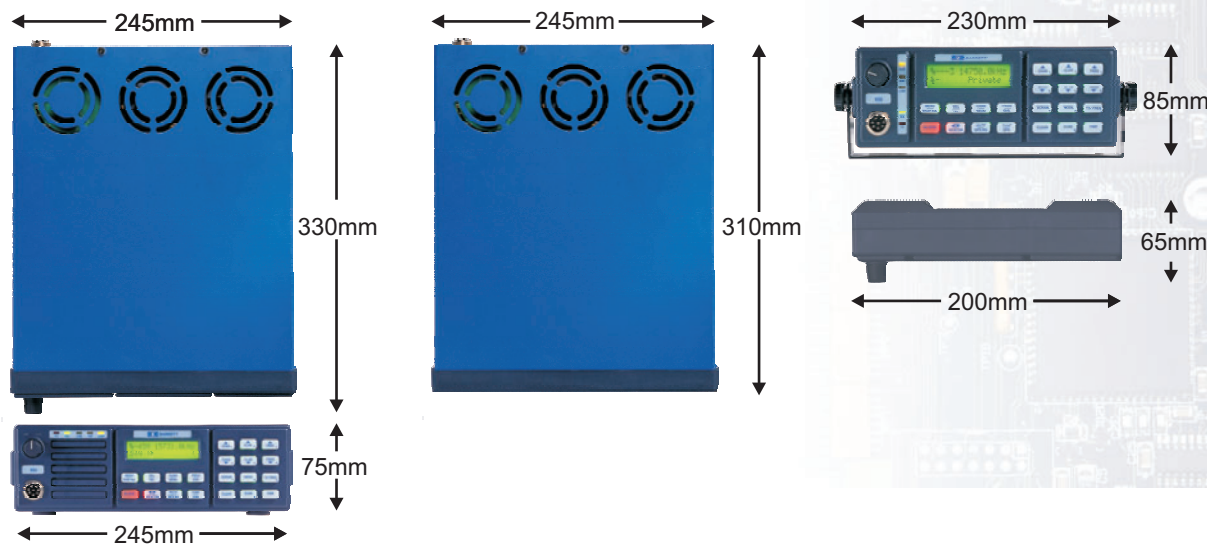


## 950 specifications

<b>Transmit frequency range</b>	1.6MHz to 30MHz (continuous)	
<b>Receive frequency range</b>	500kHz to 30MHz (continuous)	
<b>Power output</b>	125 Watt PEP voice, 100 Watt PEP two tones $\pm 1$ dB.	
<b>Channel capacity</b>	Up to 450 programmable channels (simplex or semi-duplex)	
<b>Frequency resolution</b>	10Hz program mode 1Hz tuneable receiver	
<b>Frequency stability</b>	Standard $\pm 50$ Hz (0° to +55°C) Optional $\pm 10$ Hz (-15°C to +55°C)	
<b>Operating modes</b>	J3E (USB, LSB) - H3E (AM) - J2A (CW) - J2B(AFSK)-optional J2B (AFSK) with narrow filter.	
<b>Sensitivity</b>	0.25uV (-119dBm) for 10dB SINAD - J3E Mode (With RF pre-amp on)	
<b>Audio output</b>	4W into 4 Ohms, 2W into 8 Ohm at less than 5% distortion	
<b>Operating temperature</b>	-30°C to +55°C	
<b>Humidity</b>	95% relative, non condensing	
<b>Current consumption</b>	950 local control	840 mA standby (muted, back-light off)
	950 remote control	850 mA standby (muted, back-light off)
<b>Current consumption transmit</b>	Voice average	less than 9 Amps typical
	Two tone	less than 15 Amps typical
<b>Weight</b>	950 local control model	3.7Kg.
	950 remote control model, main unit	3.45Kg.
	950 remote control model, remote head	0.4Kg
<b>Dimensions</b>	950 local control	245mm x 330mm x 75mm
	950 remote control, main unit	245mm x 310mm x 75mm
	950 remote control, remote head	200mm x 65mm x 75mm



BCB95000/4

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Dealer Stamp

## 950 HF SSB transceiver

### ADVANCED

The Barrett 950 transceiver is a state of the art, 125 Watt HF transceiver designed specifically to satisfy the long distance communications requirements of government, private organisations and individuals operating in remote and rugged environments. Utilising the "free to air" nature of HF communications spectrum the Barrett 950 transceiver provides remote communications with no ongoing call charges.

### STRENGTH

Housed in an extremely strong, corrosion resistant, custom extruded aluminium chassis, with generous heat dissipating capabilities, the Barrett 950 will operate in both voice and high duty cycle data modes in mobile and fixed stations. The Barrett 950 is built to the specifications of European Standard ETS 300 373, a standard developed for the exacting role of international maritime distress communications, and exceeds the requirements of Australian land mobile communications standard RB209.

### FEATURES

In addition to the standard features you would expect in a professional HF transceiver, the Barrett 950 offers optional features such as selective calling for simplified network operation, an internal GPS receiver to enable vehicle tracking, a voice scrambler module for security and a FED STD 1045/MIL - STD-188-41A internal fit ALE module.

### ACCESSORIES

Teamed with Barrett's large range of mobile and base station antennas, HF data modems and automatic HF telephone interconnects and even more importantly with Barrett's international service backup, the Barrett 950 transceiver will provide long distance voice and data communications for all environments.

# 950



# advanced HF transceiver

## 950 features

### Full HF spectrum coverage

Transmit and receive frequency range from 1.6 to 30MHz

### 125 Watt PEP power output

The transceiver has 125 Watt (PEP) power output in voice mode on all frequencies.

### All mode capability

USB - J3E, LSB - J3E, AM - H3E, CW - J2A and AFSK - J2B. An optional 500Hz filter is available for CW, SITOR or FACTOR I and FACTOR II use.

### 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 950 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 with geographical position

The Barrett 950 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.

### HF fax and data

With the widespread use of HF as a data transmission medium, the 950 transceiver is specifically designed for high duty cycle operation and has as standard an auxiliary connector that is fully featured to interface to a variety of external modems including the Barrett 923 fax and data modem.



### 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, AFSK -J2B.
- Visual display of channel use.
- Scan table membership - member of scan table one, two or both.
- High or low power select
- Optional antenna socket selection - two antenna sockets available for selection on a channel by channel basis.
- Selective call format - all common CCIR 493 derivatives in use today can be selected.

### Simple functional display

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

### GPS tracking

For position tracking applications, an internally fitted GPS receiver module or external GPS receiver with NMEA 0183 data output can provide position information to a 950 transceiver which can be interrogated from another 950 station using a special selcall sequence. This, combined with a base station that has a Barrett 977 PC based mapped location package, provides both logistical and safety management of a vehicle or vessel fleet.

### "Statcall"

A selcall based diagnostic tool that enables interrogation of remote transceivers to retrieve vital transceiver operating parameters.

### "Pagecall"

An option that enables a PC connected to the 950 to send a 32 digit alpha numeric message to any Barrett transceiver fitted with selcall.

### 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.

### ALE - Automatic Link Establishment

The ALE option simplifies the operation of HF networks, automating many of the procedures necessary to establish and maintain an HF link. The internally fitted option is fully interoperable with FED STD 1045 ALE systems. It is also capable of full 16 digit telephone dialling (using FED STD 1045 ALE as the signalling medium) with Barrett 960 ALE equipped telephone interconnects.

### 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.

### Second antenna connector

An optional second antenna connector allows each channel to select one of two antennas - ideal when long and short distance antennas are used.

### 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 950 will operate in the world's toughest environments.

### Compact, easy to install remote control head for vehicles

Available in a remote control configuration the 950 is ideal for installation into today's compact vehicles. In specialised applications the 950 can be used in a dual control configuration with both a front panel and a control head.

### 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 950 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

The auxiliary socket provides connection to external HF data modems, HF telephone interconnect systems and remote control systems. Commonly used signals available on the auxiliary connector include - 600 Ohm balanced receive audio output, 600 Ohm balanced transmit audio input, PTT input, scan stop input from external HF data modems, external position information input from NMEA 0183 standard GPS receivers and RS-232 control.

### Compact size

Measuring 245mm x 330mm x 75mm, the Barrett 950 is the smallest fully featured commercial synthesised transceiver on the market today.

### Rack mounting

As with all of the Barrett 900 series HF equipment, a 2RU 19" rack mount conversion kit is available for the Barrett 950.

### Computer control

When fitted with the RS-232 control option the Barrett 950 provides complete control of all transceiver functions via the 9600bps communications port - ideal for use by systems integrators.

### Tunable receiver

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

### Microphone

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

### Noise blander

A separate receiver within the 950 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 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 button momentarily.

