



- **Multi-wire broadband dipoles**
- **Single-wire broadband dipoles**
- **Single-wire single frequency dipoles**
- **Rotatable log periodics**
- **Deltas**
- **Rhombics**
- **Conical monopoles**

Additionally antenna systems can also be designed and manufactured to suit specific customer requirements.

Barrett Communications provide reliable, solidly constructed broadband, as well as single frequency, base station antennas for a variety of uses and in many different configurations to compliment our range of HF transceivers and ensure the success of your base station.

We manufacture our antennas to exacting standards using high quality stainless steel and glass reinforced composites. Our base station antennas are lightweight and corrosion resistant, but are able to withstand wind speeds in excess of 200 km/h. The full range of wire antennas are supplied complete with an inverted "V" mounting harness, 30 metres of coaxial cable and high quality waterproof connectors. Our base station antenna range includes:



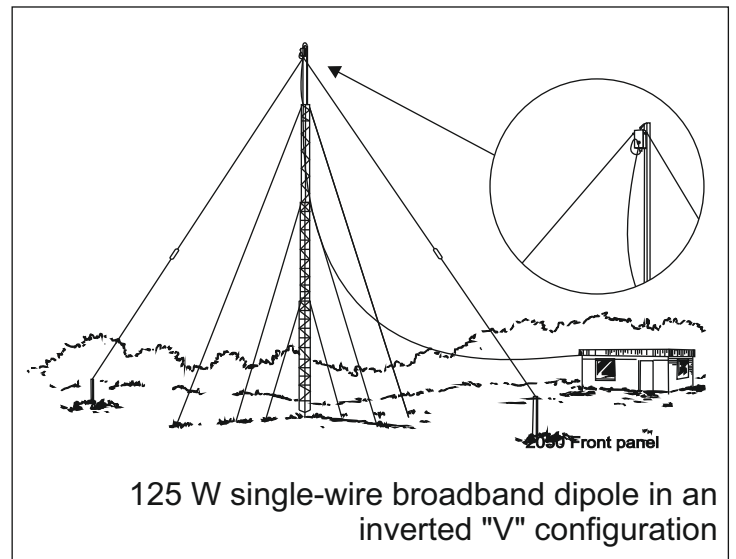
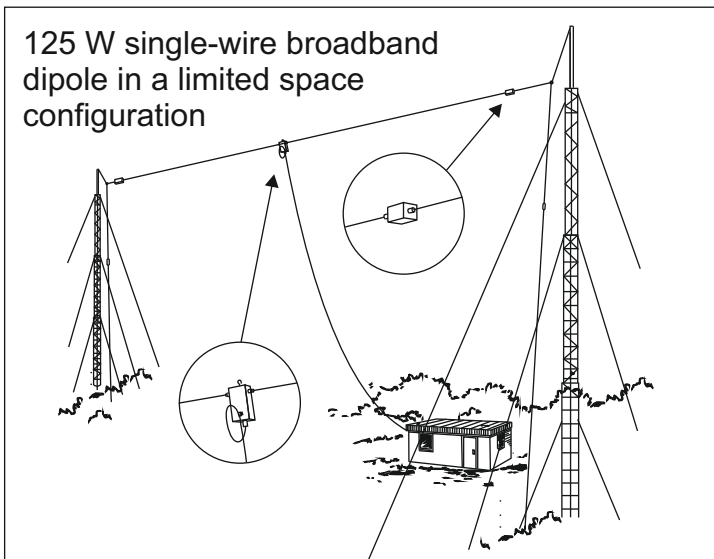
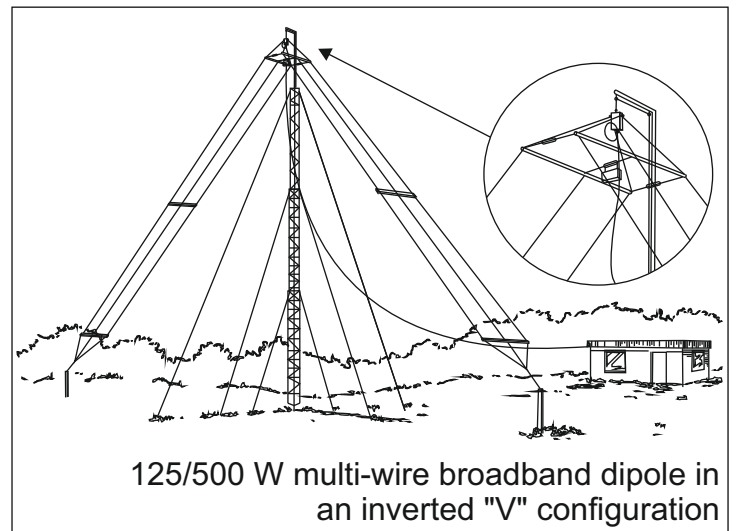
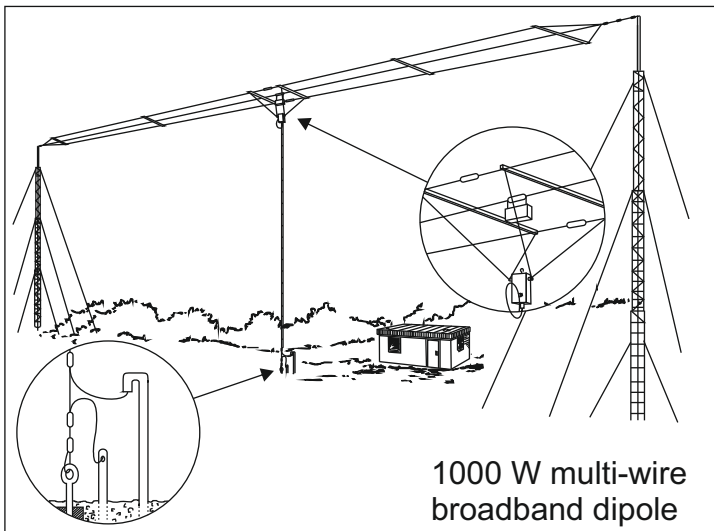
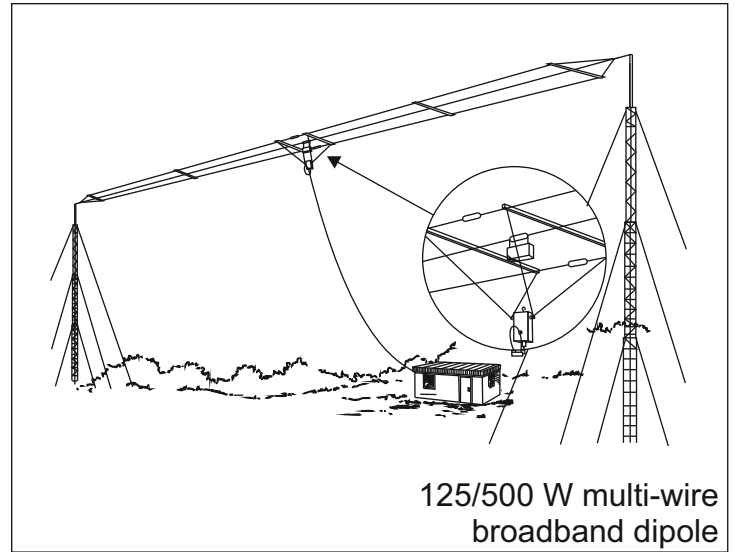


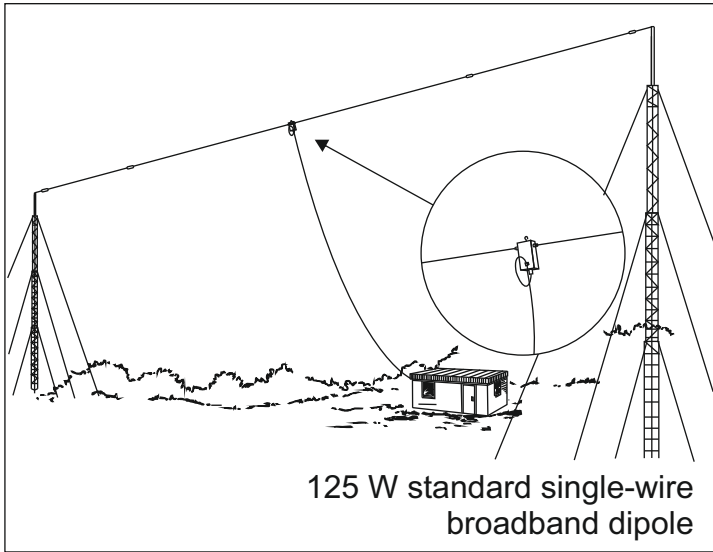
### 912 Series broadband dipoles

The Barrett 912 series of broadband base station antennas are designed for use in either an inverted "V" configuration using a single mast, or a standard dipole configuration between two masts.

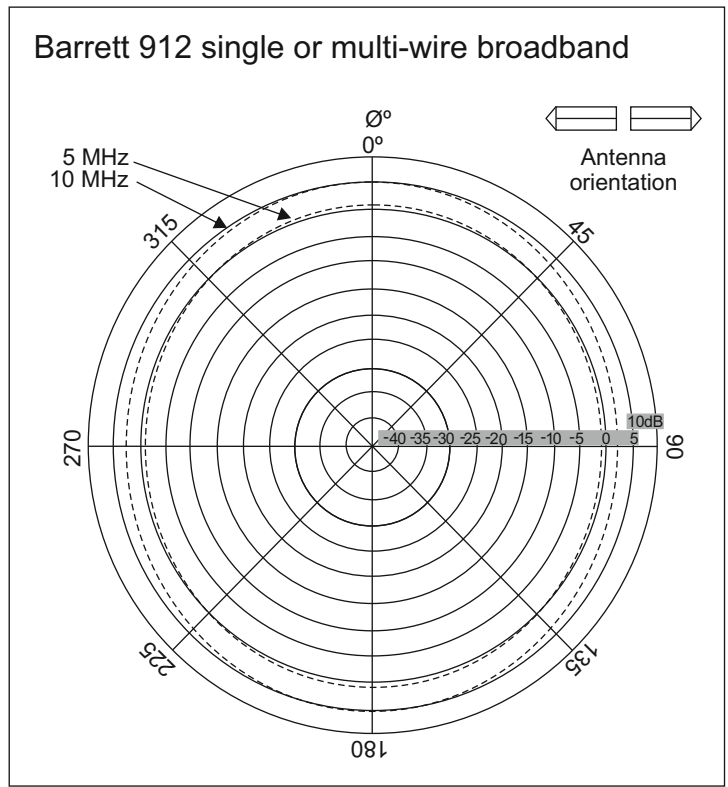
In the inverted "V" configuration the 912 provides a more omni directional radiation pattern. All broadband antennas in the series are designed to provide optimum performance over a wide HF spectrum, without the need for antenna tuners.

Using high quality stainless steel and glass reinforced composites the 912 series of broadband antennas are lightweight and corrosion resistant, but are able to withstand wind speeds in excess of 200 km/h. The antennas are supplied complete with an inverted "V" mounting harness, 30 metres of coaxial cable and high quality waterproof connectors.





## Typical azimuth pattern



## General specifications

|                 |                 |
|-----------------|-----------------|
| Frequency range | 2 MHz to 30 MHz |
| VSWR            | Less than 2.5:1 |
| Impedance       | 50 ohm          |
| Max wind speed  | 207 km/h        |

### BC91200 125 W multi-wire broadband dipole

|                               |                         |
|-------------------------------|-------------------------|
| Length insulator to insulator | 28 metres               |
| Width                         | 1.3 metres              |
| Power handling                | 125 W CW, 250 W PEP     |
| Packed weight                 | 6 kg                    |
| Packed dimensions             | 1.4 m x 150 mm x 100 mm |

### BC91201 125 W single-wire broadband dipole

|                               |                         |
|-------------------------------|-------------------------|
| Length insulator to insulator | 48 metres               |
| Width                         | n/a                     |
| Power handling                | 125 W CW, 250 W PEP     |
| Packed weight                 | 2 kg                    |
| Packed dimensions             | 250 mm x 300 mm x 75 mm |

### BC91202 500 W multi-wire broadband dipole

|                               |                         |
|-------------------------------|-------------------------|
| Length insulator to insulator | 28 metres               |
| Width                         | 1.3 metres              |
| Power handling                | 500 W CW, 1250 W PEP    |
| Packed weight                 | 13 kg                   |
| Packed dimensions             | 1.4 m x 300 mm x 150 mm |

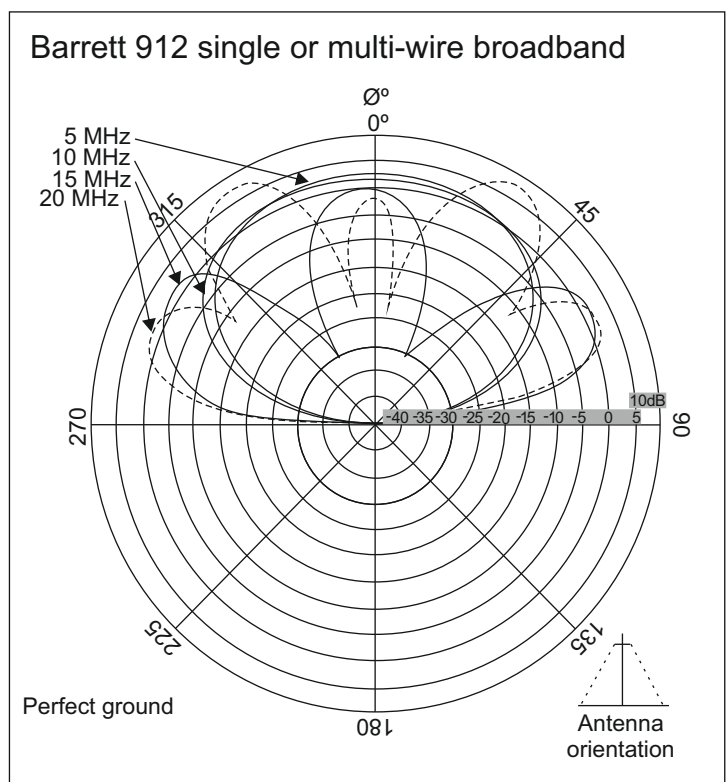
### BC91203 1000 W multi-wire broadband dipole

|                               |                            |
|-------------------------------|----------------------------|
| Length insulator to insulator | 28 metres                  |
| Width                         | 1.3 metres                 |
| Power handling                | 1 Kw continuous 1.5 Kw PEP |
| Packed weight                 | 20 kg                      |
| Packed dimensions             | 1.4 m x 300 mm x 150 mm    |

### BC91207 1000 W multi-wire broadband dipole

|                               |                            |
|-------------------------------|----------------------------|
| Length insulator to insulator | 54 metres                  |
| Width                         | 1.3 metres                 |
| Power handling                | 1 Kw continuous 1.5 Kw PEP |
| Packed weight                 | 25 kg                      |
| Packed dimensions             | 1.45 m x 400 mm x 220 mm   |

## Typical elevation radiation pattern



## 918 Log periodic antennas

Steerable antenna with high directional gain suitable for long distance communications. Broadband input from either 13 MHz to 30 MHz or 10 MHz to 30 MHz. 918 Log periodic antennas come complete with rotator and thrust bearing. Optional feeder coaxial or rotator control cable is available to length separately.

## 915 Single-wire dipoles

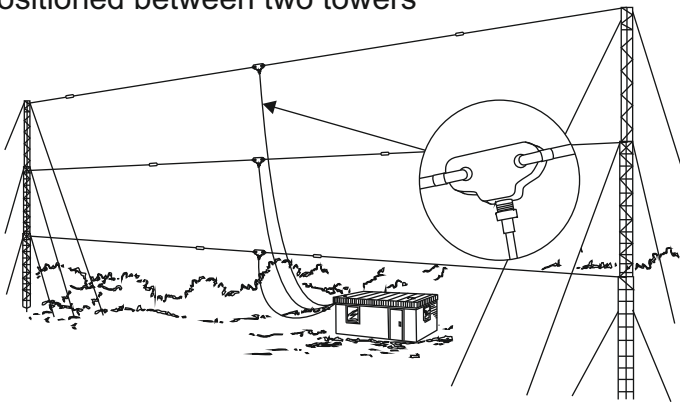
Single-wire dipole antennas, spot-tuned to the required operating frequency, are the most efficient antennas for use in HF base stations. They are simple to install and have a relatively narrow bandwidth and requires only minimal maintenance.

When several frequencies are required at a base station, several dipoles can be stacked one above the other between two towers. An antenna switch box BCB91600 can be used to switch to the required dipole depending on the channel.

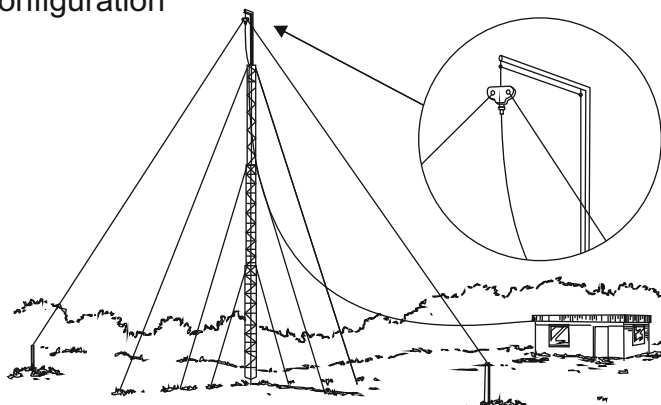
## General specifications

|                 |                           |
|-----------------|---------------------------|
| Frequency range | 500 KHz to 30 MHz         |
| VSWR            | Less than 1.5:1           |
| Impedance       | 50 ohm                    |
| Construction    | Stainless steel radiators |

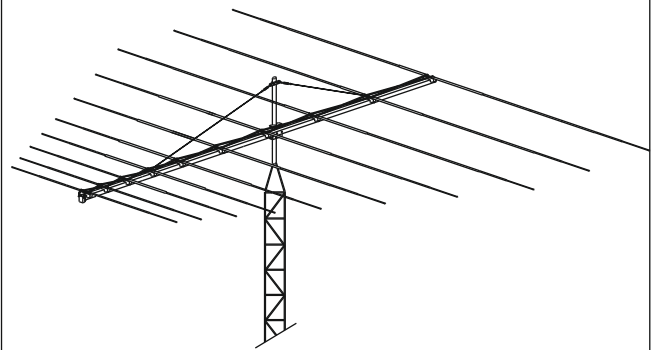
Several single frequency wire dipoles positioned between two towers



Single frequency wire dipole in an inverted "V" configuration



10 Element 918 Log periodic antenna



## General specifications

### 918 Log periodic antenna 8 element - 13 MHz to 30 MHz

|                     |                                   |
|---------------------|-----------------------------------|
| Frequency range     | 10 MHz to 30 MHz continuous       |
| Typical gain        | 6-7 dBi 10 MHz to 30 MHz          |
| Front to back ratio | Typical 15-20 dB 10 MHz to 30 MHz |
| Beamwidth           | 60°                               |
| Feed impedance      | 50 ohm unbalanced                 |
| VSWR                | Less than 2.5:1                   |
| Input connector     | UHF type socket standard          |
| Power handling      | 1 kW PEP                          |
| Boom length         | 6.0 m                             |
| Max. element length | 11.55 m                           |
| Turning radius      | 6.48 m                            |
| Wind survival       | 120 km/h                          |
| Packed size         | 1.8 m x 0.2 m x 0.2 m             |
| Weight              | 20 kg                             |

### 918 Log periodic antenna 10 element - 10 MHz to 30 MHz

|                     |                                   |
|---------------------|-----------------------------------|
| Frequency range     | 10 MHz to 30 MHz continuous       |
| Typical gain        | 6-7 dBi 10 MHz to 30 MHz          |
| Front to back ratio | Typical 15-20 dB 10 MHz to 30 MHz |
| Beamwidth           | 60°                               |
| Feed impedance      | 50 ohm unbalanced                 |
| VSWR                | Less than 2.5:1                   |
| Input connector     | UHF type socket standard          |
| Power handling      | 1 kW PEP                          |
| Boom length         | 8.0 m                             |
| Max. element length | 11.55 m                           |
| Turning radius      | 7.27 m                            |
| Wind survival       | 120 km/h                          |
| Packed size         | 1.8 m x 0.4 m x 0.2 m             |
| Weight              | 40 kg                             |

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

**Head Office:**  
 Barrett Communications Pty Ltd  
 47 Discovery Drive, Bibra Lake,  
 WA, 6163 AUSTRALIA  
 Tel: +61 8 9434 1700  
 Fax: +61 8 9418 6757  
 Email: [information@barrettcommunications.com.au](mailto:information@barrettcommunications.com.au)

BCB900ANT/18

ISO 9001  
 BUREAU VERITAS  
 Certification

