

# High Frequency Single Sideband **Communications Systems**

# 960 options and specifications

Other Options	
FED STD 1045 ALE controller	
<b>General Specifications</b>	
Power Input	13.8V DC (11-15 V), 9 Watt
Scanning capacity	20 channels maximum.
Operating temperature	0 to 50°C.
Dialling modes	DTMF of Decadic.
Dialled number	16 digit maximum.
Transceiver control	RS-232, 9600bd. Barrett control syntax.
Transceiver audio levels	600 Ohm balanced 0dBm.
Transceiver PTT output	Open collector to ground.
Frequency response	300 to 2800Hz.±2dB
Hybrid system	DSP based continuously balancing Adaption speed less than 1.5 seconds Ultimate balance better than 45dB.
Phone line levels	Input from line -9dBm Output to line -9dBm Impedance 600 Ohm.
VOX sensitivity	Approx 16dB below phone line level i.e. 25dBm.
Phone line connector	RJ-45
Remote supervisory Control	Via on-board modem - V.34bis (33.6kbs)
<b>Telecom line</b>	Standard 2 wire automatic exchange. Preferably with line reversal "B" party "off hook" and "on hook". If call charging required - 12/16kHz or 50Hz metering pulses.
Call progress tones	Will respond to standard call progress tones. Has a learn function for non-standard tones.
Dimensions	2U 19" Rack mounting case 483mm x 270mm x 88mm.
Weight	4.9kg.

BCB96000/3

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Dealer Stamp





# 960 HF SSB telephone interconnect

The Barrett 960 telephone interconnect will make your HF network stations extensions of the international telephone network.

automated interface between the international telephone network and a HF network. Stations in a HF network equipped with selective call systems based on CCIR 493 can call up to 98 numbers that can be stored in the 960 telephone interconnect. Stations fitted with a "Telcall" facility, based on selective call format CCIR 493, can direct dial any telephone number on the international

interconnect from anywhere on the international telephone network and call any station on the HF network.



network management facilities including multiple telephone access levels for HF stations, call logging and remote supervision by dial up computer links.





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### 960 features

#### Fully automatic operation.

Recordable greeting and instruction messages Allows the greetings and instructions to be in any language stored in non-volatile EEPROM

#### "Learn" function for call progress tones

Enables the 960 to handle non standard call progress tones with ease

#### Voice security - different scramble code for each HF user

An option that provides a medium level of voice encryption for message privacy, each mobile or fixed station on the HF network has a different scrambler code that stops other stations on the network "eaves dropping". The 960 automatically changes to the scramble code of the outstation upon receipt of a Telcall.

#### Serial port for operation in conjunction with a Barrett 923 fax and data system

Enables a single station with a single antenna to handle voice calls, fax and data, and telephone interconnect traffic.

#### **Periodic beacons**

When the system is not handling traffic, if enabled, periodic beacons are sent on all channels at regular intervals. This allows the HF users to evaluate the best channel to use.

#### Remote parameter editing and logged call information down load via the telephone network

Using a PC loaded with Barrett 960 remote software, parameters, access levels and call logging information can be down loaded via the telephone network. This allows 960's to be installed at remote locations and be controlled from a central point

#### FED STD 1045 ALE option

The ALE option enables Barrett mobiles and fixed stations fitted with ALE to access the 960 telephone interconnect. ALE simplifies operation, the HF network user enters the 960 address and telephone number and the telephone caller only has to enter the mobile number required. The ALE controller automatically selects the channel and establishes the link between the two.

#### **Displays and annunciates EMERGENCY SELCALLS**

#### 98 stored telephone numbers

For access by transceivers that only have Selcall and not the full dial Telcall option.

#### DTMF or Decadic dialling from the 960 onto the telephone network.

Multiple level access options for stations on the HF network Stations can be allocated different access levels i.e. local calls only, ISD call access etc. Stations can be barred and specific numbers can be barred.

#### DSP based VOX designed specifically for HF use.

#### Parallel printer port for hard copy, call logging output. **Call charging**

12/16kHz or 50Hz metering pulses can be sensed. These are used in the comprehensive call charging system.

#### Manual / Automatic VOX

If the telephone connection is of poor quality causing the VOX to be unstable the telephone caller can switch to manual VOX, by keying 88 on his telephone, and use the hash key on his telephone to change the 960 from transmit to receive.

#### **Channel information**

The telephone user can request the currently selected channel's frequency information by keying 77. The frequency will be annunciated by recorded voice.

Full base station operation features when operated in manual mode.

#### Scan resume - no missed calls

In manual mode, after a selectable time if there are no key presses or push to talk operations the 960 resumes scanning.

### System option levels

#### Level 1

Level 1 option allows mobiles fitted with 4 digit selective calling systems based on CCIR 493-4 to access up to 98 preprogrammed telephone numbers stored in the 960.

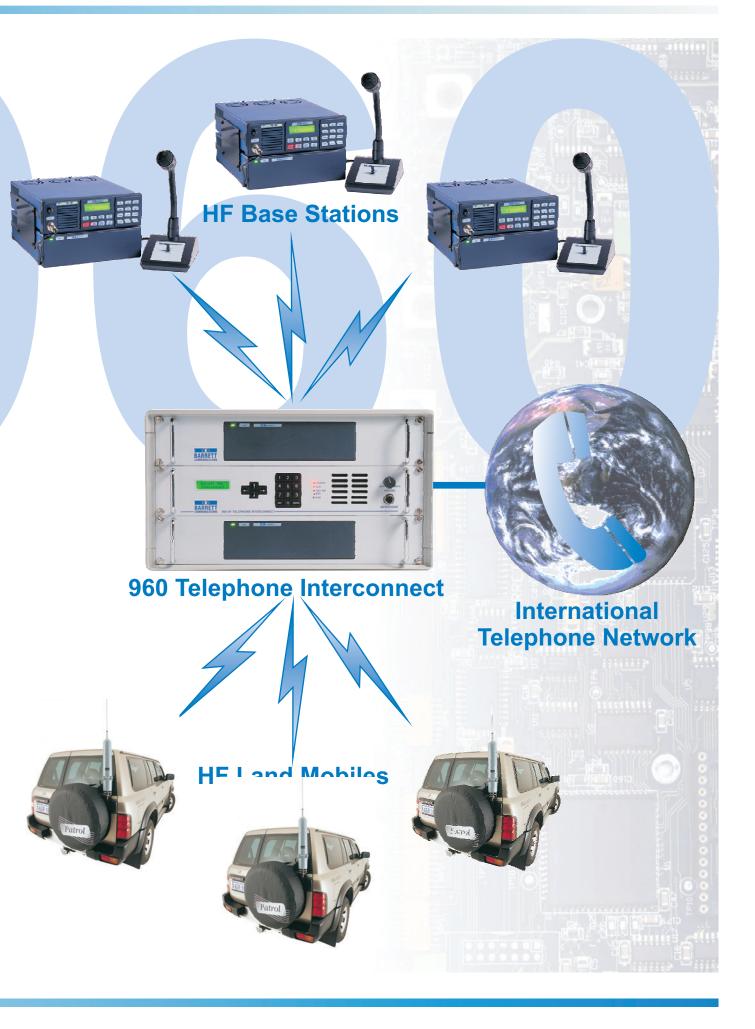
#### Level 2

Level 2 includes level 1 features plus enables mobiles and outstations, fitted with the Telcall selective calling option, to dial 16 digit telephone numbers. In addition, system activity logging information is accessible via a serial port on the rear of the 960 for use with a serial printer.

#### Level 3

Level 3 includes all level 1 & 2 features plus a remote logging and control facility. This allows system activity information to be downloaded and mobile or out-station access levels to be up-loaded from a remote PC. This option includes the addition of a modem within the 960, a plug-in modem card that suits most PC's and custom software that is loaded into the PC to operate the system.





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