BLUE SEA SYSTEMS

P12 Battery Chargers

Extends the life of batteries. Four stage, three output, dry mount design, for use in harsh environments

- Rugged, finned aluminum case
- PreFloat™ stage prevents over charging
- Power factor corrected for efficient use of AC
- Intuitive diagnostic screens
- User defined charge profiles and customizable settings
- Provides charging for up to three battery banks
- Large, bright display
- Multi-language: English, French, German, Italian, Spanish
- Charge Coordination with Blue Sea Systems Automatic Charging Relays (ACR) controls ACR state ensuring proper float stage for each battery
- Battery Temperature Compensation (not required in Lithium (LiFePO4) mode) - adjusts charge voltage based on battery temperature
- AC over and under voltage shut down and automatic restart
- Over and under battery temperature protection, the charger will not operate if battery temperature rises above or falls below a set value
- DC over voltage and reverse polarity protection
- Surge and short circuit protection

CE 5 YEAR WARRANTY



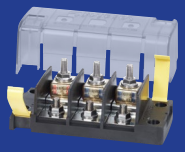
ENERGY SAVING TECHNOLOGY
CEC COMPLIANT
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Related Products


P12 Displays


SI-ACR


ML-Series ACRs


MRBF Fuse Blocks

Relentlessly Reliable™

NAVICO GROUP

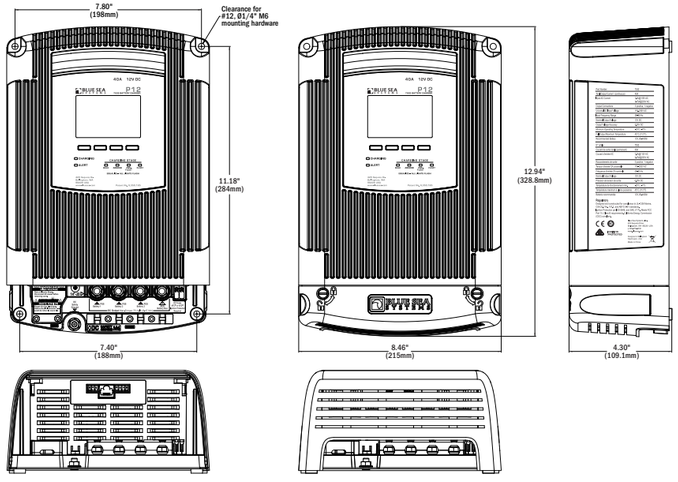
Specifications

Part #	7531	7532
Total Output Current	25A	40A
Input AC Current	4.5A @ 100V AC	7.5A @ 100V AC
	2.25A @ 200V AC	3.75A @ 200V AC
Recommended Battery Bank Sizes*	60Ah Minimum Example: 1 × Group 24	
	330Ah Maximum Example: 3 × Group 31	440Ah Maximum Example: 4 × Group 31
Nominal Output Voltage	12V DC	
Output Connections	3 positive, 1 negative	
Universal AC Input Voltage	90V–265V AC	
Input Frequency Range	45–65 Hz	
Typical Float Voltage	13.5V DC	
Maximum Available Voltage	16.0V DC	
Output Voltage Accuracy	0.05V DC	
Operating Temperature	–20°C (–4°F) to 70°C (158°F)	
Storage Temperature	–30°C (–22°F) to 80°C (176°F)	
Battery Types**	Flooded, Gel, AGM, TPPL	

* Battery bank sizes are recommended for optimal charging efficiency-see bluesea.com/P12 for details. Larger and smaller size banks could charge well, but consume slightly more power over the charging cycle.

** Consult battery manufacturer specifications for other battery types to avoid damage. Do not mix battery types.

Regulatory	Designed and constructed for compliance to UL-1236 Marine, CSA 22.2 No. 107.2, and ABYC A-31 standards. Ignition Protection per ISO 8846, and SAE J1171. CE Certified. Meets FCC Part 15, Class B requirements. Designed and tested to comply with California Energy Commission (CEC) efficiency requirements, and ship with these settings by default. Ingress protection rated: IP32.



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

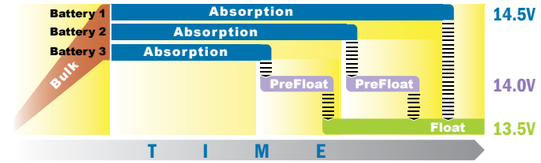






P12 Four Stage Battery Charging

1. Bulk charges batteries to 75-80% of full charge.
2. Absorption slowly completes remaining charge.
3. PreFloat™ moves each battery individually from Absorption to PreFloat, based on the need of each battery. This prevents overcharging and damage to the batteries. Up to 0.5V difference between Absorption and PreFloat voltages can be achieved.
4. Float maintains battery charge.



Example of Flooded Lead Acid Battery

Battery Equalization Mode: User selected battery equalizing provides advanced battery conditioning, revitalizing wet acid batteries.

Other Battery Chargers

Conventional battery chargers move all batteries from Absorption to the Float stage simultaneously with no ability to adjust for individual battery requirements.



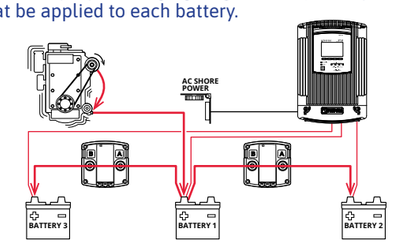
Example of Flooded Lead Acid Battery

Forced Absorption: A period when batteries are potentially over charged.

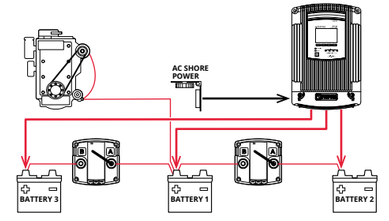
Charge Coordination

A boat's batteries typically spend less than 2% of their time being charged by the alternator. For the remaining 98% of the time they are being maintained by the AC battery charger. During this time, it is important that the proper charging stage of Bulk, Absorption, PreFloat, or Float be applied to each battery.

UNDERWAY
When engine is running and alternator is charging batteries, ACRs combine batteries, providing charge to each battery from the engine.



AT THE DOCK
When P12 Battery Charger is operating, communication with ACRs isolates batteries so the proper charge is applied to each battery.



Specs

Battery Charger Comparison Chart

Data collected 02/24/2018






Model		Blue Sea Systems P12	Kussmaul AUTO CHARGE 1200	NewMar PHASE 3	Xantrex TRUECHARGE™2
Part Number		7532	1200	PT-40U	804-1240-02
Amperage		40A	40A	40A	40A
Output Voltage - nominal		12V DC	12V DC	12V DC	12V DC
AC Input Voltage		90-265V AC, 45-65 Hz	120V AC, 60 Hz	90-264V AC, 45-65 Hz	90-265V AC, 47-63 Hz
Warranty		5 Years	3 Years	2 Years	2 Years
Case Construction		Cast Aluminum	Aluminum	Stainless Steel & Aluminum	Plastic
Number of Outputs		3	1	3	3
PreFloat Stage		✓	No	No	No
User Selectable Battery Types:	Flooded	✓	✓	✓	✓
	AGM	✓	✓	✓	✓
	Gel	✓	✓	✓	✓
	TPPL (Thin Plate Pure Lead)	✓	No	No	No
	Custom	✓	No	No	No
High Frequency		✓	No	✓	✓
Power Factor Correction		✓	No	No	✓
Settable Fan Speed Control		✓	No	No	No
Multi-Language Display		✓	No	No	No
Temperature Sensor Included		✓	No	No	No
Charge Coordination with Blue Sea Systems ACR		✓	No	No	No



7512

Battery Charger Mounting Adapter

Easily mount any Blue Sea Systems P12 or ProMariner ProNauticP Battery Charger without drilling new holes



7517

EV Battery Charger Display

Intuitive battery monitoring

- Drop in replacement for traditional rectangular displays
- Automatically detects up to three battery banks
- Bright, daylight readable, OLED display



7520

P12 Battery Charger LED Remote

Indicates battery charger stage and alerts as well as controlling basic battery charger functions

LED Indicators

- Quick check for green light confirms charging
- Displays charging stage including PreFloat for each battery
- Indicates when the charger is in equalization mode
- Indicates charger's internal fan mode

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

bluesea.com 800.307.6702 980013080 Rev. 007
N85 W12545 Westbrook Crossing, Menomonee Falls, WI 53051

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