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Single Mode Shift Light Gen II w/Auxiliary Output (Auto-Shift)

Operating Instructions - Firmware Rev: **V5.0**

1 YEAR LIMITED WARRANTY ON MANUFACTURE DEFECTS. IN NO EVENT WILL RAPTOR PERFORMANCE OR ANY OF ITS AFFILIATES BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THIS PRODUCT. NO OTHER CLAIMS ARE MADE ABOUT THIS PRODUCT, EXPLICIT OR IMPLIED.

INSTRUCTIONS FOR INSTALLATION AND SWITCH SETTINGS:

- REMOVE NEGATIVE BATTERY CABLE.
- CONNECT THE BLACK WIRE OF THE SHIFT LIGHT TO A SUITABLE GROUND ON THE VEHICLE CHASSIS.
- CONNECT THE RED WIRE OF THE SHIFT LIGHT TO A **SWITCHED AND FUSED** +12 VOLT SOURCE.
- CONNECT THE GREEN WIRE OF THE SHIFT LIGHT TO THE TACH OUTPUT LEAD OF THE VEHICLE OR THE SWITCHED SIDE OF THE IGNITION COIL (NEGATIVE SIDE).
- THE BROWN WIRE IS THE AUXILIARY OUTPUT (AUTOSHIFT OUTPUT). THIS WIRE SWITCHES TO GROUND WHEN THE SHIFT RPM IS AT OR ABOVE THE PROGRAMMED SHIFT SETTING. THIS OUTPUT HAS A MAX OUTPUT CURRENT RATING OF 0.5 AMP.
- RESTORE BATTERY CABLE CONNECTION.

PROGRAMMING

PARAMETERS THAT WILL BE SET DURING PROGRAMMING IS AS FOLLOWS AND, IN THE ORDER, GIVEN:
PULSES/REV (CYLINDER CONFIGURATION), SHIFT RPM
SEE FIGURE 1 FOR REFERENCE

1. PULSES/REV (CYLINDER CONFIGURATION)

- PRESS AND HOLD BOTH PROGRAM BUTTONS (*TWO SECONDS*) UNTIL THE RPM DISPLAY STARTS TO FLASH. THIS IS THE CYLINDER SETTING THAT IS STORED IN MEMORY. VALID ENTRIES ARE 1,2,3,4,5,6,8.
- PRESS AND RELEASE THE UP OR DOWN BUTTON TO SINGLE STEP THE CYLINDER SETTING UP OR DOWN. OR HOLD THE UP OR DOWN BUTTON TO FAST SCROLL TO THE DESIRED CYLINDER SETTING. PRESS BOTH PROGRAM BUTTONS TO ADVANCE TO THE NEXT PARAMETER.

2. SHIFT RPM

- NEXT, THE SHIFT POINT SETTING SHOULD BE DISPLAYED AND FLASHING. THIS IS THE SHIFT SETTING THAT IS STORED IN MEMORY. MAXIMUM VALUE IS 20,000 RPM.
- PRESS AND RELEASE THE UP OR DOWN BUTTON TO SINGLE STEP UP OR DOWN IN SHIFT SETTING. HOLD THE UP OR DOWN BUTTON TO FAST SCROLL TO THE DESIRED SHIFT SETTING. PRESS BOTH PROGRAM BUTTONS TO EXIT PROGRAM MODE.

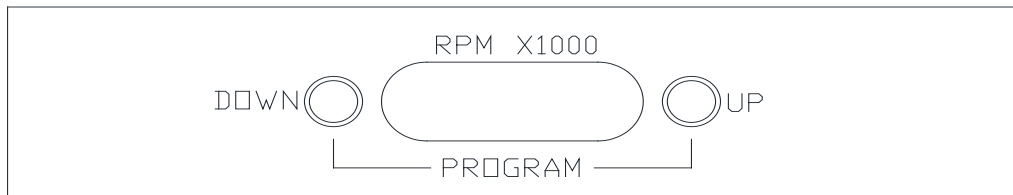


Figure 1

Tach Sensitivity Reconfigure: This shift light can be adjusted for weak tach signals (less than 5-volt pulses). Only change if the display is not showing RPM while the engine is running with the shift light programmed correctly.

TO RECONFIGURE THE INPUT TYPE (FOR LOW AMPLITUDE WEAK SIGNALS), HOLD BOTH BUTTONS DOWN ON THE SHIFT LIGHT WHILE THE KEY IS OFF. THEN WHILE HOLDING, TURN THE KEY ON. THE SHIFT LIGHT WILL DISPLAY EITHER "111 OR "222". IF IT DISPLAYS "111", IT IS SETUP FOR NORMAL SIGNALS 12 VOLT/5 VOLT SIGNALS. IF IT DISPLAYS "222", IT IS SETUP FOR WEAK SIGNALS (LOWER THAN 5 VOLTS) WHICH IS TYPICAL OF THE 2010+ CAMAROS (LS3/L99). THE INPUT TYPE TOGGLES FROM NORMAL TO WEAK SIGNAL INPUT TYPES AND VICE VERSA EACH TIME THE RECONFIGURE STEP IS CARRIED OUT. (1) "111" FOR NORMAL SIGNALS. (2) "222" FOR WEAK SIGNALS.

SPECIAL CYLINDER SETTING CONSIDERATIONS:

- **Ford 99+ MUSTANGS:** SET CYLINDER SELECTION TO "1" (READS OFF one OF THE EIGHT COILS).
- **DODGE VIPER:** SET CYLINDER SELECTION TO "2" (READS OFF ONE COIL PACK).
- **GM "LSX" ENGINES (NOT LS3/L99):** SET CYLINDER SELECTION TO "4" (READS OFF TACH OUT FROM PCM).
- **GM "LS3/L99" ENGINES:** SET CYLINDER SELECTION TO "1" (READS OFF SINGLE COIL). (NO TACH SIGNAL)
- **New Dodge Challenger:** SET CYLINDER SELECTION TO "1" (READS OFF SINGLE COIL). (NO TACH SIGNAL)
- **Suzuki Hayabusa/GSXR1000:** SET CYLINDER SELECTION TO "1" (READS OFF SINGLE COIL).
- **Kawasaki ZX10/ZX14:** SET CYLINDER SELECTION TO "1" (READS OFF SINGLE COIL).

FOR VEHICLE SPECIFIC INFORMATION (IF AVAILABLE), PLEASE CHECK THE RAPTOR WEBSITE