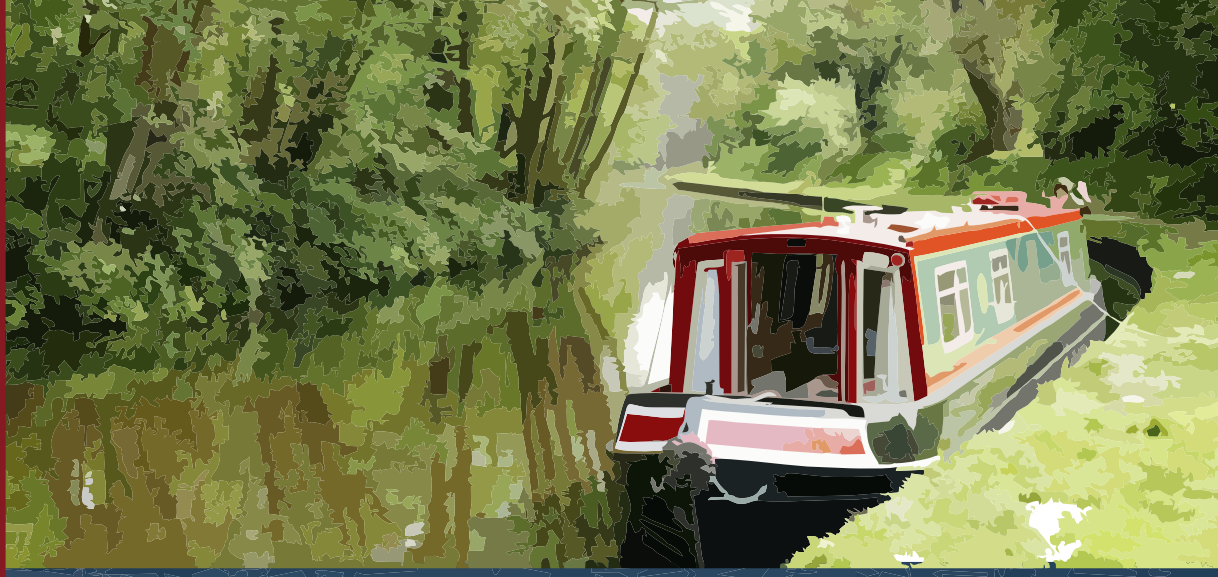

Sterling Power Products Marine Catalogue 2023

A breakdown of what Sterling recommends and offers for the marine market, including :

- **New battery to battery chargers**
- **Solar regulators and solar panels**
- **Induction hobs**
- **Inverters and inverter chargers**
- **The updated PCU2**
- **Accessories and more!**

www.sterling-power.com
www.sterling-power-usa.com

STERLING POWER

WELCOME CONTENTS PAGE

Welcome

Welcome to Sterling Power Products' 2023 marine catalogue, and thank you for taking your time to look through this breakdown of our upcoming and present offerings to the power market. The ongoing pandemic, the global political climate and the global semiconductor shortage have complicated our market, but Sterling has remained dedicated to its pledge to innovate and provide the best product lines we can to our client base. We hope that they help to continue offering solutions to your power distribution needs.

If you would like any clarification, further information or consultation regarding any Sterling product, please email us at info@sterling-power.com or call us on 01905 771771

Warranty

Your 100% satisfaction is our goal. We realise that every customer and circumstance is unique. If you have a problem, question, or comment please do not hesitate to contact us. We welcome you to contact us even after the warranty and return time has passed.

Each product manufactured by Sterling Power comes with at least a 2 year limited factory warranty, when sold from new. Certain Products have a warranty period of time greater than 2 years. Each product is guaranteed against defects in material or workmanship from the date of purchase. At our discretion, we will repair or replace free of charge any defects in material or workmanship that fall within the warranty period of the Sterling Power product. Full warranty terms are available on the website.

Copyright

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PCU2

PRO CHARGE ULTRA 2 — Marine Grade Global Input AC/DC Battery Charger, Updated

AC Input OR DC Input	90-270VAC // 45-65Hz, perfect for generator use 130-320VDC
Efficiency	90.4%
Battery Chemistries	Suitable for all battery types within the voltage range. Lithium included.
Number of outputs	Dependent on model. PCU1210 has two outputs. All other models have three outputs.
Preset Battery Profiles	11 preset battery types, including 4x lithium presets. In the unlikely case none of our presets suit your batteries perfectly, we also have two custom profiles. One for lithium custom, one for lead acid custom.
Lithium Features	Live output voltage so as to offer the ability to wake up a dormant BMS Low temperature (0DegC) charge disconnect (In place of the temperature compensation featured on lead acid) A feed that allows your BMS to disable charge, with either a positive or resistance based connection
Operating Temperature	-40DegC to +60DegC
Approvals	UL, UKCA, CSA, CE, EN, TUV, CEC Compliant
Signal Output	0.25A signal output that mirrors the active output voltage, useful for signalling relays or other voltage based controls
Total Harmonic Distortion	2.4% on voltage and current
Display Accuracy	+/- 1% on voltage and current
Power Factor	0.976 at 230V
Warranty Period	Five years
Protections	Temperature sensor protections Fan obstruction monitoring DC High Voltage Trip DC Low Voltage Trip DC Output Fault (Reverse Polarity) BMS shutdowns
Improved Ergonomics	A rearrangement of the terminal access and of the endcap itself offers an improved user experience. Side latches allow quicker and simpler access to the cable access if desired.
Remote Control	A remote control with display is available. Code : **PCUR**

- Displays voltage, current.
- Multi-lingual
- Charging stage and duration
- Chosen battery type
- Temperatures
- Errors
- 3m of cable

Models

DC (V)	Rating (A)	Size	SKU
12	10	A	PCU1210
12	20	A	PCU1220
12	30	A	PCU1230
12	40	A	PCU1240
12	50	B	PCU1250
12	60	B	PCU1260
24	20	A	PCU2420
24	30	B	PCU2430
32	20	B	PCU3220
36	20	B	PCU3620
48	15	B	PCU4815

Size A - 260mm x 215mm x 90mm
Size B - 315mm x 215mm x 90mm

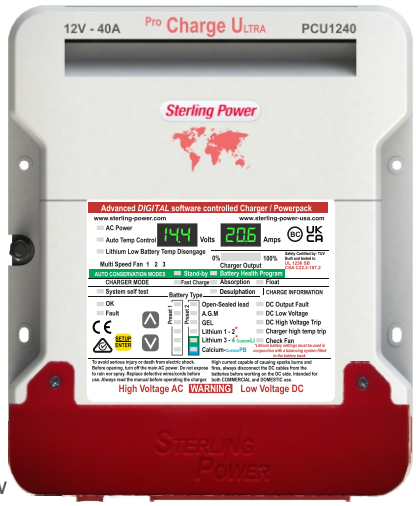

Fig 3.1
Size A PCU

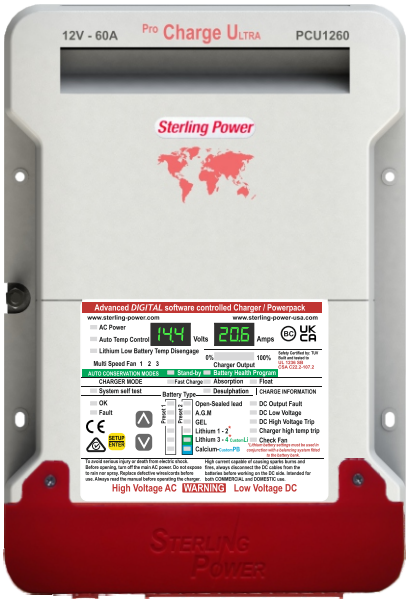

Fig 3.2
Size B PCU

STERLING POWER

Standards
Tested to CE standards
EN61000-3-2
EN61000-3-3
EN55014-1
EN 55014-2
EN60335-2-29
EN ISO 13297
EN 6100-3-2 Class

PCUL Pro Charge Ultra Lite

Pro Charge Ultra Lite
Sterling's Pro Charge Ultra Lite builds upon the market leading groundwork of the PCU to allow a budget sensitive market access to our charge technologies.

True Global
The PCUL, like the PCU, is a true global charger. It will operate from 80-270VAC and 130-320VDC.

230V/110V Performance
230VAC performance is 20A/DC. 110VAC performance is 20A/DC.

PCUL vs PCU
There's a number of key differences between the Ultra and the Ultra Lite that will help you make your decision.

Size
The Ultra is larger due to it needing to meet the ABYC 40 Deg C+ high ambient temperature performance standards, and to fit the more advanced electronics. The Lite has an operational range in the 20 Deg C+ (a more common standard for non ABYC) and therein is in a smaller body.

Interfacing
The Lite displays less information on the front panel than the PCU.

Certifications
Although built to UL standards, the Lite is NOT UL certified. It is also not CEC certified, unlike the PCU.

DC Outputs
The Lite has a maximum of 2 DC outputs, the PCU has 3.

Warranty Period
The Lite has a factory two year warranty, the PCU has a 5 year warranty.

Efficiency
The PCUL is rated to over 90% efficient, thank to its active power factor correction.

Charge Profiles
8 pre-programmed charging profiles, including lithium, and a fully customisable profile for the user to program to their own specifications.

LED Display
18 LED panel for clear understanding of functions.

Temperature Signals
Battery temperature sense compensation and daisy chain temperature sensing, allowing greater charge optimisation and safety.

Modular Systems
The PCUL can be ran in series or in parallel with other PCULs, allowing completely modular charge systems.

Night Mode
Night mode forces the unit to run at 1/2 power for a fixed time frame, keeping fan noise to a minimum.

Generator Use
Perfect for generator use, due to its broad range of operating voltages and the ability to reduce the output power of the unit itself, complimenting a wide range of shore power and generator connections.

Models

Model	Current Rating	Outputs	Weight	Voltage	Size/mm
LPCU1230	30A	2	2.5kg	12V	198 x 158 x 70
LPCUR	LPCU Remote				54mm diameter
TSAY	Battery Temp Sensor				
TSD50	50 Deg C Daisy Chain Sensor				
TSD60	60 Deg C Daisy Chain Sensor				

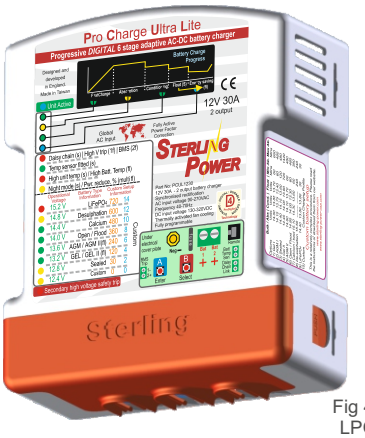

Fig 4.1
LPCU

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BCM Battery Chemistry Modules, Charge Adapters

Battery Chemistry Module

Sterling's Battery Chemistry Module (BCM) is a device designed to be installed into existing charge systems where you have multiple battery types in the same charge circuit, and particularly into systems where these battery types want to receive different charge voltages.

Charge Evolution

The BCM can therein either turn a very simple battery charger into a multi-output, multi-chemistry battery charger, or improve your multiple output charger by optimising each output for their battery bank, and far more cost effective than a multi-chemistry, multi-output battery charger.

12-24, 24-12

Cross voltage models available.

Battery Presets

8 selectable charging profiles, including AGM, Gel, SLA, FLA and desulphation.

Battery Temperature

Battery temperature compensation and high battery temperature trip available for each BCM, maximising safety.

LED Display

6 LEDs projecting over 20 individual charge and warning information events.

Failsafe

Failsafe, reverts to basic charge function but at a 1V decrease from input to output. Product can be replaced or repaired at earliest convenience

Daisy Chain Trip

High battery temperature daisy chain trip, every battery can be monitored and the unit switched off in the event that any battery gets too hot.

PSR Integration

Ignition fed generator to link with the PSR alternator splitter, allowing further splitting of the output.

Current Limit

Do not install on a charger where the charge current exceeds the BCMs rating,

Remote Voltage Sense

Remote voltage sense and compensation allows the unit to overcome long-run volt drops.

Simple Install

Simple to install direct to charger.

Models

Model	Current Rating	Notes	Voltage
BCM1260	60A	BCM	12V
BCM2430	30A	BCM	24V
BCM1224	20A/10A	BCM	12V->24V
TSD50	50 Deg C Daisy Chain Sensor		
TSD60	60 Deg C Daisy Chain Sensor		
TSD70	70 Deg C Daisy Chain Sensor		
TSD80	80 Deg C Daisy Chain Sensor		
BCMR	BCM Remote Control Plus 10m Cable		

Fig 05.1
BCM

Installs

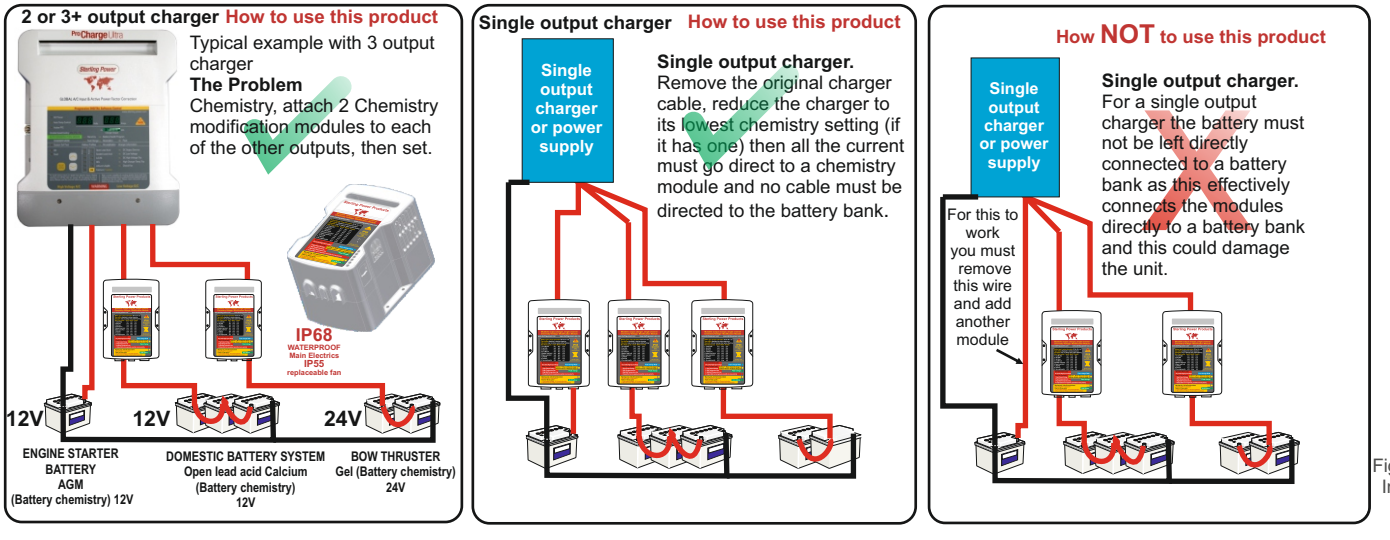


Fig 05.2
Installs

PRO BATT X PT 1 — A High Powered Bidirectional Battery to Battery Charger - 0V-32V

Summary

The BBX is the culmination of years of experience in the power distribution sector and features technology that we firmly believe to be superior to anything the market presently has to offer, and as such, we are proud to present it as our newest flagship DC/DC product line, to be evolved as the market needs.

The BBX is a high powered, highly efficient, highly customisable bidirectional battery charger, allowing complete control of your DC system, even across voltage scales. In one BBX you benefit from a 12-12V, 12-24V, 24-24V and 24-12V charger, to suit a wide variety of client and user needs - and its bidirectional ability means that we can move perfectly regulated power however needed.

Features

Preset Battery Types

The BBX comes with 7 available preset battery types for output voltages. These pre-designed options have been made with the current average absorption and float voltages on the market, aiming to make install as quick and easy for all customers. Totally customisable input and output voltages, at the users behest.

Complete Output Control

In the instance that our preset options don't perfectly meet your output requirements, the output voltage of the BBX can be customised entirely to your needs. Using the custom feature of the BBX, the user can choose an output voltage from the BBX, at a range from 0V up to 32V, in increments of 0.1V.

Four Stage Charging

The output of the BBX, by default, adheres to a four stage charging profile to offer your batteries the safest and most efficient charge output that we can generate. Charging with a four stage profile (Bulk, Absorption, Conditioning, Float) offers your batteries a quicker charge rate that puts your batteries health and performance as a priority.

DC/DC Converter

The BBX can also be easily set into DC/DC converter mode, that allows complete DC voltage control as a constant power supply on the output, independent of a variable voltage on the input.

Adjustable Current Limit

The BBX offers complete current control, as well as voltage control. The current limit on the output can be defined and adjusted in 5-10A increments, from 0A up to the rating of the unit itself.

Independent Bidirectional Control

One of the defining features of the BBX is its ability to output to either terminal, and each direction can be customised with all of the above features and complete precision, entirely independently of the other directions setup.

Emergency Start Function

Overrides all low voltage restrictions (for a time frame) and harvests maximum power from the auxiliary battery and regulates a max power dump into the engine battery to charge and start the engine at full current.

Remote Voltage Sense and Cable Sag Diagnostics

A and B remote sense wires allow for pinpoint voltage charging accuracy, even across long cable runs, and cable sag diagnostic reviews in both directions, advising or warning the user on poor wiring or blown fuses.

Temperature Sensor

1x included temperature sensor, performing temperature compensation for non-lithium batteries, and offers an output shutdown at 0DegC when interfacing with lithium.

Lithium Compatibility

On top of the above 0DegC charge shutdown (programmable), the BBX also features a BMS positive or negative shutdown feed, giving your BMS direct charge control if demanded.

OEM Lock

Sterling understands that some fitters would like to know the exact parameters their fitted equipment will be operating at. The BBX features an OEM lock function, locking in all previously established setting parameters and preventing further tampering or misuse. All information on the unit is still accessible.

Choosable Activation Modes

The engagement parameters for the BBX are fully customisable, with the following options.
1) Fully automatic, works based on pre-determined on/off voltages at the DC terminals. These are adjustable.
2) Ignition feed with starter battery protection.
3) Ignition feed with no low voltage protection (ideal for Euro 6+ vehicles)
4) Vibration sensing (ideal for Euro 6+ vehicles) - various sensitivity settings. Unit can activate based on vibration when engine starts.
5) Custom set ignition feed - adjustable voltage parameters.

Simple to install

Even though this product has an eye watering amount of options / custom settings the base product is designed for 90% of operations with no setup required. Simply connect the BBX between two battery banks. The unit will automatically select the battery voltages and you simply push the agree button to confirm.

Thermal Regulation

The BBX features a quiet and efficient fan, to regulate its own temperature and guarantee continuous full power operation up to 40DegC ambient. Full thermal throttling offers continual reduced operation at up to 80DegC

Digital Displays

Two digital displays to offer voltage, current and temperature readings for either connected side.

STERLING POWER

est. 2024 available

BBX

PRO BATT X PT 2 — A High Powered Bidirectional Battery to Battery Charger - 0V-32V

DC Input	On terminals A or B, 8V-32.2V (Warns below 9V)
DC Output	On terminals A or B, 1V-32V
Efficiency	Up to 98.2% efficient, at full power (24V-12V at 200A output)
Max Output	200A current limit, at 24V-24V this amounts to ~6KW
Connections	3x 8mm bolt terminals. BATT A, COMMON NEGATIVE, BATT B
Display	Multi-coloured LCD screens for current, voltage and temperature on BATT A and BATT B.
Approvals	E Marking Pending, Seeking UL Approval
Protections	Temperature monitoring (Internal, Batt A, Batt B) with regulation and shutdown if needed Over current protections (hardware and software) Over voltage protections (hardware and software) Voltage sag, fuse blowing (software monitoring, remote voltage sense) BMS shutdown signals Lithium 0DegC shutdown Reverse polarity protection
Operating Range DegC	Throttles at 70DegC, Cuts off at 90DegC on unit. Disables charge if battery temperature reaches 50DegC Powers up and operates at full power down to -20DegC
Display Accuracy	+/- 1%, all displays
Product Image	

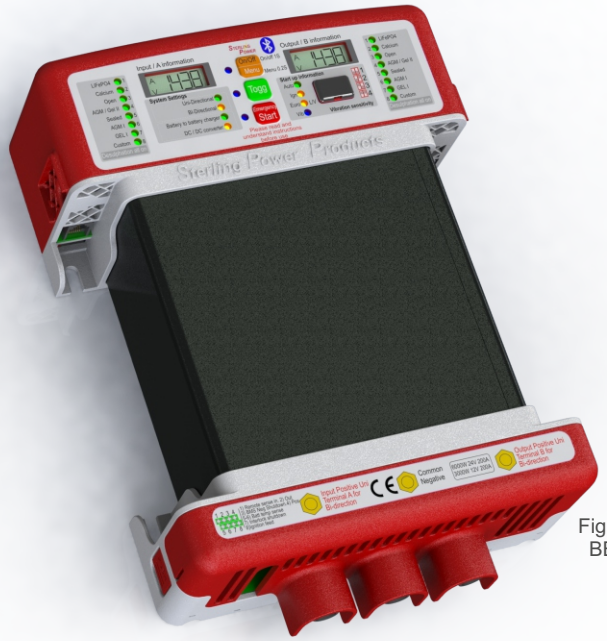


Fig 7.1
BBX

BBX continued overleaf

BBX48 A High Powered Bidirectional Battery to Battery Charger - 0V-64V - up to 12KW

12KW 48V Variant

In addition to the BBX family we have a 0-64V - 0-64V Bidirectional Battery to Battery Charger. At a nominal 48V to 48V the BBX48 shall be capable of delivering 200A at 60V ~12KW. At a nominal 36V to 36V the BBX48 shall be capable of delivering 200A at 40V ~9KW. The BBX48 has all the features of the BBX with several additional benefits:

Additional features

- up to 12KW in available power (at 48V to 48V scale)
- Pre-charge capability
- High voltage disconnect circuit
- Can bus connectivity

Pre-Charge

When connecting a high voltage battery (48V) to a high voltage device (BBX48) there can be a large in rush of current every time the device and battery connect to each other - when opening and closing an isolation switch, for example. Pre-charge allows for a gradual flow of charge upon connection. This is a safety feature to prevent potentially very large sparks.

High Voltage Protection

As the BBX48 may be connected between 12V on one side and 48V on another side, if there were to be any hardware problems and 48V travel through the BBX48 to the 12V side, the BBX48 would instantly open circuit to protect the 12V batteries. This is true of 24V and 36V too. This protection shall work on both terminals.

Models

DC V Scale	Rating (A)	Weight (kg)	Length (mm)	SKU
12/24	50	2	280	BBX50
12/24	100	2.5	320	BBX100
12/24	150	3	360	BBX150
12/24	200	3.5	400	BBX200
12/24/36/48	200	4	430	BBX48

Depth – 78mm

Width – 203mm

Demonstration Install

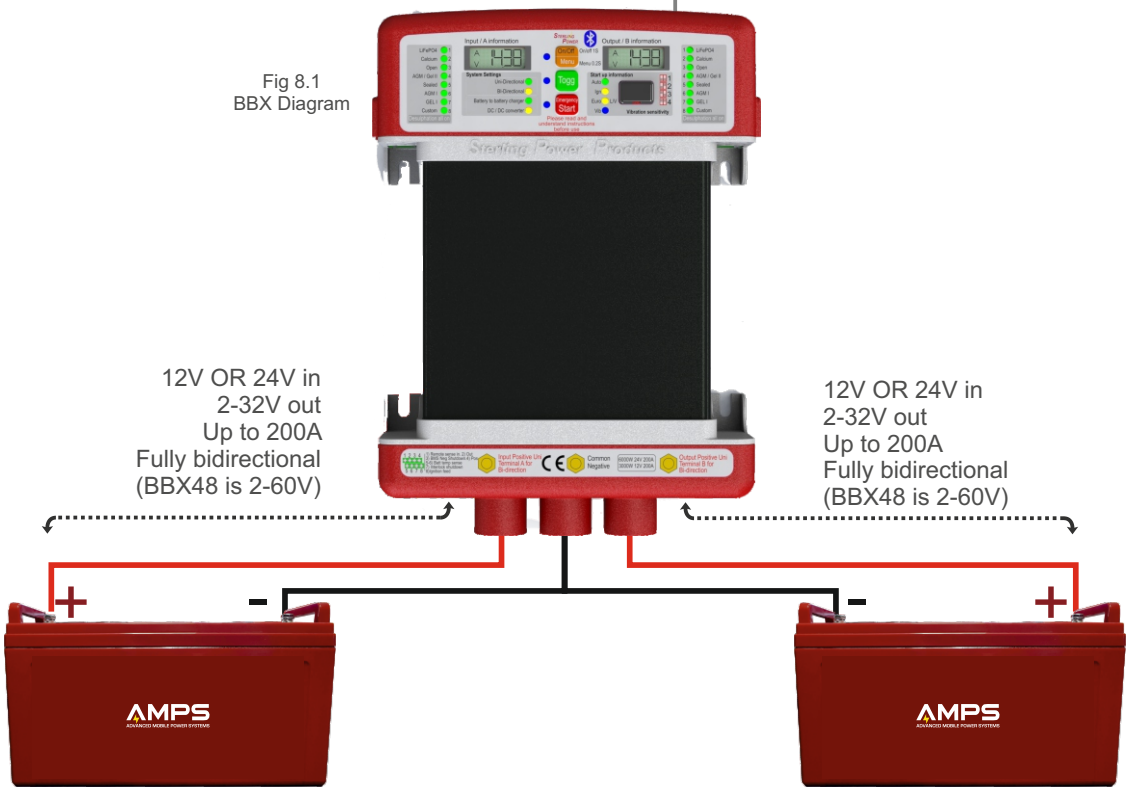


Fig 8.1
BBX Diagram

Key Features
High efficiency
Bidirectional Charging
Vibration and Ignition activation
E-marking E24

Fig 7.2
BB12V Connector Face

Fig 9.1
Product renders

BB12120 *BB1270* *BB1240* *BBR*

New BB Features
Buck Boost technology

96-98% efficiency, offering you the best harvest and greatest cooling. Fan cooling and aluminium construction allows the charger to run cool all day and at full power.

Bidirectional Charging Ability

Charges up leisure / service battery when driving / engine running. When engine has stopped and you have a charger / solar keeping your leisure battery topped up, it allows surplus current back to the starter battery to keep the starter battery topped up - this is a float voltage designed for topping up and maintaining, not fast charging. The reverse charging current is 20A, 40A, 60A dependent on model (see table below) - the charge voltage is 13.3V

Simple to install and set up

Two negative terminals to make a common negative install simpler and six simple to choose charge profiles.

Current limiting (On input)

Allows for predictable control of your DC install. We will only draw up to a maximum of the unit rating.

Lithium Compliant

Reliable and controlled voltage output, live output modes (to wake a BMS), low temperature output shutdown (0DegC) and BMS shutdowns. 2x Lithium suitable charge presets, current limiting

Charge currents

40A, 70A, 120A and 200A input models available - 12V only. 12V to 24V model due in Q1 2023

Euro 6 / 7 / Smart Alternator Compliant

Smart alternators pose a new challenge, in that their typically low output voltages don't activate conventional relays. This BB offers ignition feed or vibration sense activation AND normal voltage sense activation.

Self protected

6 self recovering protections

Remote and Remote Functions
Product code :: **BBR**

The BB remote (Product code BBR) gives users or installers access to a lot of customisation features on the BB, as well as giving you full information about the product operation. The BBR allows the following :

- Live voltage and current readings from the BB output
- The ability to set custom charge profiles
- The ability to adjust the current limit to 100%, 85% or 65% of current rating
- Allows the removal of float feature in lithium profiles
- Desulphation and equilisation settings can be customised and established.

Alternator to Battery Charger

Battery to battery chargers can be used to optimise your alternator production in a similar manner to how the alternator to battery charger systems can - but in a current limiting manner, ensuring you don't overwork your alternator even on a lithium system. Simply ensure your alternator output is connected to your starter battery directly, then install a battery to battery charger to charge the leisure system.

Models

	DC V In/Out	Rating (A)	Weight (kg)	L W D	Bidirectional	Reverse Charge	SKU
	12/12	40 on Input	0.6	160x130x56	Yes	13.3V at 20A	BB1240
	12/12	70 on Input	1.0	230x130x56	No (yes in 2023)	13.3V at 20A	BB12170
	12/12	120 on Input	1.8	270x130x73	No (yes in 2023)	13.3V at 40A	BB12120
Q1 2023	12/12	200 on Input	2.2	309x130x96	Yes	13.3V at 60A	BB12200
Q1 2023	12/24	120 on Input	1.8	270x130x73	Yes	13.3V at 40A	BB1224120

ESTABLISHED BB RANGE

Extended Battery to Battery Charger Range

Models

The following two models of battery to battery charger are unique, yet share the same user interface that our customers and clients are used to, minimising the need to learn anything new, just choosing the product that is suitable for their needs.

IP22 BB Solar

The classic 30A BBS1230 frame and control system with a 350W 31VOC (Volts Open Circuit) solar regulator integrated into function, allowing solar charge to your target bank when the engine is off, and alternator based charge when your engine is on.

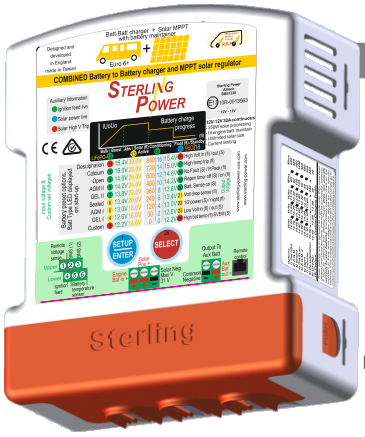


Fig 10.1
IP22 BBS1230

DC V In/Out	Current IN	Weight (kg)	LxWxD (mm)	SKU
12/12	30A	1.2	190x160x50	BBS1230

IP68 Waterproof

Aluminium housing, a water resistant fan and our most efficient waterproof DC/DC board yet provide you with the best waterproof service we can provide. Comes sealed with pre-wired 1.5m long cable, and with pre-installed fuses and fuse holders on the cables. Along with all of the features present in the Pro Batt Ultra range of battery to battery chargers.

DC V In/Out	Current IN	Weight (kg)	LxWxD (mm)	SKU
12/12	30A	3.5	128x238x94	BBW1230
12/24	30A	3.5	128x238x94	BBW122430
24/12	15A	3.5	128x238x94	BBW241215
24/24	15A	3.5	128x238x94	BBW242415
✹ 12/12	30A	3.5	168x238x94	BBWS1230
12/36	30A	3.5	128x238x94	BBW123630
12/48	30A	3.5	128x238x94	BBW124830
24/48	15A	3.5	128x238x94	BBW244815
✹ 12/12	30A	3.5	128x238x94	BBWI1230

✹ *BBWS - Solar Model*
Solar model has MC4 male / female connectors
Max solar VOC - 32VOC

✹ *BBWI - Isolated Output Model*

Fig 10.2
IP68 BBW1230

Remotes

All extended range battery to battery chargers have the option to be fitted with remote controls. The remote controls for each range is as follows.

BBURC: Suitable for all BB and BBS variants.

STERLING POWER

ESTABLISHED BB RANGE

Our range of Euro 6 compliant battery to battery chargers and their sibling variants

Dynamic Range

This family of battery to battery chargers are suitable for almost any low-voltage directive (12V to 48V range nominal voltage) DC/DC charger need.

8 Preset Profiles

Eight preset battery profiles ensure that the battery to battery charger can easily be configured to suit a broad range of battery types and battery manufacturer specifications

Heavily Customisable

In the unlikely (but possible) case that one of our presets are not suited to your battery bank or application the BB is also incredibly customisable, allowing full control over : Engagement voltage, customisable charge profiles, auto-regen timers, power supply mode being ON or OFF, half power and ignition feed only modes.

Current Limiting

Our current limiting feature means that you have full understanding of the limits at which your system will operate and ensuring you can plan and operate within pre-defined limits, keeping your alternator, cabling, fuses and all other electronics operating how you expect them to

Lithium Compatibility

The battery to battery range of chargers are all completely lithium compliant. They are current limiting to stop your lithium batteries from drawing over what your alternator is rated to (or, in some cases, over what the battery itself is rated to), have the option for a live-output mode to wake up a sleeping battery management system, and have pre-set lithium profiles that, on the 2023 release of the BB, also include a low temperature shutdown (OPTIONAL) to protect your batteries from being charged below freezing.

Models

IP22 Non Waterproof

Known across the automotive and marine market, this battery to battery charger and its predecessor pioneered the battery to battery charger market, an imperative choice for a modern charge system.

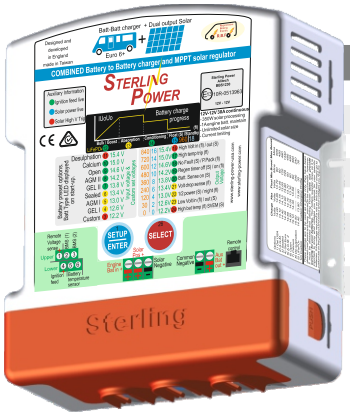


Fig 11.1
IP22 BB

DC V In/Out	Current IN	Weight (kg)	LxWxD (mm)	SKU
12/12	30A	1.2	190x160x50	BB1230
12/24	30A	1.3	190x160x50	BB122430
12/12	60A	1.4	190x160x70	BB1260
12/24	60A	1.4	190x160x70	BB122470
12/36	60A	1.4	190x160x70	BB123670
12/48	60A	1.4	190x160x70	BB124870
24/24	30A	1.4	190x160x70	BB242435
24/12	30A	1.4	190x160x70	BB241235
24/48	30A	1.4	190x160x70	BB244830

Solar Regulators

In order to continue to compete in the power distribution market, Sterling has expanded into the solar market and can now offer very competitive solar regulators, which is the beginning of our solar integration range. We offer two regulator technologies at present, **Pulse Wave Modulation (PWM)** and **Maximum Power Point Tracking (MPPT)**

Solar regulators are vital for when charging batteries from a solar source. Solar panels typically operate at far higher voltages than would be healthy for a battery and a solar regulator provides the intelligent control to not only make it safe to charge batteries from, but also to charge them intelligently and with reference to your batteries preferred charge curve and profile.

PWM

PWM technology is size and cost efficient and yet still very effective at harvesting from solar. This is predominantly aimed towards installs with smaller arrays or for which space is a premium and which does not need the more advanced output and features of the MPPT range.

MPPT

MPPT technology is larger and at a comparable premium but does offer a superior solar harvest, providing you with a maintained and maximised output even with wildly varying solar inputs and can offer you far increased adaptability and monitoring due to its integrated WiFi connectivity.

User Interface

The app and WiFi allow output customisation and monitoring from even remote positions. It provides you with the voltage, harvest and output and is very easy to establish and integrate. Only the MPPTs have integrated WiFi

12V, 24V, 36V, 48V Autoselect

The PWM10 and MPPT30 can output to 12V or 24V battery banks and will autoselect depending on what voltage it registers at your batteries. The MPPT50 can output to 12V, 24V, 36V or 48V battery banks.

Twin Output Access

All Sterling regulators also integrate a load output that can be used to provide power to a different source when full, either providing to a known load or can be used to charge a secondary battery bank or trigger a signal of sorts.

Models

Model	Dimensions (mm)	Weight	Rating	Output Range	VOC Limit	Max Harvest	WiFi
PWM10	125 x 81 x 30	160g	10A	12V / 24V	50V IN	300W	No
MPPT30	240 x 178 x 63	1.5kg	30A	12V / 24V	100V IN	800W	Yes
MPPT50	240 x 178 x 73	2.3kg	50A	12V/24V/36V/48V	135V IN	1200W	Yes

Product Images

Fig 12.1
PWM10

Fig 12.2
MPPT30 and MPPT50 frame

Fig 12.3
App and WiFi display

Fig 15.4
LCD display

ETFE Coating

Sterling's semi flexible solar panels are coated in premium-grade Ethylene Tetrafluoroethylene (ETFE), a far more expensive and durable material than the industry standard Polyethylene Terephtalate (PET). This allows them to be durable to the elements, less affected by cracks and allows you to still walk on the space occupied by these panels.

Monocrystaline Cells

The monocrystalline cell has a higher conversion efficiency than legacy technologies, offering a harvest of up to 20.4%.

Flexibility

With up to 140mm bending height these solar panels can fit flush to the hull of many different vessels, from recreational vehicles to boats to trucks and more.

Mc4 Connectors

With Mc4 connectors coming standard with our panels, they can be conjoined together in an array with ease.

Electrical Characteristics:				
Maximum power(Pmax)	18W	55W	120W	150W
Voltage at Pmax(Vmp)	17.2V	17.2V	17.8V	17.8V
Current at Pmax(Imp)	0.96	2.94	6.42	8.02
Open circuit voltage(Voc)	18V	18V	20.4V	20.6V
Cells Efficiency(%)	20.30%	20.30%	20.40%	20.40%
The maximum system voltage	100VDC(IEC)	100VDC(IEC)	100VDC(IEC)	100VDC(IEC)
Power temperature coefficient / Deg C	-0.39%	-0.39%	-0.39%	-0.39%
Voltage temperature coefficient / Deg C	-0.30%	-0.30%	-0.30%	-0.30%
Current temperature coefficient / Deg C	0.04%	0.04%	0.04%	0.04%
Output power tolerance	±3%	±3%	±3%	±3%
NOCT	45±2DegC	45±2DegC	45±2DegC	45±2DegC
Data under standard testing conditions(STC):1000W/M²; 1.5AM				
Specifications:				
Contruction	surface ETFE EVA backboard TPT	surface ETFE EVA backboard TPT	surface ETFE EVA backboard TPT	surface ETFE EVA backboard TPT
Module dimension	410 x 285 x 3 mm	580 x 540 x 3mm	1200 x 540 x 3mm	1460 x 540 x 3mm
Weight	0.9Kg	1.4KG	2.3KG	3.0KG
No.of cells and connections	4*8	4*8	4*8	4*8
Maximum bending arch height	15mm	30mm	80mm	140mm
CODE	**SP18**	**SP55**	**SP120**	**SP150**

Product Images

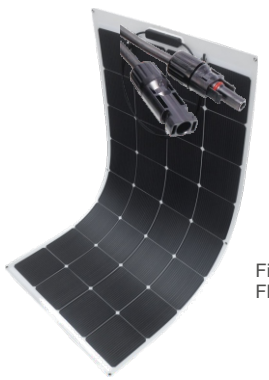


Fig 13.1
Flexibility and MC-4 connectors

MC-4 T Style split connectors
Comes with 1x male, 1x female
2/3/4/5 splitter/combiners
Do not exceed 30A

Sterling Part Number
S2GD 2-1 Dual pack
S3GD 3-1 Dual pack
S4GD 4-1 Dual pack
S5GD 5-1 Dual pack

MC-4 Y style flexible connectors
1x male, 1x female
Do not exceed 30A

Sterling Part Number
S2BD 2-1 Dual pack
S3BD 3-1 Dual pack
S4BD 4-1 Dual pack

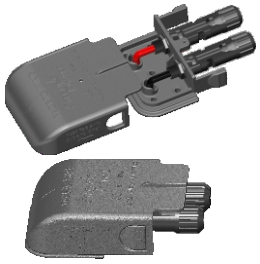
MC-4 Connector With Fuse
Sterling Part Number
SF10 Male MC4 10A
SF20 Male MC4 20A
1 x Male MC4

MC-4 Diode Male to Female
Sterling Part Number
SD10 MtF MC4 Diode 10A
SD20 MtF MC4 Diode 20A
1 x Male to Female MC-4 diode

MC-4 Through bulkhead
Dual pack
Sterling Part Number
STB
1 x Male MC4 through bulkhead
1 x Female Mc4 through bulkhead

MC-4 6mm2 Solar
Regulator Connector M/F
Sterling Part Number
SRC6
1x MC-4 6mm2 Solar Regulator
Connector M/F 15cm

MC-4 M & F Through roof
waterproof pod 12 mm holes
Sterling Part Number
SP **Pod+gasket only**
suitable for MC-4 or
conventional gland use
Connectors not included



8x Self adhesive cable tie
holder for roof or wall cable
installations.
Sterling Part Number
SAT

MC-4 Connector Specifications

Rated current: 30A
Rated Voltage: 1000VDC
Suitable cable: 2.5 & 4 & 6mm2
Waterproof IP67
Contact resistance 0.2mm Ohms
Contact material: Copper Tin plated

Pin Dia 4.0mm dia
Flame class: UL94-VO
Safety class:11
Insulation material: PPO
Connecting system: Crimping
Temperature rating -40 to 90'C

Solar Installation Kit SKIT

Solar can be scary to some installers as it feels like a whole new world of power which may need new tools that don't fit into the installers existing carrycase. The Sterling Solar Kit overcomes these barriers.

Zip sealed and portable

The SKIT provides all the stripping, cutting and crimping tools and screwdrivers you may need for install in a neatly packaged zip-locked handy pack.

Ergonomic Design

The tool range have been designed all for ease of install and user comfort. Consistently high crimping quality and accuracy is ensured thanks to the crimping moulds, locking mechanisms and comfortable grips.

Cable applications

Suitable for MC-3, MC-4 and Tyco solar connectors, or suitable for any crimping and stripping installs on cable ranges from 26AWG to 10AWG.

Specifications

Construct Material: Carbon Steel
Type: Combination Pliers
Model Number: A-2546B
Application: MC3/MC4/Tyco Solar Connectors
Purpose: Crimping/Cutting/Stripping MC3/MC4 wires of 2.5mm, 4mm,6mm (AWG 14/12/10)
Cutting Range: 30mm MAX
Stripping Range: 0.9-6.0mm
Weight: 2.2kg
Crimping Range MC3/MC4: 2.5/4/6mm2 (AWG 14/12/10)
Crimping Range Tyco: 4/6mm2 (AWG 12/10)
Pack Size: 15*32*5CM
Manual: English

Fig 15.1
Solar Kit (Opened)

Tool set includes

1. A-2546B PV MC4 Crimping Tool for crimping MC4 connectors. Crimping range: 2.5, 4, 6.0mm2
2. LS-700E cable stripper for stripping cables 1.5mm2, 2.5mm2, 4mm2, 6mm2
3. LS-206 cable cutter for cutting cables 35mm2 max.
4. LSD-2546S MC4 Spanner 1 set
5. Straight screwdriver 1 piece and Cross screwdriver 1 piece
6. MC4 locator
7. 1 allen key
8. Zippered Carrying Bag

MC-4 Pre-Made Cable

Available from 0.5M to 10M in length, in either 4mm2 or 6mm2 cross sections. Pre-fitted with TUV/UL approved male and female MC-4 connectors.

Pre-bagged

Available pre-bagged with barcodes, ideal for retail or resale.

Sterling Bespoke

All cables ordered from us are made by us. Bespoke order options available. This ensures that everything is Sterling quality.

Premium cable

Our tin-coated, double insulated copper cable is corrosion resistant, safe and with minimal losses.

Cable Product Codes and Photos

TUV/UL APPROVED

	4mm2	6mm2
0.5mtr	SE05M4	SE05M6
1mtr	SE1M4	SE1M6
2mtr	SE2M4	SE2M6
3mtr	SE3M4	SE3M6
4mtr	SE4M4	SE4M6
5mtr	SE5M4	SE5M6
6mtr	SE6M4	SE6M6
7mtr	SE7M4	SE7M6
8mtr	SE8M4	SE8M6
9mtr	SE9M4	SE9M6
10mtr	SE10M4	SE10M6

Fig 15.2
MC-4 Cable

Fig 15.3
Cable, double insulated, tin coated copper

Pure Sine Inverters

Pure sine wave inverters perfectly replicate the power as it would come from your shore power access, allowing full use of even the most sensitive electronic devices.

12V/24V

Sterling offer a range of pure sine wave inverters, in both 12V and 24V inputs.

Variants

230V Pure Sine Wave 50 Hz AC inverters 12V DC and 24V DC 200W - 2200W					
Voltage	**Power**	**Weight**	**Size L x W x Dmm**	**Cables**	**Code**
12V	200W	1.4Kg	250x190x85	1m Cig Plug	SIB12200
12V	300W	1.4Kg	250x190x85	1m DC 8mm ring	SIB12300
12V	600W	2.0Kg	300x190x85	1m DC 8mm ring	SIB12600
12V	1000W	2.2Kg	370x190x85	8mm connection	SIB121000
12V	1600W	3.6Kg	370x190x85	8mm connection	SIB121600
12V	2200W	4.5Kg	400x220x85	8mm connection	SIB122200
24V	200W	1.4Kg	210x190x85	1m Cig Plug	SIB24200
24V	300W	1.4Kg	210x190x85	1m DC 8mm ring	SIB24300
24V	600W	2.0Kg	300x190x85	1m DC 8mm ring	SIB24600
24V	1000W	2.2Kg	370x190x85	8mm connection	SIB241000
24V	1600W	3.6Kg	370x190x85	8mm connection	SIB241600
24V	2200W	4.5Kg	400x220x85	8mm connection	SIB242200
Option 2 Pre-Fitted with RCD and with 1 meter AC cable					
12V	300W	1.5Kg	250x190x85	6mm connection	SIBR12300
12V	600W	1.8Kg	300x190x85	6mm connection	SIBR12600
12V	1000W	2.0Kg	370x190x85	8mm connection	SIBR121000
12V	1600W	3.6Kg	370x190x85	8mm connection	SIBR121600
12V	2200W	4.5Kg	400x220x85	8mm connection	SIBR122200
24V	300W	1.5Kg	250x190x85	6mm connection	SIBR24300
24V	600W	1.8Kg	300x190x85	6mm connection	SIBR24600
24V	1000W	2.0Kg	370x190x85	8mm connection	SIBR241000
24V	1600W	3.6Kg	370x190x85	8mm connection	SIBR241600
24V	2200W	4.5Kg	400x220x85	8mm connection	SIBR242200
230V Pure Sine Wave 50 Hz AC inverters w/ RCD 12V DC and 24V DC 3000W - 5000W					
12V	3000W	6.2Kg	450x256x185	No Cables	SIB123000
12V	4000W	7.0Kg	550x256x185	No Cables	SIB124000
12V	5000W	7.6Kg	550x256x185	No Cables	SIB125000
24V	3000W	6.2Kg	450x256x185	No Cables	SIB243000
24V	4000W	7.0Kg	550x256x185	No Cables	SIB244000
24V	5000W	7.6Kg	550x256x185	No Cables	SIB245000
110V / 50Hz model 1600W with Yellow Socket					
12V	1600W	3.6Kg	300x190x85	8mm connection	ASIB121600
24V	1600W	3.6Kg	300x190x85	8mm connection	ASIB241600
Remote control (fits all models)			90x60x20	5 metre	SWR

Product Images

Fig 16.1
Twin Socket (Euro Schuko + UK mains)
USB 2A/5V

Fig 16.2
Pre-wired RCD w/ 1m AC cable
USB 2A/5V

Fig 16.3
110V/50Hz Yellow Socket for site use
USB 2A/5V

Fig 16.4
SWR Remote Control
5 meters of cable

INVERTERS — Sterling's Quasi Sine Inverters

Pure Sine Inverters

Quasi sine wave inverters produce an electronic sine wave that is more crude than a pure sine wave, and as such generally can not power more sensitive electronics. The benefit of a quasi sine wave inverter, however, is generally the price or compactness.

12V/24V

Sterling offer a range of quasi sine wave inverters, in both 12V and 24V inputs.

Variants

230V 50Hz 12V DC Quasi Sine Wave Inverters					
Socket Type	DC (V)	Power (W)	Size LxWxD mm	Weight (Kg)	Code
Universal	12V	100W	145L x 65 dia.	0.2	I12100
Universal	12V	150W	145L x 100 dia.	0.3	I12150
British / Euro	12V	150W	145L x 100 dia.	0.3	I12150CT
Universal	12V	200W	145L x 65 dia.	0.3	I12170T
British / Euro	12V	350W	150 x 150 x 65	1.0	I12350
British / Euro	12V	600W	230 x 150 x 65	1.3	I12600
British / Euro	12V	800W	270 x 150 x 65	1.8	I12800
1000-2700W Inc Remote control and 5 metres of cable					
British / Euro	12V	1000W	240 x 250 x 100	2.0	I121000
British / Euro	12V	1800W	300 x 250 x 100	4.0	I121800
British / Euro	12V	2700W	370 x 250 x 100	5.0	I122700
British / Euro	12V	4000W	700 x 250 x 250	10.0	I124000
British / Euro	12V	5000W	700 x 250 x 250	10.0	I125000

230V 50Hz 24V DC Quasi Sine Wave Inverters					
Socket Type	DC (V)	Power (W)	Size LxWxD mm	Weight (Kg)	Code
Universal	24V	100W	145L x 65 dia.	0.2	I24100
Universal	24V	150W	145L x 100 dia.	0.3	I24150
British / Euro	24V	150W	145L x 100 dia.	0.3	I24150CT
Universal	24V	200W	145L x 65 dia.	0.3	I24170T
British / Euro	24V	350W	150 x 150 x 65	1.0	I24350
British / Euro	24V	600W	230 x 150 x 65	1.3	I24600
British / Euro	24V	800W	270 x 150 x 65	1.8	I24800
1000-2700W Inc Remote control and 5 metres of cable					
British / Euro	24V	1000W	240 x 250 x 100	2.0	I241000
British / Euro	24V	1800W	300 x 250 x 100	4.0	I241800
British / Euro	24V	2700W	370 x 250 x 100	5.0	I242700
British / Euro	24V	4000W	700 x 250 x 250	10.0	I244000
British / Euro	24V	5000W	700 x 250 x 250	10.0	I245000

110V / 50Hz yellow sockets / remote control / engine interlock					
Socket Type	DC (V)	Power (W)	Size LxWxD mm	Weight (Kg)	Code
Yellow 16A	12V	1800W	310 x 250 x 100	2	AI121800
Yellow 2x16A	12V	2500W	420 x 250 x 250	4	AI122500
Yellow 16A	24V	1800W	310 x 250 x 100	2	AI241800
Yellow 2x16A	24V	2500W	420 x 250 x 250	4	AI242500

Product Images

Fig 17.1
100W, 150W, 200W
Coke can variant

Fig 17.2
350W, 600W, 800W

STERLING POWER

NEW PURE SINE PRODUCTS

Our new 48V pure sine wave inverters and induction hobs

48V Inverters

New Voltage Range

Sterling historically has focussed on the development of 12V and 24V units, however, with the developing 48V market, a new range of high powered inverters has been designed and developed, including up to 48V variants.

New Design

A clear white and red finish allows swift identification and distinction between existing inverter ranges. Comes in Euro/UK Plug variants and RCD variants.

Pure Sine Wave

Pure sine, 230-240VAC, 50-60HZ output, ensuring your 230VAC equipment, regardless of its wave form requirements, will run.

Full Output Range

Many inverters see their output capabilities suffer as the input voltage sags. The PS series strives to offer you full output down to the low voltage trip.

Clear Interface

Clear LCD display and a high clarity remote control offers (except on 48V) full control and understanding of your unit without being next to it.

Fig 18.1
PSRCD122000

Models

SKU	DC (V)	Power (W)	RCD	DC Current	LxWxD (mm)
PS121500	12	1500	N	~150A	454x262x113
PS122000	12	2000	N	~200A	454x262x113
PS123000	12	3000	N	~300A	565x262x113
PS241500	24	1500	N	~70A	454x262x113
PS242000	24	2000	N	~100A	454x262x113
PS243000	24	3000	N	~150A	565x262x113
PS482000	48	2000	N	~50A	454x262x113
PSRCD121500	12	1500	Y	~150A	454x262x113
PSRCD122000	12	2000	Y	~200A	454x262x113
PSRCD123000	12	3000	Y	~300A	650x262x113
PSRCD124000	12	4000	Y	~400A	650x262x113
PSRCD242000	24	2000	Y	~100A	454x262x113
PSRCD244000	24	4000	Y	~200A	650x262x113
PSRCD482000	48	2000	Y	~50A	454x262x113
PSRCD484000	48	4000	Y	~100A	650x262x113

Induction Hobs

Multiple Power Levels

Each induction hob ring can operate from as low as 200W (800W pulsed) up to 1500W, giving the user full control over their power usage and allowing the product to be used on pure sine wave inverters, as low as 800W.

portable / stowable

Fig 18.2
IHP

Made To Last

Zinc alloy plated frames and an easy to clean glass face means the hobs can be kept clean with ease.

Simple Interface

Simple to understand touch controls, and an up to date informational display ensures you know exactly what the hob is doing, and what you're adjusting.

recess / mountable

Fig 18.3
IH1

Safe

Induction hobs are safer than gas, open flame or resistance based cooking by the nature of how they operate. Our induction hobs also feature over temperature, over-or-under voltage and over-current protections, as well as error signals for if you are using the wrong cookware.

Power Sharing (Twin Hobs)

The twin hob models (IHFB I IHSBS) can be individually set to their own power settings, independent of the other hob. They can each be ran at up to 1800W individually, or a maximum of 1400W each at the same time, to a 2800W limit overall.

Fig 18.4
IHFB

Pre-Cabled

Comes with 1.5m of AC cable with a British Standard BS plug already prepared and installed.

Approvals

CE, EMC, ROHS approval.

Models

AC (V)	Power (W)	Hobs	Mountable	L x W x D (mm)	SKU
230	1500	1	N	282 x 311 x 72	IHP
230	1500	1	Y	288 x 288 x 82	IH1
230	2800	2	Y	520 x 290 x 90	IHFB
230	2800	2	Y	365 x 575 x 90	IHSBS

Fig 18.5
IHSBS

PCS COMBI — Sterling's New Combi Chassis

PCS Series

The ubiquitous Sterling Combi has had a facelift to fall in line with the future brand identity. With a new ruby colouring the PCS series of inverter/chargers continues to fulfil industrial grade power requirements.

12V/24V

The PCS series of combined inverter/chargers have models that can operate at the 12V or 24V nominal regions, giving broader application than some of the competition.

Resilient Inverter

The industrial grade (and weighty) transformer of the PCS combi makes it a very reliable, resistant and repairable unit, offering continuous pure sine operation at it's ratings (2500W and 3500W output, 240V).

AC Charger

The PCS offers a competitively rated integrated AC/DC charger (240V), offering a 70A/12V (35A at 24V) charger on the 2500W variant and a 100A/12V (50A/24V) charger on the 3500W variant.

Auto-Crossover Switch

The PCS has an integrated auto-crossover switch, meaning that while it is plugged into an AC shore source it will be charging your batteries from the AC input, and also providing to your AC loads from the shore power source. When the AC source is disconnected the PCS will automatically switch to operating from the DC power source... your batteries.

Warranty

2 Years

DC V	Power W	SKU
12	2500	PCS122500
12	3500	PCS123500
24	2500	PCS242500
24	2500	PCS243500

Fig 19.1
New Combi Chassis

High Voltage Protection Device (recommended with our Combi)

Sterling's High Voltage Protection Device (HVPD) is designed to protect any 230V AC supply such as: Generators / inverters / mains from incorrect voltage destruction. At some marinas / parks the mains supply voltage is wrong and this can result in the governor speed control / regulator / voltage controller failing (sticking). This can result in a dangerous situation for the operator and can destroy AC equipment. The HVPD is designed to prevent such destructions. The HVPD is IP66 waterproof rated.

Suitable for generators and inverters of **any size** with indirect connection.

Automatically sends signal to shut down the actual generator or isolate the inverter, if required.

Please note, this is a high voltage safety trip and not an in line voltage conditioner.

Reacts within 0.12 seconds to that set voltage.

The unit makes no attempt to smooth or fix the high voltage. It is designed to assume a catastrophic failure and switch everything it can off as fast as possible. This reduces / prevents the ensuing damage from that high voltage failure.

Unit can be adjusted to 270 / 280 / 300V AC. Detects a high voltage which can be adjusted to your requirements depending on the generator being used and its standard reaction to normal on / off loading.

Dimensions (L x W x D)	SKU
155mm x 170mm x 118mm	HVPD

STERLING POWER

ALT-REGULATORS Alternator Regulators, PDARW and AR12W

Digital Control

All current Sterling alternator regulators are digitally controlled units with soft-start engagement. This digital control means that complex calculations can be processed quickly and simply. Soft-start protects against the alternator struggling to engage or slipping.

Charge Profiles

Multiple charging profiles with dynamic and intelligent battery charging, ensuring battery longevity, through merit of being charged correctly, and life-time boosted battery performance. Includes a desulphation setting for open lead batteries.

Operation

Can be used in addition to or in place of the original alternator regulator, good practice to run both.

Alternator Suitability

Suitable for all known alternators thus far, with minimal modifications.

System Safe

Self monitoring and system monitoring unit, protecting your alternator charge system from battery over-temperature (and adjusting the output voltage depending on battery temperature, 0.018V+/- 20'C), alternator over temperature and high battery voltage. This does not mean we will cool your alternator for you, simply regulate it when it is getting hot.

Failsafe

In the event of a unit failure, alternator will default to the pre-existing regulator (if still fitted).

Charge Performance

Optimises your alternator performance and forces operation in line with your chosen battery profile.

Waterproof

Built to an ingress protection rating of IP66

PDARW Spec

The PDARW can function with a remote control, allowing further control and understanding of your system and features an additional set of temperature sensors for further safety and intelligent function. The PDARW can be used on 12V or 24V alternators and for use on alternators up to 600A rating.
Positive Field Control Limit = 12A Field Current, Negative Field Control = 18A Field Current

AR12W Spec

The AR12W does not have the options for additional remote control or temperature sensors and is suitable for lower powered alternators, but also comes at a lower overall cost so is suitable for when you do not need the additional features. It is only suitable for 12V alternators up to about 300A rating.
Positive Field Control Limit = 8A Field Current, Negative Field Control = 13A Field Current

Further Information

	AR12W	PDARW
Digital software control with slow start	●	●
Dynamic Progressive battery charging	●	●
Can be used in parallel (recommended) or stand alone regulator	●	●
Programmable for different battery types	●	●
Single unit fits 99% of alternators and all battery types	●	●
Charges to 4 step progressive constant current charging curves	●	●
Self diagnosing fault system	●	●
Totally isolates the advanced regulator in fault condition	●	●
Information 6 LED display one tri coloured		
Information 8 LED display (B only)	●	
Battery Temperature sensing	●	●
High battery temp trip	●	●
High battery voltage trip	●	●
High alternator voltage trip	●	●
De-sulphation ability on open lead acid batteries	●	●
In event of failure auto return to standard alternator regulator	●	●
Can be used with or without the temperature sensor	●	●
Monitors for excessive neg voltage drop and trips	●	●
Protects batteries if temperature sensor open circuited	●	●
Protects batteries if split charge relay/diode fails open	●	●
Protects batteries if advanced reg fails closed	●	●
Protects batteries if battery sense wire falls off or broken	●	●
10 LED display		
13 LED display		●
12 or 24V operation, selectable		●
Remote control option		●
Alternator temperature sensor and boost disengage		●
Unit thermostatically controlled fan cooling for max performance		
IP 66 waterproof & ignition protected for W options	●	●

Fig 20.1
AR12W

Fig 20.2
PDARW

Model	Weight	Voltages	Size/mm	Notes
AR12W	0.25kg	12V	120 x 80 x 45	Comes with 1 temp sensor
PDARW	0.58kg	12/24V	160 x 96 x 55	Comes with 2 temp sensors
PDARR	0.25kg	///	170 x 90 x 40	Remote for PDARW

Alternator Regulator OR Alternator to Battery Charger?

Not all installs require the complicated wiring (or are even allowed to due to insurance reasons) of an Alternator Regulator to optimise your charge. In situations where you want to improve what's coming from your alternator but don't want to use the Alt-Reg, the Alternator to Battery charger is perfect, offering up to 5 times the performance of a stand-alone regulator system. The AB puts a load on its input (from the alternator) so the alternator is maximising what it is providing, and amplifies what it receives to the output, providing a 4 stage charge profile that meets the users requirements.

Main Output

The main output has 9 selectable preset profiles, allowing maintenance and correct battery voltages for a broad variety of battery types.

Starter Output

The starter output receives a maintenance voltage equivalent to what the alternator stud is receiving. Most starter batteries do not require advanced charge profiles.

Simple Install

As this unit does not require interference or modification with the alternator, you save on installation time (and costs...) and bypasses any issues with engine management systems or warranty problems.

Multiple Alt Control

Multiple alternators can be joined to the same alternator input stud (we can't guarantee we'll work them all the exact same, however) meaning it can be used to optimise multiple alternator sources at once. Do not exceed the overall AB rating.

Remote Voltage Sense

Remote voltage sense allows the AB (and therein your electrical system) to adjust its output to overcome any voltage drop down cable. It detects what it itself is outputting and then detects what is arriving actually at your battery, adjusting its own output until you're getting the charge you actually want to be getting.

Ignition Feed

Some alternators require a voltage on the alternator to engage, the ignition connection on the AB allows our device to overcome this limitation in the event that one of these alternators is in use.

Remotes

We have two different remotes for the AB series, both can be surface, recess or flush mounted:
The ABNRC is for the AB1280, AB12130, AB12300, AB12400, AB2480 AND AB24200.
The ABRC is for the AB12160, AB12210 and AB24100

ABNRC

The ABNRC displays Voltages, Temperatures, Charge State and Temperature Sense readings

ABRC

The ABRC displays Voltages, Current, Temperatures, Charge State and Temperature Sense readings. The ABRC comes with 2x 200A shunts for accurate current readings.

Models and Images

Model	Current Rating	Weight	Voltage	Size/mm
AB1280	80A	2.5kg	12V	270 x 180 x 80
AB12130	130A	2.5kg	12V	270 x 180 x 80
AB12300	300A	5kg	12V	370 x 288 x 70
AB12400	400A	5.1kg	12V	370 x 288 x 70
AB2480	80A	2.5kg	24V	270 x 180 x 80
AB24200	200A	5.2kg	24V	370 x 288 x 70
ABNRC	//	//	//	//
AB12160	160A	3.5kg	12V	250 x 280 x 70
AB12210	210A	3.5kg	12V	250 x 280 x 70
AB24100	100A	3.5kg	24V	250 x 280 x 70
ABRC	//	//	//	//

Fig 21.1
AB1280

Fig 21.2
AB12300

RELAYS Sterling Pro Split Relay Range

Pro Split Relay (PSR)

The Pro Split R (PSR) is a 0.0V drop alternator splitting system, the direct successor and improvement over the old diode based splitting systems which induced large voltage drops across them. The newer and more intelligent PSR selects a battery bank and isolates the other battery banks to prevent them from dragging down the alternator performance, gradually bringing on battery banks until they are all charged together.

Intelligent Distribution

All batteries are provided charge in an intelligent manner and isolated as needs dictate, preventing back-feed under high load conditions. The PSR can also isolate specific outputs (or the input) if it is detecting notably high or low voltages that the unit decides are concerning, providing additional protection against battery boiling.

Sense Stud

The sense stud on the PSR allows seamless integration of alternator regulator sense cables, optimising the charge splitting performance even across long runs.

Fail-Safe

In the event of unit failure or shutdown, the engine start battery and alternator studs remain connected, ensuring that even in the circumstance that the unit fails, your vehicle can still operate.

Protections

If your alternator fails and provides 16V to the input the PSR will isolate your alternator from your battery banks, and vice versa, ensuring full system protection.

Efficient Charge

Thanks to the 0V loss across the PSR we can offer a far faster charge rate than you would expect to see in older splitting systems. Once the starter battery is full (our priority to make sure your system runs when you need it to..!) we direct your alternators focus entirely to the house bank, optimising and prioritising your charge rates.

Euro-6

Not suitable for modern Euro-6 vehicles, battery to battery chargers are required for Euro-6 vehicles.

Models

Model	Current Rating	Outputs	Weight	Voltage	Size/mm
PSR122	120A	2	0.6kg	12V	150 x 80 x 120
PSR182	180A	2	0.7kg	12V	150 x 80 x 140
PSR252	250A	2	0.9kg	12V	150 x 80 x 155
PSR123	120A	3	0.9kg	12V	150 x 80 x 130
PSR183	180A	3	1kg	12V	150 x 80 x 150
PSR253	250A	3	1.3kg	12V	150 x 80 x 180
PSRT134	130A x2	4	1.8kg	12V x 2	150 x 80 x 295
PSR63	60A	2	1.8kg	24V	150 x 80 x 120
PSR102	100A	2	0.6kg	24V	150 x 80 x 140
PSR152	150A	2	0.7kg	24V	150 x 80 x 165
PSR242	240A	2	1.2kg	24V	150 x 80 x 250
PSR63	60A	3	0.7kg	24V	150 x 80 x 150
PSR103	100A	3	1kg	24V	150 x 80 x 175
PSR153	150A	3	1.3kg	24V	150 x 80 x 220
PSRT84	80A x 2	4	1.8kg	24V x 2	150 x 80 x 295

Fig 22.1
PSR182

Fig 22.2
PSRT (TWIN)

Pro Split Latch (PSL)

The Pro Split L, like it's predecessor, is a 0.0V loss alternator splitting system that succeeds the PSR by being more intelligent and utilising 0.0A demand latching relays, optimising your charge efficiency even further.

Latching Relays

Conventional relays can use up to 1A continuously to remain closed, obviously being inefficient on some lower powered systems like solar. Latching relays consume an amp for a fraction of a second before staying shut at 0A demand.

12/24V Auto Sense

Suitable for both 12V and 24V systems, auto-selecting between the two upon install.

Charge Splitter

The PSL will distribute whatever input is placed onto the alternator in terminal among the multiple output terminals without any noticeable loss, allowing fuller and more intelligent charge distribution.

Voltmeter

The PSL has an integrated voltmeter for DC voltage on each output.

Engagement Settings

Operation can be engaged through either voltage sensing on the input or via an ignition feed going live. The engagement voltage is customisable by the user, for configuration in unique circumstances.

Protections

If there is a defective battery charger or charge source on one battery bank trying to backfeed into a different battery source, the unit would disconnect that battery bank to protect others.

Charge Distribution

Distributes charge intelligently to each battery bank one at a time, depending on which bank needs it the most.

Alternator protection

If the alternator were to fail and output an excess of 16/32V, the PSL would protect all attached battery banks from being connected to the alternator and being damaged.

Euro-6

Still not suitable for Euro-6 unless operating in conjunction with a battery to battery charger acting as the input.

Models

Model	Current Rating	Outputs	Weight	Voltage	Size/mm
PSL902	90A	2	0.6kg	12V/24V	150 x 80 x 120
PSL1802	180A	2	0.7kg	12V/24V	150 x 80 x 140
PSL2702	270A	2	0.9kg	12V/24V	150 x 80 x 155
PSL903	90A	3	0.9kg	12V/24V	150 x 80 x 120
PSL1803	180A	3	1.1kg	12V/24V	150 x 80 x 140
PSL2703	270A	3	1.3kg	12V/24V	150 x 80 x 155
PSLT1804	180A x2	4	2.0kg	12V/24V	150 x 80 x 295

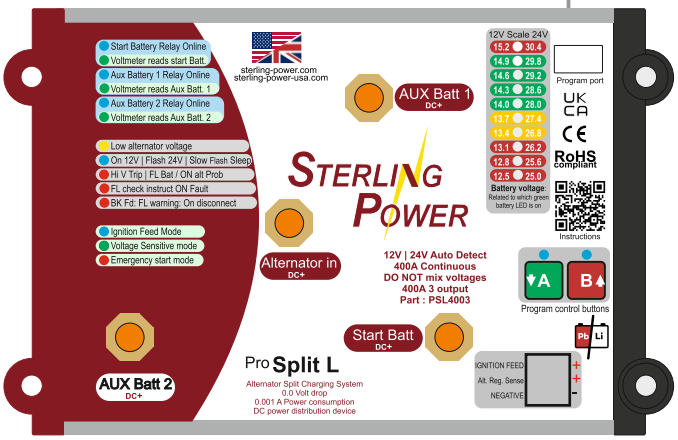


Fig 23.1
Pro Split Latching

RELAYS Current Limiting Voltage Sensitive Relays

CVSR Range

The Current Limiting Voltage Sensitive Relay range of products (CVSR) offer incredible versatility and resilience in installations. They can operate as bidirectional 0.0V loss relays, but also offer the ability to control excessive loads that would destroy or damage conventional relays.

Current Surge Limiter

Under high loads, such as large inverters, AC units, engines, the load drawn down DC cabling would exceed the cable and relay rating and may, through current surge, cause relays to weld shut or simply shatter. The CVSR range have PTC fuses which allow this high load to abate or dissipate before opening the relay, thus protecting the relay from damage.

Engagement Settings

Customisable engagements allow the user to require a manual override, or to have full customisation control over the voltages at which the unit engages and disengages. The default for engagement is set to 13.3V and a disengagement at 13.0V.

High efficiency

Extremely low losses, 0.01V drop across the relay and a quiescent current of approximately 1mA.

Ingress Rating

Built to an ingress protection rating of IP66.

Protections

High overload surge rating and protection, back EMF spark arrester, emergency signal forced engage/disengage, high battery voltage trip, SAEJ1171 ignition protected, 5 alarms and safety trips, primary battery discharge protection, anti-relay arc protection, reverse polarity protection.

Voltages

12V/24V auto-select, ensuring broad range application.

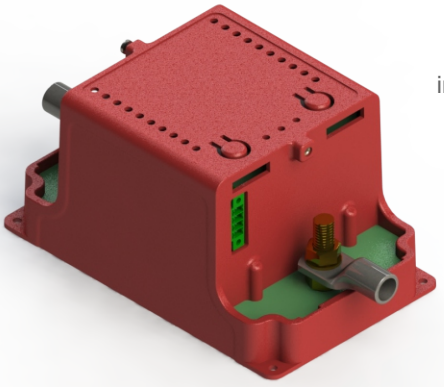
Model	Current Rating	Weight	Voltage	Size/mm
CVSR70	70A	0.1kg	12V/24V	140 x 120 x 40
CVSR140	140A	0.2kg	12V/24V	140 x 180 x 40
CVSR210	210A	0.25kg	12V/24V	140 x 210 x 40
CVSR280	280A	025kg	12V/24V	140 x 240 x 40

Fig 24.1
CVSR70

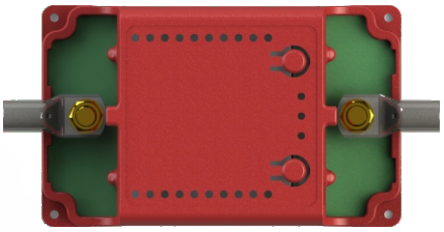
Battery Protect Device DCD

The Sterling Battery Protect Device (DCD) provides both high and low voltage protection to either lead acid or lithium batteries. The DCD is a device that essentially prevents of discharge of a battery to prolong its lifespan. The device offers instant isolation against voltage related battery problems. There are multiple preset on/off voltages, so you can set the DCD to protect the battery down to different states of charge. There are algorithms built into the software that prevent yoyo on/off clicking of the relay and biases the protection and charging of the battery of the discharge. The DCD monitors the rate of change of voltage and makes decisions based

The Battery Protect internals are rated up to 300A with smaller models, and more to be developed.



more up to date
information found here:



RELAYS Voltage Sensitive and Ignition Fed Relays

Voltage Sensitive Relays

Sterling has a broad range of simpler relays, too, that can function off of either voltage sensing or off of ignition feed signals.

Low loss

All Sterling relays have a 0.0V drop and incredibly low quiescent current, allowing for negligible loss across the relay.

Engagement Voltages

The VSRs, VSRBs and VSRAs all have automatic voltage activation, set to 13.3V engage and 13.0V disengage by default. The VSRs and VSRBs are customisable regarding their voltage activation threshold, whereas the VSRA cannot be adjusted.

Auto-Sense

The VSRB and VSR are both auto-voltage sensing, adjusting between 12V and 24V depending on the system. The VSRA does not have any auto-adjustment or customisable features.

Ignition Control

All VSRs also have ignition/signal override options for further flexibility.

IP Rating

The VSR is built to IP66 rating and potted. The VSRB and VSRA are entirely waterproof and ingressproof. To adjust the VSRB you must use a magnet.

LED Displays

The VSR has a 6LED information display, the VSRB has a 3LED information display, the VSRA has one LED.

Models

Model	Current Rating	Weight	Voltage	Size/mm
VSR80	80A	0.1kg	12V/24V	140 x 180 x 40
VSR160	160A	0.2kg	12V/24V	140 x 190 x 40
VSR240	240A	0.25kg	12V/24V	140 x 200 x 40
VSRB80	80A	0.1kg	12V/24V	80 x 90 x 90
VSRB160	160A	0.1kg	12V/24V	80 x 90 x 90
VSRA8012	80A	0.1kg	12V	80 x 90 x 90
VSRA16012	160A	0.1kg	12V	80 x 90 x 90
VSRA8024	80A	0.1kg	24V	80 x 90 x 90
VSRA16024	160A	0.1kg	24V	80 x 90 x 90

Fig 25.1
VSR80

Fig 25.2
VSRA8012

Ignition Fed Relays

Sterling also produces a range of ignition fed relays that will engage when a signal feed is received. They require a signal feed or ignition feed before they operate, and will not be influenced otherwise by input voltage.

Starter Interlock

Starter battery interlock ensures that the relay is inactive when the starter motors engage, so the relays are not damaged by any surge current.

IP Rating

Built to Ip66

Integrated Protections

The IFR range (not the R range) have all the protections the CVSR, VSR and VSRB ranges do, regarding over-voltage and under-voltage readings.

Models

Model	Current Rating	Weight	Voltage	Size/mm
IFR1280	80A	0.1kg	12V	140 x 60 x 40
IFR12160	160A	0.1kg	12V	140 x 70 x 40
IFR12240	240A	0.1kg	12V	140 x 80 x 40
IFR2450	50A	0.1kg	24V	140 x 60 x 40
IFR24100	100A	0.1kg	24V	140 x 70 x 40
IFR24150	150A	0.1kg	24V	140 x 80 x 40
R12120	120A	0.1kg	12V	80 x 90 x 90
R24120	120A	0.1kg	24V	80 x 90 x 90
R12200	200A	0.1kg	12V	80 x 90 x 90
R24200	200A	0.1kg	24V	80 x 90 x 90

Fig 25.3
IFR12240

Fig 25.4
R12120

Pro Latch R

Sterling's Pro Latch R is a versatile latching relay with 4 primary operational modes.

Mode One

Bidirectional Charging Mode - This allows activation of the Pro Latch R at both sides of the relay, ideal for distributing a charge source from one battery bank to another. Activation voltages are ON at 13.3V and OFF at 12.9V

Mode Two

Battery Protection Mode - This mode allows the user to protect the battery from excessive charge or discharge. The ON voltage is 12.9V and the OFF voltage is 10.9V.

Mode Three

Engine Start Protect - This mode allows the user to protect the starter battery from discharging beyond a point whereby they will not be able to crank-start the engine. The ON voltage is 12.9V, the OFF voltage is 12.3V.

Mode Four

Unidirectional Charging Mode - This allows for relay activation from only one side of the relay. Very similar to mode 1, but without being bidirectional. The ON voltage is 13.3V, the OFF voltage is 12.9V.

Latching Relay Benefits

Like other Sterling latching relays the nature of the connection means that we only draw an amp for a fraction of a second rather than requiring half an amp continuously to stay shut.

Voltage Range

12/24V auto select

IP Rating

IP68 rated

Ideal For Efficiency

Ideal for low harvest technologies, like Solar or Wind distribution.

The remote control offers additional understanding and function, more than you might expect from a relay. The remote offers the following features a voltage in/out reading, manual control and override and trip alarm controls.

Model	Current Rating	Peak Rating	Weight	Voltage	Stud Size	Size/mm
LR80	80A	500A	0.2kg	12V/24V	M6	140 x 60 x 40
LR160	160A	1000A	0.2kg	12V/24V	M8	140 x 70 x 40
LR240	240A	1500A	0.2kg	12V/24V	M8	140 x 80 x 40
LRR	The LRR is the remote for the LR range. 5m of cable inc.					

The LRB is the budget option for the LR range. It has statistics identical to the LR80 but cannot be customised.

Fig 26.1
LR80

Fig 26.2
LRR

STERLING POWER

BATTERY MAINTAINER

An Echo / Mirror Charger for Battery Maintenance

Battery Maintainer

The battery maintainer is a charging device that enables an **extra battery bank** to be kept 'topped up' from the **main battery bank** which has the charging device(s) connected to it (e.g. alternator, battery charger, solar cell / wind turbine etc). The unit transfers approximately 3A (12V) and requires the charging devices to be turned on to work. It is best suited at keeping a starter battery topped up and maintained by the charge that your house bank receives.

IP Rating

Rated to IP65.

Protections

Ignition protected and reverse polarity protected.

Power Distribution

Ideal for distributing solar or wind charge from your primary bank back to your starter battery, allowing whole vessel maintenance.

12V

This unit can also be used to simply (and at a low cost) maintain a battery bank that sits at a different nominal voltage than your source.

Specifications

Offline Power Consumption	1mA
Online Power Consumption	1mA
Activation Voltage	13.3V
High Voltage Trip	15V
High Temp Trip	80'C
Disengage Voltage	12.9V

Models

Model	DC Current	Weight	Voltage IN	Voltage OUT	Size/mm
BM12123	3A	0.25kg	12V	12V	140 x 45 x 40

Fig 27.1
Battery Maintainer

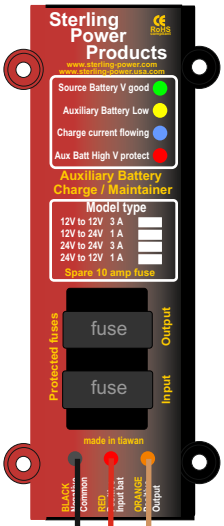
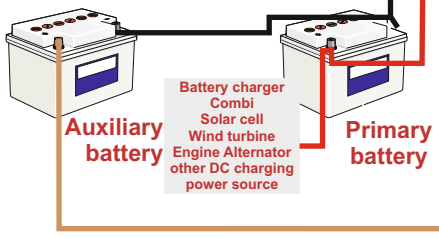


Fig 27.2
Battery Maintainer Install



STERLING POWER

PMP1 Power Management Panel for Full System Control

PMP1	The Power Management Panel (PMP1) is designed to display all the vital electrical information required on an average vessel, enabling important decisions to be made quickly regarding your onboard electrical power management that are, most importantly, accurate.
Four Channel Control	Four individually monitored comprehensive channels, comprising of four voltmeters and four ammeters. One channel is dedicated to amphour reading, allowing you to know the capacity remaining in your battery bank.
LED Backlit	Background lights ensure legibility in day and night light cycles.
Mounting	Panel can either be surface or flush mounted
Shunts	Comes with a 200A / 00mV shunt. Additional shunts (including shunts of up to 400A in continuous rating) can be ordered separately. Shunts can be installed on either the positive or negative lines.
Intelligent Shunt	All measurements take place at the intelligent shunt itself, ensuring no reading-loss across long information cables back to the PMP.
Power Consumption	0.5mA when OFF, 0.7mA when ON.
Dimensions	170 x 90 x 40mm
Weight	0.25kg
Voltages	Suitable for 12V & 24V system monitoring

Product codes

PMP1	Power Management Panel, inc. S200A shunt
S200A	Additional 200A shunt, 200 x 40 x 50mm
S400A	Additional 400A shunt, 260 x 55 x 50mm

Fig 28.1
Power Management Panel Display

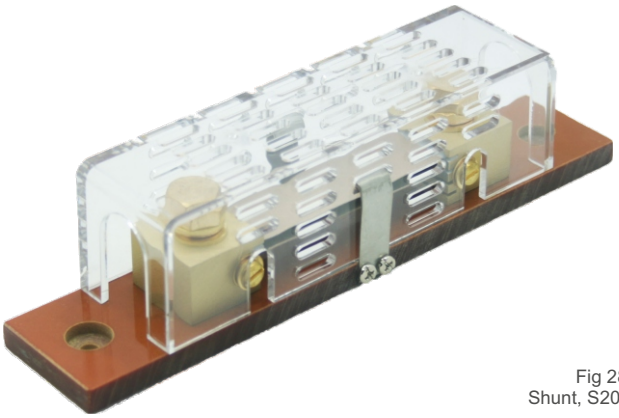


Fig 28.2
Shunt, S200A

STERLING POWER

PRO PULSE — Battery Desulphation & Maintenance Device

The Pro Pulse

For battery chemistries that can benefit from a desulphation cycle, the Pro Pulse maintenance device is the perfect budget-friendly tool to significantly prolong your battery life and performance.

Sulphate Buildup

Sulphate can build up on your battery plates gradually through use. By connecting a Pro Pulse (or one of Sterling's other intelligent chargers) this sulphate can be removed, giving you your battery performance back and ensuring longer functioning life.

Sterling Products

Not required if you already have one of Sterling's intelligent battery chargers as most of our charging systems already integrate a desulphation cycle for your batteries as an option.

Operational Range

This product does require a charge source to operate, it does not deplete your battery bank in operation. Operational voltages are 13.3V+ at 12V, and 26.6V+ at 24V.

IP Rating

Models are built to an ingress protection rating of IP66

Battery Requirements

Only use on batteries that benefit from a desulphation cycle (generally open lead acid batteries)

Models

Model	Dimensions (mm)	Weight	Battery Bank	Battery Voltage
PPW12150	90 x 90 x 60	200g	Up to 150Ah	12V
PPW12500	90 x 90 x 60	200g	Up to 500Ah	12V
PPW24250	90 x 90 x 60	250g	Up to 250Ah	24V

Product Photo

Fig 29.1
PPW12500 Angled

Fig 29.2
PPW12500 Facier

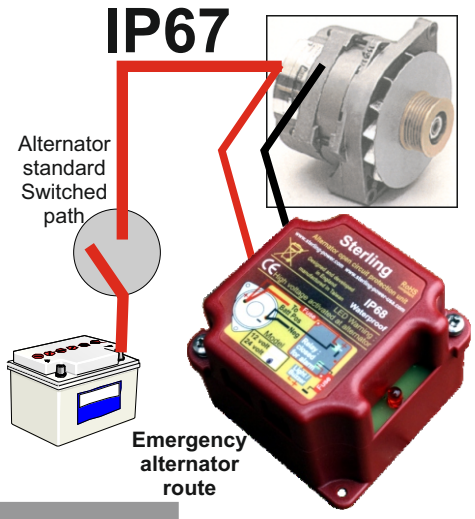
Alternator Protection Device

Protects your alternator from **massive spikes** caused when you inadvertently isolate an alternator by switching the battery off or a cable is loose or a fuse blows.
Protects against any action which results in the alternator being disconnected from a battery when in operation.

Simple safe emergency route for that spike to be discharged giving full protection to the alternators regulator.

The protection device does not carry the main current of so only light wiring is required.

Unit works with any alternator or splitting device (12V or 24V).



Model	Dimensions (mm)	Weight	Voltage
APD12	90 x 90 x 60	200g	12V
APD24	90 x 90 x 60	200g	24V

AC CROSSOVER — Automatic and Manual AC Crossover Switches

The Pro Switch 32 (AC32A)

The Pro Switch 32 **(AC32A)** is a 3 input 32A automatic AC crossover switch. It is designed to enable the user to connect 3 AC sources to a central unit and to have the Pro Switch intelligently choose between them. The output then directs to your ring mains.

Three AC Sources

The three typical sources the AC32A chooses between is shore power, an inverter supply and a generator. Position one (generally AC mains but could be from a solar inverter if preferred) takes priority, switching to two and three as required.

Rating

Rated at up to 7000W continuous at 240V (32A at 230VAC), and 3500W continuous at 110V (32A at 110VAC). On the generator channel (Pos 2) we have a 10 second delay on start-up to allow generator stabilization.

Non Parasitic

The AC32A powers itself from the AC lines, ensuring that we are not drawing anything parasitically from your house system.

110V/240V

Suitable for 240V or 110V

Manual Control

Remote ON/OFF switch enables manual control or distribution.

Product Images

Fig 30.1
AC32A, 32A AC Auto Crossover Switch

Fig 30.2
CON1, additional 20A contact relay

Product Codes

Model	Description
AC32A	32A AC Auto-crossover Switch
CON1	Additional 20A AC relay

Manual Crossover Switches

An easy to use, easy to install manual 3-way crossover switch. Available in 16A, 30A and 50A variants.

Supplied with 2 shafts for thin panel mounting or for 1/2 panel mounting.

Ideal where 3 power sources are used, such as inverters, shore power and generator sources.

Model	Outputs	Inputs	Rating	V-Max
SC16A	1	3	16A	300V
SC32A	1	3	32A	300V
SC50A	1	3	50A	300V

Fig 30.3
Manual Crossover Switch

ZINC SAVERS — The Pro Save Range of Galvanic Isolators / Zinc Savers

The Problem

In order for modern boat builders to comply with modern CE standards such as EN ISO 13297 they must fit the shore earth wire to your boats bonding system which is also connected to the hull / anodes etc. This ensures that any 230V mains faults will operate the R.C.D on the boat in order to save your life. However, now your boat is connected to the rest of the boats in the marina. This results in 2 main problems. Firstly, any increase in voltage on any earth in the marina may result in the dissolving of your anodes. Secondly, if you have a zinc / magnesium / aluminium anode on your boat and the boat next to you (or marina) does not then your boat shall be protecting everyone resulting in dramatic losses of anode.

The Solution

The solution, Sterling's **Pro Save**. The zinc savers maintain the continuity with the earth to ensure safety (EN ISO 13297 standard) but prevent any stray currents coming up the earth. The Pro Save has to be built to stringent testing and has to be able to carry its current rating for 24 hours without exceeding 90 degrees centigrade.

Ratings

Units should be rated to their AC shore power rating for use. Small marinas should be fine with the 16A units, but the 30A or 50A units should certainly be considered for use in the medium or larger marinas.

Available with or without internally installed capacitors, available on the 30A or 50A models. This raises performance in extreme AC leakage conditions.

Fig 31.1, 31.2
ZSXXA and ZSXXC product photos

Models

Model	AC (A-MAX)	Weight	Voltages	Size/mm	Notes
ZS16A	16A	1.0kg	110/240V	120 x 100 x 90	Non cap model
ZS30A	30A	1.5kg	110/240V	220 x 120 x 100	Non cap model
ZS50A	50A	1.8kg	110/240V	220 x 165 x 100	Non cap model

Model	AC (A-MAX)	Weight	Voltages	Size/mm	Notes
ZS30C	30A	1.5kg	110/240V	220 x 120 x 100	Capacitor model
ZS50C	50A	1.8kg	110/240V	220 x 165 x 100	Capacitor model

New Pro Save W

The Pro Save W offers all the protections of the existing Pro Save range but in a waterproof housing

Safety First

Warning LEDs can indicate either that there is a break-through fault, in that the earth voltage has exceeded the device's protection threshold or that there is a massive short-circuit way beyond the products rating. If either of these warning LEDs indicate, there is a serious threat to equipment onboard and potentially a threat to life. Fully complies to EN ISO 13297

Resilience

Able to run at its rating continuously, or at 20% over its rating for 24hrs without exceeding 78'C.

Models

Model	AC (A-MAX)	Weight	Voltages	Size/mm	Notes
ZSW32	32A	1.0kg	110/240V	150 x 120 x 118	6mm bolt, waterproof
ZSW64	64A	1.0kg	110/240V	150 x 120 x 118	6mm bolt, waterproof
ZSW110	110A	1.8kg	110/240V	155 x 170 x 118	8mm bolt, waterproof

Fig 31.3
ZSW32, ZSW64

Fig 31.4
ZSW110

STERLING POWER

ELB SWITCHES — Electric Latching Isolation Switches

ELB Isolation Switches

Electrical Latching Battery isolation switches are used to completely isolate a battery bank, preventing any unwanted current drain from occurring. Many users want to cut any possible leakage from their starter or appliance system so their vehicle can actually run when they come back to it.

Important ELB Features

The key features to look for when selecting your suitable ELB is the Continuous Rating, the Overload Rating and then the ELB current draw when in the OFF state. Sterling ELBs are market leading in all three.

Control/Source battery

The battery powering the ELB does not have to be the battery we are focusing on isolating, giving you greater control over how your system operates.

ELB Ratings

160A-640A latching circuit rating for continuous operation. Work out what the continuous load is likely to be in order to rate your ELB system correctly.

Ignition Feed Interlock

The ELB has an ignition feed safety interlock circuit, protecting your system from being disconnected from your alternator while it is running. This ensures that we do not ever disconnect your charge circuit mid-operation, protecting against the possibility of alternator voltage spikes.

Peak Rating

The ELBs can handle a 5 second peak of 1500A-6000A, and a 30 second peak of 600A-2400A.

8mm Bolt

M8 (8mm) bolts to ensure good constant electrical contacts.

Latching / Control Circuits

The latching circuit and the control (power) circuit are isolated from one another. The latching circuit is rated for voltages up to a maximum of 50V, whereas the control circuits can either be operating from 12V or 24V battery systems. This also means the ELB can latch on either the NEGATIVE or POSITIVE lines - whatever suits your needs better.

Latching Relay Consumption

Latching relays do not consume any power to remain closed. They draw 2A for 0.5S to close in the first place, equating to about 0.0003Ah - barely worth considering.

Rocker Switches

The ELB comes with a momentary rocker switch for operation, however you can purchase a keylock if required.

IP Rating

Built to IP66

Models

Model	Current Rating	30s Rating	Starter Rating	Weight	Source V	Size/mm
ELB12160	160A	300A	N/A	0.2kg	12V	90 x 90 x 80
ELB24160	160A	300A	N/A	0.2kg	24V	90 x 90 x 80
ELB12240	240A	450A	Car/Small Van	0.2kg	12V	90 x 90 x 80
ELB24240	240A	450A	Car/Small Van	0.2kg	24V	90 x 90 x 80
ELB12480	480A	1000A	<600hp Lorry	0.4kg	12V	150 x 100 x 120
ELB24480	480A	1000A	<600hp Lorry	0.4kg	24V	150 x 100 x 120
ELB12640	640A	1300A	<1000hp Lorry	0.4kg	12V	150 x 100 x 120
ELB24640	640A	1300A	<1000hp Lorry	0.4kg	24V	150 x 100 x 120

ELS1	Extra momentary switch (one is provided with each ELB)
ELKS1	Key operated switch with 2 keys - only momentary switches can be used

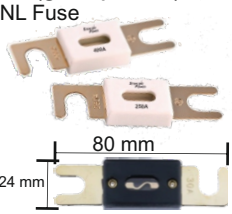
Fig 32.1
ELB12160->ELB24240

Fig 32.2
ELB12480->ELB24640

Fuse packs

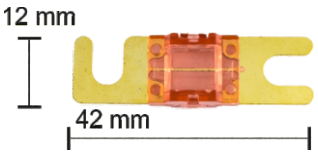
ANL Fuses Single Pack (gold plated)

Sterling Part Number 1 x ANL Fuse
GANL80 80A ANL Fuse
GANL100 100A ANL Fuse
GANL150 150A ANL Fuse
GANL200 200A ANL Fuse
GANL250 250A ANL Fuse
GANL300 300A ANL Fuse
GANL350 350A ANL Fuse
GANL400 400A ANL Fuse
GANL500 500A ANL Fuse
ANLMP Multi pack 1x each of above (9 fuses)



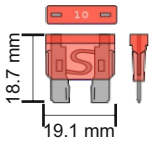
Mini ANL / AFS Fuse Dual Pack

Sterling Part Number 2 x Mini ANL / Fuse
AFS20D 20A MINI ANL Fuses
AFS30D 30A MINI ANL Fuses
AFS40D 40A MINI ANL Fuses
AFS60D 60A MINI ANL Fuses
AFS80D 80A MINI ANL Fuses
AFS100D 100A MINI ANL Fuses
AFS120D 120A MINI ANL Fuses
AFS150D 150A MINI ANL Fuses
AFSMP Multi pack 1x each of above (8x2 fuses)



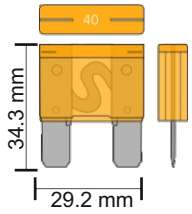
ATC/ATO Fuse Dual Pack

Sterling Part Number 2 x ATC/ATO Fuse
ATC5D 5A ATC / ATO Fuses
ATC10D 10A ATC / ATO Fuses
ATC15D 15A ATC / ATO Fuses
ATC20D 20A ATC /ATO Fuses
ATC30D 30A ATC/ATO Fuses
ATC35D 35A ATC/ATO Fuses
ATC40D 40A ATC/ATO Fuses
ATCMP Multi pack 1x each of above (7x2 fuses)



Maxi AMT Fuse Dual Pack

Sterling Part Number 2 x AMT Fuse
AMT20D 20A Maxi AMT Fuses
AMT30D 30A Maxi AMT Fuses
AMT40D 40A Maxi AMT Fuses
AMT50D 50A Maxi AMT Fuses
AMT60D 60A Maxi AMT Fuses
AMT70D 70A Maxi AMT Fuses
AMT80D 80A Maxi AMT Fuses
AMT90D 90A Maxi AMT Fuses
AMTMP Multi pack 1x each of above (8x2 fuses)



All fuse holders

ATC fuse

GATC 1428
1 in 2 out
1 X 10 mm
2 X 6 mm FUSED OUT115g

GATC 2828
2 in 2 out
2 X 6 mm IN FUSED OUT 115g

GATC 3448
3 in (solid) 4 out
3 X 10 mm IN (SOLID)
4 X 6 mm FUSED OUT 223g

GATC 4848
4 in 4 out
4 X 6 mm IN AND FUSED OUT 220g

AMT / Maxi fuse

GMFB 1428
1 in 2 out
1 X 10 mm IN 2 X 6 mm OUT 170g

GMFB 2828
2 in 2 out
2 X 6 mm IN | 2 X 6 mm OUT 170g

GMFB 3448
3 in 4 out
3 X 10 mm IN (SOLID)
4 X FUSED 6mm OUT 320g

GMFB 4848
4 in 4 out
4 X 8 mm IN 4 X 8 mm 170g

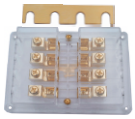
AUE fuse

GFH-04-1
Single AUE fuse holder 10mm cable with eye
Bolt for battery terminal 50g

GFB 3428
2 X 6 mm IN
2 X 6 mm FUSED OUT 203g

GFB 4848
4 X 6 mm IN
4 X 6 mm FUSED OUT 371g

BUSS BAR LINK INCLUDED
Ring connector



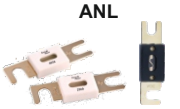
Footprint 148mm x 110 mm
GFBR
4 X holder for

Mini ANL

FHMNS single
FHMN4 pack of 4

AFS4FB
4 way fuse block

ANL



GFH8
8 mm studs

GFH12
12mm studs
2 x 8mm

Resettable Fuses

CB50 50A Fuse
CB100 100A Fuse
CB150 150A Fuse
CB200 200A Fuse
CB250 250A Fuse
CB300 300A Fuse

Multi ATC fuse

ATC / ATO fuse holder w/ LED fault lights with negative bussbar

FH6W 6 Way

FH12W 12 Way

Water resistant multi-fuse holder : **BFH1**

Sterling's innovative and water resistant **BFH1** fuse holder fits a broad number of fuse types in one. **ATO, ATC, AMT and Maxi fuses** can all be used with the **BFH1** fuse holder.

Unit height : 53mm
Unit width : 62mm
Unit length : 176mm

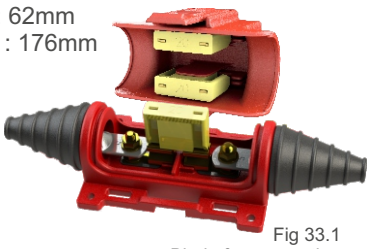


Fig 33.1
Blade fuse mounting

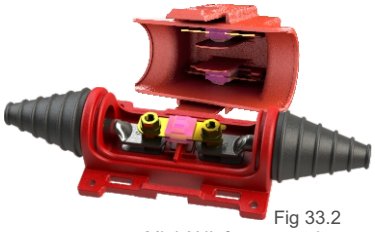


Fig 33.2
Mini ANL fuse mounting

STERLING POWER

THANK YOU

Thank you for your interest in Sterling

Notes

STERLING POWER

THANK YOU

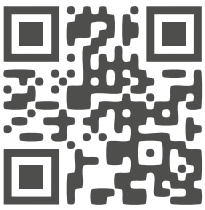
Thank you for your interest in Sterling

Further consideration

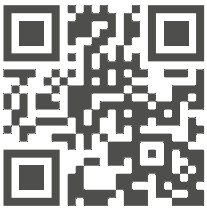
You may also be interested in some of our associated catalogues as they may include equipment not mentioned in this brochure.

If you are interested in placing an order or asking a question, please contact info@sterling-power.com or visit our website.

Automotive Catalogue A



Marine Catalogue B



Accessories Catalogue C

AMPS Lithium Catalogue D

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