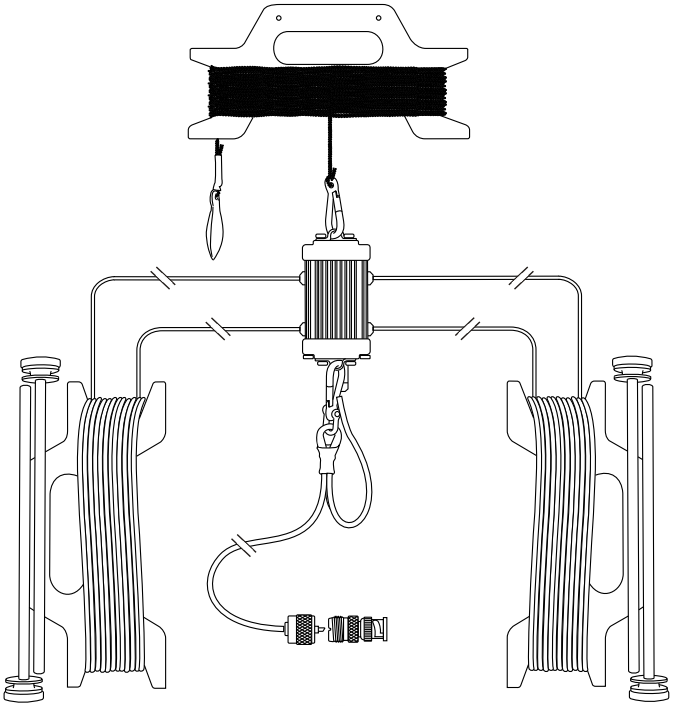
BARRETT

Rapid Deployment Two Wire Broadband Dipole HF Antenna 150 W

P/N 2090-02-20



BCM20904/03

Introduction

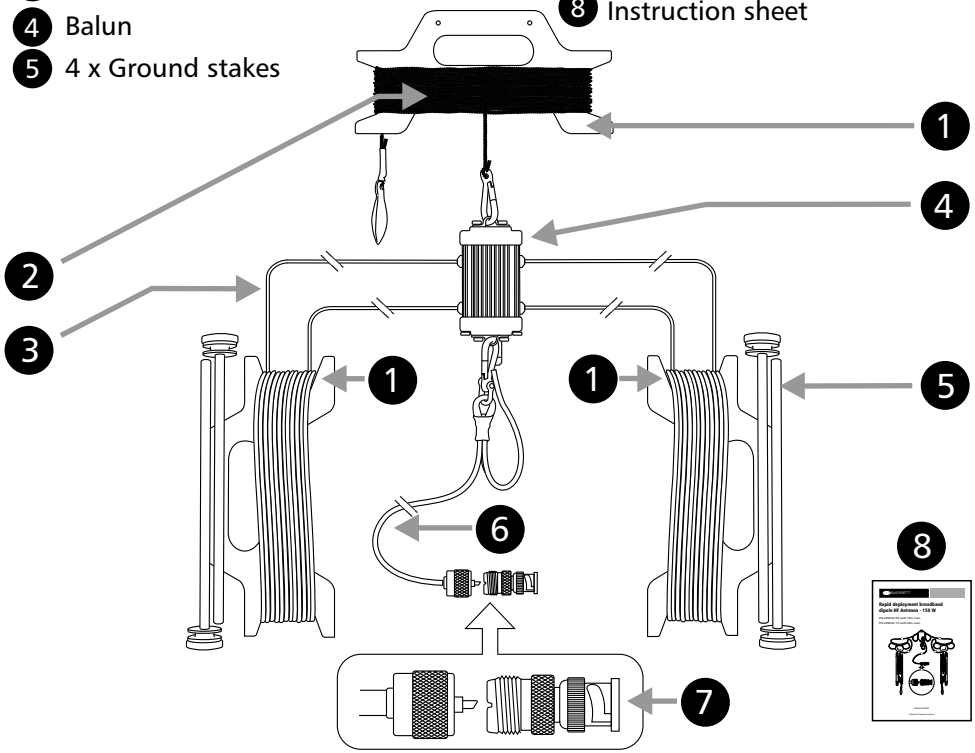
The Barrett Rapid deployment two wire broadband dipole antenna features a small installation footprint and small packed size. It will operate continuously across the band from 2-30 MHz. Power rating is 150 W PEP. The antenna is deployed as an inverted-V, mounted on a single central pole or other convenient suspension point (such as an overhanging tree limb) at a height of 6-10 metres. This gives omnidirectional coverage with strong near vertical radiation for NVIS communications and also good signal strength at lower angles for medium and longer range communications. Compatible Barrett masts include, 10m Rapid Deployment Mast (P/N 2090-02-21) and 10m Rapid Deployment Composite Mast (P/N 2090-02-24). This antenna is most suitable for HF radio manpack and temporary base station deployment. This guide will indicate the recommended deployment type for each configuration with these symbols.

Manpack

Temporary base station

Contents Overview

1. 3 x Large winders
2. 1 x 20 m throwing cord with weighted end and hook
3. 2 x Kevlar core antenna wire
4. Balun
5. 4 x Ground stakes
6. 1 x 20 m RG-58 coax with UHF male connectors
7. 1 x UHF Female to BNC male adapter
8. Instruction sheet

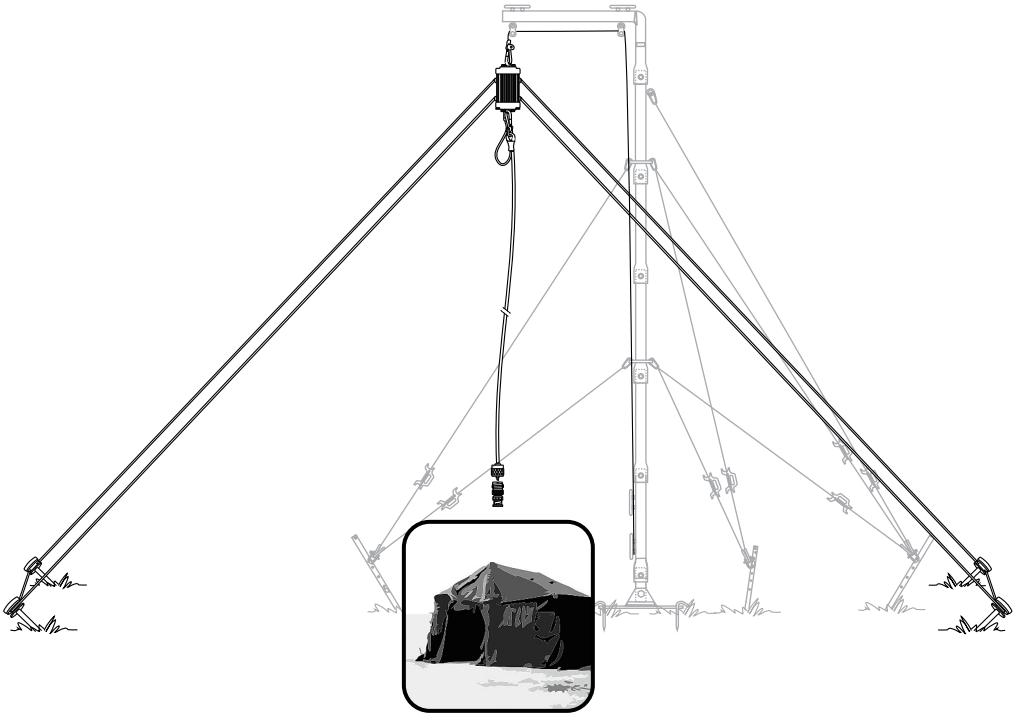


Installation

The legs are spaced at one metre. The height of the balun will depend on the height of the mast or other convenient suspension point; this will determine the space needed for the antenna to be setup.

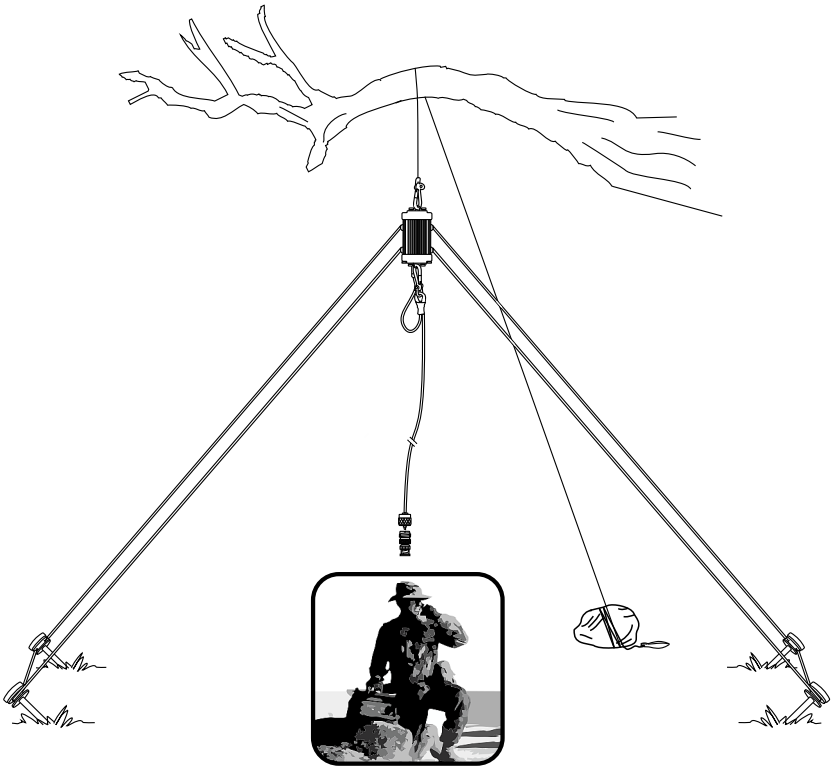
As a quick guide, refer to the following table:

Mounting Height (Balun)	Overall Installed Width	Overall Installed Length
6m	1m	20.68m
7m	1m	19.49m
8m	1m	17.49 m
9 m	1m	15.87m
10m	1m	13.26m



Possible mast installation configuration
with Barrett 10 Metre Rapid Deployment Mast
(shown in grey) - P/N 2090-02-21

Installation

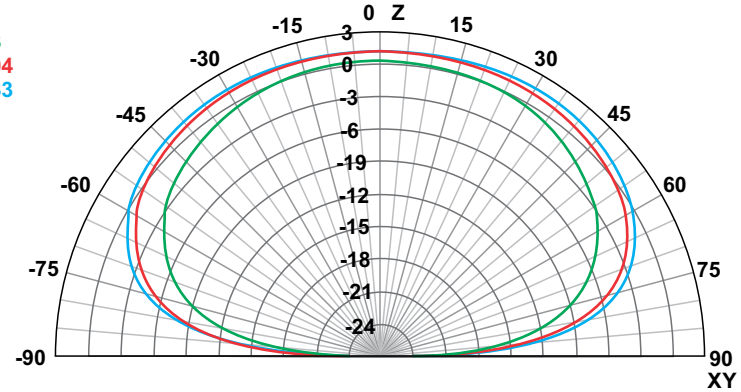


Possible hanging installation configuration

Radiation Pattern

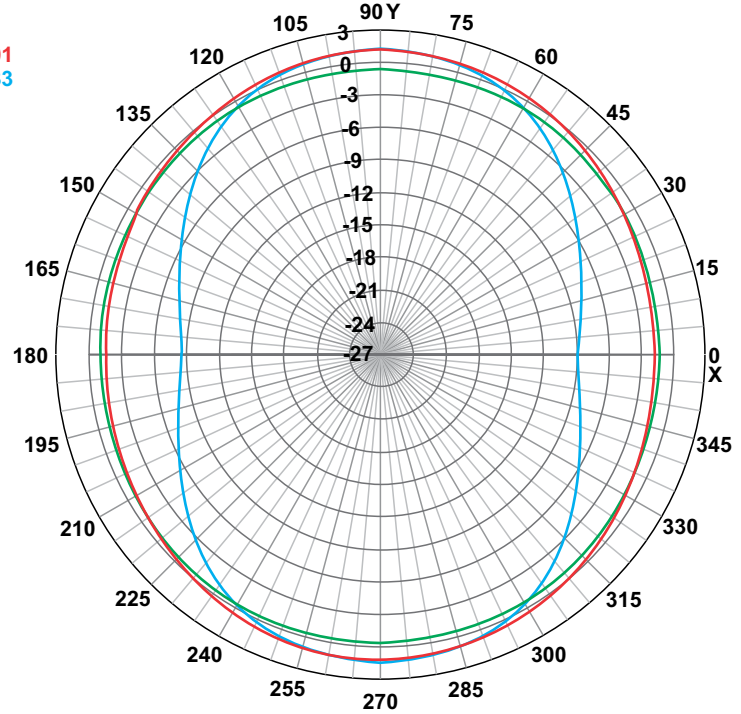
Vertical Plane - Total Gain (dBi)

5MHz 0.23
10MHz 1.04
15MHz 1.33



Horizontal Plane - Total Gain (dBi)

5MHz 0.5
10MHz 1.01
15MHz 1.33



Specifications

Electrical

Frequency Range	2 - 30 MHz
Input Impedance	50 ohms
Power Rating	150 W PEP
VSWR	Equal or less than 2.0:1 from 2-27 MHz, Less than 2.2:1 from 27-30 MHz
Connector	UHF female
Polarisation	Horizontal
Radiation Pattern	Essentially Omni-Directional (when mounted as an inverted-V)

Mechanical

Mounting Height	Recommended between 6 m to 10 m
Overall Installed Length	20.68 metres at 6 m centre height
Overall Installed Width	1 metre at 6 - 10 m centre height
Mounting	Central suspension via mast or other support, ends via ground stakes
Colour	Radiating wire elements - NATO green Balun housing - black

Environmental

Wind	160 km / hour survival, 120 km / hour operational
Temperature	-40° C to +70° C operational -40° C to +85° C storage
Humidity	0% to 97% relative humidity
Ingress Protection	To IP67 (dust and water)
RoHS2	Complies with Directive 2011/65/EU