

Lesson #1: Providing a Good GROUND Source.

By D. Weber

In my experience, the GROUND source running to any system is probably the most important connection you can make to a vehicle. Without the proper ground source, a feature in a system may not work properly, if at all. A bad ground can cause everything from false triggering of an alarm system to getting just a "click" at the vehicles starter when attempting to remote start the vehicle. A good GROUND connection should be the first connection you make from a system to the vehicle (and a constant power source last, but more about that connection later).

Finding and providing a good ground source for your system is a relatively easy procedure. Most ground source locations for installing car alarms or remote starter systems are found or made behind or above the driver side left kick-panel into the body metal, at a steering column bolt (most GM) or on a dash support bracket below the driver side dash. Commonly, a 1/4" self-tapping "tech-screw" with an "eye-ring" connector crimped to the end of the ground input wire is used to secure the connection. Note: Be careful not to over tighten your ground screws, they strip out very easily. You don't want your ground connection to be able to be "spun around" loosely. And last but not least, don't tap into any existing ground wires in the vehicle; always provide an independent ground source to your systems installation.

To ensure that you found (or are providing) a good ground source to your system, test the connection using a digital multi-meter set to 12 Volts DC. Connect the positive or red probe of your Digital Multi-Meter to a constant positive 12 Volt source in the vehicle (see "connecting to a constant positive 12 Volt source"). And using the negative or black probe from the Multi-Meter, touch the designated ground source. Your meters display should read at least 12 Volts. Now, to further ensure that this is a good ground source, turn the vehicles ignition ON. Your meters display should still continue to read at least 12 Volts. And the reading should never "drop-out" or "disappear" at anytime. Now, start the vehicle. While the vehicle is running, and this is important...also during the starting of the vehicle, your meters display should now read at least 14 Volts (it will read at least 14 Volts now because of the alternator, this is fine).

When your ground source passes all the above tests, you can be confident that you found or are providing a good ground source to your system!