



NEW

AVAILABLE
SUMMER 2012

SALES SHEET

PACIFIC SERIES BATTERY CHARGERS

CHARGE THREE BATTERIES WITH A MIX OF FLOODED, GEL, AND AGM AT THE SAME TIME.

Customers have asked for a battery charger that can work anywhere, in any conditions, with any battery type, which is easy to install and intuitive to operate. They have also asked for a high level of product support for questions and troubleshooting. Blue Sea Systems' new PACIFIC SERIES Battery Chargers meet these requirements with an industry-leading five year warranty.

- Battery Specific Charging (BSC) charges a mix of flooded, Gel and AGM batteries in the same system by adjusting the absorption and float voltages to compensate for the varying charge profiles of different battery types
- Universal Line Voltage 90-265V AC 50/60 Hz for use anywhere in the world, and compatibility with low voltage power sources
- Advanced Multi-Stage Charging Bulk, Absorption, Float stages along with Battery Health which repeats the charge cycle weekly during storage or over extended periods
- Rugged Finned Cast Aluminum Case for maximum heat dissipation
- Multi-Language Display that is easy to read for set up, monitoring, and diagnostics
- Optional Remote Display repeats battery charger onboard display information as well as Amp-Hour/ State of Charge for house battery with purchase of PN 8255 DC shunt
- 5 Year Warranty and Blue Sea Systems commitment to customer support



PN	Description	Amps	Volts	Output
7521	Battery Charger	20A	12V DC	3
7522	Battery Charger	40A	12V DC	3
7523	Battery Charger	60A	12V DC	3
7519	Remote Display	-	12V DC	-

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BLUE SEA
SYSTEMS

PACIFIC SERIES
BATTERY CHARGERS

Applying two decades of electrical product design and manufacturing expertise, Blue Sea Systems has developed the PACIFIC SERIES Battery Chargers. Research and testing of existing battery chargers revealed several shortcomings impacting the performance, and ultimately the experience, customers had with their product. Blue Sea Systems has improved charger performance by focusing on environmental factors, electronic design, and technical support. The PACIFIC SERIES Battery Chargers, with their advanced multistage charging technology, are engineered to perform in harsh conditions.

Environment
Boats operate in challenging environments for any electrical or electronic device. The three conditions causing the greatest problems for chargers are moisture, heat, and low quality AC input voltage.

To combat moisture, the PACIFIC SERIES Battery Chargers have a drip-proof design with an integrated venting system protecting them from drips.

Heat is one of the greatest enemies of a battery charger. It stresses the electronic components and can cause premature failure. Instead of plastic or sheet metal cases, the Pacific Series' rugged, finned, cast aluminum case dissipates heat and leads to longer battery charger life.

Low quality AC voltage can compromise many battery chargers. To overcome this, Blue Sea Systems developed Input Power Response (IPR) to match the charge output to the quality of the AC voltage input to reduce component stress.

Electronic Design
Blue Sea Systems PACIFIC SERIES battery chargers include Battery Specific Charging which uses solid state power switches (MOSFETS) that allow different voltages to be presented to each of the three batteries. This is an advantage over most multi-output chargers that have a single power conversion system that distributes similar voltages to all batteries through isolating diodes.

Battery Specific Charging and the use of MOSFETS, controls up to 0.6V variance between channels that can be used to provide the following benefits:

- 1. Accommodates a mix of flooded, Gel and AGM batteries in the same system by adjusting the absorption and float voltages to compensate for the varying charge profiles of different battery types.
- 2. Adjusts for voltage drop in the cable between the battery and battery charger by allowing a higher voltage to be supplied to the heavily loaded battery promoting faster recovery of the most depleted batteries without overcharging other batteries.
- 3. Reduces the risk of overcharging a battery by beginning the float stage on full batteries while continuing to supply depleted batteries with full absorption voltage.

Support
Battery charger status and fault conditions are typically indicated using LEDs and simple voltmeters. Deciphering the blinking lights, meters, and complex labels on many existing battery chargers is challenging. Poor status indication can lead to the misdiagnosis of a fault, resulting in costly repairs or replacement.

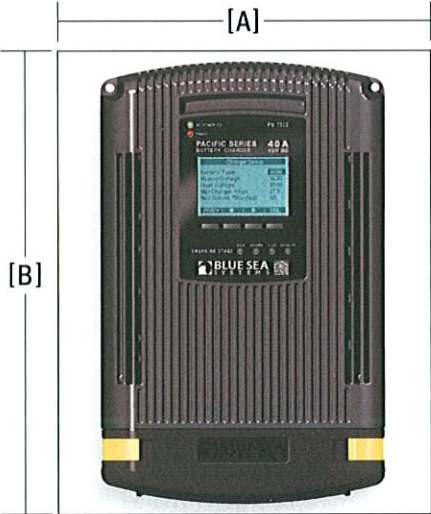
Blue Sea Systems' PACIFIC SERIES Battery Chargers have an integrated multi-language display for easy setup, monitoring, and diagnostics. This important feature ensures faults are easily identified and corrective procedures explained. An optional remote monitor offers a display and control at a navigation center or helm. With the purchase of a shunt, the remote monitor will also display battery state of charge for one battery bank.

When assistance is required, poor technical support can occupy hours of time and cause frustration. Blue Sea Systems technical support is the Company's priority. Members of the management and engineering teams each spend one hour every weekday providing product support. Blue Sea Systems' foundation of customer care and technical support comes with every PACIFIC SERIES Battery Charger.



PN	Description	Volts	Amps	Output	Recommended Mounting Clearance [A] Width in (mm)	Recommended Mounting Clearance [B] Height in (mm)
7521	Battery Charger	12V DC	20A	3	11.66 (296.16)	16.3 (414.02)
7522	Battery Charger	12V DC	40A	3	11.66 (296.16)	16.3 (414.02)
7523	Battery Charger	12V DC	60A	3	11.66 (296.16)	18.27 (464.06)

Mounting Clearance Diagram



- Electrical Performance
- Universal line voltage 90-265V AC 50/60 Hz for use anywhere, and is compatible with low voltage power sources
 - Power factor corrected for more efficiency and lower noise while charging
 - MOSFET outputs compensates for unintentional voltage differences between batteries providing a faster charge for batteries with the greatest amp-hour deficit

- Mechanical Design
- Rugged, finned, cast aluminum case for maximum heat dissipation
 - Integrated drip proof design meets ABYC requirements
 - Conformal coated circuit boards

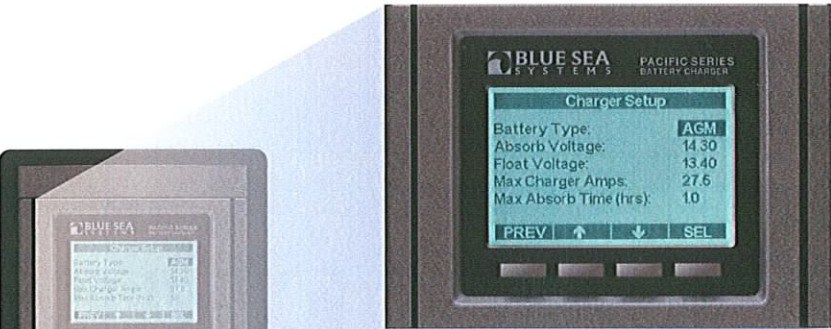
- Advanced Multi Stage Charging
- Three outputs provide charging for up to three battery banks
 - User selectable charge profiles for lead acid, gel, AGM and new Thin Plate Pure Lead and Lithium Ion batteries
 - Battery Specific Charging (BSC) for different battery types and chemistries ensures each battery receives the optimal charge for long battery life. Lithium Ion batteries cannot be combined with other battery types or chemistries.
 - ACR integration- disables ACRs during Battery Specific Charging (BSC) for individual battery charging profile
 - Battery temperature compensation internal or with included remote sensor
 - Battery Health Mode- repeats the charge cycle weekly during storage or over extended periods
 - User selected battery equalizing function- to revitalize flooded batteries

- Built In Safety Features
- Ignition protected- can be mounted in a gasoline powered boat's engine compartment or near batteries
 - Over and under temperature protection for batteries
 - Overheating protection for battery charger
 - DC over voltage protection
 - AC reverse polarity protection
 - Surge and short circuit protection

- Large Bright Backlit Display
- Charge current, charge voltage, and charge cycle specific to each battery
 - Multi language
 - Easy to read for set up, monitoring, and diagnostics

- Optional Remote Display
- Repeats battery charger onboard display information in convenient location
 - DC Amps and loads for house battery with shunt
 - Amp-Hour/State of Charge for house battery with purchase of PN 8255 DC shunt 500A DC/50mV
 - Three mounting options including: surface, rear panel, or 360 Panel System

- Warranty
- Five year with Blue Sea Systems commitment to support



PACIFIC SERIES Battery Charger Remote Display
Shown in 360 Panel System

- Rugged finned cast aluminum case acts as a heat sink and stands up to the harsh marine environment
- Multi language display is easy to read for set up, monitoring, and diagnostics. Optional remote display
- Universal line voltage 90-265V AC 50/60 Hz for use anywhere in the world, and compatibility with low voltage power sources
- Accommodates a mix of flooded, Gel and AGM batteries in the same system by adjusting the absorption and float voltages to compensate for the varying charge profiles of different battery types

PN	Description	Voltage	Width in (mm)	Height in (mm)
7519	PACIFIC SERIES Battery Charger Remote Display	12V DC	4.88 (123.83)	4.75 (120.65)

PACIFIC SERIES BATTERY CHARGERS

Specifications

Part Number	7521	7522	7523
Maximum Output Current	20A	40A	60A
Nominal Voltage	12V DC	12V DC	12V DC
Number of Outputs	3	3	3
Maximum Output Voltage	15.9V DC	15.9V DC	15.9V DC
Output Voltage Accuracy	0.05V DC	0.05V DC	0.05V DC
Minimum AC Input Voltage	90V AC	90V AC	90V AC
Maximum AC Input Voltage	265V AC	265V AC	265V AC
Min. Operating Temperature	-40°C	-40°C	-40°C
Max. Operating Temperature	85°C	85°C	85°C
Min. Storage Temperature	-55°C	-55°C	-55°C
Max. Storage Temperature	125°C	125°C	125°C
Max. Parasitic Current	2mA	2mA	2mA
Charger Efficiency	>80%	>80%	>80%
Weight lb (kg)	6.6 lb (3.0 kg)	8.8 lb (4.0 kg)	11.0 lb (5.0 kg)

Regulatory

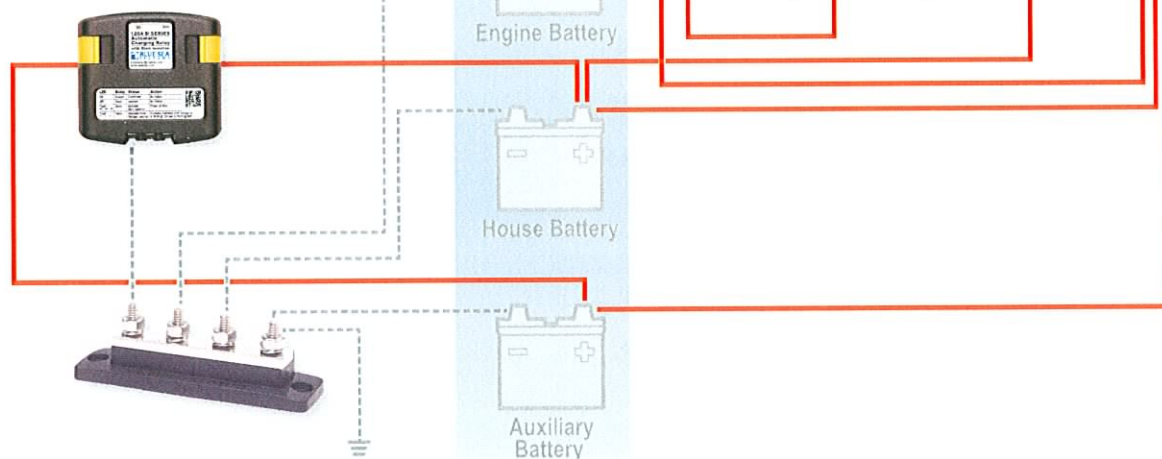
UL 1236 marine, CE marked and CSA C22.2 No. 107.2-01 standards.

SAE 1455, SAE J1171, ISO 8846 (ignition protection) specific NMEA requirements and all elements of the ABYC A-31 standards.

Wire terminations and enclosure is compliant to ABYC A-31.

LEGEND

- Power AC
- Power DC
- Monitor and Control
- Ground



This diagram is for reference only. Consult an ABYC certified marine electrical professional for system design.

Specifications subject to change. See bluesea.com for current information.

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AC
SOURCES

Shore Power

DC
SOURCES

Engine

Engine Battery

House Battery

Auxiliary
Battery



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