

 DATRON



S P E C T R E V <sup>®</sup> R A D I O S

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## TOP-OF-THE-LINE FUNCTIONALITY

- Multiple networks - 100 preset channels; distinct groups for scanning and networking; programmable with unique mode information.
- Internal GPS - Accurate position and timekeeping information displayed; data continually updated and available for retransmission.
- Data capability - Synchronous or asynchronous input data-handling capability; robust error correction, interleaving, and coding algorithms; reliable data transmission under poor channel conditions.
- Co-site performance - High dynamic range receiver allows operation in co-located situations, such as in command posts or vehicles.
- Communications security and anti-jam capability - Advanced algorithms for both ECCM and COMSEC performance; features availability of both Spectre-proprietary and squad radio interoperable waveforms for complete mission flexibility.

## BATTLEFIELD MISSION FLEXIBILITY

- Multiple configurations - Manpack, mobile, or fixed-station systems operating at RF power levels from 500 mW to 75W.
- Compact mounting - Space-saving “stack” mount mobile configuration; up to two radios and a high-power amplifier in a single, rugged shock tray.
- Manpack conversion - Convenient “jerk-and-run” capability enhances its versatility in a vehicular environment; conversion to a manpack is quick and easy to implement.
- Multiple RF output power levels - Full 75W allows additional range when needed; lower power settings available when power conservation or low probability of intercept required.
- Dual-mode frequency-hopping and encryption - Simultaneous incorporation of unique “V2” algorithms and PRC1080/1088 algorithms allow interoperability with multiple equipment.

## USER EASE-OF-OPERATION

- Simple, innovative, menu-driven user interface - Allows rapid and decisive operation even under severely stressed situations.
- “Language Independent” - Programmable to have all operating screens and menus displayed in the user’s native language; facilitates operation by relatively untrained users in countries around the world.

## LOGISTICS SUPPORT

- Diagnostic menus aid fault identification - Modular design, diagnostic menus, fault logs, and comprehensive BITE.
- Ease of test and repair - Internal adjustments are software controlled; self-calibrating BITE function automatically aligns all radio circuitry.
- Upgrade simplicity - Software-based PC card upgrades.

## INTEROPERABILITY

- Existing secure equipment - Completely interoperable with DWC’s PRC1080 and PRC1088 in all modes of operation, including the ability to page and be paged.
- Existing clear-channel equipment - Interoperable with PRC1060, PRC1077, and AN/PRC-77 in single-channel modes.
- Interoperable with older NATO VHF/FM equipment in clear and external cipher modes.



# O V E R V I E W

The Spectre V is a next generation, advanced tactical 30 to 88 MHz, multi-mode radio system operating with either 12.5 kHz or 25 kHz channel spacing. It provides superior performance for both voice and data communications and offers clear channel or frequency-hopping modes with all transmissions encrypted for mission security.

The Spectre V represents a significant milestone for Datron in its efforts to satisfy customers' communication needs. The ability to maintain focus on real user requirements, especially in today's volatile marketplace, has led to the development of a technically advanced, yet very affordable, VHF/FM tactical radio system.

## PRC2150

The PRC2150, a fixed-frequency version of the Spectre V, cannot be upgraded to include frequency-hopping or encryption. It features simplex and semi-duplex operation with up to 100 preset channels that are configurable over 10 networks. In addition to voice, the PRC2150 can process both synchronous and asynchronous data. It is also specially designed to function in close proximity to other radios without desensitization problems. An optional 12-channel GPS receiver can be included inside the PRC2150 to allow immediate access to accurate position and time data. Menu screens are available in different languages. The PRC2150 is fully interoperable with the PRC1077 and PRC1060 in all modes, and with the PRC1080 and PRC1088 in fixed-frequency mode.



## PRC2100V

The PRC2100V, a full-featured version of the Spectre V, includes all of the features and functionality of the PRC2150 with the addition of full-band frequency-hopping and digital encryption. Either the "V" or the new "V2" Datron-proprietary algorithms are optional as PC card plug-ins on the PRC2100V. Both algorithms can reside simultaneously in the radio if desired. A GPS receiver is included as a standard feature. When using the "V" frequency-hopping and encryption options, the PRC2100V is interoperable with both Datron's PRC1080 and PRC1088 radios in hopping and encryption modes. It is fully interoperable with the PRC2150, PRC1077, PRC1080, and PRC1088 in fixed-frequency mode.



# OPTIONS AND ACCESSORIES

## INTERNAL OPTIONS

- **2100GPS.** Embedded 12-channel GPS receiver; front-panel antenna port (standard in the PRC2100V).
- **2100ECCM.** Full-band frequency-hopping using one or both of two distinct algorithms. The first allows interoperability with existing PRC1080/1088 equipment while the second is a higher hop-rate algorithm proprietary to the PRC2100V.
- **2100ENCR.** Digital encryption using one or both of two distinct algorithms. The first allows interoperability with existing PRC1080/1088 equipment while the second is higher-level encryption proprietary to the PRC2100V.
- **Additional Languages.** English, French, Arabic, Portuguese, and Spanish are standard; other languages optional.

## MANPACK ACCESSORIES

- **BB-NM10 Battery Pack.** 11.1 AH NiMH battery pack.
- **BC-NM-1 Battery Charger.** Charger for one BB-NM10 battery pack; waterproof; powered from input ac or +28 Vdc power.
- **BC-NM-3 Battery Charger.** Charger for three BB-NM10 battery packs; splash-proof and powered from input ac.
- **Antennas.** AT-892/U, AT271V.

## ECCM/COMSEC ACCESSORIES

- **CMS2100 Crypto Management System.** Includes Windows®-based software program; used by system administrator to create hop plans, encryption keys (fill data), and frequency plans for radios; programs both V-type and V2 algorithms.
- **KF2100 Keyfill Device.** Handheld device that takes fill data from the CMS2100 computer and downloads it into the PRC2100V radio.
- **2100CD Cloning Device.** Adapter used to clone one keyfill from another.
- **C992304 Interface Cable.** A cable assembly used to download fill data from the CMS computer to the KF2100 keyfill device; also used as data input cable from computer to radio.

## VEHICULAR SYSTEM ACCESSORIES

- **MT2100MM Shock Tray.** Vehicular shock tray to contain up to two Spectre radios and an RF amplifier in a single stack-mount configuration.
- **MT2100 Power Box.** Power conditioning/routing box that sits atop the MT2100MM to hold the Spectre V transceiver. Powered from +28 Vdc, provides power conditioning for the amplifier +28 Vdc; contains converter circuitry to create the +12 Vdc input for the transceiver.
- **AM2100 RF Booster Amplifier.** 75W RF booster amplifier; powered from +28 Vdc; works with any model of the Spectre V in all modes.