



Shenzhen Firward Technology SED-8 Two-Way Radio Instruction Manual

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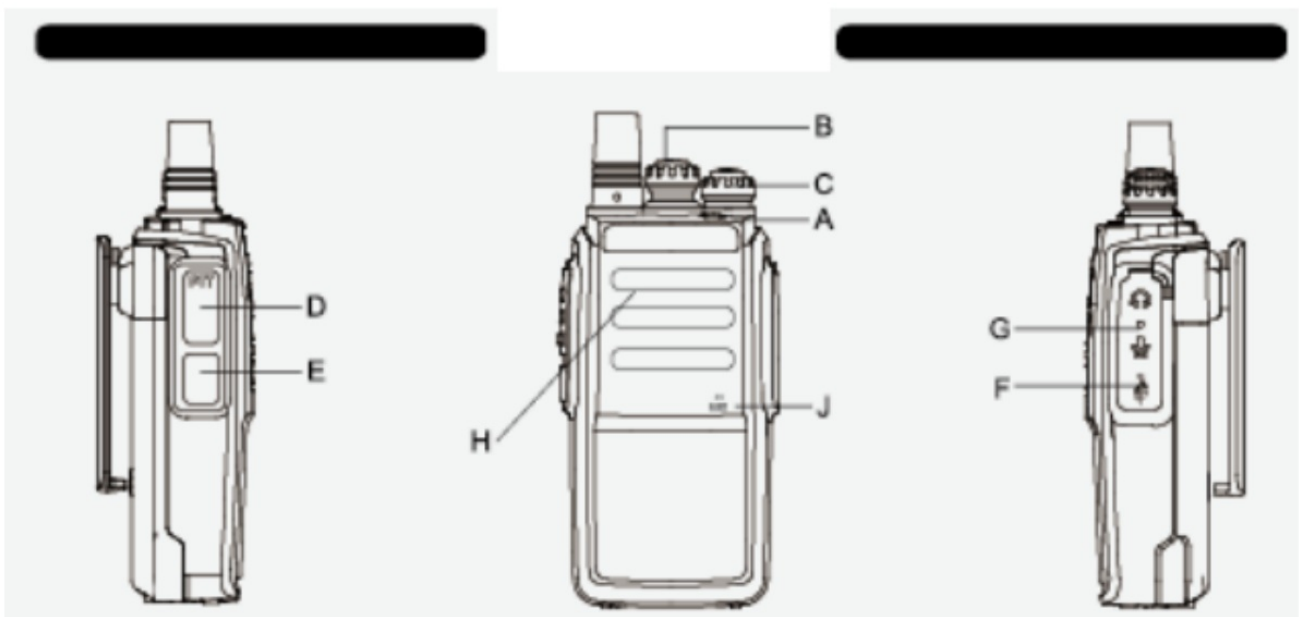
Shenzhen Firward Technology SED-8 Two-Way Radio



Function Introduction

- Frequency 400 -470Mhz (RX/TX)
- Up to 16 Channels
- 50 Groups of CTCSS 105 Groups of standard DCS
- Time-out timer(TOT)
- Battery saving function
- Alarm function
- USB rapid charge
- Antenna: Support up to 1.5dBi, and it is prohibited to use non-original antennas.

Item Description



Note: The radio outlook is based on the real radio.

- LED Indicator: Green LED flashes when receiving the signal, Red LED flashes when transmission.
- Channel knob: Rotate the knob to choose the channel (CH1-CH15), CH16 is the scan channel.
- ON/OFF knob/Volume knob: Rotate the knob clockwise to turn on the radio, and anticlockwise to turn off the radio. By rotating to control the volume.
- PTT switch: Press PTT and speak to the microphone to call, listen when released.
- Monitor: When pressing the Monitor key, the squelch opened and the background noise comes out; the squelch close when releasing the monitor key.
- F. USB Rapid charge plug.
- Speaker/Microphone rubber plug: Please cover when not using the speaker and microphone.
- Insert loudspeaker.
- J. Microphone

Battery Charging

1. Take out the charger, plug the AC 100-240V 50/60Hz, then Green LED flashes;
2. Plug the battery or the radio with the battery on the charger; make sure the battery is connected to the charger.
3. The charging process initiates when the red LED lights, the charging time is based on the battery capacity. The green LED lights to indicate the battery is fully charged.
4. Use the USB cable to plug into the radio, red LED lights when charging, and green LED lights when fully charged.

Function Operation

SWITCHING POWER ON/OFF

Turn the power switches volume control clockwise. You will hear a beep and speech, indicating the transceiver is ON.

ADJUSTING THE VOLUME

Hold the Monitor button down to listen to the audio level while rotating the Power switch/Volume control. Rotate clockwise to increase and counterclockwise to decrease volume.

SELECTING THE CHANNEL

Turn the channel switch to select your desired channel. NO.16 is Scanning Channel

PTT TRANSMIT

To transmit, press and hold [PTT] and speak into the microphone in your normal tone of voice.

SQUELCH LEVEL

the purpose of Squelch is to mute the speaker when no signals are present (Squelch OFF). With the squelch level correctly set, you will hear sound only while actually receiving signals (Squelch ON). The squelch level can be adjusted via program software. The frequency of squelch is 0 (on) -9 (deep), steps: 1.

SCANNING SWITCH

When radios are set as scan via software, turn the channel selector to channel 16, the transceiver will automatically detect the activity of the scanning channel from CH1 to CH15 channel (each channel can be set scan or not via software), When the signal is scanned channel, the transceiver will automatically stop on the channel for the call.

1. Walkie-talkie will stay on the signal channel, when the signal disappears and then after 15s, continue scanning the next channel.
2. If there are less than 2 channels, it cannot scan.
3. On channel 16, press and hold the PTT and MONI key, it will turn on the SCAN or turn off the SCAN.
4. If the FM radio function is activated, it cannot scan.

VOICE PROMPT

1. Voice Prompt is effective when the function is turned on.
2. VOX gain level: When the sound level is higher than the set level of sound control gain, VOX automatically transmits. The gain level can adjust from 1 to 9 levels.
3. When a signal is received, VOX will not transmit even if the sound level is higher than the set gain level.
4. On channels CH1 ~ CH5, press and hold the PTT and MONI, then switch on the transceiver, thus activating the VOX function ON/OFF.

MONITOR

When you are receiving and no signals are present, the squelch function can mute the speaker, so you cannot hear the background noise. If you want to switch the squelch function OFF, press and hold the (MONI) button. It is very helpful when you want to adjust the volume level and receive the weekly signals.

Battery Saving

1. ON: Entering into the battery saving state automatically without any operation for 10 seconds off
2. : Battery saving is off.

Busy Channel Lockout (BCL)

Switch on or off each effective channel busy lockout function via PC programming software. When opening this setting, the signal from the current channel is banned to transmit.

Beep

1. The beep is on, and the “Di” sounds are emitted for every rotation of the channel
2. The beep is off, and no “Di” sounds for every rotation of the channel

Low Battery Voltage Warning

When the voltage is lower than the preset value, a prompt “Please change battery” is issued every 5 seconds, press the PTT button is invalid and makes “Di” sounds.

Time-out timer

The function of the time-out timer is to prevent the speaker from using a channel too long and continuously, and the interphone emits continuously for too long and the body heats up. If you continuously transmit the interphone, the TOT limit time set by the machine is exceeded; the transceiver will stop transmitting (the time can be programmed by the computer while the factory setting time is 1 minute). Release the PTT button and press PTT again to resume transmitting.

QT / DQT

The radio's QT/DQT for each channel can be program by software. When the channel set the QT/DQT, the radio squelches open only if it receives a signal that uses the same QT or DQT. The radio squelch does not turn on if the same channel uses different QT / DQT calls, only lights in green, sub-CTCSS 50 groups, and digital sub-audio DCS 105 groups.

Note: Although using a channel with CTCSS / DCS sub-audio may be preferable to receiving unwanted calls, it does not mean your call is a secret.

Regulations and Safety Warnings

WARNING! This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference. For a transmitter that can only be operated with an FCC license, warnings concerning compliance with applicable licensing requirements and information concerning license application procedures. Our radio generators RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of

employment by individuals aware of the hazards, and the ways To Minimize Such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment. This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only". In addition, our radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- IEEE Std. 1528:2013 and KDB447498, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields-RF and Microwave.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to as-sure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, Our radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

Attention:

This radio complies with IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to 50% and is authorized by the FCC for occupational use only. An appropriate warning label is affixed to all units. In order to comply with RF exposure requirements, a minimum distance of 2.5cm must be maintained when held-to-face and body-worn operations are restricted to the approved original accessories (belt clip)a minimum distance of 0cm. Do not use this device when the antenna shows obvious damage.

This product is in compliance with FCC RF exposure requirements and refers to the FCC website <https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm> search for FCC ID: 2AXYDSED-8 to gain further information including SAR Values. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Technical Specification

General

- Frequency range 4 00 470 MHz RX/TX
- Memory channels 16 Groups
- Operation voltage DC3.7V
- Frequency stability $\pm 2.5\text{ppm}$
- Operation temperature $-20\text{ }^{\circ}\text{C}\sim +50\text{ }^{\circ}\text{C}$
- Mode of operation Simplex
- Antenna impedance 50Ω

Transmitter


- RF Power $\leq 2\text{W}$
- Spurious emission $\leq 7.5\mu\text{W}$

- Adjacent channel power $\leq -65\text{dB}/\leq -65\text{dB}/\leq -60\text{dB}$
- SNR $\geq -40\text{dB}$
- QT/DQT $0.4\pm 0.1\text{KHz}$
- Modulation sensitivity $8\text{—}12\text{mV}$
- Transmission current $\leq 1.2\text{A}$

Receiver:

- Sensitivity -122dBm (12dB SINAD)
- Audio power 4W 8R Lo Load
- Audio distortion $\leq 10\%$
- Intermodulation $\geq 60\text{dB}$
- Adjacent channel selectivity $\geq 60\text{dB}$
- Clutter suppression $\geq 65\text{dB}$
- Receiver current $\geq 380\text{mA}$

Documents / Resources

	<p>Shenzhen Firward Technology SED-8 Two-Way Radio [pdf] Instruction Manual SED-8, SED8, 2AXYDSED-8, 2AXYDSED8, SED-8 Two-Way Radio, Two-Way Radio</p>
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References

-  [FCC OET Authorization Search](#)