



SRPT-02 Frequently Asked Questions 4/03/24

What is a 2-way radio repeater?

A 2-way radio repeater, whether for GMRS or Ham Radio, functions similarly to a cellular phone tower for cell phones. It enables users with radios to connect to a central location where their signals are relayed to other radio users, extending the range of communication.

Why choose the SRPT-02 repeater over others?

The SRPT-02 offers significantly lower purchase and operating costs compared to standard 2-way radio repeaters. Priced at approximately \$50.00 USD, it includes a rechargeable battery and all necessary connection cables with no hidden costs. Technical support and comprehensive documentation are provided to assist with setup and configuration for various applications.

How does the SRPT-02 differ from standard repeaters?

Unlike standard repeaters, which require two radios and a duplexer to prevent interference, the SRPT-02 utilizes voice record technology with a single inexpensive radio (such as UV-5R or compatible models). This eliminates the need for a duplexer and minimizes electricity costs. Setup and configuration can be easily performed by non-technical users through a simple interface.

How long does the battery last?

The included 1000mA hour battery provides approximately 12 hours of talk time, equivalent to about 720 10-second messages. Standby modes offer extended battery life: standard mode with LEDs on provides around 139 hours, with LEDs off about 625 hours, and Deep Sleep Mode offers up to 1666 hours of standby, lasting over 2 months.

What is the range extension capability?

Range extension varies based on factors such as terrain and antenna quality. Some users have achieved up to a 20-mile range between station radios by locating the SRPT-02 on a nearby mountain with line of sight between stations.

What if I don't have a tall antenna mast or mountain nearby?

Creative solutions include locating the repeater on a higher floor or in the attic of a building. One user reported success by placing the SRPT-02/UV-5R setup in a waterproof case and suspending it high in a tree with a rope, achieving results similar to an antenna tower without the cost.

Can I use the repeater without a HAM Radio license?

The SRPT-02 can operate on the GMRS radio band with radios like the Baofeng UV-5G, but a GMRS license (\$35.00 for ten years in the US) is required. No license exam is necessary.

What radios are compatible with the repeater?

Certified compatible radios include Baofeng UV-5R, Baofeng UV-5G, Baofeng UV-S9 Plus, and Quan Sheng UV-K5. It's important to note that compatibility depends on specific voltages and signal levels; connecting a non-compatible radio may cause erratic operation or damage to the repeater.

Why does the SRPT-02 have a 10-second message limit?

This limitation is due to hardware constraints of the voice recorder chip used. While alternatives are being explored, the current design offers the best value for most users. Shorter messages help conserve battery life, particularly for the radio.

Can the repeater operate on separate receive/transmit frequencies?

Yes, through configuration settings on both the repeater and station radios. This mode operates similarly to a standard repeater, with a slight delay as messages are recorded and relayed. However, simultaneous receive and transmit is not possible. Refer to our [technical bulletin](#) for guidance on configuring radios with these offsets for GMRS use.

I want to get my base station radio working with the SRPT-02, how do I do it?

We do not officially support this, however, for the DIY community here is what we can tell you about the repeater.

There are four connections to the SRPT-02. Speaker input, mic output, ground, and PTT. The Baofeng outputs a 3.6V DC signal on the speaker line along with the audio when there is a carrier present. The SRPT senses that voltage to start and end the recording. You'll have to check your radio to see if it has a DC output on the speaker line for it to work correctly. When the repeater needs to transmit, it pulls the PTT line to ground triggering TX on the Baofeng.

There is also an audio output adjustment pot on the SRPT-02. The top panel must be removed to gain access if it needs adjusting. 2:00 to 11:00, it does not rotate 360 degrees.