

Extends 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 - adjusts charge voltage based on battery temperature
- AC over and under voltage shut down and automatic restart
- Over and under battery temperature protection - 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



PN	Description	Volts
7531	25A Battery Charger	12V DC
7532	40A Battery Charger	12V DC

Related Products



EV Battery Charger Display



P12 Battery Charger LED Remote



SI-ACR



ML-Series Automatic Charging Relays



M-ACR

P12 BATTERY CHARGERS



Specifications

PN	7531	7532
Total Output Current	25A	40A
Input AC Current	4.5A @ 100V AC 2.25A @ 200V AC	7.5A @ 100V AC 3.75A @ 200V AC
Recommended Battery Bank Sizes*	60Ah Minimum Example: 1 × Group 24 330Ah Maximum	60Ah Minimum Example: 1 × Group 24 440Ah Maximum Example: 3 × Group 31 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	

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

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

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.

Battery Charger Selection Guide

Estimated hours required to bring a 50% discharged battery to full charge

BATTERY SIZE	AMP-HOUR RATING	25A	40A
Group 27	90	3 hours	2 hours
Group 31	105	4 hours	3 hours
4 D	160	6 hours	4 hours
8 D	220	8 hours	5 hours
Dual 6V Golf Cart	225	9 hours	5 hours
Triple Group 27	270	10 hours	6 hours
Dual 8 D	440	17 hours	11 hours

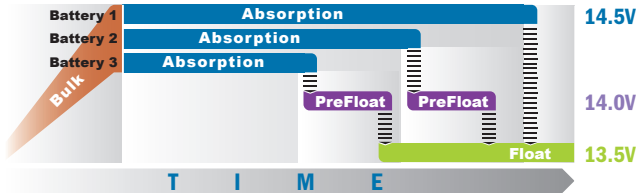
Charge time is calculated based on no DC load present during charge cycle.

Consult Battery Manufacturer Specifications for maximum charge rate acceptance for your battery type.

The values in this chart are only approximations intended to present relative charge time for comparing one charger capacity to another.

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.

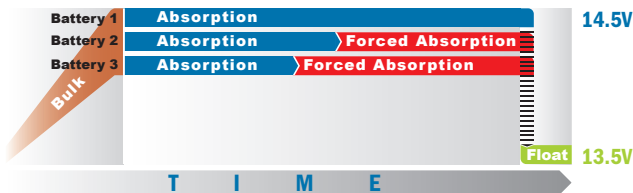


Example of Flooded Lead Acid Battery

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.



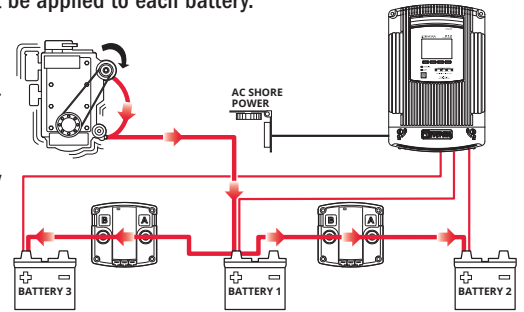
Example of Flooded Lead Acid Battery

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

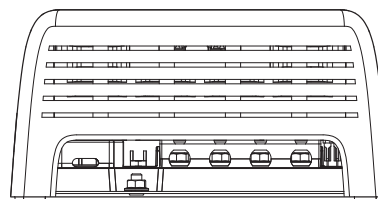
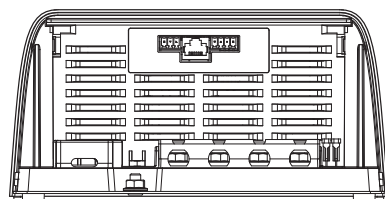
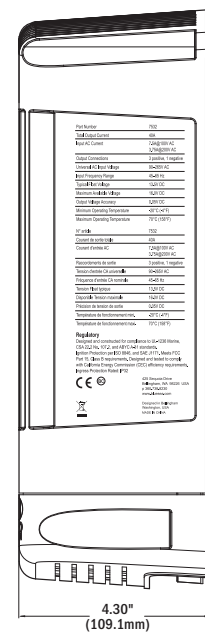
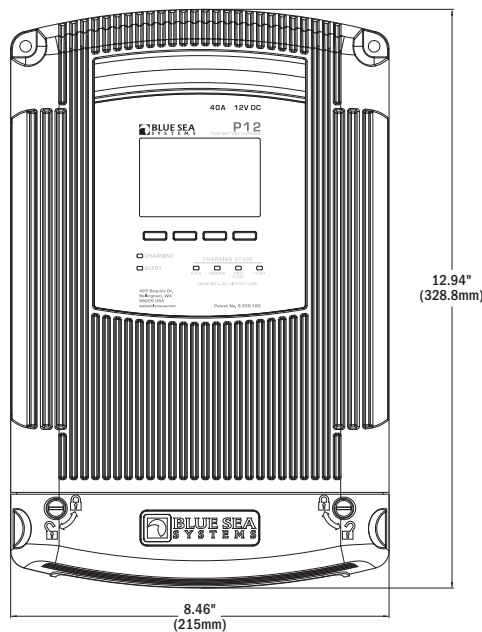
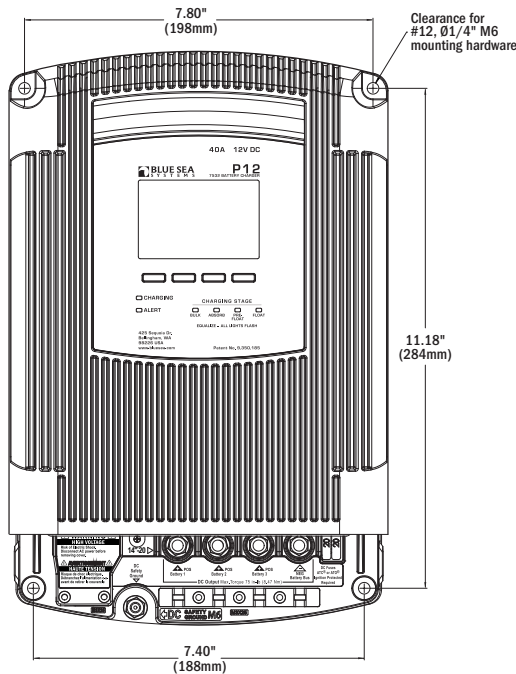
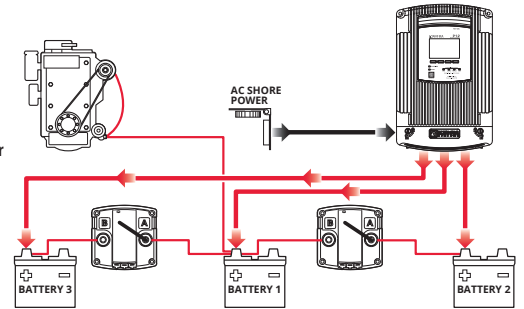
Charge Coordination

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.



Battery Charger Comparison Chart



	Blue Sea Systems	Xantrex	ProMariner	Charles	Victron Energy	Mastervolt
Series	P12	TRUECHARGE™2	ProNautic 1240P	5000 SP	Phoenix	ChargeMaster 12/35-3
Part Number	7532	804-1240-02	63140	93-12405SP-A	12/50	44010350
Amperage	40A	40A	40A	40A	50A	35A
Output Voltage - nominal	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC
AC Input Voltage	90-265V AC, 45-65 Hz	90-265V AC, 47-63 Hz	100-250V AC, 50-60 Hz	95-140V AC, 50-60 Hz	90-265V AC, 45-65 Hz	90-265VAC, 50-60 Hz
Warranty	5 Years	2 Years	5 Years	5 Years	2 Years	2 Years
Case Construction	Cast Aluminum	Plastic	Plastic	Anodized Aluminum	Anodized Aluminum	Plastic
PreFloat Stage	✓	No	No	No	No	No
User Selectable Battery Types:						
Flooded	✓		✓	✓	✓	✓
AGM	✓	✓	✓	✓	✓	✓
Gel	✓					
TPPL	✓	No	No	No	No	No
Custom	✓	No	✓	No	No	No
Multi-Language Display	✓	No	No	No	No	No
Optional Remote Display	✓	✓	✓	No	✓	✓
Temperature Sensor Included	✓	No	✓	✓	✓	✓
Charge Coordination with Blue Sea Systems ACR	✓	No	No	No	No	No
Adjustable Absorption Parameters	✓	No	No	No	No	No

Data collected 9/16/2014

P12 Battery Charger LED Remote

Indicates battery charger stage, communicates alerts, and controls basic battery charger functions. Works with 25A and 40A P12 Battery Chargers.

LED Indicators

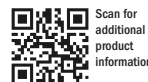
- **Charging:** Quick check for green light confirms charging
- **Charge Stage:** Displays charging stage including PreFloat for each battery
- **Equalize:** Indicates when the charger is in equalization mode
- **Fan Mode:** Indicates charger's internal fan mode
- **Charge Output:** Displays the percentage of output current for each battery. Indicates maximum output setting when maximum output is adjusted to accommodate for AC source limitations
- **Alert:** Provides warning and alert status for quick diagnostics

Four Control Buttons

- **Fan:** User adjustable settings, (OFF, LOW, or HIGH)
- **Dim / Alarm:** Provides adjustment to the brightness of LEDs on display as well as Silence function for alarms
- **Output:** User adjustable charger output when AC source limitations exist that require lowering the AC current draw
- **Standby:** Places P12 Battery Charger into standby mode



7520



Scan for additional product information



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PN	Description	Voltage
7520	P12 Battery Charger LED Remote	12V DC
1521	360 Panel P12 Battery Charger LED Remote	12V DC