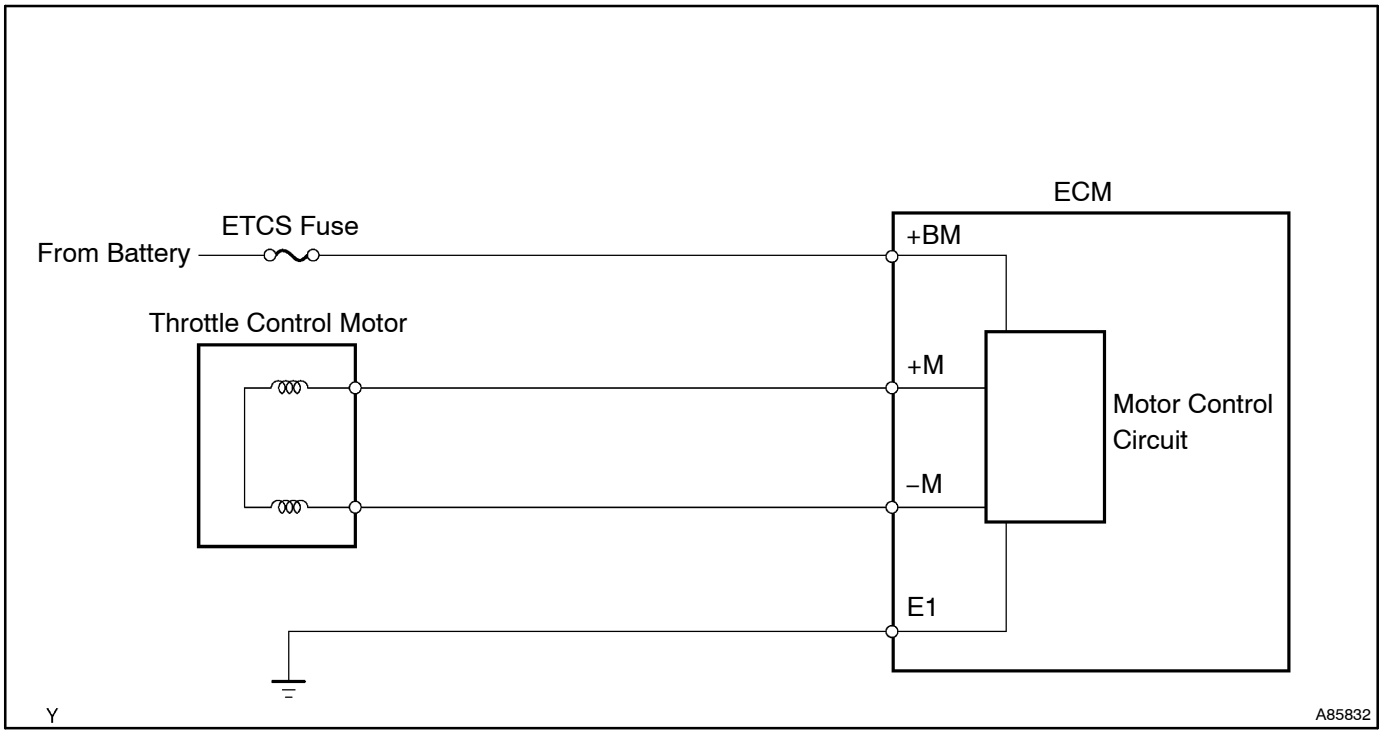
| DTC | P2118 | THROTTLE ACTUATOR CONTROL MOTOR CURRENT RANGE/PERFORMANCE |
|---|---|---|

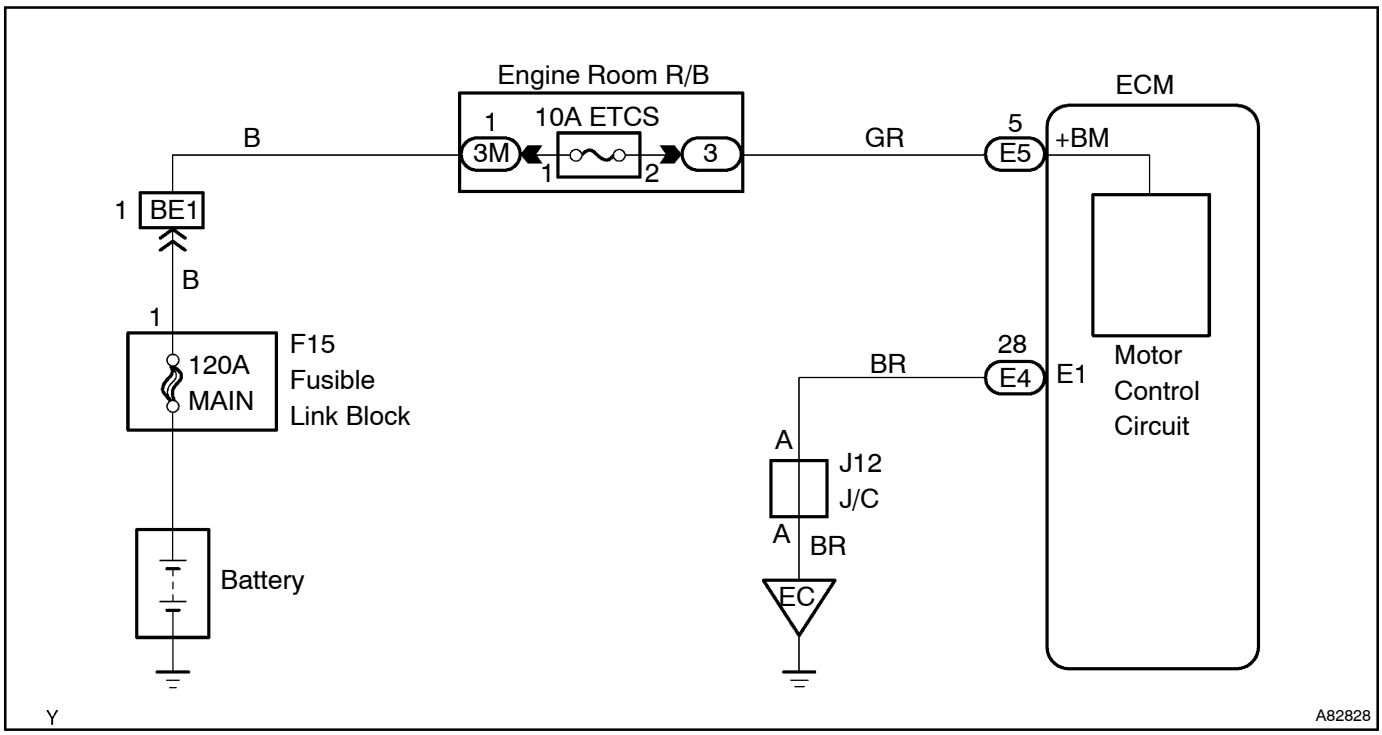
## CIRCUIT DESCRIPTION

The Electronic Throttle Control System (ETCS) has a dedicated power supply circuit. The voltage (+BM) is monitored and when the voltage is low (less than 4V), the ECM concludes that the ETCS has a fault and current to the throttle control motor is cut.
When the voltage becomes unstable, the ETCS itself becomes unstable. For this reason, when the voltage is low, the current to the motor is cut. If repairs are made and the system has returned to normal, turn the ignition switch OFF. The ECM then allows current to flow to the motor and the motor can be restarted.
HINT:
This Electrical Throttle Control System (ETCS) does not use a throttle cable.




| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| P2118 | Open in ETCS power source circuit | • Open in ETCS power source circuit<br>• ETCS fuse<br>• ECM |

## WIRING DIAGRAM

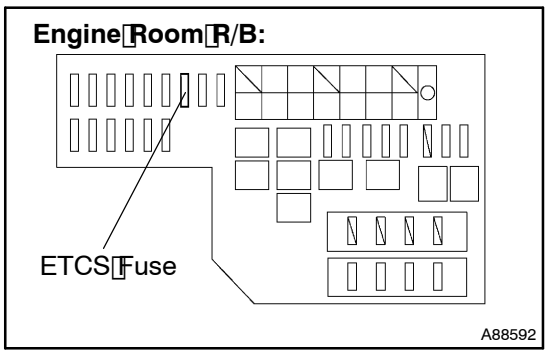



## INSPECTION PROCEDURE

HINT:

Read freeze frame data using the intelligent tester II. Freeze frame data records the engine condition when malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, if the air–fuel ratio was lean or rich, and other data from the time the malfunction occurred.

**1 CHECK FUSE(ETCS FUSE)**

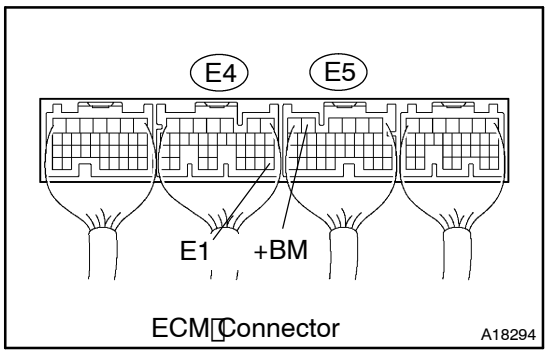



(a) Remove the ETCS fuse from the engine room R/B.
(b) Check the resistance of the ETCS fuse.
**Standard: Below 1 Ω**
(c) Reinstall the ETCS fuse.

**NG** → **CHECK FOR SHORT IN ALL HARNESS AND COMPONENTS CONNECTED TO FUSE**

**OK**

**2 INSPECT ECM(+BM VOLTAGE)**



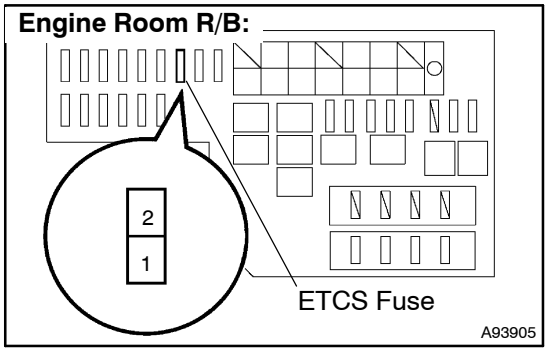

(a) Measure the voltage between the specified terminals of the E4 and E5 ECM connectors.
**Standard:**

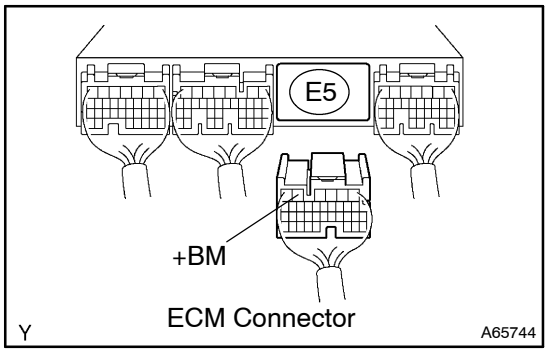
| Tester Connection | Specified Condition |
|---|---|
| +BM (E5–5) – E1 (E4–28) | 9 to 14 V |

**OK** → **REPLACE ECM (See page 10–24)**

**NG**

| 3 | CHECK HARNESS AND CONNECTOR(ECM – ETCS FUSE, ETCS FUSE – BATTERY) |
|---|---|




(a) Check the harness and the connectors between the ETCS fuse and the ECM connector.
  (1) Remove the ETCS fuse from the engine room R/B.
  (2) Disconnect the E5 ECM connector.
  (3) Check the resistance between the wire harness side connectors.

**Standard (Check for open):**

| Tester Connection | Specified Condition |
|---|---|
| ETCS fuse (2) – +BM (E5–5) | Below 1 Ω |

**Standard (Check for short):**

| Tester Connection | Specified Condition |
|---|---|
| ETCS fuse (2) or +BM (E5–5) – Body ground | 10 kΩ or higher |

  (4) Reinstall the ETCS fuse.
  (5) Reconnect the ECM connector.

(b) Check the harness and the connectors between the ETCS fuse and the battery.
  (1) Remove the ETCS fuse from the engine room R/B.
  (2) Disconnect the positive battery terminal.
  (3) Check the resistance between the wire harness side connectors.

**Standard (Check for open):**

| Tester Connection | Specified Condition |
|---|---|
| Battery positive terminal – ETCS fuse (1) | Below 1 Ω |

**Standard (Check for short):**

| Tester Connection | Specified Condition |
|---|---|
| Battery positive terminal or ETCS fuse (1) – Body ground | 10 kΩ or higher |

  (4) Reinstall the ETCS fuse.
  (5) Reconnect the positive battery terminal.

**NG** → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**

**CHECK AND REPLACE FUSIBLE LINK BLOCK ASSY**