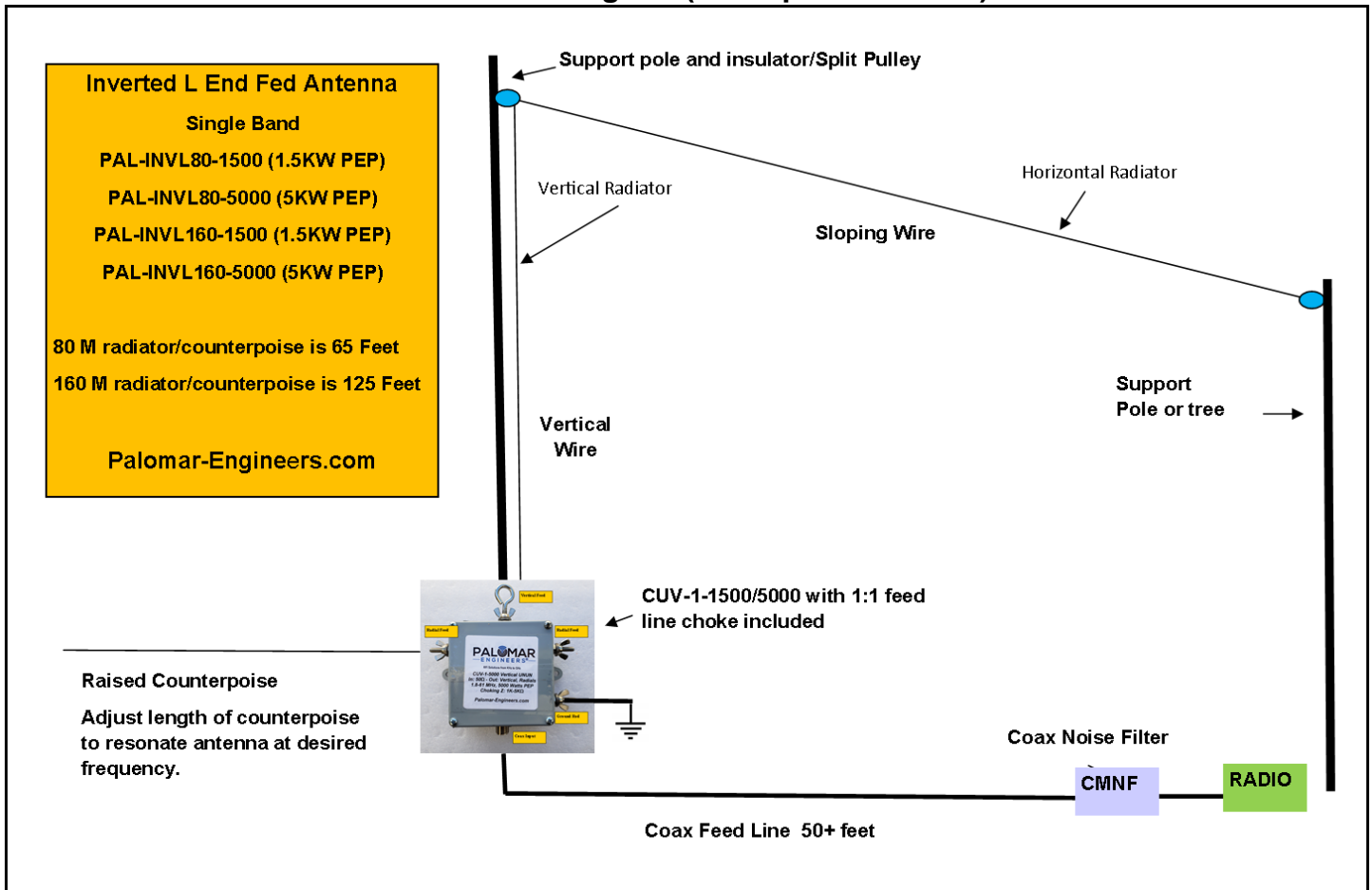


**PAL-INVL80-1500 (1.5KW PEP)**  
**PAL-INVL80-5000 (5KW PEP)**  
**PAL-INVL160-1500 (1.5KW PEP)**  
**PAL-INVL160-5000 (5KW PEP)**

#### Installation Diagram (with optional extras)



**Inverted L antenna with radiator and counterpoise for simple installation - choose 80/160 meters and 1.5KW/5KW feed line choke (1:1 unun) included inside weatherproof enclosure. Separate counterpoise and ground connections.**

- It could also be viewed as a 160m off-center fed dipole antenna... with its long leg going up vertically, then away horizontally - and with its short leg lying flat on the ground and insulated from ground electrically!
- It is worked against a counterpoise which is connected to the shielded side of the coaxial feed point.
-

## Installation

Layout the vertical portion of the radiator as high as possible with the remainder of the length horizontal or sloping.

Layout the counterpoise full length but DO NOT GROUND as it is a portion of the radiating antenna which is tuned in length to resonant the antenna at the desired frequency.

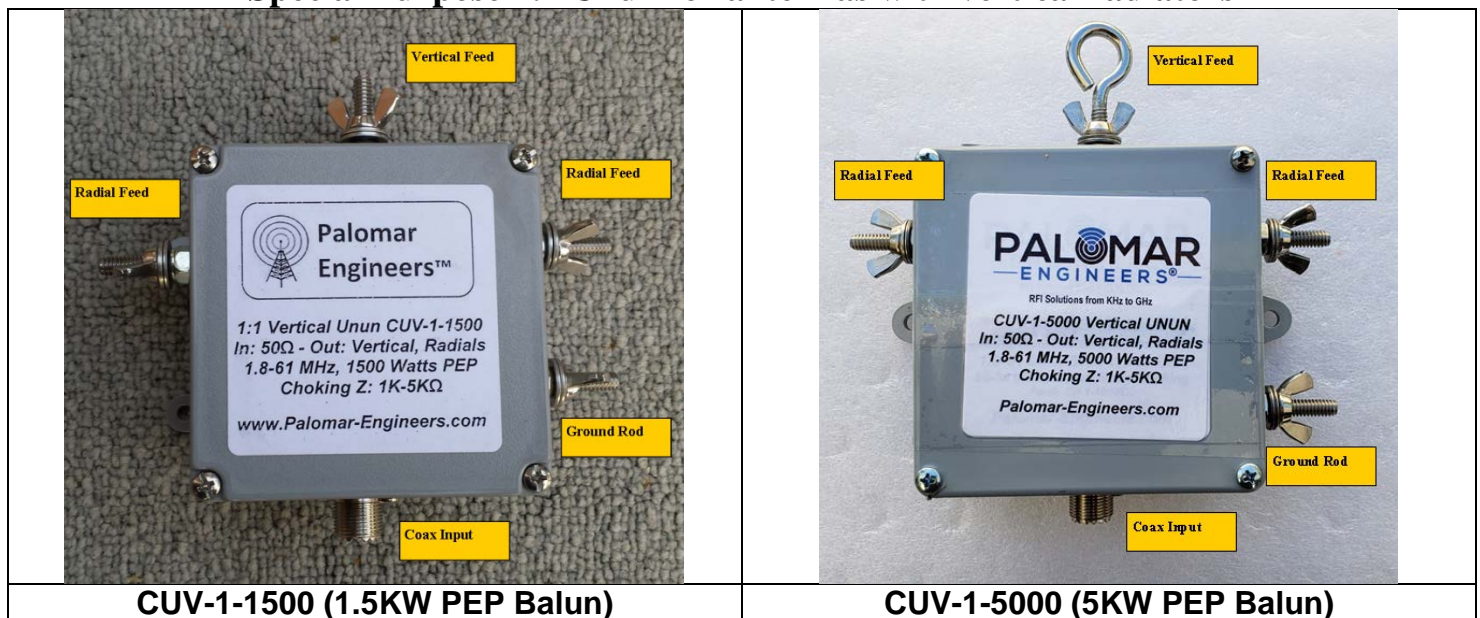
You can easily shorten the counterpoise without wasting precious antenna wire by repeated pruning, by winding the end of the counterpoise back on itself in a *rough coil* about 6 inches in diameter. When you reach the desired resonant frequency you can cut off the excess counterpoise.

Anyway, you should be able to 'tune' the antenna to resonance easily enough by simply adjusting the length of the counterpoise and thus, adapt it to its given environment. Every installation may be slightly different depending on the portion that is vertical and horizontal as well as the proximity to nearby conducting objects.

160 M radiator is 130 feet and counterpoise is 100 Feet (you get 1 each) – we provide 100 feet counterpoise so you can adjust shorter for best SWR on the portion of the band desired.

80 M radiator is 70 feet and counterpoise is 70 Feet (you get 1 each) – we provide 70 feet counterpoise so you can adjust shorter for best SWR on the portion of the band desired.

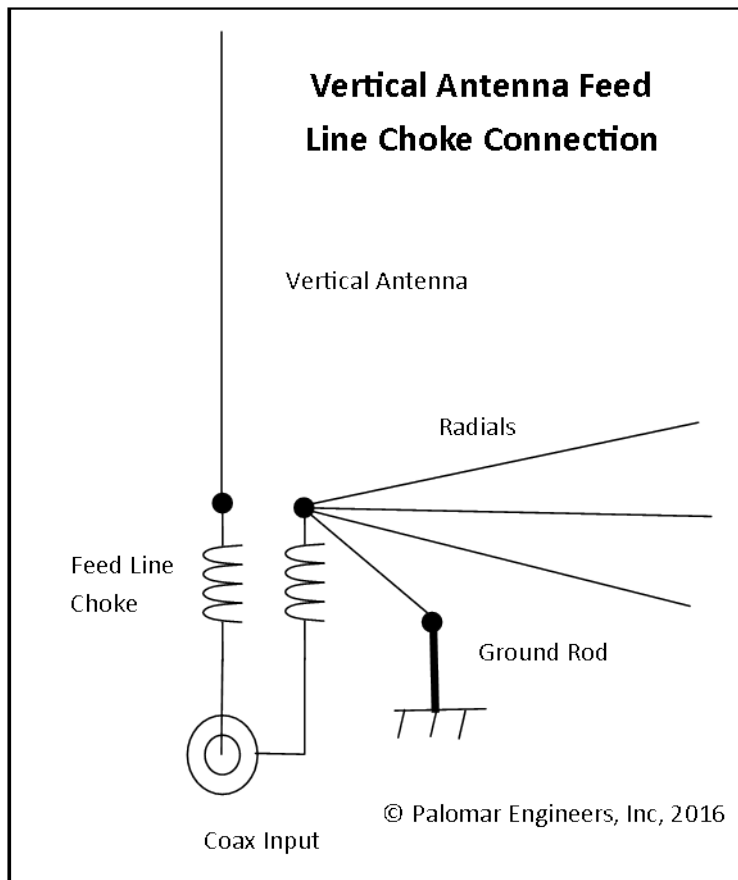
### Special Purpose 1:1 Unun for antennas with vertical radiators



After many requests we have created a compact, special interface box with internal feed line choke and separate connections for counterpoises (not grounded) and ground connection. The 1:1 choke keeps RF current off the outside of the coax braid and on the antenna where it belongs. The extra choking action also means that the coax feed line will not act as a radiator causing unnecessary RF interference (RFI).

Antenna is tuned to your favorite frequency by shortening the counterpoise (roll it up or cut length) while keeping the radiator length constant.

## Recommended Installation Diagram



**ADD CMNF-1500 (1.5KW) or CMNF-5000 (5KW) common mode noise filter at radio end of coax to reduce common mode noise up to 6 "S" units on long coax runs!**

**Vertical Radiator Unun with side radial/counterpoise (side top studs) and Ground stud**

## BEFORE YOUR START CAUTION

**WARNING: INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. FOR YOUR SAFETY FOLLOW THE INSTALLATION INSTRUCTIONS.**

**WARNING: AT NO TIME DURING ASSEMBLY, INSTALLATION, ADJUSTMENT OR OPERATION SHOULD ANY PART OF THIS PRODUCT BE ALLOWED TO COME INTO CONTACT WITH ELECTRIC POWER LINES, NOR SHOULD THIS PRODUCT BE INSTALLED IN SUCH A WAY THAT ANY PART OF IT MAY CONTACT POWER LINES DURING NORMAL OPERATION OR IN THE EVENT OF STRUCTURAL FAILURE. FAILURE TO EXERCISE EXTREME CARE IN THIS MATTER CAN RESULT IN DAMAGE TO PROPERTY, PERSONAL INJURY, OR DEATH.**

**Check website for latest product announcements.**