

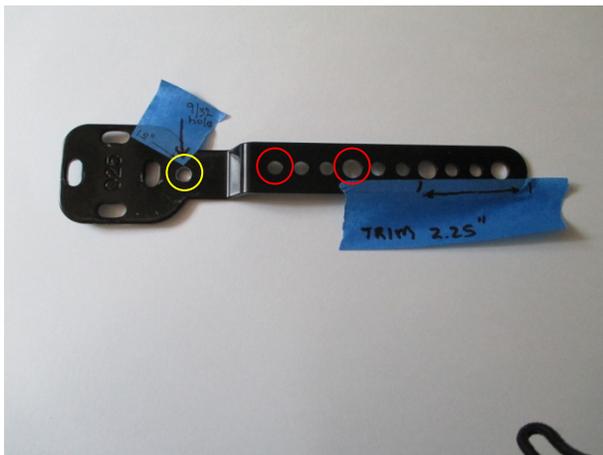
## Installation Items:

- Rostra 250-1223, Electronic Cruise Control System (ECCS) includes the cruise module, harness, cruise cable, cruise module mounting bracket, cruise cable mounting bracket and hardware package
- Rostra 250-3592, Dash Mount Control Switch (DMCS) includes the dash switch with ON/OFF & RA/SC selections, wiring harness and hardware package
- Rostra 250-4382, 5-pin Terminal Relay is needed to activate the “Engaged” LED on the 250-3592 DMCS. A Relay is usually not needed for other Rostra Control Switches.
- Rostra 250-4165, Universal Drive Shaft Magnet Speed Sensor (MSS) includes drive shaft hardware, magnetic sensor pickup coil, wiring harness and mounting hardware package

## Cruise Module

The ECCS has a 43” cruise cable and wiring harness attached on the same end. One side of the ECCS has a rubber cover for access to 12 dip-switches. Pull back the cover and set switches 2 & 11 to ON. Set all other switches to OFF. These settings are specific for an automatic transmission with an auxiliary speed signal generator. After trial fitting the ECCS in several locations, a position under the battery carrier on the left side of the engine compartment was selected. This location insulates the ECCS from heat, provides an inconspicuous routing for the cruise cable and positions the wiring harness for access through the existing cabin wiring harness grommet at the upper left-hand corner of the firewall.

Disconnect and remove the battery. Use the battery carrier drain channel to mount the ECCS. This recessed channel provides space for the mounting bolts without contacting the battery bottom. For 5/16” mounting bolts, drill an 11/32” hole at the top of the channel and then drill a second hole 1-1/2” to the left (Red circles). This is a good opportunity to clean and repaint your battery carrier.



Revise the ECCS mounting bracket by adding a 9/32” hole (Yellow circle) to the round end of the bracket. Make the new hole 1-1/2” from the right-side of the top slotted hole (see top tape tag). Increase the first arm hole to 11/32”. This and the fourth hole (red circles) will be used to mount the ECCS to the bottom of the battery carrier. Also trim 2-1/2” from the arm (see right tape tag). If the bracket is not trimmed, it will block the battery clamp bolt. Repaint the bracket after the revisions are completed.

Mount the revised bracket onto the ECCS using the provided bolts (Yellow circles) in the hardware package. The ready-to-mount ECCS should look like the image to the right. When the ECCS is mounted to the battery carrier, the ECCS cruise cable will point to the firewall left-hand corner. If using the 250-3593 DMCS, wrap the harness to provide protection for the section of the harness in the engine bay. If using the 250-3592 DMCS, remove the wrapping tape at the 6" mark and locate the terminated Orange wire. Add 3feet of Orange wire to extend the harness through the firewall opening. Wrap the harness to provide protection for the section of the harness in the engine bay. Thread the wiring harness and cruise cable between the left, outside edge of the battery carrier and the left inner fender.



Attach the ECCS mounting bracket (Red circle holes) to the bottom of the battery carrier using 5/16"-20 x 1/2" bolts w/lock washers (bolt heads in the battery carrier drain channel).



Remove the wiring-harness-through-cowl-grommet-retainer and create another hole in the grommet to fit the ECCS wiring harness. Insert the ECCS wiring harness through the grommet and into the cabin. Reinstall the grommet and retainer.

## Magnet Speed Sensor

The Universal Drive Shaft Magnet Speed Sensor (MSS) kit contains a magnetic pickup sensor with 2 wires, a bracket and mounting hardware. Place a single magnet on the side of the drive shaft approximately 4" from the front U-joint center and secure the magnet with the provided tie-strap per the instructions. Before mounting the sensor to the bracket, wrap the wire leads with fiberglass harness tape to provide additional protection against under-carriage heat and weathering. The sensor mounting bracket will need to be revised to provide the proper sensor angle and spacing



from the drive shaft magnet.

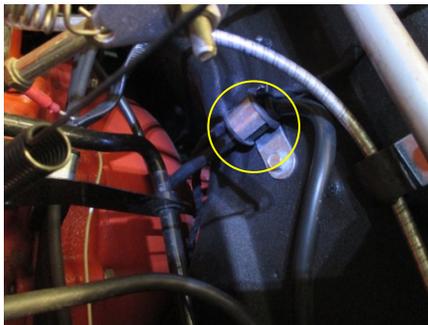
Remove the seat and steering wheel to facilitate the installation. Trim the bracket to fit flush on the floor pan. Position the sensor mounting bracket on the driver's side so that the pickup sensor bolt head is  $\frac{3}{4}$ " from the top of the magnet on the drive shaft.



Mark the bolt-hole locations and drill small pilot holes. In the cabin, enlarge the pilot holes to 13/64" and tap for a 1/4"-20 thread. If you are doing this work without help, the threaded holes will act as another set of hands. These holes will be approximately 14" behind the automatic shifter casing. Use low-profile screws to minimize interference. Drill and tap another 1/4" hole approximately 4" behind the shifter casing for an under-carriage wire bracket.



Use nylon-ties to secure the sensor wiring to the speedometer cable and route the wiring over the top of the transmission and through the firewall starter wire bracket. Continue routing the sensor wiring to the top of the firewall and across to the battery carrier using the existing engine bay wiring harness brackets. Attach the sensor wiring to the ECCS 2-pin connector. Wrap the connection area for additional protection.



### **Dash Mount Control Switch**

The Dash Mount Control Switch (DMCS) will be mounted on a fabricated bracket that attaches to the transmission tunnel directly in front of the shifter. The fabricated bracket must provide



space for the carpet to slide under the mounted DMSC. A template is provided on the last page. The wiring will route under the carpet, following the transmission tunnel center and exit where the cross-dash support bars bolt to the firewall. From the cabin side of the wiring-harness-through-cowl-grommet, route the ECCS harness to the cross-dash support bar and use tie-straps to secure the harness to the left-side of the support bar.

Before routing the harness along the support bar to the transmission tunnel center where the ECCS harness will connect with the DMSC harness, several wires need to be connected (see the Rostra instructions):

- The Black wire is for Grounding. Attach to any existing chassis bolt/screw.
- The Dark Blue (Tach) and the Gray (VSS) wires are not used. Tape them off.
- The Brown wire with a 10 amp spade fuse connects to the ignition, Accessories post.
- The Red wire with a 4 amp spade fuse connects to the hot side (12 volt positive) of the brake switch. If you have not installed an electric brake switch, now is the time.
- The Violet wire connects to the ground side of the brake switch. The Red and Violet wires complete the circuit that disengages the cruise control when the brake pedal is pressed. An electric brake switch will disengage faster than the standard hydraulic brake switch.
- If using the 250-3592 DMCS, the Orange wire connects with the Orange wire on the 5-terminal Relay (terminal 85). The Orange wire is not used for the 250-3593 DMCS installation.

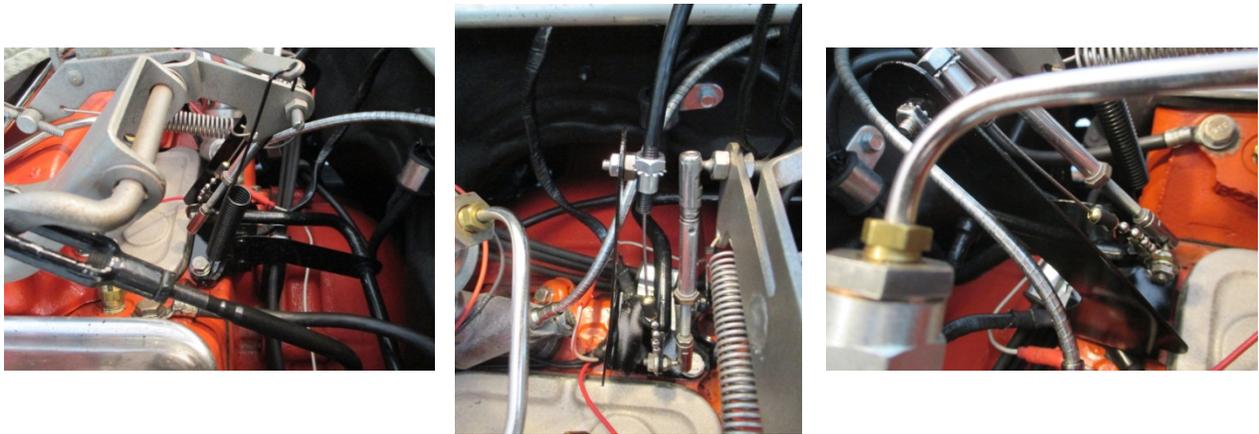
Route the remaining ECCS harness wires along the left-side support bar to the transmission tunnel center and couple the 4-pin connectors. Five additional DMCS wires need attention:

- The Gray wire controls the DMCS back-lighting. Connect this wire with any light switch rheostat controlled wire (any under-dash instrument light wire that is Blue with a Red Stripe).
- The Blue and Black wires connect to ground. These can be connected to the Black wire in the 2-pin connector.
- The White wire needs to be connected to an ignition ON power source. This can be connected to the Light-Blue wire in the 2-pin connector.
- If using the 250-3592 DMCS, the Pink wire needs to be connected to the Green wire on the 5-terminal RELAY (terminal 87).
- If using the 250-3592 DMCS, the RELAY Blue and Black wires need an ignition ON power source. These two wires can also be connected to the Light-Blue wire in the 2-pin connector.
- The mounting hole template on the last page of the Rostra Dashmount Installation Instructions for the 250-3592 and 250-3593 is incorrect. The spacing between the two outside holes is actually 1-1/16" (as measured from the back of the Control Switch). Use a 9/32" drill for the outside holes, but use a 5/8" drill for the center hole to provide more room for the wiring harness.

Bundle the remaining harness and strap it to the left support rod.

## Cruise Control Bracket Anchoring

The firewall mounted bellcrank rod was chosen as the anchoring location for the cruise cable. The bellcrank rod is the Z-shaped rod that fits between the accelerator pedal rod (at the bottom) and the manifold mounted bellcrank at the top. This location allows cruise cable routing across the top of the firewall and behind the engine bay wiring harness. A cruise cable mounting bracket was created to provide an attachment point that maintained the existing bellcrank linkage angle. Washers of various thicknesses were used as spacers to mount the bracket to the two bolt-holes on the rear of the engine block. A bracket template is provided on the last page.



This installation used one of the Rostra provided options, the 3-Bead Connector and Flag Nut fastener. The measured throttle travel on this installation is 1-3/8" so an additional chain-bead link was added as indicated in the instructions. With the inner cruise cable extended, allow 1/8" slack when measuring for the top Flag Nut attachment bolt hole. An additional nut was used to provide inside spacing between the mounting bracket and the cruise cable. Follow the Rostra instructions for threading the black plastic cruise cable covering.

## Bracket Templates

Templates for the Cruise Control Cable and the Dashmount Control Switch pad are found on the following page. Both brackets were made using 16-gauge sheet metal. Measurements are provided to assure proper scale. The dashed lines represent where the flat brackets are bent to make the bracket 3-dimensional. In the case of the left-hand throttle bracket, the base is folded forwards. All bends on the right-hand Control Pad bracket are backwards. Use a paper version of the templates for trial fitting.

