



### Features include

- Compact lightweight modular design
- Configurations include:-
  - 5 W Hand Portable
  - 25 W Manpack
  - 50 W Mobile
  - 50 W Base Station
  - 50 W Re-broadcast system
- DSP voice and data signal processing
- Selective and group calling
- Compatible with other 30 – 88 MHz communications equipment

### Available options include

- Encryption and frequency hopping security
- Messaging and encrypted data transfer

The PRC-2080+ low band VHF transceiver is designed for multi-role tactical military and security applications. It is an extremely compact and lightweight unit which is simple to operate in demanding mission critical conditions. The PRC-2080+ is part of the family of Barrett transceivers that are field proven in over 150 countries, on every continent and in all environments.







Advanced tactical handset for operation and field programming with U-229 style connector

The PRC-2080+ Tactical VHF radio system is a military grade portable communication transceiver specifically designed for tactical applications. It is designed to meet complete immersion, vibration, drop to MIL-STD 810G.

### Communication modes

The PRC-2080+ Tactical VHF radio system has multiple levels of encryption and frequency hopping security available. Analogue voice and digital unencrypted data are fitted as standard. The following levels of encryption are available:-

- Analogue Voice - Fixed Frequency (AFF)
- Digital Unencrypted Data - Fixed Frequency
- Digital Encrypted Voice - Fixed Frequency (DEFF)
- Digital Encrypted Voice - Frequency Hopping (DEFH)\*\*
- Digital Encrypted Voice - Free Channel Search (DEFCS)
- Digital Encrypted Data - Fixed Frequency
- Digital Encrypted Data - Frequency Hopping\*\*

\*\* Requires an Australian Department of Defence Export licence.

### Simple to use

For basic operation of the PRC-2080+, only the front panel controls are required. Field programming, advanced menu options, selective calling and group calling features are accessible via the PRC-2080+'s supplied advanced handset. The PRC-2080+ is an ideal replacement to the PRC-77 and its variants, which are now obsolete and susceptible to interception and jamming.

### Rugged design

Users will appreciate the PRC-2080+ transceiver's solid construction, simplicity and accessibility. Maintenance is quick and simple with only three internal modules which can be exchanged without any special tools. All inter-module connectors are gold plated and there are no wiring looms or complex back plane assemblies.

In designing the PRC-2080+, emphasis has been placed on ensuring low cost of ownership over a long service life. The transceiver's software defined architecture ensures compatibility with legacy, current communication systems.

### Modular construction

The PRC-2080+'s main circuitry is contained in three modules – the radio frequency (RF), digital signal processor (DSP) and power amplifier (PA) modules. A very high level of integration is used to minimise component count and to increase reliability. The embedded software is controlled by the DSP module, which uses a low current, high speed DSP core engine. Speech coding and all frequency hopping and encryption functions are processed by the DSP under the control of a host microprocessor. The RF module contains a high dynamic range front end with DDS (Direct Digital Synthesiser) system which achieves fast frequency switching times whilst maintaining low current consumption.

The PRC-2080+'s RF design takes into account the hostile electromagnetic environment and achieves excellent ECM resistance and co-siting performance. The PRC-2080+'s RF, DSP and software design make it one of the most cost effective, secure, high performance VHF transceivers available in the tactical military market today.

## PRC-2080+ 5 W VHF Tactical handheld package - P/N 2085-00-10

In stand-alone configuration, the PRC-2080+ is ideal for squad level communication requirements. Using either the supplied advanced handset or optional tactical headset, the PRC-2080+ transceiver can communicate reliably up to 8 km in open space (subject to terrain and topography), using the standard tape whip antenna. An optional multicam canvas backpack or webbing pouch is available. (see back page)

The standard package comprises:-

- PRC-2080+ VHF transceiver
- Advanced tactical handset
- Tape whip antenna with gooseneck
- Rechargeable 6.5 Ah Li-Ion battery
- AC/DC battery charger



## PRC-2081+ 25 W VHF Manpack package P/N 2086-00-10

The PRC-2081+ 25 Watt Manpack upgrades the PRC-2080+ transceiver with increased power and communication range. The PRC-2081+ is a military grade manpack communication set specifically designed for tactical applications and designed to withstand complete immersion, vibration, drop and temperature extremes to MIL-STD 810G.

The standard package comprises:-

- PRC-2080+ VHF transceiver
- VHF 25 W manpack dock
- 10 Ah, 16.8 V Li-Ion battery pack
- AC/DC charger
- AC/DC battery charger
- Collapsible section whip
- Tape whip antenna
- Advanced tactical handset
- Framed backpack



## PRC-2082+ 50 W VHF Mobile packag P/N 2087-00-10

The PRC-2082+ Mobile package provides a convenient docking station for the PRC-2080+ transceiver as well as the flexibility for dismounted use when not in the vehicle (additional accessories are required to use the PRC-2080+ as a Hand Portable). The 50 W VHF amplifier provides range extension and increased link reliability when connected to the external vehicle whip antenna system. The PRC-2082+ can be installed in a range of vehicles including jeeps, patrol boats, APC's, and tanks. The PRC-2082+ is ready for connection to combat net radio systems incorporating intercom harnesses. The overall size of the system makes it one of the smallest VHF platforms available making it particularly suited to vehicles where space is limited.

The standard package comprises:-

- PRC-2080+ VHF transceiver
- Vehicle docking station
- 50 W VHF amplifier
- Advanced tactical handset
- Tactical Installation Kit
- Rugged external amplified speaker



## PRC-2084+ 50 W VHF Base package P/N 2089-00-10

The Barrett PRC-2084+ VHF Base Package, provides a convenient docking station with power amplification to 50 W, as well as the flexibility of dismounted communications when removed from the docking station (additional accessories are required to use the PRC-2080+ as a Hand Portable).

The VHF Base Package can be installed in a number of temporary base and fixed command configurations and operated from a variety of AC and DC power sources.

The standard package comprises:-

- PRC-2080+ VHF transceiver
- Vehicle docking station
- 50 W VHF amplifier
- Advanced tactical handset
- AC power supply module
- Tactical Installation Kit
- Rugged external amplified speaker



## PRC-2083+ 50 W VHF Re-broadcast System - P/N 2088-00-10

The Barrett PRC-2083+ Re-broadcast system is typically used to link two low band VHF networks providing extended range to overcome communication difficulties due to distance or terrain. The two networks can use different security options (frequency hopping and encryption) providing a field deployable interoperability solution.

The re-broadcast system utilizes two PRC-2084+ 50 Watt systems and incorporates a nine band co-location filter assembly and AC/DC power supply with battery backup facilities all housed in a MIL-SPEC ruggedised transportable case allowing for easy deployment in any field environment.

The standard package comprises:-

- PRC-2080+ VHF transceiver x 2
- Vehicle docking station x 2
- 50 W VHF amplifier x 2
- Advanced tactical handset x 2
- AC power supply
- Bandpass filter panel
- Transportation casing
- Tactical Installation Kit
- Rugged external amplified speaker x 2



## PRC-2080+ General specifications

<b>Frequency range</b>	30.2 MHz to 87.775 MHz
<b>Channel resolution</b>	25 kHz
<b>Channels</b>	10
<b>Squelch</b>	150 Hz tone squelch
<b>Display</b>	Backlit LCD graphics display
<b>Programming</b>	PC programming software, Fill Gun, Cloning cable, Tactical handset
<b>BITE</b>	Advanced module diagnostics & error reporting
<b>Output power</b>	5 W / 500 mW / 50 mW nominal (selectable)
<b>Modulation</b>	FM (F3E) Digital

## Mechanical & environmental

### PRC-2080+ 5 W VHF Hand Portable package – P/N 2085-00-10

<b>Battery</b>	14.4 V 6.5 Ah Li-Ion
<b>Antennas</b>	Tape whip with balun gooseneck 6 section whip with balun gooseneck
<b>Dimensions in mm</b>	110W x 55D x 247H including battery
<b>Weight</b>	1.3 kg with battery pack
<b>Temperature</b>	Operating -30°C to +60°C
<b>Construction</b>	Aluminium body and polycarbonate battery casing
<b>MIL-STD 810G</b>	Drop, shock, vibration & immersion

### PRC-2081+ 25 W VHF Manpack package – P/N 2086-00-10

(General specs as per PRC-2080+ unless noted below)

<b>Battery</b>	16.8 V 10 Ah Li-Ion
<b>Antennas</b>	Tape whip with gooseneck or 6 section collapsible whip
<b>Output power</b>	25 W
<b>Dimensions in mm</b>	315W x 205D x 510H
<b>Weight</b>	7.7 kg with backpack frame and battery pack
<b>Temperature</b>	Operating -30°C to +60°C

### PRC-2082+ 50 W VHF Mobile package – P/N 2087-00-10

(General specs as per PRC-2080+ unless noted below)

<b>Supply voltage</b>	11 to 28 V DC
<b>Output power</b>	50 W
<b>Dimensions in mm</b>	230W x 250D x 295H
<b>Weight</b>	11.6 kg excluding antenna

### PRC-2084+ 50 W VHF Base package – P/N 2089-00-10

(General specs as per PRC-2080+ unless noted below)

<b>Power Supply</b>	100 to 240 V AC
<b>Output power</b>	50 W
<b>Dimensions in mm</b>	230W x 445D x 335H
<b>Weight</b>	18 kg excluding antenna

### PRC-2083+ 50 W VHF Re-broadcast System – P/N 2088-00-10

(General specs as per PRC-2084+ unless noted below)

<b>Power Supply</b>	100 to 240 V AC
<b>Dimensions in mm</b>	685W x 715D x 550H
<b>Weight</b>	47 kg excluding antennas

Specifications are typical. Equipment descriptions and specifications are subject to change without notice or obligation.

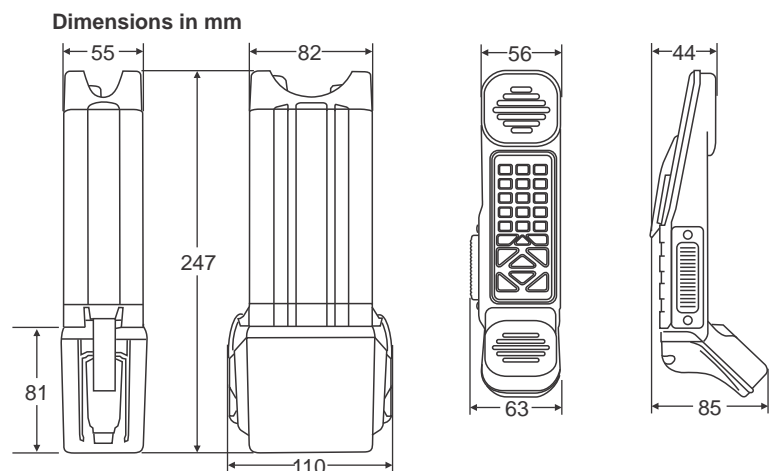
## Webbing pouch - Multicam (optional)

- Designed to be worn on webbing using the MOLLE system for attachment.
- Made from 1000 denier nylon.
- Also available in Olive Green.



## Canvas backpack - Multicam (optional)

- Lightweight backpack design is suited to back mounting of the transceiver using either a short or long antenna.
- Made from 1000 denier nylon.
- Also available in Olive Green.



BCB2080/21

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