CRUISE CONTROL

GENERAL DESCRIPTION

Electronic Cruise Control is a speed control system which maintains a desired car speed under normal driving conditions. The main parts of the cruise control system are the mode control switches, controller (module), servo unit, speed sensor, vacuum supply, electrical and vacuum release switches, and electrical harness. For system operation and disgnosis refer to the Electrical Troubleshooting Manual. Fig. 9-16 shows cruise module application chart.

VACUUM SUPPLY

The vacuum supply to operate the Cruise Control system is routed to the servo. This can be done by routing manifold vacuum straight to the servo or from manifold through a vacuum storage tank, or straight from a vacuum pump. For specific vacuum routing on each application see figures 9-31 through 9-37. For diagnosis, refer to ETM.

ELECTRICAL AND VACUUM RELEASE SWITCHES

These switches are used to disengage the Cruise Control system. An electrical release switch mounted on the brake pedal bracket disengages the system electrically when the brake pedal is depressed. This is done by interrupting the flow of current to the controller. A vacuum release valve is also mounted on the brake pedal bracket. This valve vents the trapped vacuum in the servo to atmosphere when the brake pedal is depressed. This allows the servo unit to quickly return the throttle to idle position. A separate vacuum hose is routed from the servo to the normally closed vacuum switch. These two types of switches will also be combined with stop light switch, TCC switch, etc.. For specific usage and adjustment of these switches, see Fig. 9-17.

ON-CAR SERVICE

Servo Linkage Adjustment

See particular engine applications on Figs. 9-18 through 9-24.

Engagement Switch

Replacement

The cruise control engagement switch is part of the multifunction lever assembly and is not serviceable by itself. The multifunction lever and switch must be replaced as an assembly.

CRUISE III MODULE USAGE (B, D, E, G,)

MODEL	ENGINE	TRANSMISSION	MODULE
Cutlass, 88	LD5	MX1	25031964
Cutlass	LT6	MXO MX1	25031963
Cutlass, 88, Ninety-Eight, Toronado	LV2	MXO MX1	25031985
Cutlass, 88, Ninety-Eight, Toronado	LF9	MXO MX1	25031945
Toronado	LC4	MXO MX1	25031964

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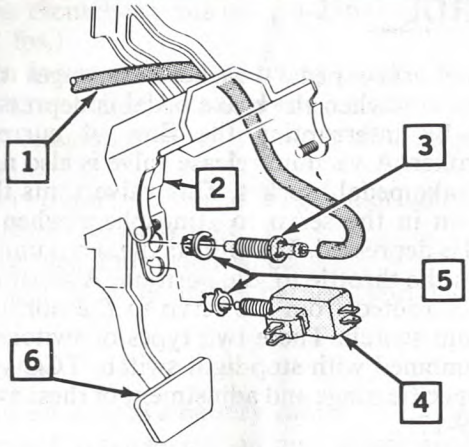
Fig. 16 Cruise Module Application Chart



1. VACUUM HOSE
2. BRAKE PEDAL BRACKET
3. VACUUM RELEASE VALVE
4. BRAKE RELEASE AND STOPLIGHT SWITCH
5. TUBULAR CLIP
6. BRAKE PEDAL

SWITCH AND VALVE ADJUSTMENT

1. Push switch or valve into tubular clip until switch/valve body seats on tube clip.
2. Pull pedal rearward against pedal stop. Switch/valve will move in tubular clip providing proper adjustment.

383111691

Fig. 17 Cruise Control Release

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. STUD
4. TIGHTEN TO 1.6 N·m (1LB. FT.)
5. TIGHTEN TO 4 N·m (3 LBS. FT.)
6. WIDTH .019" TO .039"

Adjust rod length to minimum slack with carburetor lever on slow idle screw & engine not running. Idle load control must be fully retracted when retainer is installed.

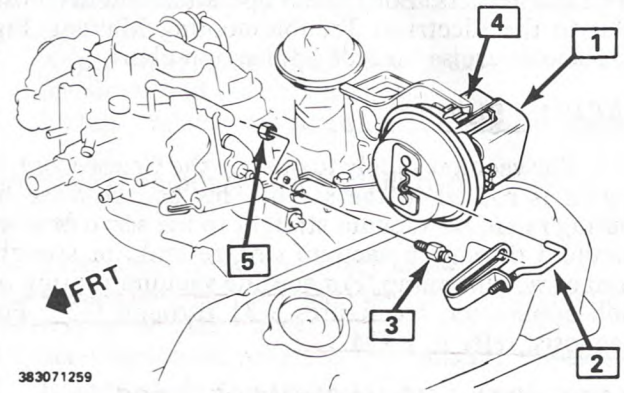


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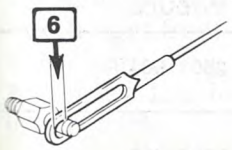
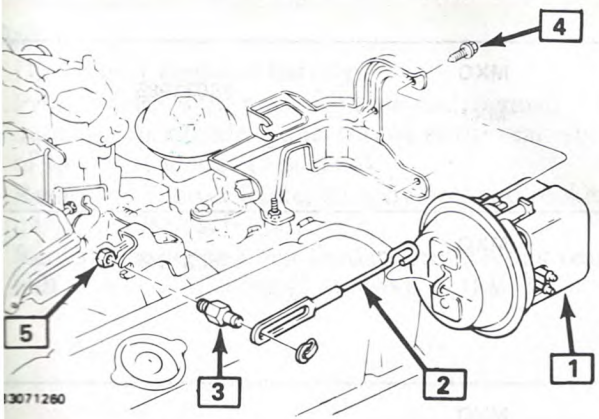
Fig. 18 Cruise Servo Adjustment – 3.8 L (G & B Series)

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. STUD
4. TIGHTEN TO 1.6 N·m (1LB. FT.)
5. TIGHTEN TO 4 N·m (3 LBS. FT.)
6. WIDTH .019" TO .039"



Adjust rod length to minimum slack with carburetor lever on slow idle screw & engine not running. Idle load control must be fully retracted when retainer is installed.



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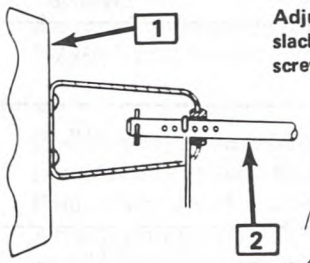
ig. 19 Cruise Servo Adjustment – 4.1 L (E Series)

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. RETAINER



Adjust rod length to minimum slack with pump on slow idle screw and engine not running.

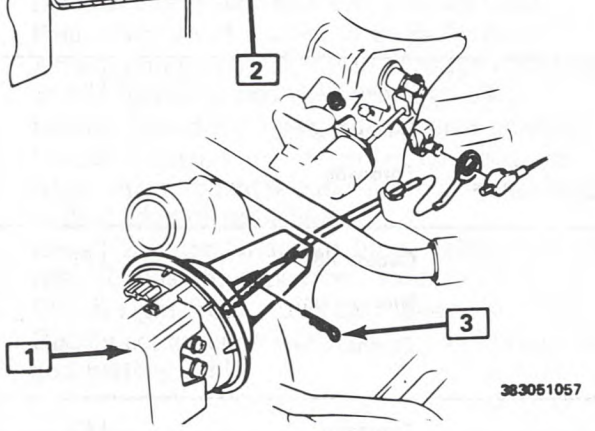


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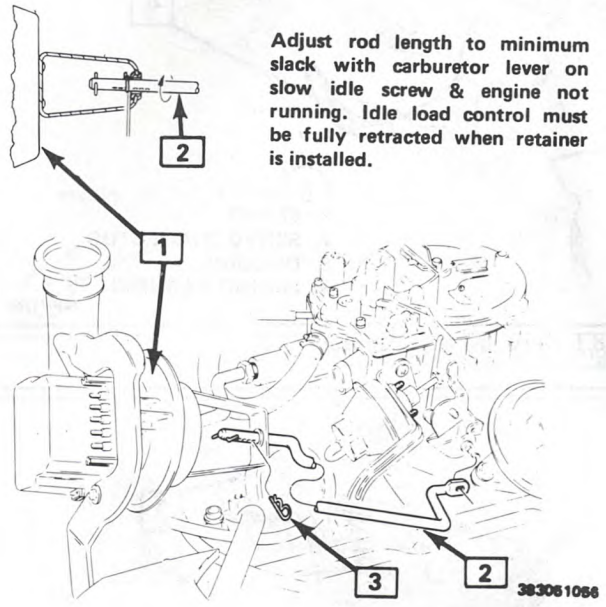
Fig. 20 Cruise Servo Adjustment – 4.3 L (G Series)

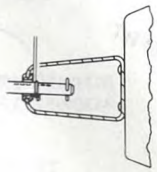
1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. RETAINER



Adjust rod length to minimum slack with carburetor lever on slow idle screw & engine not running. Idle load control must be fully retracted when retainer is installed.

Fig. 21 Cruise Servo Adjustment – 5.0 L

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. RETAINER
4. BRACKET
5. TIGHTEN TO 1.6 N·m (1 LB. FT.)
6. TIGHTEN TO 21 N·m (16 LBS. FT.)



Adjust rod length to minimum slack with pump on slow idle screw and engine not running.

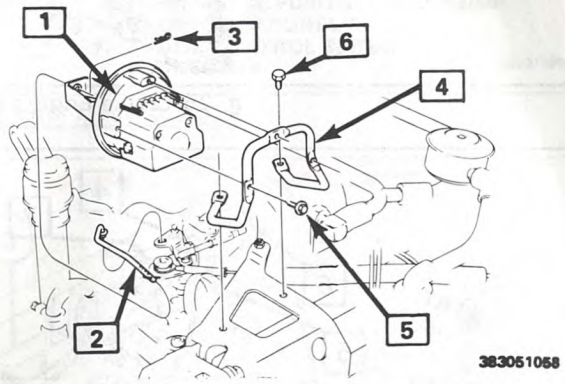
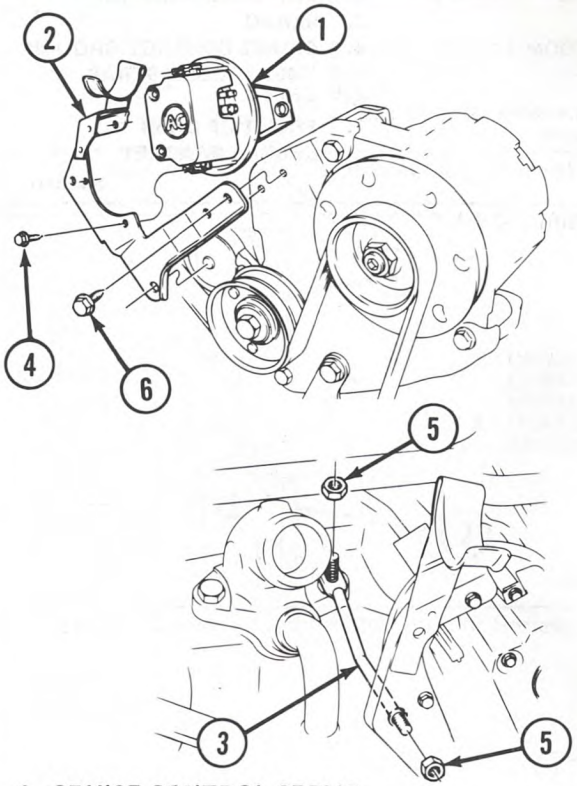


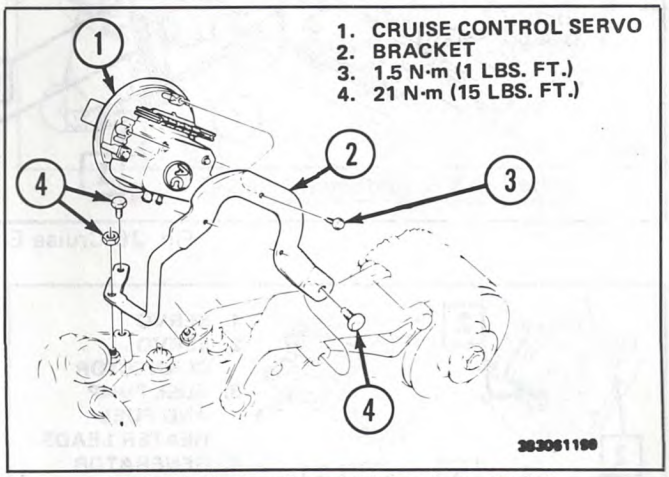
Fig. 22 Cruise Servo Adjustment – 5.7 L



1. CRUISE CONTROL SERVO
2. BRACKET
3. BRACE
4. 1.5 N·m (1 LBS. FT.)
5. 26 N·m (19 LBS. FT.)
6. FULLY DRIVEN, SEATED & NOT STRIPPED

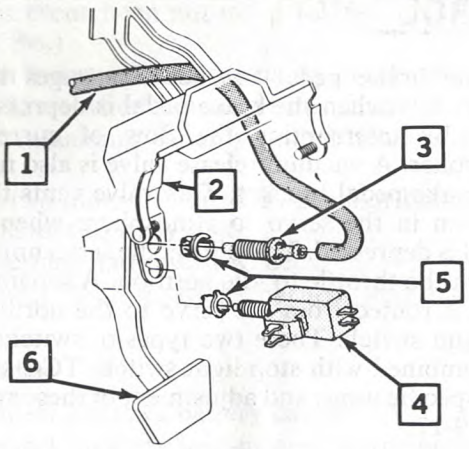
383061191

Fig. 23 Cruise Servo Mounting – 4.3 L (G Series)



1. CRUISE CONTROL SERVO
2. BRACKET
3. 1.5 N·m (1 LBS. FT.)
4. 21 N·m (15 LBS. FT.)

Fig. 24 Cruise Servo Mounting – 5.0 L



1. VACUUM HOSE
2. BRAKE PEDAL BRACKET
3. VACUUM RELEASE VALVE
4. BRAKE RELEASE AND STOPLIGHT SWITCH
5. TUBULAR CLIP
6. BRAKE PEDAL

SWITCH AND VALVE ADJUSTMENT

1. Push switch or valve into tubular clip until switch/valve body seats on tube clip.
2. Pull pedal rearward against pedal stop. Switch/valve will move in tubular clip providing proper adjustment.

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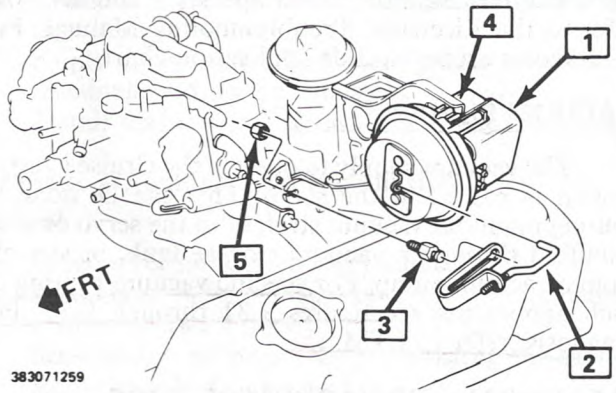
Fig. 17 Cruise Control Release

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. STUD
4. TIGHTEN TO 1.6 N·m (1LB. FT.)
5. TIGHTEN TO 4 N·m (3 LBS. FT.)
6. WIDTH .019" TO .039"

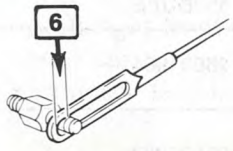
Adjust rod length to minimum slack with carburetor lever on slow idle screw & engine not running. Idle load control must be fully retracted when retainer is installed.



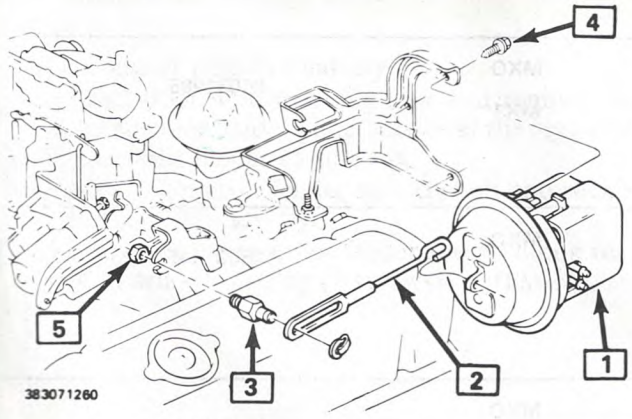
383071259

Fig. 18 Cruise Servo Adjustment – 3.8 L (G & B Series)

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. STUD
4. TIGHTEN TO 1.6 N·m (1LB. FT.)
5. TIGHTEN TO 4 N·m (3 LBS. FT.)
6. WIDTH .019" TO .039"



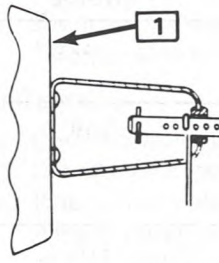
Adjust rod length to minimum slack with carburetor lever on slow idle screw & engine not running. Idle load control must be fully retracted when retainer is installed.



383071260

Fig. 19 Cruise Servo Adjustment – 4.1 L (E Series)

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. RETAINER



Adjust rod length to minimum slack with pump on slow idle screw and engine not running.

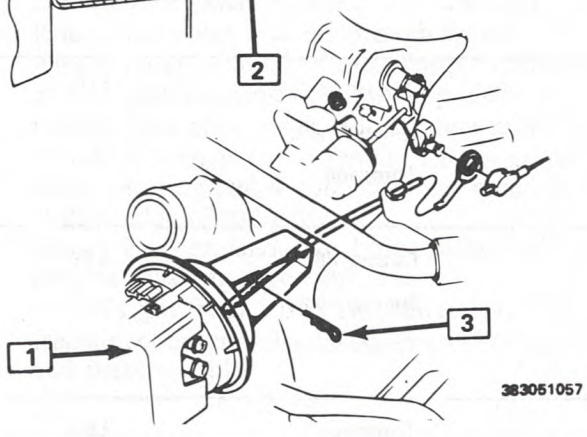


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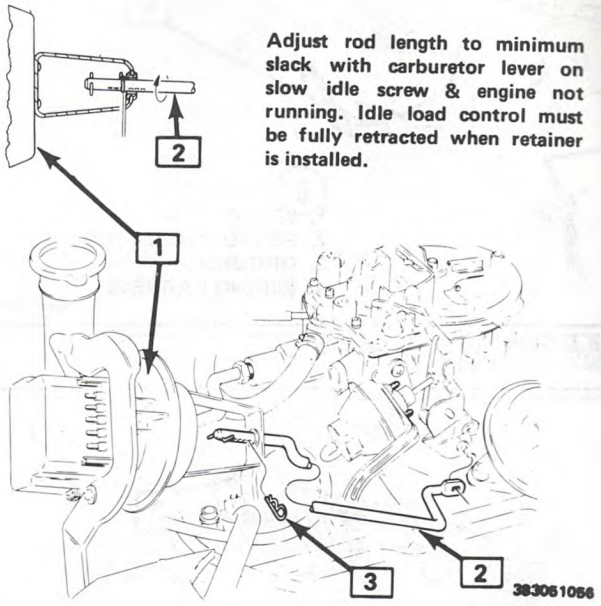
Fig. 20 Cruise Servo Adjustment – 4.3 L (G Series)

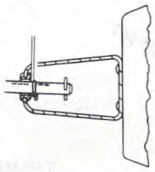
1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. RETAINER



Adjust rod length to minimum slack with carburetor lever on slow idle screw & engine not running. Idle load control must be fully retracted when retainer is installed.

Fig. 21 Cruise Servo Adjustment – 5.0 L

1. SERVO ASSEMBLY
2. ROD ASSEMBLY
3. RETAINER
4. BRACKET
5. TIGHTEN TO 1.6 N·m (1 LB. FT.)
6. TIGHTEN TO 21 N·m (16 LBS. FT.)



Adjust rod length to minimum slack with pump on slow idle screw and engine not running.

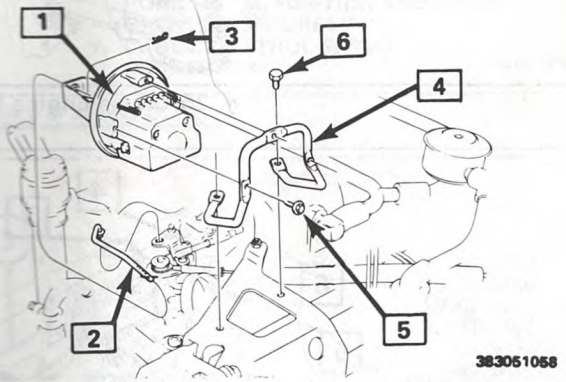
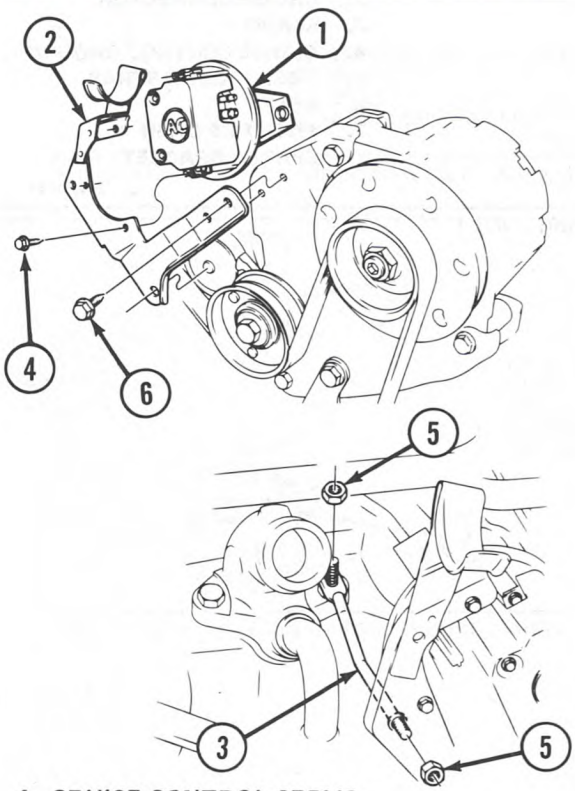


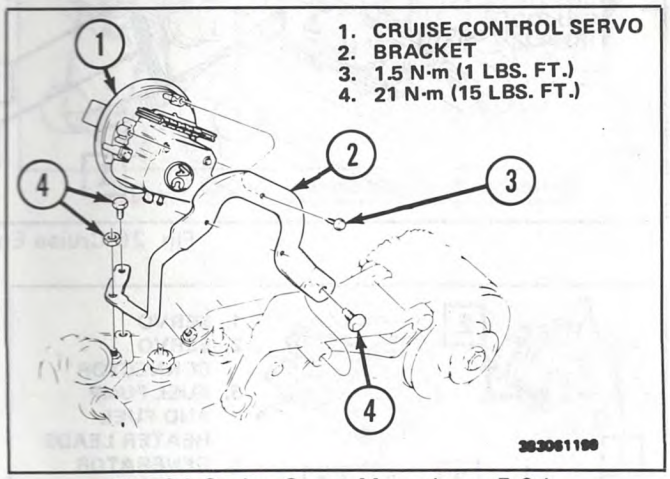
Fig. 22 Cruise Servo Adjustment – 5.7 L



1. CRUISE CONTROL SERVO
2. BRACKET
3. BRACE
4. 1.5 N·m (1 LBS. FT.)
5. 26 N·m (19 LBS. FT.)
6. FULLY DRIVEN, SEATED & NOT STRIPPED

383061191

Fig. 23 Cruise Servo Mounting – 4.3 L (G Series)



1. CRUISE CONTROL SERVO
2. BRACKET
3. 1.5 N·m (1 LBS. FT.)
4. 21 N·m (15 LBS. FT.)

Fig. 24 Cruise Servo Mounting – 5.0 L

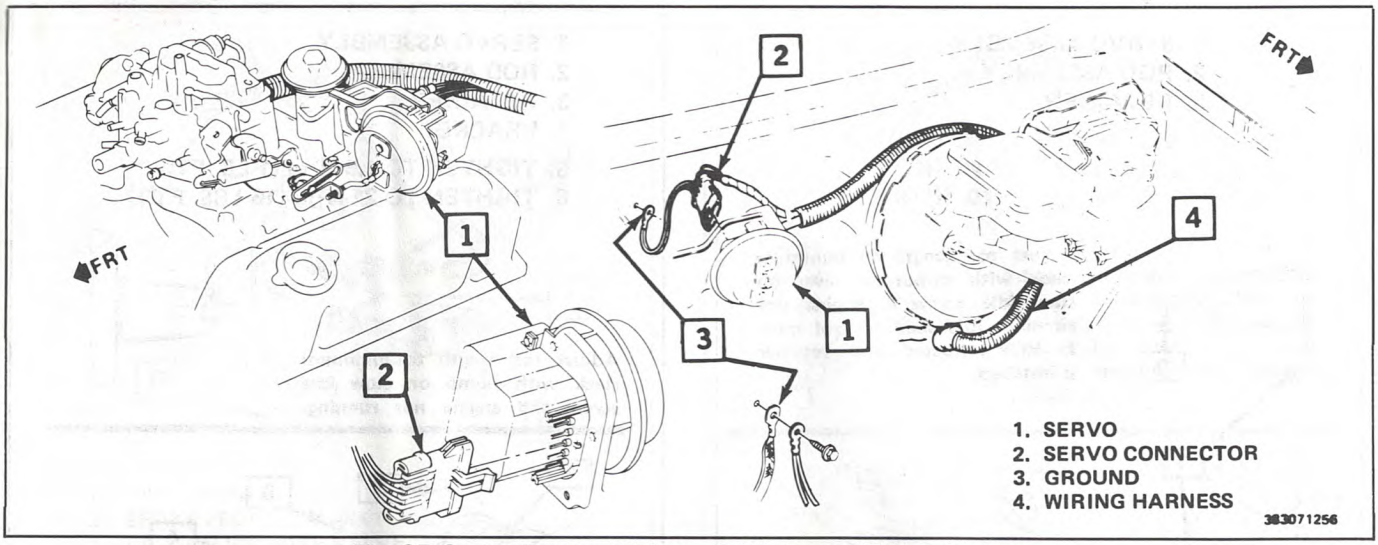


Fig. 25 Cruise Engine Wiring – 3.8 L Servo (G & B Series)

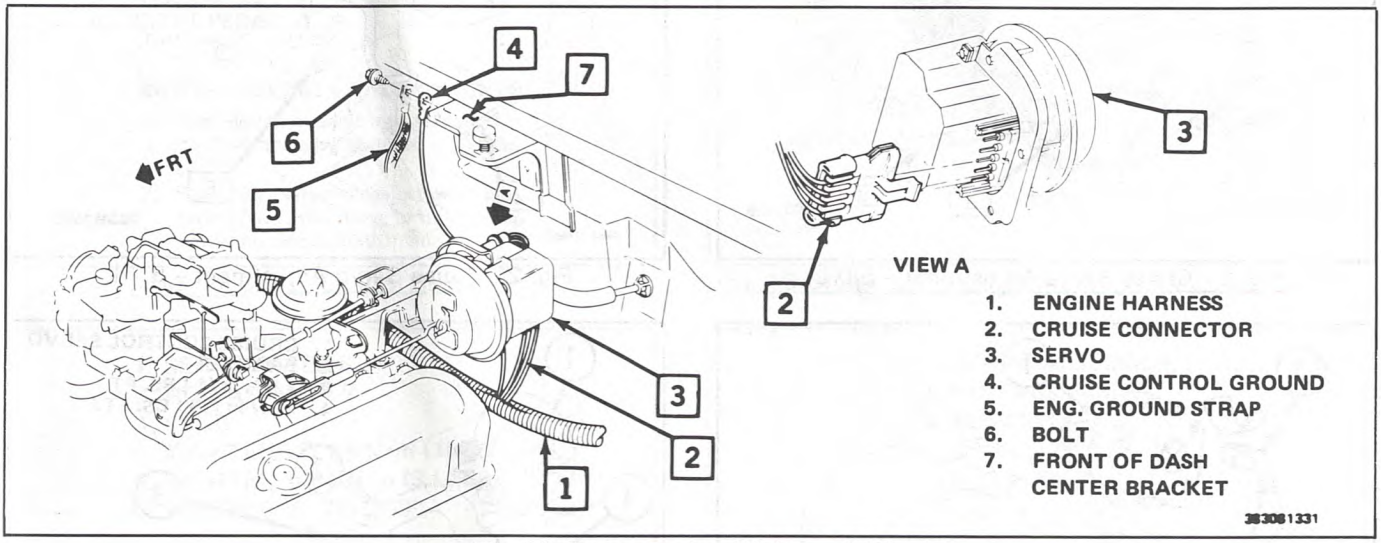


Fig. 26 Cruise Engine Wiring – 4.1 L

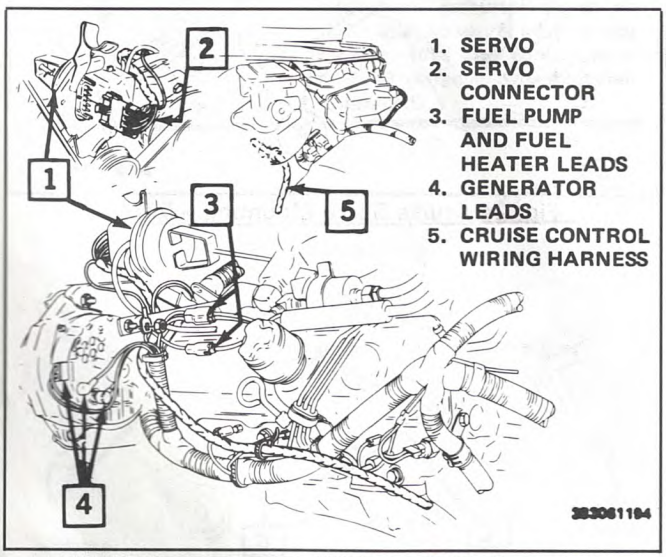


Fig. 27 Cruise Engine Wiring – 4.3 L (G Series)

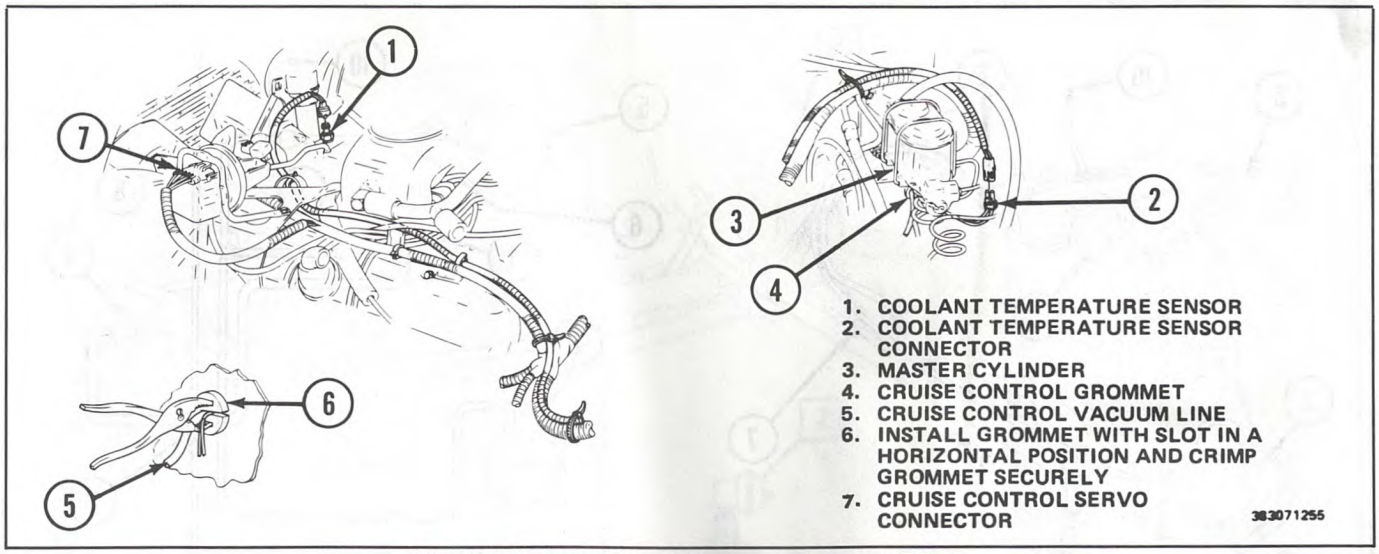


Fig. 28 Cruise Engine Wiring – 5.0 L and 5.7 L

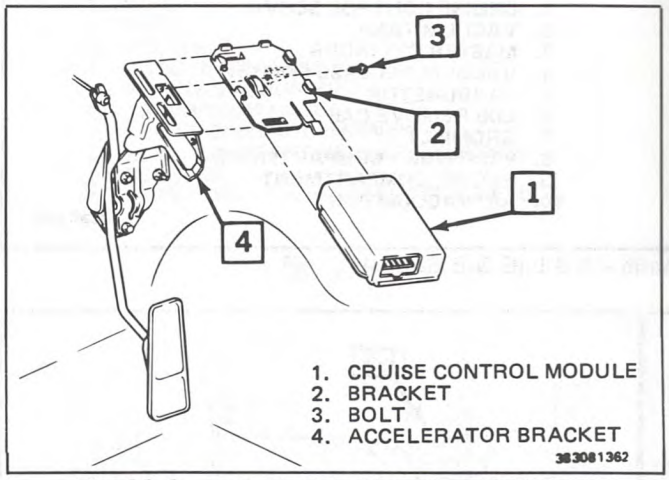


Fig. 29 Cruise – Module Mounting (G Series)

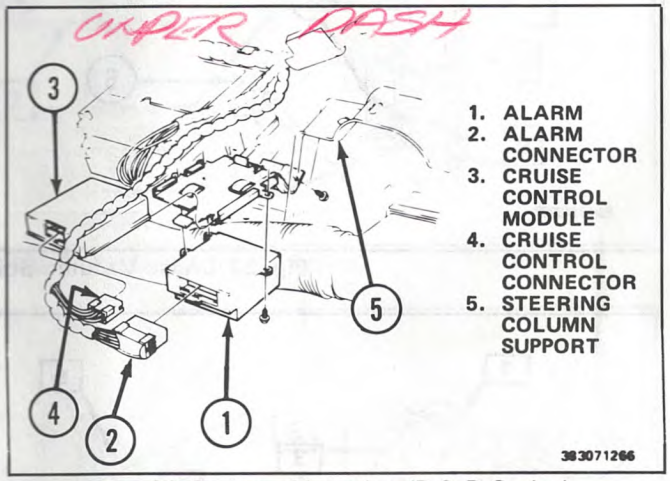


Fig. 30 Cruise – Mounting (B & D Series)

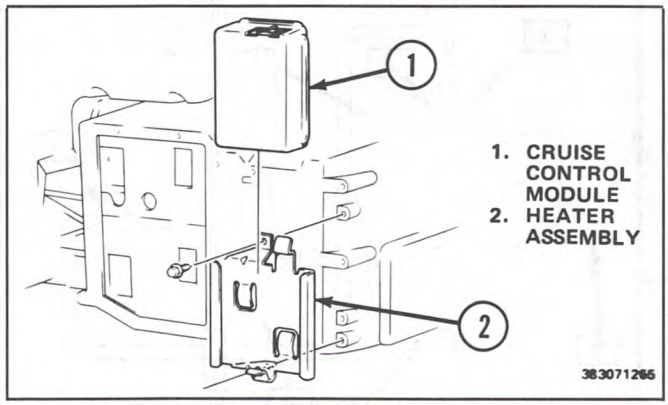


Fig. 31 Cruise – Module Mounting (E Series)

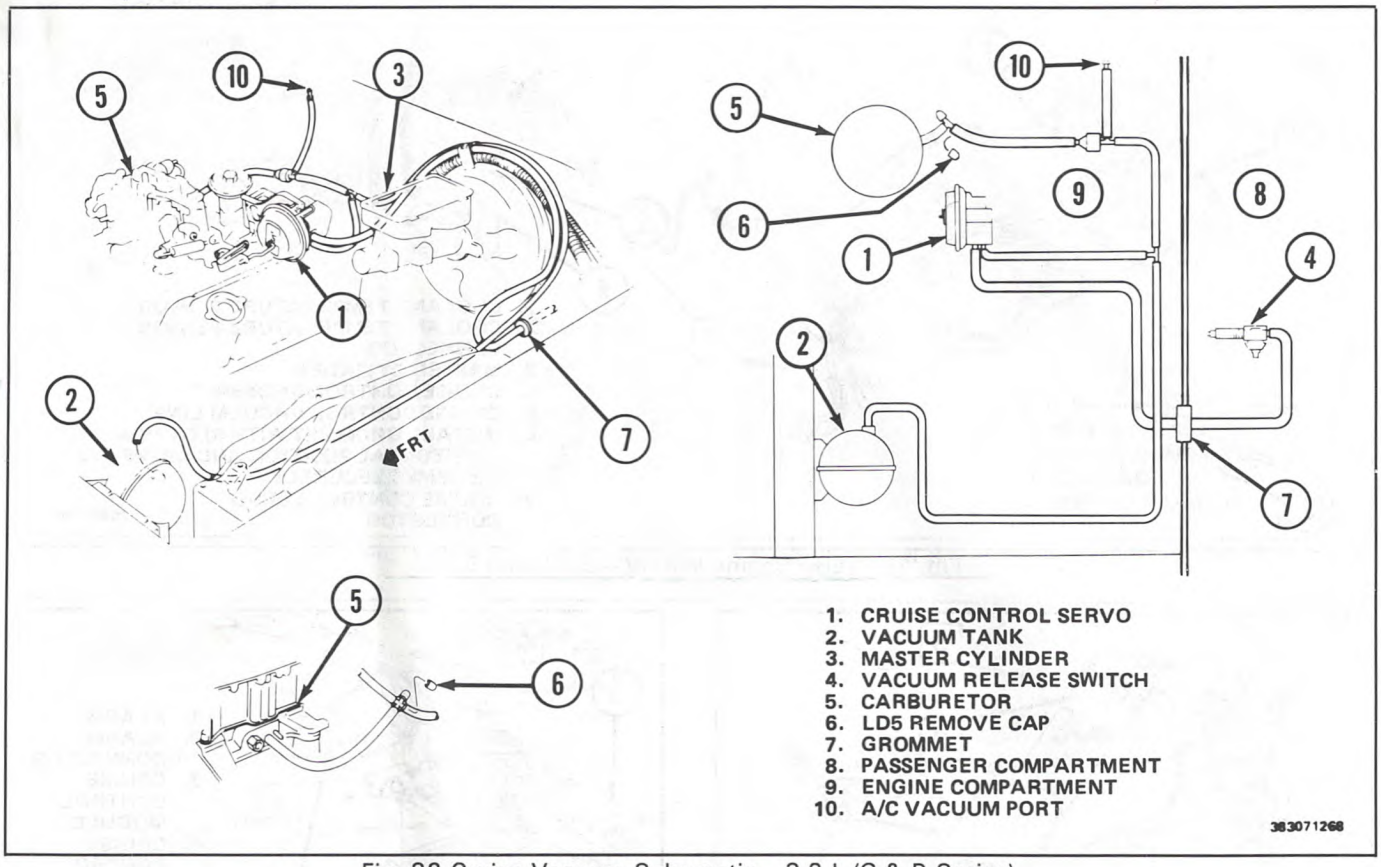


Fig. 32 Cruise Vacuum Schematic – 3.8 L (G & B Series)

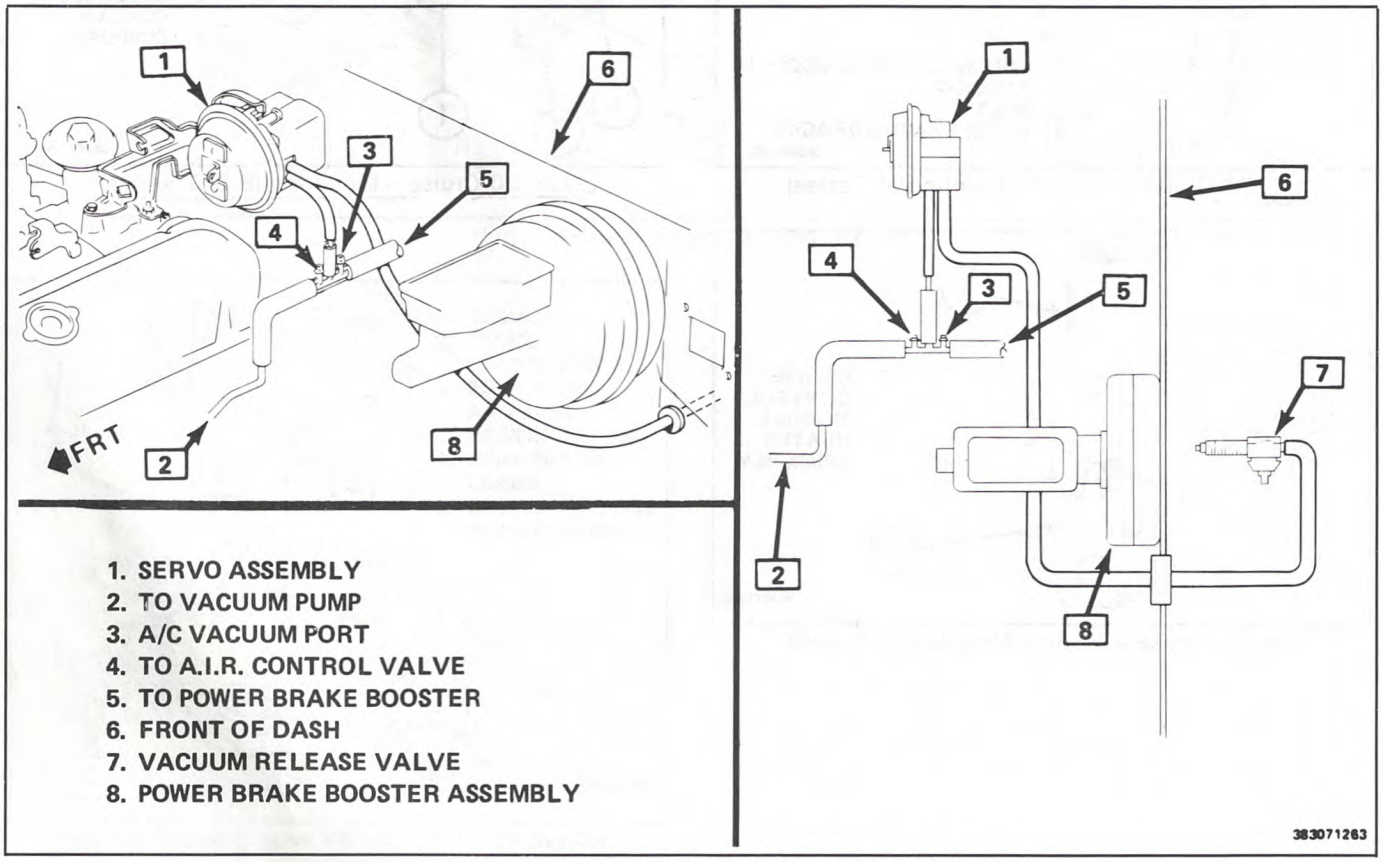
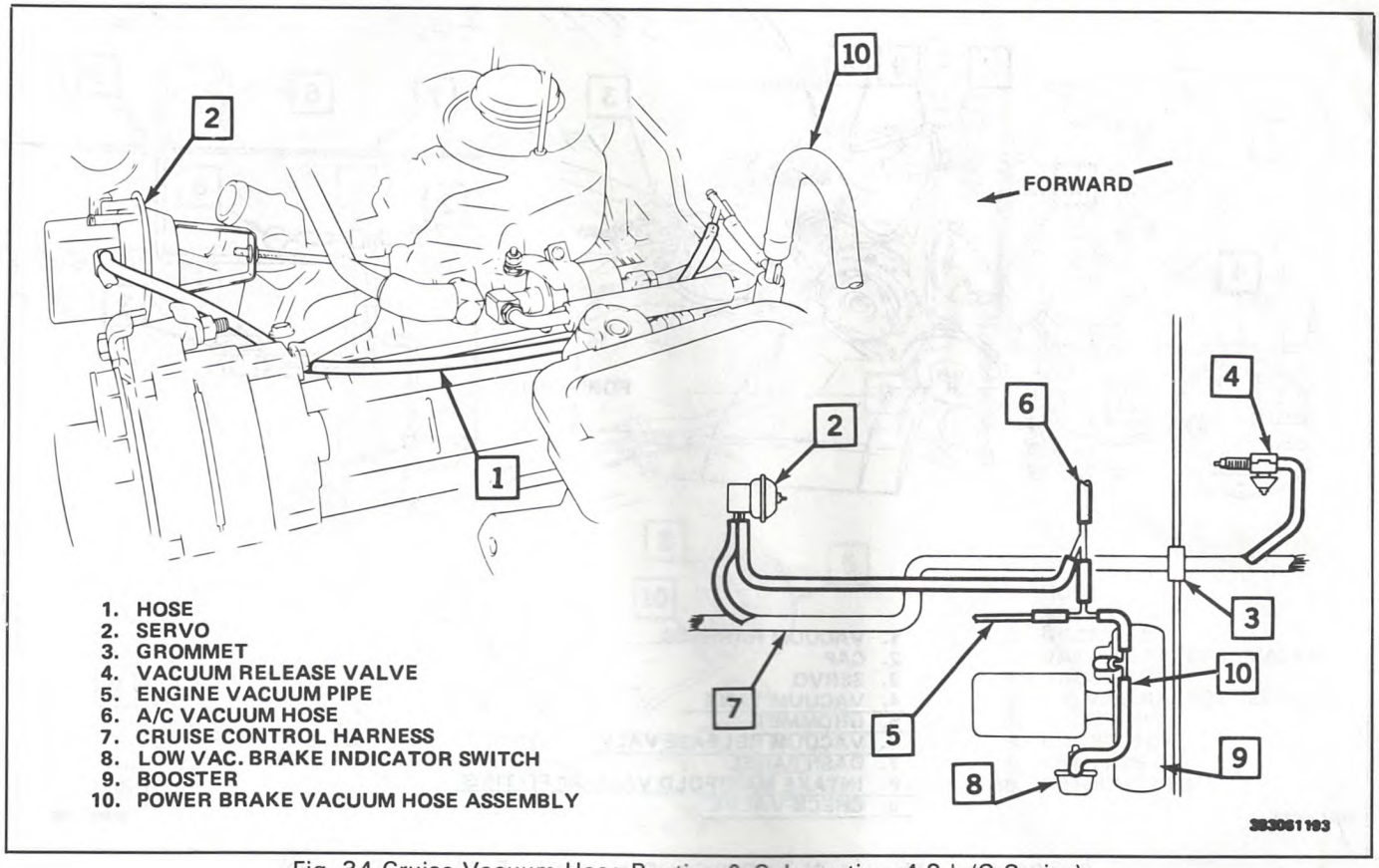
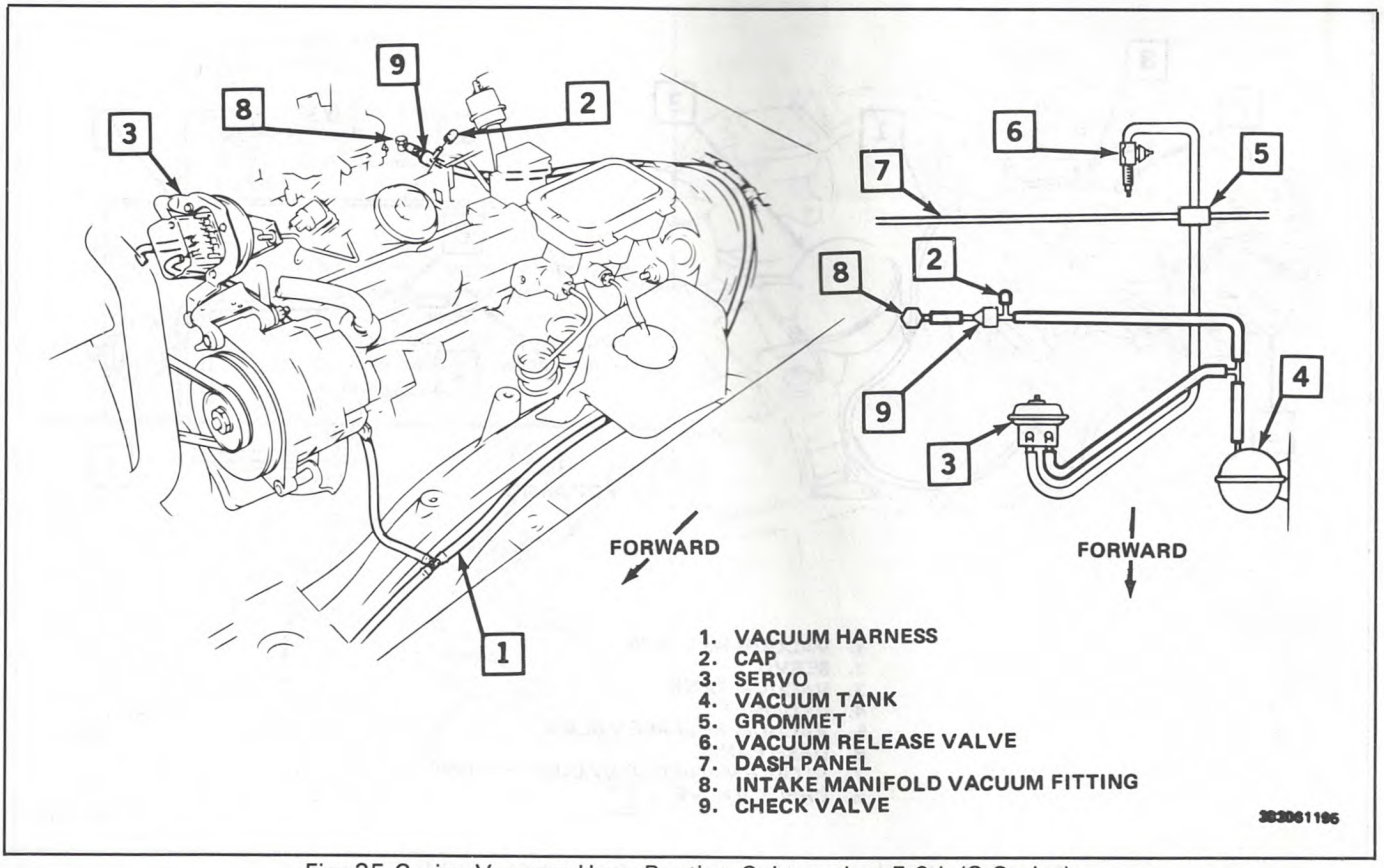


Fig. 33 Cruise Hose Route & Schematic – 4.1 L



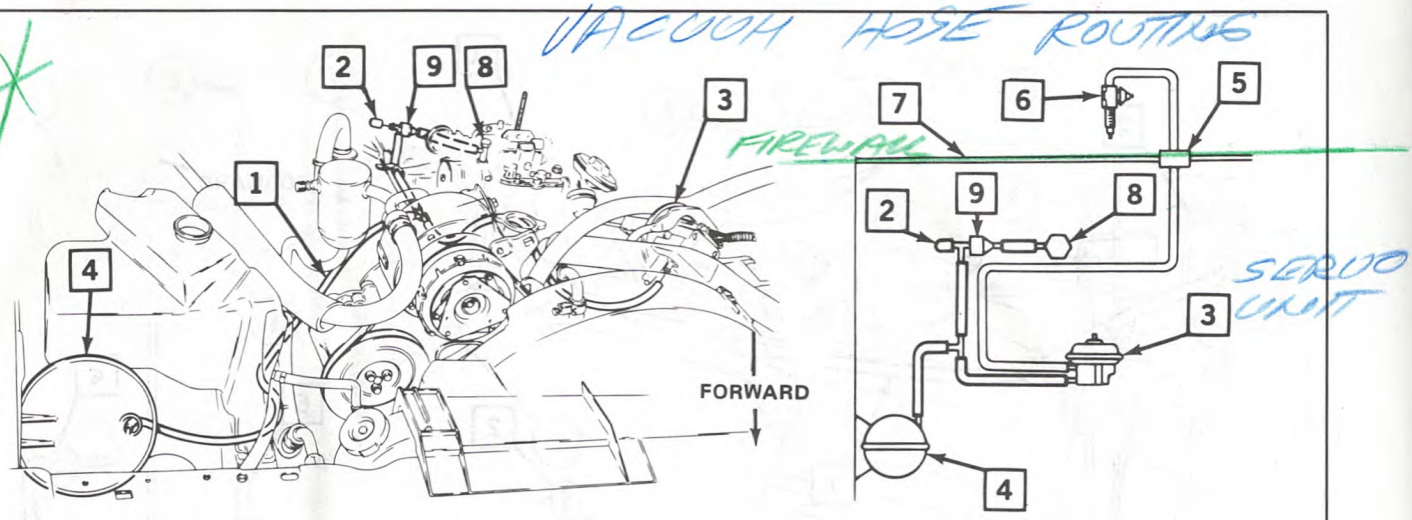
1. HOSE
2. SERVO
3. GROMMET
4. VACUUM RELEASE VALVE
5. ENGINE VACUUM PIPE
6. A/C VACUUM HOSE
7. CRUISE CONTROL HARNESS
8. LOW VAC. BRAKE INDICATOR SWITCH
9. BOOSTER
10. POWER BRAKE VACUUM HOSE ASSEMBLY

Fig. 34 Cruise Vacuum Hose Routing & Schematic – 4.3 L (G Series)



1. VACUUM HARNESS
2. CAP
3. SERVO
4. VACUUM TANK
5. GROMMET
6. VACUUM RELEASE VALVE
7. DASH PANEL
8. INTAKE MANIFOLD VACUUM FITTING
9. CHECK VALVE

Fig. 35 Cruise Vacuum Hose Routing Schematic – 5.0 L (G Series)



1. VACUUM HARNESS
2. CAP
3. SERVO
4. VACUUM TANK
5. GROMMET
6. VACUUM RELEASE VALVE
7. DASH PANEL
8. INTAKE MANIFOLD VACUUM FITTING
9. CHECK VALVE

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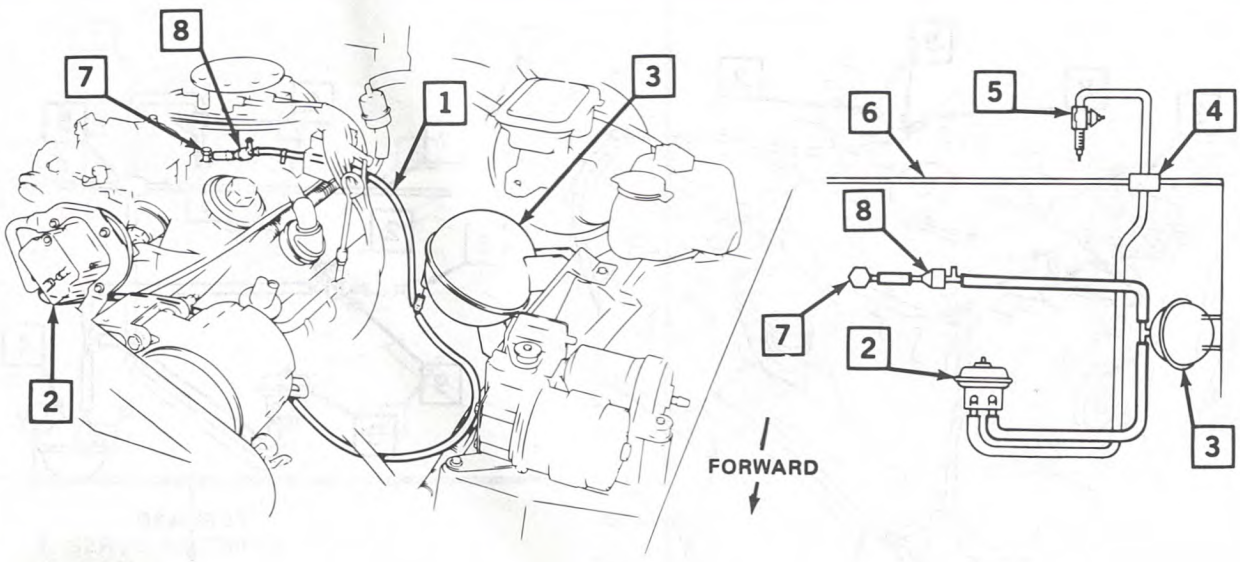
Fig. 36 Cruise Vacuum Hose Routing Schematic – 5.0 L (B & D Series)



1. VACUUM HARNESS
2. SERVO
3. VACUUM TANK
4. GROMMET
5. VACUUM RELEASE VALVE
6. DASH PANEL
7. INTAKE MANIFOLD VACUUM FITTING
8. CHECK VALVE

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Fig. 37 Cruise Vacuum Hose Routing Schematic – 5.0 L (E Series)

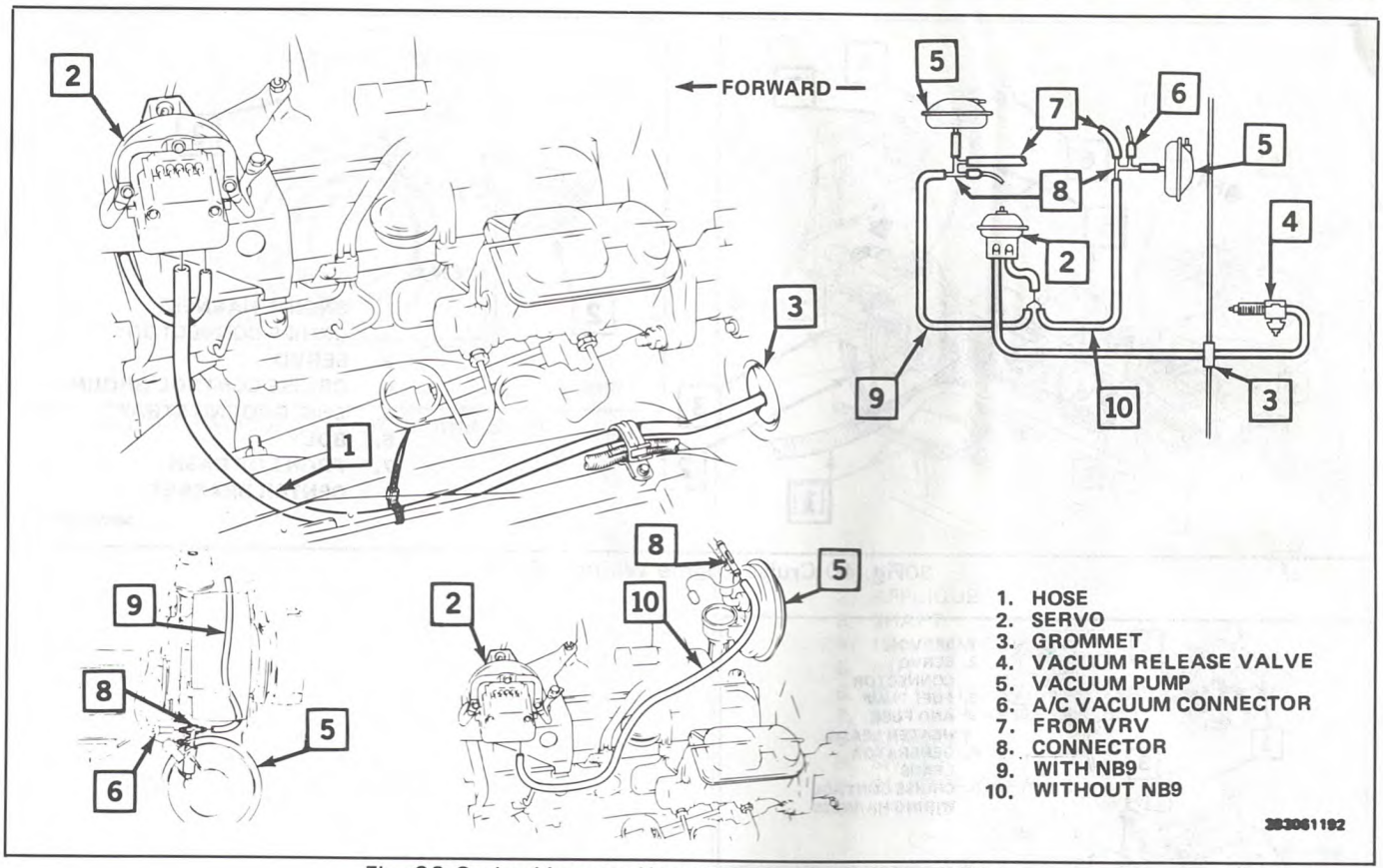

Fig. 38 Cruise Vacuum Hose Routing Schematic – 5.7 L

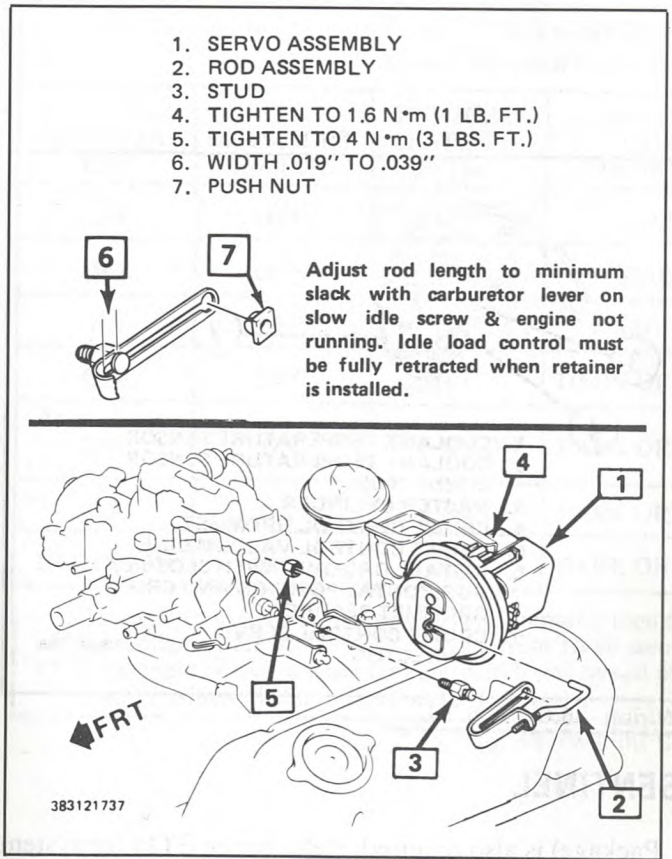

Fig. 39 Cruise Control Servo Adjustment – B & G Series (3.8 L)

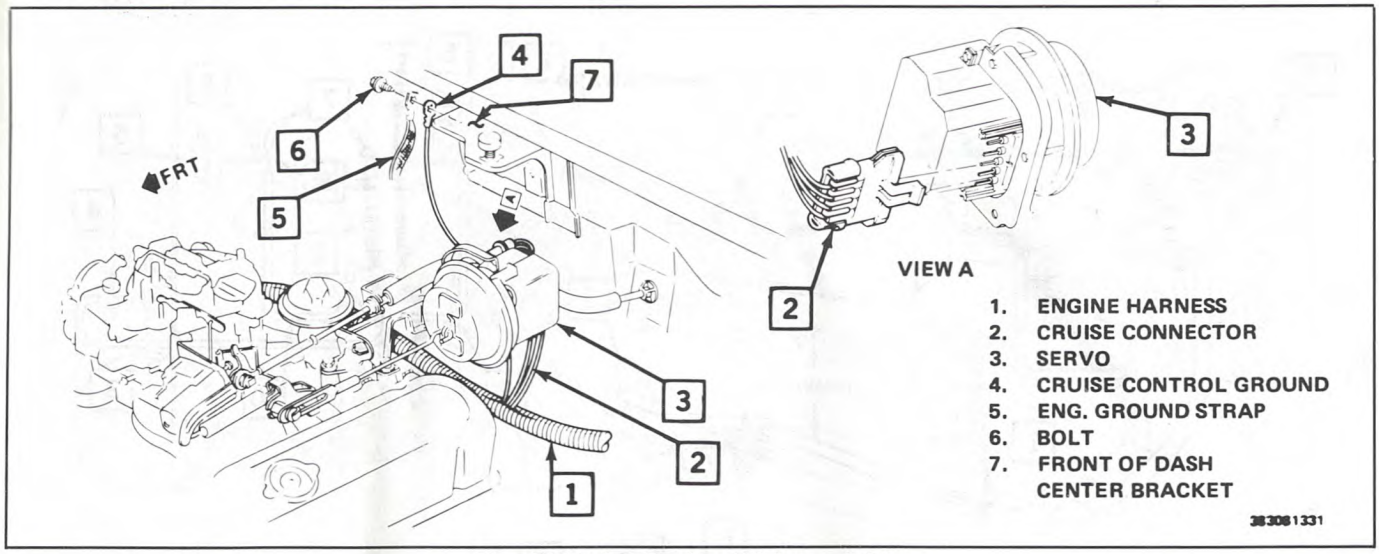

Fig. 40 Cruise Engine Wiring – 4.1 L

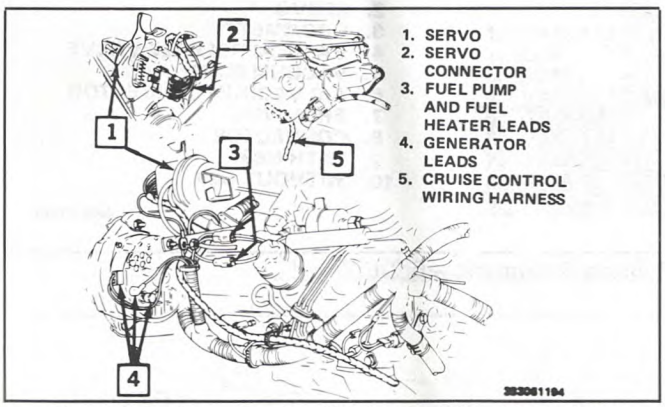

Fig. 41 Cruise – Engine Wiring – 4.3 L (G Series)

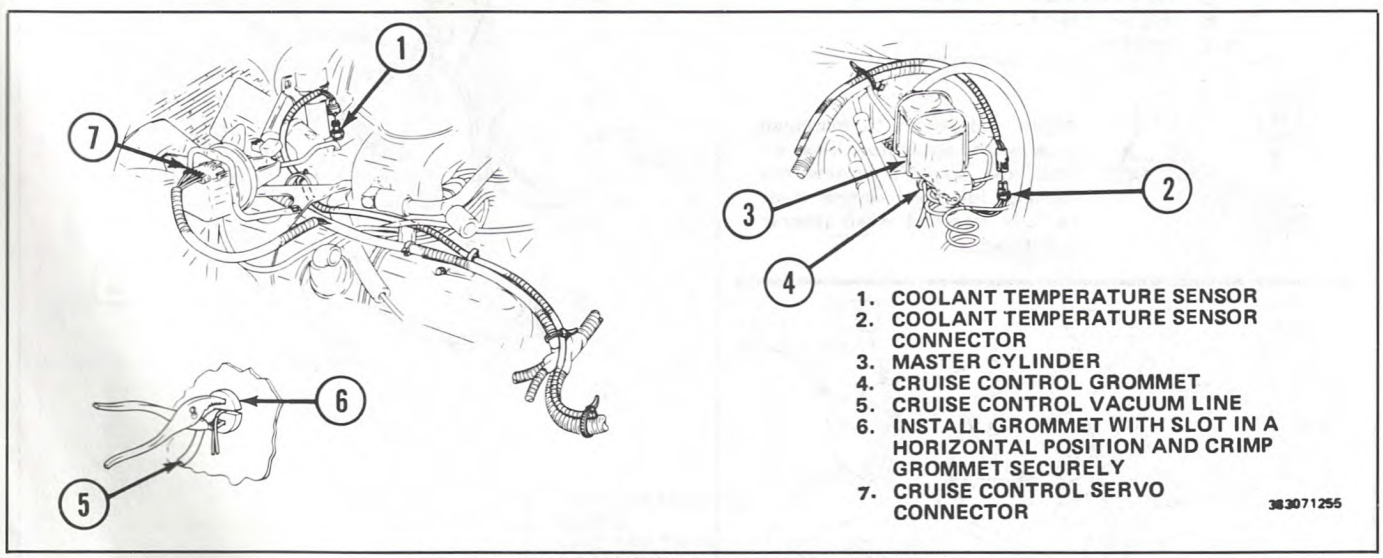

Fig. 42 Cruise – Engine Wiring – 5.0 L & 5.7 L

TWILIGHT SENTINEL

GENERAL DESCRIPTION

The Twilight Sentinel (Option T82) is available only on Toronado. Option Y67 (Driver Reminder Package) is also required. Refer to the ETM for system operation and diagnosis.