

Construction of 3-foot Whip for 40-meters

7/9/2001 KA2BEO



Parts List

- Wideband fixed autotransformer: Amidon toroidal ferrite core #FT-37-61 wound with 50 turns of #30 AWG enameled copper wire. Tap at 12 turns from ground end.
- Telescopic whip antenna: 35" long extended (5.25" long collapsed) with appropriate locking solder lug and nut (or screw).
- F-type female to BNC-type male adapter: (RadioShack #278-251) with appropriate locking solder lug and nut.
- Solid copper wire: #18 AWG, 0.5" long to fit into F-type jack.
- Mounting platform: use either a small sheet of plastic (2.0"x0.75") or a plastic closable hollow cylinder (2.0"x0.75" dia.) like a pill bottle.

Procedure

- Wind transformer
- Mount whip and connector (drill holes as necessary)
- Insert piece of #18 AWG wire into F-connector
- Solder end leads of transformer to solder lugs
- Solder transformer tap to end of #18 AWG wire
- Test antenna

Specifications

- Opened length: 36" overall
- Closed length: 6.25" overall
- Expansion factor: 6:1 approximate
- Operating frequency range: 7.0-7.3MHz minimum
- SWR over operating range: 2:1 typical
- Power rating: 5W rms maximum
- Feedpoint impedance: 50-ohms approximate