PRO5100™
Mobile Radios

PRO5100 Mobile Radio: The Practical Radio

Ideal for organizations with standard communication requirements, the PRO5100 radio provides simple yet high-performing functionality. The signaling capabilities enable you to call individuals or groups, identify the caller, notify others you are trying to reach them even when they are away from their vehicles, or send a request for help in emergency situations. In addition, its 64 channels easily accommodate diverse workgroups and the dual priority scan helps ensure you will not miss important calls. The large 14-character alphanumeric display with user-friendly icons provides easy-to-understand information, in one of four languages. Motorola's X-Pand™ audio enhancement and a powerful front-projecting speaker ensure superb sound clarity, even in noisy environments. The practical PR05100 mobile radio offers a powerful package to help get the job done.

14 Character Alphanumeric Display
Easy-to-understand icons provide feedback on status of features such as scan, high / low power and the strength of the received signal.

Dual Priority Scan
Use this feature for situations where you need to monitor one or two workgroups more often than the rest.

Receive Signal Strength Indicator
An icon on the display panel shows the strength of the signal being received by the radio; 5 bars indicate the strongest signal.

contact

control

Escalert
When receiving a selective call or Call Alert™, the sound increases gradually until the call is answered.

Emergency Alarm
The radio can be programmed to give you a one button quick access to notify the dispatcher in an emergency situation.

Radio Check
Enables you to know if a radio is on the air and within the system's coverage without disturbing the user.

As Dedicated As You Are

Professional Radio

PRO5100 Portable Two-Way Radio Specifications

general

SPECIFICATION	LOW POWER	HIGH POWER	LOW BAND
Dimensions Low Power High Power Low Band	Length x Width x Height 186 mm x 179 mm x 59 mm 198 mm x 179 mm x 59 mm 250 mm x 179 mm x 60 mm		
Weight	1.43 kg	1.65 kg	2.04 kg
Current Drain (typical) Standby Receive @ Rated Audio 3 W @ 22 Ω Internal Speaker @ Rated Audio 7.5 W @ 8 Ω External Speaker @ Rated Audio 13 W @ 3.2 Ω External Speaker Transmit	270 mA 600 mA 1.2 A 1.7 A 6 A @ 25 W / 9 A @ 45 W (VHF) / 40 W (UHF) / 14A @ 60 W		
Model Numbers	LAM25BKD9AA2_N LAM25KKD9AA2_N LAM25CKD9AA2_N LAM25RHD9AA2_N LAM25DKD9AA2_N LAM25RKB9AA2_N LAM25KHD9AA2_N LAM25SHD9AA2_N LAM25SKD9AA2_N		
Channel Spacing	12.5 / 20 / 25 kHz (Low Band 20 kHz only)		
Frequency Range	VHF 136 - 174 MHz UHF 403 - 470 MHz UHF 450 - 527 MHz	VHF 136 - 174 MHz UHF 403 - 470 MHz UHF 450 - 520 MHz	29.7 - 36 MHz 36 - 42 MHz 42 - 50 MHz
Frequency Stability (-30˚C to +60˚C, +25˚ Ref.)	VHF / UHF: ±2.5 ppm LB: ±5 ppm		

transmitter

SPECIFICATION	LOW POWER	HIGH POWER	LOW BAND
Power Output	1 - 25 W	25 - 45 W (VHF) 25 - 40 W (UHF)	40 - 60 W
Modulation Limiting (Low Band 20 kHz only)	±2.5 @ 12.5 kHz / ±4.0 @ 20 kHz (VHF / UHF) ±5.0 @ 20 kHz (Low Band) / ±5.0 @ 25 kHz		
FM Hum & Noise (typical)	@12.5 kHz VHF -45 dB UHF -43 dB	@25 kHz VHF -50 dB UHF -48 dB	@ 20 kHz LB -40dB
Conducted / Radiated Emissions	-36 dBm<1 GHz / -30 dBm>1 GHz		
Audio Response (0.3 - 3 kHz)	TIA 603		
Audio Distortion (typical)	VHF / UHF: 2% LB: 3%		

receiver

SPECIFICATION	@ 12.5 kHz	@ 25 kHz	@ 20 kHz
Sensitivity (12 dB SINAD) EIA (typical)	0.22 µV		
Intermodulation TIA 603	VHF 75 dB UHF 75 dB	VHF 78 dB UHF 75 dB	LB 80 dB (typical)
Adjacent Channel Selectivity TIA 603	VHF 65 dB UHF 65 dB	VHF 80 dB UHF 75 dB	LB 80 dB (typical)
Spurious Rejection	VHF 75 dB UHF 70 dB	VHF 80 dB UHF 75 dB	LB 80 dB (typical)
Rated Audio Internal Speaker External Speaker	3 W @ 22 Ω 7.5 W @ 8 Ω / 13 W @ 3.2 Ω		
Audio Distortion @ Rated Audio (typical)	VHF / UHF: 2% LB: 3%		
Hum & Noise	-40 dB	-45 dB	-45 dB
Audio Response (0.3 - 3 kHz)	TIA 603		
Conducted Spurious Emission	-57 dBm<1 GHz / -47 dBm>1 GHz		

military standards

Applicable MIL-STD	810C Methods	810C Procedures	810D Methods	810D Procedures	810E Methods	810E Procedures
Low Pressure	500.1	1	500.2	2	500.3	2
High Temperature	501.1	1,2	501.2	1,2	501.3	1,2
Low Temperature	502.1	2	502.2	1,2	502.3	1,2
Temperature Shock	503.1	1	503.2	1	503.3	1
Solar Radiation	505.1	1	505.2	1	505.3	1
Rain	506.1	2	506.2	2	506.3	2
Humidity	507.1	2	507.2	2,3	507.3	3
Salt Fog	509.1	1	509.2	1	509.3	1
Dust	510.1	1	510.2	1	510.3	1
Vibration	514.2	8,10	514.3	1	514.4	1
Shock	516.2	1,5	516.3	1	516.4	1

Specifications subject to change without notice. All Electrical Specifications and methods refer to EIA/TIA 603 standards.

PRO5100
mobile radio features

- 64 Channels
- PTT-ID (encode/decode)
- Call Alert™ (encode/decode)
- Voice Selective Call (encode/decode)
- Radio Check (encode/decode)
- Selective Radio Inhibit (decode)
- Emergency (encode)
- Quik-Call II Signaling (encode/decode)
- Zoning
- Monitor
- Dual Priority Scan
- 14-Character Alphanumeric Display
- Busy Channel Lockout
- Time-Out-Timer
- Nuisance Channel Delete
- Interchangeable Buttons
- CSQ / PL / DPL / Inv-DPL
- Option Board Port

Quality / Reliability

Motorola Accelerated Life Test

Two year warranty on radio parts and labor. One year warranty on all accessories includes antennas and microphones.

Military Standards MIL-STD 810 C, D, E

Contact your Motorola Representative now for more information.

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Visit our website at:
http://www.motorola.com/radiosolutions