

## THE POWER OF

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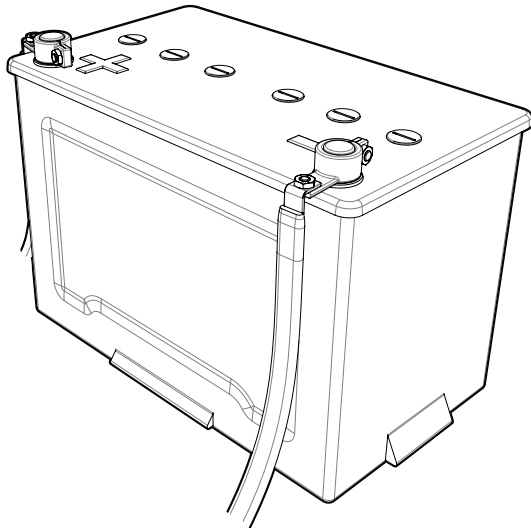
## How do I know if I have a variable voltage (smart) alternator?

With the constant evolution of technology in today's modern vehicles, the days of straight forward dual battery setups are becoming a thing of the past - Variable Voltage Alternators are now becoming standard issue in most modern vehicles.

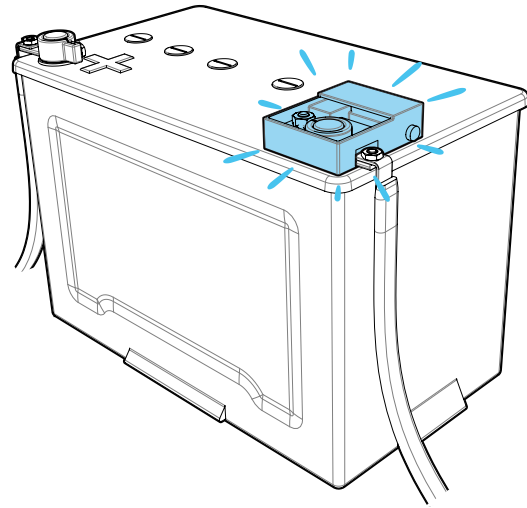
The type of equipment you may need to correctly charge and maintain your auxiliary batteries depends on whether your vehicle has this technology or not. Variable Voltage Alternators are also commonly known as 'Smart Alternators' or 'Computer Controlled Alternators'.

The natural question to ask is, how do I know whether my vehicle has a Variable Voltage Alternator?

Variable Voltage Alternators require some sort of battery sensing technology to determine load coming from the battery and this is done by a battery sensor which is found on one of the battery terminals (usually the battery negative). Please see pictures below for examples.



Regular Battery Terminal  
(Standard Alternator)



Battery Terminal with Sensor  
(Variable Voltage Alternator)

## FAQ's with Variable Voltage Alternators

**My vehicle has a Variable Voltage Alternator, can I use a SBI12(Smart Start Battery Isolator) to charge my auxiliary battery?**

No; Because of the way Variable Voltage Alternators work, there are several situations in which the output voltage is either too low, too high or not charging at all (hence 'variable voltage') therefore its not possible to charge your auxiliary battery correctly and to 100% state of charge. The BCDC1225D, BCDC1240D or Manager15/30 should be used instead of the SBI12 to compensate for these situations and to charge and maintain your auxiliary batteries to 100%.

**I have a Ford Ranger with 'Smart Charge' technology, do I need to have this software disabled by the manufacturer, so I can setup a dual battery system?**

No, this is not required; All you need to install is a BCDC1225D or BCDC1240D or Manager15/30 and to charge your auxiliary batteries effectively.

# TECH TIP

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