**ACTUATOR ASSEMBLY**

1. Remove cable nut and rubber boots from end of the cable.

2. Slide tube end cap onto the cable with threaded opening facing the end of the cable. Replace rubber boots and cable nut.

3. Install cable clip into cable groove. Slide tube end cap over cable clip and secure to the cable with tape.

4. Install spring spacer onto cable and slide into end cap until it butts against cable clip. Extend cable fully.
5. Slide spring over cable and butt to spring spacer.

6. Compress spring and install tool clip between spring and cable nut. Slowly release tension on spring until it holds tool clip in place.

7. Thread push rod onto the cable end until it contacts the cable nut. Remove tool clip so spring contacts push rod.

8. Apply liberal coating of an anti-corrosion grease to spring. Install the actuator tube over push rod assembly. Apply a small amount of Loctite 271 to threads of actuator tube.
ACTUATOR ASSEMBLY (CONT.)

9. Thread actuator tube into end cap and tighten securely.

10. Align 1/8” hole in push rod with hole in actuator tube. Compress push rod into actuator tube and insert a pin such as a small nail or allen wrench into the hole to secure it during installation.

ACTUATOR INSTALLATION

1. Trim the drive in all the way (fully retracted) and remove trim pin nut and washer from the cylinder.

2. Install trim pin cup on trim pin and secure with nut. Tighten nut until approximately 2 threads are exposed through nut. Do not over tighten nut, as rubber bushings may be damaged.
ACTUATOR INSTALLATION (CONT.)

3. Place actuator tube bracket and clamps loosely on the trim ram.

4. Slip actuator through clamps and onto tube bracket and hold up against trim cylinder body. Align bracket and tube clamp grooves & install clamps around assembly.

5. Butt end of push rod against trim pin cup at its centerline.

6. Tighten clamp nuts to 65 in. lbs. torque. See diagram bottom left for possible clamp locations for different cylinder applications.

7. Remove pin from actuator. Cycle actuator several times and watch the actuator for smooth operation.
**LED ACTUATOR INSTALLATION**

1. Trim the drive in all the way (fully retracted) and remove trim pin nut and washer from the cylinder.

2. Install trim pin cup on trim pin and secure with nut. Tighten nut until approximately 2 threads are exposed through nut. Do not over tighten nut, as rubber bushings may be damaged.

3. Place actuator tube bracket and clamps loosely on the trim ram.

4. Slip actuator through clamps and onto tube bracket and hold up against trim cylinder body. Align bracket and tube clamp grooves & install clamps around assembly.

Preform Clamps over actuator tube in areas shown for ease of installation.
5. Butt end of push rod against trim pin cup at its centerline.

6. Tighten clamp nuts to 65 in. lbs. torque. See diagram bottom left for possible clamp locations for different cylinder applications.

7. Remove pin from actuator. Cycle actuator several times and watch the actuator for smooth operation.

8. Trim the drive up so the black rod can be extended fully. Install the spring and nut putting a small amount of silicone on the threads to help lock the nut in place.

9. Install the sensor onto the actuator using the two screws provided. Gen 1 had 10-32 screws. Gen 2 uses 8-32 screws. The front bolt is 5/8” longer to fit into the rod groove. The cable faces towards the boat.

10. If replacing an existing cable system you can remove the cable from the thru hull and use the new center in the old SS housing.
11. Install the new rubber grommet onto the cable thru hull and then thread it into the exiting housing and tighten. If this is a new installation or your existing thru hull is a different thread order part 620-336175 for this installation.

12. Push the 3 sensor wires through the fitting and into the boat until the cable nut can be threaded onto the fitting and then tighten.

The outside installation is complete follow the wiring diagram for the connection to the LED dash panel.