

LINEAR ACTUATOR

HIGH QUALITY SERIES ACTUATOR

ref: LSA-1

(1) HOW TO RESET LIMIT SWITCHES

CAUTION: IF YOU WANT TO TEST THIS ACTUATOR ON A BENCH. MAKE SURE TO HOLD THE INNER TUBE WITH YOUR HAND OR WITH A SCREW DRIVER THROUGH THE ROD END WHEN THE INNER TUBE IS MOVING IN AND OUT. Otherwise, the inner tube may turn freely and destroy the factory preset mechanical lower and upper limits.

A. RESET LOWER LIMIT

The factory preset mechanical lower limit on this unit is 1/4" to 1/2" from the retracting end of the actuator. MAKE SURE THE ACTUATOR IS PROTECTED AT ITS LOWER MECHANICAL LIMITS, WHEN YOU ATTACH IT TO THE ANTENNA MOUNT. Otherwise, please reset lower limit as following procedures:

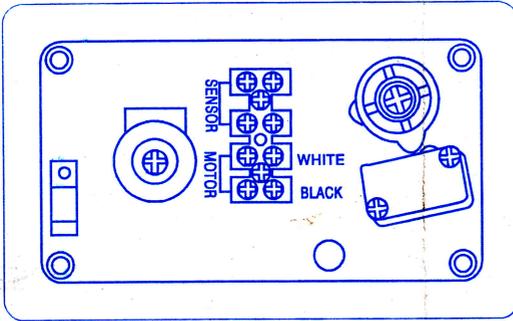
- 1). If the actuator has been installed on the antenna mount, detach it first.
- 2). Use your positioner to retract the actuator UNTIL MOTOR STOPS by itself. Important not to hold the inner tube now! Allow it to retract freely.
- 3). Hand turn (or use a screwdriver through the rod end to help) the actuator to retract it further UNTIL YOU CAN NOT TURN IT ANYMORE. Now the lower limit is set on "ZERO" inches.
- 4). Hand turn the inner tube to extend it until it reaches your desired mechanical lower limit. We recommend 2 to 4 turns out (1/4" to 3/4")

B. RESET UPPER LIMIT

- 1). If the actuator reaches the farthest satellite:
 1. Extend the actuator a little more (We recommend 1/4"). This is where you want to set the upper limit.
 2. Very slowly rotate the upper limit cam counter clockwise (i.e. moving towards the upper limit switch) until you hear (you can also feel it) a "CLICK" sound from the limit switch. Now the mechanical upper limit is set.
- 2) If the antenna can not reach the farthest satellite:
 1. Open the back cover of the actuator locating two plastic cams stacked one on the other (see figure 1). The upper one is for the upper limit adjustment.
 2. Loosen the limit cam screw, but do not take them out!

3. Turn the upper cam clockwise (i.e. moving away from the upper limit switch) in small increments to extend the actuator slowly. You must not allow the actuator to extend all the way out! Otherwise, the actuator may bend and/or the driving gear may be destroyed. Both accidents will void the warranty.

4. Adjust the upper cam carefully to see if the actuator can now reach the farthest satellite. If it can, follow procedures in 1) to set the upper limit. If it does not, you may need a longer actuator.



(II) VERY IMPORTANT OTHER FEATURES:

1. **WEATHER RUBBER ACCORDION, MOTOR BOOT, REED SENSOR REPLACEMENT AND OTHER PARTS:** Can be easily purchased through your distributor.

2. **6, 8, 10, 12, 18, 24 OR 36 INCHES JACK:** Also available.

WARNING:

You **MUST** use the enclosed two spacers or as many flat washers as necessary (not included) to **CREATE CORRECT ALIGNMENT AND ENOUGH CLEARANCE:**

- (A) between the rod end and the antenna mount.
- (B) between the bracket and the antenna mount.

DAMAGE RESULTING FROM FAILURE TO FOLLOW THE ABOVE INSTRUCTIONS WILL NOT BE COVERED BY WARRANTY.

