



## RRD-1000 Series

*Narrow Band Capable Radio Kit for Wabtec  
LCU05, LCU07, LCU08 & LCU09*

All radios are delivered in narrow band mode that is compliant with the FCC refarming mandate. Superb radio sensitivity permits these radios in narrow band mode to be fully interoperational with existing legacy wide band equipment as delivered. A complete line of replacement parts, programming cables and software together with Operating and Maintenance Manuals are available. One year manufacturer's warranty is standard; 2 and 3 year extended warranties are available. Call for details.

**Drop in replacement for unmodified Pulse Locomotive Cab Unit (LCU) crystal controlled radio models 15615, 15616, 15617 and 15618 and also synthesized hybrid model 15518.**

Other models are available to fit all US&S and Wabtec NextGen enclosures and parameters.

### Features & Benefits

- Direct replacement, plug and play units.
- One programming kit can be used for all RRD radios; cost effective and also simplifies the maintenance and upgrade process.
- Dedicated In-Service-Adjustment (ISA) port minimizes the risk of programming wipes and radio damage. *Competitors utilize a programming pin in the HTD harness exposing the radio to the risk of dangerous voltage levels during programming.*
- Software programmable for 12.5kHz narrow or 25kHz wide band.
- Both low & high power are programmable; factory delivered at 2 and 8 Watts respectively.
- 450-470 MHz frequency range.
- Frequency stability standard @ 1.5 ppm for fixed applications.
- Ultra fast TX/RX attack times.
- Controlled Envelope<sup>SM</sup> TX keying.
- Meets FCC and IC Canada standards.
- All electronic settings are software programmable.
- No on-board or hardware adjustments are required.
- Field replaceable harnesses and cables are available for easy repair.
- SMD component design.
- Integral heat sink for extended duty.
- Designed and manufactured in the USA.

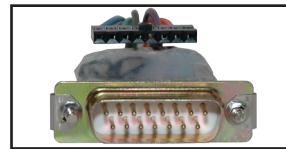
### Key Accessories and Replacement Parts



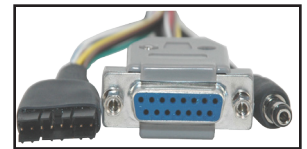
**RRD-1220**  
Complete programming and testing interface; RRD-1000(M), 1015(M), 1020(M), 1025, 1100 and 1140 Series radios, Quantum ETD and HTD radios, plus JSLM and RNET 15 pin radios. Includes all coaxial cables and test harnesses. Individual programming harnesses and software sold separately.



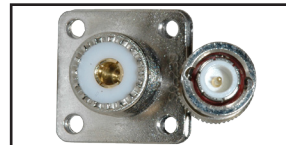
**RRD-1210**  
Programming interface; RRD-1000(M), 1015(M), 1020(M), 1025, 1100 and 1140 Series radios, Quantum ETD and HTD radios, plus JSLM and RNET 15 pin radios. Individual programming harnesses and software sold separately.



**RRD-1001**  
Replacement harness; processor board to RRD-1000 radio for Wabtec Trainlink II HTD.



**RRD-1005**  
ISA adapter harness with programming plug; RRD-1000 Series radios. Length: 12 inches.



**RRD-1002**  
Replacement RF cable; RRD-1000(M) radios. SO-239 + BNC/m; Length: 5 inches.

**RRD-1006 (No Photo)**  
Programming software for RRD-1000(M), 1015(M), 1020(M) and 1025 Series radios.

**RRD-1008 (No Photo)**  
Maintenance & Operating Manual; RRD-1000(M), 1015(M), 1020(M), and 1025 Series radios. (Ritron DTX-Plus Series).

### GENERAL SPECIFICATIONS

Frequency Range: 450-470MHz  
 Number of Channels: 8  
 TX/RX Spacing: 20 MHz max (w/in frequency range):  
 Mode of Operation: Simplex or Half Duplex  
 Channel Increment: 5-6.25kHz (Synthesizer step size)  
 Emissions Bandwidth: 11kHz Narrow Mode; 16kHz Wide Mode  
 Frequency Stability: 1.5 ppm (-30°C / +65°C)  
 Supply Voltage: 11.5 - 15 Vdc (10 watt version)  
 Operating Temp: -30°C / +65°C

### TRANSMITTER SPECIFICATIONS

Operating Bandwidth: 20 MHz  
 RF Output Power: 1-10 watts  
 RF Load Impedance: 50 ohms  
 Audio Distortion: 5% max  
 Modulation Freq Resp: +1/-3dB ref 1 kHz  
 At MIC IN; 50-2500Hz (ref pre-emphasis curve)  
 At AUX IN; 50-2700Hz (w/o pre-emphasis)  
 15 ms  
 Spurious / Harmonics: -20dBm  
 FM Hum and Noise: 40dB (12.5kHz channel); 45dB (25 kHz channel)  
 Current Drain: 1.0 A @1W; 2.4 A @ 6W; 2.4 A @10W (13.7Vdc supply)

### RECEIVER SPECIFICATIONS

Operating Bandwidth: 20 MHz  
 Sensitivity: 0.28 uV (12 SINAD w de-emphasis)  
 RF Input Impedance: 50 ohms  
 Adj Channel Selectivity: 60 dB (+/-12.5kHz w/narrow IF)  
 70 dB (+/- 25kHz w/wide IF)  
 Spurious/Image Reject: 70 dB  
 Intermodulation Reject: 70 dB  
 FM Hum and Noise: 40dB (12.5kHz channel); 45dB (25kHz channel)  
 Conducted Spurious: -57 dBm  
 Receive Attack Time: 15ms  
 Noise/Squelch Attack: 13ms  
 RSSI Squelch Attack: 5ms  
 Audio Distortion: 5%  
 Audio Resp-AUX OUT: 100Hz-3.5kHz (12.5kHz channel)  
 100 Hz-5kHz (25kHz channel)  
 Receive Current Drain: 75 mA



**Tel: 800-435-1636**

