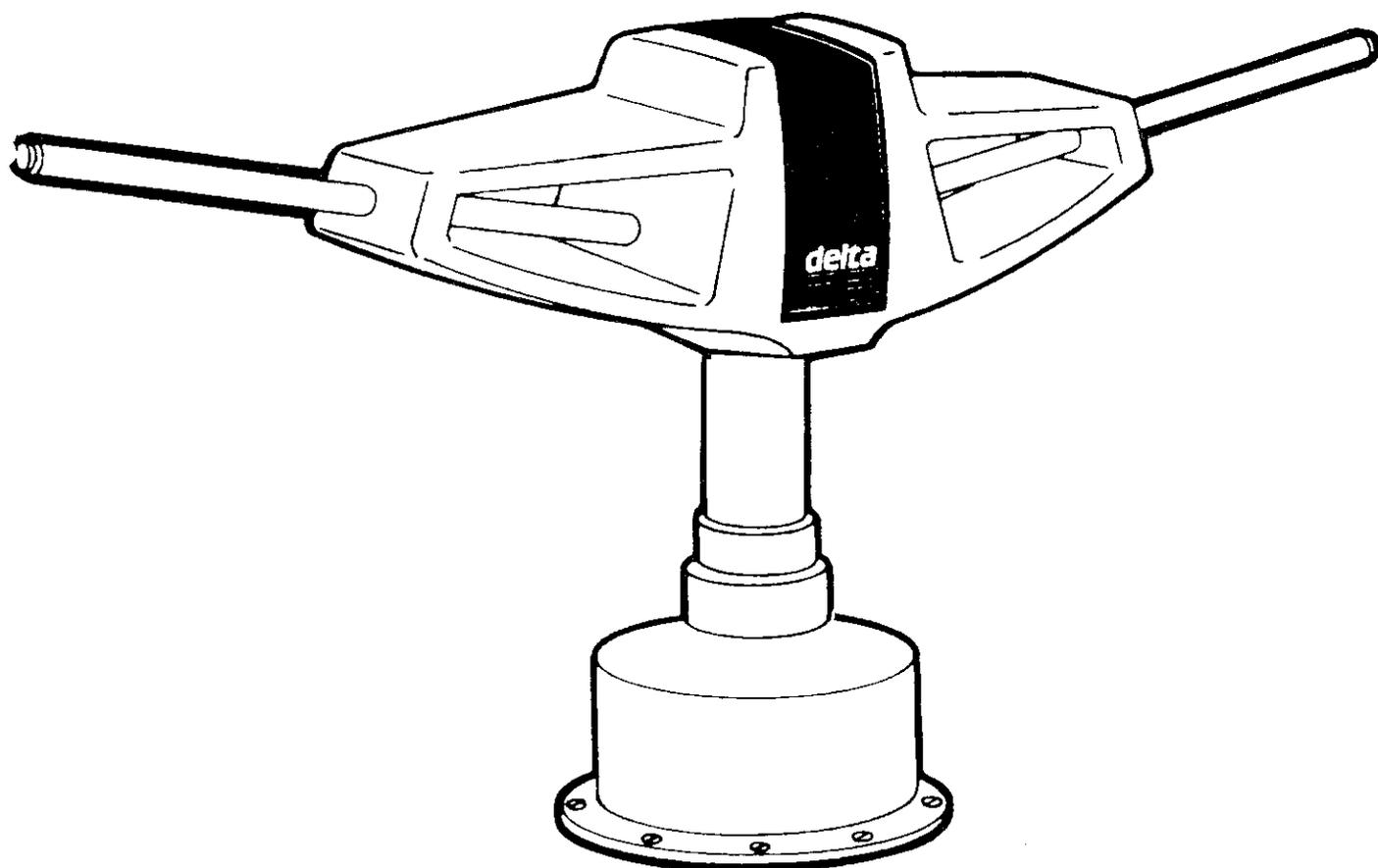


INSTALLATION AND OPERATING INSTRUCTIONS

delta antenna

FOR MOTOR HOMES, VANS &
ALL RECREATIONAL VEHICLES



MODEL #15195 & 15200 (DISTRIBUTOR MODELS), 15281 & 15282 (OEM MODELS)
U.S. PATENT #4,663,632

CAUTION!: Under no circumstances (during installation or operation) should head, dipoles, base or support tube come in contact with any power lines.

Contact with powerlines could result in death or serious injury.

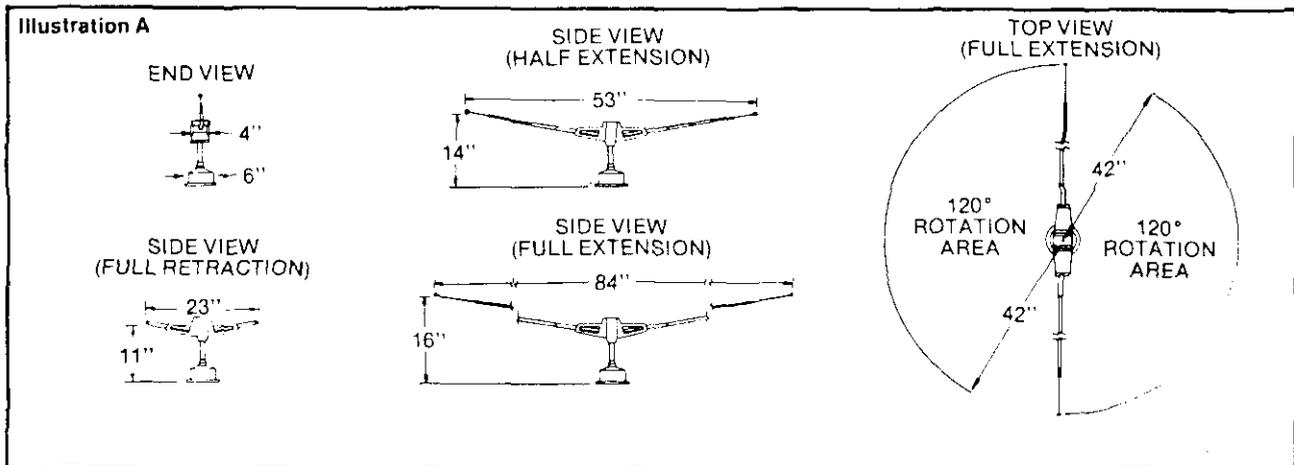
WARNING: Do not travel with dipoles in the extended position.

Carton Contents:

Quantity	Part Number	Description
1	10579	Lead-In Plate
2	10580	Gaskets
1	14939	Power Booster Amplifier
1	15158	Coupler Splitter with 4' Co-Ax Lead-In Cable
1	15160	Frame, Base and Head assembly
1	15167	Rotate Dial Stem
1	15168	Ceiling Plate
1	15175	15' Co-Ax Cable
1	15176	Crank Assembly
12	81000	No. 6 x 3/4" Type A Screws
3	605-4000	No. 4 x 1" Flat Head Screws
1	632-0000	Hex Key

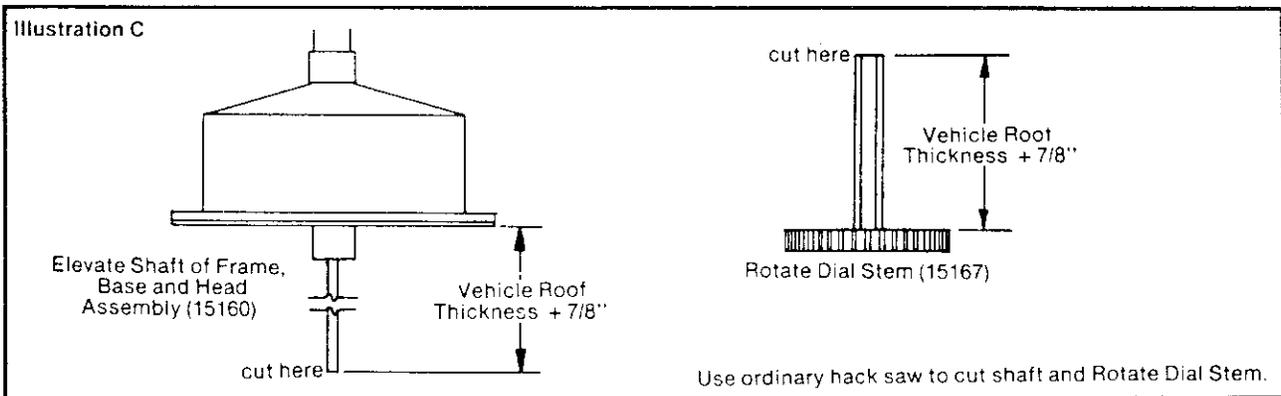
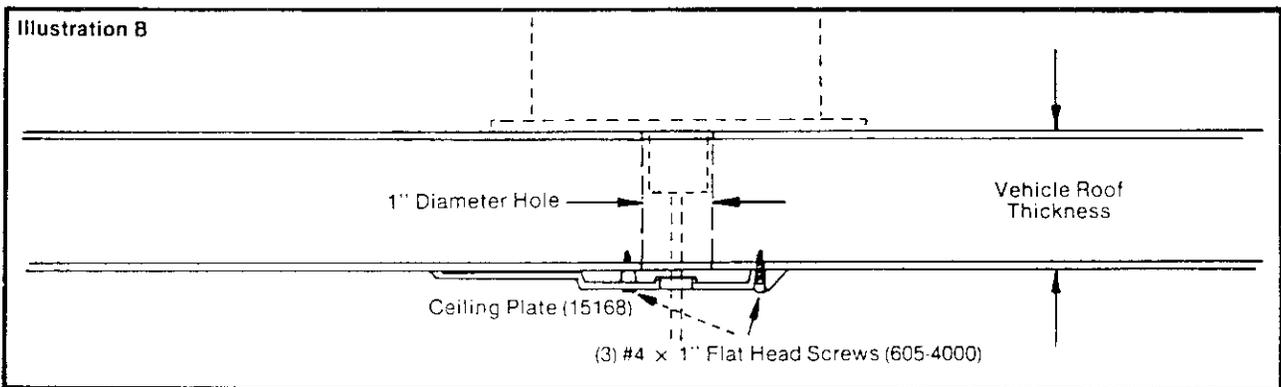
Tools Required

- Electric Hand Drill
- 1" Hole Saw
- 7/64" Drill Bit
- 3/32" Drill Bit
- Hack Saw
- Caulking Compound (Vulkem or similar material)
- 1/4" or 3/8" Drill Bit

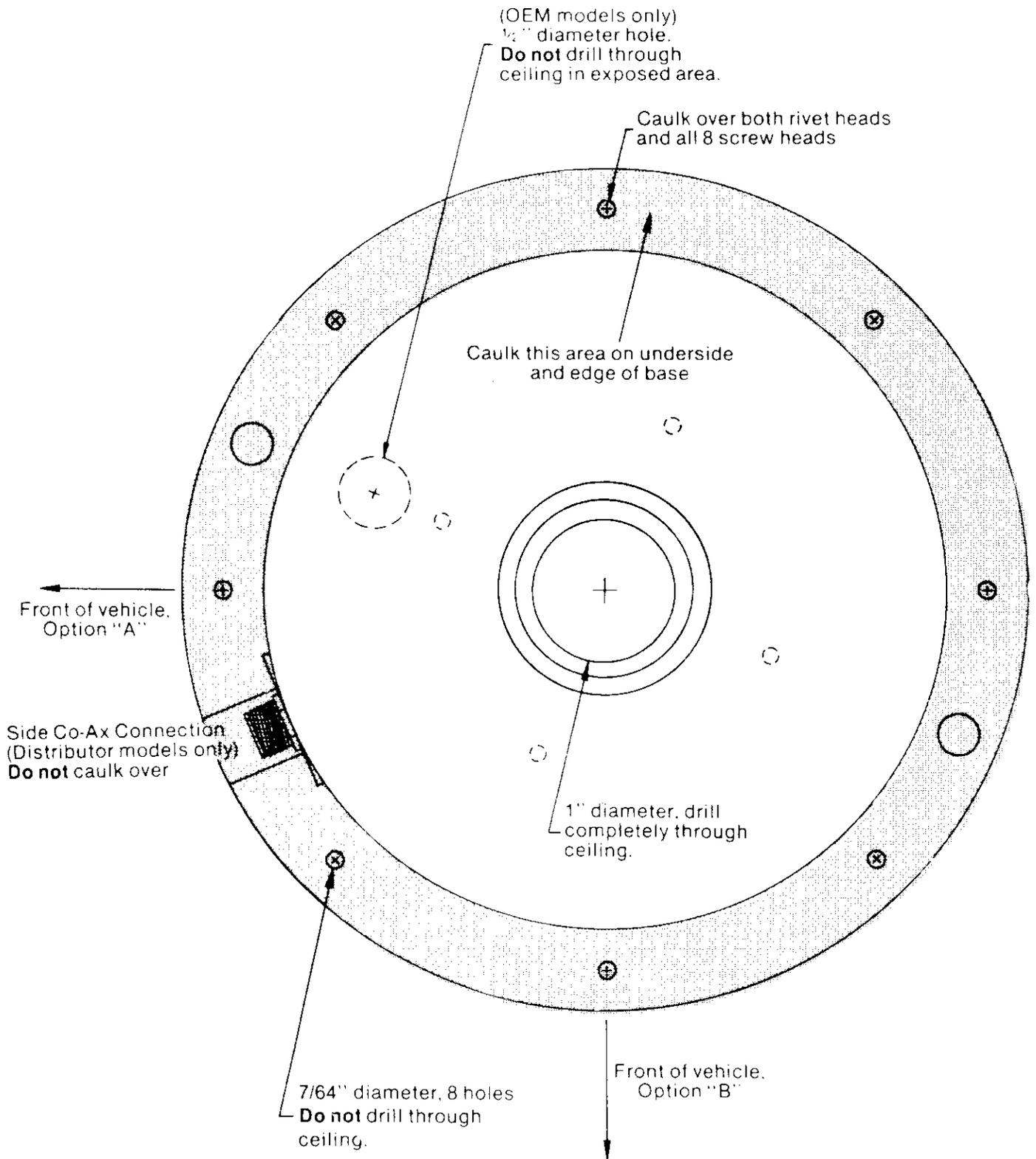


- Select a position on the RV roof that will allow the Delta to rotate 120° with dipoles fully extended without interfering with other roof top equipment such as vents, air conditioners, etc. (See illustration A.)
 - It is advisable to overlap a roof stud with the front edge of the **roof mounting plate** (part #15163).
 - **Do not** drill through a roof stud for the drive mechanism or the stud will be weakened.
- CAUTION: There may be wiring between the roof and ceiling.**

- 1- At the desired position drill a 1/4" or 3/8" pilot hole through the roof and ceiling.
Important: Keep the drill perpendicular to the roof.
 Misalignment could cause binding on the rotate shaft of the antenna after installation.
- 2- Enlarge this pilot hole to 1" with hole saw. Clear away any insulation material in the hole.
- 3- If using a co-ax socket under antenna base (OEM models only) it will be necessary to drill a 1/2" hole through the **roof only** (see specific directions on template on page 4).
Important: Do not drill this hole through the vehicle ceiling.
- 4- The Delta is designed to fit roof thicknesses from 1" to 5 1/4" (it will fit 5 1/4" thick roofs as supplied, without modification).
Note: Measure "roof thickness" through the 1" diameter hole already in the roof (see illustration B). Add 7/8" to this measurement to get both the Steel Elevate Shaft (part #15183) and Rotate Dial Stem (part #15167) lengths (see illustration C).
 Save cut-off piece from Rotate Dial Stem — it can be used later as a guide when installing ceiling plate (see page 5, section 8).



- 5- Use the template provided (page 4) to drill all the roof mounting holes ... **Important**, make sure the center hole of the template is properly aligned with the 1" hole in the roof.
Note: Two options are provided.
Option "A" Will result in the Delta's longest length being "inline" with the vehicle's length when turned clockwise to stop.
Option "B" Will result in the Delta's longest length being at right angles with the vehicle's length when turned clockwise to stop.

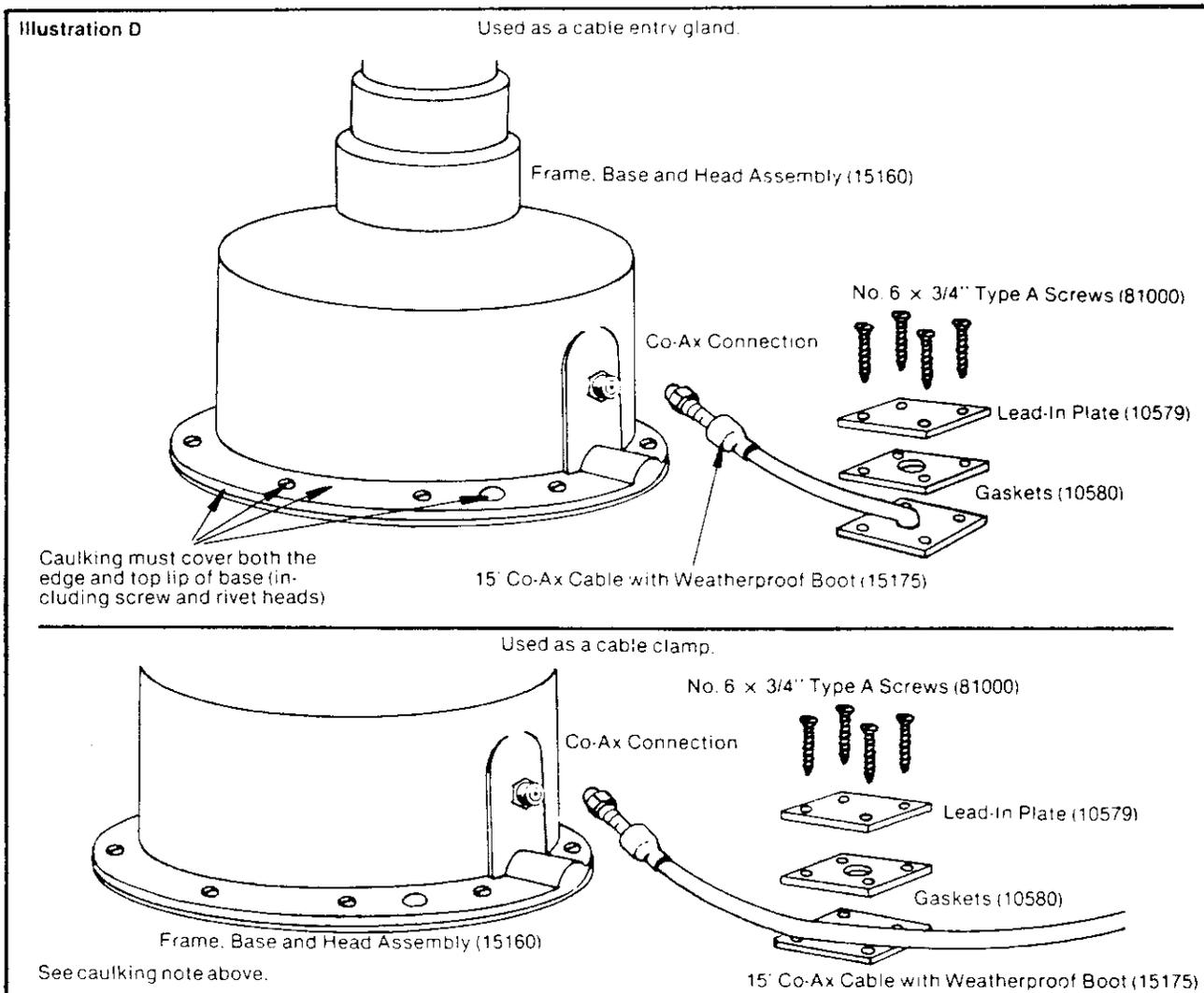


6- When ready to mount antenna to roof, caulk the underside of the mounting plate (note, caulk should not contact nylon coupling or center shaft, see page 4) ... align with holes in roof and lower into position- make sure the nylon coupling (with the hex hole) does not bind in the roof hole.

Note: Before attachment with #6 x 3/4" Type A screws (supplied) make sure the co-ax cable from the antenna is screwed to the co-ax connection on the side of the base and the weatherproof boot slid into place (Distributor models only) or is connected to the co-ax connection under the base (OEM models only). Attach base to roof with screws described above. Caulk the joint between the plastic base and plate as well as the screws and rivet heads that attach the base to the roof (see page 4 & illustration D.)

7- Co-ax cable entry (Distributor models only).

Illustration D shows parts 10579/10580 being used as a cable entry gland or cable clamp. Use plenty of caulking.



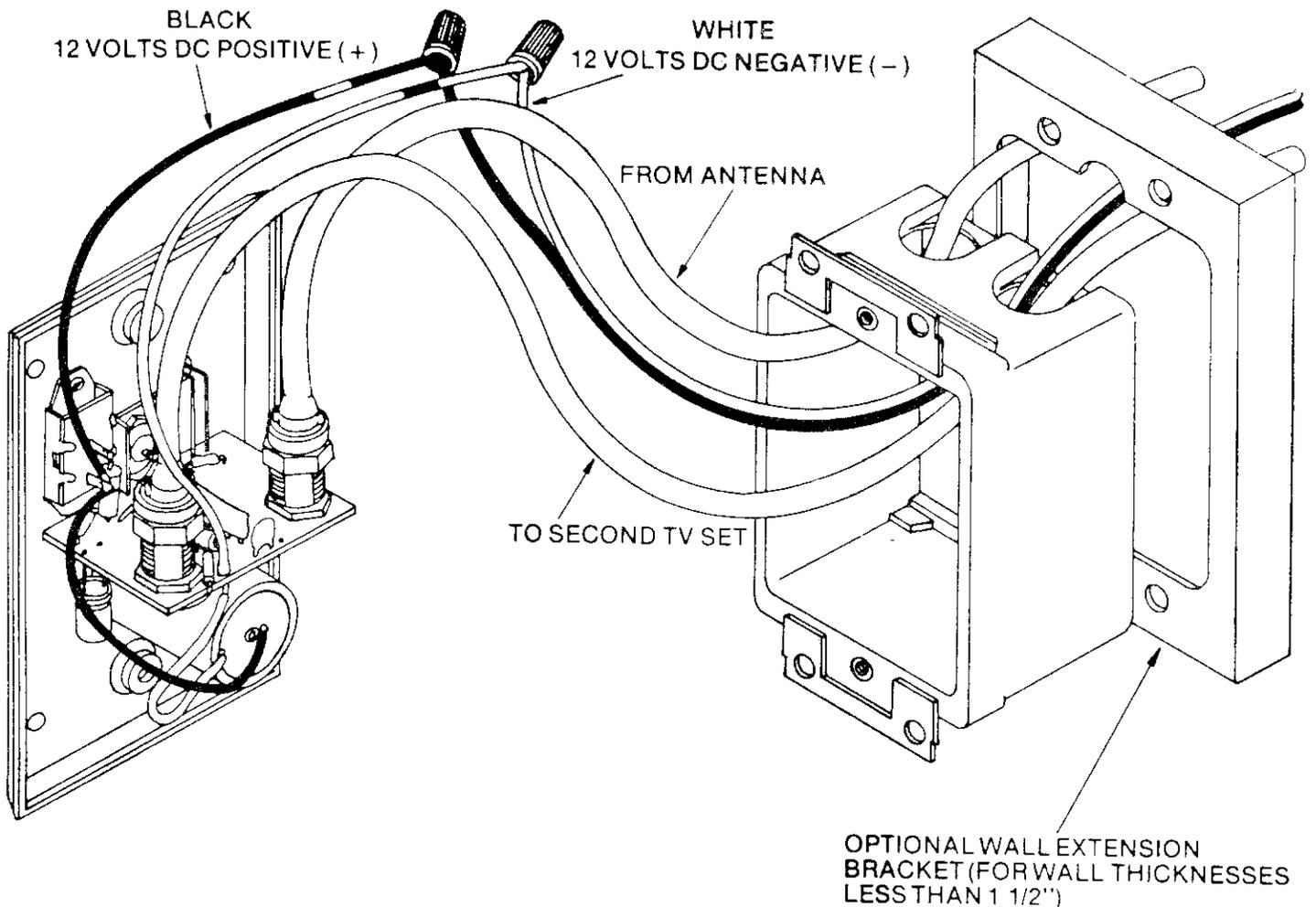
8- Use the cut-off piece from Rotate Dial Stem to align the ceiling plate (part #15168) on the inside of the vehicle. Fasten it with (3) #4 x 1" flat head screws (see illustration B). **Note:** Make sure that the shaft is centered in the hole of the ceiling plate and is **not** subjected to any side pressure.

9- Fit and install the rotate dial stem (part #15167) and the crank assembly (part #15176). Use the hex key (part #632-0000) to tighten the crank assembly to elevate shaft.

10- Test the antenna by cranking the dipoles in and out and rotating it to assure that all operations work smoothly and properly.

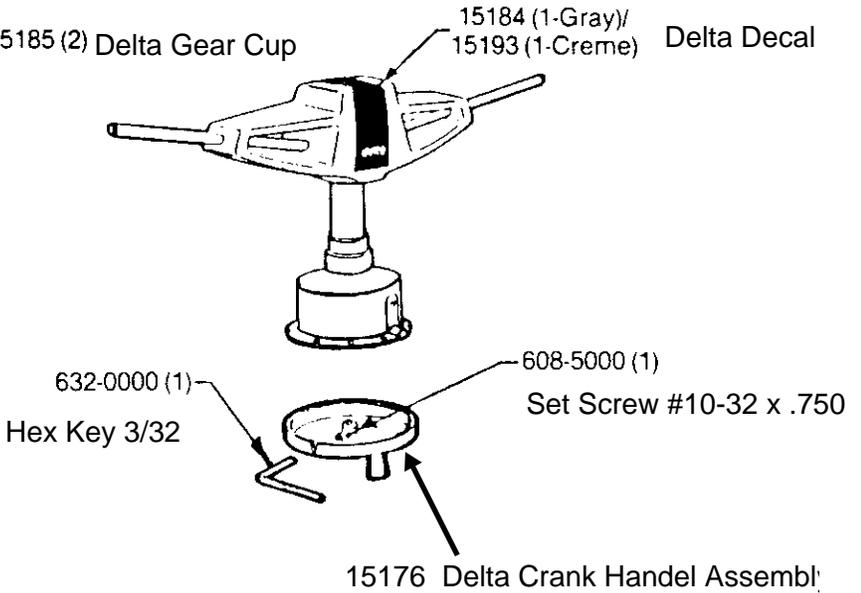
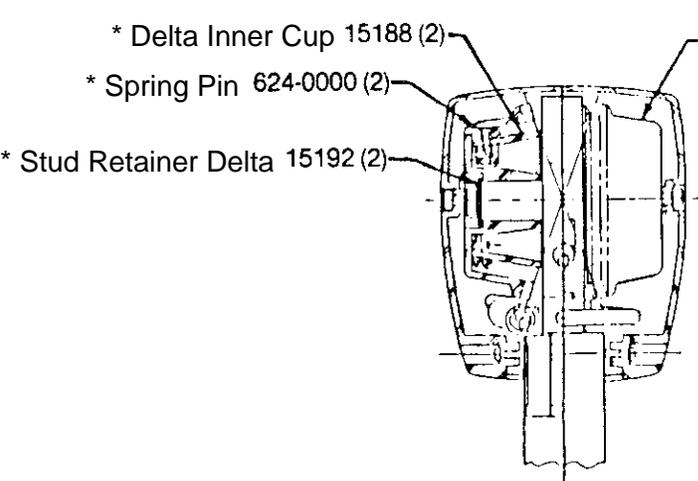
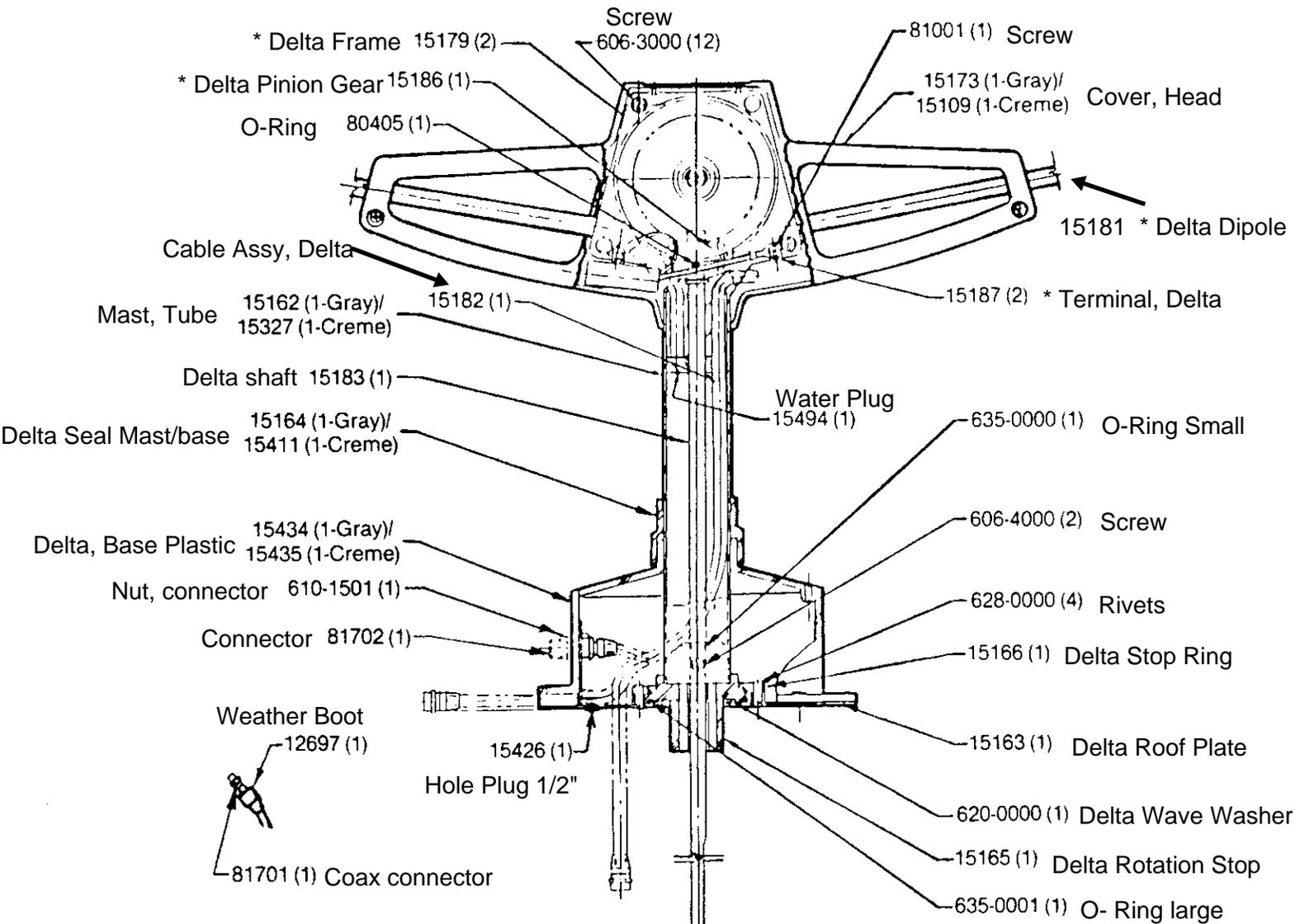
11- Maintenance- clean and lubricate dipoles once a year with silicone spray.

Illustration E

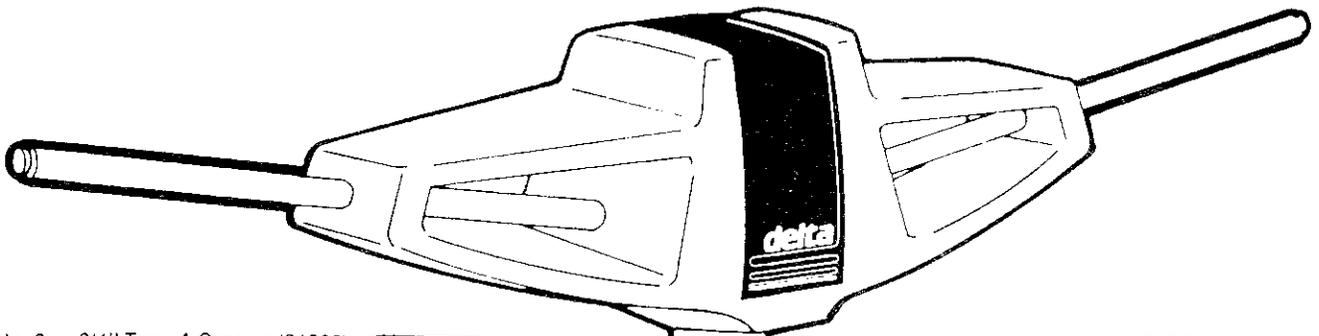


- 12- Remove any existing wall jack and modify the existing hole size if necessary. **Important note:** if the vehicle's wall thickness is less than 1 1/2", use the optional wall extension bracket between the power booster amplifier (part #14939) and the wall opening.
- 13- Remove the protective box from the amplifier and feed the antenna co-ax cable and connector through extension bracket (if used) and the correct hole on the protective box as shown in illustration E. Do the same with the cable which goes to the secondary TV outlet (if installed). Make sure you screw the cables securely onto the correct sockets on the amplifier as shown in illustration E.
- 14- It is **essential** that the 12 volt DC power supply comes from the battery side of the converter. To confirm this, disconnect the RV from any outside 110 volt AC supply. Feed the wires from the vehicle's power supply through the extension bracket (if used) and through one of the holes in the protective box. Wire the **black** lead of the amplifier to the 12-volt DC **positive (+)** lead and the **white** lead of the amplifier to the 12-volt DC **negative (-)** lead using the wire nuts supplied. Incorrect polarity will damage the unit and void the warranty.
- 15- Screw the box to the wall and the amplifier panel to it.
- 16- Use the 4' coax cable supplied with the VHF/UHF splitter (part #15158) to connect the amplifier to your TV set. The splitter may have to be used depending on the input connections on your particular set. A range of splitters is available from Braund, send for our catalog at the address on the back cover.
- 17- With the amplifier switch in the "on" position, the red lamp will illuminate. It should be noted that if you are very close to a TV station there may be some "distortion" of the picture. better results may be obtained with the amplifier switched off. Then rotate the Delta and extend or retract its dipoles (if you are parked stationary) until the best picture is received. **Note:** we do not recommend traveling with the Delta's dipoles extended. due to the possibility of damage by low-hanging tree limbs. However, you may still use and rotate the Delta when traveling with its dipoles retracted. Switch off the amplifier when your TV is not in use.

* Included in Delta Half Frame Repair Kit 15170

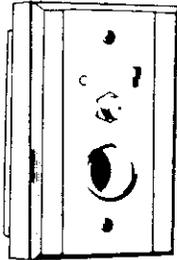


Manufacturing Company (Canada) Limited



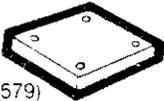
Frame, Base and Head Assembly (15160)

No. 6 x 3/4" Type A Screws (81000)

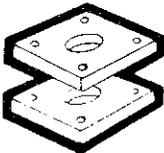


Power Booster Amplifier (14939)

Lead-In Plate (10579)



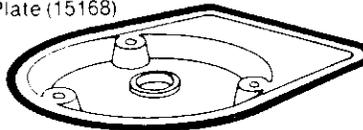
Gaskets (10580)



(Co-Ax Connection, Distributor models only)

(Co-Ax Connection, OEM models only)

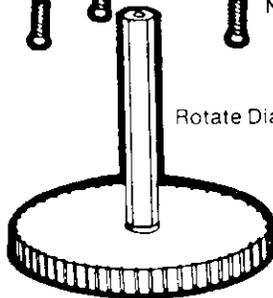
Ceiling Plate (15168)



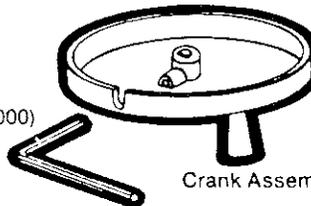
No. 4 x 1" Flat Head Screws (605-4000)



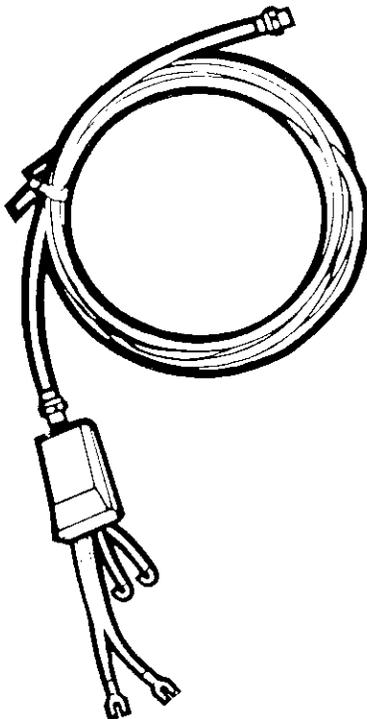
Rotate Dial Stem (15167)



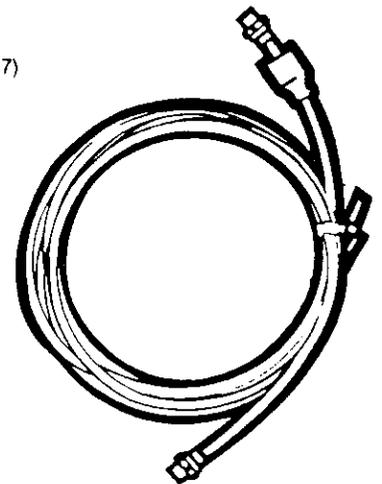
Hex Key (632-0000)



Crank Assembly (15176)



Coupler Splitter with 4' Co-Ax Lead-In Cable (15158)



15' Co-Ax Cable with Weatherproof Boot (15175)