



RCA
Communications Systems

prodigi[®] SERIES
PROFESSIONAL DIGITAL RADIO PRODUCTS



RDR2330 UHF / VHF

RDR2390 UHF / VHF



Cost-Effective DMR Digital Portable Two-Way Radio

Compact, versatile and cost-effective, the RDR2300 Series of radios is completely compatible with any other DMR Digital radio on the market. It operates in both digital and analog modes, delivering clear and loud communication. RDR2390 comes with a display and full keypad and with its versatility it can be used in a wide range of applications. Industries such as K12 Education, Colleges and Universities, Manufacturing, Security, Hotels and more. The RCA RDR23x0 series digital portables radios are designed to connect your workforce efficiently and provide you with reliable communication allowing you focus on growing your business.

RDR2330 / RDR2390 FEATURES

MULTI-MODE OPERATION With different operating modes — Conventional Analog, Conventional Digital DMR Tier II, Digital DMR based PRODIGI™ Plus, the portable will truly meet even the most demanding communication needs.

CROSS-BRAND COMPATIBILITY Utilizing the DMR Digital technology according to the ETSI Standards the RDR23x0 series portables are compatible with all RCA two-way radios and repeaters, as well as all other major brands.

FEATURE RICH AND VERSATILE The RDR23x0 series portables come in 2 different models, the standard non-display RDR2330 unit; the upgraded RDR2390 with Display and Full Keypad. Businesses, Departments and Government Agencies can choose the best model for their needs, taking advantage of features such as Caller ID, Group and Private Call, Radio Check, Radio Monitor, Radio Enable/Disable, Emergency, Lone Worker Alerts, Text Messaging, Pre-saved Status Messaging, Roaming, Encryption and more.

ANALOG SIGNALING OPTIONS 2-Tone, 5-Tone, DTMF Encode/Decode and MDC1200 Encode: PTT ID, Individual/Group Calls, Call Alert and Emergency Alarm.

IMPROVED COMMUNICATION RANGE The RDR23x0 Radios utilize the DMR digital technology allowing for the transmissions to stay clear from background noise regardless of the distance between two radio units, providing virtually no deterioration of the voice quality, thus increasing the usable coverage area where analog communication will be very poor or not possible at all.

EXCELLENT AUDIO QUALITY The RDR23x0 radios completely eliminate background noise and static from voice transmissions in Digital mode, delivering a crystal clear voice compared to analog radios.

FULL SHIFT PERFORMANCE The RCA PRODIGI™ RDR23x0 radios have up to 40% improved battery performance in digital mode over analog. The non-display unit with 2000mAh Lithium Ion battery can provide up to 10 hours* of operation in Analog mode and up to 14 hours* of operation in Digital mode.

INDUSTRY LEADING WARRANTY The RCA RDR42x0 series portables are backed standard by an industry leading, hassle-free Three (3) Year Warranty. www.RCACommunicationsSystems.com



- 1** **2 Programmable Side Buttons** Place your favorite features at your fingertips.
- 2** **PTT Button** Push To Talk Button.
- 3** **6" Antenna** Provides best radio coverage.
- 4** **32 / 1000 Channels** Plenty of choices for specific assignments.
- 5** **Programmable Top Emergency Button** Activates emergency signal or can be programmed to make it easy to use your favorite feature.
- 6** **On/Off and Analog/Digital Audio** Clear, crisp audio that's 50% louder than Motorola's HT750.
- 7** **Two Prong Right Angle Connector** Compatible with Motorola CP200/CP200d accessories.
- 8** **Display** 16 character, dot matrix. (RDR2390 only)
- 9** **Keypad/Menue Keys** 12 alpha/numeric/3 menu keys. (RDR2390 only)

RDR2330

RDR2390



RDR2330 / RDR2390 SPECIFICATIONS

GENERAL			
Frequency Bands	136 - 174 MHz (VHF "V"); 400 - 470 MHz (UHF "U")		
Dimensions	4.5" x 1.3" x 2.1" / 113mm x 54mm x 33.5mm		
Weight	9.5 ounces (270g) with 1700 mAh battery		
Battery	2000 mAh		
Battery Life	Up to 10 hours (Analog) / 14 hours (Digital) 2000 mAh Battery Pack at 90:5:5 Duty Cycle		
Channels	32 (RDR2330) / 1,000 (RDR2390)		
Frequency Stability	± 0.5 ppm (typical)		
Display	102 x 64 pixels (RDR2390 only)		
Switching Bandwidth	Full band		
Modulation	Pre-emphasized FM, C4FM		
Environmental Protection	IP54 Design		
Environmental Standards	MIL-STD-810 F	Method	Procedure
	Low Pressure (Altitude), Storage	500.4	I
	Low Pressure (Altitude), Operational	500.4	II
	High Temp, Storage	501.4	I
	High Temp, Operating	501.4	II
	Low Temp, Storage	502.4	I
	Low Temp, Operating	502.4	II
	Thermal Shock	503.4	I
	Solar Radiation	505.4	I(A2)
	Relative Humidity	507.4	
	Dust	510.4	I
	Sand	510.4	II
	General Vibration: Truck/trailer/tracked - restrained cargo	514.5	I Cat 24
	General Vibration: Minimum Integrity	514.5	I Cat 24
Shock - Transit Drop	516.5	IV	
Operating Temperature	-22°F (-30°C) - 140°F (60°C)		
Emission Designators	Analog	8K02F3E, 9K52F3E, 10K0F3E, 11K0F3E	
	Digital	7K21FXD/FXW, 7K31FXD/FXW, 7K41FXD/FXW, 7K60FXD/FXW, 7K72FXD/FXW	

TRANSMITTER SPECIFICATION	
Power Output	0.5 - 5 W, 3 programmable levels
Audio Distortion	<3% at 1 kHz, 60% deviation
Channel Spacing	12.5KHz
Conducted, Radiated Spurious Emission	-36dBm@<1GHz, -30dBm@>1GHz
Adjacent Channel Power	-60dB@12.5KHz
Audio Response	+1 dB to -3 dB
FM Modulation Mode	12.5KHz : 11K0F3E
4FSK Digital Mode	12.5KHz (data only): 7K60FXD 12.5KHz (data+ voice): 7K60FXE
Modulation Maximum Deviation	2.5KHz@12.5KHz
Audio Distortion	3% (Type)
Digital Protocol	ETSI TS 102 361-1, -2, -3
Vocoder Type	AMBE3000™
Hum and Noise	>40 dB (12.5 kHz)
RECEIVER SPECIFICATION	
Analog Sensitivity	0.35uV/ -116dBm(20 dB SINAD) 0.22uV/ -120dBm(Type)
Digital Sensitivity	0.3uV/-117.4dBm (BER 5%) 0.7uV/-110dBm (BER 1%)
Adjacent Channel Selectivity	TIA603C: 65dB@12.5KHz ETSI: 60dB@12.5KHz
Spurious Response Rejection	TIA603C : 75dB ETSI : 70dB
Conducted Spurious Emission	- 57dBm@ < 1 GHz , - 47dBm @> 1GHz
Audio Output	1W
Blocking	>95 dB at +/- 1 MHz



* Typical Duty Cycle of 5 (Receive) - 5 (Transmit) - 90 (Stand By)

For more information, visit www.RCACommunicationsSystems.com

ACCESSORIES



**Light Duty
Speaker Mic**
SM220-X03S



**Heavy Duty
Speaker Mic**
SM310-X03S



**One-Wire
Surveillance Kit
In-Ear Style**
SK12NE-X03S



**Two-Wire
Surveillance Kit
In-Ear Style**
SK22NE-X03S



**Light Duty Behind the
Head Headset**
HS12V-X03S



**High Noise Headset
Over the Head &
Behind the Head**
HS65NR-X03S, HS75NR-X03S



Nylon & Leather Holsters
HN200FC/SC/FL/SL
HN300FC/SC/FL/SL
HL200FC/SC/FL/SL
HL300FC/SC/FL/SL



BC4200
Screw In Belt Clip



3" & 6" Antennas
ANH200U/V-3
ANH200U/V-6



**2000mAh Lithium-Ion
Battery**
B2020LI



Single Unit Charger
CH2001 PKG



**Multi-Unit
Rapid-Rate Charger**
CH2306 PKG

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Created in U.S.A.

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