

Quick Connect VSR Features / Benefits

- Easy connection via input and output Anderson style plugs
- Charge your Auxiliary Battery without the risk of discharging Start Battery
- Protect electronics on Auxiliary Battery circuit from engine start up spikes
- Fully automatic operation
- Override Switch (Engages Relay regardless of sense voltage)
- Indication Light Wire (Active when VSR is engaged)
- Override Wire (Activated by + Positive Ignition Feed)
- Dual Sense (Senses voltage of start and auxiliary batteries)

VSR Operation

The purpose of a Voltage Sensitive Relay (VSR) is to isolate the Auxiliary Battery from the Start Battery when there is no charge from the alternator.

In simple terms, the VSR will automatically disconnect the Auxiliary Battery from your Starter Battery when the engine is not running, and then reconnect it when Starter Battery is charged.

Dual Sensing

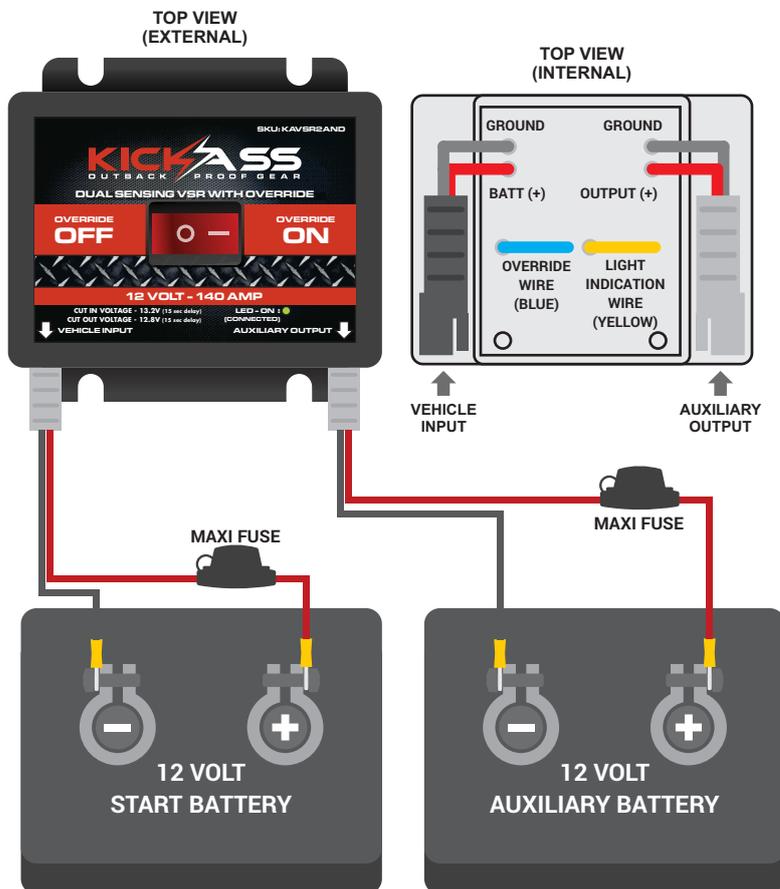
This premium VSR senses both the Start and Auxiliary Batteries voltage. The advantage of a dual sensing VSR is that when the Auxiliary battery is being charged by Solar or an AC Battery Charger and it is above 13.2V, the VSR will engage enabling the Start Battery to also be charged.

How The VSR Works?

When the vehicle's engine is running, the alternator will charge the Start Battery. Once the Start Battery has reached 13.20V the VSR will connect the Start and Auxiliary Batteries enabling them to charge simultaneously.

When the vehicle's engine is not running, the alternator is no longer charging so the Start Battery voltage will drop. Once the Start Battery voltage is below 12.8V, the VSR will disconnect from the Auxiliary Battery. This means the Auxiliary Battery can NOT drain the Start Battery.

KICKASS QUICK CONNECT VSR WIRING DIAGRAM (NOT TO SCALE)



Please Note: Cables & Batteries are not Included, they are Optional Accessories.

SPECIFICATIONS		
Input / Output Max Current	50Amps (Anderson Style Plug Rating)	
Device Max Current	140 Amps	
Voltage System	12 Volt DC	
Dual Sense Cut In Voltage (Connect Voltage)	13.20V with 15 second delay	
Dual Sense Cut Out Voltage (Disconnect Voltage)	12.80V with 15 second delay	
L.E.D	On - Battery's Connected Off - Battery's Disconnected	
Operating Temperature	0 - 50°C	
Net Weight	0.35kg	
Housing Dimensions	110mm x 102mm x 50mm	
Mounting Hole to Mounting Hole Diameter	L - 49mm / W - 95mm	
Warranty	2 Years	

INSTALLING THE QUICK CONNECT VSR

The KickAss Quick Connect VSR is designed to be installed in multiple areas. Equipped with side mould mounting holes, the device can be mounted under bonnet or externally by choice. The input and output Anderson style plugs make installation quick and easy with a quick connect system that requires no hard wiring.

The Override Switch:

By switching the override switch to the ON position the voltage sensing feature of the VSR is overridden and the device will connect both batteries. An example would be when the Start Battery is flat but the Auxiliary Battery is still charged.

By switching to override it will allow charge from the auxiliary battery to the start battery.

Wait some time before attempting to start the vehicle as this will allow the start battery to charge from the auxiliary battery. It is extremely important that the override switch is not left in the ON position as the batteries will remain connected.

Override Wire (Blue)

The blue override wire is not generally used but in some cases the user may want to engage the VSR via a switch or an ignition feed. When this wire is connected to a + Positive feed, the relay will engage. If not needed ignore this wire.

Indication Light Wire (Yellow)

This wire is active (+ Positive) when the relay is engaged. It can be connected to an external 12V light (not supplied) to indicate remotely when the VSR is engaged.

Important: As this wire is active + when the VSR is engaged, ensure it is insulated and that it does not go to - earth if it is not being used.

It is recommended that a fuse is installed between the Starter Battery and the VSR. The negative wire will run from the Starter Battery directly through the VSR device to the Auxiliary Battery, via the input and output Anderson style plugs. There is a delay built into the VSR which means it can take up to 15 seconds for the VSR to connect or disconnect.

The VSR has a light built in which will illuminate when the VSR is engaged (both batteries are connected).

If the VSR does not disconnect, when you switch the vehicle's engine or try turning your high beam lights on for a short period until the VSR is disconnected.

WARRANTY

Please contact www.kickassproducts.com.au if you have any issues.