

# **PRECISION PERFORMANCE PRODUCTS**

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## **#345 ELECTRIC ACTUATOR**

**(FOR MANUAL P/G & TURBOGLIDE SHIFTER MODELS)**  
**INSTALLATION AND OPERATION INSTRUCTIONS**

YOUR **ELECTRIC ACTUATOR** IS CONSTRUCTED OF THE FINEST MATERIALS AND WORKMANSHIP, HOWEVER HERE ARE SOME THINGS TO CONSIDER DURING INSTALLATION AND OPERATION.

**OPERATION:** WHEN YOU ENGAGE 1<sup>ST</sup> GEAR YOU COMPRESS A 120 LB SPRING, WHEN FULLY COMPRESSED IT IS LOCKED IN POSITION BY MECHANICAL LINKAGE. AT THIS POINT YOU CAN MOVE THE SHIFTER FULL RANGE OF TRAVEL WITHOUT RESISTANCE. WHEN REACHING THE TIME TO SHIFT AN ELECTRICAL SIGNAL IS SENT TO THE DEVICE AND A SOLENOID TRIPS THE TRIGGER MECHANISM AND RELEASES THE SPRING, MOVING THE SHIFTER FROM 1<sup>ST</sup> GEAR TO 2<sup>ND</sup> GEAR POSITION. THIS GIVES YOU THE SAME EFFECT AS A CO2 ACTUATED SHIFTER WITH 120LBS FORCE AND ONLY MOMENTARY ELECTRICAL INPUT.

**APPLICATION REQUIREMENTS:** ONLY SOME MODELS OF **PRECISION PERFORMANCE** 2 SPEED SHIFTERS ARE COMPATIBLE WITH THE #345 ELECTRIC ACTUATOR. THE EASIEST METHOD TO IDENTIFY THE CORRECT VERSION OF SHIFTER IS THAT PARK AND THE CABLE EXIT ARE ADJACENT TO EACH OTHER. WHEN MOUNTING TO THE SHIFTER, POSITION THE ALUMINUM MOUNTING BRACKET WITH THE TOP MARKING AT THE UPPER POSITION.

**NOTE:** WHEN COCKING VERSIONS THAT REQUIRE THE HANDLE TO BE PULLED TO THE REAR, **PULL THE HANDLE ONLY**, DO NOT PULL ON THE **LEVER** AS THIS COULD CAUSE THE HANDLE TO LOCK IN 1<sup>ST</sup> GEAR POSITION.

**ELECTRICAL REQUIREMENTS:** THE SIGNAL TO TRIGGER THE UNIT MUST BE **MOMENTARY** AT THE TIME OF THE SHIFT AND **NOT CONTINUOUS** AS REQUIRED BY SOME 2 SPEED ACTUATORS. IF ELECTRICAL POWER IS LEFT ON FOR A LONG DURATION IT WILL CAUSE IRREVERSIBLE DAMAGE TO THE SOLENOID. THE CURRENT REQUIRED IS APPROXIMATELY 1.75 AMPS, AND NOT POLARITY SENSITIVE, WHICH IS TYPICALLY LESS THAN THE MAXIMUM AVAILABLE FROM MOST RPM SWITCHES, AVOIDING THE REQUIREMENT OF AN INTERFACING RELAY.

**MAINTENANCE:** AS WITH ANY ELECTRICAL DEVICE, AVOID DIRECT EXPOSURE TO WATER, WHEN INVOLVED IN NORMAL MAINTENANCE. ALTHOUGH ADJUSTMENTS CAN BE MADE IN THE FIELD IT IS RECOMMENDED THAT THE UNIT BE RETURNED TO PRECISION PERFORMANCE PRODUCTS FOR A COMPLETE EVALUATION AS SOME TIMES THESE ADJUSTMENTS CAN BE QUITE SENSITIVE.

**ADJUSTMENT:** TO ADJUST THE TRIGGERING MECHANISM FIRST CHECK THAT THE SOLENOID PLUNGER IS FLUSH WITH THE NUT (A), IF LOOSE USE LOCTITE TO SECURE.

AFTER FULLY COCKING THE DEVICE, BY MOVING TO 1<sup>ST</sup> GEAR POSITION. THEN TURN THE TRIGGER ADJUSTMENT SCREW (B) TO JUST TOUCH THE LOCKING LEVER. THEN TURN THE SCREW **COUNTER CLOCKWISE** ONE FULL TURN (ON 2 3/8 INCH LONG SOLENOID) OR 1½ TO 1¼ TURNS ON (1½ LONG SOLENOID) AN SECURE WITH THE LOCK NUT.

WITH PLUNGER FULLY EXTENDED, ADJUST DELRIN PLUNGER TO POSITION HANDLE ROLLER **HALFWAY** INTO THE 2<sup>ND</sup> GEAR GATE AS SHOWN IN FIG 1

**FIG 1**  
(FRONT CABLE EXIT, PUSH TO UP SHIFT SHOWN)

