

**RF-5800-RU**  
**TACTICAL**  
**RETRANSMISSION**  
**UNIT**



The Tactical Retransmission Unit (TRU) is a small, lightweight extension to the FALCON II® family of tactical radios that allows encrypted voice or data transmission range to be extended in a repeater or rebroadcast configuration.

The unit is a self-contained assembly designed for unattended operation. The unit does not require encryption/decryption capability, thus eliminating the need for physical site security. The user interface includes a password-protected screen blanking and keypad lock feature to avoid compromise of any communication plan details. The small size and weight of the TRU can be adapted to fixed-site, mobile, or manportable platforms.

The TRU is configured as two frequency-independent radio units, labeled Radio A and Radio B. Available in VHF-VHF, the standard product includes built-in RF filtering to divide the available spectrum into two bands.

Additional filtering configurations can be designed to accommodate custom frequency plans and spectrum restrictions for varying users and geographical areas.

A full line of FALCON II accessories is available, including AC/DC power supply, shock mounting, standard BB-series batteries, and battery boxes. A variety of antennas may be used with the TRU, depending upon mission requirements. Selection and positioning of the antennas will determine the range and operational characteristics of the system.

Example uses include:

- Local area communications coverage
- Tactical extension of strategic nets
- Urban or maritime counter-terrorism operations
- Deployable VIP protection nets



## Specifications for the RF-5800-RU

### General

<b>Frequency Range</b>	30-50 MHz and 65-108 MHz	<b>Power Input</b>	10.5 - 34.5 VDC
<b>Net Presets</b>	25	<b>Size (maximum envelope)</b>	3.2H x 10.5W x 9.6D inches (w/o battery case)
<b>Transmission Modes</b>	FM analog voice FSK 16 kbps CVSD voice FSK 16 kbps Data (synchronous)	<b>Weight</b>	9.8 lbs. (w/o batteries or battery case)
<b>RF Input/Output Impedance</b>	50 Ohms nominal, unbalanced	<b>Color/Finish</b>	CARC green 383

### Receiver

<b>Sensitivity: FM</b>	-114 dBm for 12 dB SINAD	<b>Squelch</b>	Selectable: noise/tone
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### Transmitter

<b>Power Output</b>	0.2, 1.5, and 4 Watts (user selectable)	<b>Harmonic Suppression</b>	Greater than -47 dBc (second and third), -57 dBc all others
<b>Frequency Stability</b>	5 ppm	<b>Spurious Suppression</b>	Greater than 50 dBc

### Environmental

<b>Operating Temperature</b>	-20 to +60 C operation -31 to +60 C derated -31 to +70 C storage	<b>Test Method Immersion Altitude</b>	MIL-STD-810F 3 feet (1 meter) Up to 15,000 ft. (4,500 m)
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### Standard Features

- Single package retransmission capability
- Rugged, small, and lightweight "Set-and-Forget" capability
- PIN-accessible keypad lock with screen blanking
- Lack of cryptographic content precludes the need for physical security
- FALCON II® family interoperability

### Included with Retransmission Unit

- Battery Case
- Operator's Manual

### Optional Accessories

- Deployable antenna masts with co-linear mounts
- RF-5211-VSM050 vehicular shock mount
- RF-5870-VM001 shock mount
- RF-5870-VM002 shock mount locking kit (for the RF-5870-VM001)
- RF-5850-PS001 battery eliminator
- BB series batteries
- RF-6550V radio programming application
- Solar power option

Specifications subject to change without notice.