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"B" MOUNT INSTALLATION INSTRUCTIONS

Thank you for buying DH products. We think you will find as over 300,000 satisfied customers have, that the DH mount is one of the easiest to assemble, sturdiest and most stable mounts available today. Please follow these instructions carefully to insure optimum performance of your system.

PARTS LIST:

- 1 DH Spun Antenna
- 1 26" Round Frame
- 1 Boom
- 1 3" I.D. Base Can
- 2 26 1/2" x 1 1/2" x 1 1/2" Angles
- 1 Slide Bar 3/4" x 3/4"
- 3 22" Focal Length Struts

BOLT BAG FOR POLAR MOUNT:

- 1 1/2" x 4" Bolt
- 2 1/2" x 2" Bolts
- 1 1/2" x 1 1/2" Bolt
- 3 3/8" x 1" Bolts
- 1 5/8" x 12" Eye Bolt
- 2 5/8" Nuts
- 8 1/2" Nuts
- 6 1/2" Locking Nuts
- 6 3/8" Nuts
- 3 3/8" Locking Nuts
- 6 1/4" Nuts
- 12 3/8" Flat Washers
- 12 1/2" Rubber Washers
- 2 1/2" Bearings

***For Az el Mount add Locking Bar and 2 - 1/2" x 2" Bolts

ASSEMBLY OF THE MOUNT

Take the 26" ring and set it next to you with the welded threaded rods sticking up in the air. Now take 4 - 1/2" nuts and screw one of them onto each of the welded rod on the ring. Now take the two angle pieces and slip each of them over the threaded rods on the ring. They must be put on the ring in the same way. (Refer to drawing #3). Lock them in place with a 3/8" nut on each rod. Next you can take the Boom and place it in the middle of the angles between the tabs. Refer to drawing #4 and you will see where you must put a 1/2"x 2" bolt through the top tab and then through the front of the boom. You must insert the bearing between the top tab and the boom, on both the top and bottom angles.

Locate the slide bar and attach it to the right side of the top angle with a 1/2"x 2" bolt and 1/2" lock nut. The other end will be attached the same way to the 1/2" hole on the rear of the boom.

Find the base can and put it over the base post. Tighten the set screws finger tight. Take the elevation rod and attach it to the elevation tab on the back of the base can. Run a 5/8" nut down this rod a few inches. This rod will then go in the center hole in the top of the boom.

You are now ready to put the mount on to the base can which is already on the base post. Pick up the assembled mount and slip the boom between the two ears on the top of the base can, line up the holes and secure with the 1/2" x 4" bolt and tighten with 1/2" lock nut. Slide the 5/8" threaded elevation rod through the center hole in the top of the boom, and secure with a 5/8" nut. This rod will adjust your elevation setting, and should be set to match your latitude.

Fig. #3

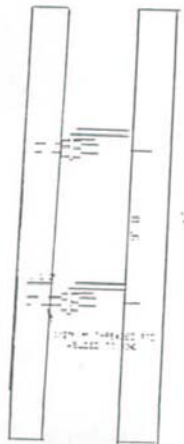
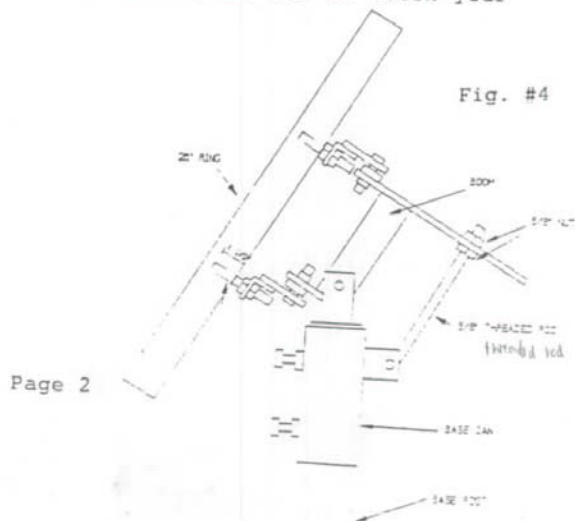


Fig. #4



ATTACHING THE ANTENNA TO THE RING

This can either be done before or after the mount is assembled. Place the antenna face down on a flat surface and set the 26" ring on the back. Line up the six holes on the mount to match the six holes on the antenna. Have one of your people take 3- 3/8" x 1 1/2" bolts, place first a steel washer then a rubber washer on the bolt then slide them in every other hole from the antenna into the tabs on the ring. (The 3 remaining holes will be used for the feed assembly). Finger tighten these nuts. Please see drawing #5 for placement of the washers.

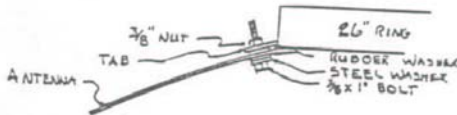


Fig. #6

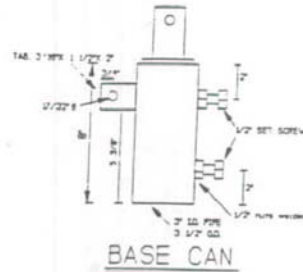


Fig. #5

FINAL MOUNT ASSEMBLY

Next, take the base can and align the holes in the two ears with the 1/2" hole in the boom (Refer to fig. 6). Slip in the 1/2" x 4" bolt and finger tighten with a 1/2" nut. Take the elevation rod (refer to the drawing on the last page) and slip the 1 1/2" x 1/2" bolt through the tab on the base can and tighten with a 1/2" nut. At the same time take a 5/8" nut and work it up about 1/3" of the way on the threaded rod. Now slip the threaded rod through the 5/8" center hole on the top of the boom. Secure it with the other 5/8" nut, tighten all bolts and nuts. Take the assembled dish and mount and set it over the base post or patio stand.

PREPARING THE FEED ASSEMBLY

Take the three piece KU feed collar and assemble it around your feedhorn. Now take the three struts and on the 5/16" end, thread a nut down to the bottom. Then, put the strut through each of the holes in the feed collar as in fig. 7. Now, take the bent end of the strut and put a 3/8" washer on first. Then a rubber washer and put it through the remaining three holes on the dish and mount, tighten securely. (See fig. 8).

For KU frequencies only, about 1/8" of the wave guide should protrude from the scaler ring on the feedhorn (See fig. 9). Chart one shows the focal length of the basic DH Antenna. The F/D ratio is obtained by dividing the diameter of the antenna into the focal length.

Chart 1:

Series 22 DH Dish 1.2, 1.5 & 1.8 meter = $21 \frac{7}{8}$ " F/L

Thus a 1.8 meter antenna (72") divided into a focal length of 22" equals .3 F/D.

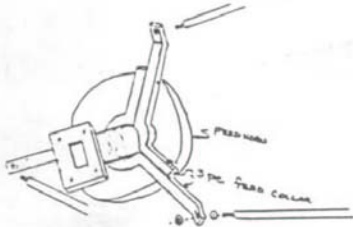


Fig. #7

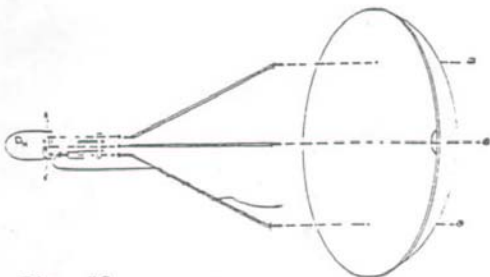
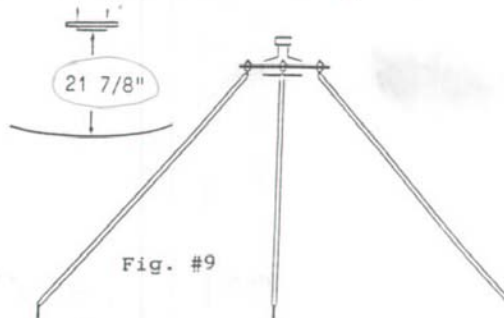
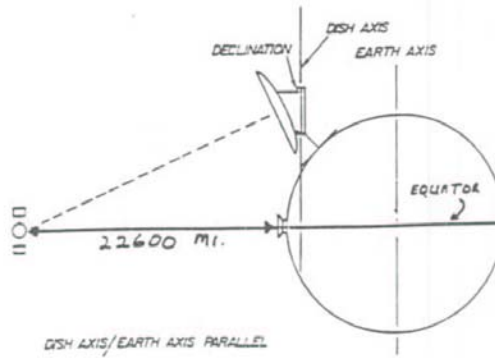


Fig. #8

A BRIEF EXPLANATION OF POLAR MOUNTS

The satellite is in an orbit over the equator and appears to be stationary because it goes around the earth in exactly 24 hours. To track it, our dish must pivot on an axis that is parallel to the earth's. (Because we are not pivoting from the center of the earth an adjustment is made to the calculations). At the equator there is no declination adjustment, at other latitudes because the satellite is at the equator and not parallel with you, the dish must tip forward to see the satellite. This is declination!



FINAL ASSEMBLY OF ANTENNA AND MOUNT

Set the axis (mount boom) approximately the same degrees as your latitude (See chart). The dish is tipped forward in the amount of the declination (from the chart) and the mount must point south. Some things should be set and some adjusted. The following should be set and then left alone. The dish front surface must be flat and the feed should be centered and have the proper focal length. The declination angle should be set. There are only two adjustments to polar track, one is the elevation (latitude) and the other is pointing south (very critical and very small movements are involved).

Have a TV by the dish to set up. You need an inclinometer to set the declination and boom angle and also a compass to find south. Find a satellite, the closest to the south of you. Get a picture, adjust the elevation. Try a satellite East or West and if your arc does not match the polar arc, you must move the apparatus East or West. If you go West and are under the satellite, do not raise the elevation. Move the mount slightly west, approximately around an 1/8". The same also applies for the East.

Site Latitude	Declination (Offset Angle)	Inclination	Zenith	Site Latitude	Declination (Offset Angle)	Inclination	Zenith
5°	0.75674°	5.13°	5.89°	39°	5.44034°	39.70°	45.15°
10°	1.50699°	10.26°	11.77°	40°	5.55596°	40.71°	46.27°
15°	2.24524°	15.37°	17.62°	41°	5.66969°	41.71°	47.38°
20°	2.96550°	20.47°	23.45°	42°	5.78151°	42.72°	48.50°
25°	3.66193°	25.57°	29.23°	43°	5.89173°	43.72°	49.61°
26°	3.79780°	26.58°	30.38°	44°	5.99987°	44.72°	50.72°
27°	3.93257°	27.59°	31.53°	45°	6.10625°	45.71°	51.82°
28°	4.06606°	28.61°	32.68°	46°	6.21808°	46.71°	52.92°
29°	4.19816°	29.62°	33.82°	47°	6.31344°	47.70°	54.02°
30°	4.32124°	30.63°	34.96°	48°	6.41412°	48.70°	55.12°
31°	4.45864°	31.64°	36.11°	49°	6.51227°	49.71°	56.21°
32°	4.58675°	32.66°	37.25°	50°	6.60936°	50.69°	57.31°
33°	4.71344°	33.67°	38.38°	55°	7.06154°	55.66°	62.72°
34°	4.83835°	34.67°	39.52°	60°	7.45937°	60.59°	68.06°
35°	4.96207°	35.68°	40.65°	65°	7.80106°	65.52°	73.32°
36°	5.08401°	36.69°	41.78°	70°	8.08352°	70.43°	78.52°
37°	5.20452°	37.69°	42.90°	75°	8.30517°	75.33°	83.64°
38°	5.32327°	38.70°	44.03°	80°	8.46446°	80.22°	88.69°

A WORD ABOUT KU FREQUENCY

Installing the feed for 12 Ghz is more critical than on C-Band. This is why DH has a special feed collar and struts just for the KU application. (See fig. 7) The center of the feedhorn must be exactly at the focal length (Fig. 9). Also, check to be sure the feedhorn is centered by measuring from the edge of the dish. Check to see that the feed is pointed directly at the center of the dish.