

DESCRIPTION AND OPERATION > CHARGING SYSTEM - 3.5L DURATEC (209KW/284PS)/3.5L ECOBOOST (209KW/284PS)/5.0L 32V TI-VCT - SYSTEM OPERATION AND COMPONENT DESCRIPTION > BATTERY CHARGING OR JUMP STARTING

To charge or jump start the vehicle, connect the positive cable to the battery positive post. It is preferred to connect the negative cable to a vehicle ground and **not** the battery negative terminal. Connecting directly to the negative battery post can have an adverse effect on the Electrical Energy Management system. For a good connection point, follow the cable from the battery negative post to the vehicle body connection (typically on the shock tower sheet metal) and connect there.

If the battery is jump started or charged, the BCM **must** recalibrate the battery state of charge. Engine off load shedding may occur if the vehicle is operated before the BCM calibrates the new battery state of charge.



NOTE: DO NOT reset the battery monitoring system using the diagnostic scan tool. This reset is reserved for new battery installation. Resetting the battery monitoring system will clear the learned battery data, the battery time in service, and will affect the aging algorithm parameters, which have been learned since the installation of the battery.

DESCRIPTION AND OPERATION > CHARGING SYSTEM - 3.5L DURATEC (209KW/284PS)/3.5L ECOBOOST (209KW/284PS)/5.0L 32V TI-VCT - SYSTEM OPERATION AND COMPONENT DESCRIPTION > BATTERY REPLACEMENT

If the vehicle battery is replaced, it is very important to perform the BMS Reset using a diagnostic scan tool. If the battery monitoring system reset is not carried out, it holds the old battery parameters and time in service counter in memory. Additionally it tells the system the battery is in an aged state and may limit the Electrical Energy Management system functions. For more information, Refer to: Battery and Cables - System Operation and Component Description .

DESCRIPTION AND OPERATION > CHARGING SYSTEM - 3.5L DURATEC (209KW/284PS)/3.5L ECOBOOST (209KW/284PS)/5.0L 32V TI-VCT - SYSTEM OPERATION AND COMPONENT DESCRIPTION > COMPONENT DESCRIPTION

Generator

The generator is equipped with an electronic internal voltage regulator.

Generator Current Sensor

The generator current sensor is attached to the generator B+ cable. It is supplied a 5-volt reference voltage and a ground from the PCM. The generator current sensor is a Hall-effect sensor that supplies an analog feedback signal to the PCM. The PCM uses this information for battery charging strategy and idle stability and torque control.

Battery Current Sensor