

2022 CHEVROLET CORVETTE SERVICE MANUAL

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Battery Sensor Module Learn

Calibration Criteria

Note:

This procedure is only for vehicles equipped with a Battery Sensor Module. Attempting to run this procedure without a Battery Sensor Module may cause unwanted results. If this occurs, the BCM will need to be reset with an ignition cycle.

The Battery Sensor Module is attached directly to the battery negative terminal and is used to determine the battery condition by calculating the battery state of the battery's charge, functions, and state of health. The battery condition is used to help determine if the 12 V start-stop system will allow a start-stop when the vehicle has come to a stop.

To determine the battery's condition, the battery sensor must be calibrated. In normal operation, all current entering or exiting the battery flows through the Battery Sensor Module and is monitored. Any action which charges or discharges the battery that is not monitored by the Battery Sensor Module will require the calibration procedure to be performed. Examples are:

- The battery was replaced by a battery with the same part number
- The battery was replaced by a battery with a different part number or different specifications
- The battery was charged while outside the vehicle
- The battery was discharged while outside the vehicle
- The battery was improperly charged:
 - To properly charge the battery, the negative lead of the charger must be connected to chassis ground, and NOT directly to the negative battery post. Connecting to chassis ground allows current to flow through the Battery Sensor Module during charging as well as be monitored. Connecting directly to the negative battery post charges the battery, but the current cannot be monitored by the Battery Sensor Module.

Other situations that also require the calibration procedure to be performed include:

- The Battery Sensor Module was not calibrated correctly
- The Battery Sensor Module was disconnected and reconnected
- No open circuit voltage reading of up to 1 circle

If any of above conditions have occurred, the Battery Sensor Module must be calibrated to maintain a proper 12 V start-stop operation.

Diagnostic Aids

- Excessive battery draws will prevent the B110 Battery Monitor Module (Battery Sensor) learn from completing successfully.
- To confirm the sensor learn is needed or has completed successfully, verify the scan tool parameter Battery Sensor Module state of Charge Error is less than 10%.

Calibration Procedure

Note:

To complete battery sensor module calibration, there must be no significant parasitic electrical drain on the battery. If the parasitic discharge current does not remain below 100 mA for 10 minutes while the vehicle is resting, calibration will not be completed successfully. Refer to Battery Electrical Drain/Parasitic Load Test to correct any parasitic electrical drains.

If necessary the Battery Sensor Learn can be accomplished by using the following method:

1. Ignition OFF.
2. Let the vehicle rest for a minimum of 4 hours without any interruptions (e.g. opening vehicle door, operating vehicle components, using key fob buttons etc.).
3. Start the engine.

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