

of the coax. You can use a handheld aircraft transceiver as a transmitter to adjust the antenna for best SWR (lowest reflected power). Use a VSWR bridge or directional wattmeter in line with the coax and adjust the screw on the matching element for minimum reflected power as you transmit at your chosen operating frequency. I prefer to install a BNC mating pair (UG-88 and UG-89) on the coaxial cable about three feet out of the bottom of the antenna so that I can use my bridge up on the roof and not have to climb down and read the meter after every adjustment. *After* you have tuned the antenna and tested in on the air, use a liberal dose of silicone seal ("RTV") on all the exposed solder-lug connections and the open end of the coax sheath so that no water can get into the coax and contaminate the inside.

Either of two mounting techniques works with excellent results. At Grass Valley Intentional Airpatch (our local airport), I soldered a half-inch-to-3/4-inch adapter onto the "T" fitting on the bottom of the radiating element and then torched a four-foot section of 3/4-inch copper pipe onto the adapter. This pipe mast is held firmly onto the roof with a regular old tripod mast mount. Note: torch the pipes together *before* installing the coaxial cable or you will melt the coax into oblivion.

Here at the house, we use rubber-coated aircraft-style Adel clamps, wooden homemade spacers and wood screws to fasten the antenna to the eaves of the roof.

Caution! Use the metal clamps *only* on either the "T" or "L" copper fittings on the bottom of the antenna. Do not use metal clamps anywhere above the tap point on either radiating or matching elements.

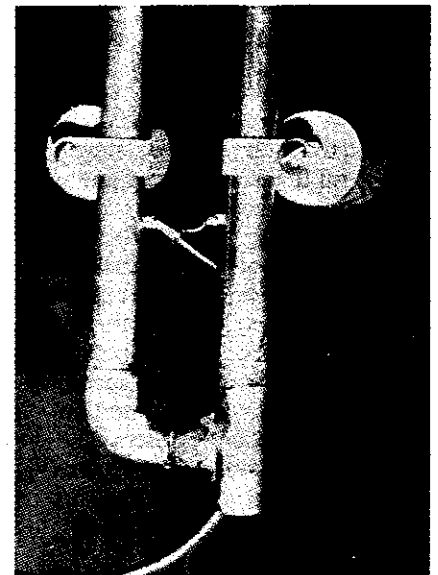
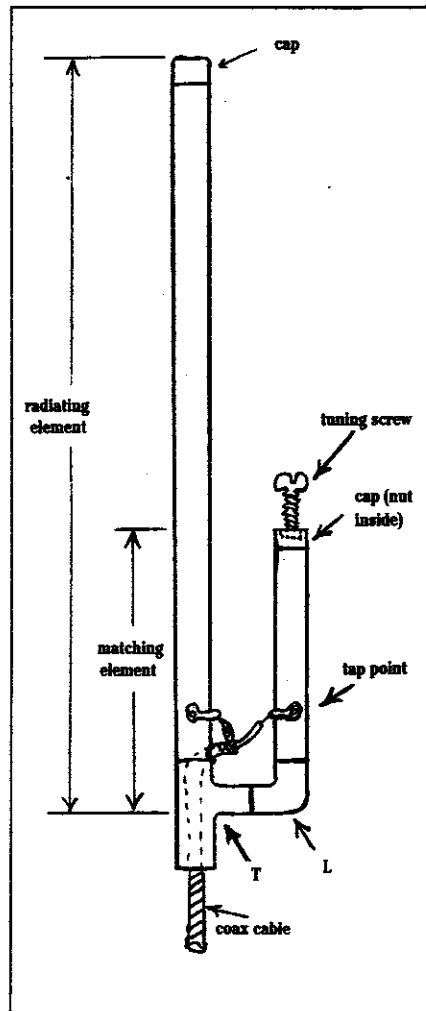
What about the availability of all this stuff? I admit admit that if it were not for the fact that I use solder lugs, stainless hardware, grommets, cable clamps and coaxial connectors in my business, it would take me the better part of a week to chase these bits and pieces. Therefore, I've made arrangements with my company, Radio Systems Technology, to package a kit of everything but the copper fittings, copper pipe and coaxial cable and sell it to KITPLANES readers [REDACTED]. Cite part number 2706.

Write and tell us your experiences with our little gem of an antenna and



Here's one method of installing the new antenna.

Diagram 1.



Insulator and wooden spacers are used to mount the J-pole to a vertical surface.

we will pass your comments on to other homebuilders.

RST ENGINEERING

