

Synthesized VHF Surveillance
Repeater

Tactical Technologies Inc.

ECHO5

ECHO5 – User Guide, 1.0.3 Copyright & Information

Copyright & Information

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Condition of Use

The user undertakes that,

- They are a bona fide law enforcement agency with technical capabilities.
- The ECHO5 is being used to fulfill official requirements.
- The ECHO5 will be used with discretion.
- Precautions will be undertaken to keep details restricted to members of their organization requiring such information.

The user acknowledges that,

- The ECHO5 is for use by law enforcement agencies.
- The ECHO5 may not comply with government type approval.
- The users will be responsible for satisfying themselves that the ECHO5 may be legally operated in the district where the user intends to deploy it.

Disclaimer

Care has been taken in assuring the quality of the ECHO5 but the developers, TTI and any associated company, distributor or reseller do not accept responsibility for errors. In no event shall the aforementioned parties be liable for any loss of profit or any other commercial damage including, but not limited to, special, incidental, consequential or other damages arising from the provision of the ECHO5 or associated software or peripherals to the user.

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CERTIFICATION STANDARDS

FCC Notice

This device complies with Part 90 of the FCC Rules.

FCCID: IP9ECHO5

This device meets FCC requirements as a Controlled/Occupational
Environmental device > 2.5 cm.

Operations is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received,
including interference that may cause undesired
operation

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ECHO5 – User Guide, 1.0.3 Introduction
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INTRODUCTION

Tactical Technologies Inc. (Model number ECHO5), is a 16 channel, 2 watt VHF FM synthesized repeater for law enforcement use. The operating frequency is only a 500 KHz section for both transmit and receive @ 12.5 KHz steps from 150 – 174 Mhz due to the duplexer.

The unit utilizes an external rechargeable battery mounted in the same housing. The ECHO5 can be equipped with an optional scrambler for added transmitter security.

Figure 1, ECHO5 Repeater



Operating Frequencies

The frequencies available on the ECHO5 are spaced in 12.5 kHz steps. Simply put, “12.5 kHz steps” means your frequency must be in any of the following configurations:

xxx . x000
xxx . x125
xxx . x250
xxx . x375
xxx . x500
xxx . x625
xxx . x750
xxx . x875

This gives the ECHO5 the ability to transmit on any one of 40 available frequencies. To change frequencies press the freq. button on the front panel of the ECHO5, the receive and transmit frequencies are displayed on the LCD. The cursor will blink on the RX frequency, by pressing the up or down buttons on the front panel the frequency will scroll in 12.5 kHz steps. Press the freq button again and the cursor will blink on the TX frequency, scroll the frequency by using the up and down buttons. The frequencies can be stored in 16 memory locations.

Range of the ECHO5 Repeater

It is impossible to state absolutes about how far an RF transmitter like the ECHO5 will transmit. Many variables affect the range of a device including buildings, trees, weather, construction materials, installation, etc.

All things being perfect (meaning transmissions are outdoors over flat terrain with no obstructions), a 2 watt transmitter should be able to easily transmit over 2 mile. You should expect less distance than that however, in a real world operation.

One of the most important variables, and one that the operator can actually control, is the placement of the receiver and the receiving antenna. A good rule to follow is the higher the antenna placement, the better chance you have of quality reception. This alone will increase your operating range.