

PV-7 Portable Multi-Band Vertical HF Antenna

OWNERS MANUAL

Congratulations on your purchase of the new PV-7 Portable HF Multi-Band Vertical Antenna -- a BRAND NEW antenna designed to deliver both extreme portability AND exceptional performance at a bargain price. The antenna is a portable vertical HF design that utilizes a telescoping whip antenna, collapsible multiband coil, convenient feedpoint connector and portable counterpoise for maximum portability and efficiency. This antenna design is a perfect choice for portable, QRP (low power), Field Day, temporary or emergency radio operations.

Total weight of the antenna is only 3 lbs. (1.4 kg) and while assembled height of the antenna measures an incredible 12 feet (3.7 m), amazingly, the entire antenna disassembles to roughly 12 inches (30.5 cm) in length and can therefore be stored in a tiny case for travel or backpacking operations. Additionally, this antenna incorporates a convenient multi-band tuning coil that permits quick band changes without having to swap any antenna coils (like other portable antennas).

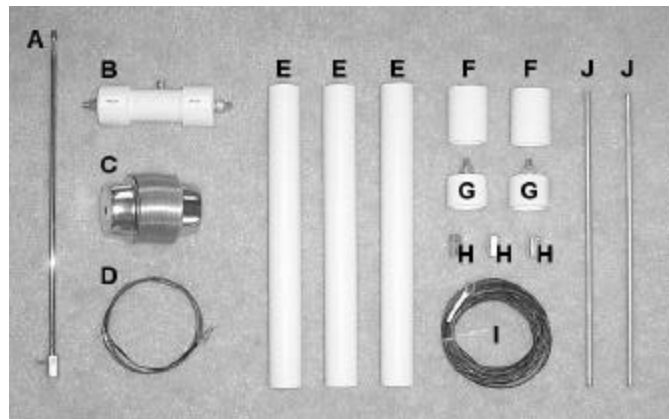
Using the convenient multi-band tuning coil, the antenna quickly tunes and covers all of the following bands with up to 100-watts of transmit RF power (at great SWR matching):

- 10 meters (28 MHz)
- 12 meters (24 MHz)
- 15 meters (21 MHz)
- 17 meters (18 MHz)
- 20 meters (14 MHz)
- 30 meters (10 MHz)
- 40 meters (7 MHz)
- And EVERYTHING in between

Contents

Included with this antenna package are the following pre-manufactured parts, ready-to-assemble and get on-the-air almost immediately:

- **ITEM A:** 1 Telescoping Whip Antenna Assembly
- **ITEM B:** 1 Feedpoint Insulator Assembly (with BNC connector)
- **ITEM C:** 1 Multi-Band Loading Coil
- **ITEM D:** 1 Tuning Wander Lead
- **ITEM E:** 3 PVC Risers
- **ITEM F:** 2 PVC Couplers
- **ITEM G:** 2 PVC End Caps
- **ITEM H:** 3 Steel Coupling Nuts
- **ITEM I:** 1 Set of Ground Radials/Counterpoise Wires
- **ITEM J:** 2 Steel Risers



If you are missing any components or parts arrive damaged, please contact us immediately.

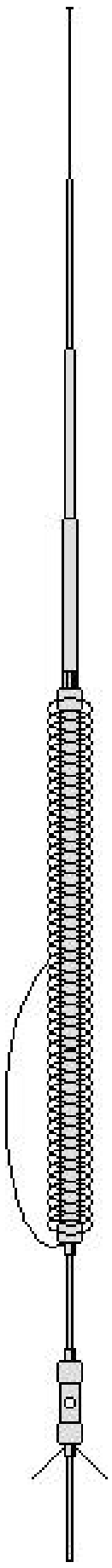
Antenna Assembly

To assemble the antenna before use, please perform the following steps:



1. Thread one of the Coupling Nuts [H] halfway onto one Steel Risers [J] (this will become the antenna Ground Support Stake)

2. Using a hammer, drive the Ground Support Stake securely into the ground (be sure to make





it very secure as it must hold the entire weight of the antenna upright)

- Put the lug of the Ground Radials/Counterpoise Wires [D] on the bolt labeled "Ground" of the Feedpoint Insulator Assembly [B] and thread it (finger-tight) into the Couple Nut [H] already attached to the Ground Support Stake (all nuts should only be tightened with fingers – do not use a wrench – to avoid damaging the antenna).



- Thread two Coupling Nuts [H] halfway onto each end of the remaining Steel Riser [J]



- Now thread the Steel Riser [J] (with the two Couple Nuts [H] already attached at each end) onto the bolt labeled "Antenna" on the Feedpoint Insulator Assembly [B] already attached to the Support Stake.



- Tightly connect the 3 PVC Risers [E] together using the 2 PVC Couplers [F] (this will become the inner Coil Support for the Tuning Coil).



- Tightly connect the 2 PVC End Caps [G] to the inner Coil Support – one on each end (top and bottom).



- Connect the Coil [C] around the inner Coil Support (be careful not to permanently bend any the coils) and place the bolts at each end of the inner Coil Support through the holes at each end of the Coil [C] (this is your Coil Assembly).



- Connect the Wander Lead [D] lug around the bottom bolt of the Coil Assembly and then thread the entire Coil Assembly to the Coupling Nut [H] of the Steel Riser [J] already attached to the base of the antenna.



- Thread the Telescopic Whip Antenna Assembly [A] to the top bolt of the Coil Assembly and then fully extend the telescoping antenna.



- Extend the Ground Radials/Counterpoise Wires [I] out in three directions (of equal spacing) from the antenna (120-degrees apart from each other) and leave them resting above on the ground.

That's it. You're DONE! Now you're ready to work the World on the HF bands with one of the most portable and efficient antennas available. Be sure to read the "Antenna Use", "Operating Tips" and "Precautions" sections (below) before actually transmitting with the antenna.

NOTE: Some sway in the antenna and coil is natural (especially on windy days) and will not seriously affect performance. Disassembly of the antenna is simply performed by reversing the order of the steps above.

Antenna Usage

Once the antenna is correctly assembled, completely erected and connected to a transceiver, you are ready to operate.

- If you haven't already, connect the antenna to a transceiver (The Feedpoint Insulator accepts a male BNC connector -- adapters may be used).

- Clip the Wander Lead [D] “Alligator Clip” onto the coil (making sure you have a good electrical connection with the “Alligator Clip” and the Coil) according to the tuning chart below and, if necessary, and adjust the telescoping antenna length (see Tuning Chart below).
- Check the SWR using an accurate meter and, if necessary, adjust the Wander Lead placement or telescoping antenna length for best SWR (down for lower frequency and up for higher frequency).

Tuning Chart

Band (Frequency)	Tuning / Wander Lead Placement (number of coils down from top)	Telescopic Whip Antenna Length
40-Meters (7 MHz)	52	Extended (up)
30-Meters (10 MHz)	31	Extended (up)
20-Meters (14 MHz)	13	Extended (up)
17-Meters (18 MHz)	1	Extended (up)
15-Meters (21 MHz)	1	Collapsed (down)
12-Meters (24 MHz)	8	Collapsed (down)
10-Meters (28 MHz)	10	Collapsed (down)

TIP: All values are only approximate – your antenna’s tuning requirements may vary slightly. You may consider placing stickers (or placards) on the coil rings to mark each band or tuning placements of your specific antenna.

IMPORTANT: Each time you change the frequency or band on your transceiver, it is important that, BEFORE TRANSMITTING, you re-tune the antenna to the new operating frequency using the steps outlined above.

Operating Tips

- Choose a good clear, open field to operate from (the further away from trees and other structures the better the radiation efficiency of the antenna)
- Please note that the “Tuning Chart” information is only approximate tuning locations for the “Wander Lead” and lengths for the telescoping antenna – each antenna varies slightly and placement/length for each band may vary
- Place a rock over each end of the Ground Radials/Counterpoise Wires to secure in place
- Keep Tuning Wander Lead wire from touching the tuning coil – only the “Alligator Clip” should be touching the tuning coil
- Avoid operating in windy conditions or moving the coil unnecessarily to keep SWR “sway” to a minimum



PLEASE NOTE: It may be possible to operate this antenna on bands other than those it was originally designed for (i.e. 80-meters [4 MHz], 6-meters [50 MHz], 2-meters [144 MHz], 222 MHz, 440 MHz and others).

This might be accomplished by adjusting the extended length of the Telescoping Whip Antenna, trying various Tuning Coil positions, adjusting length of the Counterpoise/Radial Wires and/or by simply using an antenna tuner.

However, absolutely no guarantee or warranty is made or implied for operation outside the designed operating limits and the operator assumes all risks and responsibilities while operating outside the designed limits of the antenna.

Precautions

When setting-up or operating the antenna, the following precautions should be observed to insure both safety of the operator or by-standers and longevity of the antenna or transceiver:

- Extreme care should be taken to insure that the antenna and feedline are kept away from power lines
- Do not tighten any of the nuts with a wrench – finger tighten only – to avoid damaging the antenna
- Do not operate the antenna at power levels greater than 100-watts
- Do not operate the antenna without first properly tuning the coil for the operating frequency
- Do not operate the antenna outside the designed bands
- Do not operate the antenna any foul weather, precipitation, lightening or winds greater than 25 MPH (this may damage your antenna and thus your transceiver)

Contact Us

Your satisfaction is very important! Therefore, your comments and suggestions to help us improve our products and services are encouraged. Please address your questions, comments, suggestions or orders to:



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