

Overview: One the most common complaints that dealers receive from customers is that their vehicle's battery is dead, or has been dying, after having had an alarm/remote starter installed. In reality, most complaints of this nature stem from influences more directly related to battery maintenance, duty cycle, and age, rather than product current requirements.

The following procedure will provide you with the knowledge required to make an assessment of the vehicle's charging system condition and determine whether the dead battery complaints are associated with the equipment you installed.

Preparation: Proper diagnosis of suspected current draw issues requires the following:

- The customer should be questioned for the following details, how often the vehicle is driven, the length of the average drive cycle, whether the vehicle is garaged or not, and whether the issues coordinate with recent weather changes.
- The vehicle battery should be fully charged to a resting voltage of 12.6 VDC minimum.
- The vehicle charging system and battery should be tested to confirm capacities.
- The vehicle interior should be inspected for any accessory items that might also be influencing key-off current draw.
- Fuse panel should be exposed and accessible for circuit troubleshooting after excess draw has been confirmed.

A vehicle driven daily is going to have fewer battery issues than a vehicle driven once a week or a few minutes per drive, and by gathering this information you should be able to spot areas of concern for the customer to address privately, but if nothing abnormal is noted, you should proceed with confirming the source of the current draw draining the battery.

Procedure:

- **Step 1:** Confirm battery is fully charged and all accessories are powered off or disabled for the duration of testing.
- **Step 2:** Open hood and disconnect negative battery cable, set meter to 10A current scale or greater.
- **Step 3:** Connect your multimeter as indicated in this illustration, vehicle will wake as last connection is made.
- **Step 4:** Let the vehicle rest 30 minutes, battery current is flowing through DMM, monitor draw as vehicle goes to sleep.
- **Step 5:** After vehicle system is in sleep mode, note the current draw displayed on the meter display, if current draw is greater than 60mA (0.060A) proceed to troubleshooting vehicle circuits by pulling fuses from the fuse panel, watching for any changes in draw after each fuse is pulled. When current draw drops appreciably, note the fuse which was last pulled and consult the vehicle owner's manual or automotive information service to determine what components derive power through that fuse. If the fuse is the one that provides power to the equipment that you installed, you should now proceed to component-level current draw testing, which will be covered in another bulletin.

