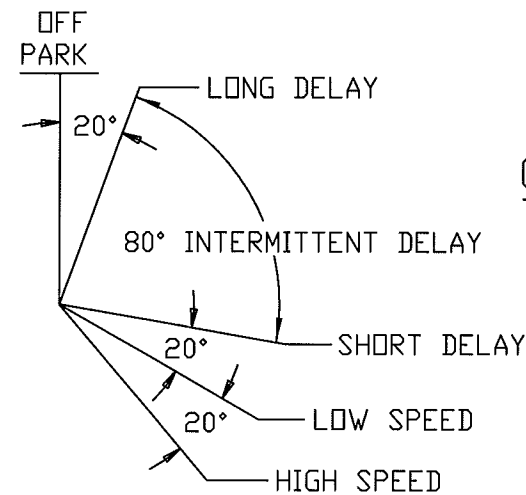
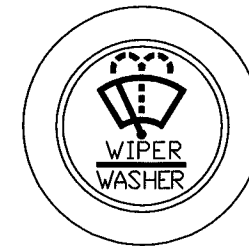
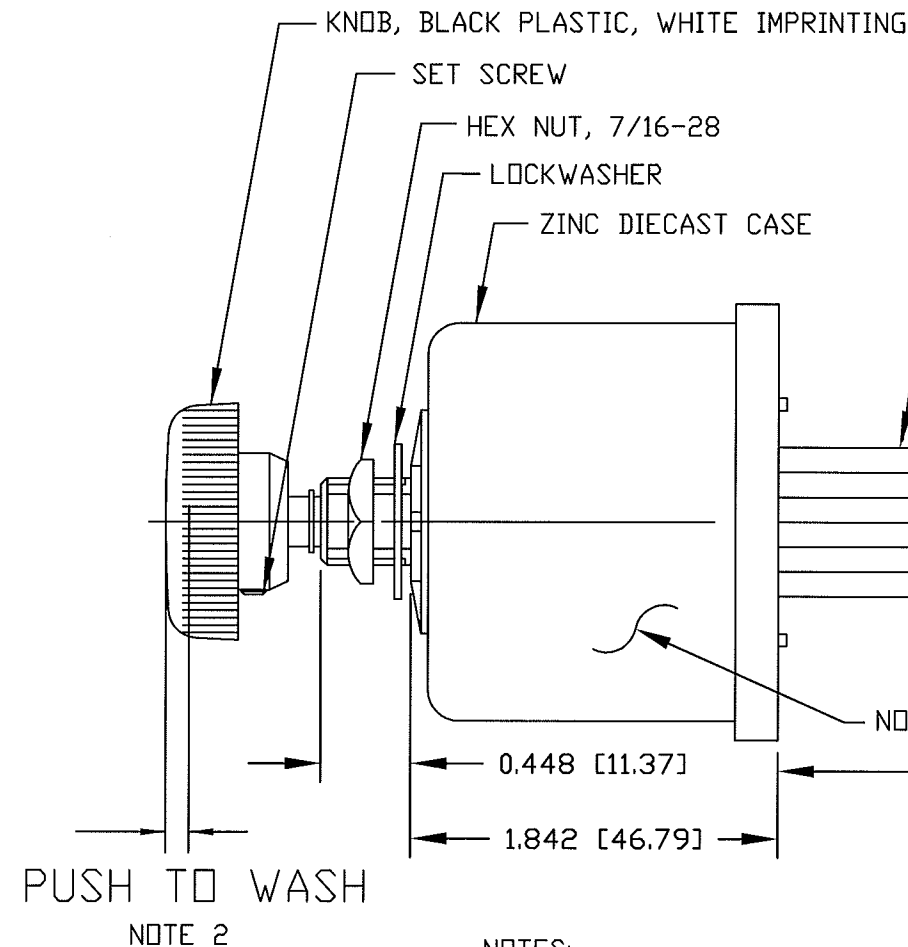
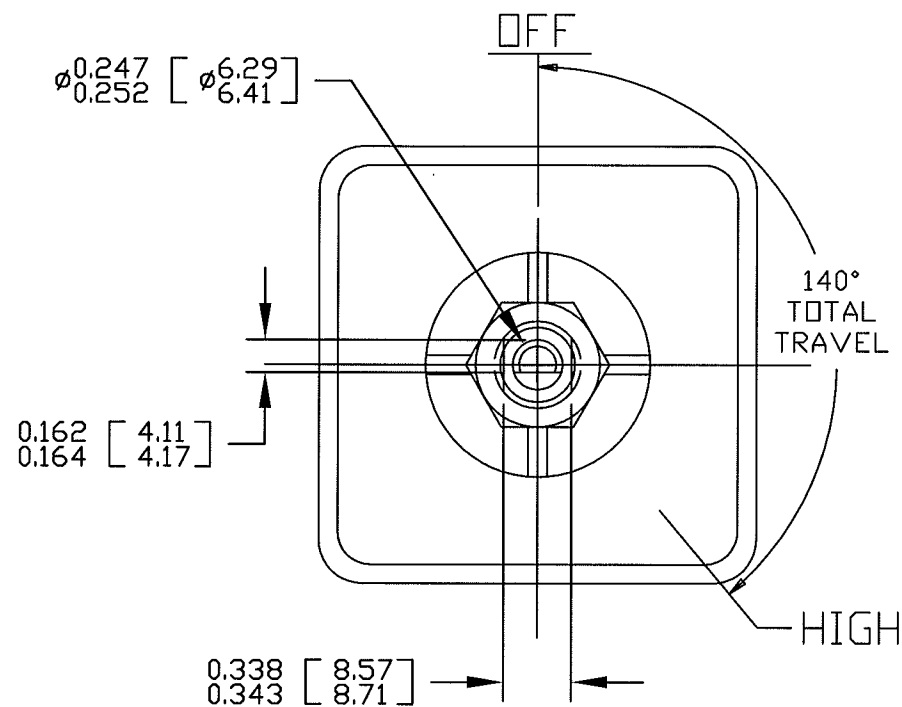




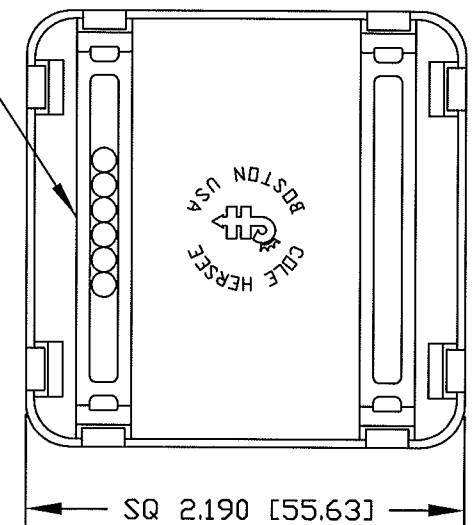
## CIRCUITRY



FRONT VIEW OF KNOB

## Revision Control Record

| Rev. | Description of Change | ECN No. | Date     |
|------|-----------------------|---------|----------|
| L    | CHANGE BOM            | 09588   | 01/15/10 |
| M    | CHANGE NOTE 3         | 13054   | 02/07/13 |
|      |                       |         |          |
|      |                       |         |          |



## NOTES:

- DESIGNED FOR 12V SYSTEM, SINGLE MOTOR, DYNAMIC AND NON-DYNAMIC PARK. TO BE USED WITH PERMANENT MAGNET MOTOR, NEGATIVE GROUND ONLY.
- PUSH TO WASH FUNCTION: RESULTS IN 2 TO 3 WIPES AFTER RELEASE OF PUSH SWITCH.
- RATING: VOLTAGE OPERATING RANGE 9VDC TO 16VDC  
ROTARY SWITCH ACTUATION 20,000 CYCLES MINIMUM.  
MOTOR DRIVE: 15 AMPS CONTINUOUS. START-UP/STALL/LOCKED-ROTOR 50 AMPS. SHORT-CIRCUIT PROTECTED<sup>(M)</sup>  
WASHER CIRCUIT 3 AMPS, PUSH SWITCH 20,000 CYCLES MINIMUM.
- MICROPROCESSOR CONTROLLED, SOLID-STATE RELAY, CURRENT LIMIT SENSE CIRCUIT, REVERSE POLARITY PROTECTED
- CONFORMS TO SAE J1455:  
4.11 GENERAL HEAVY DUTY TRUCK ELECTRICAL ENVIRONMENT.  
4.11.1 STEADY-STATE ELECTRICAL CHARACTERISTICS.  
4.11.2 TRANSIENT, NOISE AND ELECTROSTATIC CHARACTERISTICS.
- ENVIRONMENTAL EXTREMES BY LOCATION.  
5.2 INTERIOR-FORWARD.
- ALL STEEL PARTS PLATED
- ALL DIMENSIONS ARE REFERENCE ONLY UNLESS NOTED OTHERWISE.
- COLE HERSEE PART NUMBER, REVISION, & DATE CODE MARKED AT RANDOM ON CASE.

| COLOR  | FUNCTION         |
|--------|------------------|
| WHITE  | MOTOR HIGH SPEED |
| YELLOW | MOTOR LOW SPEED  |
| RED    | VBB (+12V)       |
| BROWN  | WASHER PUMP      |
| BLACK  | GROUND (0V)      |
| BLUE   | MOTOR PARK       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>Tolerances</b> Unless otherwise specifically noted, the following are default tolerances:<br>* 2-place Decimal Dimensions +/- .02"<br>* 3-place Decimal Dimensions +/- .005"<br>* Angular Dimensions +/- 1.0 Deg.<br>* Metric: Refer to equivalent English Dimension Tolerance<br>>>> NOTE: All tolerances are Non-Cumulative. <<<<br><br><b>Dimensional Units</b> All dimensions are expressed in inches except those shown in brackets (xxx) are expressed in millimeters<br><br>"REF." or an Asterisk (*) = Non-Toleranced Reference Dimension, shown for clarification purposes only. |         |
| Used On or Ref.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EX28241 |
| Scale:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1:1     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <b>PROPRIETARY INFORMATION</b> This Engineering Drawing, and the information contained herein, is proprietary to Cole Hersee Company and may not be disclosed, re-produced, or in any other way transferred or communicated to any other party without the express written consent of an authorized representative of Cole Hersee Company.<br><br><b>DESIGN CONTROL</b> It is the responsibility of the individual using / referencing this drawing to assure that the noted design revision level agrees with the revision level of the Controlled Document (Master Drawing). This is a NON-CONTROLLED DOCUMENT unless otherwise specifically noted.<br><br><b>DO NOT SCALE</b> - Dimensional variation may occur during printing / reproduction. |        |
| Drawn By:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | JCS    |
| Date Drawn:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1/9/07 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Special Characteristics:</b><br><br><input checked="" type="checkbox"/> Critical Characteristic, relating to Safety and/or Regulatory Compliance<br><br><input checked="" type="checkbox"/> Significant Characteristic relating to Process Control (SPC)<br><br><input checked="" type="checkbox"/> Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer<br><br>(Note that the identification of any Characteristics as being "Special" does not alter the requirement that ALL specified dimensions & tolerances must be met.) |     |
| Responsible Engineer:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | JCS |
| Pg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1   |

|                                                                                                                    |                        |
|--------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Cole Hersee Co.</b><br>20 Old Colony Ave., South Boston, MA, 02127<br>Phn: 617-268-2100 Web: www.colehersee.com |                        |
| <b>Description:</b> WINDSHIELD WIPER CONTROLLER, UNIVERSAL, 12V                                                    |                        |
| <b>Drawing / Part No.:</b> 75600-04                                                                                | <b>Current Rev.:</b> M |