



ProLatch R

Latching relay control

STERLING
POWER



A versatile, 0 volt drop latching relay

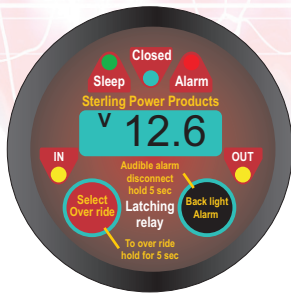
The **ProLatch R** is not a conventional relay. A conventional 80A/ 12V relay would consume 450mA 'staying on'. This is fine when using a 70A alternator. However, when using a 60W solar cell on a typical cloudy day the output is around 400mA, the conventional relay therefore renders the solar cell useless.

The **ProLatch R** is designed to 'lock into position' and will not consume power by 'staying on.' The only current drawn is to run the internal software which amounts to about 0.5mA (900x more efficient). This makes the **ProLatch R** ideal for use with solar cells or wind power, where every little counts.

IP68 fully -
waterproof



designed and made in England



Remote control functions (optional)

- 1) Input voltage
- 2) Output voltage
- 3) Optional water proof display, encapsulated electronics
- 4) Various override to allow lights to be switched on for safety (only available with remote)
- 5) Sleep: power saver function
- 6) Audible alarm stop
- 7) Audible alarm disconnect
- 8) Back light option on/ off
- 9) Background light colour change depending on function
- 10) Relay circuit opened or closed indicator
- 11) High voltage trip alarm and low voltage warning

The **ProLatch R** can be set to trigger 'on' and 'off' at certain voltages according to the user's need. 'On' voltages can be set from 10.7V - 14.8V and the 'off' voltages from 10.4V - 14.5V. There are also factory preset voltage trigger points which are suitable for 95% of applications.

Principle Features:

IP68 - fully waterproof

✓ **Charging mode - Uni / bidirectional.** When the **ProLatch R** is installed between 2 batteries (e.g. engine starter and auxiliary) it works as a **bidirectional** voltage sensitive relay (i.e. The trigger voltage on the input or output will activate the relay). The **ProLatch R** will latch when the alternator is active allowing current to flow from the starter to the auxiliary via the **ProLatch R**. In contrast, if there is a solar cell/ wind gen / other charging source on the auxiliary battery bank it will also activate the relay and allow charge to flow to the starter battery. The **unidirectional** setting is triggers the activation of the relay by the voltage on the input stud *only*.

✓ **Battery protection mode** - The **ProLatch R** prevents the over charging or over discharging of batteries. In order to prevent over charging, the relay disengages at a preset voltage or a voltage you specify (e.g. 14.4V). Therefore the battery will disconnect from the charging source. Conversely, to prevent battery depletion beyond a certain voltage, the relay will prevent charge from being drawn by the draining source (appliance). The device alerts the user by switching the power 'off' for 10 seconds and then back 'on' for 1 minute. This function saves the battery and does away with those large replacement bills faced by hiring agencies.

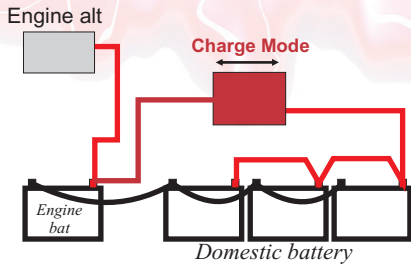
✓ **Engine start protection mode** - The **ProLatch R** can also be used on vehicles where all appliances are run from one starter battery (due to warranty or footprint reasons) such as: lorries, mobility vehicles and vans with inverters etc.. The **ProLatch R** allows your appliances to run safely from an engine starter battery without its voltage dropping below the engine starting voltage. If the voltage drops below the starting voltage the appliance will be cut off. It 'saves the day' by always allowing you to start the engine.

Visit the Sterling website for the latest products and news www.sterling-power.com

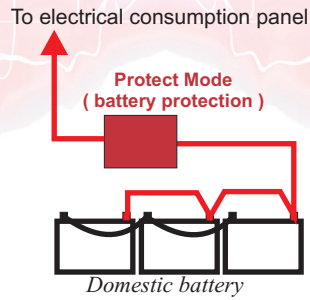


Common applications - examples -

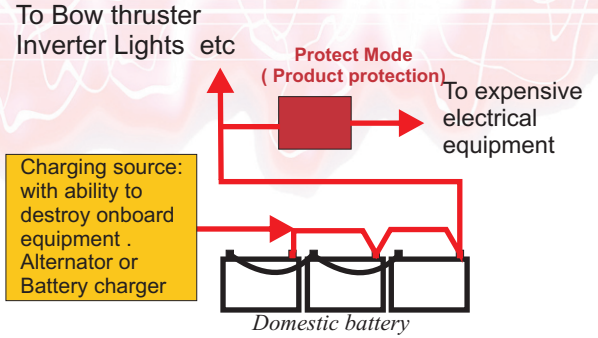
Voltage sensitive charging relay



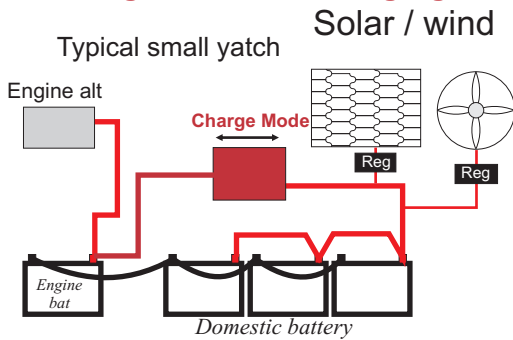
Battery protection



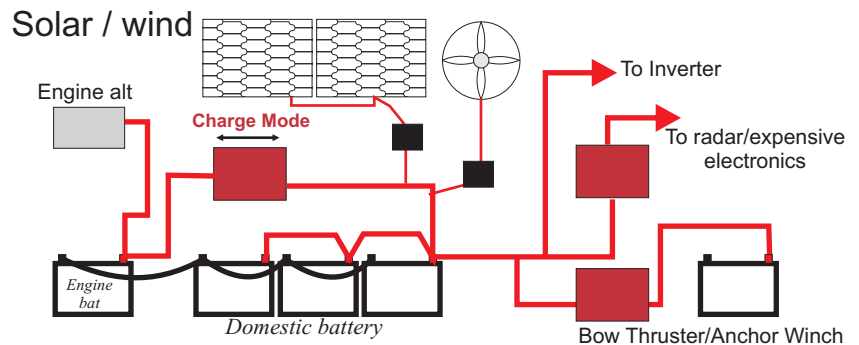
Product protection mode



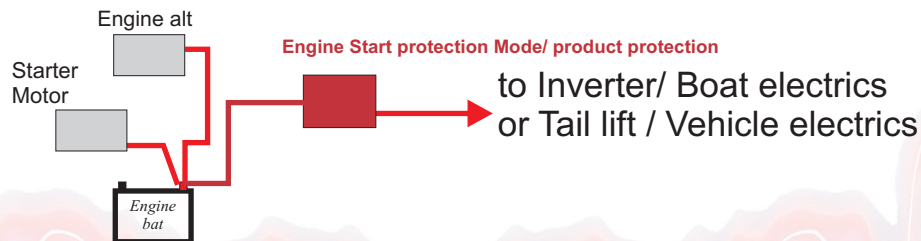
Voltage sensitive charging relay



Multiple use on small boat



Engine Starter Battery Protection Mode



| Part Number | Continuos Current | Max Interment Current | Quiescent Current ma | Input voltage | Output stud | Pre set voltage (can be adjusted if required) | | |
|-------------|--|-----------------------|----------------------|---------------|-------------|---|-----------------|------------------|
| LR80 | 80 | 500 | 0.5 | 12/24 auto | 6 mm | Battery protect | Starter Protect | Charging mode |
| LR160 | 160 | 1000 | 0.5 | 12/24 auto | 8 mm | Off 11v on 13v | Off 12.4 on 13v | on 13.3 off 12.9 |
| LR240 | 240 | 1500 | 0.5 | 12/24 auto | 8 mm | Off 11v on 13v | Off 12.4 on 13v | on 13.3 off 12.9 |
| LRR | Latching relay remote with 5 metres of cable , for longer use standard telephone cable extension | | | | | | | |

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