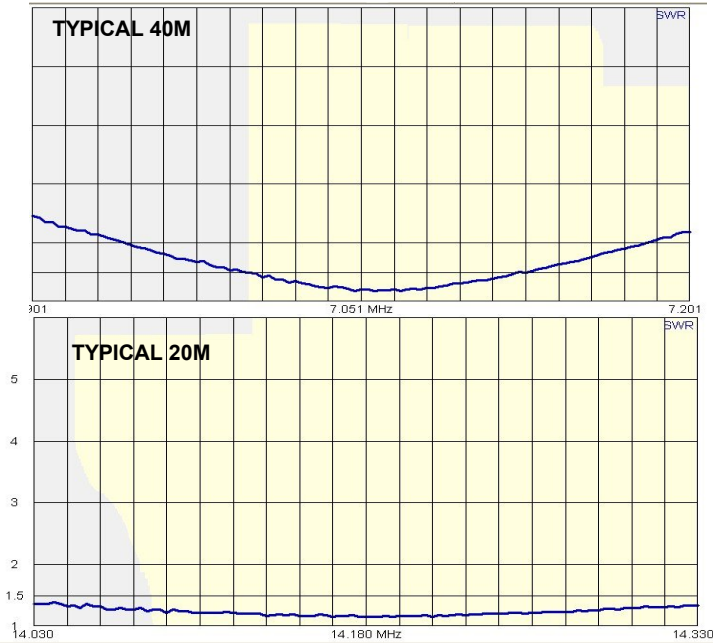


# ENDFEDZ EF-40/20 20M/40M END FED DIPOLE

## PARTS LIST

PART NO.	QTY	DESCRIPTION
SUB40201	1	40/20 METER EF MATCHBOX
40201	1	66' RADIATOR
40202	1	20M TUNING STUB
1403	1	END INSULATOR
14417	1	#10 SPLIT RING LOCKWASHER
2814	1	#10 STAINLESS HEX NUT
2815	2	#10 STAINLESS FLATWASHER
32767	1	SHIPPING BOX
40203	1	EF-40/20 MANUAL
40204	1	3M T TAP RED
40205	1	3M SOLDERLESS TERMINAL RED



### 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	150KHz 2.0:1
Power Handling:	100 W SSB/CW 25W DATA/AM
Weight:	0.5 lbs
Length:	66'

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## ASSEMBLY

1. This antenna is essentially a half wave dipole @40M and a full wave radiator @20M 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, Inverted L, 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. Unroll the antenna wire in a straight line beginning with the end insulator end.

5. 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 end insulator end. Cut in small increments– 2” or less. Remember, initially, it is unimportant **what** the VSWR is in the 40M band– but rather, you must establish **WHERE** the VSWR is lowest.

6. Again suspend the antenna and look at 20 M resonance. Unless you intend to only work SSB (no data or CW), the lowest VSWR point is likely too high in the band.

7. Securely plug the 20M stub into the socket at the center of the 40M radiator. Make certain it is fully seated. See Figures 3 and 4 on the back page.

8. Redeploy the antenna and again observe the frequency of lowest VSWR on 20M– it should have dropped significantly. Repeatedly trim the 20M stub until the VSWR is centered in the portion of the 20M band that you will be using. This stub will have no effect on 40M tuning. You **must** tune 40M first though, as it does effect 20M.

**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 the thousands of pounds of force exerted by a moving tree.**

9. Fig. 3 illustrates some mounting ideas.

10. If the antenna is repeatedly deployed, take the time to neatly coil the radiator wire each time the antenna is taken down– avoiding kinks.



Fig. 1

Fig. 2

