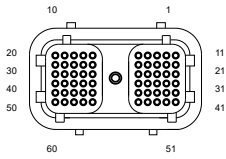
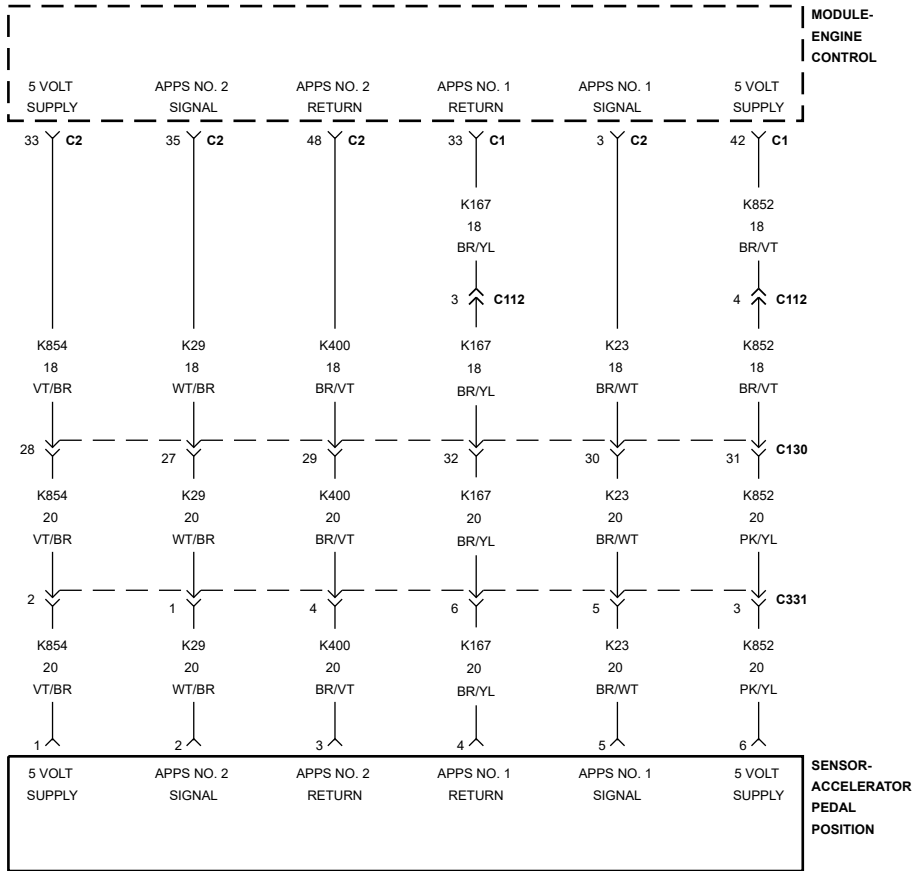
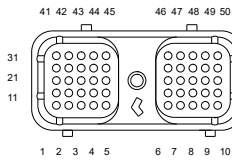


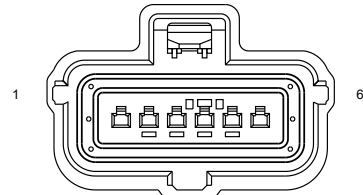
## **P2127-PPS 2 VOLTAGE TOO LOW**



**MODULE-ENGINE CONTROL C1**



**MODULE-ENGINE CONTROL C2**



**SENSOR-ACCELERATOR PEDAL POSITION (5.7L/DIESEL)**

8168c67

For a complete wiring diagram **Refer to the Wiring Information.**

- **When Monitored:**

While the key is on and during engine operation.

- **Set Condition:**

The APPS circuit voltage at the ECM goes below 0.13 volt for more than 2 seconds.

Possible Causes
APPS ECM (K29) APPS NO. 2 SIGNAL CIRCUIT OPEN (F856) APPS NO. 2 5-VOLT SUPPLY OPEN (K29) APPS NO. 2 SIGNAL CIRCUIT SHORTED TO GROUND (K29) APPS NO. 2 SIGNAL CIRCUIT SHORTED TO OTHER CIRCUITS (F856) APPS NO. 2 5-VOLT SUPPLY CIRCUIT SHORTED TO GROUND (F856) APPS NO. 2 5-VOLT SUPPLY CIRCUIT SHORTED TO OTHER CIRCUITS INTERMITTENT CONDITION

**Always perform the Pre-Diagnostic Troubleshooting procedure before proceeding. ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#))**

### 1. (K29) APPS NO. 2 SIGNAL CIRCUIT OPEN

---

1. Turn the ignition off.
2. Disconnect the ECM harness connectors.
3. Disconnect the APPS harness connector.

**NOTE: Check connectors - Clean/repair as necessary.**

4. Measure the resistance of the (K29) APPS No. 2 signal circuit between the APPS sensor harness connector and the ECM harness connector.

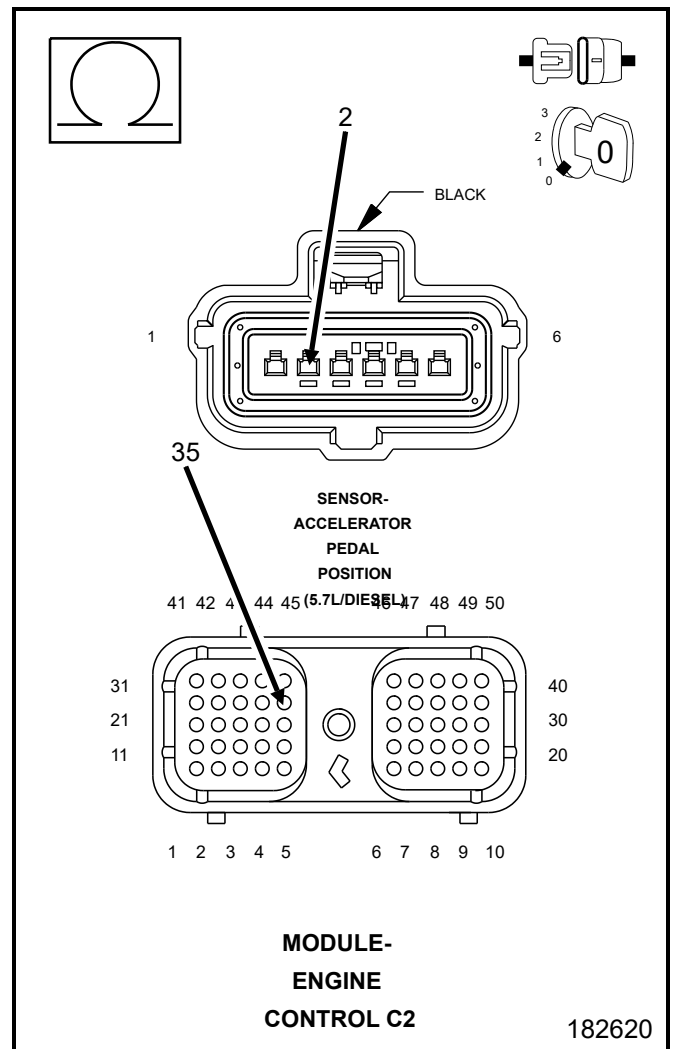
#### **Is the resistance less than 10 ohms?**

##### **Yes**

- Go To [2](#)

##### **No**

- Repair the (K29) APPS No. 2 signal circuit open.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#))



## 2.(F856) APPS NO. 2 5-VOLT SUPPLY OPEN

1. Measure the resistance of the (F856) APPS No. 2 5-volt supply circuit between the APPS sensor harness connector and the ECM harness connector.

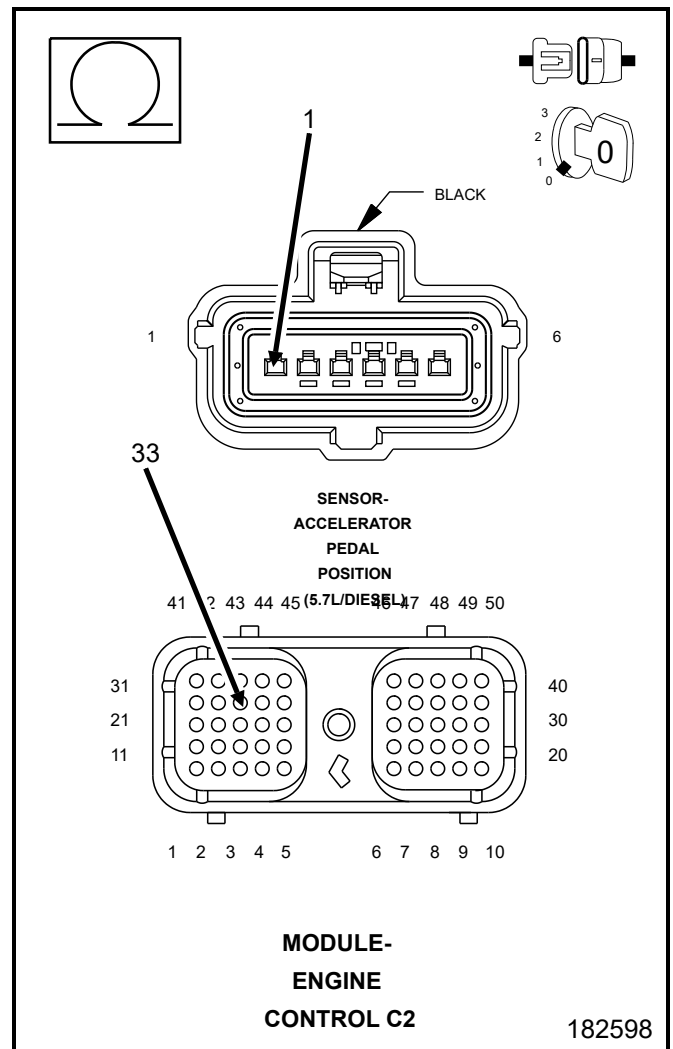
### Is the resistance less than 10 ohms?

#### Yes

- Go To [3](#)

#### No

- Repair the (F856) APPS No. 2 5-volt supply open.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#)).



### 3.(K29) APPS NO. 2 SIGNAL CIRCUIT SHORTED TO GROUND

1. Measure the resistance between the (K29) APPS No. 2 signal circuit at the sensor harness connector and battery negative.

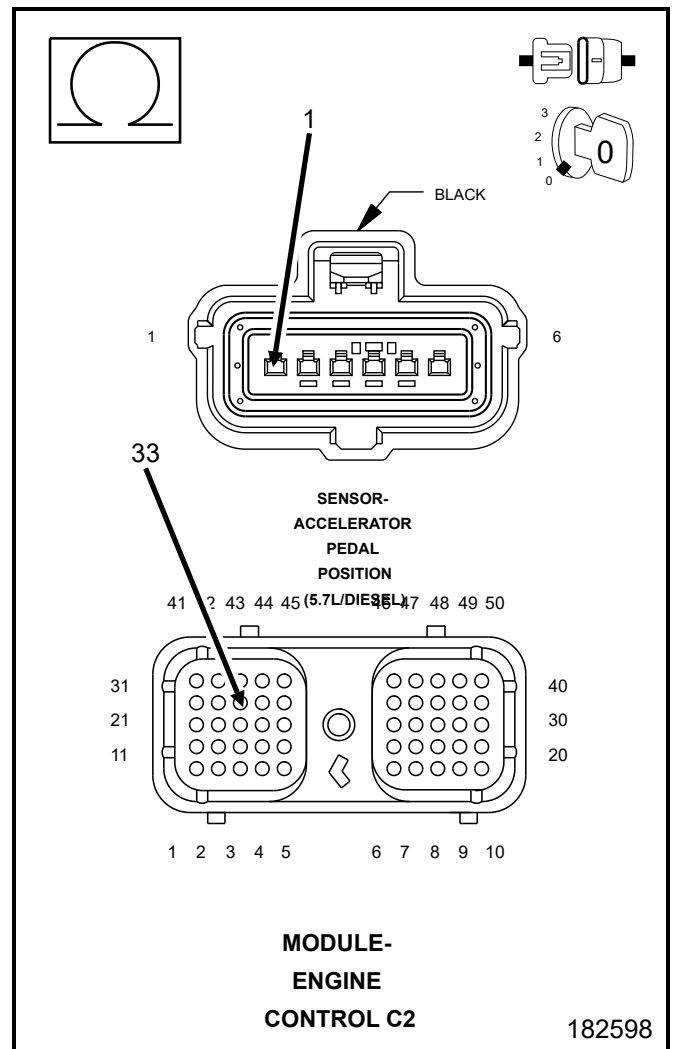
**Is the resistance greater than 100 k ohms?**

**Yes**

- Go To [4](#)

**No**

- Repair the (K29) APPS No. 2 signal circuit shorted to ground.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#)).



#### 4. (K29) APPS NO. 2 SIGNAL CIRCUIT SHORTED TO OTHER CIRCUITS

1. Measure the resistance between the (K29) APPS No. 2 signal circuit at the ECM harness connector and all other circuits in the ECM harness connectors.

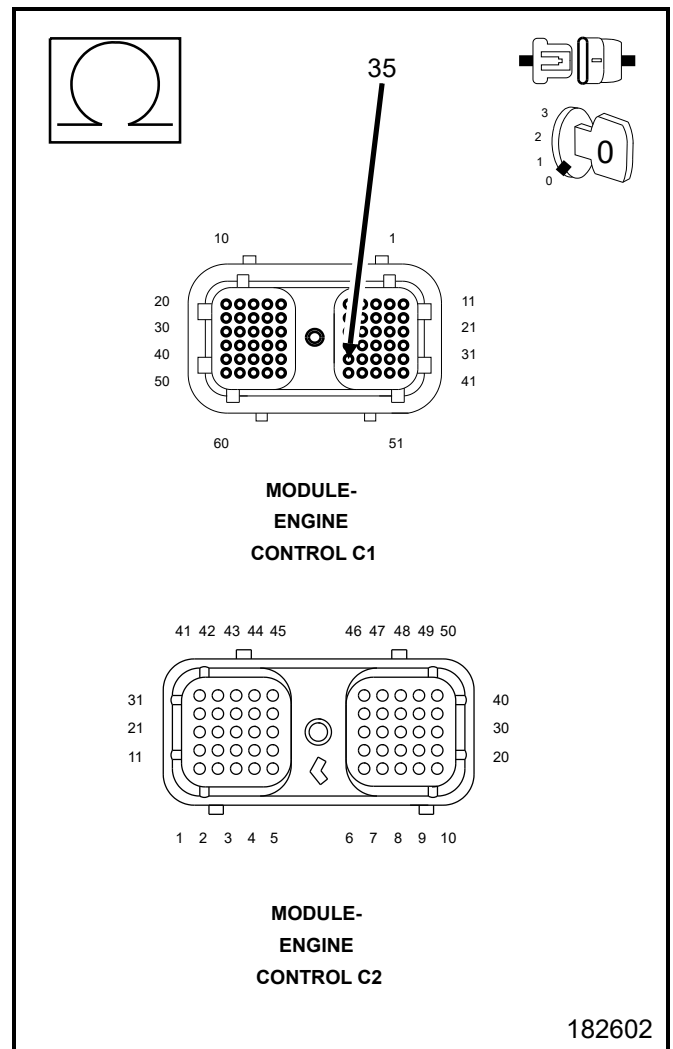
**Is the resistance greater than 100 k ohms?**

**Yes**

- Go To [5](#)

**No**

- Repair the (K29) APPS No. 2 signal circuit shorted to other circuits.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#)).



## 5.(F856) APPS NO. 2 5-VOLT SUPPLY CIRCUIT SHORTED TO GROUND

1. Measure the resistance between the (F856) APPS No. 2 5-volt supply circuit at the sensor harness connector and battery negative.

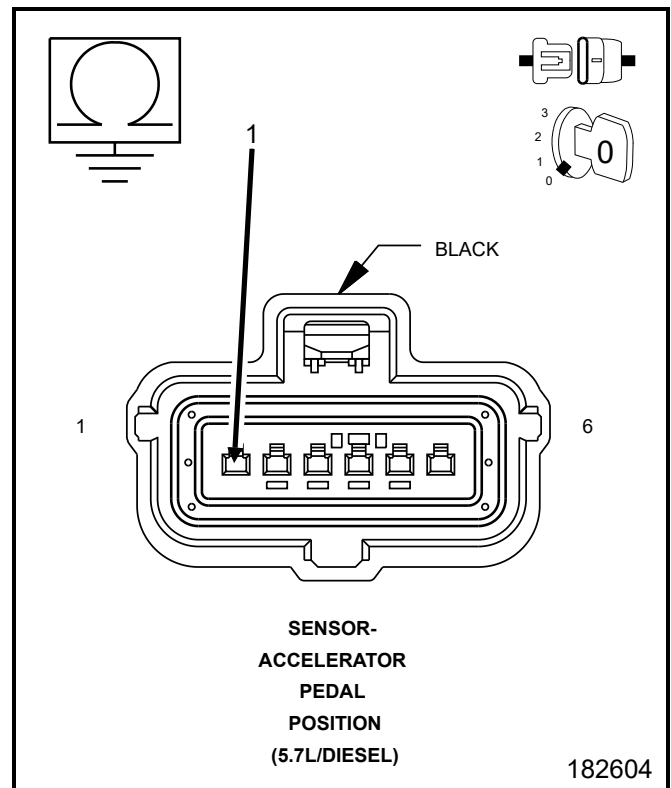
**Is the resistance greater than 100 k ohms?**

**Yes**

- Go To [6](#)

**No**

- Repair the (F856) APPS No. 2 5-volt supply circuit shorted to ground.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#)).



## 6.(F856) APPS NO. 2 5-VOLT SUPPLY CIRCUIT SHORTED TO OTHER CIRCUITS

1. Measure the resistance between the (F856) APPS No. 2 5-volt supply circuit at the sensor harness connector and all other circuits in the ECM harness connector.

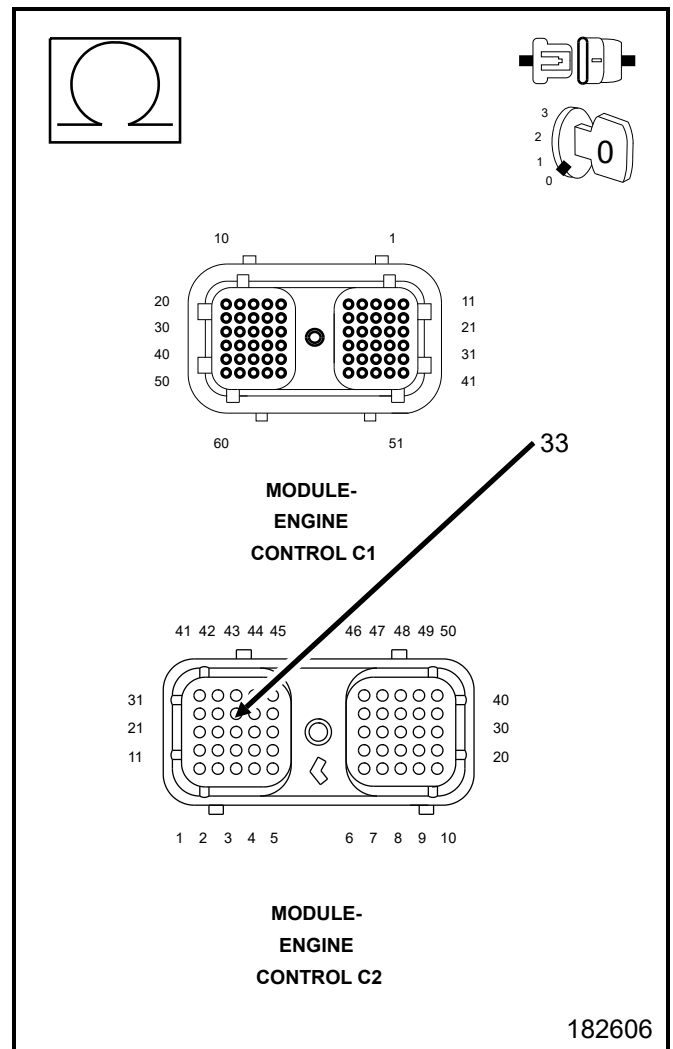
### Is the resistance greater than 100 k ohms?

#### Yes

- Go To [7](#)

#### No

- Repair the (F856) APPS No. 2 5-volt supply circuit shorted to other circuits.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#))



## 7.ECM

1. Reconnect the ECM harness connectors.
2. Turn the ignition on.
3. While monitoring with the scan tool, connect a jumper wire between the (K29) APPS No. 2 signal circuit at the sensor harness connector and the (F856) APPS No. 2 5-volt supply circuit at the sensor harness connector.

**NOTE:** With the sensor disconnected it is normal to have a APPS 1 and APPS 2 low voltage DTC set.

### Did DTC P2128 set?

#### Yes

- Go To [8](#)

#### No

- Replace and program the ECM in accordance with the Service Information.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#)).

## 8.APPS

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1. Reconnect the APPS harness connector.
2. Monitor the APPS 1 and APPS 2 voltage with the scan tool while depressing the throttle pedal.

**Is the voltage transition shown on the scan tool smooth while depressing the throttle and is the voltage swing smooth?**

### **Yes**

- Refer to the INTERMITTENT CONDITION Symptom (Diagnostic Procedure). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#)).

### **No**

- Replace the APPS.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). ([Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control \(ECM\) - Standard Procedure](#)).