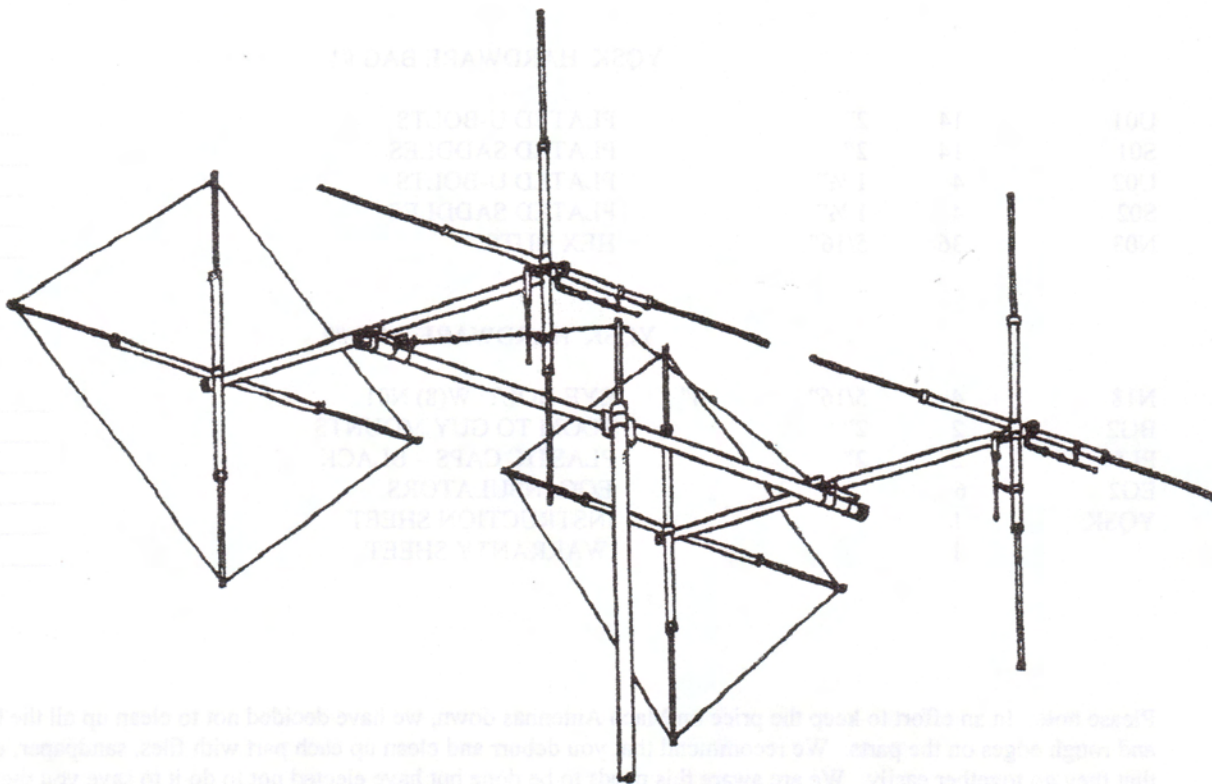


# ASSEMBLY INSTRUCTIONS



## STACKING KIT FOR Y-QUAD & M103C



## YQSK

Maco Antennas – a Division of Charles Electronics, LLC  
302 S. East Street, Mount Carroll, IL 61053  
815-244-3500

Visit our website: [www.macoantennas.net](http://www.macoantennas.net)

# YQSK STACK KIT

## PACKING LIST

<u>PART</u>	<u>QTY</u>	<u>O.D.</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>DESCRIPTION</u>	<u>CHECKLIST</u>
T52P	2	2"	.050	80"	ALUM TUBING SLOTTED ONE END	_____
T34P	2	2"	.050	40"	ALUM TUBING SWAGED ONE END	_____
T54P	1	1.845"	.050	80"	ALUMINUM TUBING	_____
P03	1	¼" x 6"		8"	MOUNTING PLATE	_____
V04P	1	1' x 1"		36"	VERTICAL GUY SUPPORT	_____
WD4	1	6/18		30'	STEEL GUY CABLE	_____
WH2HDP	1			18'	STACKING HARNESS	_____
PO5P	2				STACK 3 MOUNTING PLATES	_____
	1				T COAX CONNECTOR	_____
	1				COAX SEAL	_____

### YQSK HARDWARE BAG #1

U01	14	2"			PLATED U-BOLTS	_____
S01	14	2"			PLATED SADDLES	_____
U02	4	1 ½"			PLATED U-BOLTS	_____
S02	4	1 ½"			PLATED SADDLES	_____
N03	36	5/16"			HEX NUTS	_____

### YQSK HARDWARE BAG #2

N18	4	5/16"		4"	EYE-BOLT W(8) N01	_____
BG2	2	2"			BOOM TO GUY MOUNTS	_____
PL5	2	2"			PLASTIC CAPS – BLACK	_____
EG2	6				EGG INSULATORS	_____
YQSK	1				INSTRUCTION SHEET	_____
	1				WARRANTY SHEET	_____

Please note: In an effort to keep the price on Maco Antennas down, we have decided not to clean up all the burrs and rough edges on the parts. We recommend that you deburr and clean up each part with files, sandpaper, etc. so that they go together easily. We are aware this needs to be done but have elected not to do it to save you the money we would have to add to the price of the kit for this service.

# MACO STACKING KIT for Y-QUAD & M103C

## ASSEMBLY INSTRUCTIONS

### FIGURE 1. BOOM ASSEMBLY

First slide each of the 1.370 O.D. x 48" swaged tubing stiffeners into the 1-1/2" O.D. x 48" tubing sections.

Next insert the ends of the 1-1/2" O.D. sections 6 inches into the swaged and slotted ends of the 2" O.D. x 72" tubing sections. Secure each joint with 2" U-bolts, saddles, and 5/16" lockwashers & hexnuts. Tighten securely so that antennas will not rotate when mounted.

Next mark the center of the 1.845 O.D. 72" boom coupler and slide it into one of the 2" O.D. sections to the halfway mark. Slide the other 2" O.D. section over the other half of the coupler.

### FIGURE 2. BOOM TO MAST PLATE & GUY ASSEMBLY

Making sure that the boom coupler remains centered, install the center guy support over the center of the boom using a 2" U-bolt, saddle and 5/16" lockwashers & hex nuts. (Ref. Detail 2A).

Install the boom to mast plate using (4) 2" U-bolts, saddles, and 5/16" lockwashers & hex nuts. (ref. Detail 2A).

Next mark 6-1/4 inches from each end of the boom. Mount both boom guy supports with the outside edge on the mark, using (2) 1-1/2" U-bolts, saddles, and 5/16" lockwashers & hex nuts.

Next install eyebolts in the center guy support and both boom guy supports using (2) 5/16" hex nuts for each eyebolt, as shown in details 2B & 2C.

Now cut the guy cable into 8 pieces approximately 10" longer than dimensions shown to allow for wrapping around insulators & eyebolts, i.e.; (a) 2 pcs. 22" long, (b) 2 pcs. 28" long, (c) 4 pcs. 52" long. Make all your cable wraps as shown in Detail 2D.

After both guys are completed, remove slack by first tightening the outside nuts on the center guy support and boom guy supports. Next lock the eyebolts in place by tightening the inner nuts. (After the antennas are mounted additional tension may be needed.)

### FIGURE 3. ANTENNA MOUNTING & PHASING HARNESS INSTALLATION

Attach the boom to a 2" diameter mast as shown in fig. 3A. Next mount (2) Y-Quad antennas to the ends of the boom using the boom to mast plates and attaching hardware furnished with the antennas. The edges of the plates should be 1/4" out from the boom guy supports and 1" from the boom ends. After the antennas are mounted push the black plastic caps onto the ends of the boom. (ref. Detail 3B.)

Now install the phasing harnesses making sure that one is used for the vertical connections and one for the horizontal. After making the connections, dress the harnesses along the booms and down the mast plate as shown.

Refer to your Y-Quad Antenna assembly instructions for additional information.

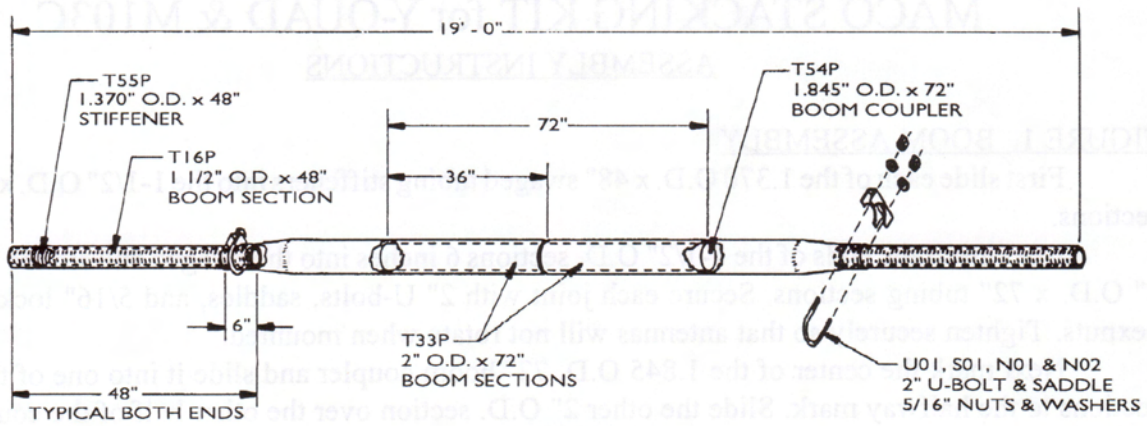
NOTE: A 1/4" WALL HEAVY DUTY MAST IS RECOMMENDED FOR MOUNTING THE STACKED Y-QUADS.

---

## CAUTION

**Take care to avoid an contact with overhead powerlines when raising your antetnna. Serious or fatal injury could result.**

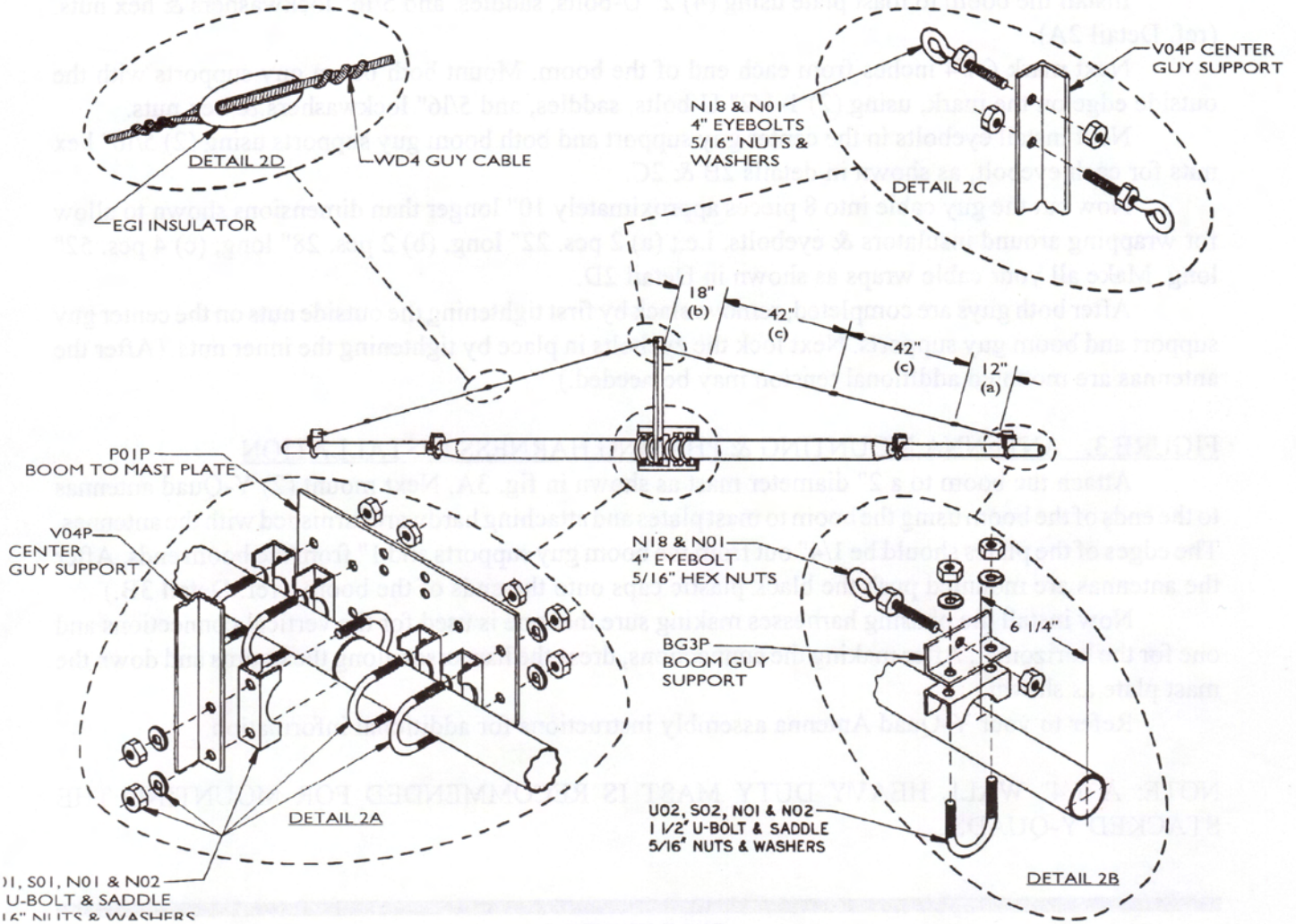
---



BOOM ASSEMBLY

FIGURE 1

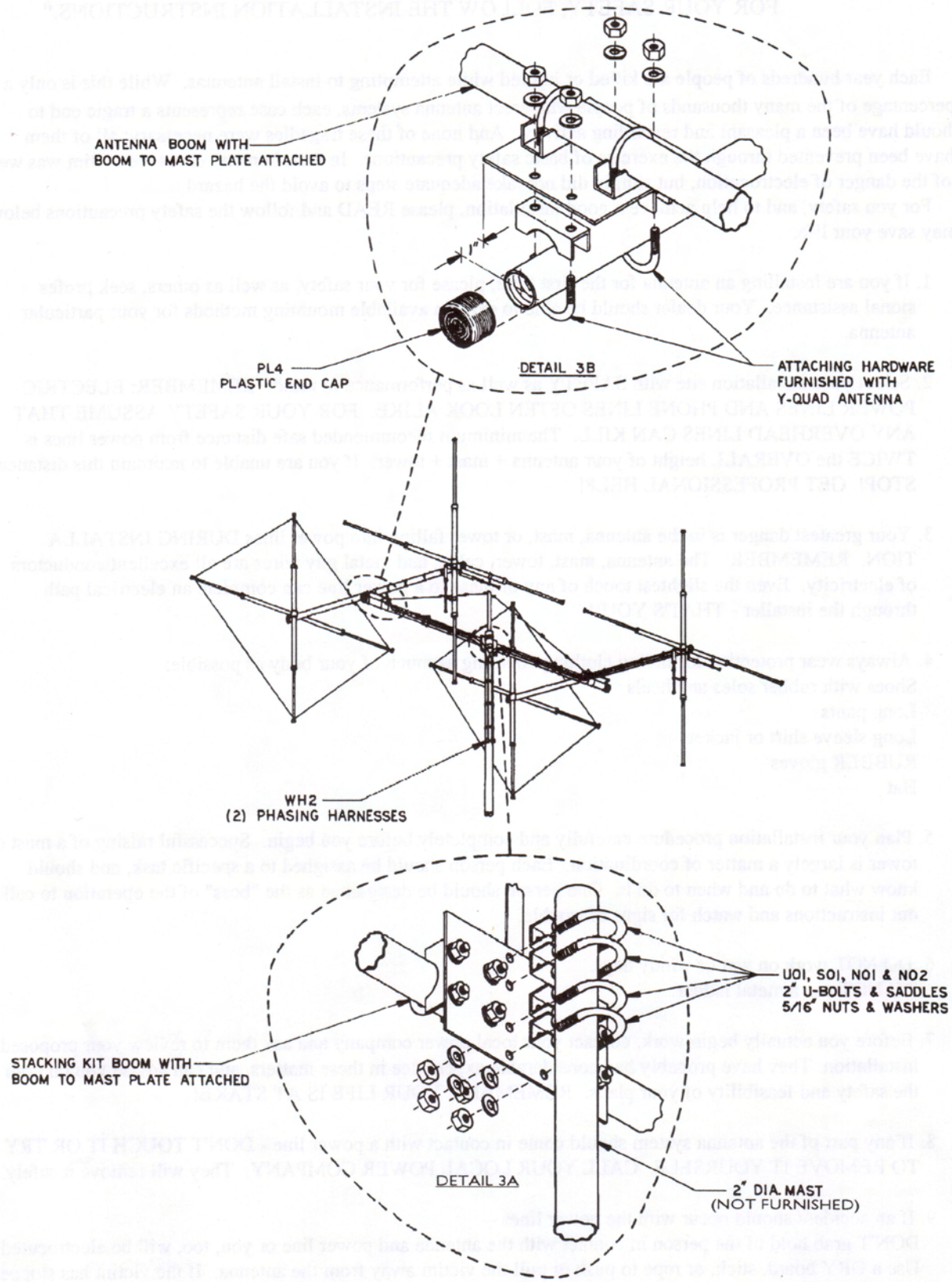
Y-QUAD



BOOM-TO MAST PLATE & GUY ASSEMBLY

FIGURE 2

WARNING: INSTALLATION OF THIS PRODUCT REQUIRES POWER LINES IN DANGER FOR YOUR SAFETY. FOLLOW THE INSTALLATION INSTRUCTIONS.



ANTENNA MOUNTING & PHASING HARNESS INSTALLATION ASSEMBLY

FIGURE 3

**WARNING: "INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS.  
FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS."**

Each year hundreds of people are killed or injured while attempting to install antennas. While this is only a small percentage of the many thousands of people who erect antenna systems, each case represents a tragic end to what should have been a pleasant and rewarding activity. And none of these tragedies were necessary; all of them could have been prevented through the exercise of basic safety precautions. In fact, in many cases the victim was well aware of the danger of electrocution, but simply did not take adequate steps to avoid the hazard.

For your safety, and to help achieve a good installation, please READ and follow the safety precautions below. They may save your life.

1. If you are installing an antenna for the first time, please for your safety, as well as others, seek professional assistance. Your dealer should be able to explain available mounting methods for your particular antenna.
2. Select your installation site with SAFETY as well as performance in mind. REMEMBER: ELECTRIC POWER LINES AND PHONE LINES OFTEN LOOK ALIKE. FOR YOUR SAFETY ASSUME THAT ANY OVERHEAD LINES CAN KILL. The minimum recommended safe distance from power lines is TWICE the OVERALL height of your antenna + mast + tower. If you are unable to maintain this distance, STOP! GET PROFESSIONAL HELP!
3. Your greatest danger is in the antenna, mast, or tower falling into power lines DURING INSTALLATION. REMEMBER: The antenna, mast, tower, cable, and metal guy wires are all excellent conductors of electricity. Even the slightest touch of any of these to a power line can complete an electrical path through the installer - THAT'S YOU!!
4. Always wear protective insulating clothing covering as much of your body as possible:  
Shoes with rubber soles and heels  
Long pants  
Long sleeve shirt or jacket  
RUBBER gloves  
Hat
5. Plan your installation procedure carefully and completely before you begin. Successful raising of a mast or tower is largely a matter of coordination. Each person should be assigned to a specific task, and should know what to do and when to do it. One person should be designated as the "boss" of the operation to call out instructions and watch for signs of trouble.
6. DO NOT work on wet or windy days.  
DO NOT use a metal ladder.
7. Before you actually begin work, contact your local power company and ask them to review your proposed installation. They have probably had considerable experience in these matters, and can advise you on both the safety and feasibility of your plans. REMEMBER: YOUR LIFE IS AT STAKE!
8. If any part of the antenna system should come in contact with a power line - DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY. They will remove it safely.
9. If an accident should occur with the power lines --  
DON'T grab hold of the person in contact with the antenna and power line or you, too, will be electrocuted. Use a DRY board, stick, or rope to push or pull the victim away from the antenna. If the victim has stopped breathing, administer artificial respiration -- and stay with it. Have someone call for medical help immediately.



MACO ANTENNAS  
A DIVISION OF CHARLES ELECTRONICS, LLC  
302 S. EAST ST.  
MT. CARROLL, IL 61053  
815-244-3500 (phone)  
815-244-3501 (fax)  
[www.macoantennas.net](http://www.macoantennas.net)  
[www.gizmotchy.com](http://www.gizmotchy.com)

**The enclosed stacking kit has been updated. The two 40" pieces of 2" tubing replace the 1 ½" tubing that is shown in the instruction sheet. This makes a much stronger stacking kit.**

**If you have any questions on assembling this kit please call us at 815-244-3500 from 9-5 Central time Monday thru Friday and we will help.**

**The instruction sheet will be updated in the future.**

**Maco Antennas**