

## Silver Bullet Mini TIA (take it along)

The Silver Bullet Mini TIA is a small portable antenna system designed to work on the 10 to 40 meter amateur radio bands. The kit is compact and easily fits in your carry-on luggage so you can take your antenna system and deploy it in a hotel environment or backpacking or anywhere you want to operate portably. The system contains 1 Silver Bullet Mini antenna coil, 3 33 foot ground radial, 1 telescoping whip and 1 mini tripod mount.

Assemble the legs of your tripod to the round center piece. Check that the PL259 mount is tight; add your coax, and the ground radials. As with any vertical antenna the more radials the better, but the antenna will function with a single radial. Last add the Silver Bullet Mini coil and the telescoping whip and you are ready to go.

Tuning the SB Mini coil to the band you want to use will be different for every user. This is due to amount of radials, length of radials, soil, coax length etc. A good start is to fully extend the whip, move collar so the top of the collar is even with the first coil wire wrap. Using the radio's SWR meter or if you have an antenna analyzer, this should be close to 20 meters. Move the collar up or down to change frequency and twist the collar for fine tuning. Please visit our website [www.wolfrivercoilsllc.com](http://www.wolfrivercoilsllc.com) and look for tuning the Silver Bullet Mini video. To operate 10 meters you will need to collapse the whip to about 80 inches. Six meter operation is possible by collapsing the whip to about 40 inches, then retuning the coil for minimum SWR.

Some final suggestions;

- Radial are important and helps SWR as well as impedance, this helps tuning, and makes the antenna more broad banded. Try longer and add more radials to use what works for you. If possible connect the radial to a good counter poise such as a metal railing. (Even metal lawn tables or metal legs on a picnic table have been used as good ground system).
- You can reduce the whip length to change frequency.
- Keep the antenna at least 8 feet away from you when tuning. Being too close to the antenna can affect the SWR.
- Coax length can also make tuning on one band difficult, lengthening the coax as little as 5 feet or more sometimes helps.

Power rating is 100 watts SSB, 50 watts CW and 20 watts Digital.



Your kit includes 1 Silver Bullet Mini, 1 mini tripod, 1 collapsible whip, and 25 feet ground radial.

Attach the three legs of the tripod into the base.



Attached your coax to the SO 239 connector.



Attach the Silver Bullet Mini to the coupling bolt.

Screw the collapsible whip on top of the Silver Bullet Mini and extend the whip



Attach your ground radial and you're ready to tune the antenna.

Slide the tuning coupler up and down for max noise on your radio or lowest SWR on you antenna meter. Even with one radial you should achieve a 1.5 or lower SWR on all the bands. For 12, 10 and 6 meters you will need to collapse the whip to get an acceptable SWR.

