

# REPLACEMENT PROCEDURES

## ELEVATING SHAFT & WORM GEAR ASSEMBLY

### Instructions for RP-4000, SA-1001

**NOTE: It is not necessary to remove rotating gear housing from base plate or remove antenna from roof to replace the shaft and worm gear assembly.**

Winegard's RP-4000 elevating shaft assembly is an exact replacement of RVP-400. It must be used as a complete unit to replace the worm gear, shaft, top and bottom bearings, seals and RGH-2 plug found in units manufactured before 1987.

**STEP 1.** Lower antenna to travel position and refer to drawing to identify parts indicated in steps below.

**STEP 2.** Loosen set screw on elevating crank (#1) and remove crank (#1), spring (#2), directional handle (#3).

**STEP 3.** Go to roof of vehicle and remove retaining ring from pin (#5) holding top elevator tube (#6) in rotating gear housing and remove pin.

**STEP 4.** Remove bearing plug (#4) from top of rotating gear housing, disengage elevating gear (#6) and remove elevating gear shaft assembly (#7).

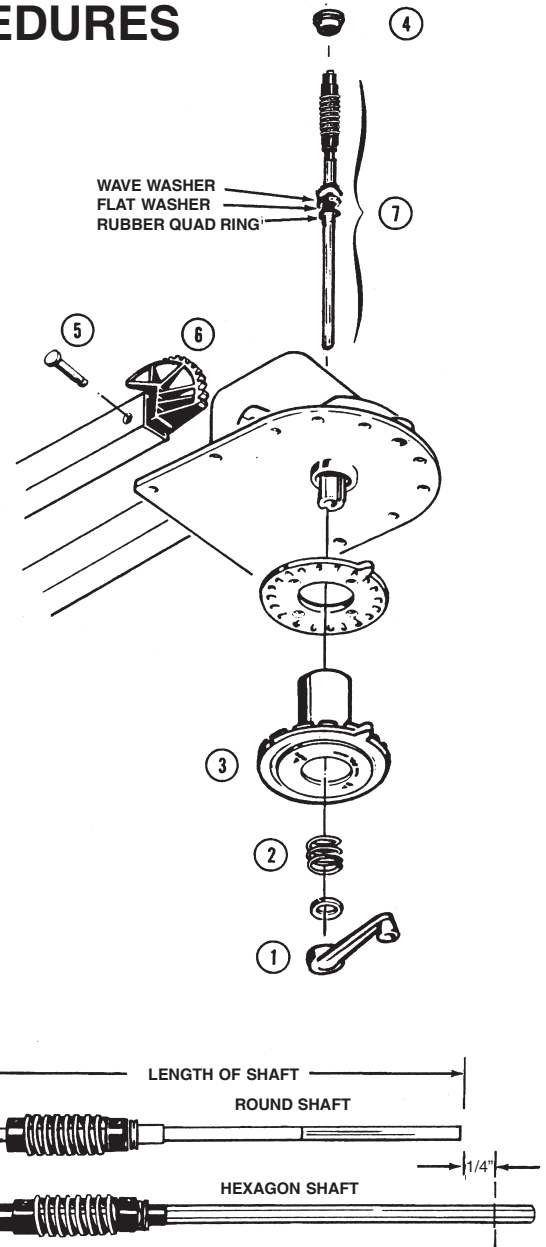
**NOTE: If replacing round shaft assembly, make sure all parts below pinned worm gear are removed from rotating gear housing. These include bearing, quad ring, one or two washers and sleeve bearing. (Sleeve bearing not found on hexagon shaft assembly and is not shown here.)**

**STEP 5.** If replacing old round shaft with new hex style, cut new hexagon shaft  $1/4''$  LONGER than old shaft. See illustration. Discard old bearing plug item (#4). If replacing a hexagon shaft with a hexagon shaft, cut shaft same as length as original.

**STEP 6.** Lubricate worm gear on new elevating shaft assembly with spray silicone lubricant. Make sure quad ring, washer and wave washer are on lower bearing and insert assembly in housing.

**STEP 7.** Install new plastic bearing plug in top of housing, reengage elevating gear in worm gear, replace pin and retaining ring.

**STEP 8.** Replace directional handle, spring and elevating crank. Make sure set screw contacts flat on shaft before tightening. **DO NOT OVERTIGHTEN.**



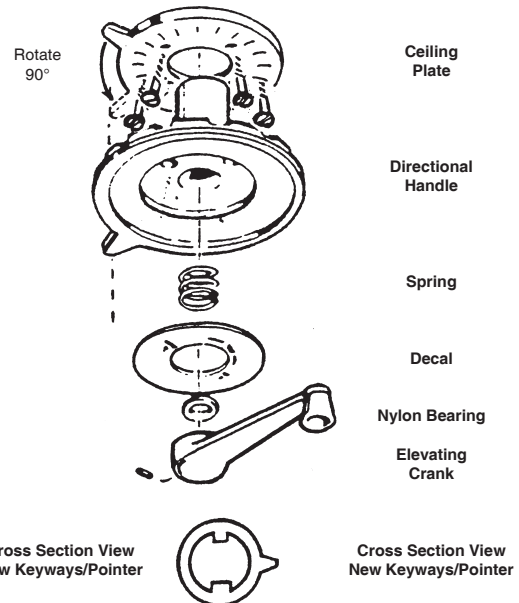
## DIRECTIONAL HANDLE/GEAR HOUSING ASSEMBLY

### Instructions for RP-6200/6300, SA-1001

#### DUE TO A MOLD CHANGE...

If replacing old style directional handle (DH-100), with a new directional handle (DH-1001), it will be necessary to rotate ceiling plate  $90^\circ$ , so pointers on directional handle and ceiling plate line up.

1. Remove existing ceiling plate.
2. Lay ceiling plate on top of directional handle with pointers aligned and slide assembly over rotating gear housing drive shaft in ceiling.
3. Remount ceiling plate with directional handle in place in existing holes.
4. Apply new decal supplied.
5. Reassemble elevating crank.



**WINEGARD®**



Cross Section View  
New Keyways/Pointer



Cross Section View  
New Keyways/Pointer