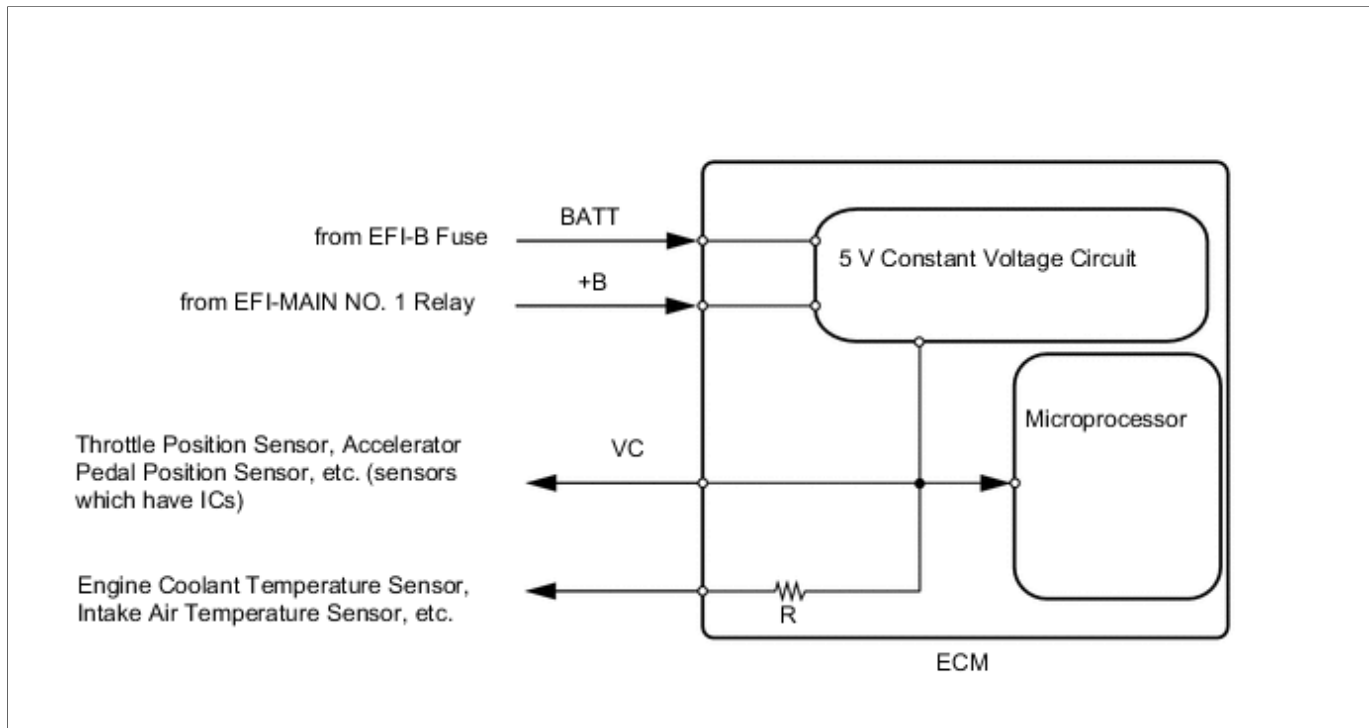


ECD SYSTEM VC Output Circuit

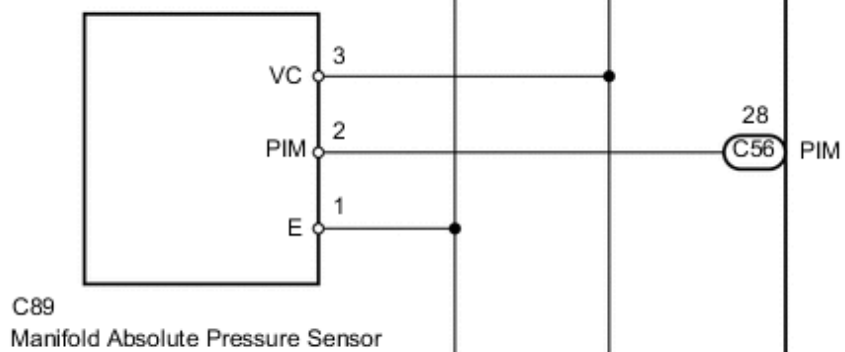
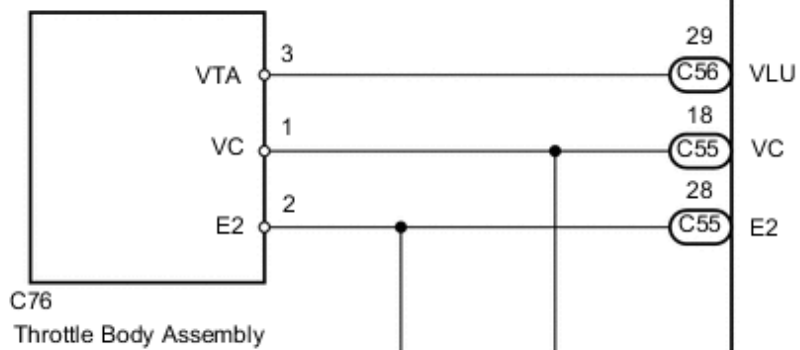
DESCRIPTION

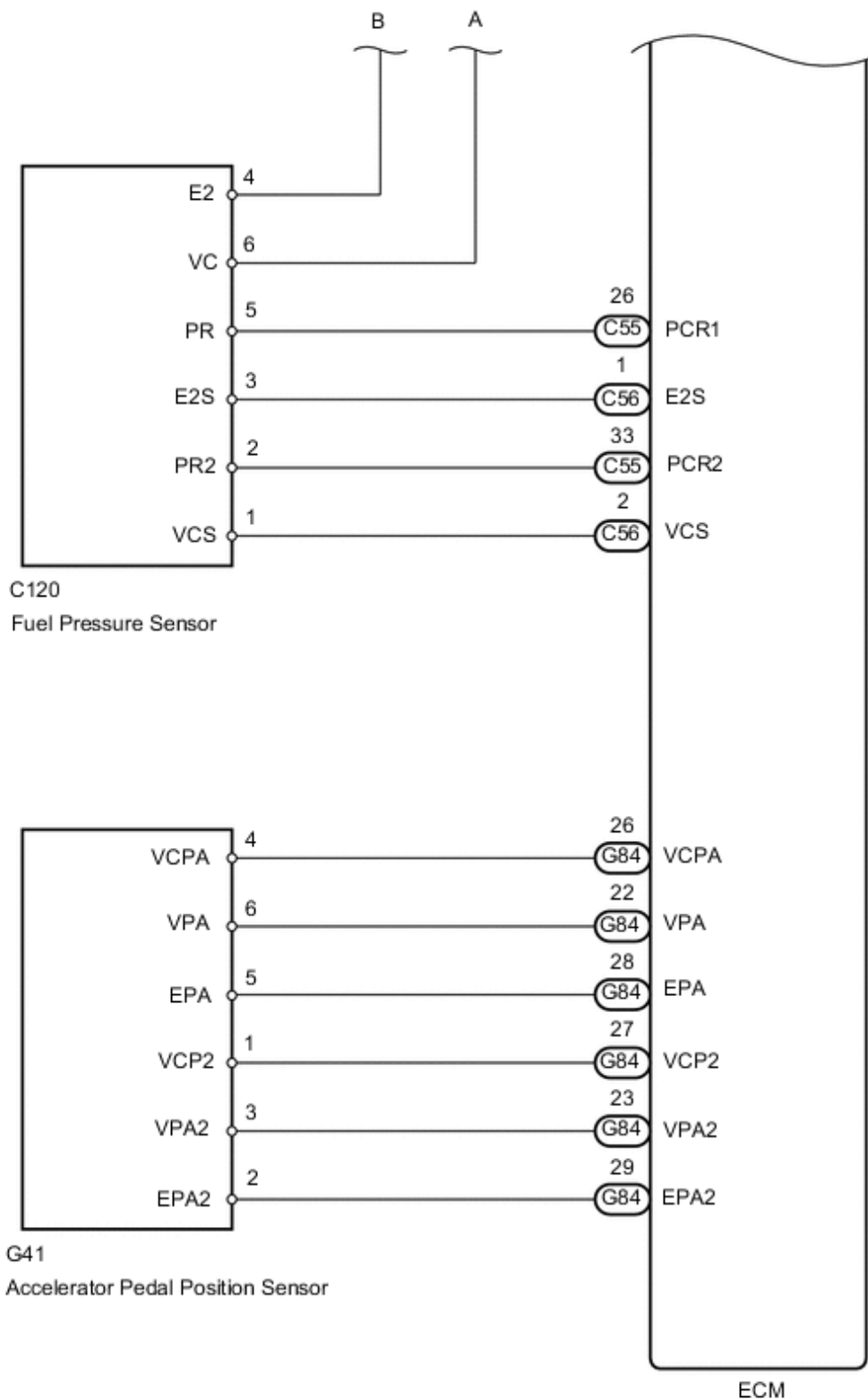
The ECM constantly generates a 5 V power source voltage from the battery voltage supplied to the +B (BATT) terminal to operate the microprocessor. The ECM also provides this power source voltage to the sensors through the VC output circuit.



When the VC circuit has a short circuit, the CPU in the ECM and sensors that are supplied power through the VC circuit are deactivated because power is not supplied from the VC circuit. When the system is in this condition, it will not start.

WIRING DIAGRAM





CAUTION / NOTICE / HINT

Note

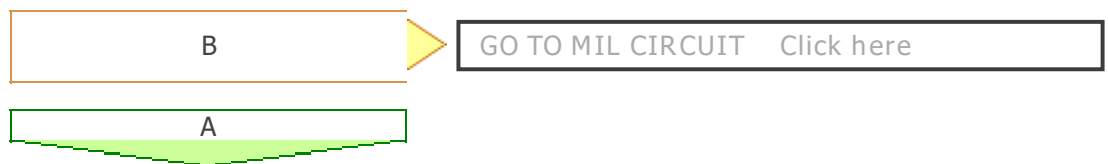
After replacing the ECM, the new ECM needs registration (See page) and initialization [Click here](#).

1. CHECK CONNECTION BETWEEN GTS AND ECM

- Connect the GTS to the DLC3.
- Turn the ignition switch to ON and GTS on.
- Check the communication between the GTS and ECM.

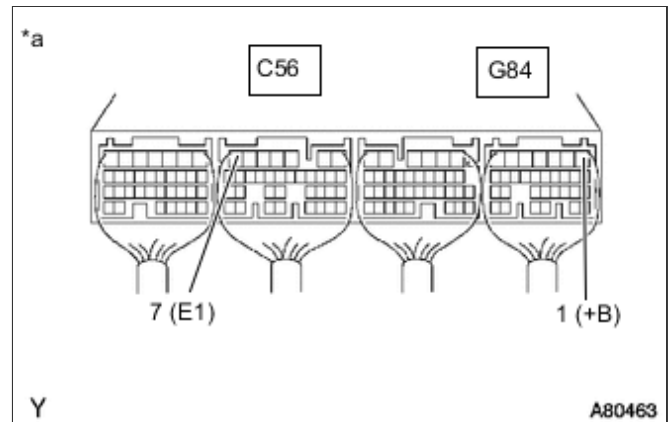
Result

Condition	Proceed to
Communication is not possible	A
Communication is possible	B



2. CHECK TERMINAL VOLTAGE (POWER SOURCE OF ECM)

- Turn the ignition switch to ON.
- Measure the voltage according to the value(s) in the table below.



*a	Component with harness connected (ECM)
----	--

Standard Voltage

Tester Connection	Condition	Specified Condition
G84-1 (+B) - C56-7 (E1)	IG ON	11 to 14 V

Result

Proceed to
OK
NG

Tech Tips

If the result is not as specified, since current is not flowing to the +B terminals of the ECM, the system may not be started.



3. CHECK CONNECTION BETWEEN GTS AND ECM (THROTTLE POSITION SENSOR)

- Disconnect the throttle position sensor connector.
- Turn the ignition switch to ON.
- Turn the GTS on.
- Check the communication between the GTS and ECM.

Tech Tips

It can be checked using the "Engine" item of the Data List.

Result

Result	Proceed to
Communication is possible	A
Communication is not possible	B

- Reconnect the throttle position sensor connector.



4. CHECK CONNECTION BETWEEN GTS AND ECM (MANIFOLD ABSOLUTE PRESSURE SENSOR)

- Disconnect the manifold absolute pressure sensor connector.
- Turn the ignition switch to ON.
- Turn the GTS on.
- Check the communication between the GTS and ECM.

Tech Tips

It can be checked using the "Engine" item of the Data List.

It can be checked using the "Engine" item of the Data List.

Result

Result	Proceed to
Communication is possible	A
Communication is not possible	B

- e. Reconnect the manifold absolute pressure sensor connector.



5. CHECK CONNECTION BETWEEN GTS AND ECM (ACCELERATOR PEDAL POSITION SENSOR)

- Disconnect the accelerator pedal position sensor connector.
- Turn the ignition switch to ON.
- Turn the GTS on.
- Check the communication between the GTS and ECM. Check the MIL.

Tech Tips

It can be checked using the "Engine" item of the Data List.

Result

Result	Proceed to
Communication is possible	A
Communication is not possible	B

- e. Reconnect the accelerator position sensor connector.



6. CHECK CONNECTION BETWEEN GTS AND ECM (FUEL PRESSURE SENSOR)

- Disconnect the fuel pressure sensor connector.
- Turn the ignition switch to ON.
- Turn the GTS on.
- Check the communication between the GTS and ECM.

Tech Tips

It can be checked using the "Engine" item of the Data List.

Result

Result	Proceed to
Communication is possible	A
Communication is not possible	B

e. Reconnect the fuel pressure sensor connector.



7. CHECK HARNESS AND CONNECTOR (ECM - BODY GROUND)

- Disconnect the throttle position sensor connector.
- Disconnect the manifold absolute pressure sensor connector.
- Disconnect the fuel pressure sensor connector.
- Disconnect the accelerator pedal position sensor connector.
- Disconnect the ECM connector.
- Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
C55-18 (VC) - Body ground	Always	10 kΩ or higher
C56-2 (VCS) - Body ground	Always	10 kΩ or higher
G84-26 (VCPA) - Body ground	Always	10 kΩ or higher
G84-27 (VCP2) - Body ground	Always	10 kΩ or higher

- Reconnect the throttle position sensor connector.
- Reconnect the manifold absolute pressure sensor connector.
- Reconnect the fuel pressure sensor connector.
- Reconnect the accelerator pedal position sensor connector.
- Reconnect the ECM connector.

Result

Proceed to
OK
NG



