

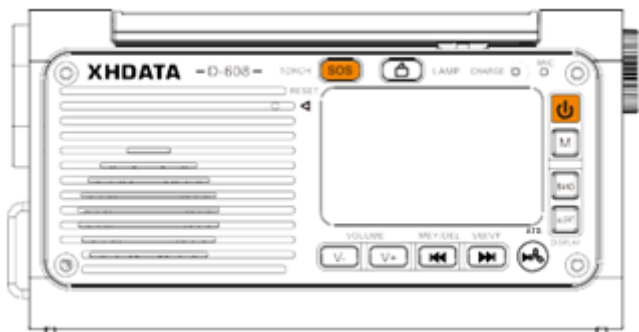
XHDATA D-608WB

User Manual

By Kevin Davidson

Hand Cranked Emergency Power Generation
Global Band Radio

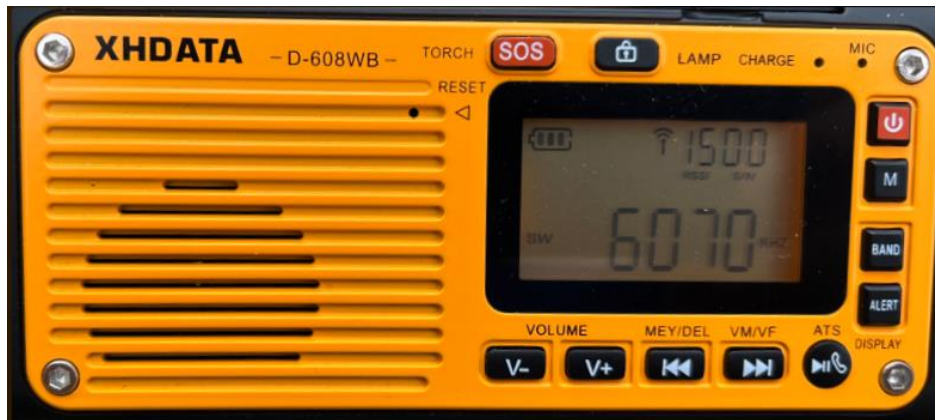
Weather Band
NOAA Severe Weather Alerts



3000mAh Reserve Power for Emergency Use and
Mobile Phone Charging

Wireless BT Music and Wireless Calling

Connections and Controls



Top Row

- **RESET:** Reset switch hole
- **TORCH/SOS:** Flashlight / Danger signal
- **LOCK/LAMP:** Keyboard lock (🔒) / Reading light
- **CHARGE:** Charging LED
- **MIC:** Cell call microphone

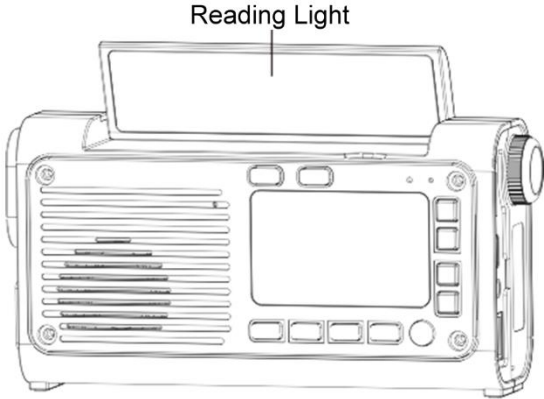
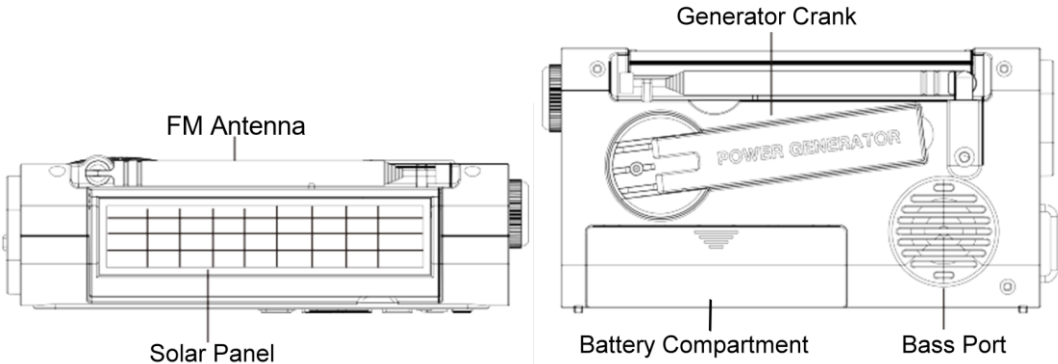
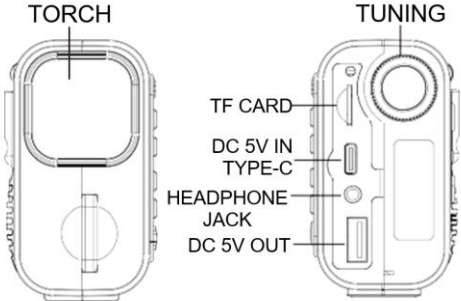
Right Side

- (🔌): Short press for ON / long press to set sleep timer.
- **M:** Select Bluetooth playback / TF card mode. Sets alarm with the radio off.
- **BAND:** Select radio band (FM/MW/SW/WB)
- **ALERT/DISPLAY:** Long press to standby for weather alerts / short press to change display options.

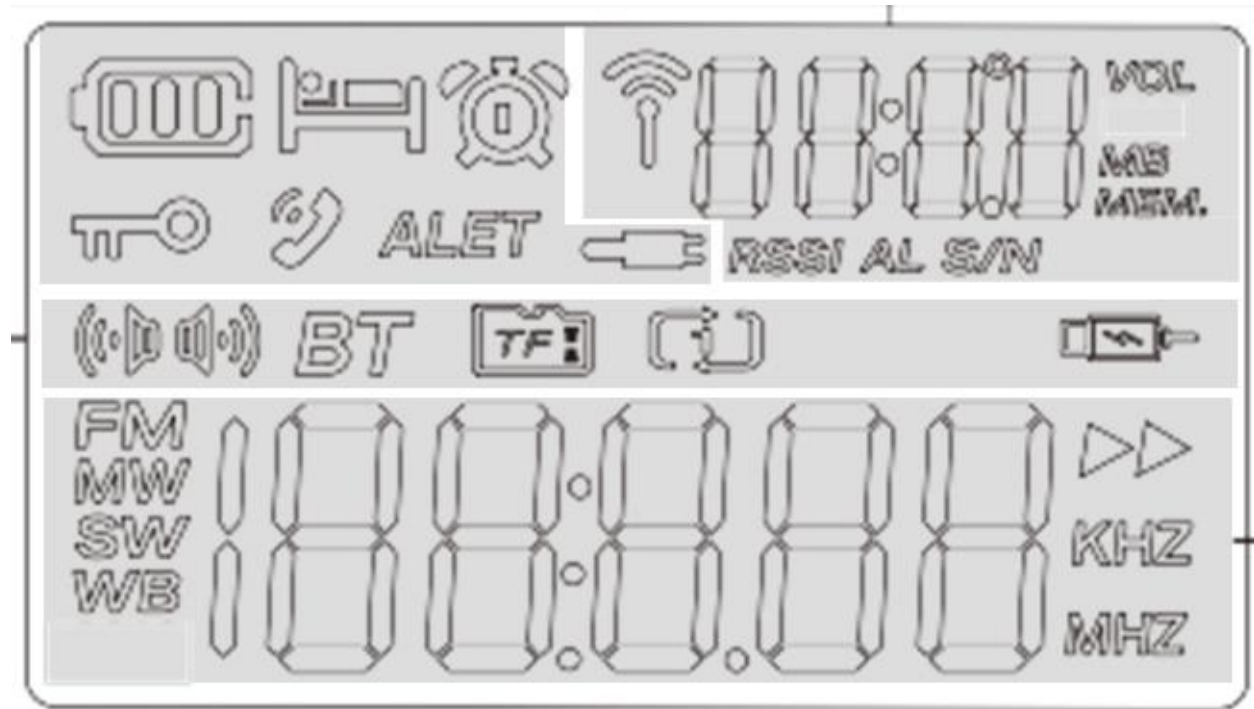
Bottom Row

- **V-/V+:** Short press to lower or raise volume / hold for continuous change.
- |<<: Previous song/quick rewind of Bluetooth / TF card. In radio mode store and delete stations in memory
- >>| **VM/VF (SCAN):** Next song/fast forward for Bluetooth/TF card. In radio mode, it switches between tuning by frequency and tuning by memory location. A long press starts scanning for stations.
- (🔊) / **ATS:** Play/pause for Bluetooth/TF card. Short press in Radio mode to mute/unmute the radio. Long press in radio mode to automatically search for and store stations. On the SW band, double-click to scan the current SW meter band.

External Features



Display icons



- Low battery
- Full battery
- Sleep shutdown
- Alarm clock icon
- Lock keyboard icon
- Battery charging
- Mobile phone call alert symbol
- Radio signal field strength
- VOL volume
- MB SW short wave meter wave display
- AL Alarm time display icon
- MEM. Memory station number display icon
- RSSI Radio signal strength
- S/N Radio signal-to-noise ratio scale value
- °C/°F Temperature display
- FM stereo
- BT Bluetooth Mode
- TF TF card icon
- TF Single Loop Play
- DC 5V output phone charging
- Slow Tuning step
- Fast Tuning step
- KHZ Radio frequency in kHz
- MHZ Radio frequency in MHz
- FM/MW/SW/WB : Band selected

Introduction

Power Supply

This radio comes with a battery pre-installed; remove the protective tab from the battery compartment to allow battery connection. When inserting a new 3.7V 18650 lithium battery, align the positive and negative symbols on the battery with those in the battery compartment.

Connect a USB Type-C 5V cable to the DC IN 5V port on the side of the radio to power the radio and charge the battery.

Power On/Off

ⓘPower on: Short press the power key; the display shows "ON".

ⓘPower off: Short press the power key; the display shows "OFF".

Radio Settings

(The following settings are made with the radio powered off.)

Set Frequency Coverage

Different regions have different medium wave and FM frequency coverage. Set according to the conditions of your region.

With the radio off, long press (**BAND**), and repeatedly short press it to scroll through the FM band ranges. The screen will show 64, 76, 87, or 87.5 to indicate that the frequency coverage is: 64-108 MHz, 76-108 MHz, 87-108 MHz, or 88-108 MHz respectively.

When the FM receiving frequency range selected is: 64-108 MHz, 76-108 MHz, or 87-108 MHz:

1. The corresponding MW frequency coverage range is automatically set to 522-1620 kHz (9k step), used in Asia, Europe, Africa, and Oceania.
2. The temperature will be displayed in degrees Celsius (°C).

When the FM receiving frequency range selected is: 88-108 MHz:

1. The corresponding MW frequency coverage is automatically set to 520-1710 kHz (10k step), applicable to North and South America.
2. The temperature will be displayed in degrees Fahrenheit (°F).

Radio Operation

Band Selection

- Short press the (⏻) key to turn the radio on.
- Short press the (**BAND**) key to switch between bands (FM/MW/SW/WB).
- In the shortwave (SW) band, press and hold the (**BAND**) key until the Meter Band on the display flashes; then rotate the (**TUNING**) knob to cycle through each SW meter band. This provides a means to quickly skip through the frequencies.
- When receiving FM, weather band or shortwave, move the radio and position the telescopic antenna to get the best reception. Even a small change can make a big improvement in reception.
- Rotate the radio body for optimal reception when using MW. Positioning the radio to face the station is usually best. If noise is a problem, try a different location.

Tuning

The radio has multiple tuning options (does not apply to weather band):

1. Manual tuning (View frequency – VF)
2. Scanning
3. Stored memory tuning (View memory – VM)

To switch between VF and VM modes, press the (**VM/VF**) key. When the radio switches to VM mode, the display frequency will flash two times, indicating VF mode. When the radio switches to VM mode the memory location (upper right on the display) will flash three times to indicate VM mode.

Manual tuning (VF)

1. Press the VF key until the frequency display flashes.
2. Optionally select the meter band (described preceding under Band Selection).
3. Rotate the (**TUNING**) knob until the desired frequency is displayed.

The (**TUNING**) knob provides for both coarse and fine tuning. The radio automatically switches between them based on how fast the knob is turned. At a slow turning rate (indicated by a > symbol to the right of the frequency) the (**TUNING**) knob advances in steps of 10 kHz (FM), 1 kHz (MW) and 1 kHz (SW). When the knob is turned quickly the rate (indicated by a >> symbol to the right of the frequency) switches to 100 kHz (FM), 9/10 kHz (MW) and 5 kHz (SW).

Automatic scanning

In VF mode, long press (**VM/VF**) key to start browsing in the current band. The radio will automatically scan the band until it finds the next audible station; the radio will play that station for 5 seconds and then continue on to the next station. If you short press the (**VM/VF**) key during a scan, the radio will stop the scan and remain on the current station. The direction in which the radio scans (up or down) is determined by the direction that the (**TUNING**) knob was last previously turned.

Station Memories

Storing stations in memory (manual)


Select the band, then tune to the station whose frequency you wish to store. Short press (**MEY/DEL**) and the next empty memory location number will flash on the display. Accept the location by briefly pressing (**MEY/DEL**) again or rotate the (**TUNING**) knob to select a different location. There are 100 memory locations each for MW and FM, and 300 for SW.

Automatic Tuning and Storage of stations (ATS)

Select the band and then press the (**ATS**) key to scan and store all stations found on the band (MW/SW/FM). ATS overwrites any previously stored stations, including any set manually. The ATS scan can be interrupted by pressing the (**ATS**) key. Note: in SW mode ATS scans only within the meter bands assigned to international broadcasters as follows:

- 120m (2300 - 2495kHz)
- 90m (3200 - 3400 kHz)
- 75m (3900 - 4000 kHz)
- 60m (4750 - 4995 kHz)
- 49m (5730 - 6200 kHz)
- 41m (7100 - 7450 kHz)
- 31m (9250 - 9900 kHz)
- 25m (11500 - 12100 kHz)
- 22m (13570 - 13870 kHz)
- 19m (15300 - 15830 kHz)
- 16m (17480 - 17900 kHz)
- 15m (18900 - 19020 kHz)
- 13m (21450 - 21850 kHz)
- 11m (25670 - 26100 kHz)

ATS scan of a single shortwave meter band

International broadcasting on shortwave is assigned to frequencies in particular ranges of the radio spectrum corresponding to the radio wavelengths in meters (see chart preceding). The frequency shown will be the last frequency accessed on the radio within the selected band. Once in SW mode, select the band by long pressing the (BAND) key and turning the (**TUNING**) knob to the desired meter band. Then double-click **ATS** () key to scan *only* that meter band. Unlike full band scans, meter band scans do not erase previously stored stations, but rather begin storage with the first empty location.

-----Tip-----

Radio signals are affected by factors such as season, time of day, weather, receiving environment, electromagnetic interference, and receiving antenna orientation. Update ATS for current conditions.

Recalling stored stations manually (VM)

Select the desired band (FM/MW/SW). Long press the **(VM/VF)** key until the memory location number on the display flashes indicating the radio is in VM mode. Rotate the **(TUNING)** knob to select a memory location. The display shows “----” when there are no stations stored for the band.

Scanning stored stations (VM)

Select the desired band (FM/MW/SW). Press the **(VM/VF)** key until the memory location number on the display flashes indicating the radio is in VM mode. Long press **(VM/VF)** key to start by memory location. The radio will automatically increment the memory location and will play the station for 5 seconds, then continue on to the next station. If you short press the **(VM/VF)** key, the radio will stop on the current station.

Deleting Stored Stations

Deleting a single station

Select the band. Repeatedly press the **(VM/VF)** key until the memory location on the display flashes to indicate that the radio is in VM mode. Rotate the **(TUNING)** knob to the desired memory location number. Press and hold the **(MEY/DEL)** key for 3 seconds to display “DEL”, then short press again to confirm deletion.

Deleting all stored stations for the current band

Select the band. Press the **(VM/VF)** key until the memory location on the display flashes to indicate that the radio is in VM mode. Press and hold the **(MEY/DEL)** key until “DEL” appears and continue to hold until “ALL” appears in upper right corner of the display. Press again to confirm deletion of all stored stations for this band.

Weather Band / NOAA Alerts

WB/NOAA weather channels

There are 7 channels in total: channels 1-7 (162.400-162.550 MHz).

Selecting a weather station

With the radio on, press the BAND key until WB appears in the display. Rotate the **(TUNING)** knob to select the desired channel.

Weather Alerts

The radio has a fully automatic scan and alert system for NOAA weather warnings. With the radio on, press and hold the ALERT key until ALE appears in the display. The radio will remain in standby alert mode, scanning all weather stations for an alert. The display light will remain on. Note that power is consumed in this mode, so periodic battery charging will be necessary.

When any NOAA channel issues a weather warning, the radio will immediately send out a loud "SOS" siren and a flashing light warning to notify the user of the emergency message. Short press the **(ALERT)** key to hear the message.

Long press the (**ALERT**) key to cancel the alert function.

SOS Danger Distress Feature

In any state, long press the (**SOS**) key to turn on the alert siren and flashing red light distress signal. Press again to stop.

Use of the Flashlight and Reading Light

In any state, short press (**TORCH**) to turn on the flashlight; with the radio OFF there are 3 brightness levels to choose from. Short press (**TORCH**) repeatedly to switch between brightness levels or to turn off the flashlight. When the radio is ON, only the brightest level is available.

In any state, lift the solar panel and short press the (**LAMP**) key to turn on the reading light; with the radio OFF there are 3 brightness levels to choose from. Press (**LAMP**) repeatedly to switch between brightness levels or to turn off the reading light. When the radio is ON, only the brightest level is available.

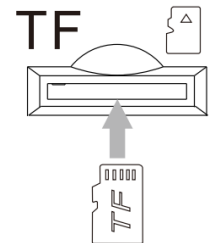
Headphones

This radio is equipped with a 3.5mm stereo headphone jack. Stereo is available for FM, Bluetooth and TF card playback. Note: Stereo FM requires that the station broadcasts in stereo, and that the signal is sufficiently strong.

Bluetooth/MP3 Playback

TF card Music player

Insert a TF/Micro SD card in the TF slot. Fully insert the card until it locks into place. Press in again to release the card. The card should be inserted with the connector pins towards the front of the radio as shown in the diagram. When successfully recognized, the radio will display “HI” on the display. Press the (**M**) key to enter playback mode.



Short press the (>>|) or (|<<) keys to select next/previous music track. Long press to fast forward or backward in the current song.


The (**TUNING**) knob can be used to select the next/previous song. Turn slowly to advance song by song or quickly to skip 30 songs.

The (>||) key will pause/play the current song.

In the TF playback mode, long-press the (**BAND**) key to set the current song to repeat continuously. The (🔁) icon will appear on the display.

Bluetooth

Pair the radio with a Bluetooth-capable device such as a Smart TV, computer, or mobile phone. Short press the (**M**) key to enter the Bluetooth playback/pairing state, then use the Bluetooth


settings on your device to select D-608WB and connect. The radio will display successful connection () on the display.

Short press the (|<<) and (>>|) keys to select the previous/next song or you may select the song on your device.

Wireless calling

When the phone is in Bluetooth connection state, short press (insert symbol) to answer the call, and short press again to end the call.

Bluetooth forced disconnection

Press and hold the ()/ **ATS** key for 3 seconds to disconnect from the current device. Long press again to reconnect to the device.



Changing the display content

Press the (**DISPLAY**) key briefly in any state to switch between different content in the upper right corner of the display. When the radio is off, temperature and alarm time are displayed. When the radio is in radio mode, the options are: temperature, signal strength/signal to noise ratio, alarm time and local time.

Display Backlight

Press any key on the radio or turn the (**TUNING**) knob to illuminate the display backlight for 5 seconds after which it will automatically turn off. Note: in weather alert mode, the backlight remains on constantly.

Sleep timer shutdown mode

Long press the  key to turn on the radio, then the sleep timer icon () flashes on the display. Turn the (**TUNING**) knob to select the play time, 01-120 minutes or ON. It will flash for 3 seconds to confirm. Then turn on the radio. It will play for the selected number of minutes and automatically shut down.

To cancel the sleep timer, simply turn the radio off, or set the sleep timer value to ON.

Setting the clock

With the radio off, press and hold the (**ATS**) key until the time on the display begins to flash. Using the (**TUNING**) knob, set the hour value, then press (**ATS**) again to advance to minutes setting. Turn the (**TUNING**) knob again to set the minutes. Press again to confirm. The radio will also confirm the setting automatically in 3 seconds.

Setting the alarm


With the radio off, press the (**M**) key to turn the alarm on or off (a clock icon will appear in the display when it is active). Long press the (**M**) key until the display flashes to set the alarm time. Rotate the (**TUNING**) knob to set the hours. Press (**M**) again to set the minutes. Press a third time

and the radio will display the alarm duration in minutes (01-60). Rotate the **(TUNING)** knob to change the duration. Press **(M)** one final time to confirm.


Alarm Mode

Your radio can be set to wake with a radio station or a TF card song.




For wake to radio, turn the radio on and tune to the desired station, adjusting the desired volume. Press and hold the **(M)** key until it flashes confirming that the alarm station is set. This action automatically turns the alarm on.

For wake to music, insert the TF card, enter TF playback mode, select a song and adjust the volume. Press and hold the **(M)** key, the  icon will flash for three seconds and then automatically confirm that the setting is completed. This automatically turns the alarm on.

Turning off the alarm

When the set time arrives, the radio will play the radio station or TF card selection. Press the  key once to continue to play the alarm song or station. Double press it to cancel the alarm and turn the radio off. Press the **(M)** key with the radio off to disable the alarm in the future.

Keyboard lock



Press and hold the  key for 5 seconds to lock the keyboard and the **(TUNING)** knob, the  icon will turn on. When set, all radio controls are disabled EXCEPT THE SOS ALERT. Press and hold the  key again to remove the lock.


System Reset


In rare situations such as accidental interference or failing power, the radio may appear locked, keys may not work, or the display may appear corrupt. Press the reset button with a sharp object such as a paperclip to reset the system. Feel for a click and take care not to use too much force.

Charging the radio

Normal charging

When the radio's power display indicates low () or the battery is exhausted (), please charge it immediately.

Connect one end of the USB charging cable to a 5V USB power supply > 1A and the other end into the DC IN 5V USB Type-C jack of the radio. The display shows the  charging symbol flashing. A charging cable is supplied with the radio.

When the fully battery icon () is displayed, the charging symbol will stop flashing, indicating a full charge. Disconnect the charging cable.

Solar Charging

Point the solar panel of the device directly towards the sun to charge the device in an emergency. Tilt the solar panel if necessary to directly face the sun. Solar charging is relatively slow even in full sun.

Hand Crank charging

Grasp the radio firmly, pull out the hand crank arm and rotate briskly. The red CHARGE LED on the front panel will indicate that it is charging. This form of charging takes considerable amounts of time, so it should be considered an emergency solution. Note: The Hand crank can also be used as a kickstand for the radio.

Note: To avoid interference during charging or insufficient charging current, which may cause automatic shutdown and longer charging times, please do not use the machine in the early stages of charging.

Mobile Phone Emergency Charging

In any state, plug a cable into the USB Type-A power port on the side of the radio to charge a mobile phone in an emergency.

Note: Please do not use the radio function when charging external devices. The operation of the boost circuit will cause serious interference with the radio.

Safe Use of Lithium Batteries

- The machine is powered by an 18650 3.7V rechargeable lithium battery. Only use batteries of the same or equivalent specifications. Improper use of lithium batteries may cause an explosion!
- Do not attempt to charge non-rechargeable batteries!
- Batteries must not be placed in high-temperature environments or in moisture, explosion, or smoke!
- Do not disassemble, impact, or crush the lithium battery.
- If the lithium battery is deformed or bulged, it cannot be used.
- Please use a safe and qualified adapter for charging.
- To maintain the greatest service life of the lithium battery when the machine is not used for extended periods of time, please charge it at least once every three months.

Specifications

Frequency range

FM: 64-108 MHz / 76-108 MHz / 87-108 MHz / 87.5-108 MHz
MW: 522-1620 kHz (9k) / 520-1710 kHz (10k)
SW: 1711-29999 kHz

Noise-limited sensitivity

FM: (S/N-30dB): $\geq 2\mu\text{V}$
MW: (S/N 26dB): $\geq 1 \text{ mV/m}$
SW: (S/N=26dB): $\geq 18 \mu\text{V}$

Radio selectivity

FM: 60dB
MW: 60dB
SW: 60dB

Memory locations

FM: 100
MW: 100
SW: 300

Maximum audio output power: 2.0W

Headphone impedance: 16-32 Ω

Speaker specifications:

40mm (double iron boron 16 cores) 4 Ω /5W

TF card: supports up to 32G

Audio Playback format:

MP3/WMA/WAV/FLAC

Bluetooth transmission distance: 10m

DC: 3.7V (18650) battery 3000mAh

DC 5V input: 1000mA

Size: 150mm (W) x 77mm (H) x 43mm (D)

Antenna: 41cm

Weight: 332g (with supplied battery)

Headphone impedance: 16-32Ω

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Made in China

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