

# INSTALLATION INSTRUCTIONS

## SERIES 9000 EARTH STATION ANTENNA

### 2.8 METER REFLECTOR ASSEMBLY

PUBLICATION NO. 33N031A

# Scientific Atlanta

**READ INSTRUCTIONS THOROUGHLY  
BEFORE BEGINNING ASSEMBLY**

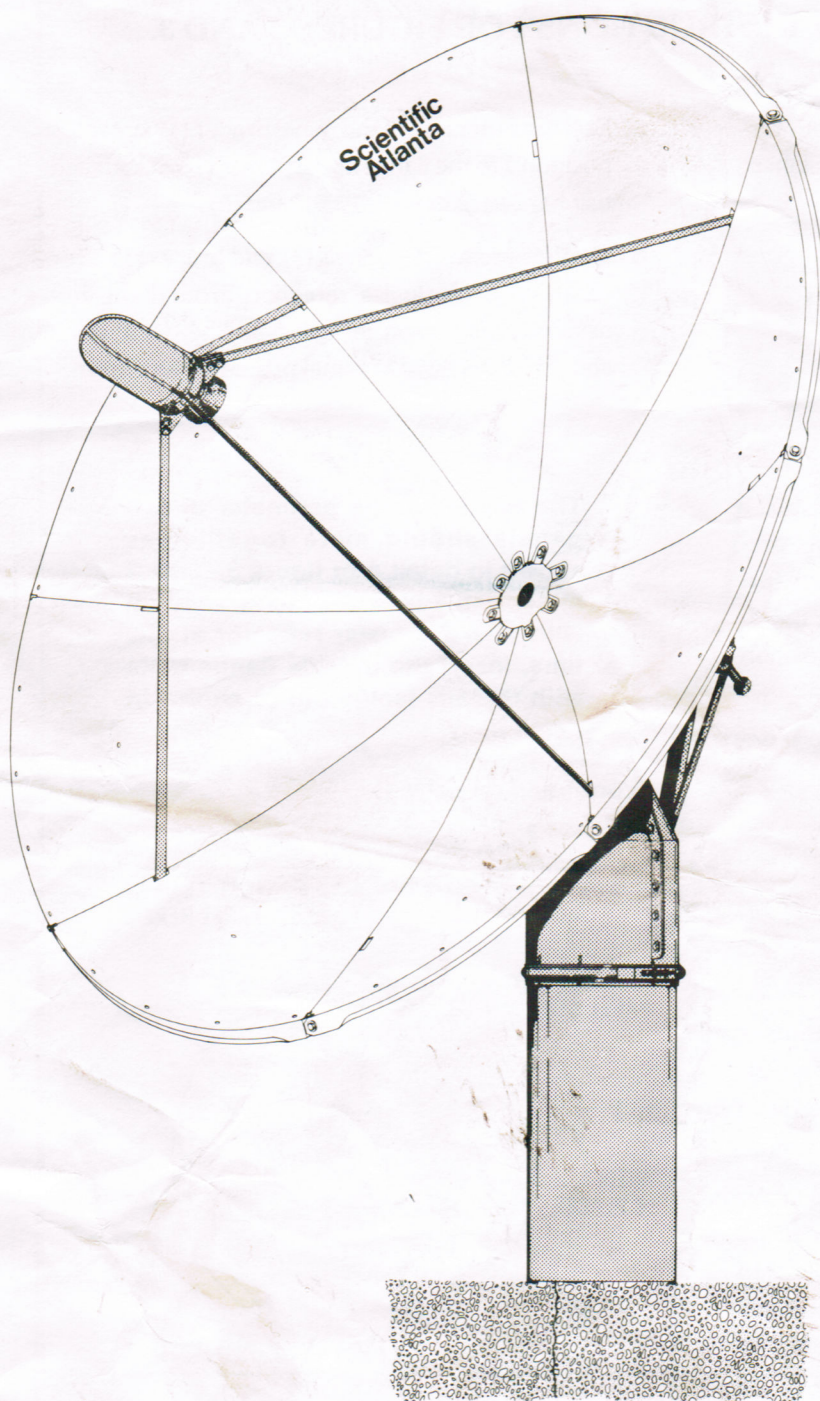


Figure 1. 2.8 Meter Reflector Assembly

## INTRODUCTION

These instructions describe how to assemble the Series 9000 2.8 meter reflector. The assembly is completed in two stages; first the reflector panels and braces are bolted to the hub assembly and then all hardware items are tightened in a prescribed sequence.

After completing these instructions, the 2.8 meter reflector can be expanded to a 3.2 meter reflector by adding parts included in an extender kit. If this kit was included with your order, refer to the Installation Instructions for the 3.2 Meter Extender Kit (Publication No. 33N037) and proceed as instructed.

The step-by-step instructions are keyed to the exploded drawings and to the parts list by item numbers which are shown in parentheses.

## FEATURES

- Interchangeable panels
- High surface accuracy for Ku-band application
- Easily erected, no crane or hoisting device required for installation.



## PARTS LIST FOR FIGURE 3

ITEM	DESCRIPTION	PART NO.	ITEM	DESCRIPTION	PART NO.
1	Brace, Panel	300093	4	Screw, 3/8-16 x 1	299392
2	Panel, Dish	300083	5	Washer, 3/8 Flat	88520
3	Panel, Decal	300090	6	Nut, 3/8-16	299391

## STEP-BY-STEP ASSEMBLY INSTRUCTIONS FOR FIGURES 2 AND 3.

1. Turn the elevation adjustment screw counter-clockwise until the hub assembly is at the highest elevation angle (approximately 60 degrees).

### NOTE

**Loosely install all hardware until assembly of the reflector is completed. The recommended bolt tightening procedure is shown on page 4.**

2. Starting at position 1 as indicated in figure 2, bolt a panel brace (1) to the hub perimeter, using previously installed hardware items (4), (5), and (6). Both ends of the panel brace are identical; therefore, either end may be bolted to the hub. Position the brace at the hub as shown in figure 2.

### NOTE

**In addition to position 1, positions 3 and 5 (indicated by heavy arrows in figure 2), also use previously installed hardware to attach panel braces to the hub.**

3. Bolt a second panel brace (1) to the hub perimeter at position 2, using hardware items (4), (5), and (6). Orient this brace and all other braces to be installed as you did the first brace.
4. With the first two panel braces (1) attached to the hub assembly, position a dish panel (2) between the two braces and bolt the narrow-end of the panel to the front of the hub assembly using hardware items (4), (5), and (6). You can attach the nut (6) by reaching through the large hole at the rear of the hub assembly.

5. Bolt the other end of the panel brace (1) installed at position 1 to the flange of the panel (2) just installed; use hardware items (4), (5), and (6).
6. Continue installing panels (2) and braces (1) alternately in a clockwise direction around the hub assembly as shown in figure 2. The decal panel should be installed at panel position 3 as shown.

### NOTE

**The flanges at the perimeter of two panels should mate together as shown in detail A of figure 3. If a 3.2 meter extender kit is being installed with your 2.8 meter reflector at this time, insert the outside flange bolts with threads facing out as shown in detail B.**

(continued on page 4)

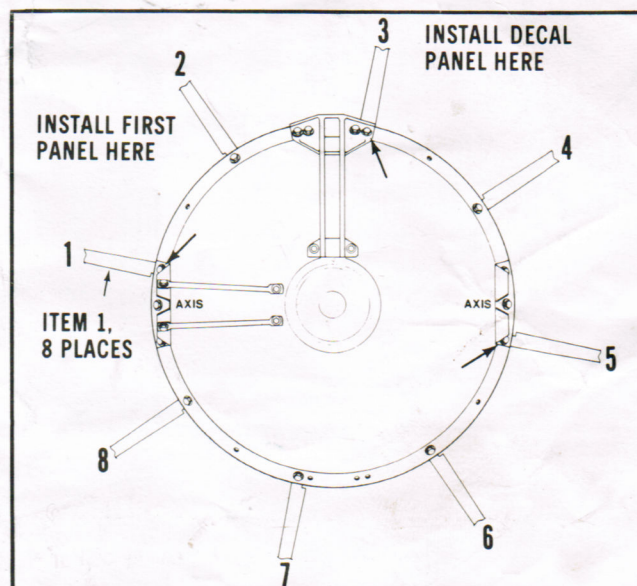


Figure 2. Rear View of Hub Assembly



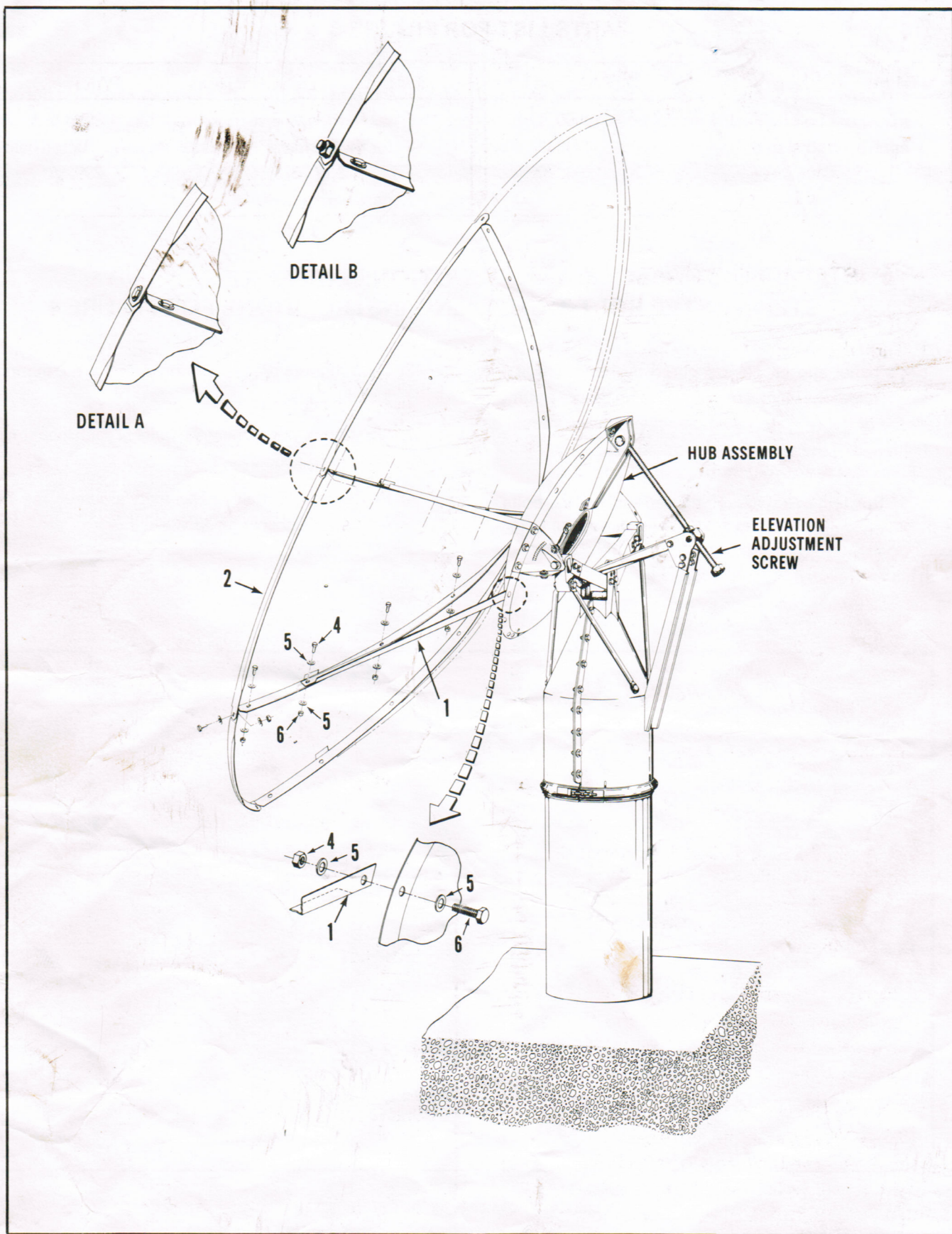


Figure 3. Assembly of Panel Braces and Dish Panels to Hub



7. Install all remaining hardware for each panel as shown in figure 3, but do not tighten. If you are not installing the 3.2 meter extender kit at this time, follow the bolt tightening instructions below. Otherwise, go to step 8.

8. If you are installing a 3.2 meter extender kit at this time, locate the installation instructions packaged with that kit. Install the extender kit parts according to those instructions and then tighten the bolts for the 2.8 meter main reflector as instructed below and proceed with the tightening of the extender kit hardware.

## STEP-BY-STEP BOLT TIGHTENING INSTRUCTIONS FOR FIGURE 4

Each panel and brace is secured by hardware at the seven locations identified in figure 4. To assure optimum shape of the reflector, each panel and brace should be tightened in the sequence described below.

1. Starting at any panel, tighten each of the bolts at location 1 in figure 4, working from panel to panel around the dish.

2. Next, tighten the bolts at location 2 in the manner just described.

3. Continue by tightening the bolts at each location in numbered sequence.

4. Proceed by installing the feed assembly as described in Publication 33N032.

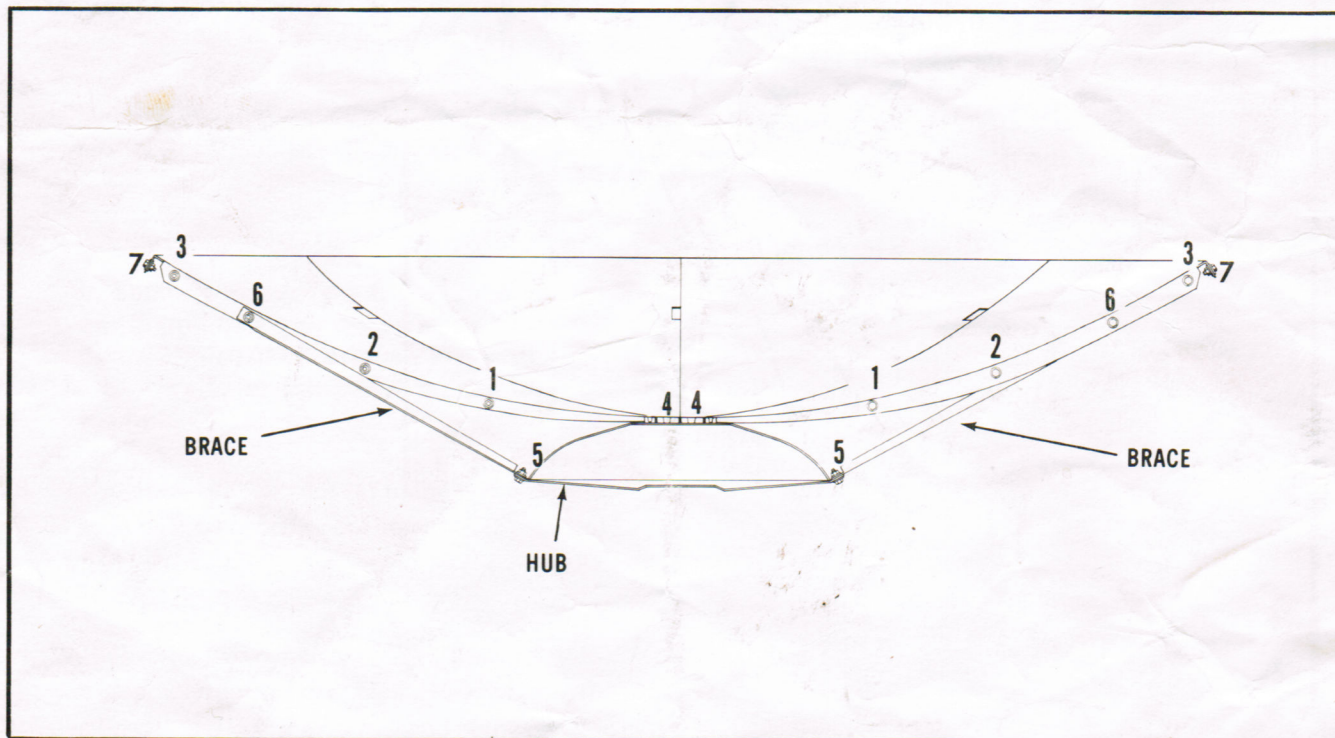


Figure 4. Cross Section View of Reflector

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