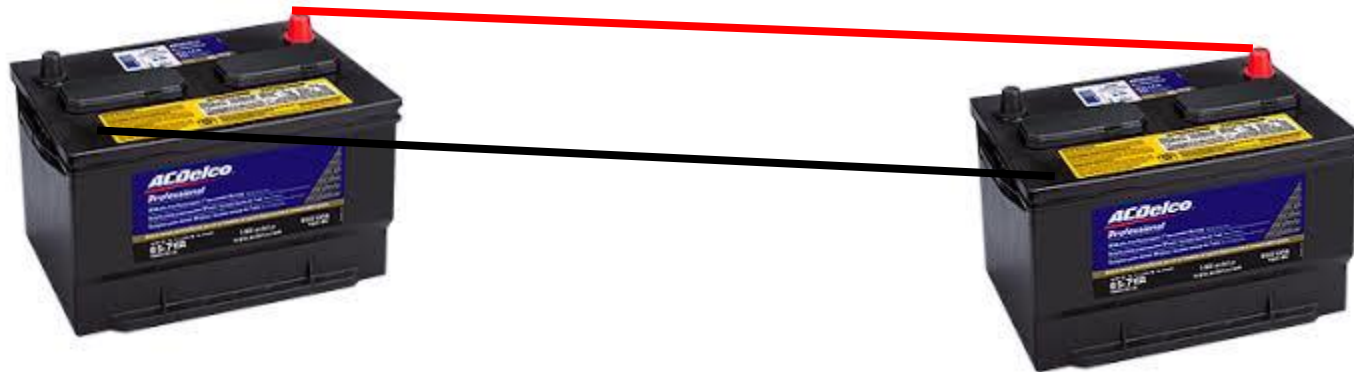


Diesel Dual Batteries



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Chev Silverado Duramax Diesel



Two Batteries?

Most Chevrolet Trucks with Duramax Diesel engines have TWO 12 volt (760 CCA) batteries in the engine compartment.



There has been much confusion about this. But, in fact, the purpose is quite simple.

The two batteries are required primarily for **higher cranking amps**, which are needed for the high resistance load that a diesel engine requires during starting. *Simply put, it takes a lot more “power” to turn the diesel engine over.*

In fact, the compression in a diesel engine is a hair over **17:1** compared to a gas engine compression ratio of around **9:1**.

How are they connected to each other?

The batteries are connected in parallel. Therefore, both are always "on" and actively being charged. It is advised to always replace BOTH of them at the same time. Otherwise the new one will be constantly drawn down by the older battery.



Both batteries are connected together to get **twice the cranking amps**, if you disconnect one, the wires will still be hot from the other battery. They are connected in parallel so you get **12V** with **double the amperage** (so if you have 1200 CCA batteries this will deliver 2400 CCA)

CHARGING: Hook the tender/charger up to either battery, and it will charge both.

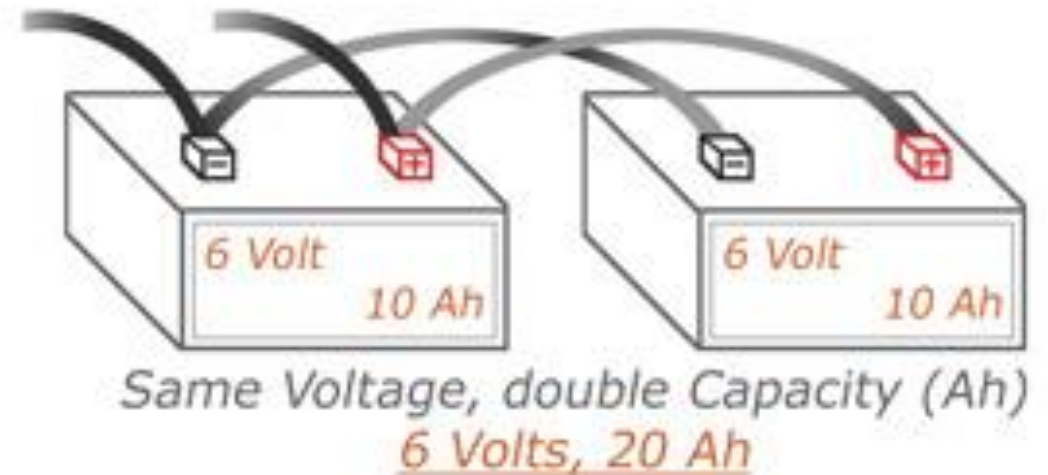
Uh, Parallel?

Batteries connected in Parallel

The voltage system in the vast majority of regular production vehicles is a 12 volt system. The batteries in your truck are wired in “parallel”, whereby the positive terminal of each battery are hooked to one another as well as the negative terminals. “Parallel” connections will **increase your “current” rating**, but the **voltage will stay the same**.

CABLES: It’s important to note that because the amperage of the batteries increased, your truck requires **heavier duty cables** to avoid a burn out.

Batteries Joined in Parallel

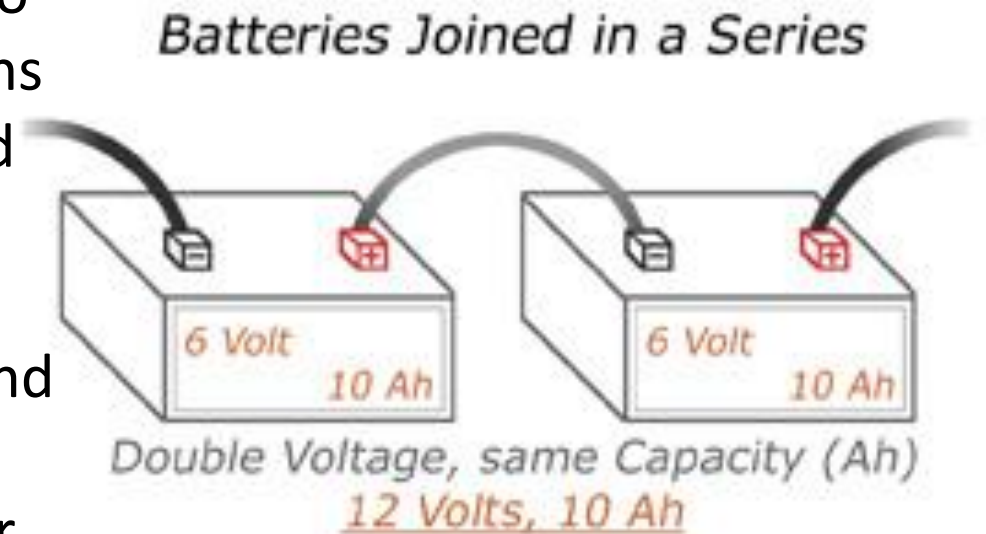


Uh, Serial?

Batteries in a Series

A “Series” configuration **adds the voltage** of the two batteries, but keeps the same amperage rating (also known as Amp Hours). This is useful for applications that require higher voltage, but it is NOT to be used in your truck. This is important to know in case you ever decide to change your batteries yourself. Increasing the voltage would fry your electronics and this is not something you would want to do! In theory, you can connect as many batteries together as you want, but only in parallel.

Also, use batteries of the same ratings. Avoid mixing and matching battery sizes wherever possible



Why do we need two again?

Two batteries are needed because the starter pulls so much **amperage** due to the engine's high compression... and the glow plugs (and grid heater LB7 and LBZ/LMM only) and the air intake heater. In addition, most newer trucks have their headlights turned on automatically during the starting cycle, while the owners may also have left the heater and radio turned on. **This all adds up to a heavy electrical load.**

The batteries are connected in a SIMPLE parallel configuration.

Many owners report that you can actually run a diesel on one battery with no problems, but it cranks a lot slower. (Two batteries, however, are needed in order to run the glow plugs, fuel and inlet air heaters, especially on a cold day.)

WINCH: You can hook up your winch to either battery; it doesn't matter.

Collateral damage

Hey! I lost my clock time display

After replacing both truck batteries, **there was no TIME showing on the radio!?!?**
Obviously, this was caused by disconnecting both batteries at the same time.

SOLUTION:

Go to DISPLAY screen.

Press in lower left corner for 10 seconds. (***Note: There is no marking there.***)

When it comes up, enter the following

PIN: 295660

Modify the time, ignoring that it is for GMT.

SAVE

Then modify time on normal screen if needed.

The end