

What should you check first before doing Voltage Drop Testing?

Battery First

Is the battery fully charged? If yes, move on to voltage drop testing the vehicle base system.

If not: Consider what can cause an undercharged battery.

Charging system connections in the base system between the generator (alternator) and the battery.

Conditions Inside the battery:

Battery is sulfated, old, worn out. They don't last forever.

Battery has been completely discharged three times or more. This will destroy a non- deep cycle battery's ability to hold a charge.

Owner's driving style: continuous start, shut engine off, start again. This keeps the battery in a constant state of discharge.

Parasitic drain: something is constantly draining the battery when the key is off.

Possible causes:

Internal problem with any solid state module bleeding current to ground.

Generator (alternator) one or more diodes are shorted bleeding current to ground.

Regardless of what caused it, you will need a fully charged battery before you can do effective voltage drop testing.

So, the first thing to do is to charge the battery, then load test it.

If the battery passes the load test, you need to find out what caused the undercharged condition so it does not happen again.

You can start by concentrating on the generator (alternator).

Test the generator diodes with a diode test mode in your meter, or you can use the micro amp test for bad diodes.

If the battery failed the load test, the first thing to check is the amp draw of the starter. If starter amp draw is OK, recharge the battery and load test it a second time. If it fails the load test again, replace it.

Other things to consider when working with a battery and generator.

Is this the second "bad generator" on this vehicle in a short period of time (2 months or less)?

It is possible that the battery is causing the generator to "go bad".

Is the generator suffering from an "intermittent" overcharge or undercharge condition?

If you are not familiar with the vehicle "base system", I suggest you get my book: "Understanding and Troubleshooting Vehicle Voltage Drop".

If you are not familiar with "How To" do the tests suggested above, I suggest you get my book: "Vehicle "How To" Test Guide". All of the tests are given with clear explanation in my book.

www.Vestest.com The Vehicle Voltage Drop Website