



# 39 ft Loop Truss Installation Instructions

## (All Antenna Models)

Rev 2 June 2012

# 39 ft Truss Kit Parts List

Page 2

Be sure to locate the proper kit part number for your antenna model

## 72-0018-31: 2E, 3E, DB18, DB18E, DB36, DB42 Yagi's

Quantity	Part Number	Description
2	10-1601-03	1-3/4" Solid saddles
4 pairs	10-1510-01	Element truss clamp
2	60-0083	4" Stainless turnbuckles
1	60-0110	1/4 x 1-1/4" hex head bolt
1	60-0030	1/4" Nylock nut
2	60-0065	5/16" x 3-1/2" Hex head bolt
2	60-0046	5/16" Nylock nut
2	60-0033	5/16" Washer
1	21-7001-01	75 ft Dacron rope (1 piece)
16	60-0014	#6 Nylock nut
16	60-0014-01	#6 x 7/8" Pan head screw
1	10-1028-01	Anti-Seize packet
1	09-0001	Electrical tape
1	60-0112	Set screw
1	10-1054-01	36" Aluminum truss support

## 72-0018-41: 4E Yagi

Quantity	Part Number	Description
2	10-1601-22	2" Solid Saddles
4 pairs	10-1510-01	Element truss clamp
2	60-0083	4" Stainless turnbuckles
1	60-0110	1/4 x 1-1/4" hex head bolt
1	60-0030	1/4" Nylock nut
2	60-0065	5/16" x 3-1/2" Hex head bolt
2	60-0046	5/16" Nylock nut
2	60-0033	5/16" Washer
1	21-7001-01	75 ft Dacron rope (1 piece)
16	60-0014	#6 Nylock nut
16	60-0014-01	#6 x 7/8" Pan head screw
1	10-1028-01	Anti-Seize packet
1	09-0001	Electrical tape
1	60-0112	Set screw
1	10-1054-02	36" Aluminum truss support

## 72-0018-51: DB18E (without optional boom truss)

Quantity	Part Number	Description
2	10-1601-03	1-3/4" Solid saddles
2	60-0083	4" Stainless turnbuckles
1	60-0093	5/16" x 2-3/4" Hex head bolt
4	60-0115	5/16" x 4-1/2" Hex head bolt
5	60-0046	5/16" Nylock nut
2	60-0033	5/16" Washer
1	21-7001-01	75 ft Dacron rope (1 piece)
4 pairs	10-1510-01	Element truss clamp
16	60-0014	#6 Nylock nut
16	60-0014-01	#6 x 7/8" Pan head screw
1	10-1028-01	Anti-Seize packet
1	09-0001	Electrical tape
2	60-0112	Set screw
4	10-1613-01	5/16" ID x 1" spacer
1	10-1618-11	1-3/4" x 30" Truss mast

## 72-0018-51: DB18E (with optional boom truss)

Quantity	Part Number	Description
2	60-0083	4" Stainless turnbuckles
1	60-0093	5/16" x 2-3/4" Hex head bolt
5	60-0046	5/16" Nylock nut
2	60-0033	5/16" Washer
1	21-7001-01	75 ft Dacron rope (1 piece)
4 pairs	10-1510-01	Element truss clamp
16	60-0014	#6 Nylock nut
16	60-0014-01	#6 x 7/8" Pan head screw
1	10-1028-01	Anti-Seize packet
1	09-0001	Electrical tape

### IMPORTANT:

The DB18E uses two kits.

For the two end elements, the 72-0018-31 kit is used.

For the driven element you will use one of two possible kits:

72-0018-51: Use if you did NOT purchase the boom truss kit

72-0018-61: Use if you DID purchase the boom truss kit

1. Check and inventory that you received all the parts for the 39 ft 40M/30M truss option.
2. Be sure to use anti-seize on all of the stainless steel fasteners in this step. Failure to do so will potentially cause them to seize. NOTE: for the plastic truss coupler installation, DO NOT use a petroleum based lubricant. Teflon plumbers grease works well, available at any hardware store, or Teflon spray like 3M 557.
3. Secure the truss support to the aluminum saddles so that the head of the 5/16" bolt are on the truss support side. (figure 12.02) Secure the truss support and saddle assembly around the boom so that its between the driven EST and return EST (figure 12.01). **NOTE: The DB18E truss support for the DRIVEN element is completely different than all of the other antenna models. Refer to page 4 for these instructions. For the two end elements on the DB18E, follow instructions on this page (Pg 3).**
4. It is not critical which side of the boom the truss support is on. Use the the boom as a line to sight in the truss support so that it is perpendicular to the boom. This is also not critical as long as you get it as close as possible.
5. Follow the assembly in (figure 12.01) to mount the turnbuckles on the truss support.

Figure 12.01 Top View

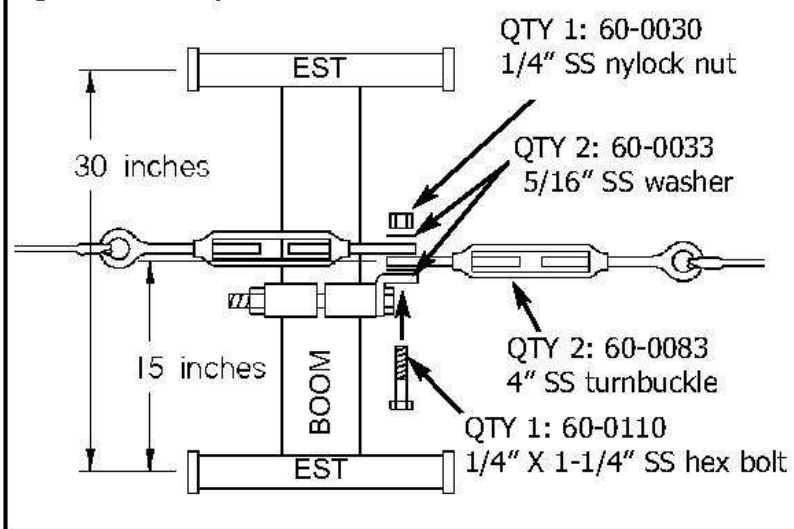
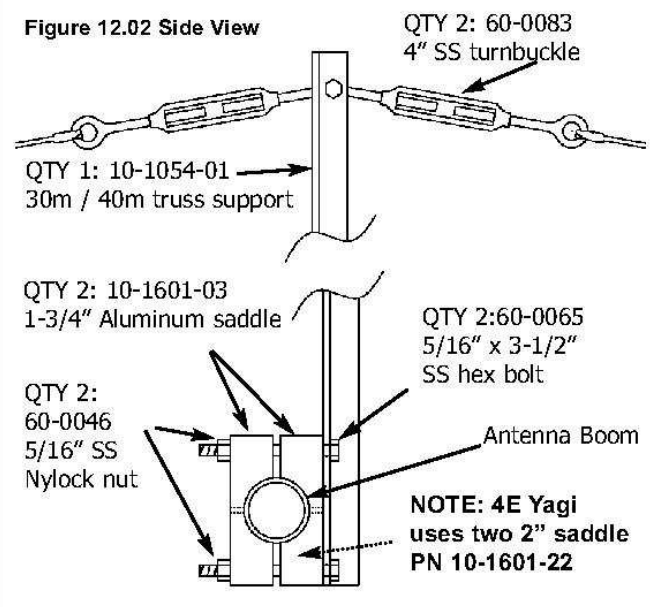


Figure 12.02 Side View

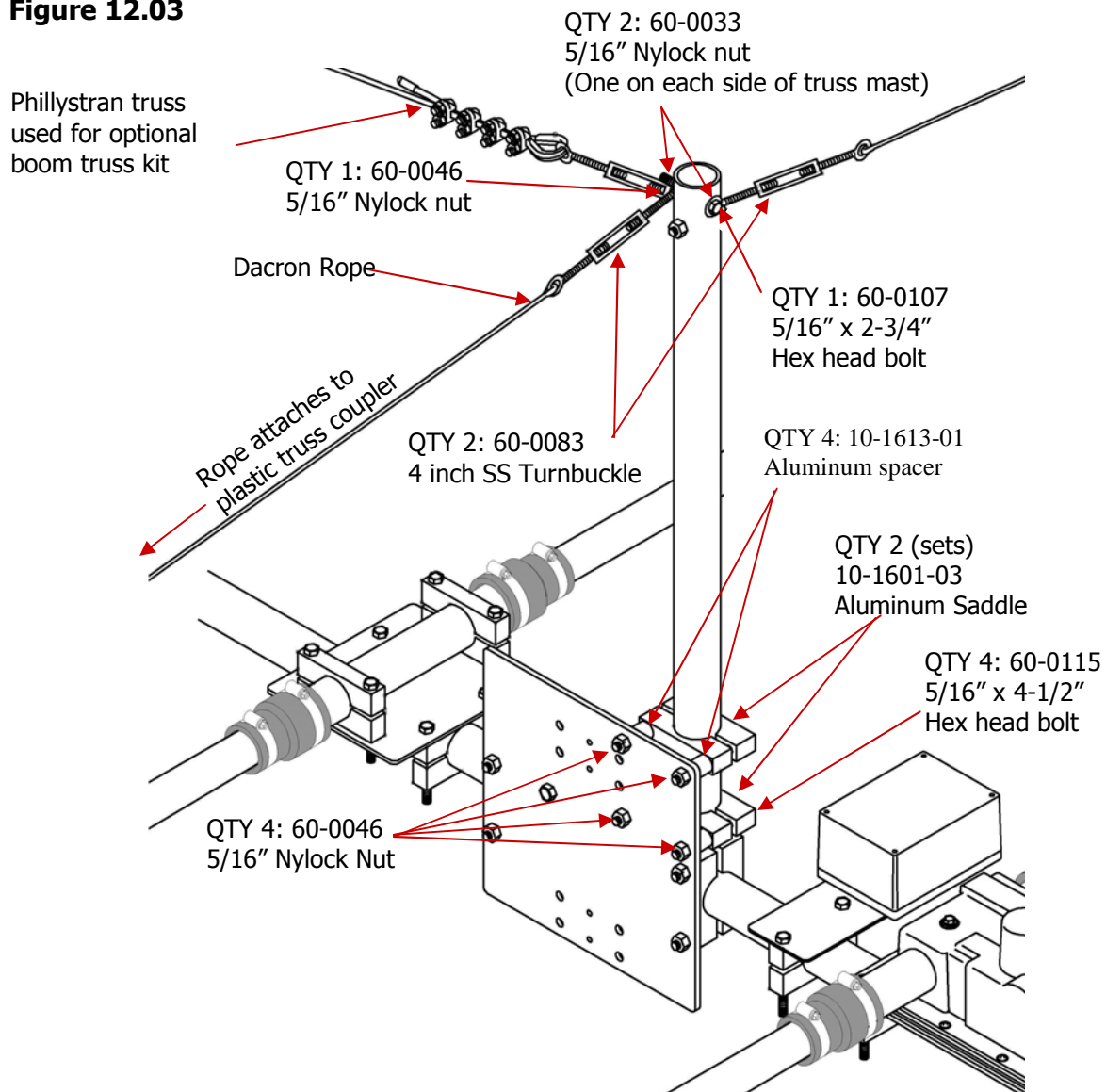


6. Follow the steps on page 5 and 6 to assemble the truss couplers and the Dacron truss rope.
7. When the Dacron rope is attached to the turnbuckles and the truss couplers, use the turnbuckles to do any fine-tune adjusting to your element. DO NOT pull the elements up too high on your dipole truss. This will cause the element to collect water and damage your antenna. Do not allow your telescoping poles to make an "S" shape if looking from the truss support to the sweep. It should be a gradual curve, but the tip of the sweep should never be higher than any other part of the telescoping pole. Lock down the turnbuckle by tightening the small nuts on the turnbuckle.

## 39 ft Truss Installation for DB18E Driven Element ONLY

- The truss support for the DB18E Yagi utilizes 1-3/4" OD aluminum tubing that is mounted directly to the mast as shown in figure 12.03. The truss mast is secured to the mast plate using 1-3/4" aluminum saddles.
- Two 4 inch stainless steel turnbuckles are secured to the truss support as shown below.
- This arrangement is only used for the DB18E driven element. For the end elements of the DB18E, the standard angle brackets are used for supports.
- This truss support is also used if the optional boom truss is purchased for the DB18E.

**Figure 12.03**



## Install the truss support couplings

- Each element truss coupler consists of 2 halves as shown in **figure 2.01**. The truss support couplers (PN 10-1510-01) are used for fastening the Dacron rope to the last section of the telescoping poles. **Figure 2.10** on page 6 provides an expanded view of a truss element assembly.
- When fastening the couplers to the telescoping pole section only the outside 4 holes are used, as shown in **figure 2.02**. Position each coupler so that it is flush to the polyolefin heat shrink as shown in **figure 2.03** and **2.04**. **DO NOT** place the coupler over the polyolefin heat shrink or it will not seat properly. **Figure 2.10** on following page shows the location respective to the telescoping pole to mount the truss coupler.
- Tighten the stainless steel screws and Nylock nuts. **DO NOT USE ANY ANTI-SEIZE OR OTHER PETROLEUM BASED LUBRICANTS ON THE FASTENERS FOR THE COUPLERS; PETROLEUM BASED PRODUCTS WILL CATASTROPHICALLY DAMAGE THE COUPLERS.** Be sure your couplers are perpendicular to the pole and level before final tightening. **Figure 2.05** shows the coupler when tightened.
- The Dacron rope is provided in a single piece. You will need to trim the pieces to length as you proceed in installing each half-portion of the truss. Thread the Dacron rope through the single larger hole at the top portion of the coupler as shown in **figure 2.06**. Secure the rope to the coupler using several half-hitches, leaving approximately 4" extra rope or "leader". Run the rope up the telescoping pole towards the stainless steel eye-bolt and then thread the rope through the eye-bolt and back down to the truss coupler opposite of the one that is already secured. thread the rope through the hole shown in **figure 2.06** so it is tight and the elements are level, with the eye-bolt approximately half way unscrewed. Secure the rope with several half hitches. Trim the rope, leaving approximately 4" of leader.
- Tape the leader to the main truss line as shown in figure 2.07, trim the rope for that portion of the truss and repeat for the next. There will be more than enough rope. Tape the leader to the other portion of the rope as shown in figure 2.07. Electrical tape works fine for this.
- **Figure 2.08** shows the finished coupler with the Dacron rope secured.



Figure 2.01



Figure 2.02



Figure 2.03



Figure 2.04



Figure 2.05



Figure 2.06

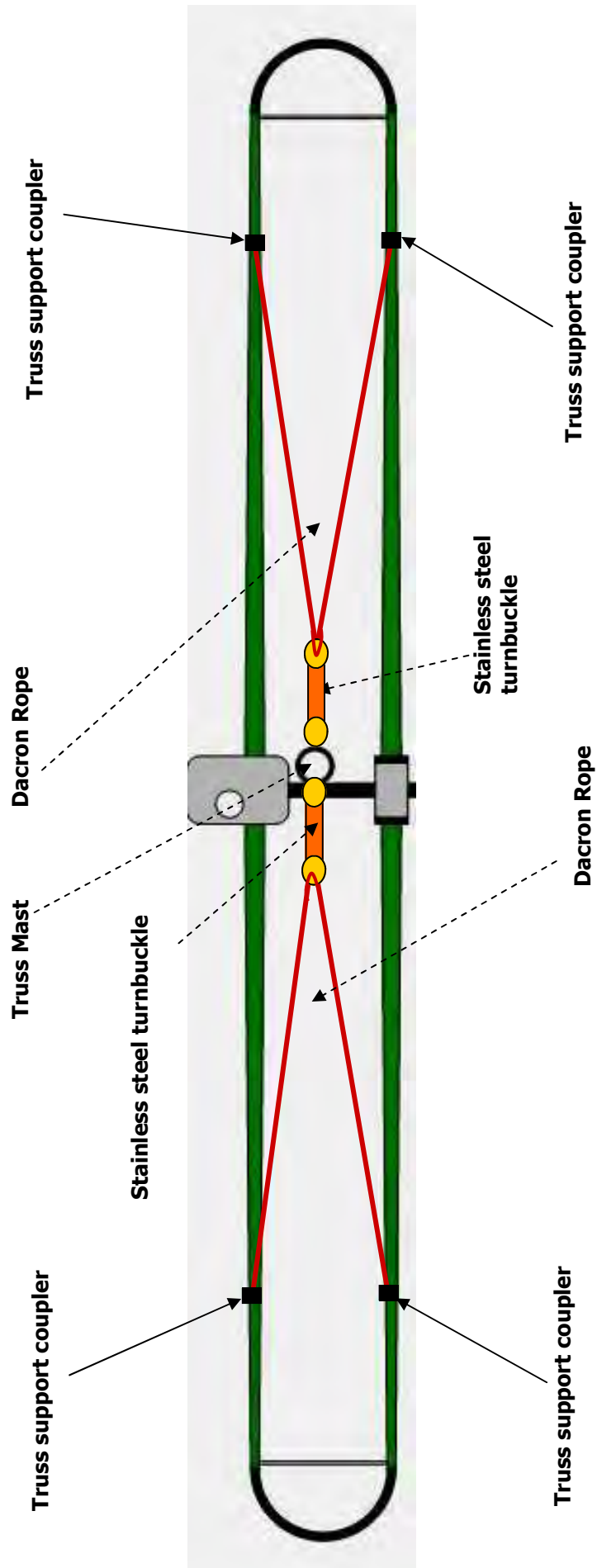
THREAD DACRON ROPE  
THROUGH THIS HOLE



Figure 2.07

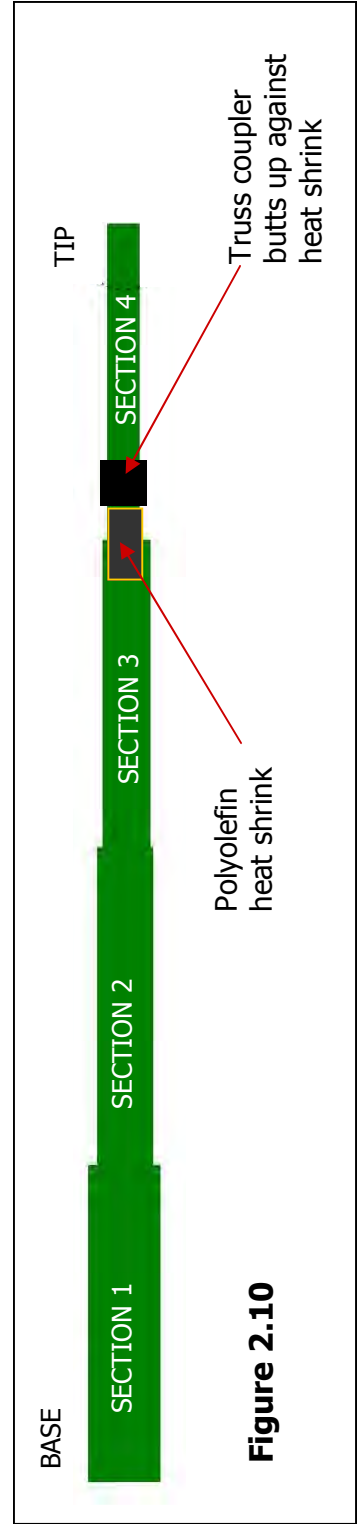


Figure 2.08



**39 ft Loop Element Truss Kit**  
(not to scale)

**Figure 2.09**



**Figure 2.10**