

WINEGARD®

10' 16 SECTION TVRO ANTENNA

**MODEL SK-165
(EXPANDED ALUMINUM)**

**MODEL CK-165
(PERFORATED ALUMINUM)**

INSTRUCTIONS

WARNING
DANGER OF ELECTROCUTION

**INSTALLATION OF THIS
ANTENNA NEAR POWER
LINES IS DANGEROUS.**

Check area around antenna site for overhead wires. Do not allow antenna, mast or guy wires to contact overhead wires.

Winegard Company
3000 Kirkwood St., Burlington, IA 52601

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PRELIMINARY

Unpack antenna parts from cartons, check reflector panels and rib sections for damage. Identify hardware parts against list below and make sure all are accounted for.

PARTS LIST

16	Petals, Ku Perf	
16	Ribs, Screen Support	
8	Rims, Outer	
8	Rims, Splice.....	
1	Center Hub Assembly	
1	Buttonhook Assembly	
1	Clamp Plate	
1	Housing, Feed Assembly	2200055
1	Housing; End Cover	2200056
1	Instruction Sheet	2451816
23	1/4" Lock Washers, SS	5160217
23	1/4"-20 Hex Nuts, SS	5160221
21	#10 Washers, Aluminum	1140302
17	#10-32 x 5/8" Screws, SS	2160172
17	1/4"-20 x 1-3/4" Carriage Bolts, SS..	2160244
4	#10 x 1/2" Screws	2160194
6	1/4"-20 x 7/8" Cap Screws	2160238
1	1-1/2" Clamp Assembly	2162020
4	1/4" x 9/16 x .065 Washers, SS	7800245
17	#10-32 Hex Nuts, Nylock, SS.....	2160218
33	#10-24 x 7/8" Screws	2160176
1	4 oz. Paint, Smoked Chrome	

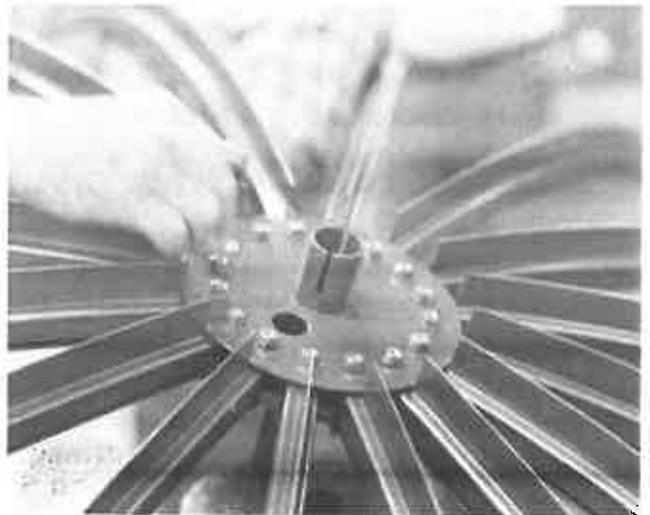
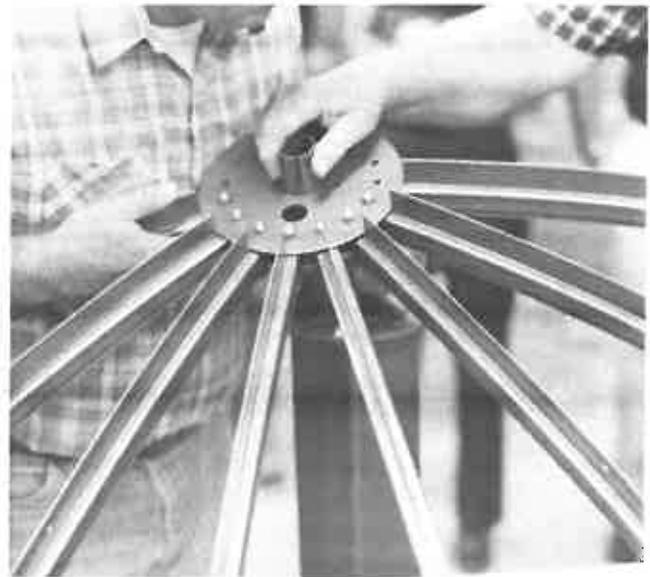
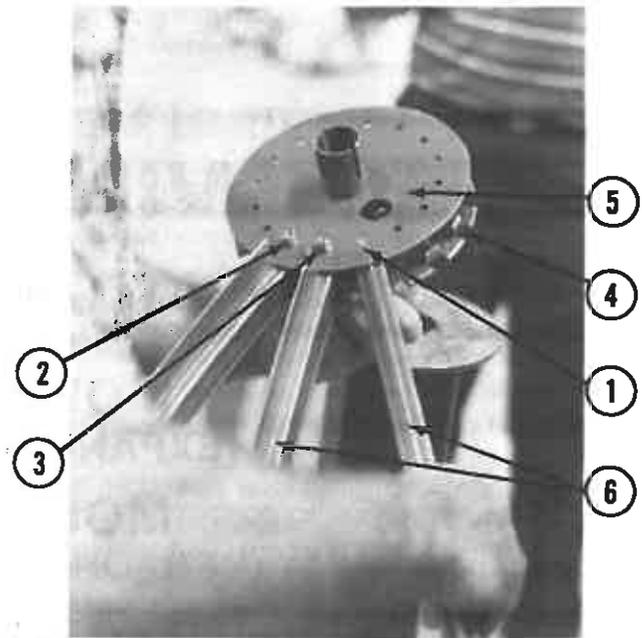


FIGURE 1

INSTRUCTIONS

NOTE: Use pedestal or similar support about 48" high to hold center of reflector up during assembly. Reflector assembly requires two people and the tools listed below.

- 5/16" nut driver
- 3/8" open end wrench
- 7/16" open end wrench



MODEL DT-1

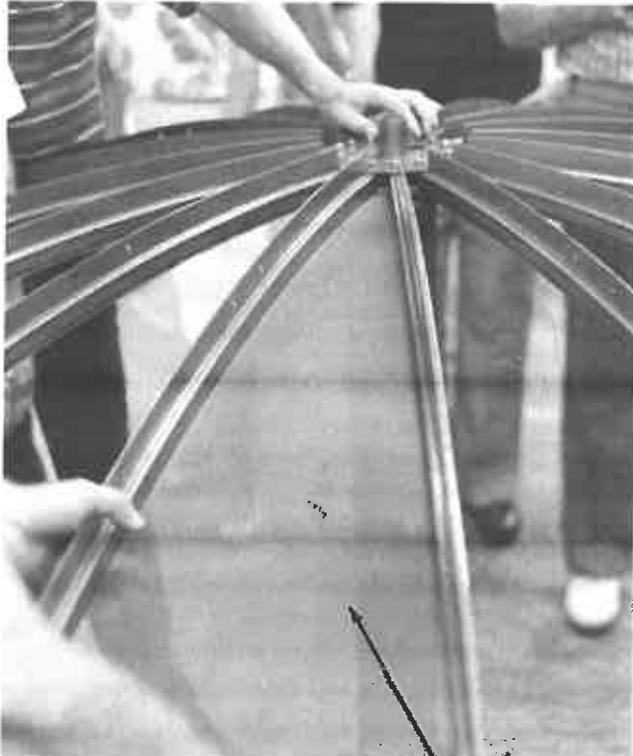
OPTIONAL ASSEMBLY JIG

Model DT-1 jig, available from Winegard Company, fits over 4" O.D. post mount and holds center hub and ribs while petals and outer rims are being installed.

STEP 1. Assemble center hub and ribs. Use 1/4"-20 x 1-3/4" carriage bolts, lockwashers and hex nuts. See figure 1. **DO NOT TIGHTEN FULLY.**

- (1) 1/4"-20 x 1-3/4" Carriage Bolts
- (2) 1/4"-20 Hex Nuts
- (3) 1/4" Lock Washers
- (4) Center Hub
- (5) Clamp Plate
- (6) Ribs

STEP 2. Insert first petal into rib grooves and install rim section to hold it in place. **NOTE:** One rim splice attaches to each end of rim section. See figure 2. Use #10-32 x 5/8" screws in ends of rim splices with #10 hex locking nuts. **TIGHTEN FULLY.** See figure 3.



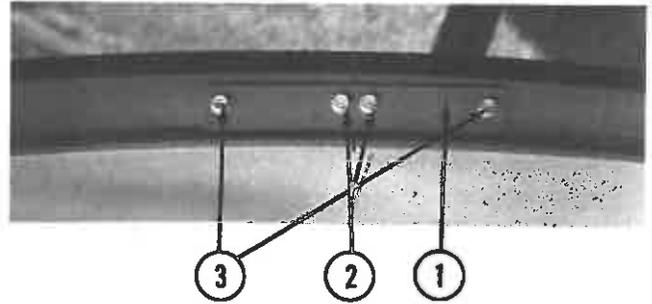
(1) First Petal



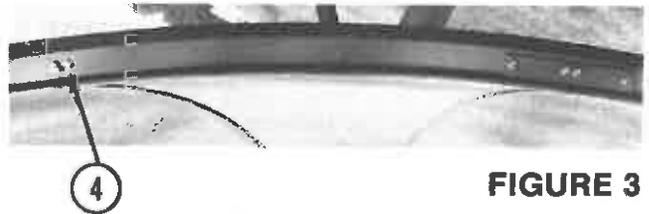
(2) Rim Section
(3) #10-24 x 7/8" Self Threading Screws

FIGURE 2

STEP 3. Install #10-32 x 5/8" screws in ends of rim splices with #10 hex locking nuts. **TIGHTEN FULLY.** See figure 3.



(1) Rim Splice
(2) (2) #10-24 x 7/8" Thread Cutting Screws
(3) #10-32 x 5/8" Bolt and Hex Locking Nut and Flat Washer on Inside



(4) (2) #10-24 x 7/8" Thread Cutting Screws

FIGURE 3

NOTE: Tighten center hub bolts enough to flatten the lock washers then give about 1/4 turn more on each nut.

STEP 4. Repeat steps 2 and 3 for remaining petals. Before inserting last petal have one person step inside last space and tighten center hub bolts.

STEP 5. Install last petal and place remaining bolts in rim section. See figure 4.

NOTE: When installing last petal, it will probably be convenient to have one person under the reflector to help guide edges into rib grooves.



① ② **FIGURE 4**

- (1) Last Petal
- (2) One Person Under Reflector

STEP 6. Attach polarotor mounting bracket to buttonhook with 1/4" x 7/8" bolts, hex nuts and lockwashers. See figure 5.

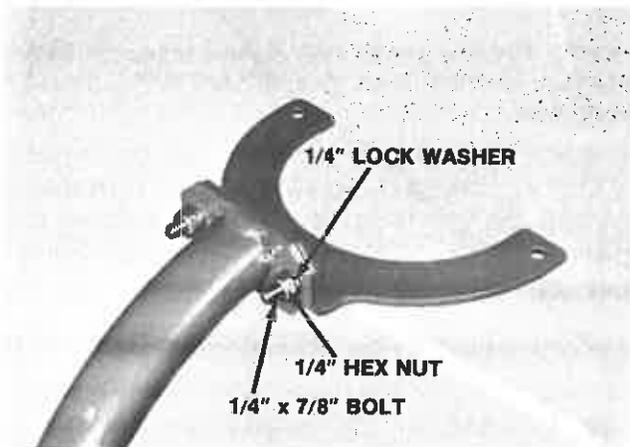
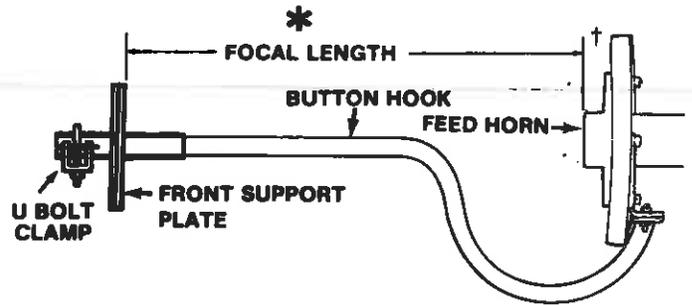


FIGURE 5

STEP 7. Complete assembly of mount as per instructions with that equipment and mount reflector on back-up structure. See section on suggested buttonhook assembly and install assembly in center hub. Attach 1-1/2" clamp assembly over support tube on back of center hub.



See chart below for focal lengths.

*** FOCAL LENGTH**

FEED HORN	* DISTANCE
Polarotor™	33-1/16
Polarotor I with Gold Ring	33-1/16
Other Feeds - See Manufacturer's Instr.†	33-5/16

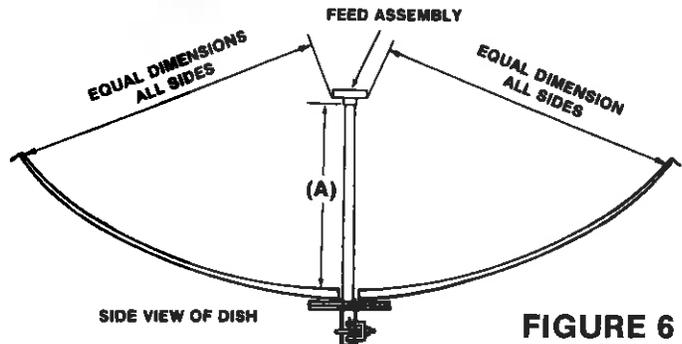


FIGURE 6

FOCAL LENGTH: The focal length of the CK-165/SK-165 is 33-5/16". This distance is set between the focal point reference of the feedhorn and the front surface of the center hub. Focal length adjustment is accomplished by loosening the clamp assembly at rear of center hub and sliding the buttonhook assembly in or out as necessary.

STEP 8. With antenna completely assembled, installed on mount and aimed in the approximate direction of satellite belt, check the alignment of the feed assembly to the center of the reflector. See figure 6. All distances must be equal or bore sight of antenna will not match measurements made on mount.

To center feed assembly, loosen 16 nuts on clamp plate and move buttonhook until feed assembly is in center. Hold feed assembly in center and tighten nuts.

NOTE: Order optional WK-10, Wind Stabilizing Kit, where high winds may move the feed assembly from the center of the reflector.

SUGGESTED BUTTONHOOK ASSEMBLY

The following illustrations show the Chaparral Polarotor® I and dual feedhorn attached to Winegard's new buttonhook.

STEP 1. Attach the front portion of the feed housing to the feedhorn as shown in Figure 1 with (2) 1/4"-20x7/8" bolts. Where a wind kit is required, place the angle brackets between the housing and the feedhorn. Tighten both bolts. See figure 2.

(4) #10x1/2" THREAD CUTTING SCREWS

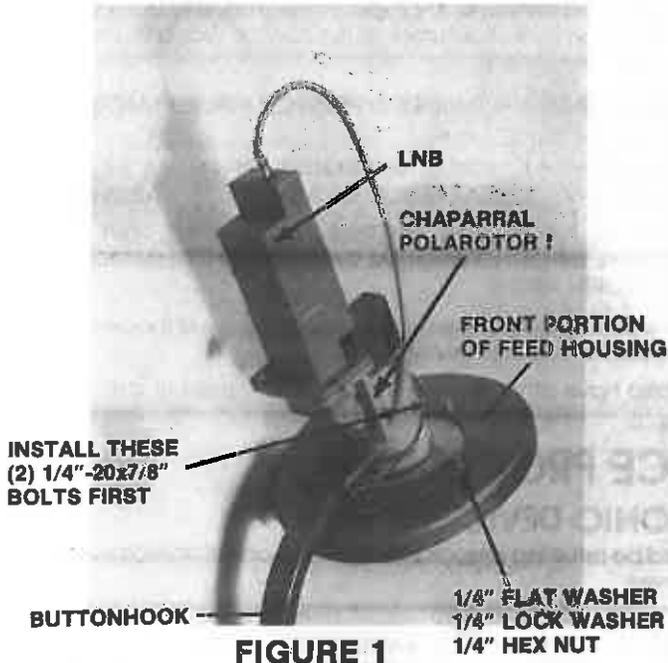
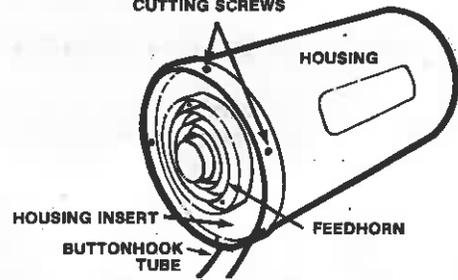


FIGURE 1

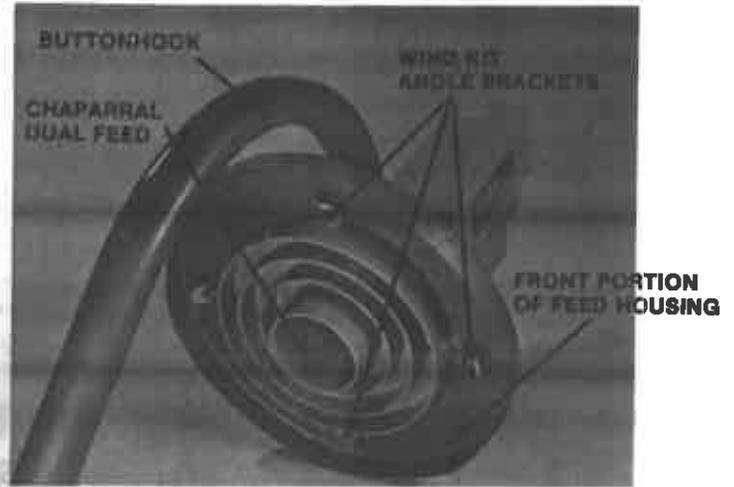


FIGURE 2

STEP 2. Attach the buttonhook to the feedhorn as shown in figure 3 with (2) 1/4"-20x7/8" bolts and tighten securely.

NOTE: It is unnecessary to adjust Chaparral feeds with adjustable scaler rings when used with the Winegard Model CK-165/SK-165.

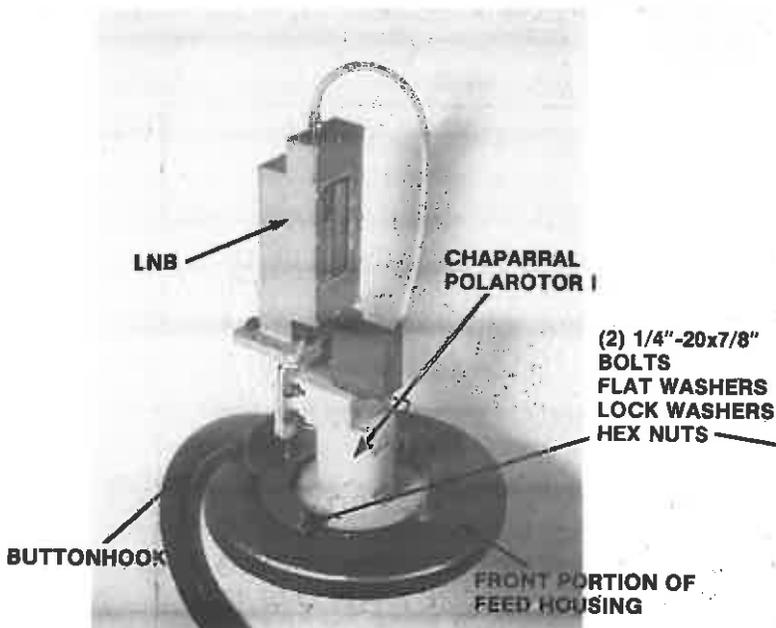
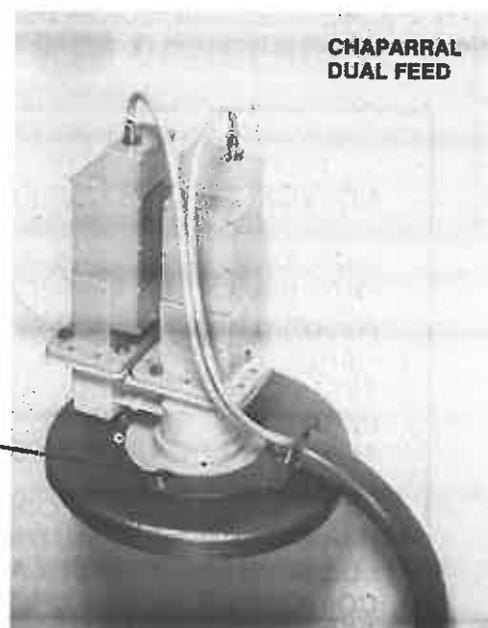


FIGURE 3



NEW BUTTONHOOK

WINEGARD®

SATELLITE (TVRO) DEVICES - ONE YEAR LIMITED WARRANTY

The Winegard Company warrants this Winegard product against any defects in materials or workmanship within one (1) year from date of purchase. No warranty claim will be honored unless at the time the claim is made, you present proof of purchase to the dealer from whom the equipment was purchased or directly to the Winegard Company.

Winegard Company (at its option) will either repair or replace the defective product at no charge to you. This warranty covers parts only, but does not cover any costs incurred in removal, shipping or reinstallation of the product. The warranty does not extend to products which have been subjected to misuse, improper installation, or to damage caused by wind, lightning, ice or other occurrences over which the manufacturer has no control. Warranty does not extend to damages caused by use of other than Winegard mount.

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

WARRANTY SERVICE PROCEDURE SATELLITE ELECTRONIC DEVICES

All electronic devices requiring repair or replacement should be returned prepaid along with copy of dated proof of purchase and brief description of problem to:

**WINEGARD COMPANY
Service and Repair Dept.
3000 Kirkwood St.
Burlington, IA 52601-1007**

**FOR ANTENNA AND MOUNT WARRANTIES, CONTACT
WINEGARD SALES MANAGER, (319) 753-0121, BURLINGTON, IA.**

IN-WARRANTY units will be repaired or replaced and returned to sender prepaid. OUT-OF-WARRANTY units will be repaired at a service charge of \$35.00 per hour plus parts. Units will be returned prepaid. We suggest you enclose letter requesting repair estimate.

Deliver or ship the product/parts to above address in its original container or equivalent, fully insured and shipping charges prepaid.

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