

# Whizz Whip

## A QRP HF/VHF/UHF antenna

This 'miracle' antenna design seems to have existed in many guises and the Whizz Whip is the latest incarnation. The Whizz Whip claims to be a universal QRP (10W) transmit and receive antenna for 80m through to 70cm with extended receive coverage of 600kHz to 500MHz. In this review I'll cover my practical experiences with the antenna.

**IN THE BOX.** As you can see from the photos, there are two parts to the Whizz Whip, a 130cm telescopic whip antenna and the main control unit. The included instructions comprised a single A4 sheet with the specifications and a few operational instructions.

**CONNECTING UP.** The Whizz Whip has a BNC connector at the top for connection to the telescopic whip and a PL-259 plug on the front panel for connection to your rig. The normal configuration would be to screw the PL-259 connector directly into the antenna socket on your rig. This works very neatly for small portable rigs like the FT-817 but didn't fit so well on the FT-897D. Ideally, you need a rig where the antenna socket is mounted towards the top of the rear panel so you can access the rotary tuning knob on the front of the Whizz Whip. In its simplest form, this is all you need to get operational.

In cases where the Whizz Whip doesn't fit neatly on the back of the rig you can use a coax extension cable. However, there's no mounting system for the control unit so it becomes a bit cumbersome when attached to the whip. One solution could be to mount an SO239 socket on a vertical metal sheet and attach the sheet to a firm base for stability. That way the Whizz Whip could plug into the new socket where it could then be wired back to the rig. You can also use the Whizz Whip control unit as a universal QRP matching unit to all manner of wire and whip antennas.

**PHOTO 1:** Internal view of the Whizz Whip antenna.



**INSIDE VIEW.** Photo 1 shows that the main component in the Whizz Whip is a multi-tapped inductor combined with a rotary switch. The switch has 48 steps and provides access to 47 different inductor taps. As far as I can see, this is basically an L-match arrangement but with a much larger number of taps than usual. The large number of taps is the key to the Whizz Whip being able to work over such a wide frequency range. For the VHF/UHF coverage, matching is achieved simply by trimming the length of the telescopic whip element.

**MEASUREMENTS.** Before starting to operate with the Whizz Whip, I thought I'd try a few SWR measurements using a YouKits FG01 antenna analyser. The first set of measurements were taken with only the telescopic whip attached and the Whizz Whip's tuning control adjusted for the lowest SWR. In this configuration, the Whizz Whip is very sensitive to objects in the immediate proximity as the case is made from ABS or similar so there is no screening. To get reliable measurements I had to secure the antenna by holding the coax connector in a clamp. For the second set of measurements I added a 15m counterpoise that was attached to the screen of the coax connector and ran out along the ground.

As you can see from Table 1, it was possible to obtain a workable match on most HF bands. You can also see that the counterpoise improved the performance on many bands. Obtaining a good match on 3.5MHz was extremely difficult as everything was 'hot' and just changing my position affected the result. However, I'm sure that with more time and some tinkering with the counterpoise length I could have improved the match on 21MHz.

### USING THE WHIZZ WHIP.

For the on air tests I set myself up in the garden, initially just using the telescopic whip. The bands were fairly quiet

The Whizz Whip, a QRP multi-band antenna.

so I switched to using PSK31 as there's almost always activity on 7MHz, 14MHz or 21MHz. The first problem I encountered was lots of RF getting into my laptop, despite running just 5 watts of RF. To help

tame things I connected a 15m counterpoise to the ground connection on the rig and ran it out across the garden. This improved the situation but there was still some RF getting into the PC so I fitted some clip-on ferrites to the audio leads between the rig and the laptop. That did the trick. With this arrangement, I was able to start working a few European stations on PSK31. Best distance on the day was northern Italy, which is not bad for

such a simple setup on a flat band. I was getting 599 signal reports but that's a bit meaningless as everyone seems to give 599 on PSK! What was more telling was that I was getting immediate responses to my calls, which is a sure sign that you have a decent signal.

**SUMMARY.** Although many will be sceptical of the claims of these wonder antennas, this one works, providing the operator takes some care. For HF use it really needs a counterpoise but that is generally easier to set up than a suspended wire antenna. For VHF/UHF operation you simply extend or retract the telescopic whip to achieve a good match. Before you buy, you also need to consider how the Whizz Whip will attach to your rig, SWR meter, etc, as it is not self-supporting. As I completed the review, Moonraker reported that they're currently looking at different mounting options and hope to have some new accessories available for the Whizz Whip in the near future.

The Whizz Whip is available from Moonraker (UK) Ltd ([www.moonraker.eu](http://www.moonraker.eu)) priced £99.95 inclusive of VAT at 20%. My thanks to Moonraker for the loan of the review model.



**TABLE 1: Whizz Whip SWR Results.**

Band	SWR with Whip only	SWR with Counterpoise
3.5MHz	3.6	3.2
7MHz	1.8	1.6
10MHz	1.4	1.4
14MHz	1.6	1.2
18MHz	1.3	1.3
21MHz	2.1	2.3
24MHz	1.7	1.1
28MHz	1.3	1.5