

PRODIGI™, the Intelligent Choice for Digital Two-Way Communication

RDR25x0 SERIES



RDR2500

RDR2550

RDR2580

Simple and Reliable Digital Two-Way Communication The RDR25x0 series is the newest addition to the PRODIGI™ line of Professional DMR Digital Radios. Simple and cost-effective, the RCA digital radios are designed to connect your workforce efficiently and provide you with reliable communication allowing you focus on growing your business.

Cross-Band Compatibility Designed strictly according to the Digital DMR ETSI Standard TS 102 361-1,-2,-3, the RDR25x0 Series portable radios are compatible with all RCA two-way radios as well as all other major brands, including digital equipment, such as the Motorola MotoTrbo™ and Vertex eVerge™ series two-way radios and repeaters.

Upgrade To Digital At Your Own Speed Analog and Digital operation will give you the flexibility to upgrade to Digital at your own speed, without sacrificing safety and keeping your business operations running smoothly during the transition period.

Reliability, Safety, and Productivity First The RDR25x0 series provides a reliable, cost-effective communication solution with a simple, user-friendly operation that will help your employees connect, collaborate and coordinate in real time to get their job done safely and more efficiently.

Full Shift Performance Designed to be power efficient. When working in digital mode, the battery power consumption is lowered up to 40%, providing longer operating time which ensures that your employees will stay connected beyond a full working shift. The standard 1800mAh Lithium Ion battery with RDR2500 provides up to 10 hours of operation in Analog mode and up to 14 hours of operation in Digital mode.

True Operational Versatility The RDR25x0 series radios come in three different models, the standard no display RDR2500 unit; the upgraded RDR2550 equipped with 16 character display and industry leading 7 programmable function buttons and the advanced RDR2580 unit equipped with 16 character display and full keypad. Different departments, work crews, managers and employees can choose to use the best model for their needs, taking advantage of advanced features such as Caller ID, Group and Private Call, Radio Check, Radio Enable/Disable, Emergency and Lone Worker Alerts, Text Messaging, Direct Mode Operation (DMO) and many more.

Crystal Clear Audio Quality, Improved Coverage Designed with X-Sound+ HD™ for exceptional voice quality. The RDR25x0 series radios provide loud 1 Watt of power audio, at the same time eliminating background noise and static from the voice transmissions and delivering crystal clear voice message which results in a better, improved radio coverage.

Industry Leading Warranty The RDR25x0 series radios are backed by an industry leading, hassle-free, Two (2) Year Warranty.

SELECTALK™
PRIVATE AND GROUP CALLING

ENHANCED
EMERGENCY
& SAFETY
FEATURES

2 YEAR
WARRANTY
PROTECTION PROGRAM

DMR
DIGITAL MOBILE RADIO ASSOCIATION

X-SOUND+ HD™
Enhanced Audio Clarity™

RDR2500 / RDR2550 / RDR2580 SPECIFICATIONS

Features & Options

- 4 Programmable Keys (RDR2500/RDR2580)
- 7 Programmable Keys (RDR2550)
- Limited Keypad (RDR2550)
- Full Keypad (RDR2580)
- 16-Character Alphanumeric Display (RDR2550/RDR2580)
- LED Indicator
- Voice Channel Annunciation (RDR2500)
- RSSI Indicator (RDR2550 / RDR2580)
- Battery Level Indicator (RDR2550/RDR2580)
- CTCSS/DCS Encode/Decode
- DTMF Encode (RDR2500)
- DTMF Encode / Decode (RDR2550/RDR2580)
- Mixed Mode (Analog / Digital) Scan
- Priority Scan
- Channel Activity Monitor
- Alert Tones On/Off Option
- RPT / Talkaround
- IP54 Design
- Designed to Meet MIL-STD 810 C,D,E,F,G

Digital Mode Specific Features

- Contact List for Up to 1,000 Records (RDR2550 / RDR2580)
- All Call, Group Call, Private Call (RDR2550/RDR2580)
- Manual Private Call Dial (RDR2580)
- PTT ID Encode (RDR2500)
- PTT ID Encode/Decode (RDR2550/RDR2580)
- Basic Encryption
- DMRA ARC4 Encryption*
- Radio Check
- Radio Enable/Disable
- Remote Radio Monitor
- Emergency Alert
- Lone Worker Alert
- Direct Mode Operation (DMO)
- Pre-Saved (Quick)Text Messaging
- Free Text Messaging (RDR2580)
- One Touch Access
- Keypad Lock (RDR2580)

* Optional Features

GENERAL SPECIFICATIONS		
Model	RDR2500 / RDR2550 / RDR2580	
Channel Numbers	32 / 1000 / 1000	
Channel Spacing	Digital: 12.5KHz / Analog: 12.5KHz/25KHz	
Working Voltage	DC 7.4V	
Frequency	VHF: 136-174MHz / UHF: 400-470MHz	
Operating Temperature	(-20°C)~+50°C / (-4°F)~+122°F	
Storage Temperature	(-40°C)~+80°C / (-40°F)~+176°F	
Weight	318g / 0.7 lb. (with battery B2518LI)	
Size: HxWxD (inches)	5.3" x 2.3" x 1.3" (without antenna)	
Environmental Protection and Standards		
IP54 Design MIL-STD-810 C,D,E,F,G Standard		
Battery	Supplied	7.4V 1800mAh Lithium-Ion Battery; 13.32 Wh
	Upgrade	7.4V 2300mAh Lithium-Ion Battery; 17.02 Wh

RECEIVER	
Frequency Stability	± 0.5 ppm
Analog Sensitivity	0.22µV / -120dBm (12dB SINAD) (typical)
Digital Sensitivity	0.20uV/-121dBm (BER 5%) (typical)
Intermodulation	>60dB
Adjacent Channel Selectivity	65dB@12.5KHz
Co-Channel Rejection	12dB@12.5KHz
Spurious Rejection	>70dB
Receive Spurious Radiation	-57dBm@<1GHz, -47dBm@>1GHz
Blocking	84dB
Rated Audio Power	1W @16 Ohms (Internal)
Rated Audio Distortion	≤3%

TRANSMITTER		
Transmit Power	5W	
FM Noise	40dB@12.5KHz	
Intermodulation	60dB	
Transmit Spurious Radiation	-36dBm@<1GHz, -30dBm@>1GHz	
Adjacent Channel Power	-60dB@12.5KHz	
Modulation Limit	2.5KHz@12.5KHz	
Idle Slot Power	-57dBm	
Audio Response	+1dB---(-3)dB	
Rated Audio Distortion	≤3%	
FSK Error	≤3%	
Emission Designator	Analog	6K0F3E, 6K40F3E, 6K56F3E, 6K72F3E, 7K52F3E, 12K5F3E
	4FSK Digital	5K6F1D/F1W, 7K52F1D, 7K68F1D/F1W/F7W, 7K84F1D/F1W/F7W / 8K00F7W / 8K32F7W, 8K96F1D/F1W, 12K5F1D/F1W

