

# 2010 Corvette: GM TechLink: Corvette Battery Charger Accessory

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**Subject:** Corvette Battery Charger Accessory

**Models:** 2010 Chevrolet Corvette

Corvette owners who drive their vehicle infrequently now have a new option for keeping their vehicle's battery charged and ready to go.

The CTEK 330 Battery Charger (RPO ERI) is a factory option for the 2011 model year. (Fig. 11)



Fig. 11

*TIP:* During the Pre-Delivery Inspection, ensure vehicles equipped with RPO ERI have the battery charger in the vehicle. It should include the charger, a manual and a charger bag.

To operate the battery charger, simply plug in the charger to a standard electrical outlet and into the vehicle's accessory power outlet.

The charger is designed for charging lead-acid batteries from 2 to 90Ah. It uses a fully automatic four-step charging process that efficiently brings the battery up to a set level and then maintains it. The charging process begins with an almost constant current until maximum voltage (14.4V or 14.7V) is reached. At this point, the charger switches to constant voltage and the current supply to the battery is gradually reduced. If the current drops to 0.4A, the charger switches to pulse maintenance. If the battery is charged and the terminal voltage of the battery falls to 12.9V, the charger automatically starts again at the first step.

The charge indicator or the maintenance charge indicator illuminates when the charger is plugged in. When the maintenance charge indicator illuminates, the battery is fully charged.

The 3300 battery charger can be safely connected for months at a time. There's no need to disconnect the battery while charging since it will not harm vehicle electronics, produces minimal gas build-up, is splash and dust proof, double-insulated and has temperature protection to prevent the charger from overheating.

The 3300 battery charger is outdoor-approved and small enough to be permanently mounted next to the vehicle's battery, if desired, using the charger's mounting holes. The low back-current drain means that without the power cord connected, the charger won't deplete the battery.

## **Charging Time**

The time required to charge a battery will vary depending upon the state of charge and temperature of the battery.

A completely discharged battery requires more than twice as much charging

time as a half charged battery. In a discharged battery with a voltage below 11 V, the battery has a very high internal resistance and may only accept a very low current at first. Later, as the charging current causes the acid content to increase in the electrolyte, the charging current will increase.

In addition, the colder the battery temperature is, the more time it takes to recharge the battery. The charging current accepted by a cold battery is very low at first. As the battery warms, the charging current will increase.

- *Thanks to Brad Thacher*

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