

2040 HF Manpack transceiver



- Frequency Hopping
- ALE to MIL-STD-188-141B
- GPS equipped
- MIL-STD-810F compliant
- Digital and Analogue security
- Reliable and easy to operate
- Less than 210 mm square
- Weighs only 6.4 kg including a 10 Ah battery cartridge

The Barrett 2040 is the result of 30 years experience in the provision and support of HF communications globally. Employing Barrett's well known intuitive operator interface, teamed with current communications technology and rugged packaging, the 2040 provides an exceptionally specified, lightweight, HF manpack.



www.barrettcommunications.com.au

BCB204001/11

MADE IN AUSTRALIA

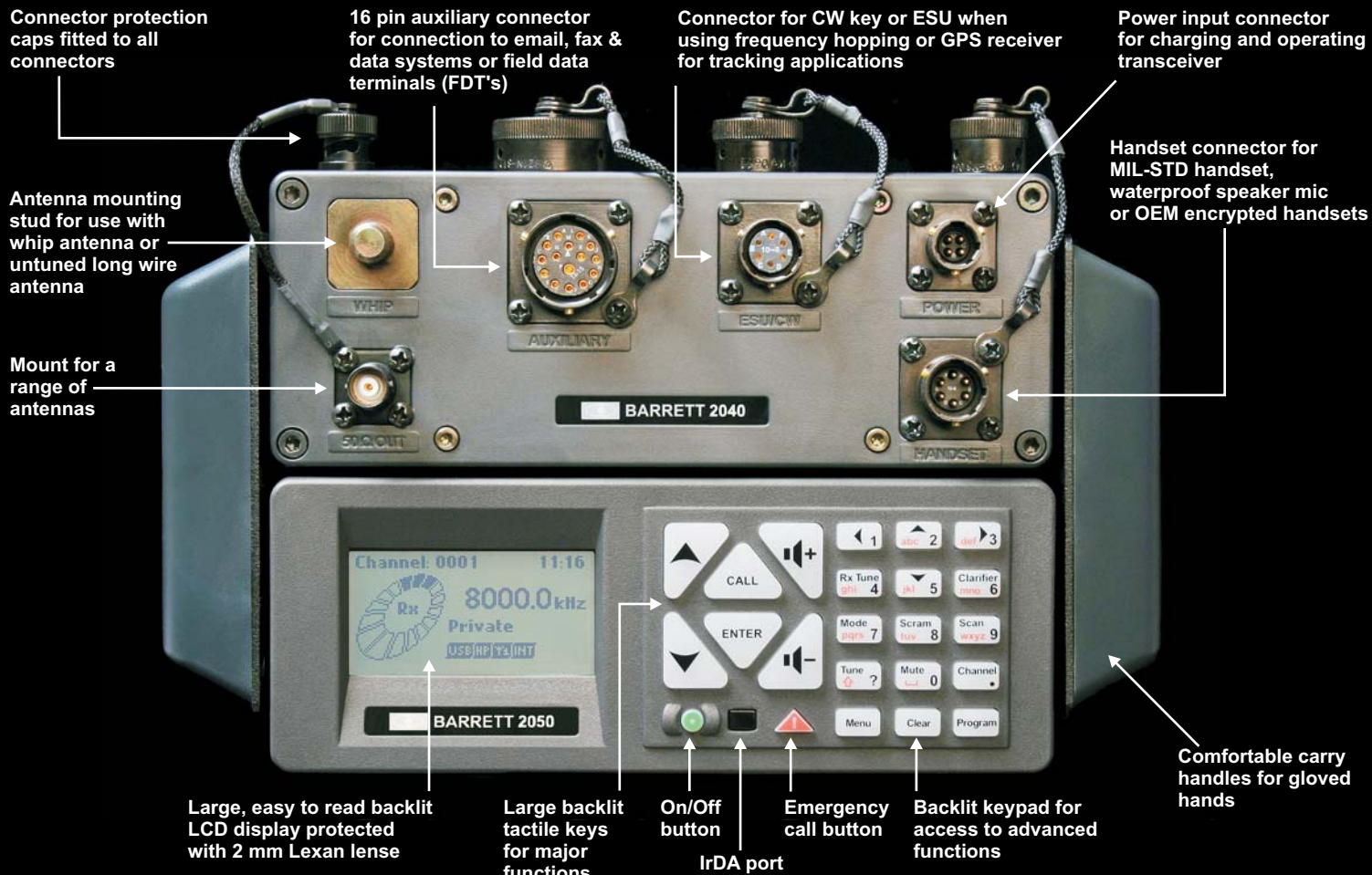


HF Radio Communications

The 2040 manpack is equipped with a fully automatic antenna tuner allowing the deployment of a full range of tactical and static antennas. An inbuilt battery management system supports its lightweight Lithium Ion battery cartridges. All connections to the IP67 rated manpack are made using MIL-STD connectors. Configuring the 2040 is simple using either the Windows based programming system through the auxiliary socket or wirelessly using the IrDA port. Emergency field programming can be performed by password entry using the front panel keypad.

The 2040's range of carry systems include British Army approved backpacks which allow full webbing to be utilised and are available in UN blue as well as the traditional drab olive to ensure neutrality is observed when deployed in the humanitarian and peacekeeping roles.

All 2000 series transceivers including the 2040 manpack have common operating features, functions and major internal modules, reducing training, inventory, maintenance and system ownership costs to a minimum.



Features

Frequency hopping

The unique, easy to use frequency hopping system requires no central synchronisation station, has no entry or late entry time and requires no handshaking. Hopping at 25 or 5 hops per second, using a 10 digit hopping encryption key, and with a user selectable hopping bandwidth to suit the antenna type in use, the system provides excellent protection against EW attacks.

Secure call

Secure call is an innovative, narrow band voice crypter that is very simple to use, has no handshaking or sync delays, and provides operators secure point to point, or point to multipoint communications.

Rugged and lightweight design

Using the latest polycarbonate plastic alloys combined with lightweight strong aluminium alloy extrusions, the 2040 weighs only 6.4 kg including its 10 Ah, quick change, Lithium Ion battery cartridge. The 2040's small physical size makes it comfortable to operate and wear when deployed in either of its backpack options.

Outstanding voice quality

The standard DSP noise reduction system reduces external channel noise, the effects of interference, and enhances audio signals to provide easier listening. The level of noise reduction can be easily selected to suit prevailing conditions.

Extended operation time

The very low current consumption of the 2040 manpack enables it to operate for over 20 hours on one battery cartridge. Spare quick change battery cartridges are small, lightweight and easily fit in the carry system side pockets. Dry cell emergency packs are available to extend mission time, negating the need to carry charging equipment.

Selective calling systems

The 2040 manpack provides international standard 4 and 6 digit selective call facilities that include Telcall, SMS, GPS position, remote transceiver operational status monitoring, point to point Secure Call and remote transceiver disable capabilities.



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GPS tracking, command and control
 Fitted with the optional GPS module, the 2040 manpack is able to be automatically tracked with the Barrett 977 base tracking system. Individual operators can be located, maintained within certain areas or corridors, be alerted if straying into no-go areas and have facilities to alarm controllers if they are in danger. Tracking signals are digital and encrypted for security.

SMS messaging system
 64 character SMS messages, encrypted for security, are directly entered via the 2040 front panel keys and can be sent to individual or multiple stations.

Data capability FDT's
 Using the 2040's flexible auxiliary connector, Barrett 2020 email and data systems and many OEM FDT's (Field Data Terminals) are supported.

Digital crypto handsets
 The 2040's audio connectors provide interfaces for various external OEM voice crypto devices. Barrett recommends the Telsy TCH01C HC250U crypto handset for 256 bit high level encryption and ease of use. In addition to the standard options available in the 2040 manpack many other forms of internal analogue and digital encryption systems are available to suit user requirements.

Automatic antenna tuner
 Whips and untuned wire antennas are simply deployed using the inbuilt, fully automatic antenna tuner. For overnight or temporary fixed operations various lightweight broadband and tunable tactical antennas are available.

User friendly operation
 Barrett's well known intuitive operator interface ensures that using the 2040 manpack is very simple.

Principal key functions are performed using a large six key cluster while the operator is guided by a large 128 x 64 LCD graphics display with adjustable backlighting, allowing maintenance of night vision or high levels of luminescence in poor visibility.

Network station addresses and telephone numbers are stored in easily accessible address and phone books and as little as two key strokes will initiate a call.

Accessories

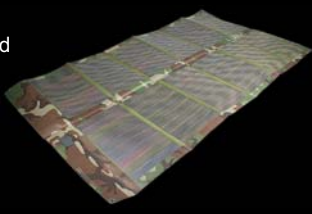
Framed backpack for manpack - full pack version

The full pack provides for the 2040 and various accessories including wire antennas, and spare battery packs. Slimline version also available.
Part Number: BCA204009



Tactical solar panel

Solar power supply pack - for charging and operating the PRC-2090 manpack
Part Number: BCA204010/16



Tactical broadband dipole

Rapid deployment broadband dipole operates from 2 to 30 MHz without adjustment - 40 W PEP max. Can be deployed as full length broadband dipole or in compact form. **Part Number: BCA204026**



Antenna elevation kit

Portable elevation kit for tactical broadband and dipoles - rapid deployment.
Part Number: BCA204028



Collapsible whip 3 metres

Includes gooseneck for manpack transceiver - colour black.
Part Number: BCA204002



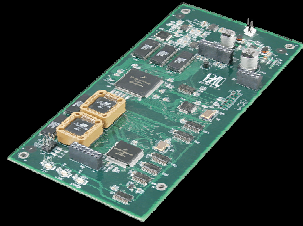
GPS receiver / antenna module

12 channel GPS receiver connects to 2040 GPS connector to provide global position for tracking applications.
Part Number: BCA204014



Clover 2000 internal modem

Operates with Barrett 2020 HF data system software providing full email facilities and connection to the internet email system.
Part Number: BCA204028



Headphones - lightweight tactical

Folding headphones with MIL-STD connector to suit 2040.
Part Number: BCA204005



MIL-STD handset - lightweight tactical - for manpack transceiver with MIL-STD 6 pin connector.

Part Number: BCA204003



Waterproof speaker / microphone - for manpack transceiver with MIL-STD 6 pin connector.

Part Number: BCA204004



2040

HF Radio Communications

2040 HF SSB Manpack transceiver

General Specifications

Frequency range	1.6 MHz to 30 MHz Tx, 500 kHz to 30 Mhz Rx	
Channel capacity	Up to 500 programmable channels (simplex or semi-duplex)	
Operating modes	J3E (USB, LSB) - H3E (AM) - J2A (CW) - J2B (AFSK)	
Frequency stability	±10 Hz or better than 0.3 ppm over temperature range -30°C to +70°C	
Sensitivity	-120 dBm (0.224 µV) for 10 dB SINAD - J3E Mode pre-amp on -115 dBm (0.398 µV) for 10 dB SINAD - J3E Mode pre-amp off	
Blocking	-20 kHz and +20 kHz better than 71 dB (max. usable sens.)	
Rx intermodulation	Better than 89 dBµV	
RF connections	Whip or long wire using internal automatic antenna tuner or 50 ohms	
RF output power	30 W PEP ± 1 dB, 10 W PEP ± 1 dB	
Supply voltage	12 V DC from internal battery 22 to 24 V DC from external supply	
Average battery life	20 hrs based on a 10% voice duty cycle duty cycle	
Environmental	-30°C to +60°C, IP67	
Programming	Infrared interface (IrDA) and RS-232	
Weight	2040 manpack	5.2 kg
	10 Ah Lithium Ion battery cartridge	1.2 kg
Standards	Meets AS/NZS4770:2000, AS/NZS4582:1999, CE, MIL-STD 188-141B, MIL-STD 810F shock, vibration, dust and spray	

Options

BCO20400	Frequency Hopping (requires export licence)
BCO20505	ALE MIL-STD- 188-141B
BCO20506	Secure Call
BCO20501	4 and six digit Selective Call
BCO20502	4 and six digit Selective Call and Telcall
BCO20504	GPS Interface
BCO20503	RS-232 Control

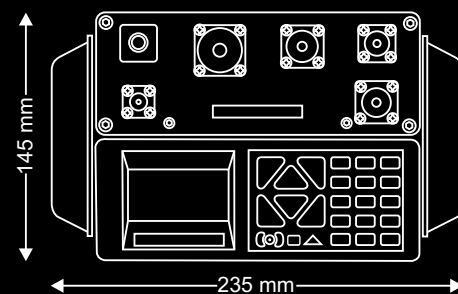
Antennas

BCA204002	3 m collapsible whip
BC91205	Tactical rapid deploy end fed broadband
BC91503	Tactical rapid deploy end fed dipole
BCA204022	Emergency long wire antenna

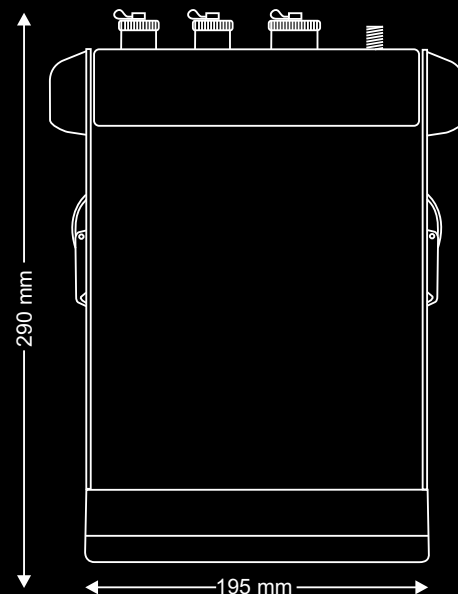
Accessories

BCA204014	GPS receiver
BCA204007	Universal AC/DC power adaptor 11to18 V DC/100 to 254 V AC input
BCA204005	Tactical headphones
BCA204023	Tactical CW key
BCA204003	MIL-STD handset
BCA204008	Advanced framed manpack
BCA204009	Utility backpack
BCA204004	Weatherproof speaker microphone
BCA204001	10 Ah Lithium Ion battery cartridge
BCA204010/16	Tactical solar power supply
BCA204011	Hand crank generator
BCA204013	External battery management unit
BCA204015	PC programming kit
BCA204020	Cloning cable

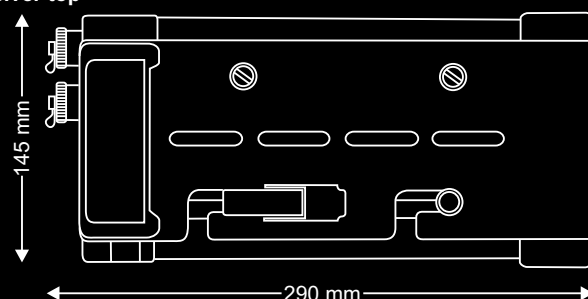
2040 HF Manpack transceiver front



2040 HF Manpack transceiver top



2040 HF Manpack transceiver top



Head Office:

Barrett Communications Pty Ltd
P O Box 1214, Bibra Lake WA 6965 AUSTRALIA
Toll Free Tel: 1800 999 580 Tel: +618 9434 1700 Fax: +618 9418 6757
email: information@barrettcommunications.com.au

European Office:

Barrett Europe Limited, Unit 9, Fulcrum 2, Victory Park,
Solent Way, Whiteley,
PO15 7FN UNITED KINGDOM
Tel: +44 1489 880332
Fax: +44 1489 565422
email: information@barretteurope.co.uk

Americas Office:

Barrett USA LLC 15941 W. 65th Street
Suite 373, Shawnee, Kansas 66217 USA
Tel: +1 913 671 9068
email: information@barrettusa.com