



Channel Master 1

Polar mount voor

Model 6033 voor 1.0 & 1.2 m antenne
(uses 76mm (3.0") diameter tube)

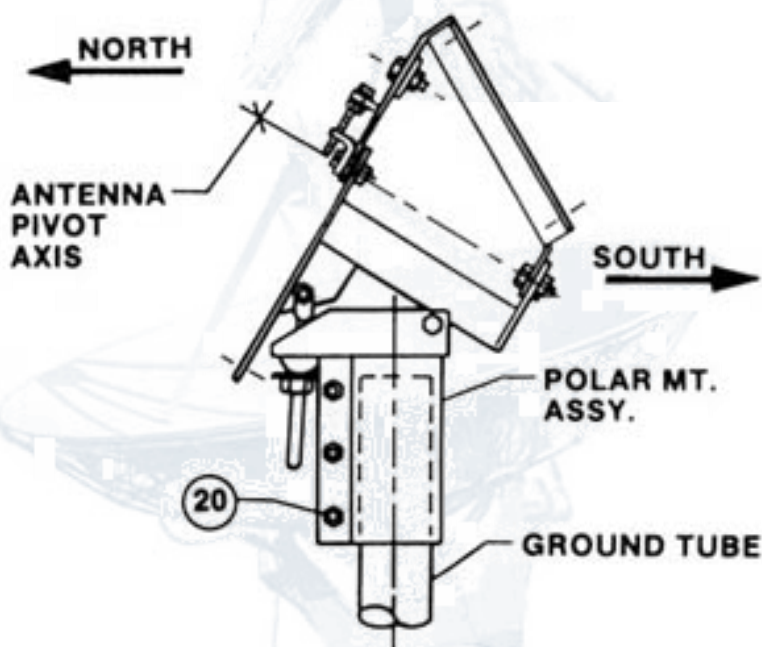


FIG. 2.0 INSTALLING POLAR MOUNT ONTO GROUND TUBE

POLAR MOUNT TO TUBE

After ground tube foundation Concrete has cured, slide assembled polar mount onto ground tube. Swivel polar mount on tube until the antenna pivot axis points approximately North. Tighten the M8 (5/16") hex nuts (20) so that the mount is held stationary on the tube, but can be swiveled with slight pressure (Ref. Fig. 2.0).

JACK (ACTUATOR) TO POLAR MOUNT

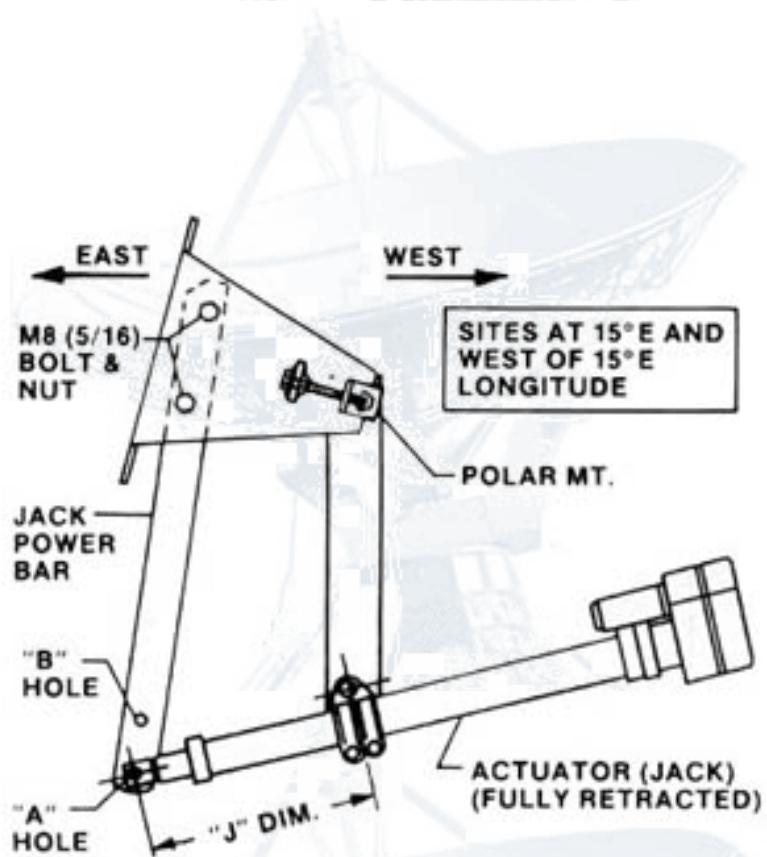


FIG.2.1 -INSTALLATION OF JACK (ACTUATOR)

Referring to Fig. 2.1 and 2.2, determine on which side of the polar mount the jack power bar and jack (actuator) is to be assembled. For sites West of 15° East Longitude, assemble as shown in Fig. 2.1. For sites East of 15° East Longitude, assemble as shown in Fig. 2.2.

Assemble power bar to polar mount using two M8 (5/16") hex bolts, lock washers and hex nuts (supplied). Tighten and torque.

NOTE: For maximum range and rigidity, a 457mm (18") jack is recommended. A 305mm (12") jack is acceptable.

Assemble jack to polar mount (Ref. Fig. 2.11 2.2 and 2.3).

Install jack clamp onto support bar. Tighten and torque clamp pivot bolt. Assemble nose end of jack to power bar.

If 305mm (12") jack is used, use hole "B". For 457mm (18") jack, use hole "A". Tighten and torque pivot bolt.

NOTE:

Fig. 2.3 illustrates a typical jack installation. Refer to instructions supplied with your unit.

Referring to "J" dimension chart, slide jack through jack clamp to set "J" dimension for size of jack used. Tighten and torque clamp bolts.

NOTE: "J" DIMENSION SHOWN SHOULD BE SUFFICIENT, BUT IF NEEDED, MAY BE DECREASED UP TO 7mm (1/4 in.) TO IMPROVE LOW LOOK ANGLES.

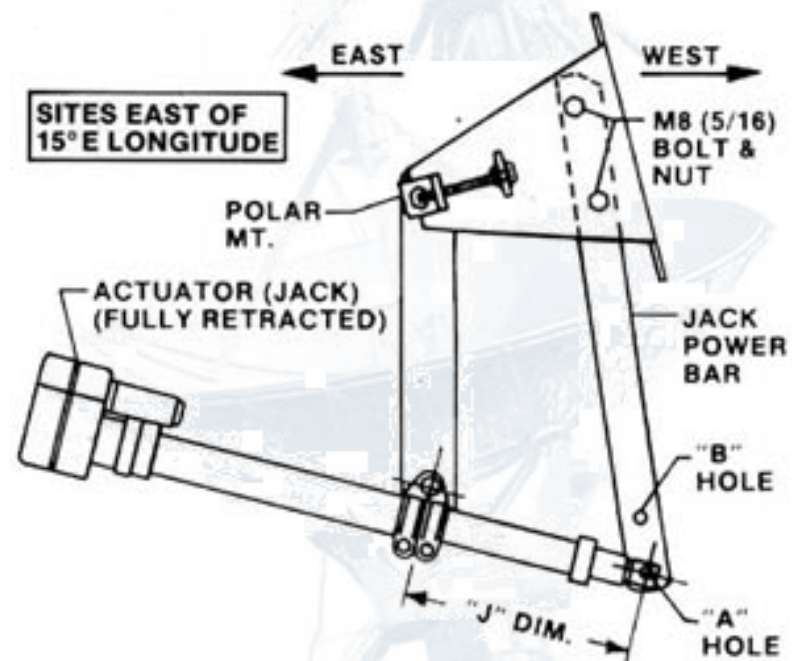


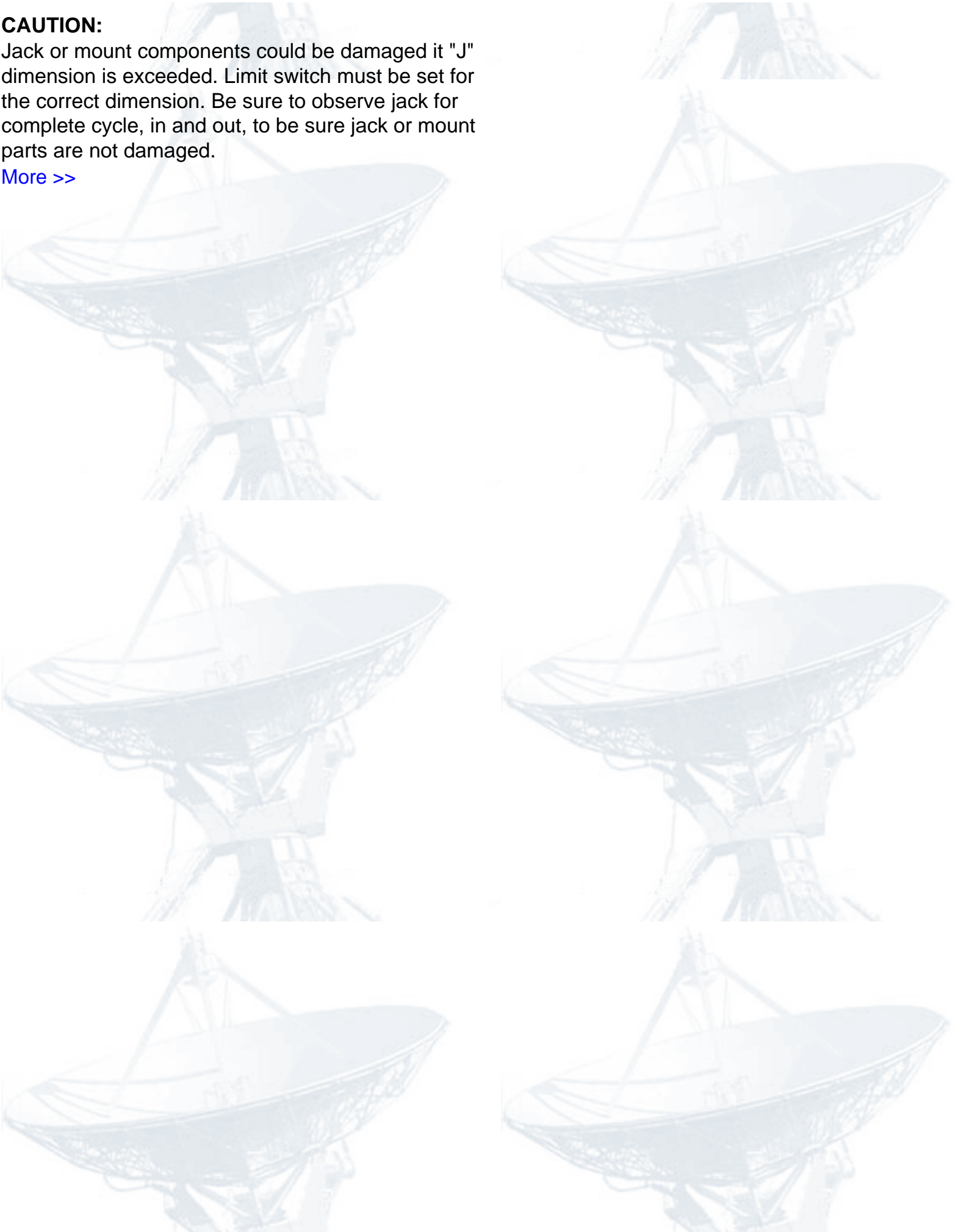
FIG. 2.2 - INSTALLATION OF JACK (ACTUTATOR)

"J" DIMENSION 45- 70				
JACK SIZE	JACK STROKE	20° - 45° LATITUDE	45° - 70° LATITUDE	HOLE USED
305 mm (12 in)	298 mm (11.75 in.)	152mm (6 1/16 in)	163mm (6 7/16 in)	"B"
457 mm (18 in.)	330 mm (13in.)	210 mm (8 1/4 in)	220 mm (8 5/8 in)	"A"

CAUTION:

Jack or mount components could be damaged if "J" dimension is exceeded. Limit switch must be set for the correct dimension. Be sure to observe jack for complete cycle, in and out, to be sure jack or mount parts are not damaged.

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Channel Master 2

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ANTENNA AND FEED TC

PCLAR MCUNT

Install antenna onto polar mount and secure using four M8 x 60 round head, square neck bolts (1), lock washers (11) and hex nuts (20). (Ref. Fig. 2.4).

Assemble feed assembly and feed legs to antenna as shown in Fig. 2.5. Insert bottom feed leg (32) into hole in bottom edge of antenna (27).

NOTE: Bottom feed leg is the one with a slight bend on one end of leg, lance on opposite end, and is shorter than the side legs. Install side legs (31) to antenna, from back side of antenna, and secure with M6 x 30mm (1/4" x 1-3/16") hex bolts and 1/4" flat washer (29 & 28). Do not tighten. Insert one side leg (31) into junction block (22) and secure with M6 x 30mm (1/4" x 1-3/16") hex bolts and 1/4" flat washer (29 & 28). Do not tighten. Insert bottom leg (32) into hole on center of junction block (22) until lance on leg is engaged. Insert opposite side leg (31) into junction block (22) and secure with M6 x 30mm hex bolts and 1/4" flat washer (29 & 28).

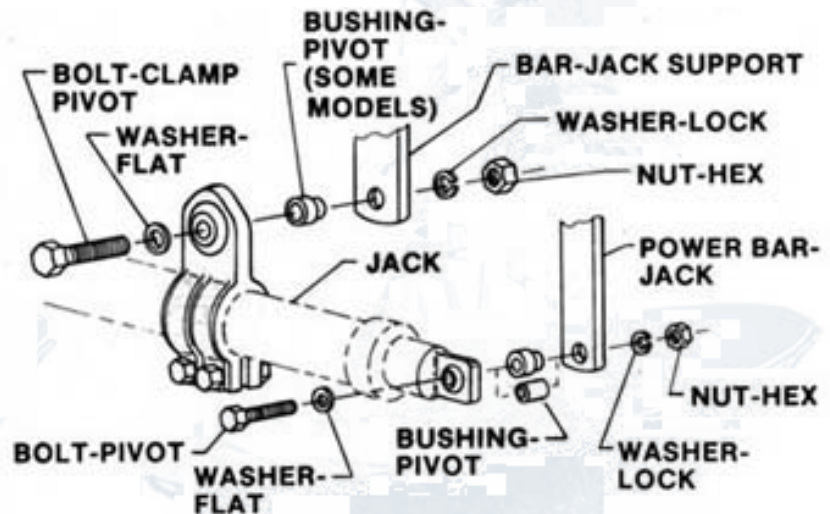


FIG. 2.3 - INSTALLING JACK (ACTUATOR) TO POLAR MOUNT

IMPORTANT: Tighten and

torque bolts securing side legs to junction block and antenna to 4 ft-lbs (5.4 N-m).

Using appropriate bushing (26), assemble feed assembly (37) junction block (22) and clamp (23) using two M6 x 20mm bolts and M6 flat washers (25 & 24) as shown in Figure 2.5.

Use bottom feed leg as conduit and route coaxial cable up thru leg. Leave approximately 12" length beyond junction block. Install "F" connector onto cable for assembly to LNB.

Make sure bottom feed leg is seated and tighten hex screw (8) securing to antenna on bottom boss, back side of antenna.

Complete feed assembly installation as specified in instructions supplied with feed assembly and as shown below. Use appropriate bushings (26), if required, to assemble feed assembly (37) to junction block (22). [<< Back](#)

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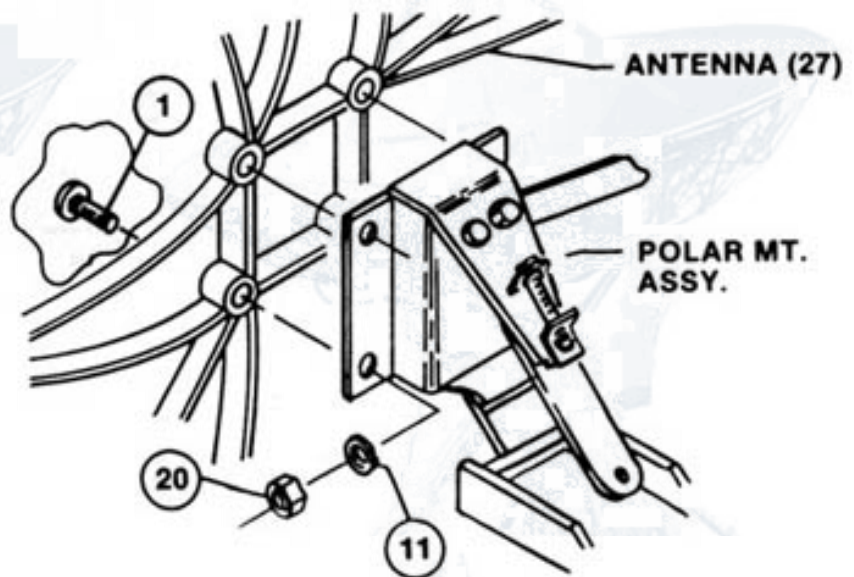


FIG. 2.4 - ASSEMBLING ANTENNE TO POLAR MOUNT ASSEMBLY

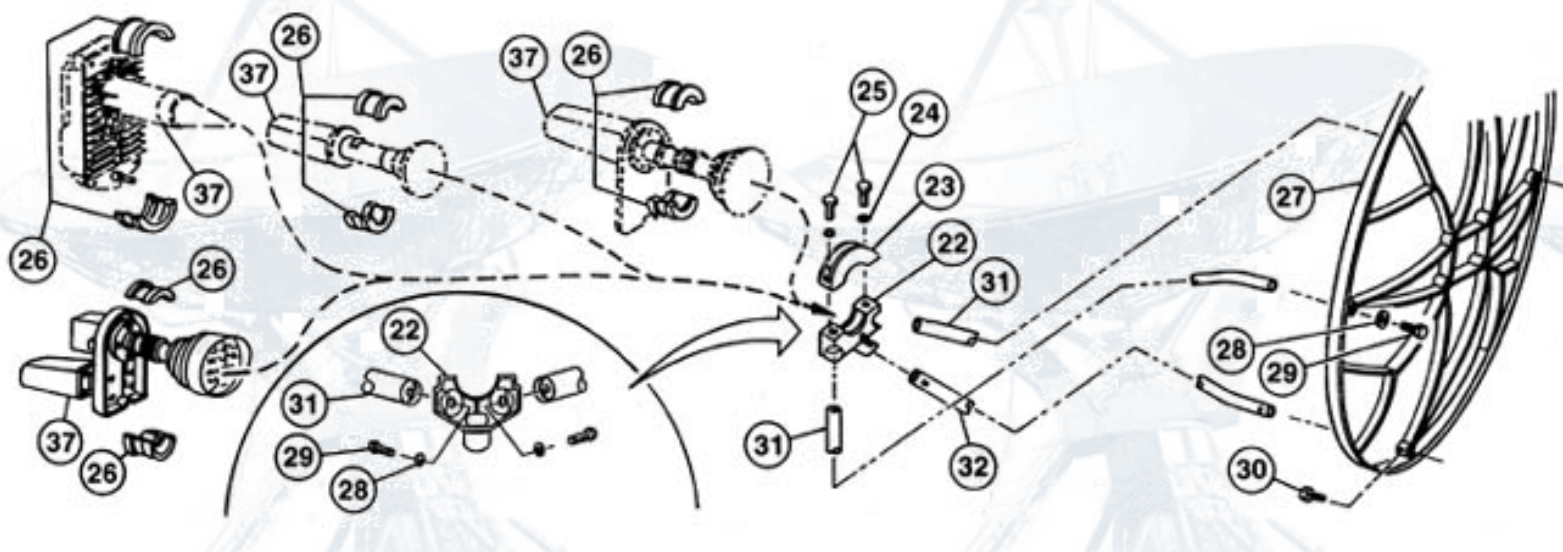


FIG. 2.5 - INSTALLATION OF FEED SUPPORT LEGS TO ANTENNA AND FEED



Channel Master 3

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DECLINATION ADJUSTMENT

The Polar Mount declination is factory set for sites at 32° latitude. For other latitudes, change declination by turning M8 adjusting bolt to arrive at declination setting for your latitude (Ref. Fig. 3.0). Align bottom edge of antenna mount plate with reading on scale.

Tighten and torque the two locknuts marked "A" in Fig. 3.0.

Note: NEVER readjust declination after initial setting. This setting is extremely accurate. The declination, latitude and true north adjustments all interact with each other. Fixing the declination

reduces the variable to only latitude and true North, making final alignment quicker and closer to tracking the satellite arc.

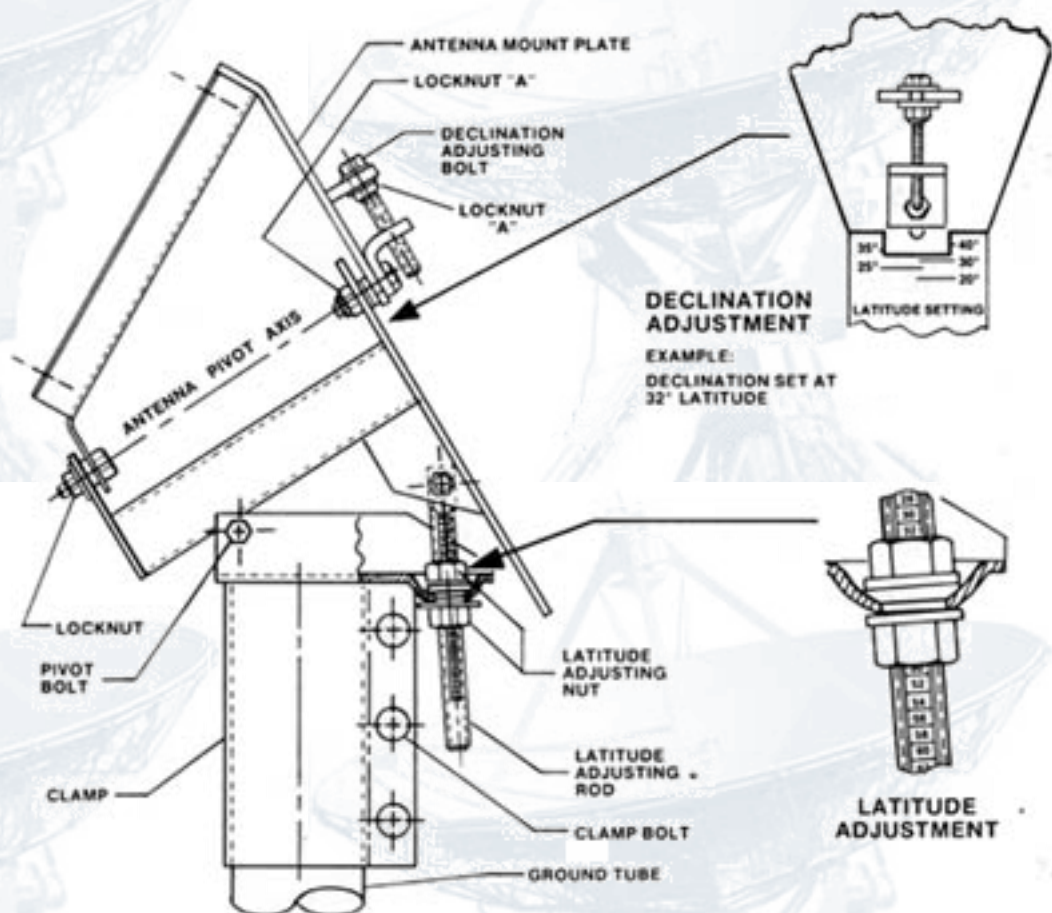


FIG. 3.0 - DECLINATION AND LATITUDE ADJUSTMENTS

LATITUDE ADJUSTMENT

Loosen the two 1/2" nuts on the latitude adjusting rod and adjust latitude by turning nuts on adjusting rod to arrive at latitude for your site. Align the upper edge of the upper nut with the scale for your site latitude (see sample). (Ref. Fig.3.0.)

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Channel Master 4

Polar mount voor

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ADJUSTING FOR NORTH/SOUTH ALIGNMENT

Place a straight edge along the outside rim of the antenna perpendicular to ground, as shown in Fig. 3.3. Place a clinometer on the straight edge and adjust your jack to obtain the indicated reading from the appropriate antenna face angle chart (see Fig. 3.1 or 3.2). Interpolate if your location is between face angle lines. When the face angle exceeds 90°, use angle "b" shown in parenthesis for a direct clinometer reading.

Swivel the antenna on the mast pole to find the satellite required for your location. Alternate between adjusting the jack and swiveling the antenna on the mast pole to obtain the maximum signal strength. This will be very close to true North.

FINE TUNING

Move the antenna up to a satellite that has nearly the same longitude as your location. The antenna should be facing almost due South. Adjust latitude adjustment rod up or down slightly for maximum signal strength. DO NOT swivel mount on mast pole for North/South adjustment in this position.

Move the antenna back down to the satellite near the horizon used for North/South alignment. Slowly swivel the antenna on the mast pole for maximum signal. DO NOT adjust latitude rod in the low satellite position.

To verify that antenna is peaked on lower satellite, pull east or west on rim of antenna while monitoring signal strength. The signal should drop in both directions and return to maximum signal.

Move the antenna back up to the due South position and pull top or bottom on rim. Again, the signal should drop in both directions, and return to maximum strength when released. If it does, antenna is peaked for upper satellite.

When alignment is complete, tighten and torque the clamp bolts to 15-16 N-m (11-12 ft/lbs.) and latitude adjustment rod nuts.

Recheck signal level against previous reading to insure no signal was lost during tightening and torquing of bolts.

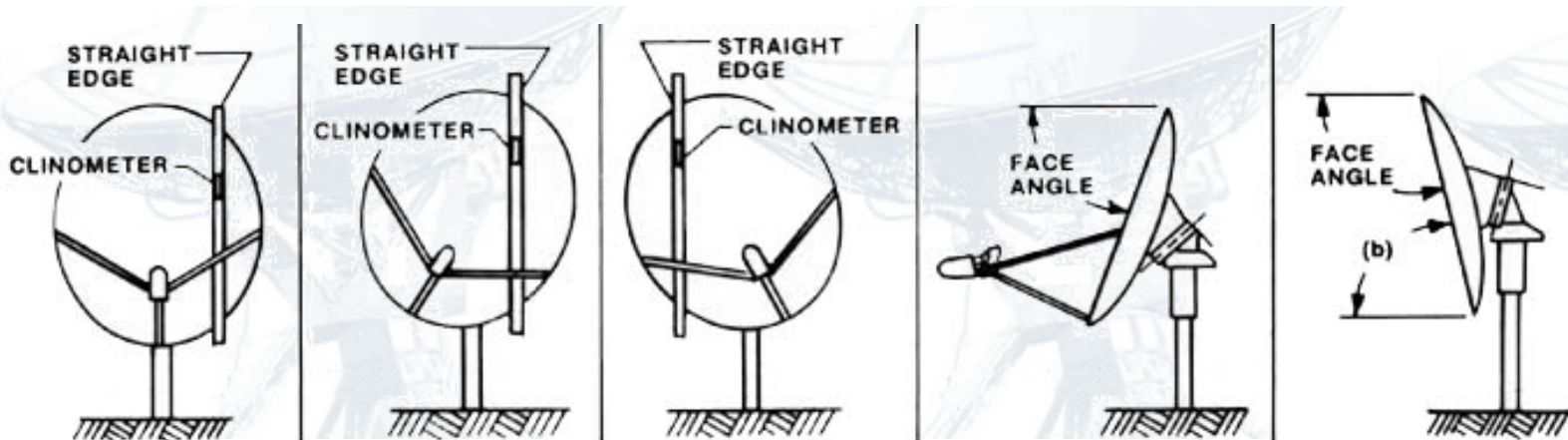


FIG. 3.3 - ADJUSTING FOR NORTH/SOUTH ALIGNMENT

U.S.A. INSTALALTIONS:

For locations east of Denver, Colorado (104° long.), use SATCOM K2 Satellite. For locations west of Denver, Colorado, use ASC 1 Satellite.

EUROPEAN INSTALLATIONS:

For locations east of Birmingham, England (2° West long.), use Intelsat VA F11 satellite. For locations west of Birmingham, England, Use ASTRA Satellite.

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