

CQ Reviews:

THE MULTI-BAND ANTENNAS LIMITED SPACE SPIDER ANTENNA™

BY LEW MCCOY*, W1ICP

The Spider Antenna, a product of Multi-Band Antennas, is a very unusual mobile, or limited space, antenna as the photos will attest. It is a four-band antenna covering 40 through 10 meters. The antenna consists of the vertical supporting mast which is made of 1/2 inch diameter polished aluminum. The mast supports four resonators each wound on fiberglass. Three resonators—20, 15, and 10—are installed at a slight upward angle from the mast via a special fitting. The 40 meter resonator rises directly above the mast and is 20 inches long. The overall height of the antenna is 5 feet and total weight is only 1 1/4 pounds.

Adjusting the antenna for a 50 ohm match is a piece of cake. Each of the resonators has a unique tuning sleeve. With an s.w.r. or noise bridge in the line, the sleeves are moved up and down the resonator until a match is achieved. This is done on each band. On the antenna we tested, this whole adjustment operation took less than 30 minutes. No other matching is required.

How well does the antenna work? Well, we ran 50 watts to it for our tests, although the antenna is rated for 200 watts. From here in New Mexico we easily worked both Europe and Japan on 20, 15, and 10 with excellent reports. Forty meter work was equally as satisfying. We checked the antenna on the car at 55 m.p.h. into a 20 mile m.p.h. headwind and experienced no appreciable sway in the antenna.

The s.w.r. bandwidth with the antenna mounted on the car was excellent—less than 2 to 1 across the entire 20 meter




The Spider Antenna is shown in two installations. On the left it is mounted on the rear of the author's RV, and on the right it is bumper-mounted to his car.

band, 1.7 to 1 across 15, and 1.5 to 1 for 500 to 600 kHz on 10. On 40, the antenna was less than 2 to 1 across 100 kHz. In all cases we had a match of 1 to 1 at the desired frequency. However, the beauty of the antenna is that you can get out of the car and make a slight adjustment of the resonator sleeve to any premarked setting for a perfect 1 to 1 match. As mounted on our RV, the tuning was much sharper because of the proximity of the trailer body to the resonators. But again, it worked. We plan on mounting the antenna on the roof of the trailer when parked, and then we'll have the excellent ground of the trailer roof. It will be easy to mount the

antenna via one of the ceiling vents in the trailer.

There are three outstanding points of this antenna: it uses top loading (which is best for any short vertical), it is easy to adjust for a match, and it can be quickly and easily assembled or disassembled. On the con side, it is unusual looking, but so are towers and beams if you are not an amateur. As far as amateur radio is concerned, beauty has to be in the eye of the beholder!

The antenna is manufactured by Multi-Band Antennas, 7131 Owensmouth Ave., Suite 63C, Canoga Park, CA 91303 and is priced at \$110.00. 

*200 Idaho St., Silver City, NM 88061