

OWNERS MANUAL

HTSTM

EXCELLENCE BY DESIGN

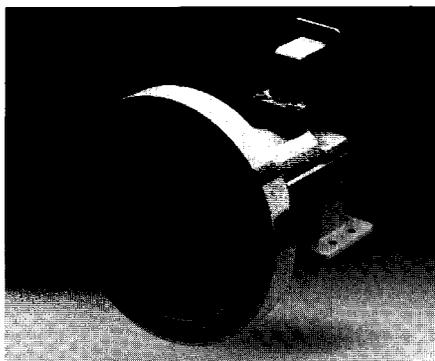
TRACKER

*TWIN*TM



F E E D H O R N

90 INVERNESS CIRCLE EAST • ENGLEWOOD, CO 80112



HTS[™]
EXCELLENCE BY DESIGN

TRACKER TWIN[™] FEEDHORN

Manufactured by  **CHAPARRAL**
COMMUNICATIONS

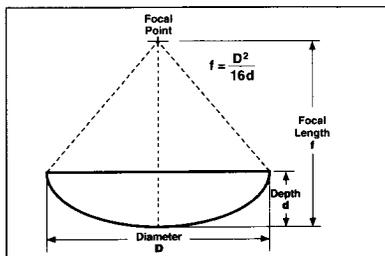
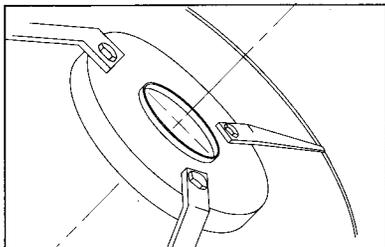
Specifications

- Size: 6.5" x 7" x 9.5"
Weight: 2 lbs. 10 oz.
Electrical: Inputs to servo: 5 VDC @ 500 mA, Standard TTL logic pulse rate of .8 - 2.2 msec with a rep rate of 17 -21 msec.
Freq. Range: C-Band: 3.7 to 4.2 GHz
Ku-Band: 11.7 to 12.75 GHz
VSWR: Both Bands: 1.3 to 1
Isolation: Both Bands: 25 dB
RF Ports: C-Band: WR229 Compatible
Ku-Band: WR75 Compatible

Installation

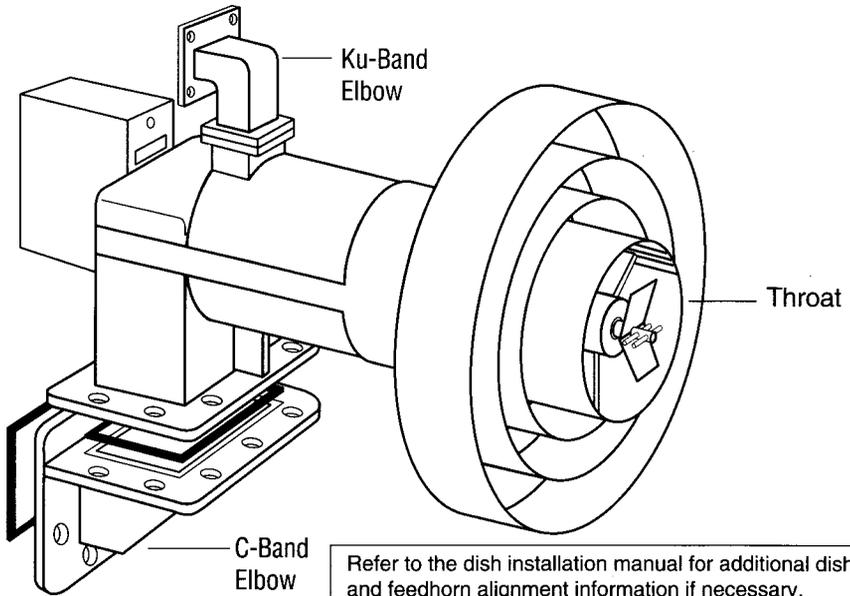
Before You Install

1. Identify all enclosed parts.
2. Disconnect all system power sources.
3. Do not touch the probes. **THIS WILL VOID YOUR WARRANTY.**
4. Do not use any sealant on the flange surfaces.



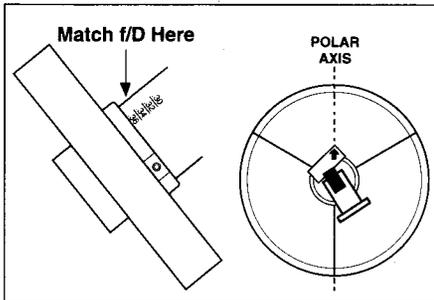
1. Disconnect the scalar ring from the feedhorn and bolt it to the mounting bracket on the dish.
2. Bolt the LNBs to the feedhorn, using the supplied gaskets and hardware. If not using the supplied elbow, insert both waveguide gaskets in the C-Band assembly. If the Ku-Band LNB has a clear plastic flange cover, remove it and use only the waveguide gasket provided.
3. Determine the f/D (focal distance divided by diameter) ratio of the dish from the dish installation manual or the following formula:

$$f = \frac{D^2}{16d}$$

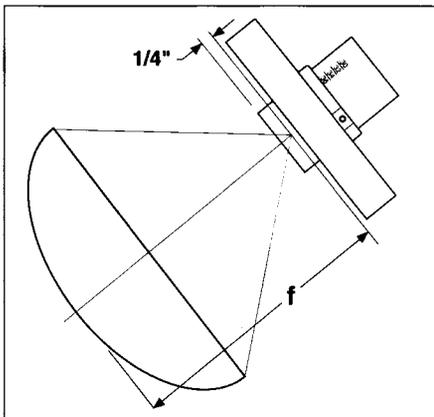


4. If the dish has an f/D ratio of .32 or lower, install a Golden Ring in the throat of the feedhorn and set the

scalar ring at .36 when inserting the horn into the scalar as described in step 5 below.

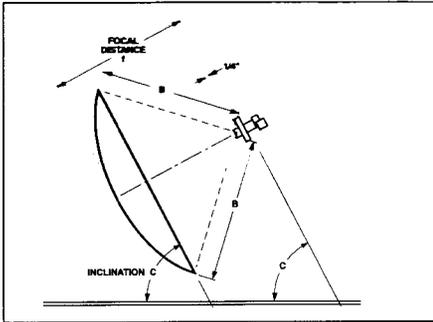


5. Attach the alignment arrow to the Ku-Band elbow and insert the horn into the scalar ring on the dish until the scalar gauge on the side of the feedhorn matches the f/D ratio of the dish (or is the next lower value) and the arrow is aligned with the dish's polar axis. Tighten the set screw to mount the feedhorn in this position.



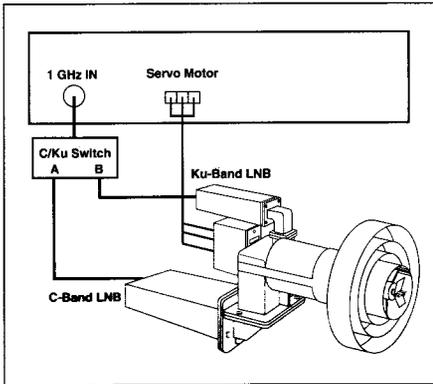
6. Determine the focal length from the dish manual and measure this length from the center of the dish to 1/4" inside the feedhorn throat. Make necessary adjustments toward or away from the dish to achieve this length without changing the polar axis alignment or f/D ratio.

7. Make sure the feedhorn is pointing directly at the center of the dish. Make necessary adjustments without changing the focal length.



8. Check the centering of the feedhorn by measuring from three points on the edge of the dish to the edge of the scalar ring. These measurements should be equal. Make adjustments without changing focal length. Install the throat cover and guy wires if necessary.

9. Using the supplied connectors, connect the servo motor wires to their respective leads from the receiver; red to +5 Volt, white to pulse, black to ground. **USE ONLY SHIELDED WIRE.**



10. Connect coaxial cables to the LNBs. Proper sealing of cable connections is recommended.

11. Connect the LNBs to the receiver directly or through a C/Ku switch as shown.

Houston Tracker Systems, Inc. Limited Warranty

Houston Tracker Systems (HTS) warrants that each HTS product described herein will be free from defects in materials and workmanship for a period of one (1) year from the date of installation. HTS agrees as its sole responsibility under this limited warranty, at its sole option either to repair, replace or refund the purchase price of any product discovered to be defective within the warranty period, upon prompt notice of such defect. Warranty service may be obtained by contacting HTS, 90 Inverness Circle East, Englewood, CO 80112

This limited warranty is not applicable to: (I) normal wear and tear; (II) abuse, unreasonable use, improper installation, mistreatment or neglect; (III) damage caused by the equipment or system with which the product is used; (IV) damage caused by modification or repair not made or authorized by HTS; or (V) theft, vandalism, fire, water or other peril.

This warranty and the remedies set forth herein are exclusive and in lieu of all other express or implied warranties (including any implied of merchantability or fitness for a particular purpose, which are disclaimed) and no other representations or claims shall be binding on or obligate HTS in anyway. Any warranties applicable to this product are limited to the periods described above. In no event will HTS be liable for any special, incidental or consequential damages resulting from use or malfunction of this product or the equipment or system with which it is used, loss of revenue, or cost of replacement goods.

Some states do not allow limitations on the period of time an implied warranty lasts and/or the exclusion or limitation of special, incidental or consequential damages, so the above limitations and or exclusions or limitation of liability may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

ALIGNMENT INSTRUCTIONS:

COROTOR®

Place this template
on 12GHz Elbow with
this face towards LNB's.
Rotate Feed to align arrow
with Polar Axis of dish.

POLAROTOR® IA/IEA

Place this template
on the servo motor case
with this side away from dish.
Rotate Feed to align arrow
with Polar Axis of dish.

TIGHTEN SET SCREWS

COROTOR

PR IA/PR IEA

POLAR AXIS



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