

G5RV Plus

We have some nice photos of Louis Varney, G5RV, on our web site.

All Bands 80 - 10 meters + 30, 17, 12 m

There has been much written about the G5RV. Unfortunately, much of it is incorrect. The claims of most commercial antenna builders are simply fantasy. The record was set straight when the G5RV's developer, Louis Varney, published an article in the ARRL Antenna Compendium #1. Unfortunately, most G5RV builders haven't paid much attention to Mr. Varney's article. We did!

The original G5RV is an efficient, all band, antenna. It is shorter than a full size 80 meter antenna. This makes it appealing to those who have limited space. The G5RV will give good results on most bands with minimum effort.

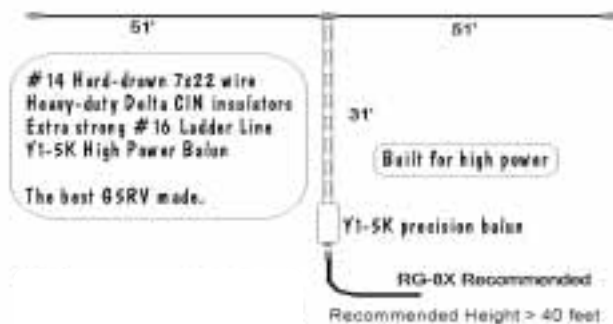
The RADIO WORKS' 'G5RV PLUS' embraces two outstanding improvements over the many copycat versions of the G5RV on the market. First, I have added a Y1-5K, our precision, Current-type balun at the transition between the balanced stub and unbalanced coaxial cable feed line. The second improvement is the choice and length of matching stub and RG-8X feed line combination. The matching stub is reactive on most bands. The reactive nature of the antenna and stub makes matching difficult unless a wide range antenna tuner is used.

After careful analysis, I changed the matching system for the best compromise on all bands. A change in stub resonance and a specific feed line length was necessary to achieve the best match on each band. Still, the match is not perfect on any band. It is lowest on 20 meters where the SWR drops to around 1.8:1 under ideal conditions. On all other bands, the SWR will be higher. Even with a slightly elevated SWR, losses in the system are low. Unless you are using a rig with tube finals that can accept a moderately high SWR, an antenna tuner is necessary. This advice goes for any G5RV. Contrary to what many antenna makers claim, the G5RV requires a transmatch unless your rig can tolerate a moderately high SWR.

The Y1-5K, Current-balun© keeps RF off the coax and reduces any chance of RF feedback problems.

Combining these technical improvements with the G5RV's own attributes produces a very good antenna system. The RADIO WORKS' NEW G5RV is an excellent combination of performance modifications, high quality, and high power parts. You can't find a G5RV that works better than this one.

The reduced size of the G5RV is one attractive feature. A second is multiband operation with coax feed. Coax is so much more convenient than ladder-line or open-wire. Further, most modern transmatch circuits do not work well when feeding reactive, high impedance feed lines. The G5RV does not require a balanced output transmatch. This means that you can use the G5RV PLUS with nearly any antenna tuner, including those neat little 'automatic tuning units' that some rigs have. One short caveat though, the SWR may get out of the tuning range of the automatic tuners on some bands. It all depends on your particular installation.



Catalog Price **\$65**

Prices and specifications are subject to change without notice.

Watch out for all the cheaply constructed G5RV antennas now made by just about everyone with a soldering iron. Sure, a G5RV is a "no brainer" when it comes to making an antenna. It's simple, and anyone can make one and put it on the market. Of course, if you want one that will stay in the air more than a few months, take a look at the construction. One major manufacturer uses little pieces of printed circuit board for insulators. Quality parts are the major ingredients in any successful antenna. Don't accept less than the best.

"Quick Fix™" your G5RV



If the RADIO WORKS did not make your G5RV, all is not lost. You can help it out by adding an effective Line Isolator to properly interface your G5RV' balanced line to your unbalanced coaxial cable feed line. Just add a T-4 or T-4-500 (if appropriate) in series with your feed line at the junction between the ladder-line and coax to solve your feed line radiation problems. The T-4 is the perfect addition to any G5RV. Order a UHF double male adaptor to connect the Line Isolator to your G5RV.