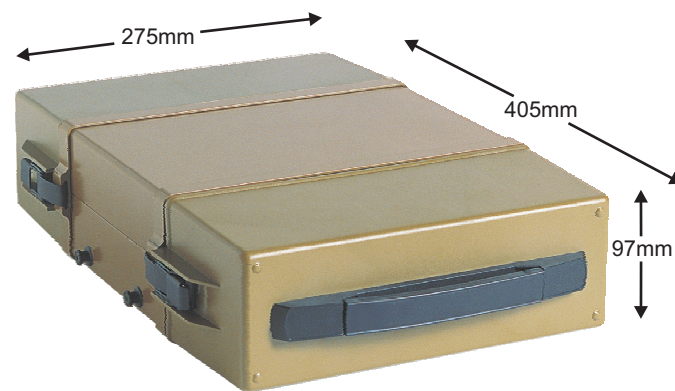


940 specifications

Transmit frequency range	1.6MHz to 30MHz (continuous)	
Receive frequency range	500kHz to 30MHz (continuous)	
Optional automatic tuner frequency range	3 metre whip	- 2 MHz to 30 MHz.
	10 metre long wire	- 1.6 MHz to 30MHz.
Channel capacity	Up to 450 programmable channels (simplex or	
Frequency resolution	10Hz	program mode
	1Hz	tuneable receiver
Frequency stability	Standard $\pm 10\text{Hz}$ (-15°C to +55°C) (TCXO)	
Operating modes	J3E (USB, LSB) - H3E (AM) - J2A (CW).	
Sensitivity	0.25uV (-119dBm) for 10dB SINAD - J3E Mode	
Audio output	4W into 4 Ohm, 2W into 8 Ohm.	
Operating temperature	-30°C to +55°C	
Humidity	95% relative, non condensing	
Current transmit	Voice average	less than 5 Amps typical
	Two tone	less than 9 Amps typical
Current receive	595 mA (muted, back-light off)	
Weight	940 transceiver	3.9 Kg
	940 13 Ah Ni MH battery pack	2.7 Kg
	Optional 940 automatic antenna tuner	1.8 Kg
Dimensions	940 transceiver - no battery	275 m
	940 transceiver and battery	275 m
	940 transceiver, battery and top case	275 m
	Optional 940 automatic antenna tuner	275 m



940 Portable HF SSB transceiver (Military Version)

The Barrett 940 is a lightweight, robust, portable HF transceiver package designed for use in severe field conditions with limited power supplies.

The development of the 940, utilising Barrett's 900 series transceiver technology and military packaging has resulted in a realistically priced, fully featured portable/manpack transceiver that fills the void between limited function portables and full military specified manpacks.

To provide the flexibility in deployment that is vital for successful field operations, the Barrett 940 can be used in any number of configurations. In a manpack configuration the 940 is self-contained with a clip on battery pack and is fitted into a comfortable padded canvas backpack. In this configuration it can be supplied with a rapid deployment single wire end fed broadband with an efficiency that far exceeds that of the traditional whip antenna.

For temporary base station or mobile operation, an optional power lead which includes a cigarette lighter type plug and clip leads, plugs into the front panel allowing operation from a 12 volt DC source such as a vehicle battery or 12V DC mains power supplies. The BNC RF connector on the front of the transceiver can connect to tactical tuned dipole antenna, base station broadband antennas or manual tapped vehicle whips.

An optional antenna tuner that clips on to the 940 provides fully automatic tuning of a long wire or optional whip antenna.

The Barrett 940 can be field programmed by direct entry on the front panel of the transceiver or by using a personal computer connected to the RS-232 interface. A cloning facility is also available to enable programming information to be copied from a master transceiver to other 940 transceivers

A rugged lid with a carry handle is available to clip to the top of the transceiver and provide extra protection from the elements whilst in transport and also provides storage for the microphone, power cable and antenna system.

Standard features include selective call, considered essential for the efficient use of HF networks, Pagecall providing for the reception of 32 character paging messages and Telcall, allowing the user to make direct dial telephone calls via base stations equipped with Barrett 660 or 960 telephone interconnect systems.

Other standard features included in the Barrett 940 are Built in Test Equipment (BITE), two scan tables, battery condition monitor, VSWR and power displays and variable intensity display back lighting.

Optional accessories include various battery charging modules, a lightweight tactical tuned dipole antenna, an end fed, single wire, rapid deployment antenna, handset, speaker microphone, morse key and headphones.

940



portable HF transceiver

BCB94000/4

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Dealer Stamp

940 features

Full HF spectrum coverage

Transmit and receive frequency range from 1.6 to 30MHz

10 to 35 Watt PEP power output

The transceiver power output can be factory set between 10 and 35 Watt (PEP) power output in voice mode on all frequencies.

All mode capability

USB - J3E, LSB - J3E, AM - H3E, CW - J2A.



Selective call - "Selcall"

Selective call - Selcall - provides a simple and efficient method of calling stations within a network. With the combined "Selcall - Telcall" option fitted - all current derivatives of CCIR 493 format can be programmed into the 940 transceiver on a channel by channel basis.

Direct dial telephone calls

The "Telcall" portion of the "Selcall - Telcall" option provides direct dial telephone access using a Barrett 660 or 960 HF telephone interconnect as the interface between HF network and the telephone network.



Scanning

Channel scanning combined with the "Selcall Option" means calls will always get through, no matter what frequency or channel is operational due to propagation. Two scan tables are available, channels can be programmed as members of either table or both.

Emergency Selcall's with geographical position

The Barrett 940 displays and annunciates emergency selective calls, also showing the position of the station sending the emergency call if it is fitted with a GPS receiver.

450 user configured memory channels

A powerful, channel based, configuration system allowing all channels to have individual characteristics as follows:-

Separate transmit and receive frequencies.
Operation mode - USB - J3E, LSB - J3E, AM - H3E, CW - J2A.
Visual display of channel use.
Scan table membership - member of scan table one, two or both.
Selective call format - all common CCIR 493 derivatives in use today can be selected

Optional whip and antenna tuner

The automatic antenna tuner clips on to the 940 transceiver and provides fully automatic tuning of a whip antenna, that screws onto the antenna tuner, or random wire antennas.

Simple functional display

All operational information is easily viewed on a temperature compensated LCD display that has adjustable back-light features for night operation.

"Statcall"

A selcall based diagnostic tool that enables interrogation of remote transceivers to retrieve vital transceiver operating parameters. The Barrett 940 will respond to a Statcall interrogation from a Barrett 950 transceiver.

"Pagecall"

The Barrett 940 will receive and display a 32 character alpha numeric "Pagecall" message transmitted from a Barrett 950 transceiver connected to PC loaded with Barrett page call software.

Voice Security

When message confidentiality is required a "scrambler" option is available which provides a medium level of voice encryption for message privacy even under the most arduous propagation conditions.

Scan resume - no missed calls

If the transceiver has been left unattended it automatically returns to scanning and is ready to receive calls on any channel.

Syllabic mute (squelch)

Only responds to human voice and is immune to noise burst etc.

Selcall mute (quiet line)

When using Selcall scanning this mute only opens when a selcall is directed to a specific transceiver. This reduces operator fatigue as the operator is not obliged to listen to HF noise or traffic not directed to him.

BITE - Built In Test Equipment

To enable simple in field diagnostics of suspected faults the BITE tests receiver performance, selcall operation, syllabic mute operation, VCO operation and serial communications port viability.

Fully EMC tested to IEC 945 standard

New extruded chassis and circuit design eliminates any spurious radiation - enables closely co-located operation with VHF and UHF transceivers, without interference.

Built in antenna VSWR indication

For field staff to check the correct operation of antennas, the tune function displays antenna forward and reverse power.



Rugged construction

An extruded aluminium chassis combined with a rugged weather resistant glass reinforced nylon front panel has been designed to withstand harsh and hostile environments. Extensive vibration testing and temperature cycling has proved the Barrett 940 will operate in the world's toughest environments.

Transceiver programming

Programming is achieved either using the front panel (depending on local legislation) or a personal computer loaded with a Barrett 900 series transceiver programming package, connected to the 940 auxiliary socket from the computer's communications port. Once one transceiver has been programmed all other transceivers that are to be used in a network can be "cloned" with identical data by using a Barrett "cloning" cable plugged between their auxiliary sockets.

Auxiliary socket

Includes antenna tune initiate, CW key input, external speaker, power input and a 9600bd communications port for programming and options such as Pagecall.



Compact Size and weight

Measuring 275mm x 97mm x 405mm and weighing less than 6.8 Kg with battery pack and top cover.

Tunable Receiver

Tunes all frequencies, in all modes, between 500kHz to 30MHz down to 1Hz steps.

Microphone/Speaker

Uses an easy to replace, commonly available, industry standard plug.

Noise blanker

A separate receiver within the 940 generates the noise gating pulses which gate a new technology high speed switch providing superior impulse noise blanking performance.

Security function

A built-in function allows a network operator, using a Barrett 940 or 950 transceiver, to send a unique coded selective call to "kill" a stolen transceiver. Once "killed" the transceiver must be unlocked using a special code sequence.

Transmit time out function

If the transceiver has inadvertently been left in transmit i.e. a microphone jammed under a seat - after a fixed period of time the transmitter is disabled. It is re-enabled by pressing the push to talk momentarily.

