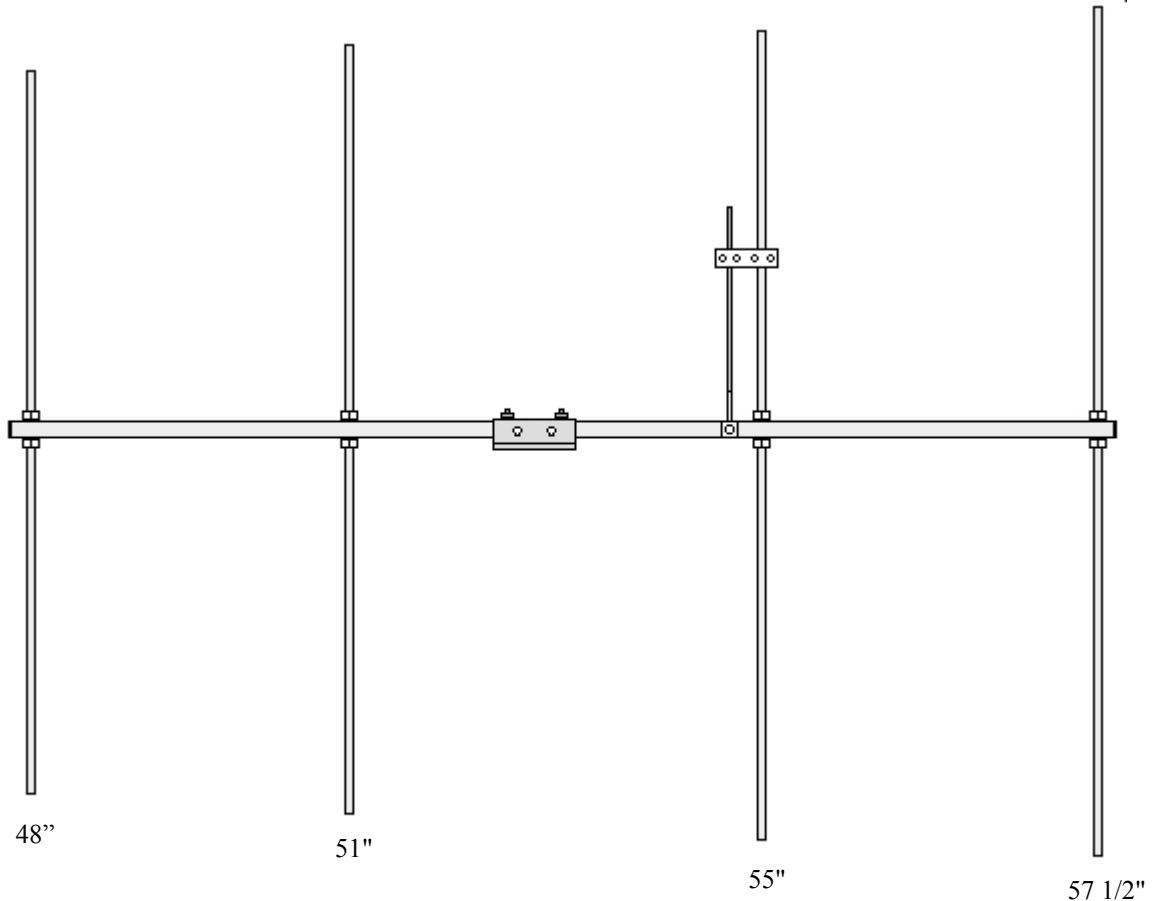


# ← Arrow Antenna →

911 E. Fox Farm Rd. #2  
Cheyenne, WY 82007

**ArrowAntennas.com**  
*Simply the Best*

(307) 222-4712  
info@arrowantennas.com



4 Element Yagi Beam Antenna for 6 meters

### **Guarantee**

#### **No hassle refund**

If you are not completely satisfied with any ARROW ANTENNA Product it can be returned for a FULL refund less shipping and handling within 90 DAYS of purchase date.

*SIMPLY THE BEST*

### **Model**

**52-4S**

We don't invent antennas.  
We simply build them better.

Part #	Price	Qty	Model 52-4S Parts List
52S201	\$22.00	1	Boom (Rear) (1" Sq. X 57 1/2") – with holes for elements, boom splice and SO-239 connector.
52S202	\$18.00	1	Boom (Front) (1" Sq. X 57 1/2") – with holes for elements and boom splice
52S204	\$ 3.50	2	Boom Splice Angles (1" X 1" X 4" Angle)
52S205	\$ 4.00	2	Mounting Brackets (1 1/2" X 1 1/2" X 4" Angle)
52S206	\$ 4.00	2	Mounting Clamps (Saddle) (1" X 2 1/2" Channel)
52S001	\$ 9.00	2	Reflector Element (3/8" X 57 1/2" Solid Rod)
52S002	\$ 9.00	2	Driven Element (3/8" X 55" Solid Rod)
52S003	\$ 9.00	2	1 <sup>st</sup> Director Element (3/8" X 51" Solid Rod)
52S004	\$ 9.00	2	2 <sup>nd</sup> Director Element (3/8" X 48" Solid Rod)
52S007	\$12.00	1	Gamma Match Assembly (SO-239 with 15" Copper, 15" Plastic, 15" Aluminum)
52S008	\$12.00	1	Shorting Bar Assembly
146S09	\$ .25	4	Plastic End Caps for Boom
25C200	\$ 1.00	2	Bolt, Nut & Lock Washer (1/4-20 X 2") Stainless
25C175	\$ 1.00	2	Bolt, Nut & Lock Washer (1/4-20 X 1 3/4") Stainless
25CNS	\$ .25	4	1/4-20 Stainless Nuts
25CLW	\$ .20	4	1/4" Stainless Split Type Lock Washers
<b>FOR SADDLE OPTION</b>			
25C275	\$ 1.00	4	Bolt, Nut & Lock Washer (1/4-20 X 2 3/4") Stainless
25CNS	\$ .25	4	1/4-20 Stainless Nuts
25CLW	\$ .20	4	1/4" Stainless Split Type Lock Washers
<b>FOR U-BOLT OPTION</b>			
52S009	\$ 2.00	2	5/16-18 x 2" Zinc Plated U-Bolt
52S010	\$ 1.00	4	5/16-18 Stainless KEPS Nuts
52S011	\$ .30	4	5/16" Stainless Flat Washers

(Please add \$8.00 S & H per order. Thank you.)

### Assembly Instructions

Locate & Inspect all of the above items.

Leave the red caps in the holes in the boom until instructed to remove them. These Red Plastic Coupling Nut Retainers are holding the coupling nuts in place.

Assemble the boom halves together according to The Boom Splice information on the next page and the figure on the front page.

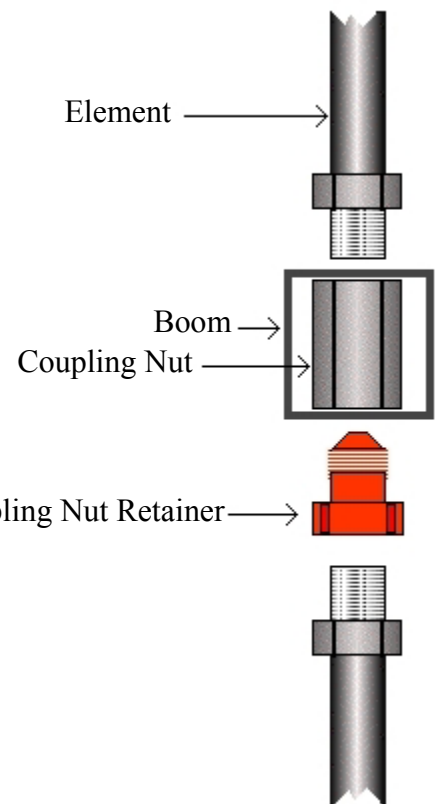
### Attaching the Elements to the Boom

Lay out the elements in pairs according to length as shown in the figure on the front page. The shortest pair goes at the front of the antenna. The longest pair goes at the back of the antenna. The driven element goes in the position in front of the longest pair.

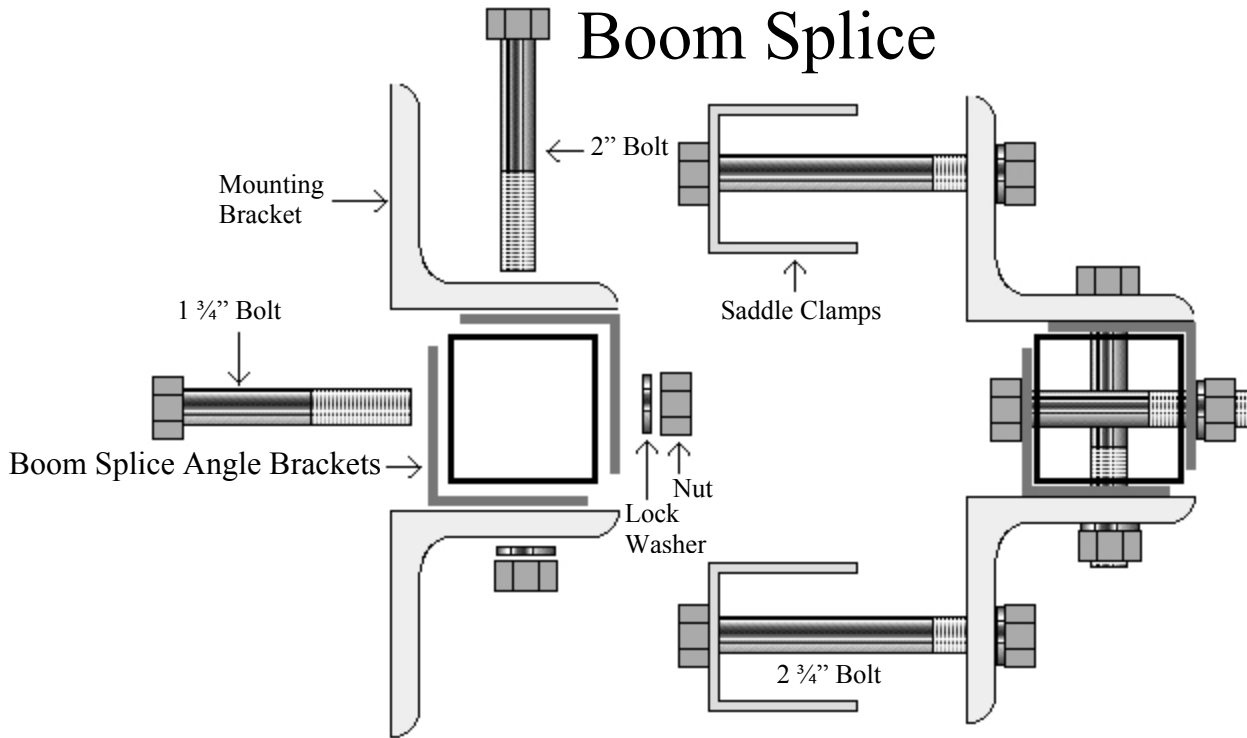
For each element pair do the following:

- Screw in one of the element pieces into the coupling nut through the corresponding hole in the boom.
- Be careful not to cross-thread it.
- Then remove the Red Plastic Coupling Nut Retainer.
- Screw in the other element of that pair into the coupling nut
- Tighten with two 9/16" wrenches.
- Be careful not to strip the aluminum threads.

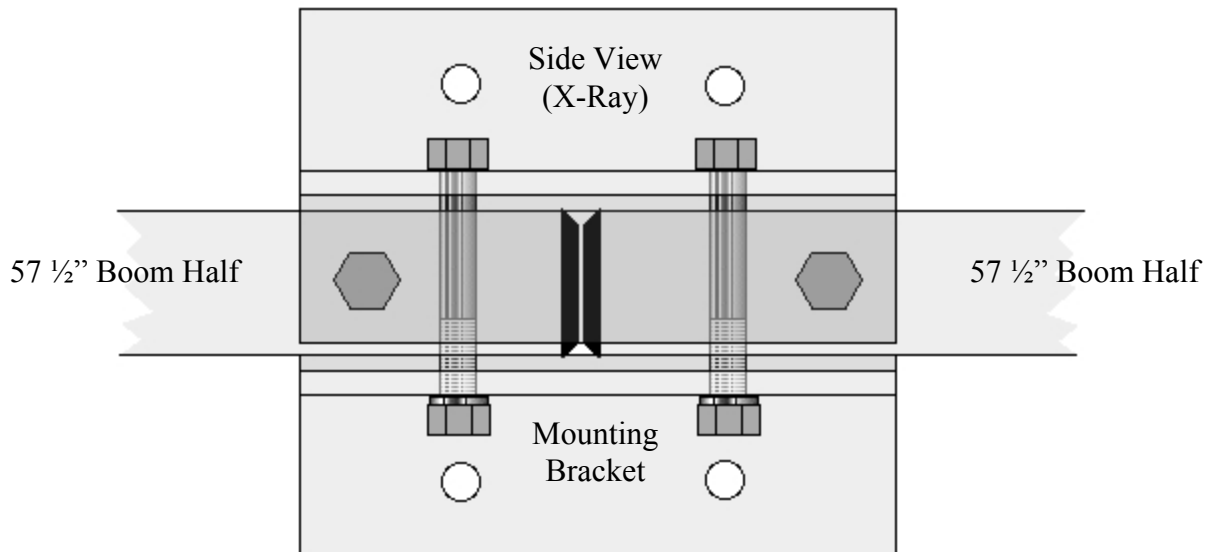
Remove the SO-239 connector by unscrewing the four 4-40 screws. Rotate the copper wire SO-239 assembly 90 degrees from its original position. Insert the copper wire through the rubber grommet in the boom. Reinstall the 4-40 screws.



# Boom Splice



**Important:** Tighten the bolts evenly.



# 52-4S Gamma Match Setting

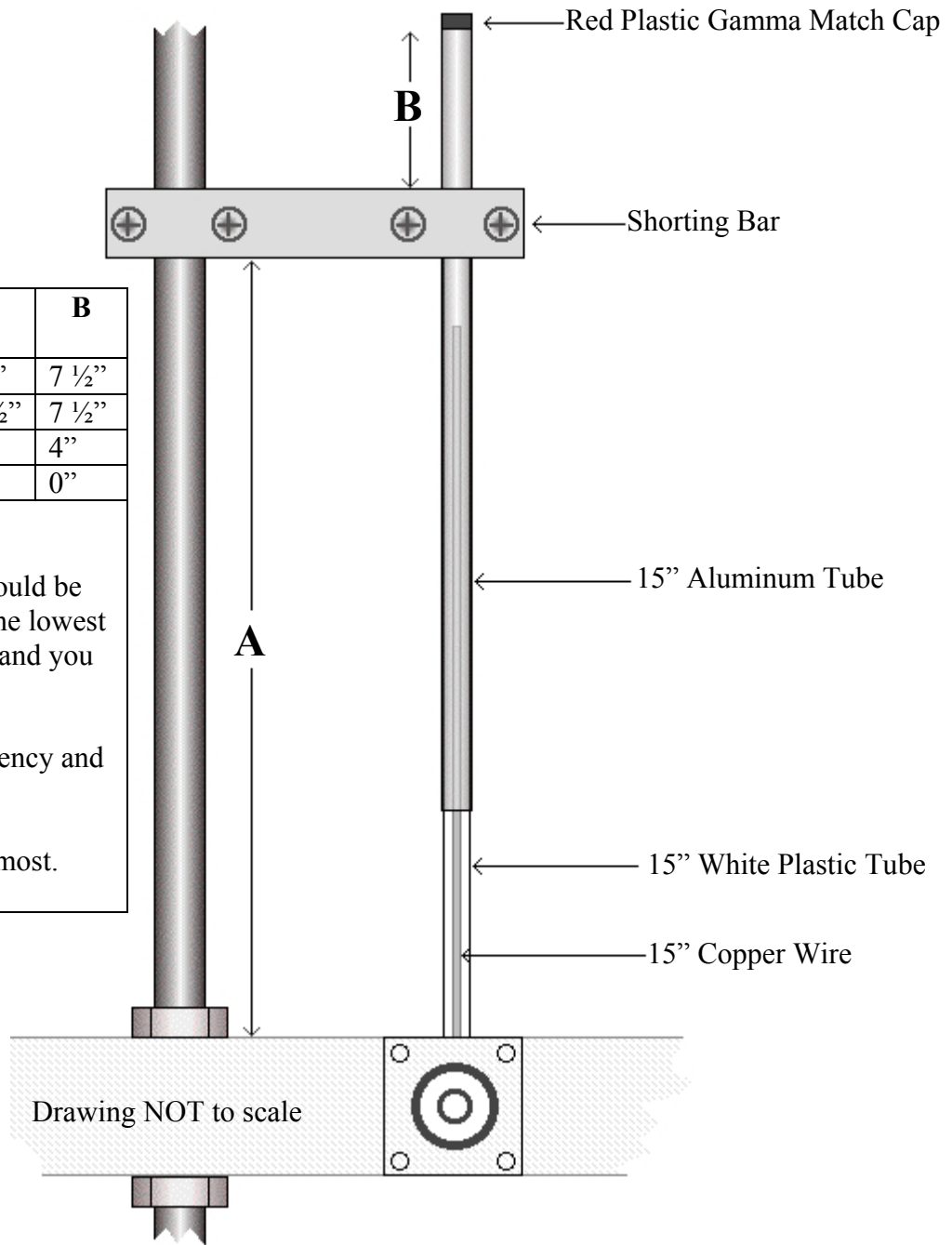
Center Frequency	A	B
50.250 MHz	9 1/2"	7 1/2"
50 – 51 MHz	12 1/2"	7 1/2"
51 – 52 MHz	16"	4"
52 – 53 MHz	22"	0"

This is just a guide.

The lengths of A & B should be whatever it takes to get the lowest SWR on the part of the band you want to use.

Both A & B affect Frequency and SWR, but:

A affects the Frequency most.  
B affects the SWR most.



# CHECKLIST FOR OUR SHIPPING DEPARTMENT

- \_\_\_ 1 boom piece with hole for RF connector.
- \_\_\_ 1 boom piece without hole for RF connector.
- \_\_\_ 4 red coupling nut retainers
- \_\_\_ 4 coupling nuts
- \_\_\_ 1 black rubber grommet
- \_\_\_ 1 @ 15" aluminum tube with red cap for gamma match
- \_\_\_ 1 @ 14.75" teflon tube for gamma match
- \_\_\_ 1 little sign to replace RF connector per instructions.
- \_\_\_ 1 S0239 connector with 15" copper wire on it.
- \_\_\_ 4 @ 4-40 x 1/4" screws
- \_\_\_ 1 shorting bar
- \_\_\_ 4 Black end caps for 1" boom.
- \_\_\_ 2 @ 1/4" by 1.75" bolts with nuts and lock washers
- \_\_\_ 2 @ 1/4" by 2" bolts with nuts and lock washers
- \_\_\_ 2 boom splicers
- \_\_\_ 2 mounting brackets from MB for 52-4S drawer

## FOR ORDERS WITH SADDLES

- \_\_\_ 4 @ 1/4" x 2.75" bolts with nuts and lock washers
- \_\_\_ 2 saddles

## FOR ORDERS WITH U-BOLTS

- \_\_\_ 4 @ 5/16" nuts from MB for 52-4S drawer
- \_\_\_ 4 @ 5/16" flat washers from MB for 52-4S drawer
- \_\_\_ 2 u-bolts from MB for 52-4S drawer
- \_\_\_ Outer holes on MB drilled to 11/32" & deburred. 4 per bracket.