

CONTROL SYSTEM

CRUISE CONTROL SYSTEM

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Service Precaution

WARNING: THIS VEHICLE HAS A SUPPLEMENTAL RESTRAINT SYSTEM (SRS). REFER TO THE SRS COMPONENT AND WIRING LOCATION VIEW IN ORDER TO DETERMINE WHETHER YOU ARE PERFORMING SERVICE ON OR NEAR THE SRS COMPONENTS OR THE SRS WIRING. WHEN YOU ARE PERFORMING SERVICE ON OR NEAR THE SRS COMPONENTS OR THE SRS WIRING, REFER TO THE SRS SERVICE INFORMATION. FAILURE TO FOLLOW WARNINGS COULD RESULT IN POSSIBLE AIR BAG DEPLOYMENT, PERSONAL INJURY, OR OTHERWISE UNNEEDED SRS SYSTEM REPAIRS.

CAUTION: Always use the correct fastener in the proper location. When you replace a fastener, use ONLY the exact part number for that application. ISUZU will call out those fasteners that require a replacement after removal. ISUZU will also call out the fasteners that require thread lockers or thread sealant. UNLESS OTHERWISE SPECIFIED, do not use supplemental coatings (Paints, greases, or other corrosion inhibitors) on threaded fasteners or fastener joint interfaces. Generally, such coatings adversely affect the fastener torque and the joint clamping force, and may damage the fastener. When you install fasteners, use the correct tightening sequence and specifications. Following these instructions can help you avoid damage to parts and systems.

General Description

The cruise control keeps the vehicle running at a fixed speed until a signal canceling this fixed speed is received. When the main switch "AUTO CRUISE" is turned on with the vehicle in the running mode, the battery voltage is applied to the PCM. When a signal from the control switch is input to the PCM while the vehicle is in this state, the cruise control system is activated. Also, while the system is operating, the "AUTO CRUISE" indicator light in the meter assembly lights up.

1. SET/COAST Switch Function

- 1. Set Function:** When the SET/COAST switch is pressed and released with the main switch on, the speed at which the vehicle is running at that moment is stored in the memory, and the vehicle automatically runs at the speed stored.
- 2. Coast-Down Function:** When the SET/COAST switch is kept on while the vehicle is running, the vehicle decelerates during that time. The speed at which vehicle is running when the control switch is turned off is stored in the memory, and the vehicle automatically returns to the stored speed.
- 3. Tap-Down Function:** When the SET/COAST switch is turned on and off instantaneously while the vehicle is running, the vehicle decelerates a mile for each on/off operation. The vehicle speed at which the vehicle was running when the SET/COAST was turned off last is stored in the memory, and the vehicle automatically returns to this stored speed.

2 . RESUME/ACCEL Switch Function

1. **Resume Function:** When the RESUME, ACCEL switch is turned on/off after the system is temporarily deactivated by pressing the brake or clutch pedal while the vehicle is running, the vehicle resumes, the speed stored before the system was released.
2. **Accelerate Function:** When the RESUME/ACCEL switch is kept on after the system is released completely, the vehicle accelerates its speed during that time. The vehicle speed at which the vehicle was running when the switch was turned off is stored in the memory, and the vehicle automatically returns to this speed.
3. **Tap-Up Function:** When the RESUME/ACCEL switch is turned on and off instantaneously while the vehicle is running, the vehicle accelerates a mile for each on/off operation. The vehicle speed at which the vehicle was running when the switch was turned off last is stored in the memory, and the vehicle automatically returns to this stored speed.

3 . CANCEL Function

1. **Temporary Cancellation:**
 - When the cancel switch is turned on.
 - When the brake pedal is pressed.
 - When the clutch pedal is pressed. (M/T)
 - When the select lever is shifted to any position other than "D", "3", "2" or "L". (A/T)
 - When the vehicle speed has decreased about 12.5 mph (20 km/h) or more than the stored speed.
 - When the vehicle speed gets lower than 20 mph (32 km/h).
2. **Complete Cancellation:**
 - When the starter switch or the main switch is turned off.
 - When the failsafe function is activated.

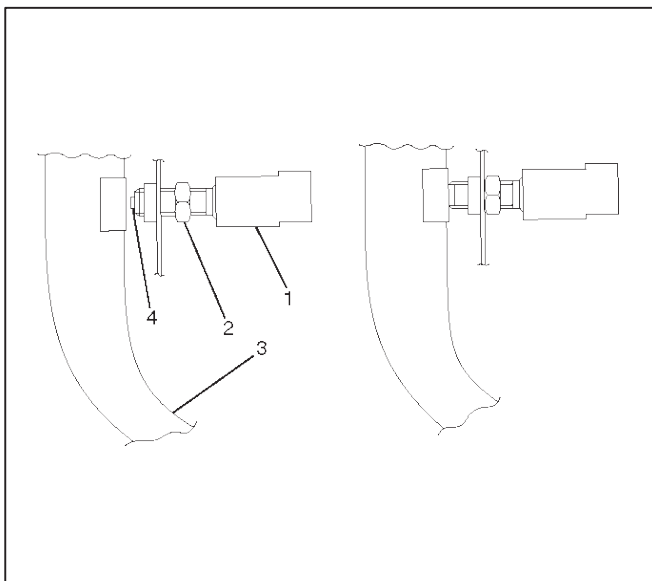
Brake Switch

Removal and Installation

Refer to the Brake Pedal Replacement in Brake section.

Adjustment

1. Check that the brake pedal (3) is fully returned by pedal return spring.
2. Disconnect the switch connector.
3. Loosen the lock nut (2).
4. Rotate the brake switch (1) by hand until push rod disappears from brake switch tip (4).
5. Return the brake switch by a half turn.
6. Tighten the lock nut.
7. Connect the switch connector.



Clutch Switch

Removal and Installation

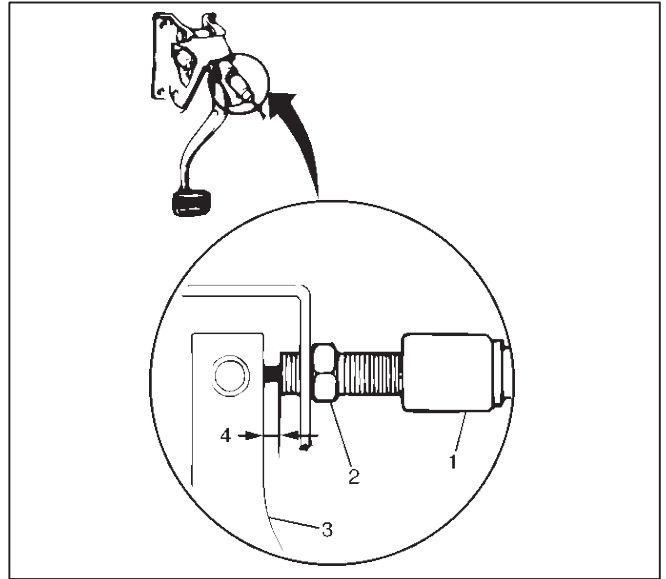
Refer to the Clutch Control removal and installation steps in Clutch section.

Adjustment

1. Turn the clutch switch (1) until the switch plunger is fully retracted against the clutch pedal arm.
2. Adjust clutch switch by backing it out half a turn and measure the clearance (4) between the clutch pedal arm (3) and the clutch switch.
3. Lock the lock nut(2).
4. Connect clutch switch connector.

Clutch Switch (bolt) and Clutch Pedal Clearance

0.5 – 1.5 mm (0.020 – 0.059 in)



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Powertrain Control Module (PCM)

Removal and Installation

Refer to Powertrain Control Module (PCM) in Engine section.

Mode Switch

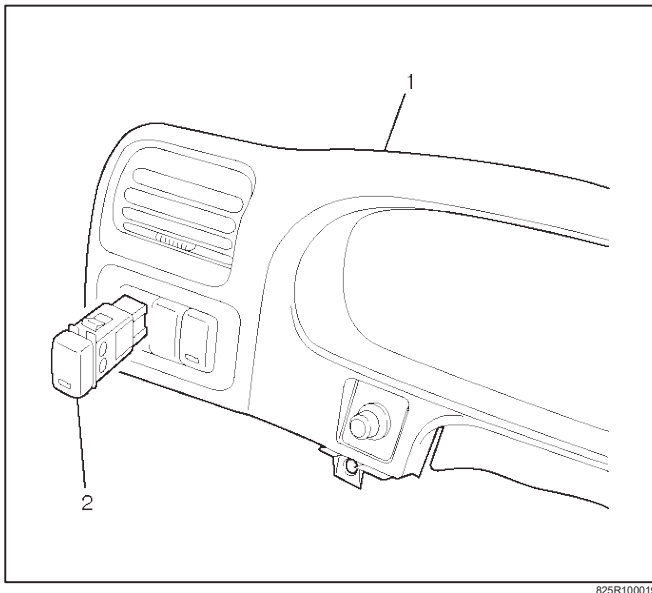
Removal and Installation

Refer to the Mode Switch removal and installation steps in Automatic Transmission section.

Cruise Control Main Switch

Removal

1. Disconnect the battery ground cable.
2. Remove the meter cluster assembly (1).
 - Refer to the Instrument Panel Assembly in Body Structure section.
3. Remove the cruise control main switch (2).
 - Disconnect the switch connector.
 - To remove the switch, push the lock from the back side of the instrument panel cluster assembly.



Installation

To install, follow the removal steps in the reverse order.

Cruise Control Switch (Combination Switch)

Removal and Installation

Refer to the Lighting Switch (Combination Switch) removal and installation steps in Lighting System section.

Diagnosis

Cruise control system is controlled by the PCM as well as 6VE1 engine and automatic transmission. DTC codes are stored in the PCM if troubles occur in the circuit. DTC codes categorized "type D" are shown only by the Tech 2 scan tool. The following chart only shows some typical DTCs for cruise control system. Refer to PCM Diagnostic Trouble Codes in Driveability and Emissions for entire DTC diagnosis.

DTC	TROUBLE PART	DTC TYPE	MAJOR CONDITION OF TROUBLE	DIAGNOSIS PERIOD
P0565	CRUISE MAIN CIRCUIT	D	- THE SWITCH CONTACT REMAINS ON FOR 15 SECONDS OR MORE. - NOISES ARE GENERATED BY THE POOR SWITCH CONTACT 60 TIMES WITHIN 1 SECOND.	DIAGNOSIS IS ENABLED IN 130 SECONDS AFTER THE SWITCH OPERATED.
P0566	CRUISE CANCEL CIRCUIT	D	- THE SWITCH CONTACT REMAINS ON FOR 40 SECONDS OR MORE. - NOISES ARE GENERATED BY THE POOR SWITCH CONTACT 100 TIMES WITHIN 1.6 SECONDS.	DIAGNOSIS IS ENABLED IN 120 SECONDS AFTER THE SWITCH OPERATED.
P0567	CRUISE RESUME CIRCUIT	D	- THE SWITCH CONTACT REMAINS ON FOR 50 SECONDS OR MORE. - NOISES ARE GENERATED BY THE POOR SWITCH CONTACT 100 TIMES WITHIN 1.6 SECONDS.	DIAGNOSIS IS ENABLED IN 110 SECONDS AFTER THE SWITCH OPERATED.
P0568	CRUISE SET CIRCUIT	D	- THE SWITCH CONTACT REMAINS ON FOR 120 SECONDS OR MORE. - NOISES ARE GENERATED BY THE POOR SWITCH CONTACT 100 TIMES WITHIN 1.6 SECONDS.	DIAGNOSIS IS ENABLED IN 125 SECONDS AFTER THE SWITCH OPERATED.

DTC: Diagnostic Trouble Code

NOTE: The DTCs are detected while the engine is running