WA1KBE 6 Meter Dipole Parts Listing

Quantity	Item Description	Supplier Source	Part #	Price
2 ea	3" Aluminum tubing 3/8" OD	DX Engineering	DXEAT1240 .370"	$2.70 ea
2 ea	3' Aluminum ½" OD	DX Engineering	DXEAT1241 .500"	$3.30 ea
2ea	Stainless hose clamps ½"	DX Engineering	DXEECL-020	$1.90 ea
1 pkg	Tubing end plugs 3/8"(optional)	DX Engineering	DXEVC-0375	$5.50 / 20
4 ea	¼-20 x ¾"U Bolts for 9/16" OD	McMaster Carr	3043T94	$6.86 / 10
12 ea	¼" lock washers	Hardware Store		
12 ea	¼" flat washers	Hardware Store		
1 ea	6" x 6" Lexan plate	McMaster Carr	8574K11	$2.52 ea
2 ea	#8 x 3/8" Sheet metal screws	Hardware Store		
2 ea	#8 lock washers	Hardware Store		
2 ea	¼ - 20 U bolts (to fit your mast OD)	Hardware Store		
1 ea	Coax pigtail with connector 1' long	Junk Box		
3 ea	Ferrite clip on chokes to fit above	Flea Market		

Misc: Electrical tape, liquid electrical tape, splicing compound, solder, ring terminals, terminal crimper, antenna analyzer

6 Meter Dipole Assembly Instructions

1. Fabricate center insulator from template using Lexan plate – do not substitute acrylic (plexiglass) as it will break! Cut out template and center it on the Lexan plate – affix it with tape

2. Center punch hole centers with a nail to mark hole centers. Do the 4 small U bolts and the 2 big U bolts (Template is for U bolts with 2" leg center to leg center – use correct dimension for your U bolts! ! !)

3. Drill out holes to fit U bolts comfortably – use a sharp drill bit – start out small and gradually enlarge the holes. Bolts should have some wiggle room!

4. De burr drilled holes – a sharp pocket knife works well

5. Peel protective paper off of both sides of the Lexan sheet

6. Assemble the 4 small U bolts with lock washer, flat washer and a nut – loosely secure

7. Slide 3/8" aluminum tube into ½" aluminum tubing slotted end. Put end caps on 3/8" tubes if purchased – slide the ends of the ½" tubes with out slits under the small U Bolts

8 Loosely secure the ½" tubing to the 3/8" tubing with hose clamps – adjust to 56" Place the hose clamp over the middle of the slit in the ½" tube and tighten slightly

9. Hand tighten the small U bolts while maintaining ½" between the ends of the ½" tubing – center the ½"gap on the Lexan plate. Secure the nuts one wrench turn beyond hand tight. You can bend the Lexan if you overtighten the screws!!! Do not wipe the Lexan insulator with any type of chemical solvent! It will be destroyed!!!

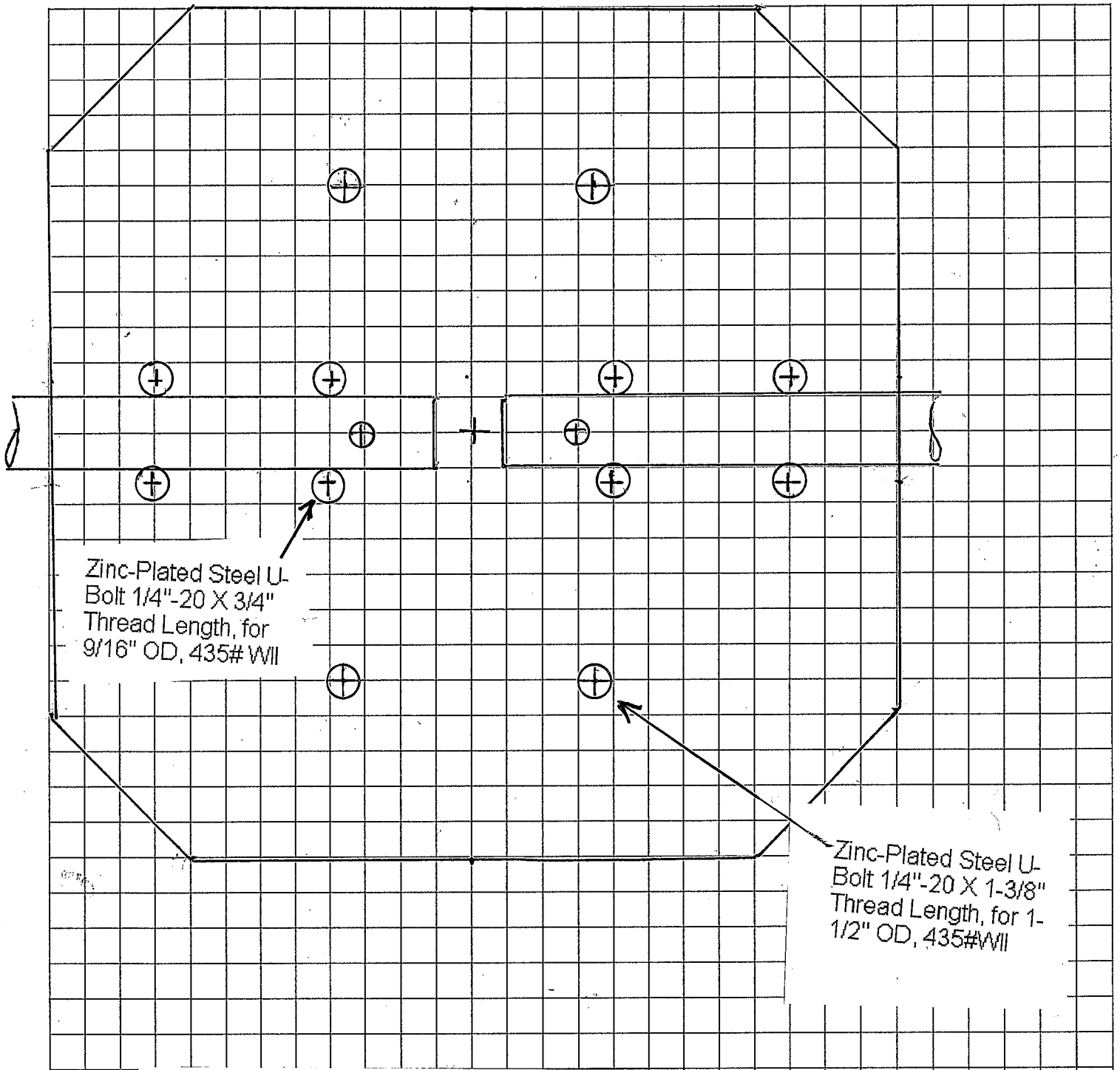
10. Drill a small hole ¼: in from the end of ½" tubes. This is where you will attach the feed line. Select a drill slightly smaller in OD than the screw you are using.

11. Prepare a short 50 ohm coax pigtail. I used RG-8X with a BNC connector. A one foot length is sufficient. Strip insulation on one end ¾" and attach #8 ring lugs, crimp and solder. Slide 3 ferrite snap on chokes onto the pig tail. Attach a coax connector of your choice to the other end. Center the ferrite chokes on the pigtail and wrap them with rubber splicing compound to waterproof. You must peel off the backing and stretch the rubber tape to activate it. Wrap it tightly while keeping the tape stretched. The tape will fuse together giving a great seal! Over wrap with good electrical tape (Scotch 33) or apply liquid electrical tape liberally. This protects the rubber compound from UV damage.

12. Attach pigtail to aluminum tubes with self taping sheet metal screws and lock washers. I used #8 hex head by 3//8" stainless screws and lock washers. Tighten the connection securely but be careful not to strip out the screw! Coat the connection liberally with liquid electrical tape

13. Mount the antenna on a mast away from adjacent objects. The SWR with a MFJ antenna analyzer should be under 1.3 to 1 at 50.200 mHz. Adjust element lengths by sliding 3/8" tube in and out of the ½" tube. It is important that the elements be the same length! Measure carefully. Over all length = 468/ f in mHz. - about 56" for each dipole element is correct.

14. Mount high and in the clear. A rotator would be a real plus!– use a dual female adapter to attach your feedline – don't forget to tape the connection up! ENJOY YOUR NEW ANTENNA!!



All holes in Lexan plate are nominal ¼" diameter

Allow ½" clearance between element ends

Drill end of ½" tubing to accept self tapping screw for feed line connection

Do not over tighten the Ubolts! Hand tighten plus 1 turn The Lexan will bend!