

My vave!

Varenc. 1010 656

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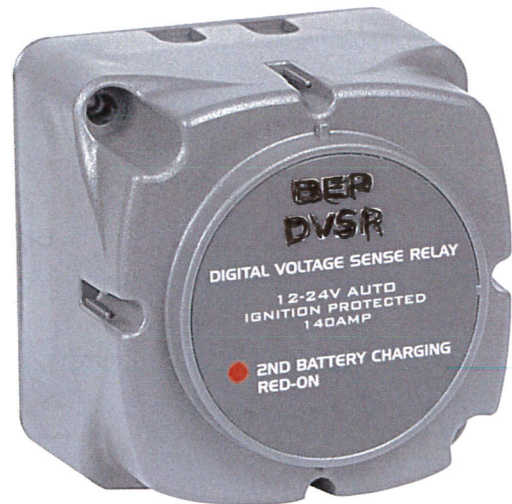
**NEW PRODUCT RELEASE – DIGITAL VSR**

We are pleased to announce the official release of our Digital VSR (voltage sensitive relay). The new DVSR is now available for shipping, and replaces all previous models of VSR's. It combines all of the market proven features of the existing VSR with a host of new functionality.

The DVSR (Digital Voltage Sensing Relay) allows charging of two independent battery banks from a single charging source. When the voltage on the start battery rises to a charged level, the DVSR engages allowing the 2<sup>nd</sup> battery to charge. When charging stops and voltage falls, the DVSR will disengage, isolating the two batteries from each other. Dual sensing functionality enables the sensing of two battery banks, allowing two way charging.

**Digital enhancements:**

- 80% lower stand-by current draw during normal operation when powered but disengaged
- Zero stand-by current draw when remote sensing circuit utilized
- Multi voltage - auto selects between 12V and 24V DC operation
- Remote status LED output. Provides DVSR status indication at remote location
- Remote sensing circuitry provides isolated control from secondary supply, and enhanced protection from voltage spikes when connected to ignition switch
- Increased accuracy of voltage measurement through digital circuitry
- Lowered cut in voltage from 13.7V to 13.4V (26.8V for 24V) to suit low output alternators, and high temperature environments
- Only one SKU required for distributors, instead of multiple



<b>DVSR Feature Comparison At A Glance</b>			
<b>Feature or Specification</b>	<b>New Digital VSR</b>	<b>Old 710-125 VSR</b>	<b>New DVSR Comment</b>
Automatic Dual Voltage 12/24 Volt	✓	No	Handles either 12 or 24 volt, with no setup required
Dual Sensing Both Battery Banks	✓	Some models only	Parallels battery banks if either bank is sufficiently charged
Zero power consumption storage mode	✓	No	Requires connection to external switch for mode control
Remote LED status light option	✓	No	Requires connection to external LED
LED status light on unit	✓	✓	
Continuous Rating	125 A	125 A	
Intermittent Rating	140 A	140 A	
Power Consumption VSR Disengaged	1.8 mA (1.6mA)	10 mA	(24 volt consumption in brackets)
Power Consumption VSR Engaged	90 mA (170 mA)	310 mA	(24 volt consumption in brackets)
Power Consumption Using Storage Mode	0 mA	Not Available	Requires connection to external switch for mode control
Cut-in voltage (batteries are paralleled)	13.4 V (26.8 V)	13.7 V -12V models	
Cut-Out voltage (batteries are isolated)	12.8 V (25.6 V)	12.8 V -12V models	
Same 3 wire basic installation	✓	✓	Old VSR can be replaced with identical connections

Please note: The quoted Continuous Rating in the 2012 Actuant Electrical Global Marine Catalogue was a misprint, and shows the Intermittent Rating instead. The specifications above have been fully verified by tests on production articles.

## Installation Notes:

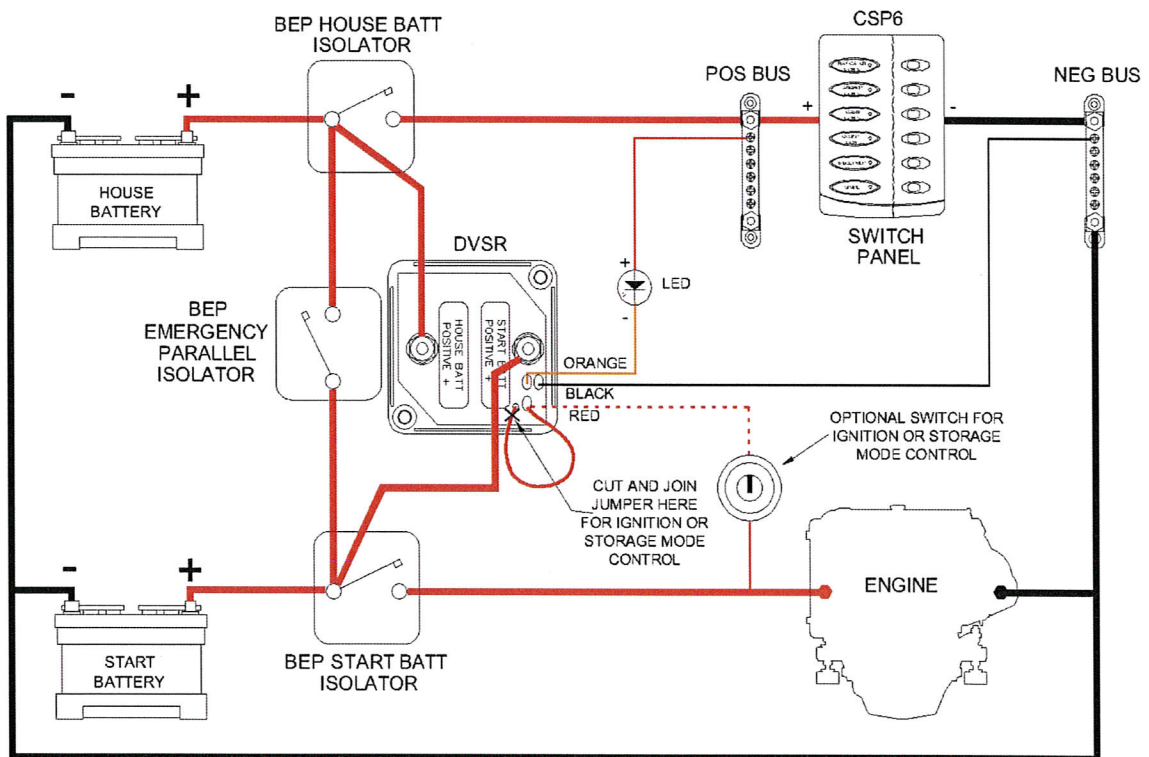
Basic connections are identical to previous version VSR's:

- Start battery connection to DVSR's stud
- House battery connection to DVSR's stud
- Black negative wire connection to negative bus

There are two new Optional connections offering additional functionality:

1. A remote status LED can be connected to the Orange wire, allowing users visual indication of VSR status (e.g LED mounted at helm position, or by battery monitor). This requires a positive supply (note LED must be matched to the supply voltage).
2. A remote switch can be joined to the red wire, after first cutting the red loop (see diagram below). The switched positive supply then turns the DVSR's electronics on/off. This can take a supply from the engine's start switch, so that the DVSR electronics are only powered when the engine is running, or the switch can be dedicated to the DVSR to activate storage mode. When switched into storage mode, the DVSR has zero power consumption.

Please note that instructions included within the blister packed DVSR's are necessarily brief due to space constraints. More detailed, expanded instructions will be made available for download from the BEP website, in PDF format.



Please contact your BEP Account Manager or a Customer Services Representative in your area for further information and pricing.

Kind regards,

*Glyn*

Glyn Dickson  
BEP PRODUCT MANAGER