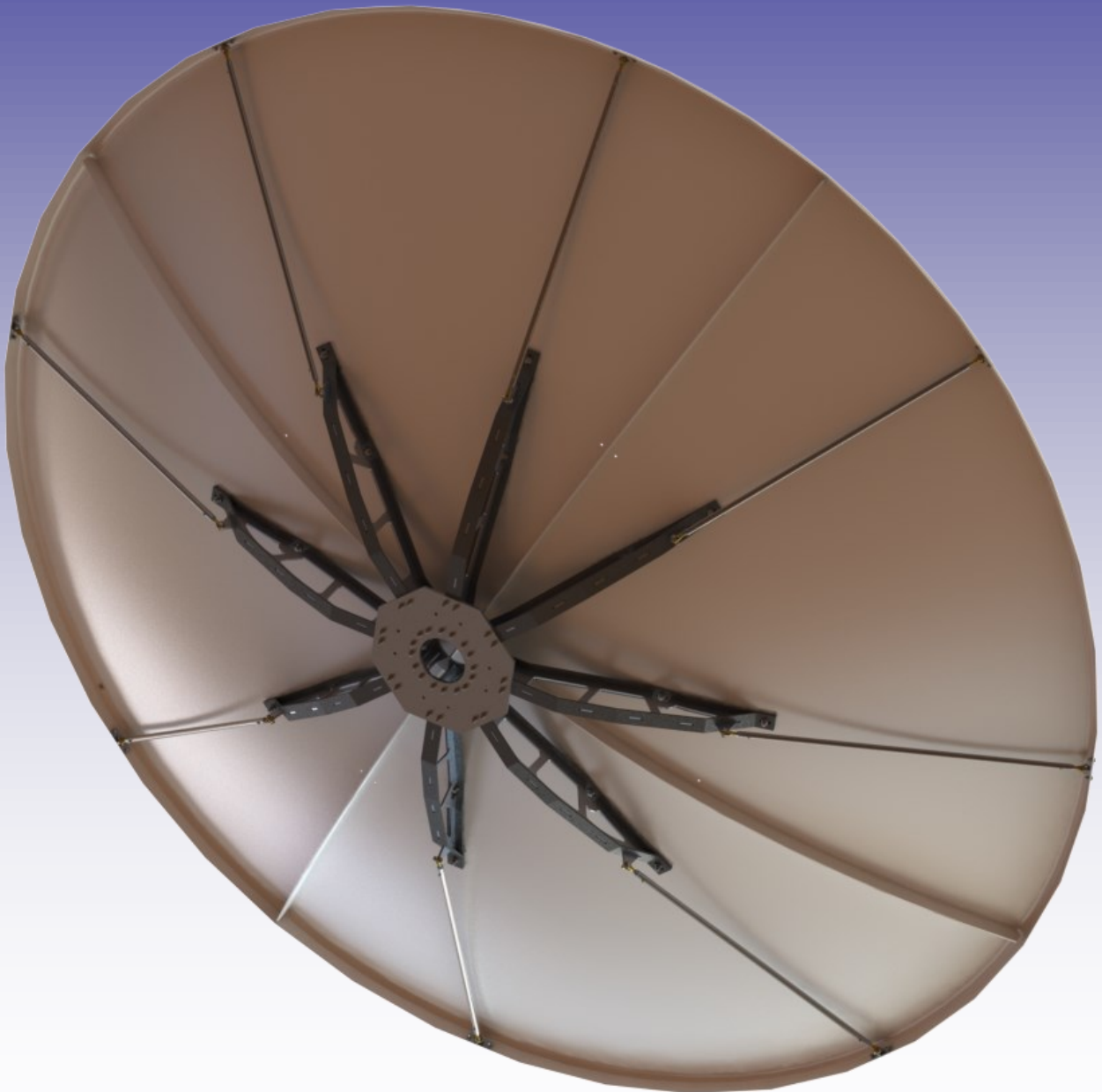




**M2 ANTENNA SYSTEMS, INC.  
DH SATELLITE DISH MOUNT  
MODEL NO: FGSD-3.7DH**



**M2 ANTENNA SYSTEMS, INC. 4402 N. SELLAND AVE. FRESNO, CA 93722  
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6/24/2020  
REV A

# SATELLITE DISH MOUNT ASSEMBLY

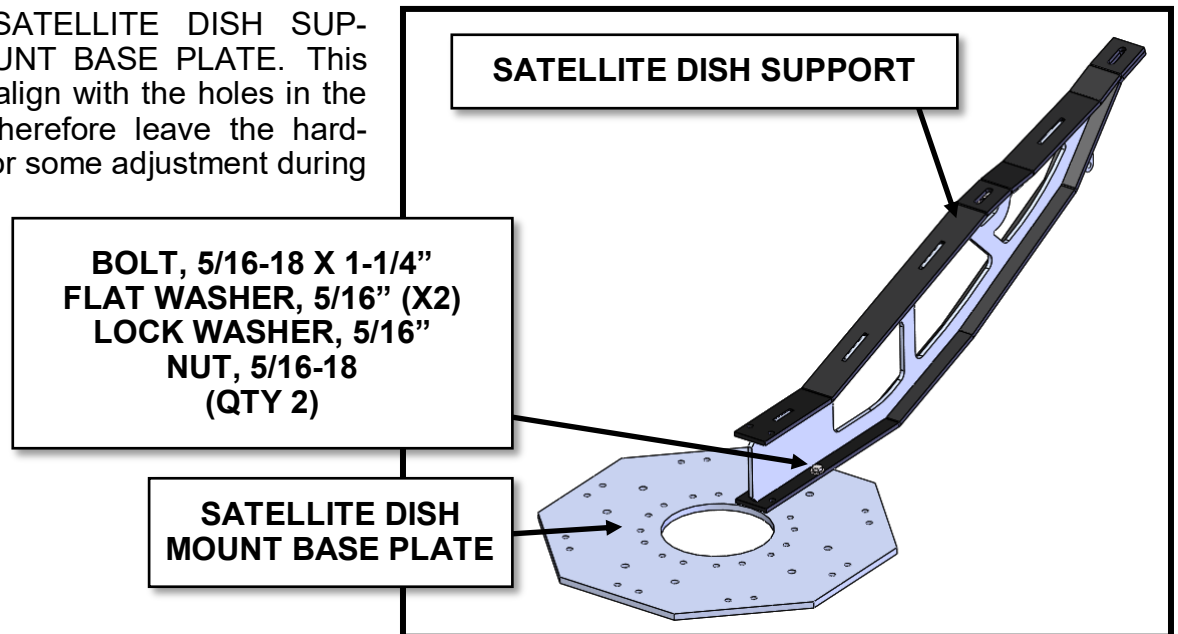
**BEFORE YOU BEGIN:** Look over all the **DRAWINGS** to get familiar with the various parts and assemblies in the system. Tools handy for assembly process: 11/32", 7/16", 1/2", 9/16" and 5/8" spin-tites, end wrenches and/or sockets.

**NOTE:**

*All installations are unique in some way, which means it's OK to preassemble certain hardware, or rearrange the assembly process to meet specific site requirements. A quick review of the assembly notes and drawings should help firm up the appropriate strategy. Please remember to double-check all hardware for tightness BEFORE it becomes inaccessible.*

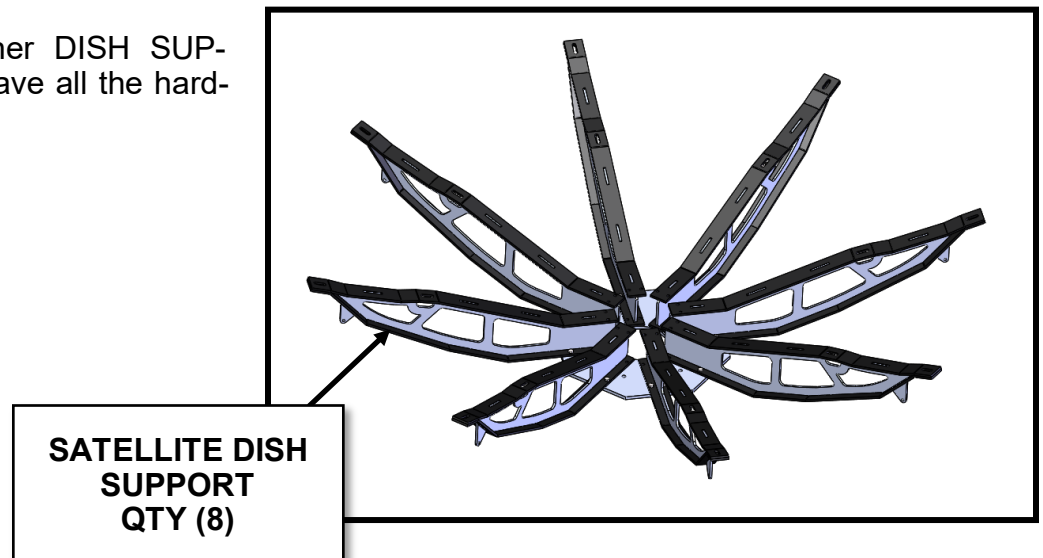
**STEP 1:**

Mount one SATELLITE DISH SUPPORT to DISH MOUNT BASE PLATE. This support will need to align with the holes in the SATELLITE DISH, therefore leave the hardware loose to allow for some adjustment during assembly.

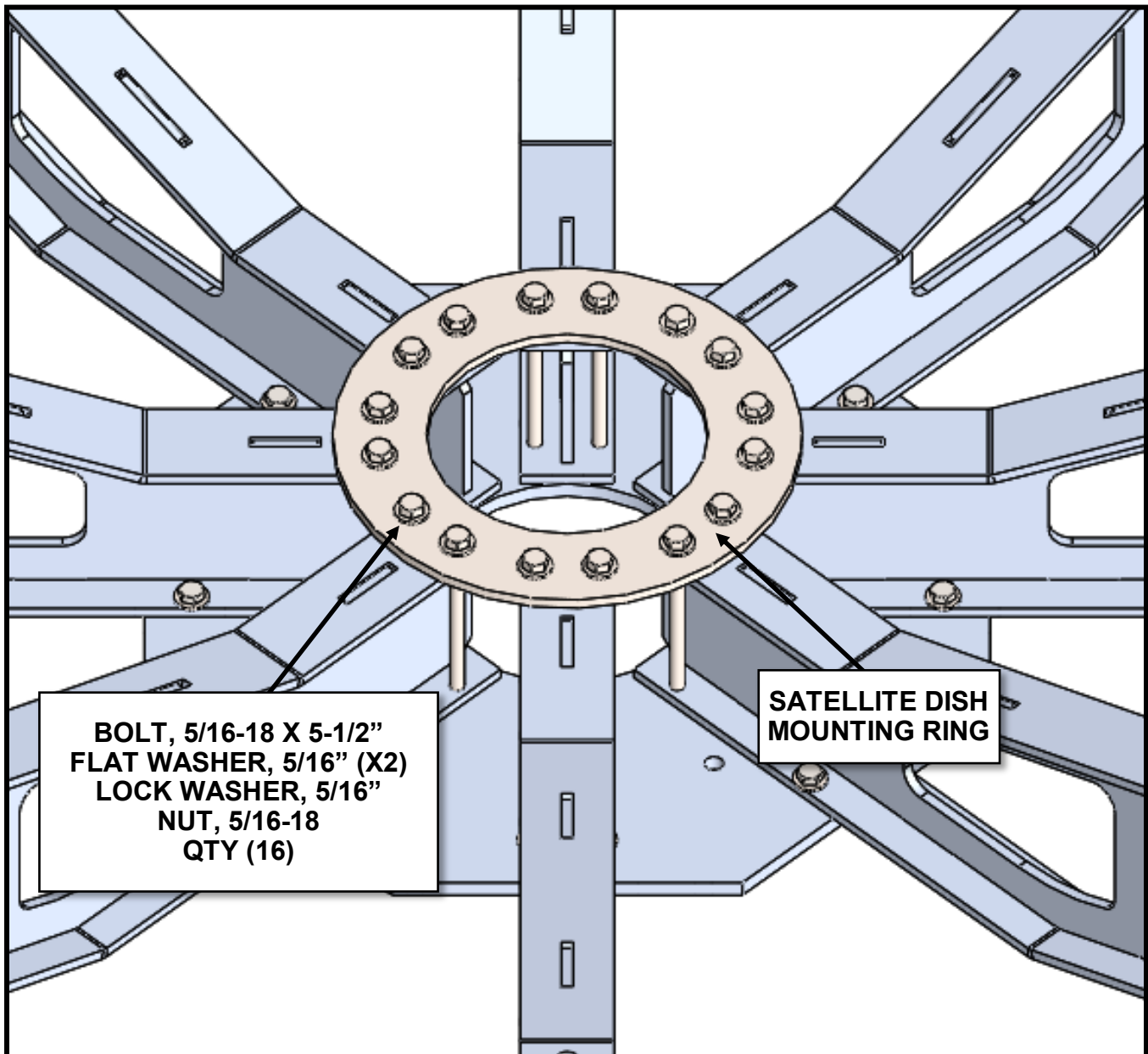


**STEP 2:**

Finish installing the other DISH SUPPORTS in a radial pattern. Leave all the hardware finger tight.



# SATELLITE DISH MOUNT ASSEMBLY



## **STEP 3:**

Mount the SATELLITE DISH SUPPORT RING to the top of the SATELLITE DISH SUPPORTS. Tighten all hardware.

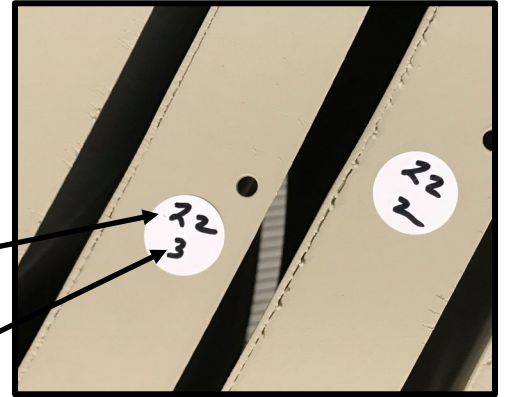
# SATELLITE DISH ASSEMBLY

## **STEP 4:**

The SATELLITE DISH PANELS come with color coded dots on the rib to indicate which panels need to be mated together for proper alignment. Each dot is labeled with serial numbers and matching rib numbers.

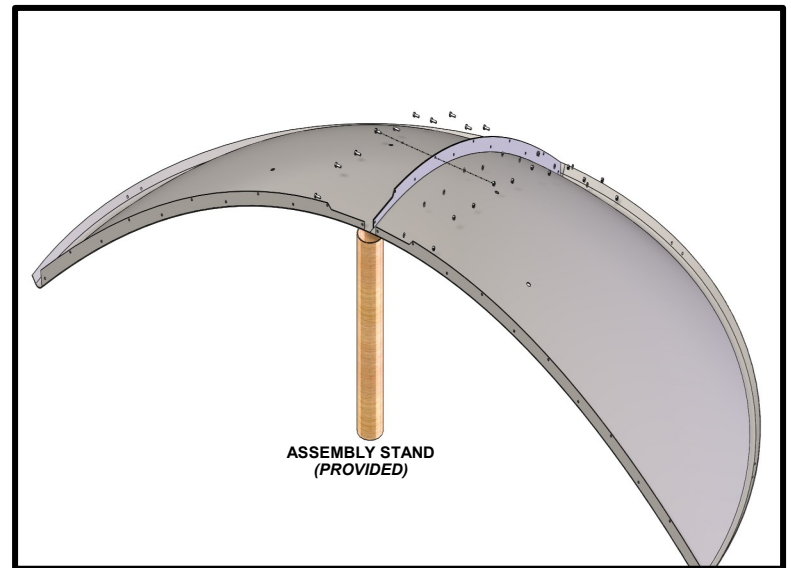
**SATELLITE DISH SERIAL NUMBER**  
(WILL BE DIFFERENT FOR YOUR DISH)

**RIB IDENTIFICATION**  
(MATE WITH PANEL WITH SAME NUMBER)



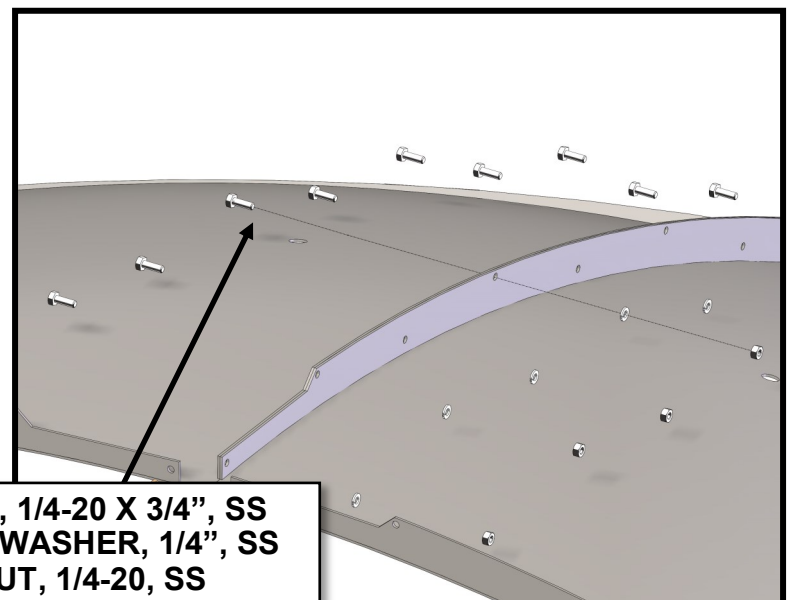
## **STEP 5:**

The method recommended for assembling the SATELLITE DISH PANELS requires placing a stand, which is provided, at the center of panels. It does not matter which panels you start with as long as they both have the same numbers labeled on the corresponding ribs. Carefully place two panels with mating numbers touching onto the stand



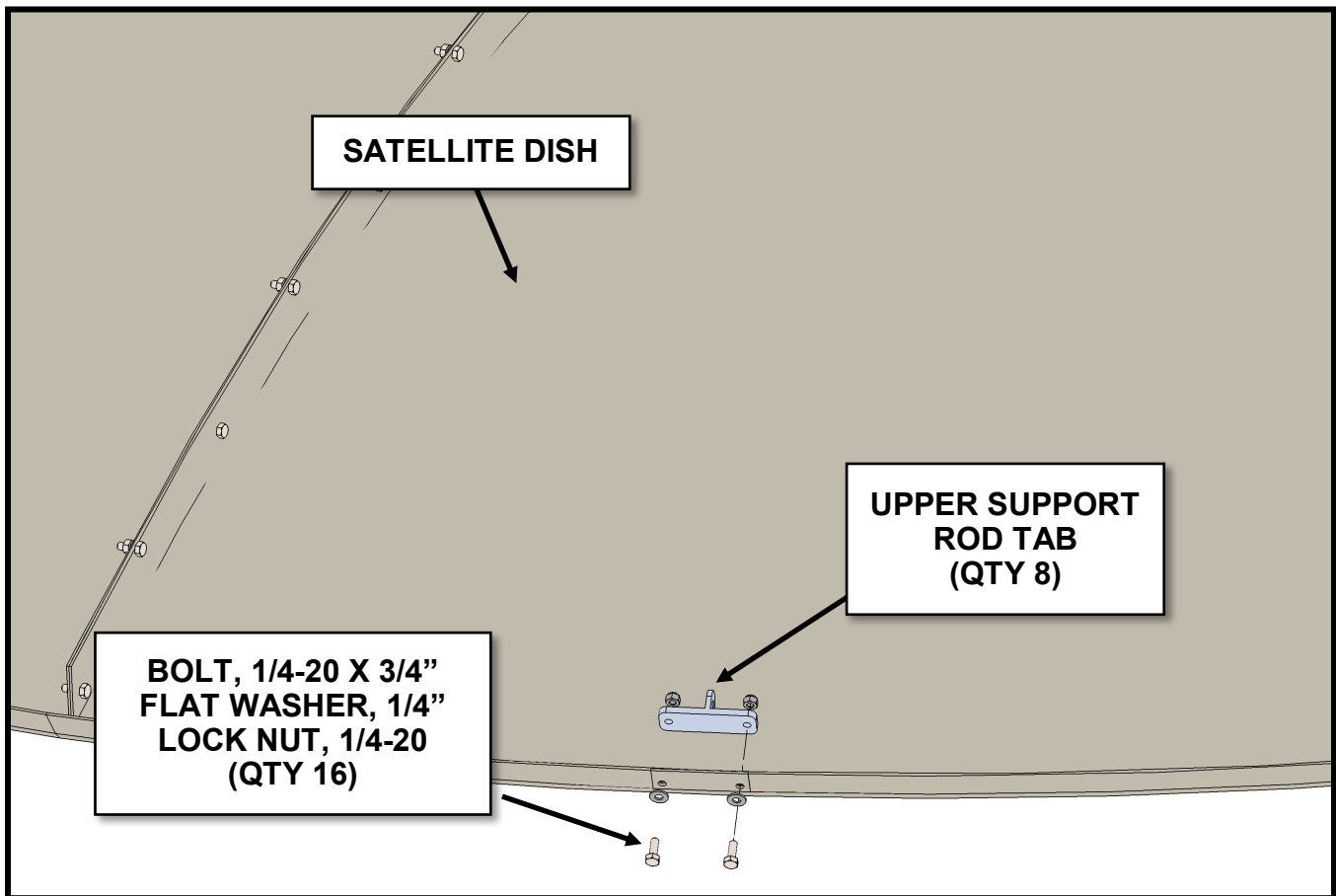
## **STEP 6:**

Insert the fasteners provided into the holes connecting the two SATELLITE DISH PANELS together. Leave the fasteners finger tight until all PANELS are assembled. Continue adding another panel with a corresponding rib number that matches one of the already assembled PANELS. Insert the fasteners into the THIRD PANEL. Leave fasteners finger tight. Do not add the FOURTH PANEL yet. You will need to add the hub assembly and need to access the center of the dish for ease of assembly.



**BOLT, 1/4-20 X 3/4", SS**  
**LOCK WASHER, 1/4", SS**  
**NUT, 1/4-20, SS**  
**QTY (52)**

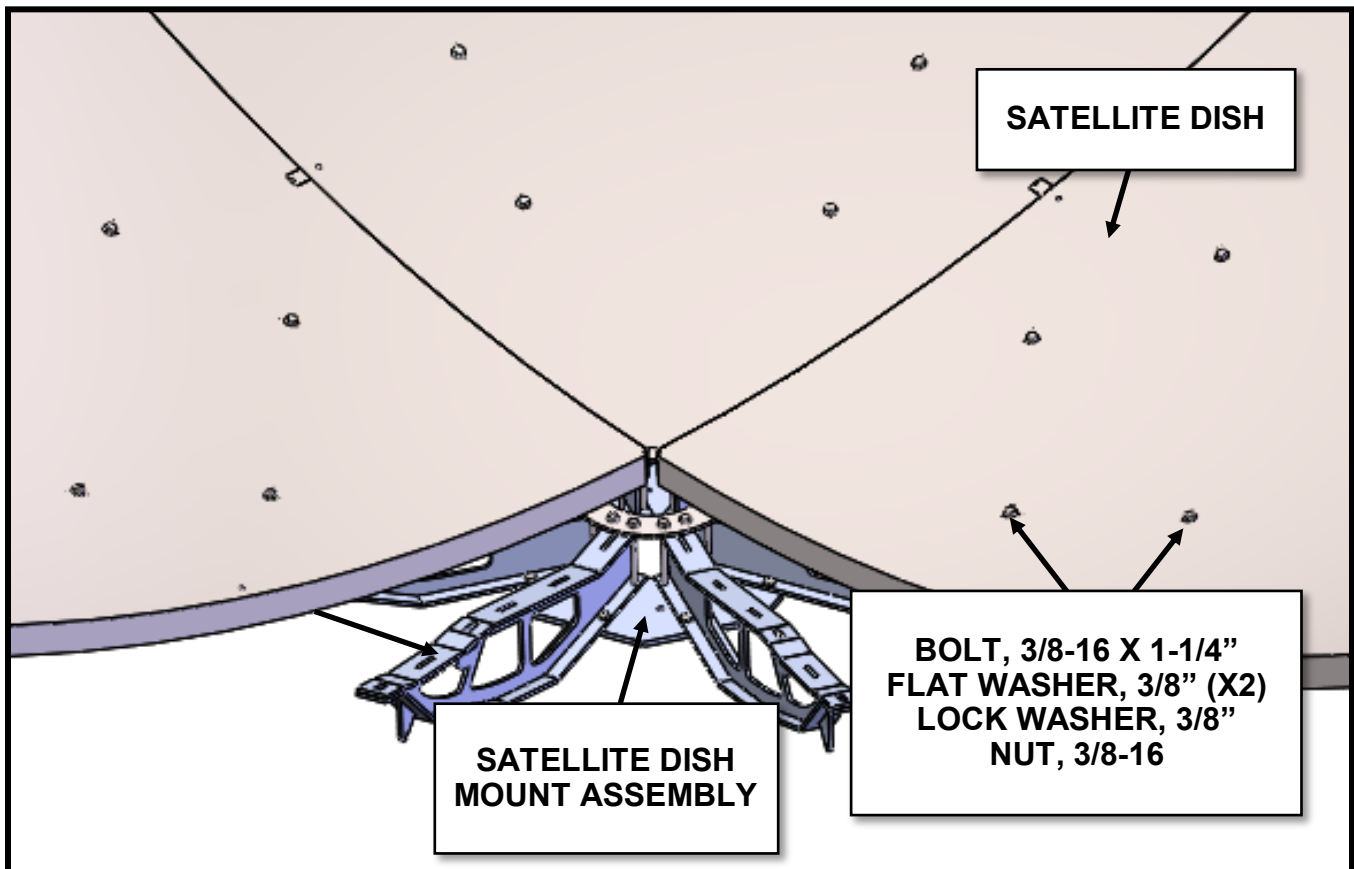
# SATELLITE DISH ASSEMBLY



## **STEP 7:**

Install the UPPER SUPPORT ROD TAB into the rim of the SATELLITE DISH. Install all remaining TABS. Tighten all hardware.

# SATELLITE DISH ASSEMBLY



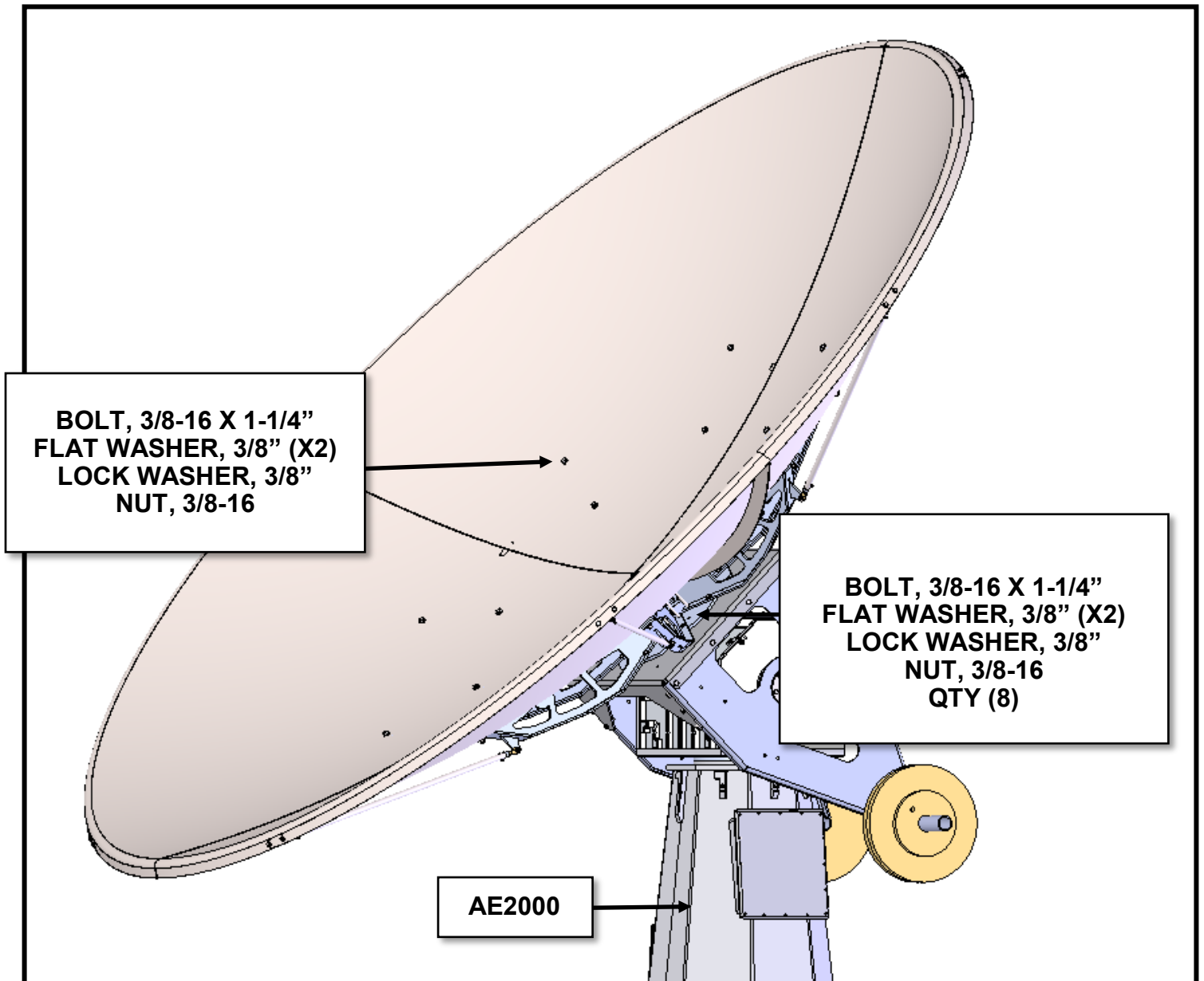
## **STEP 8**

Attach the partially assembled SATELLITE DISH to the DISH ASSEMBLY MOUNT. It may not be possible to reach all the BOLTS to attach the SATELLITE DISH to the DISH ASSEMBLY MOUNT. Once the SATELLITE DISH MOUNT is attached to the BOX FRAME, the assembly can be positioned to finished attaching all the fasteners.

## **STEP 9**

Use the methods from STEP 6 to attach the final SATELLITE PANEL. Make sure the holes in the SATELLITE DISH PANEL line up with the SATELLITE DISH MOUNT. Leave the fasteners finger tight.

# SATELLITE DISH ASSEMBLY



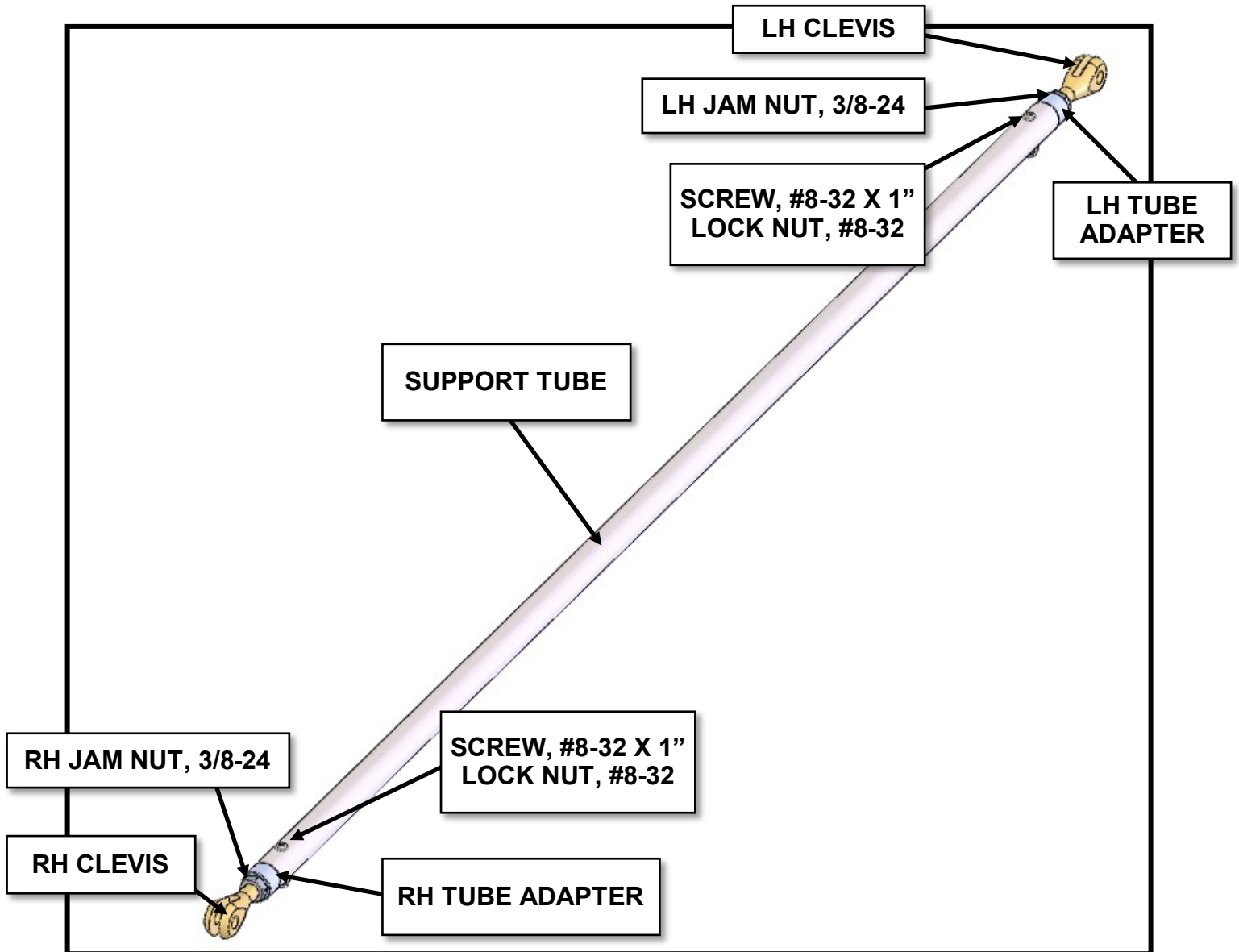
## **STEP 10:**

Carefully attach the SATELLITE DISH with MOUNT to ANTENNA POSITIONER. Hardware needed will be part of the ANTENNA POSITIONER ASSEMBLY. Once SATELLITE DISH MOUNT is properly attached to POSITIONER, position the SATELLITE DISH to 90° from horizon. Finish securing SATELLITE DISH to SATELLITE DISH MOUNT. Tighten all hardware.

**NOTE:** Positioner in graphic may differ for your system.



# DISH SUPPORT ROD ASSEMBLY

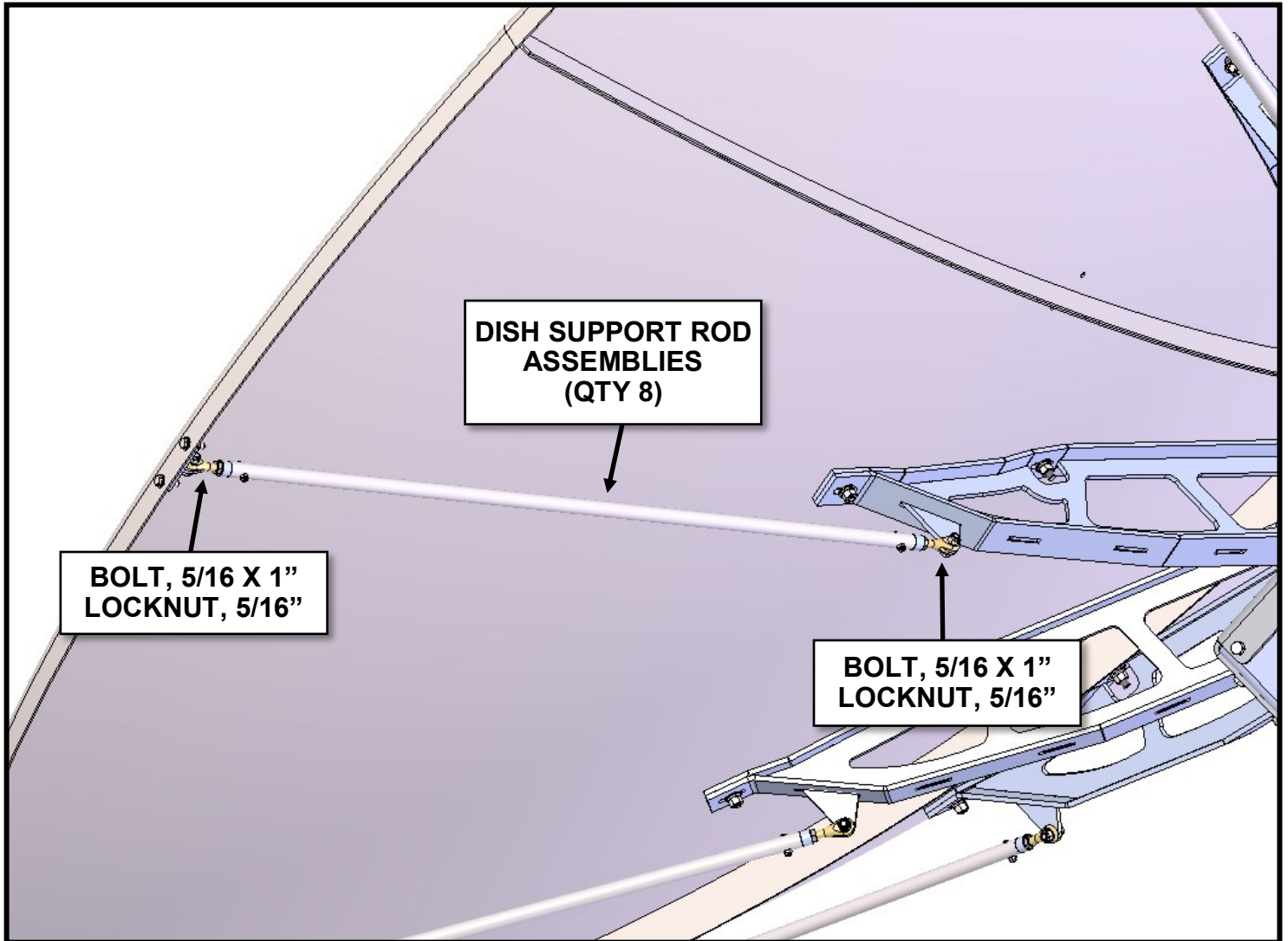


## **STEP 11:**

Pre-Assemble the DISH SUPPORT ROD ASSEMBLY. Make sure there is a RIGHT HAND CLEVIS on one end of the assembly as well as a LEFT HAND CLEVIS on the other end of the DISH SUPPORT ROD ASSEMBLY. Assemble all the DISH SUPPORT ROD ASSEMBLIES. Leave the JAM NUTS loose for now.



# SATELLITE DISH ASSEMBLY



## **STEP 12:**

Attach all the DISH SUPPORT ROD ASSEMBLIES to the UPPER SUPPORT ROD TABS and SATELLITE DISH SUPPORTS.

## **STEP 13:**

Refer to the tuning section of the manual if you need to tune the SATELLITE DISH. If you do not wish to tune the SATELLITE DISH, with all the DISH SUPPORT ROD ASSEMBLIES unloaded, start with one ROD and hand tighten the ROD until it begins to load in tension. Turn the ROD an additional 180 degrees. Tighten the JAM NUTS on the CLEVISES to keep the DISH from detuning. Then working in a star pattern load the remaining SUPPORT ROD ASSEMBLIES in tension. Careful not to over tighten the SUPPORT ROD ASSEMBLIES as this can de-tune the SATELLITE DISH.

# SATELLITE DISH TUNING

## **NOTE:**

Once the SATELLITE DISH is secured to the POSITIONER, the DISH may require tuning. Using a ladder or manipulating the DISH with the ANTENNA POSITIONER look at the rim of the DISH. Make sure the rim of the DISH is uniformly flat across the perimeter. Carefully look at all mating junctions of the DISH sections and verify there are no highs or lows that could effect the ANTENNA'S performance. If a high or low spot is noticed slight tuning of the DISH may be needed. If the DISH was properly assembled on a flat surface tuning of the DISH is not usually required.

## **STEP 1:**

Before tuning the satellite DISH make sure the DISH SUPPORT RODS are all unloaded. You will need 4 pieces of string slightly longer than the diameter of the DISH, approx. 17 feet in length per piece.

## **STEP 2:**

Run 1 piece of string pulled taut connecting opposing SUPPORT ROD TABS. Now place another piece of string connecting two opposing SUPPORT ROD TABS. The two strings should touch in the center if the DISH is perfectly flat and the strings are properly taut.

## **STEP 3:**

Now string an additional 3rd and 4th string to the remaining SUPPORT ROD TABS. All 4 pieces of string should be slightly touching in the center of the DISH. Be careful to notice if one piece of string is pushing all the other strings up or down.

## **STEP 4:**

If you notice one piece of string is higher or lower than the other strings, that SUPPORT ROD PAIRING will need to be adjusted. First load one of the SUPPORT RODS that need to be adjusted in tension slightly. (Using your right hand turn the SUPPORT ROD counter-clockwise). Once you feel the SUPPORT ROD starting to load in tension turn the SUPPORT ROD an additional 180 degrees and stop. Next adjust the SUPPORT ROD that is connected to the other end of the string of the SUPPORT ROD you just loaded. Turn the SUPPORT ROD while noticing the string moving up and down as you adjust the SUPPORT ROD length. Lengthen or shorten the SUPPORT ROD until the string just touches the opposing strings.

## **STEP 5:**

Continue tuning additional SUPPORT RODS if necessary until all strings are touching. Tighten the JAM NUTS on all the SUPPORT RODS once the system is tuned.



# FGSD-3.7DH PARTS & HARDWARE LIST

<u>DESCRIPTION</u>	<u>QTY</u>
SATELLITE DISH PANEL, 12-3.7M4 (12').....	4
SATELLITE DISH MOUNT BASE PLATE (M2ASD0054) .....	1
SATELLITE DISH MOUNTING RING, TOP (M2ASD0053).....	1
SATELLITE DISH SUPPORT (SASD0050).....	8
UPPER SATELLITE DISH SUPPORT ROD TAB (M2ASD0020).....	8
SUPPORT TUBE, 3.7 (12') SAT DISH (M2ASD0047) *PREASSEMBLED .....	8
TUBE ADAPTER, RH (M2ASD0025) *PREASSEMBLED .....	8
TUBE ADAPTER, LH (M2ASD0026) *PREASSEMBLED .....	8
CLEVIS, LH ROD END (M2ASD0056) .....	8
CLEVIS, RH ROD END (M2ASD0001) .....	8
SATELLITE DISH ASSY STAND, 4" X 22", CARDBOARD (M2ASD0003) .....	1

## HARDWARE

JAM NUT, 3/8-24 (LH) SS .....	8
JAM NUT, 3/8-24 (RH) SS.....	8
BOLT, 3/8-16 X 1-1/4", HEX HEAD, SS .....	24
NUT, 3/8-16, SS .....	24
LOCK WASHER, 3/8", SS .....	24
FLAT WASHER, 3/8", SS .....	48
BOLT, 5/16-18 X 5-1/2", HEX HEAD, SS .....	16
BOLT, 5/16-18 X 1-1/4", HEX HEAD, SS .....	16
BOLT, 5/16-18 X 1", HEX HEAD, SS .....	16
FLAT WASHER, 5/16", SS .....	64
LOCK WASHER, 5/16", SS .....	32
NUT, 5/16-18, SS .....	32
LOCK NUT, 5/16-18, SS .....	16
BOLT, 1/4-20 X 3/4", SS.....	68
NUT, 1/4-20, SS .....	52
LOCK NUT, 1/4-20, SS .....	16
FLAT WASHER, 1/4", SS .....	16
LOCK WASHER, 1/4", SS .....	52
SCREW, 8-32 X 1.0", SS.....	16
LOCK NUT, 8-32, SS .....	16