

ENDFEDZ

EFT-10/20/40 Trail Friendly

10M/20M/40M END FED DIPOLE

PARTS LIST

PART NO.	QTY	DESCRIPTION
SUB14005	1	10/20/40 METER MINI MATCHBOX
SUB1406	1	20M RADIATOR 34' 0"
1410	1	END INSULATOR
14418	1	#4 SPLIT RING LOCKWASHER
2815	1	#4 STAINLESS HEX NUT
2816	2	#4 STAINLESS FLATWASHER
32767	1	SHIPPING BOX
1409	1	EFT-10/20/40 TRAIL FRIENDLY MANUAL
SUB14006	1	20M CHOKE
SUB1412	1	87" 40M TIP ASSEMBLY



EFT-10//20/40
Trail Friendly
Wound for Storage



Choke/Winder
Assembly

ASSEMBLY

1. This antenna is essentially a half wave dipole with one important difference– the feedline is at the end of the antenna. The antenna is suspended at its ends by the two included end insulators– one of which is integral to the matchbox.
2. In order to have the least possible influence on the antenna, insulated lines are recommended for attachment to the insulators. The antenna may be suspended horizontally, vertically or sloping. Portable operation is easily accomplished by suspending the far end from a tree limb and letting the matchbox hang just above the ground.
3. The antenna has been used from hotel rooms by hanging the matchbox end just outside the window and letting the far end hang, or preferably pulling it away from the building with a guy attached to the end insulator.

TAKE THE TIME TO PROPERLY TUNE THE ANTENNA

4. Tuning is most easily accomplished by using an antenna analyzer attached to the far end of the coaxial cable that will be used with the antenna. Alternatively, of course, a suitable VSWR meter may be employed. This should be done at the lowest power setting that yields reliable VSWR readings. With the antenna **in its operating position**, look at the frequency of lowest VSWR on 40M. Most likely this point will be too low requiring you to shorten the antenna. This is done at the antenna end. As a guide, each inch the top end is shortened will raise resonance approximately 30 KHz.
5. 10/20M resonance should automatically fall into place when 40M is properly tuned.
6. Once you are satisfied with the overall length of the radiator, lace the end of the wire through the end insulator as shown in Fig. 1.
7. **Take the time to tune the antenna– no tuner is required nor should one be used. Maximum efficiency and absolute minimum feedline radiation will occur when the antenna is tuned as in the steps above.**

NOTE: If one or both ends use a tree for support, make sure to strain relieve the antenna with a pulley+ weight or a bungee if this is temporary installation. **No antenna can hold up to thousands of pounds of force exerted by a moving tree.**

8. Use the winder built into the choke to neatly coil the radiator wire after each use. An “x” pattern should be used to avoid kinks when deployed. A video of this technique can be found on youtube at http://www.youtube.com/watch?v=FfqXZcmFHgU&feature=youtube_gdata

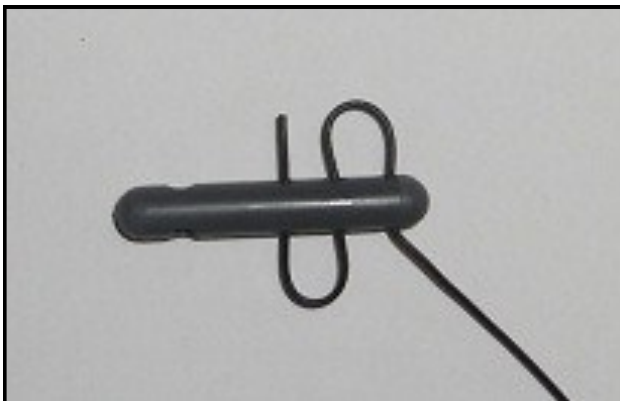


Fig. 1

9. Fig. 3 illustrates some mounting ideas.

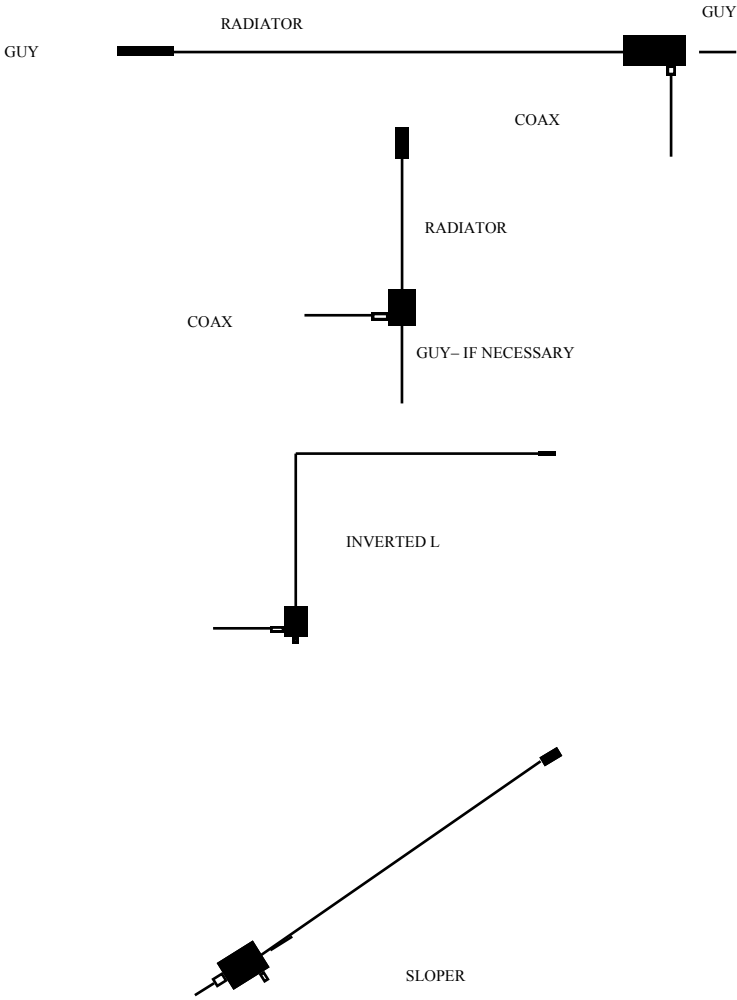


Fig. 3

NOTE:

Operation as a **monobander** on any band between 60M and 10M can be accomplished by removing the factory radiator and installing the appropriate 1/2 wavelength wire. Calculate the approximate length from $L = 468/F(\text{MHz})$. As an example a 25' 10" wire will allow operation on 17M as a monobander. Initially, cut the wire a bit long and trim for best V.S.W.R.

IMPORTANT: The EFT-10/20/40 Trail Friendly's built-in "winder" on the choke is designed to quickly wind the radiator wire up for neat storage after deployment. This helps prevent the radiator wire from kinking and get tangled. However, DO NOT attempt to pull the radiator wire through heavy brush or tree limbs as the forks on the winder will likely get snagged.

SPECIFICATIONS

Polarity:	Depends on mounting configuration
Design Z:	50 Ohms
V.S.W.R. Bandwidth 20M:	500KHz 1.5:1
V.S.W.R. Bandwidth 40M:	140KHz 2.0:1
V.S.W.R. Bandwidth 10M:	900KHz 1.5:1
Power Handling:	25W CW/SSB
Weight:	3.5 oz.
Length:	41'
Hardware:	Stainless Steel
Connector:	Silver/Teflon BNC
Radiator	#26 black poly coated copper clad

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