### 912 Singlewire broadband dipole antenna - 125 W

P/N BC91201

BARRETT 912 Single Wire Broadband Dipoles are ideal for base stations that require operation on multiple frequencies through out the HF spectrum using a single antenna. The 912 single wire broadband P/N BC 91201, can be mounted either in a horizontal or inverted 'V' configuration as illustrated in the following diagrams. In the horizontal configuration the minimum distance between the masts is 49 metres and the recommended mast height is 15 metres.



In locations with limited space the antenna can be mounted with the ends past the load resistors drooped down towards the ground. White nylon supports located just past the load resistors are provided to attach halyards for this configuration. In this configuration the minimum distance between masts is reduced to 33 metres.



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In the horizontal configuration the major radiation direction is broadside to the antenna.



In the inverted 'V' configuration the recommended mast height is 15 metres and at this height the 2 metre stub masts are each installed at a minimum of 19 metres from the mast base.



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In the inverted 'V' configuration the antenna becomes more suitable for NVIS, with radiation being directed at high angles, but omnidirectional around the antenna horizontally.



Support towers may be either lattice masts as illustrated, tubular telomasts or other support structures that may be available locally.

It is recommended that the halyards used to support the antenna be either UV stabilised dacron chord or wire rope and that pulleys should be of stainless steel construction.

As with all antenna installations ensure the antenna is as far from sources of electrical interference as possible and in a position that makes it impossible for the antenna to come in contact with high voltage overhead mains wiring

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#### 912 Single Wire ANTENNA UNPACKING INSTRUCTIONS

#### Note: Do not unroll antenna wires until the antenna is onsite in a large area

- 1. Remove the antenna from the box so that the load resistor hangs downwards below the antenna.
- 2. Spread the antenna on the ground as shown below



- 3. Remove all masking tape.
- 4. Starting at the ends, gently with wire cutters or scissors, remove the cable ties from the first set of three coils of wire. Extend this antenna section as far as possible. Move onto the inner rolls and repeat.

### When all cable ties have been removed, the wires must be extended to full length to prevent them becoming tangled.

If twisting or crossing of the wire occurs during unpacking don't panic and reach for the wire cutters. Instead try to trace the crossed or twisted wire and correct the problem.

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#### HORIZONTAL CONFIGURATION Installation Instruction

- 1. Unpack the antenna (see unpacking instructions) and lay it out on the ground between two mounting poles.
- 2. Attach rope to each insulator (one at each end) and slowly hoist between the two mounting points (tower/poles even a tree or to the roof) ensuring the wires do not tangle. Raise to about eye level.
- 3. Balun (black box) connection: Once the antenna has been raised to a convenient height, attach the balun and coax cable as shown below. All stainless steel nuts and washers required are provided with the balun. Remember to use the strain relief on the back of the balun box (wrap the RG58 coax in the little "channel" under the washer and tighten the wing nut).
- 4. Raise the antenna to the desired height and secure ropes. A slight curve in the antenna is normal.



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#### INVERTED "V" CONFIGURATION Installation instructions

- 1. Unpack the antenna and lay on the ground making sure the wires do not tangle.
- 2. Attach a hoisting cord to the Balun. Slowly raise to about eye level ensuring that the wires do not tangle.
- 3. When at a convenient working height, connect the coax cable to the plug at the base of the balun. Remember to use the strain relief on the back of the balun box (wrap the RG58 coax in the little "channel" under the washer and tighten the wing nut).
- 4. Raise the centre of the antenna to the required height. The ends of the antenna now need to be secured. Attach cord to the insulator at each end of the antenna. Apply sufficient tension to straighten the antenna cables. A slight curve in the antenna is normal. Tie these cords to convenient points to secure the antenna in position. Ideally these should be tied at a height, or in a safe area to avert possible contact and risks of minor shocks or burns.

