750	2W
21	462.7000	2W
22	462.7250	2W