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# PACKTENNA

## Portable HF Antenna System

# Self Contained Ultralight Antenna System

This manual describes all the various components of a complete Ultralight antenna system. Various parts are sold individually or in combinations. Check the PackTenna web site for availability and options.

# PackTenna Ultralight AntennaSystem

- Completely self-contained system for easily putting up an HF wire antenna
- No guying or guy stakes required
- Sets up on asphalt, concrete, dirt… anywhere
- Uses ultralight carbon fiber materials
- Can support slopers, inverted vee’s, inverted L’s, etc
- Supports optional VHF/UHF vertical and horizontal whips
- Sets up in 2 minutes

# Carbon fiber tripod, mast and weight bag

# The tripod weighs in at about <2 pounds


# The carbon fiber mast is 1 pound and collapses down to 31” long and 1” in diameter


The camera mount can be removed on many photo tripods to reveal a 3/8” stud.  The PT tripod bracket slips over the stud and the carbon fiber mast.

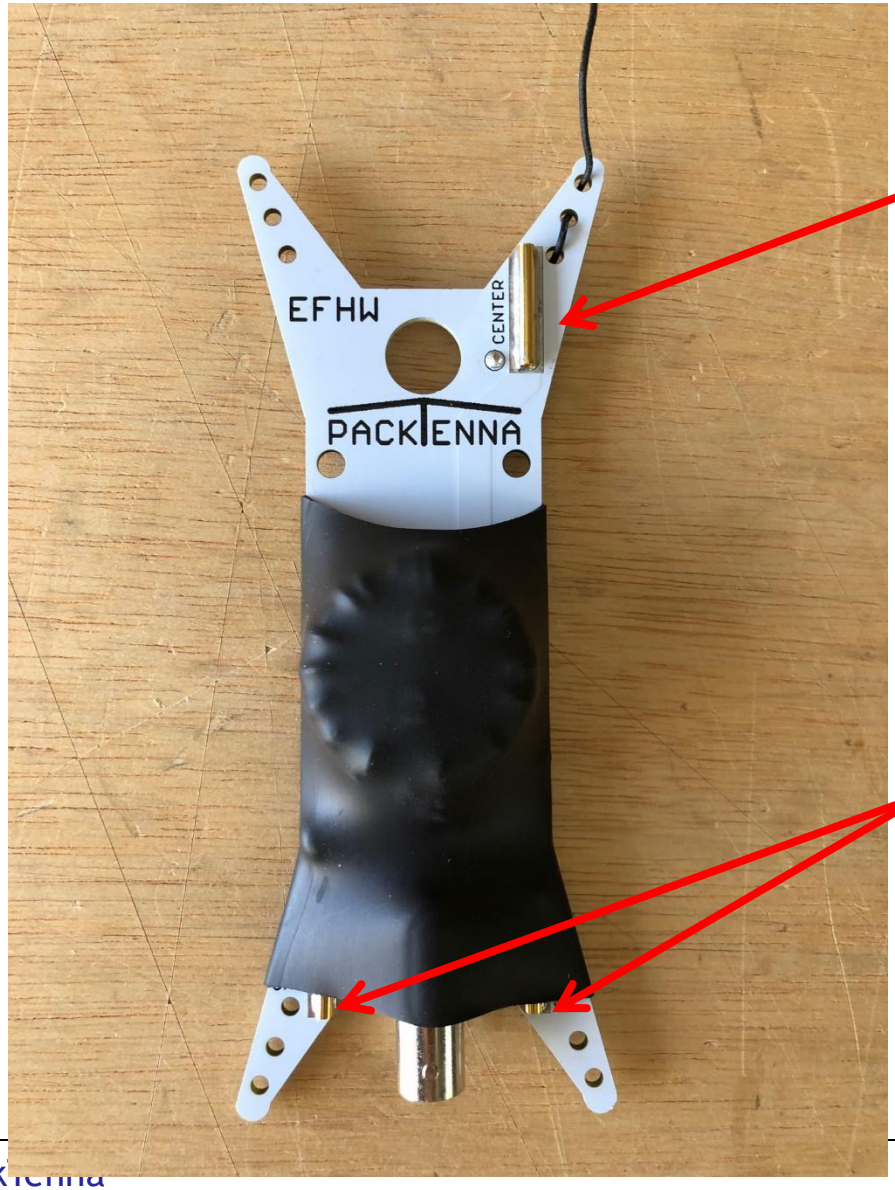
Tueascallk PE Plastic Edge Protection Strip can be added to protect the mast from the edge of the bracket.

2 Velcro straps hold the mast snug to the carbon fiber vertical support. One above the min hinge and one below

The weight and gear bag is intended to hang on the tripod bottom hook. We recommend 10 pounds of weight. Two 5 pound hand weights work great. This will hold the mast up in low wind conditions. If you are in a heavy wind situation, we recommend adding 3 guys.

The EFHW 20/40 includes the feedpoint and 20m wire element and the 40m add on wire element.


# EFHW Feedpoint Connections




The main radiating element is soldered to the feedpoint board. If you need to replace the wire, just unsolder it and replace the wire.
You can optionally remove the soldered on wire and replace it with a wire element that plugs in to this banana jack.

The two bottom jacks are for optional counter poise wires. The antenna uses the coax for it's counterpoise but adding a counterpoise wire may improve your antenna performance. Every situation is different so you can give it a try. Generally it is not necessary.

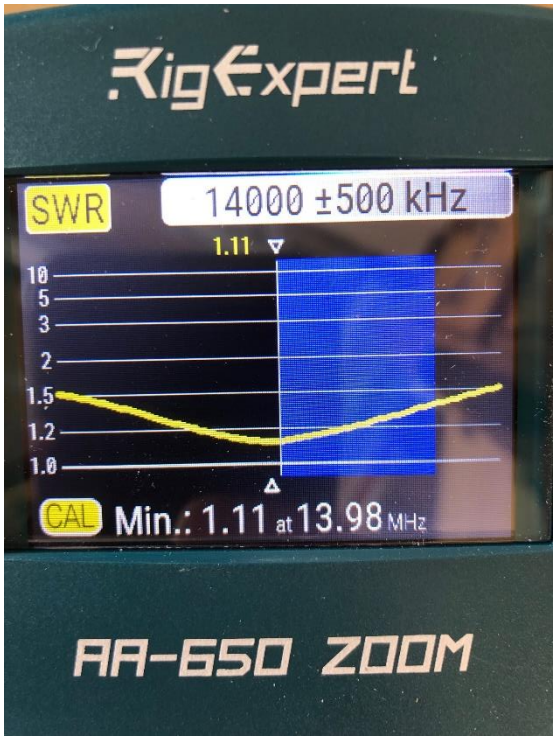
PackTenna Links use a plastic S-clip (carabiner) to connect wire element together.  Eahc wire has a crimped ferrule and the ends are finished off with gold banana connectors and heat shrink for strain relief.

# SWR Sweep

These measurements were made with the EFHW feed point at about 7’ above the ground sloping up to the top of the carbon fiber mast at about 32’ high. The feedline is 20’ of RG-316. Note the match will change depending on the elevation above ground, proximity to other objects, and feedline length.

## 20m

20m wire element sloping up to the mast




< 1.5 SWR across the whole band

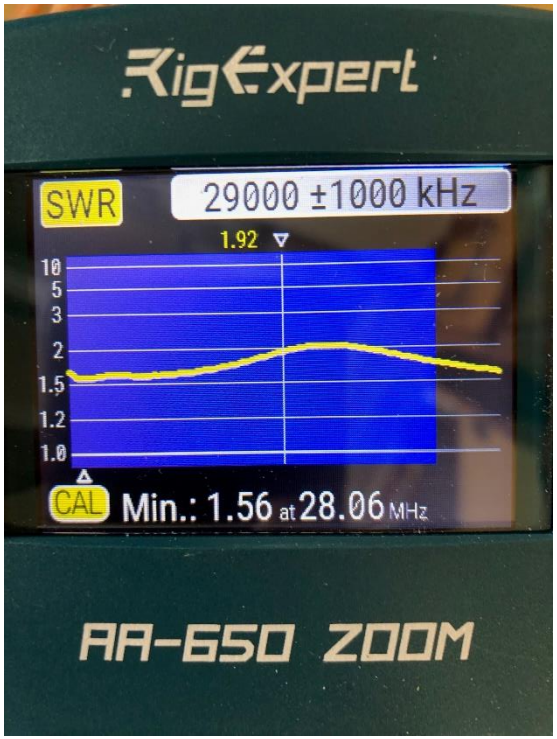
## 40m

20m wire element plus 40m add-on wire in an end-fed inverted vee configuration


< 1.7 SWR across the whole band

## 10m

20m wire element plus 40m add-on wire in an end-fed inverted vee configuration




< 2.0 SWR across the whole band

# Mast Tip Clip Kit

# Upper Support Brackets and Guy Ring


Two sizes available

ID = 1.75” for the PackTenna 10m fiberglass mast.

ID = 1.1” for the PackTenna 10m carbon fiber mast.


Guy Ring