



ProSplit R

zero voltage drop isolator

STERLING
POWER



A smart, zero voltage drop isolator

The **ProSplit R** is an advanced split charge management device, developed specifically to deal with the complex nature of modern multi battery systems in boats and vehicles. For single or dual alternator inputs to two, three or four battery bank installations.

Complex software with some 1000 lines of code analyses every perceivable condition to ensure charging priorities are managed as you want with specific focus on preserving charge in the engine starter battery. Each input & output terminal is independently monitored to establish status before deciding where charge will be delivered and to prevent discharge from one battery to another.

Truly zero voltage drop is one key feature of the **ProSplit R**. Many alternative products claim to have no voltage loss but, under test, are proven not to be so - especially with heavy loads - when it really matters. The graph (turn over) illustrates this. It may not seem significant but 1V drop equates to as much as 30% lost charging power in a 12V system.



Unlike conventional Voltage Sensitive Relays (VSRs), the **ProSplit R** has the ability to identify and reverse current or over-voltage conditions and disconnect individual batteries to avoid damage or discharge. The ignition sense connection also ensures that the device knows the engine is running and protects the start battery when the engine is off.

Principle features:

- ✓ Distributes power according to need.
- ✓ Individually isolates a battery bank immediately upon detection of reverse feed to prevent discharge.
- ✓ Isolates all except the main battery bank in the event of high load overcharge.
- ✓ In the event of alternator &/or regulator failure the ProSplit R will disconnect input to prevent batteries from overcharge.
- ✓ Isolates any battery where the voltage is present, for instance, the use of a separate battery charger.
- ✓ LED display shows status of all channels, if they are in use or not and provides alarm status information.
- ✓ Industrial rating capable of sustaining massive overload conditions.
- ✓ Fail-safe; in the event of device failure, alternator and engine start batteries remains connected.
- ✓ IP66 waterproof rating.
- ✓ Integrated current limiting feature to prevent overload and short circuit.
- ✓ 'Ignition on' sense connection.

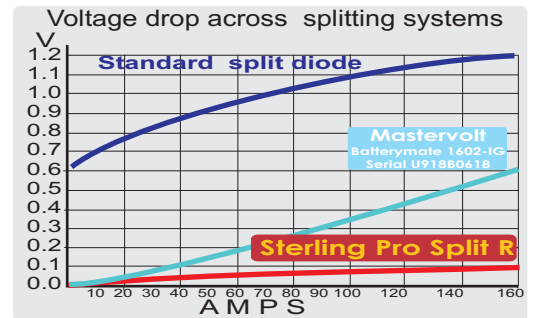
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ProSplit R

Specifications

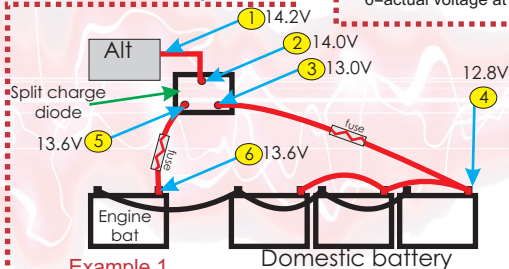


Competitors products: various other companies claim they have 0V split charge systems, however, the so called transistors / mosfet's splitters when under load are only about 50% better than the standard low cost diodes, where as the Sterling is 90% better. We have a 0.09V drop under full load conditions as opposed to 0.6V which the Mastervolt product has, making our product over 500% more effective. Plus, we offer all the extra functions as described above, which the transistor/ mosfet products simply cannot achieve.

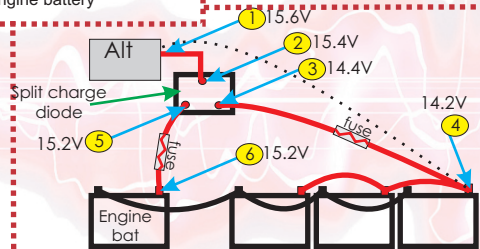


Possible setups

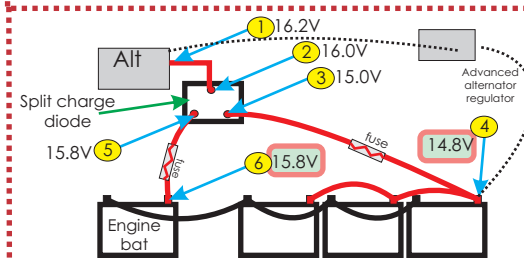
- 1= alternator voltage
- 2= input to diode voltage
- 3=output diode voltage to domestic battery
- 4=voltage at battery terminal
- 5= output voltage to engine start battery
- 6=actual voltage at engine battery



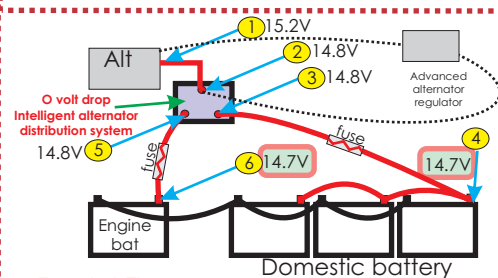
Example 1
split charge diode with **standard alt** producing about 14.2 V assuming a 60 amp alt , producing 60 amps into an empty domestic battery and a full engine battery



Example 2
split charge diode with **Alternator with a battery sensing reg** assuming an 60 amp alt , producing 60 amps into an empty domestic battery and a full engine battery



Example 3
split charge diode with **Alternator with Advanced alt reg** assuming a 60 amp alt , producing 60 amps into an empty domestic battery and a full engine battery



Example 4 The cure
Replace the split charge diode with a **0 volt drop intelligent alternator distribution system**. Then with advanced charging systems the voltage on the domestic and engine battery remains the same

Pro Charge Ultra 80-230 V 40-70 Hz A/C input						
D/C voltage	Max Alt Amps	Battery banks	Size L x W x D mm	Weight kg	Part nos	
12	120	2	150 x 80 x 120	0.6	PSR122	
12	180	2	150 x 80 x 140	0.7	PSR182	
12	250	2	150 x 80 x 155	0.9	PSR252	
12	120	3	150 x 80 x 130	0.9	PSR123	
12	180	3	150 x 80 x 150	1.0	PSR183	
12	250	3	150 x 80 x 180	1.3	PSR253	
Twin 12	2 x 130	4	150 x 80 x 295	1.8	PSRT134	
24	60	2	150 x 80 x 120	1.8	PSR62	
24	100	2	150 x 80 x 140	0.6	PSR102	
24	150	2	150 x 80 x 165	0.7	PSR152	
24	240	2	150 x 80 x 250	1.2	PSR242	
24	60	3	150 x 80 x 150	0.7	PSR63	
24	100	3	150 x 80 x 175	1.0	PSR103	
24	150	3	150 x 80 x 220	1.3	PSR153	
Twin 24	2 x 80	4	150 x 80 x 295	1.8	PSRT84	

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