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AUTOMATIC TRANSMISSION EXTERNAL CONTROLS

# EXTERNAL CONTROLS (G2391381)

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## PRINCIPLES OF OPERATION

For a detailed description of the automatic transmission/transaxle external controls, refer to the relevant Description and Operation section in the workshop manual. REFER to:(311-02 Automatic Transmission External Controls)

[External Controls - Vehicles With: 8HP76 8-Speed Automatic Transmission, AWD](#) (Description and Operation),

[External Controls - Vehicles With: 8HP45 8-Speed Automatic Transmission AWD](#) (Description and Operation),

[External Controls - Vehicles With: 8HP70 8-Speed Automatic Transmission AWD](#) (Description and Operation).

## INSPECTION AND VERIFICATION

 **CAUTION:**

Diagnosis by substitution from a donor vehicle is **NOT** acceptable. Substitution of control modules does not guarantee confirmation of a fault, and may also cause additional faults in the vehicle being tested and/or the donor vehicle.

 **NOTES:**

- If a control module or a component is not to specification and the vehicle remains under manufacturer warranty, refer to the Warranty Policy and Procedures manual, or determine if any prior approval program is in operation, prior to the installation of a new module/component.
- Generic scan tools may not read the codes listed, or may read only 5-digit codes. Match the 5 digits from the scan tool to the first 5 digits of the 7-digit code listed to identify the fault (the last 2 digits give extra information read by the Jaguar Land Rover approved diagnostic equipment).
- When performing voltage or resistance tests, always use a digital multimeter that has the resolution ability to view 3 decimal places. For example, on the 2 volts range can measure 1 mV or 2 kΩ range can measure 1 Ω. When testing resistance always take the resistance of the digital multimeter leads into account.
- Check and rectify basic faults before beginning diagnostic routines involving pinpoint tests.
- Inspect connectors for signs of water ingress, and pins for damage and/or corrosion.
- If Diagnostic Trouble Code(s) (DTC)s are recorded and, after performing the pinpoint tests, a fault is not present, an intermittent concern may be the cause. Always check for loose connections and corroded terminals.

1. Verify the customer concern

2. Visually inspect for obvious signs of damage and system integrity

## Visual Inspection

| MECHANICAL                                                          | ELECTRICAL                                                                                                                    |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>■ Gear Shift Module</li></ul> | <ul style="list-style-type: none"><li>■ Fuses</li><li>■ Wiring harnesses and connectors</li><li>■ Gear Shift Module</li></ul> |

3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step
4. If the cause is not visually evident, verify the symptom and refer to the Symptom Chart, alternatively check for DTC and refer to the DTC Index
5. Check Jaguar Land Rover (JLR) claims submission system for open campaigns. Refer to the corresponding bulletins and SSMS which may be valid for the specific customer complaint and complete the recommendations as required

### DTC INDEX

For a list of Diagnostic Trouble Codes ( DTCs) that could be set on this vehicle, please refer to Section 100-00. REFER to:Diagnostic Trouble Code Index: Transmission Control Switch (TCS) (100-00 General Information, Description and Operation).