

## Mad Dog Coils (MDC) Rottie – User Guide

The Rottie (short for Rottweiler, due to its strength and black colour) is a 3-D printed base designed to mount a vertical telescopic whip (up to 25 ft.) or two telescopic whips (up to 17 ft.) in a V-dipole configuration. Both vertical and V-dipole antenna whips can be setup together as there is an individual BNC feed-point for both.

Both antennas should not be used at the same time connected to two different transceivers. If wanting to use both antenna configurations then best practise is to have a short coax from one transceiver to an antenna switch and then two longer coax runs from the antenna switch to the two BNC feed points on the Rottie. The antenna switch is then used to select between the two antennas. Alternatively if just using one coax cable without an antenna switch, that cable can be swapped between the vertical and V-dipole BNC inputs to select between the two antennas. A 1:1 choke balun is recommended at the antenna end of the coax runs.

The 90 degree V-dipole is designed to take two 17 ft. (5.2 meters) telescopic whips. The vertical mount is designed to take telescopic whips up to 25 ft (7.6 meters) and there is power pole socket on the rear side of the mount which provides the addition of a loading coil for the purpose of tuning the 40 meter band with the 25 ft. whip and the 40/30 meter bands with the 17 ft whip. A power pole link jumper is supplied as shown in the components diagram which “shorts” the circuit when a loading coil is not required. Loading coils can be purchased as an optional extra or you can make your own.

The Rottie is shipped with four bolts, eight washers, three coupler nuts and a regular nut. At the time of checkout the purchaser selected either Metric (10MM) or Imperial (3/8-24) hardware to be supplied. It is designed to be mounted on a heavy duty tripod such as a surveyors tripod. When using the V-dipole the tripod legs should be extended so that the tripod head is at its maximum height.

### Whips

Generally there are two types of stainless steel telescopic whips, those of higher quality such as the Chameleon SS17 and SS25, and then there are the Chinese knock-offs which are around one quarter of the price of the higher quality whips. The cheaper telescopic whips are not as strong and when fully extended in V-dipole configuration may bend or even break so only extend them to the length that they have strength. Wind loading should also be taken into account. Chameleon whips are designed to be able to handle strong winds and the 17ft whips can be fully extended in dipole configuration.

### Operating - Vertical Configuration

Best for bands 40, 30 & 20 meters. Ground radial wires will need to be connected to the banana plug socket. Recommendation for ground radial wires is 6 at 4.5 meters length (about 15 ft) and lay them out on the ground three bunched up together and the other 3 running the opposite direction to the first three.

If using a 25 ft. telescopic whip, the 40 meter band will need a 4.2 uH loading coil (fine tune by adjusting the whip length). All other bands will need the power pole link jumper in place and shorten the whip to achieve lowest SWR.

If using a 17 ft. telescopic whip, the 40 meter band will need an 8.2 uH loading coil, the 30 meter band a 4.2 uH loading coil (fine tune by adjusting the whip length). All other bands will need the power pole link jumper in place and shorten the whip to achieve lowest SWR.

### Operating - V-dipole Configuration

Best for bands 20, 17, 15, 12, 10 & 6 meters.

For 20 meters the 17ft whips will be fully extended. For higher frequencies the whips will be brought in evenly to achieve lowest SWR for the desired frequency.

To see a video of Rottie in use visit [maddogcoils.com.au](http://maddogcoils.com.au) website.

### Power Rating (Based on the recommended max power of a BNC socket)

SSB: 150 W    CW: 100 W    AM/FM/Digital: 75 W

I hope you get many years of use and enjoyment out of your Mad Dog Coils product.

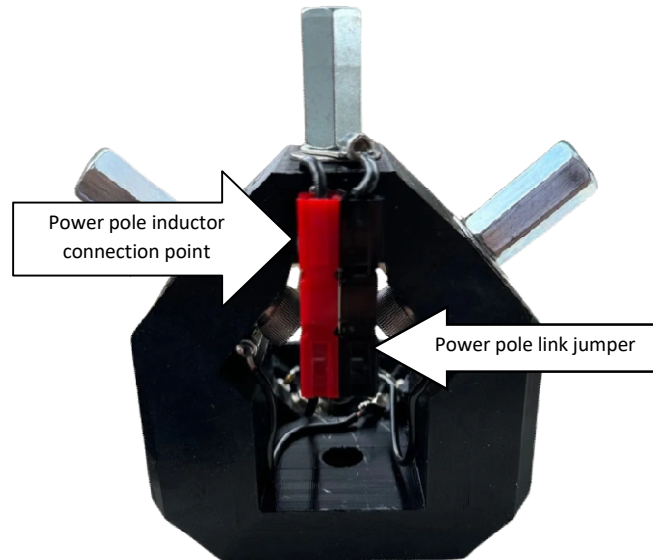
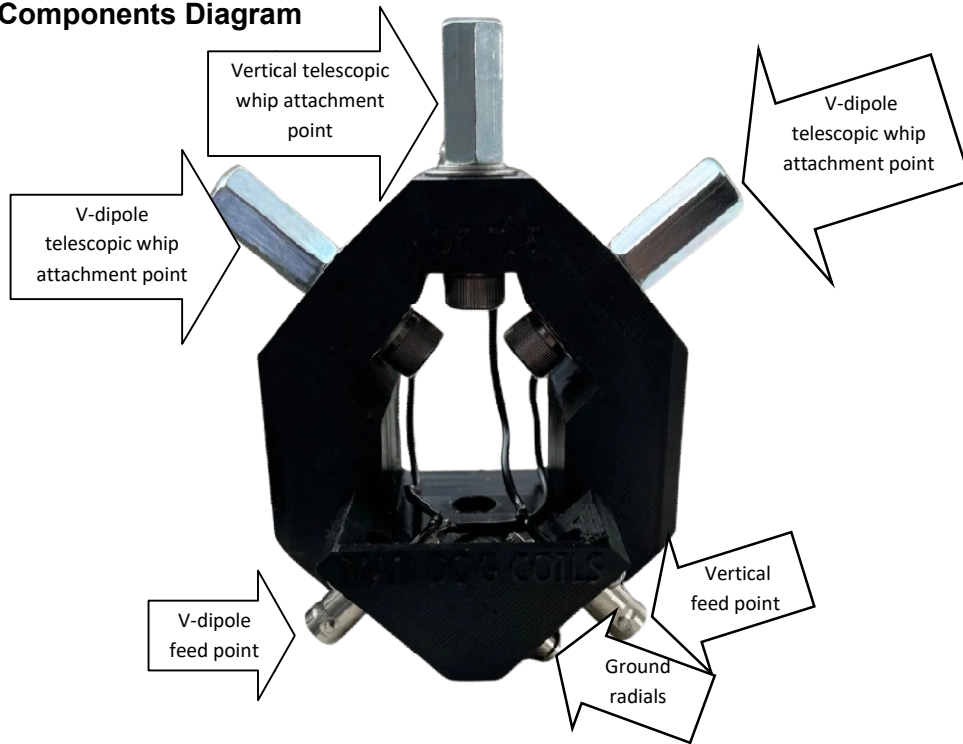
73' Marty VK4KC the Mad Dog

NOTE: The mount is 3D printed with PetG plastic and may have some minor surface blemishes which occur as part of the printing process. This does not compromise the strength of the product.

### \* Disclaimer \*

It should be noted that the Mad Dog Coils Rottie should only be used in accordance to our specifications and within our stipulated intended use. All details of intended use are detailed in the documentation that is shipped with the product. We accept no liabilities for such uses outside of our intended use and stipulations.

## MDC Rottie Components Diagram



## MDC Rottie Inductor Coils

Two inductor coils (4.2uH & 8.1uH) can be purchased in a pack. They come un-joined but as you can see in this photo they can be joined to the power pole link jumper which keeps them all together and less risk of getting lost.

