

# Mobile Solutions

- EMERGENCY
- UTILITY
- AGRICULTURE
- CONSTRUCTION
- OFF-GRID
- SERVICE
- DOT

**ANCOR**

**BEP**

**BLUE SEA SYSTEMS**

**CZONE**

**FATHOM**  
e-power system

**MARINCO**

**MASTERVOLT**

**ProMariner**

**RELION**

# NAVICO GROUP

## TAKING YOU FURTHER

Navico Group is the world's leading supplier of integrated systems and products to industries ranging from marine to recreational vehicle and beyond. We offer an unmatched portfolio comprised of industry-leading brands in power management, digital control & monitoring, networked devices and marine electronics.

### Providing more than products. Providing Solutions.

#### ANCOR

Wire & Cable  
Terminals & Lugs  
Wire Management  
Tools & Testers  
[ancorproducts.com](http://ancorproducts.com)

#### BEP

Battery Management  
Connectors & Insulators  
Circuit Protection  
Power Distribution Panels  
Meters  
[bepmarine.com](http://bepmarine.com)

#### BLUE SEA SYSTEMS

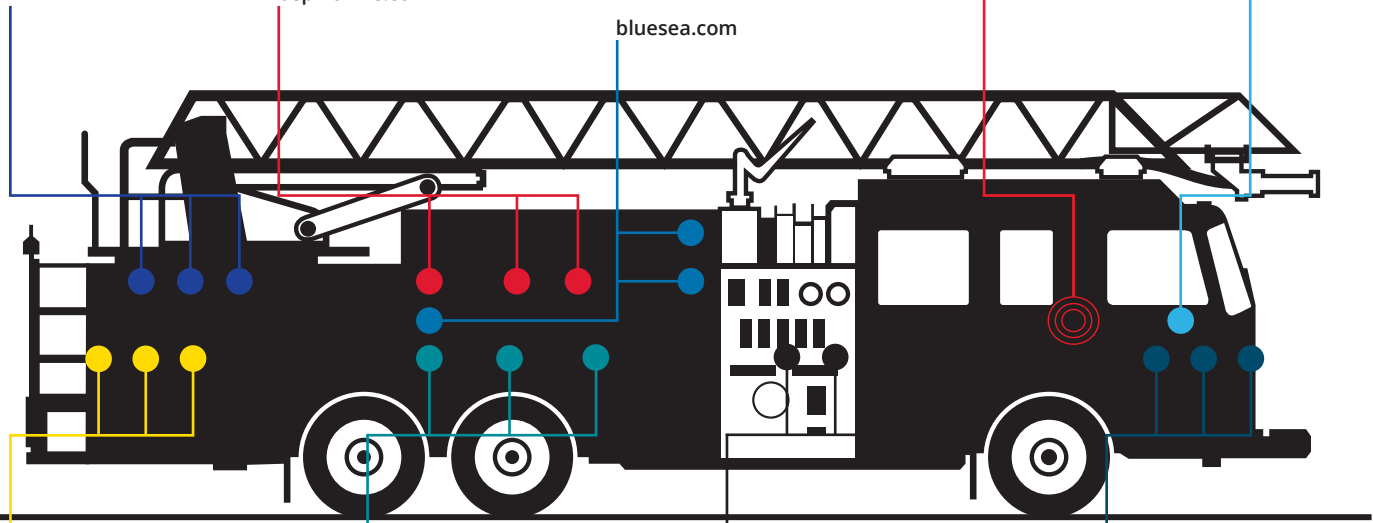
Power Conversion  
Battery Management  
Circuit Protection & Switches  
Connectors & Insulators  
Power Distribution  
Meters  
[blueseasystems.com](http://blueseasystems.com)

#### CZONE

Digital Switching  
Accessories  
[czone.net](http://czone.net)

#### FATHOM e-power system

Integrated Lithium-Ion  
Management Systems  
[fathomepower.com](http://fathomepower.com)



#### MARINCO

Shore Power  
DC Power Connections  
Power Conversion  
Battery Management  
[marinco.com](http://marinco.com)

#### MASTERVOLT

Power Conversion  
Batteries  
Battery Management  
Transformers  
Alternators & Regulators  
Digital Switching  
[mastervolt.com](http://mastervolt.com)

#### ProMariner®

Waterproof Battery Chargers  
Vented Battery Chargers  
Inverters  
Combis  
Isolators  
Accessories  
[promariner.com](http://promariner.com)

#### RELi<sup>3</sup>ON®

Lithium Batteries  
Portable Power  
AGM Batteries  
[reli3onbattery.com](http://reli3onbattery.com)

See how far our innovations can take you at [Navicogroup.com](http://Navicogroup.com)

# A Brand Within Navico Group By Brunswick

Navico Group is the world's leading supplier of integrated systems and products to industries ranging from marine to recreational vehicles. We bring together the best brands, products and people to create groundbreaking innovations that reinvent the consumer experience. Our broad portfolio of the industry's leading brands in power management, digital control & monitoring, networked devices, and marine electronics are distributed globally to a diverse aftermarket and OEM customer base. Navico Group is driven, every day, to be the world's most trusted partner to the marine and mobile industries, and beyond.





## ANCOR

For over 40 years Ancor has been the industry leader for quality tinned copper Marine Grade® wire and cable. Ancor's comprehensive product line includes everything required to complete a wiring project. This includes Marine Grade wire and cable, terminals and connectors, wire management products, and hand tools. Ancor designs products to the highest standards that meet UL, ABYC, NMMA and USCG standards. Product selection, quality, and service are the pillars of the brand, and only Ancor can be your single source for wire and accessories.



## BEP

BEP offers a range of high quality electrical solutions designed for the harsh Marine and RV environments. Every product meets exacting performance specifications and is designed to withstand extreme conditions.



## BLUE SEA SYSTEMS

Blue Sea Systems was founded in 1992 based on a commitment to create innovative, high quality electrical products to improve the safety, simplicity, and reliability. Since that time the range of product has expanded to over 1,000 items and distributed to customers in over 50 countries to Industrial, RV and Specialty Vehicle markets. Products include battery chargers, battery switches, automatic charging relays, fuse blocks, busbars, meters, and both standard and custom power distribution panels. The company is committed to offering quality products that are engineered for the harsh marine environment, built to last, with a guarantee of satisfaction and industry leading technical support.



## CZONE

For over 10 years, the groundbreaking Digital Switching technology from CZone has revolutionized the control and management of electrical systems on boats, RVs and Emergency Vehicles. CZone provides complete control and monitoring of all electrical circuits through dedicated touch screens, iPad, wireless remote, or through the screen of one of CZone's integration partners. CZone provides improved performance, safety, and reliability.



## FATHOM® e-power system

Add the vertical integration capabilities of a Fathom® e-power system, and you get cutting-edge lithium-ion power management: extended time away from the charge source provided by more battery capacity, intuitive digital controls, and power consumption monitoring. In addition, users have complete control as they receive information on demand, allowing them to monitor all power consumption easily. The noise, vibration, and fumes associated with traditional generator experiences being eliminated is an added benefit. Discover more at [fathomepower.com](http://fathomepower.com)



## MARINCO®

Since 1972, Marinc power inlets and cords have set the industry standard. They are built to withstand the harshest marine environments. Marinc has continued to expand their product line to offer a complete range of shore power cords from 16 to 100 amps, as well as a broad range of cord adapters. Quality, innovation, and our passion for boating are what define Marinc.



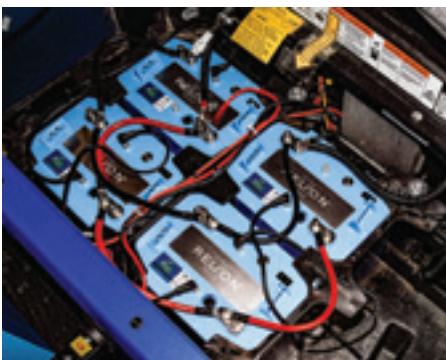
## MASTERVOLT

Mastervolt has been a strong, innovation-driven company since its founding in 1991. This capacity to innovate is what truly sets Mastervolt apart. The added value is to offer products, technologies and systems of the highest quality coupled with superior global service. Mastervolt stands for reliable autonomous power solutions. Mastervolt's electric solutions are widely used in demanding markets such as marine, mobile, off shore, industrial, autonomous solar and infrastructure.



## ProMariner®

ProMariner® was founded more than 35 years ago with one premise: to make boating more enjoyable. ProMariner pioneered a complete line of fully automatic on-board marine battery chargers, and continues to bring innovation to marine battery chargers today. ProMariner offers performance based solutions for all boats whether it's open water cruising, sailing, or fishing, recreational boating. The passion and dedication to quality is what has made ProMariner the market leader in on board marine battery chargers.



## RELi<sup>3</sup>ON®

RELiON was founded in 2014 with a goal of being the most sought after & admired lithium battery company in the world. Our motto, Challenge Your Limits, reflects our philosophy to push yourself to greatness. We, along with our customers, live and breathe adventure and relish the opportunities that our planet provides. Today the industry demands innovation that delivers unmatched power, performance and life. RELiON batteries accomplish this due to our focus on product development. We have one of the largest LiFePO4 product offerings available with 12V, 24V, 36V and 48V options in a variety of common BCI sizes including Group 24, 27, 31 and 8D for easy drop-in replacement.

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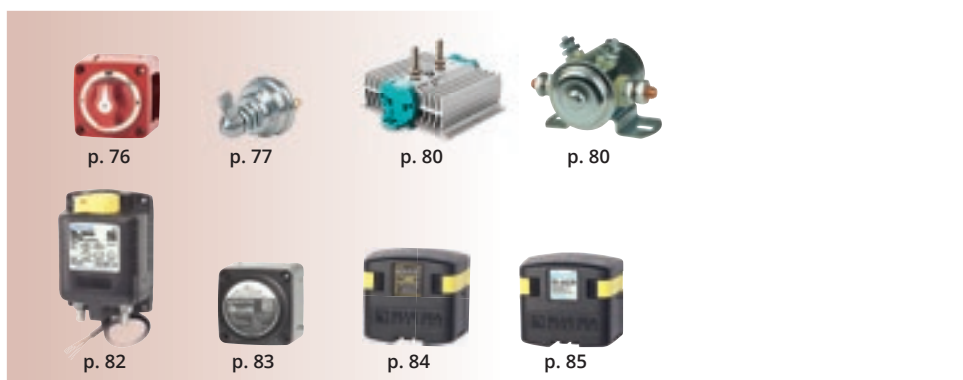
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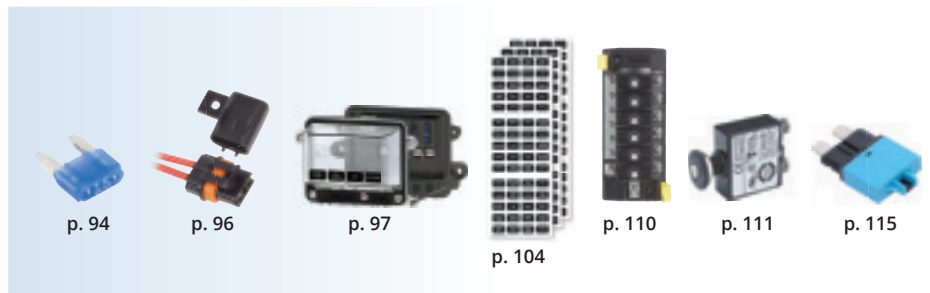
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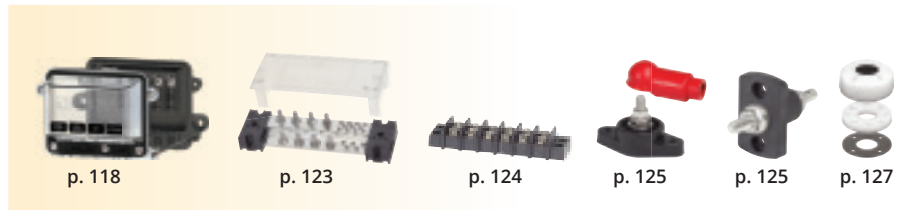
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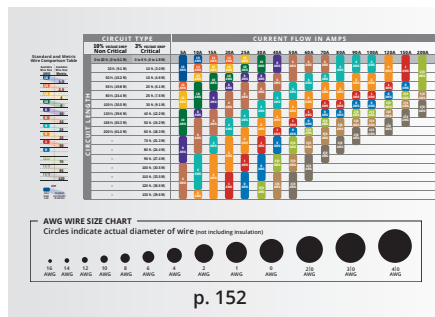
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### ChargeMaster Plus — CZone®/MasterBus Compatible & 24 Volt

Part # 44310355 12/35  
Part # 44310505 12/50  
Part # 44320205 24/20



27

### Sealink® Dual USB-A/C Combo Charger Receptacle

Part # 12VDUSBAC-B



142

### CZONE® RV1 Digital Switching and Integration Module

Part # 80-911-0221-00



115

### ATO®/ATC®- Style Low Profile Circuit Breakers

Part #'s 7062-7068



151

### Stud Mount Insulating Boots

Part # 4000



58

### CombiMaster Inverter/ Charger — CZone®/MasterBus Compatible

Part # 35513500 12/3500-200 120V  
Part # 35523500 24/3500-100 120V  
Part # 35524500 24/4500-120 HT 120V  
Part # 35545000 48/5000-70 HT 120V



68

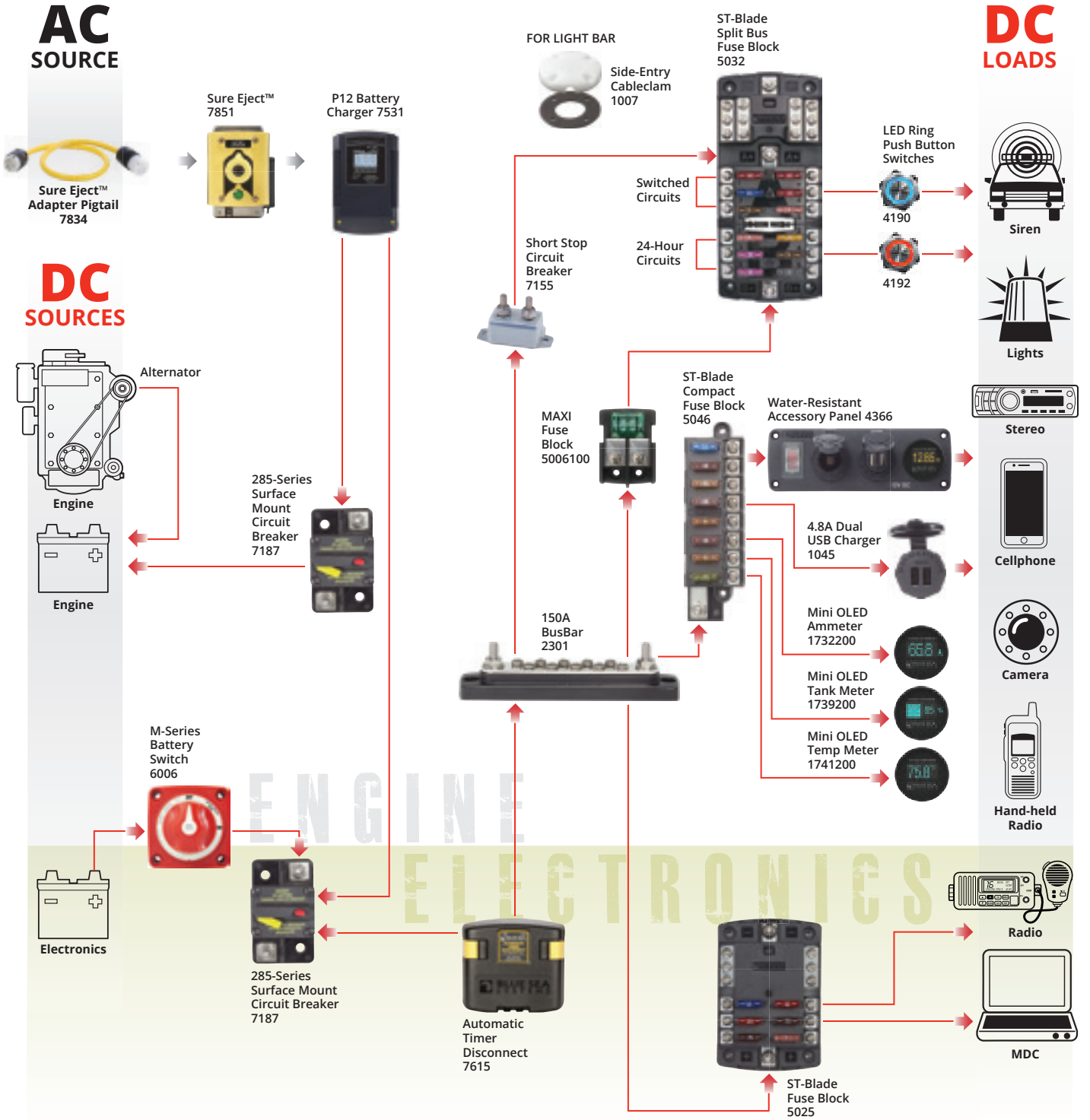
### MLI Ultra Lithium Ion Battery — CZone®/ MasterBus Compatible

Part # 6601600 12/6000  
Part # 66026000 24/6000  
Part # 66013000 12/3000



# Interceptor/Battalion Chief Vehicle

2 Battery Bank, 1 Engine



AC Current →  
 DC Current →

The diagram above is intended for reference only. Consult an electrical professional for system design and circuit protection.

Fathom combines the latest lithium-ion technology with premium components from the world's leading brands to deliver a complete power management system. Receive long-lasting, reliable power, and the ability to visualize and manage your usage with ease. No generator. No noise. No fumes.

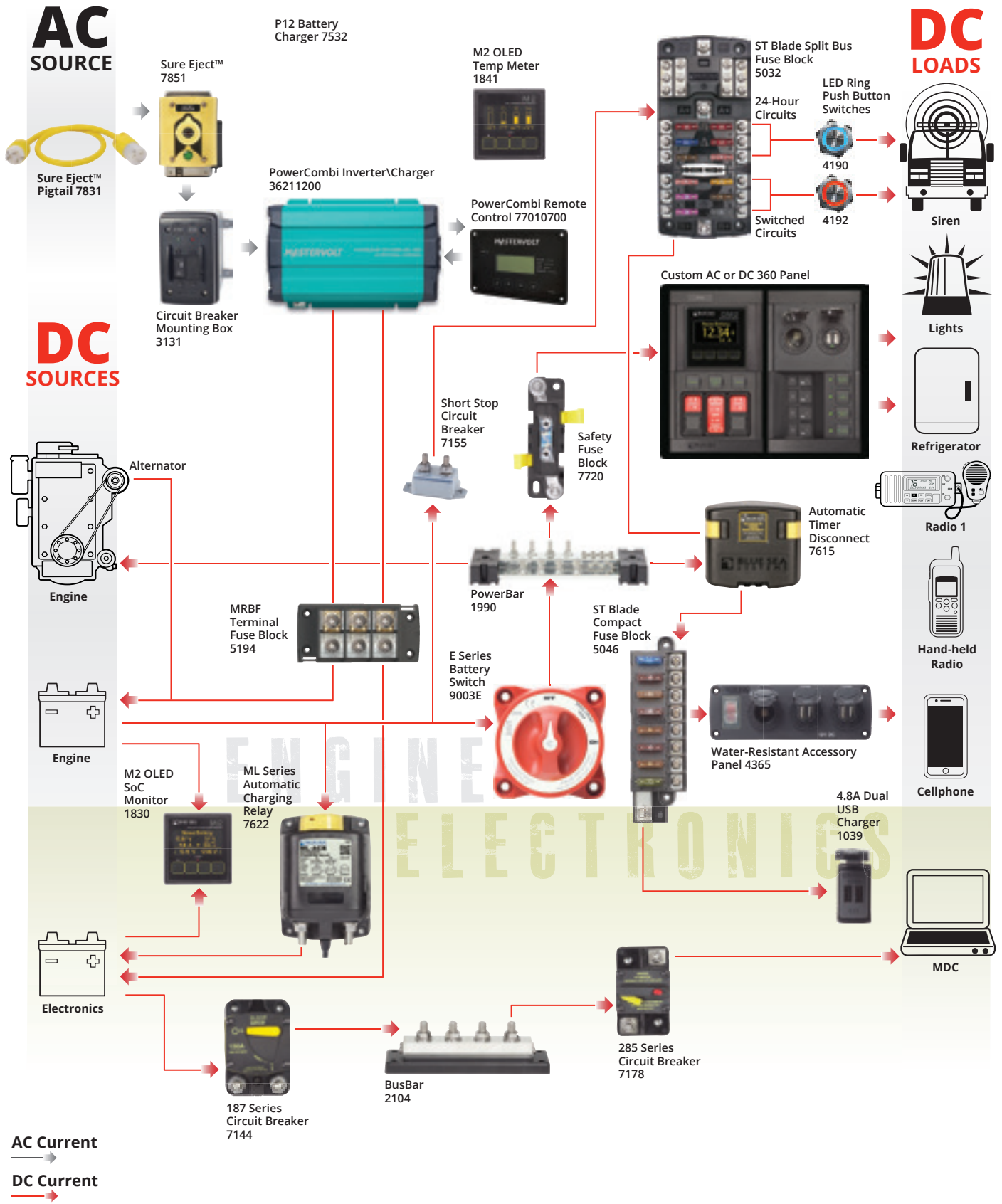
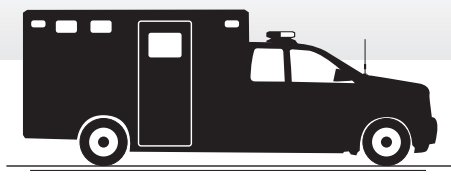


Learn more at [fathomepower.com](http://fathomepower.com)



# Ambulance System

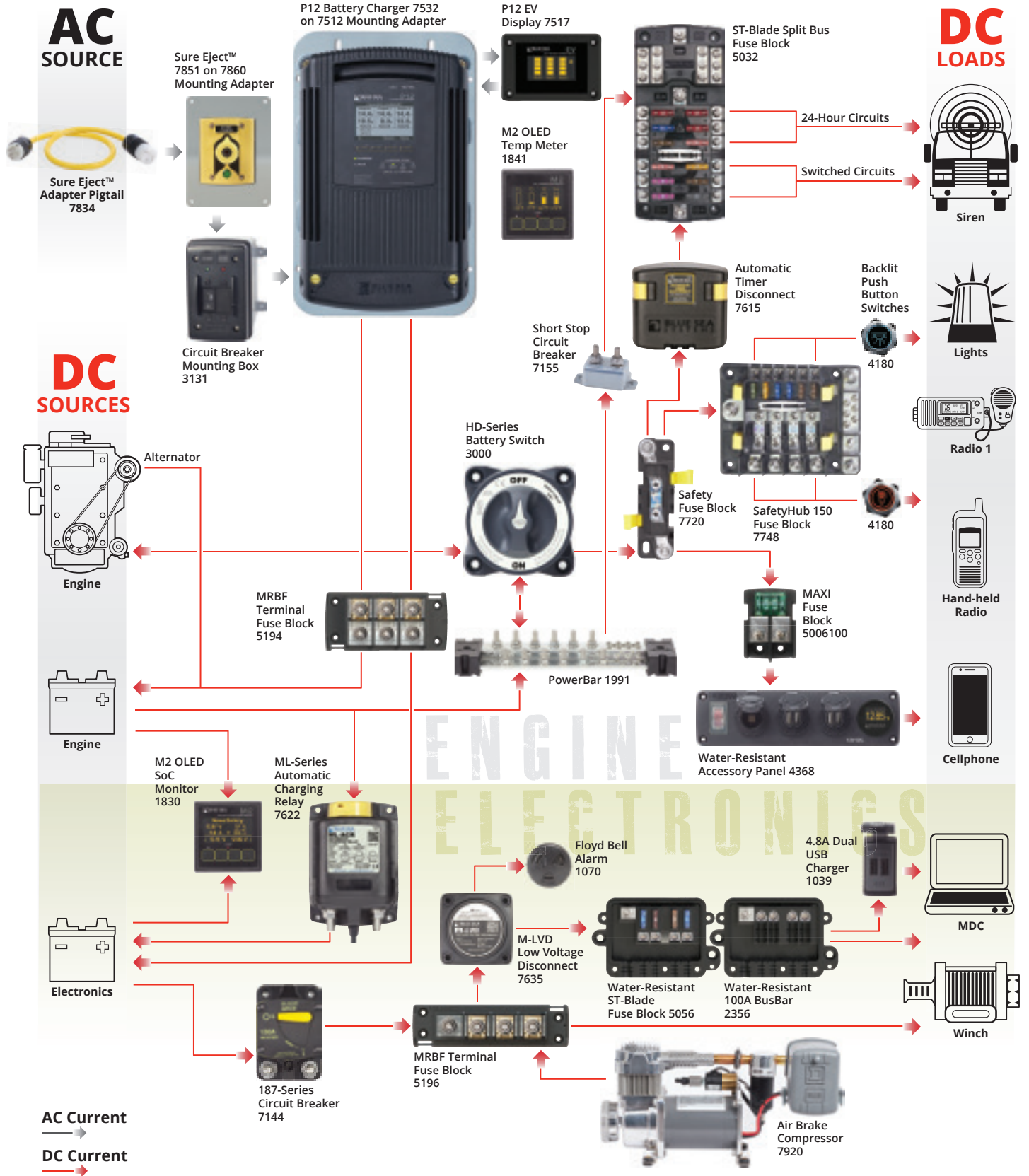
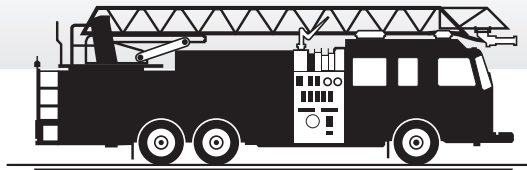
2 Battery Bank, 1 Engine



The diagram above is intended for reference only. Consult an electrical professional for system design and circuit protection.

# Fire Apparatus System

2 Battery Bank, 1 Engine



The diagram above is intended for reference only. Consult an electrical professional for system design and circuit protection.

# FATHOM INTEGRATED SYSTEMS

FATHOM®  
e-power system



See how easy  
we make it.

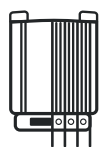
## Advanced Power Management Systems

The Fathom® e-power system combines the latest lithium-ion technology with premium components from the world's leading brands to deliver a complete power management system.

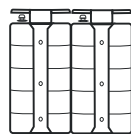
Receive long-lasting, reliable power, and the ability to visualize and manage your usage with ease. No generator. No noise. No fumes.



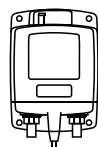
High-Output  
Alternator



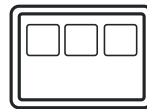
DC-DC  
Converter



Lithium-ion  
Batteries



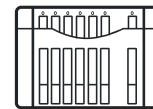
Remote  
Battery Switch



Display UI



Inverter /  
Charger



Digital  
Switching



Comms/IOT  
Module

Available in 12V, 24V, and 48V options/kits

# FATHOM INTEGRATED SYSTEMS



## Eliminates power supply anxiety

New Fathom e-power is a complete lithium-ion power management system that delivers unprecedented power with advanced controls and monitoring for extended usage.

## Advanced digital controls

Manage and monitor power with intuitive displays.

- Track battery status – always know “time to empty”
- Monitor power consumption from appliances
- Receive alerts and guides for optimal recharging



## Peace of mind with peace and quiet

The Fathom system eliminates the noise, fumes and hassles of a generator while delivering improved capacity and capabilities for power sources.

## Scalable system design

Create a system to fit a variety of needs:

- Premium components from the world's leading brands
- Optional add-ons and upgrade choices



# AC & DC POWER CONNECTIONS

## Sure Eject™

16



Automatic AC disconnect ejects power cords upon ignition to prevent damage.

## Sure Eject™ Mounting Adapter

16



Easily install 15A and 20A Sure Ejects from the front of a vehicle.

## Air Brake Compressors

17



Automatically maintains air brake system at ready status.

## Cordsets

20



All Maringo® cordsets are made of the highest quality, marine grade construction with features you won't find on other power cords.

## 15A Marine Grade Extension Cords

22



15 Amp extension cords contain a universal slide locking mechanism to prevent cable disconnection. Available in 25' and 50' lengths.



# AC & DC POWER CONNECTIONS

## Adapters

22



Shore Power Adapters give you more power hook-up flexibility and resolve a variety of garage side power center / vehicle side inlet power incompatibility problems.

## Dual USB Chargers

24



Intelligent device recognition allows rapid charging of phones, tablets, or other mobile devices.

## 12V Socket, Plugs & Accessories

25



A wide selection of high quality DC electrical products that are designed specifically for harsh environments.

## Inlets & Connectors

30



Designed for manual AC plug applications for fleet and emergency vehicles.

## Water-Resistant Accessory Panels

31



Panels offer customizable 12 Volt charging and monitoring options.

## Sure Eject™

Automatic AC disconnect ejects power cords upon ignition to prevent damage

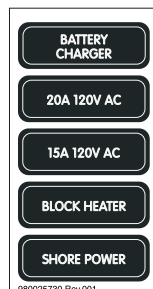
- Designed for emergency vehicle use
- Motor driven design ensures years of reliable operation
- The ejection piston is self-recessing, with no cocking required
- Keyed plug design allows for easy one-handed insertion of connector
- Anti-arcing design on insertion and ejection
- Built in status LED indicates the presence of AC power and ejection alerts
- Automatically attempts additional ejections if needed
- Compatible with existing 15A and 20A connectors already in the station
- Standard mounting holes for easy retrofit
- Includes connector, yellow cover and 5 label kit
- Weather-resistant boot included
- 6 color covers available
- Pigtails offer a secondary method of disconnecting from shore power for added reliability (sold separately)

### Specifications

Operating Voltage Range	8V –16V DC
Nominal Voltage	120V AC
Continuous Rating	7850: 15A 7851: 20A

Part #	Description
7850	15A Sure Eject
7851	20A Sure Eject
7850001	15A Sure Eject No Cover
7851001	20A Sure Eject No cover
7840	15A Connector
7841	20A Connector
7820	Yellow Cover
7821	Red Cover
7822	Black Cover
7823	White Cover
7824	Blue Cover
7825	Grey Cover
7830	15A Sure Eject Yellow Pigtail
7831	20A Sure Eject Yellow Pigtail
7832	15A Standard Black Pigtail
7833	20A Standard Black Pigtail
7834	15A to 20A Adapter Pigtail

Labels Included:



7850 / 7851



7840 / 7841



## Sure Eject Mounting Adapter

Easily install 15A and 20A Sure Ejects from the front of a vehicle

- Allows one person installation of Sure Eject
- No special shaped cutouts required
- Threaded backing plate secures Sure Eject to vehicle without added hardware
- Compatible with all 15A and 20A Sure Eject ejection units and covers



Part #	Description
7860	Sure Eject Mounting Adapter



7830 / 7831

Length: 30" (76.2 cm)



7834

Length: 30" (76.2 cm)



7832 / 7833

Length: 30" (76.2 cm)

### Related Products



P12 Battery Charger page 34



EV Battery Charger Display x



ProNauticP Series Battery Charger page 36



Chargemaster Plus Battery Charger page 38



## Air Brake Compressors

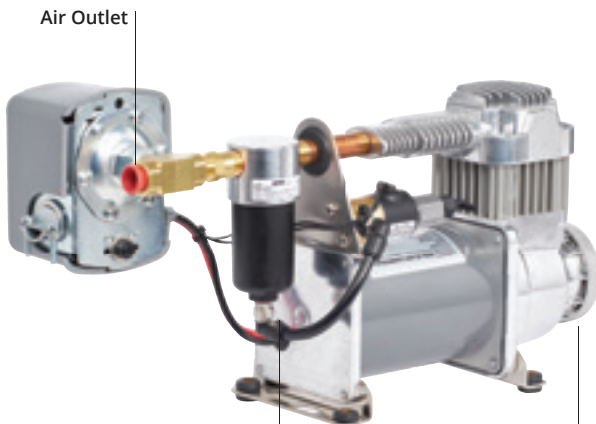
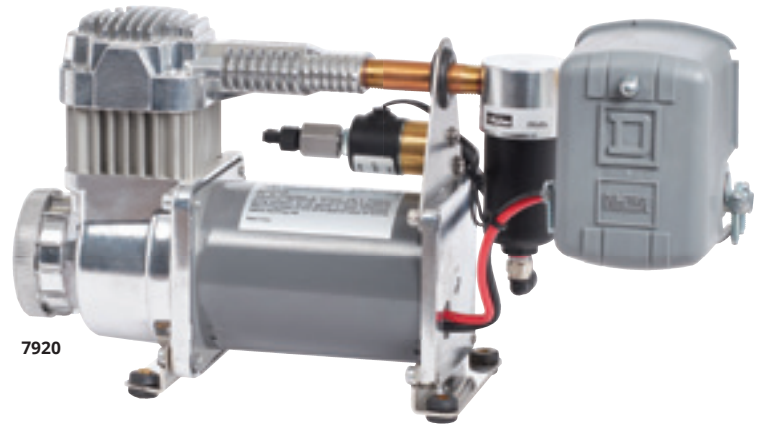
Automatically maintains air brake system at ready status, because lives depend on it.

- Designed for emergency vehicle use
- Automatically turns ON at 95 PSI and OFF at 125 PSI
- Industrial grade compressor provides reliable, long term operation
- Easy installation, no mounting plate required
- Integrated vibration damping mounts
- Serviceable air filter and water separator filter
- Works in conjunction with engine driven compressor
- Integrated auto drain to protect your air system

### Specifications

Nominal Voltage	12V DC
Motor Type	Permanent Magnet
Factory ON-OFF PSI Threshold	ON: 95 PSI, OFF: 125 PSI
Maximum Amp Draw	11A
Operating Temperature Range	4.4°C to 65°C (40°F to 150°F)
Air Outlet	Female 1/4" NPT

Part #	Description
7920	Horizontal Mount Air Brake Compressor
7921	Vertical Mount Air Brake Compressor
7910	Air Filter Assembly - complete
7911	Replacement Air Filter Elements
7912	Replacement Water Separator Filter



Unscrew to replace  
Water Separator Filter

Unscrew to replace  
Air Filter



**30A**  
125V

## 30 Amp 125V Inlets

IP56

NEMA  
L5-30P



30A  
G  
125V  
Locking

Meets or Exceeds  
**ABYC**  
Standards



### Stainless Steel Power Inlet

- Cast 316 stainless steel

Part # 303SSEL-B  
OEM # 303SSEL-B.OEM



### Contour Power Inlet

- Stainless steel trim

Part # 304EL-B  
OEM # 304EL-B.OEM



### Contour Power Inlet

- Without stainless steel trim

OEM # 304EL-B.NT white  
OEM # 199136 black



### Power Inlet

- Stainless steel trim

Part # 301EL-B white  
OEM # 301EL-B.OEM white  
Part # 301ELCB replacement cap & bezel



### Power Inlet

- Stainless steel trim

Part # 301EL-B.BLACK black



### Power Inlet

- ABYC shore power warning label on cap

Part # 301EL-B.W/L



### Power Inlet

- Stainless steel trim
- Hole in rear enclosure accommodates snap-in strain relief (not included)

Part # 301EL-B.FR



### Breaker Inlet

- Includes cap & bezel and breaker plate
- Breaker not included

Part # 3050BI



### Stainless Steel Power Outlet

- Female 30A 125V configuration
- NEMA configuration L5-30R

Part # 303SSO

50A  
125/250V

### 50 Amp 125/250V Inlets

IP56

NEMA  
SS2-50P



50A  
125/250V  
Locking

Meets or Exceeds  
**ABYC**  
Standards



#### Stainless Steel Power Inlet

- Cast 316 stainless steel

Part # 6373EL-B  
 OEM # 6373EL-B.OEM  
 Part # 6373EL-B.W/L

w/separate warning label



#### Stainless Steel Power Inlet

- Cast 316 stainless steel
- Without rear safety enclosure

Part # 6373EL  
 OEM # 6373EL.OEM



#### Contour Chrome Power Inlet

- Chrome finish cover

OEM # 6344EL-BCR.OEM



#### Contour Power Inlet

- Without stainless steel trim

Part # 6344EL-B.NT



#### Power Inlet

- Stainless steel trim

Part # 6353EL-B  
 OEM # 6353EL-B.OEM  
 Part # 6353ELCB

replacement cap & bezel



#### Power Inlet

- Stainless steel trim
- Black

OEM # 6353EL-B.BLACK.OEM



#### Power Inlet

- Stainless steel trim
- Without rear safety enclosure

Part # 6353EL

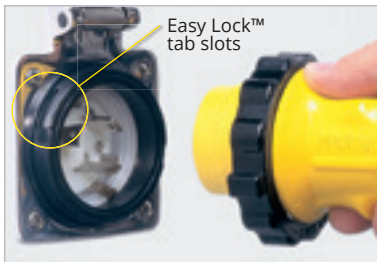
## Power Cord Plus® Cordsets

All Marincos® cordsets are made of the highest quality, marine grade construction with features you won't find on other power cords.

- 1 Watertight molded plug and connector for safety and durability
- 2 Heavy duty, super flexible marine grade cable (30 amp 10 gauge, 50 amp 6 gauge)
- 3 All models include a standard threaded ring for hook-up to ordinary threaded inlets
- 4 Corrosion resistant, nickel plated contacts
- 5 Power Indicator Light: Vehicle side connector features a molded-in LED light. When it glows red, you know you have power to the vehicle.
- 6 Contour Grip with Thumbprint Locator: Both plug and connector ends are molded to fit the contour of your hand. When the thumbprint is in the 12 o'clock position, the blades line up for easy connection.
- 7 Marincos Easy Lock™ system: Quickly locks the cord set to the inlet in just 1/8 of a turn. The exclusive locking tabs engage slots built into all Marincos inlets (sold separately).



### Easy Lock™ system



Length	Color	Pkg	Part #	OEM #
<b>30 Amp Power Cord Plus® Cordsets</b>				
12 ft	yellow	sleeve pack	199116	—
25 ft	yellow	sleeve pack	199117	—
25 ft	white	sleeve pack	25SPPW	—
35 ft	yellow	sleeve pack	35SPP	—
50 ft	yellow	sleeve pack	199119	50SPP.OEM
50 ft	white	sleeve pack	199120	50SPPW.OEM
75 ft	yellow	box	—	75SPP.OEM
<b>50 Amp 125/250 Volt PowerCord Plus® Cordsets (4-Wire)</b>				
12 ft	yellow	box	6152SPP-12SC	—
25 ft	yellow	box	6152SPP-25	—
25 ft	white	box	6152SPPW-25	—
40 ft	yellow	box	6152SPP-40	—
50 ft	yellow	box	6152SPP	—
50 ft	white	box	6152SPPW	—
75 ft	yellow	box	6152SPP-75	—
<b>50 Amp Plug End Only Cordsets</b>				
55 ft	white	box	6152SPPW-55.P/O	—
75 ft	white	box	6152SPPW-75.P/O	—

199119



# Pigtail Adapters

These adapters are equipped with covers and sealing collars (where indicated), and are for use in wet locations.

**Part #**

- 104SPP**
- 104SPP.OEM**
- 104SPP-25.OEM** 25 ft
- 104SPP-50.OEM** 50 ft

LED Power-on indicator and thumbgrip locator



LED Power-on indicator and thumbgrip locator

**115A**



LED Power-on indicator and thumbgrip locator

**150SSP**



**106A**



LED Power-on indicator and thumbgrip locator

**105SPP**



LED Power-on indicator and thumbgrip locator

**111A**



LED Power-on indicator and thumbgrip locator

**117A**



**110A**



LED Power-on indicator and thumbgrip locator

**118A**



**121A**



LED Power-on indicator and thumbgrip locator

**123A**



**GARAGE SIDE**

**MALE PLUG**

Attaches to garage-side receptacle or cordset



15A 125V Straight-Blade w/ Locking Screw



15A 125V Straight-Blade w/ Locking Screw



15A 125V Straight-Blade w/ Locking Screw



20A 125V Locking



30A 125V Locking



30A 125V Locking



30A 125V Locking



50A 125V Locking



50A 125V Locking



50A 125/250V Locking



50A 125/250V Locking

**VEHICLE SIDE**

**FEMALE CONNECTOR**

Attaches to vehicle inlet or cordset



30A 125V Locking w/ Sealing Collar System



50A 125V Locking w/ Sealing Collar System



50A 125/250V Locking w/ Sealing Collar System



30A 125V Locking w/ Sealing Collar System



15A 125V Straight Blade



50A 125V Locking w/ Sealing Collar System



50A 125/250V Locking w/ Sealing Collar System



30A 125V Locking w/ Sealing Collar System



50A 125/250V Locking w/ Sealing Collar System



30A 125V Locking w/ Sealing Collar System



50A 125V Locking w/ Sealing Collar System

## 15A Marine Grade Extension Cords

- Marine grade SJTOW cable
- Clear ends with lighted female end for visual power indication on 14/3 models
- Female end contains slide button lock for protection against cable disconnection\*
- Slide button lock compatible with all other manufacturers' products\*
- ETL certified to UL standards

Cable	Length	Description	Part #
14/3	25'	Locking and Lighted	150025
	50'	Locking and Lighted	150050
	25'	Lighted	150025NL
	50'	Lighted	150050NL
12/3	25'	Heavy-duty	151225
	50'	Heavy-duty	151250



\*150025 and 150050 models only

LEARN MORE  
Extension Cords  
Video



Visit Marinco on  
YouTube.com

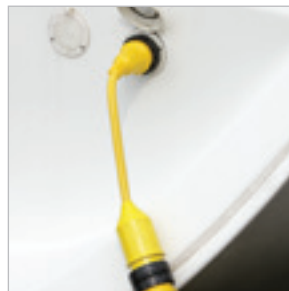
## Adapters

The Marinco® Shore Power Adapters give you more power hook-up flexibility and resolve a variety of garage-side power center / vehicle-side inlet power incompatibility problems.

### Types of Adapters



**Straight Adapters** are high-quality, one-piece adapters similar in usage to Pigtail Adapters. However, they do not have sealing collars and are not recommended for use in wet locations. Use only in an enclosed, dry location, such as powering your vehicle from a 15A power receptacle inside your house.



**Pigtail Adapters\*** allow you to connect from one garage-side receptacle (or other power source receptacle) to one vehicle-side inlet or equipment of dissimilar power configuration. These adapters are fully molded and equipped with Marinco®'s unique sealing collar (where indicated) and covers for use in wet locations.



# Straight Adapters

Not recommended for use in wet locations.  
Includes power LED.

**Part #**

**S20-15**  
Replaces the 80A.



## GARAGE SIDE

**MALE PLUG**  
Attaches to garage-side receptacle or cordset



## VEHICLE SIDE

**FEMALE CONNECTOR**  
Attaches to vehicle inlet or cordset



**S30-15**  
Replaces the 81A.



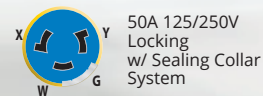
**S15-30**  
Replaces the 83A.



**S20-30**  
Replaces the 84A.



**S15-504**



## 2.1A Dual USB Chargers

Charge two mobile devices on the go



1016

1016200

- Compatible with popular mobile devices
- Internal fusing
- Conformal coated circuit board for the harsh environment
- Protective dust cap keeps debris and moisture out
- Install in existing 12V DC socket hole

### Specifications

Maximum Output Current	2.1A DC (total)
Input Voltage	12V / 24V DC
Input Voltage Range	9V-32V DC
Output Voltage	5V DC $\pm$ 5%
Port Configuration	D +=2.0V, D-=2.8V
Parasitic Current Draw	15mA
Thermal Overload Protection	Yes
Short Circuit Protection	Yes
Reverse Polarity Protection	Yes
USB	2.0, Type A
Cutout Dimensions	1-1/8" (29 mm) diameter

### Regulatory

RoHS, E certified

Part #	Description
1016	Socket Mount Charger - Black
1016200	Socket Mount Charger - White

## USB Extension

Control a stereo or other device remotely from a phone or tablet in the cockpit

USB 2.0 data/voltage port easily mounts at the dash with a prewired connecting cable that conveniently plugs directly into the USB on the stereo.

- Protective dust cap with tether keeps out dust and spray

### Specifications

Cable Length	5 ft (1.524M)
Cutout Dimensions in (mm)	1045 - 1-1/8" (29 mm) diameter
USB	2.0, Type A

### Regulatory

IP45 (with cover closed) - protected against jets of water



1044

Part #	Description
1044	12V DC USB

## 12/24V Dual USB 4.8A Chargers

Intelligent device recognition maximizes charge rate for phones, tablets, or other mobile devices



1039

1045

- Charges at the speed required by specific devices
- Internal filtering for reduced electronic interference
- Over temperature protection
- Conformal coated circuit board for the harsh marine environment
- Protective dust cap keeps debris and moisture out
- 1039 Mounts in an existing contura switch aperture
- 1045 Mounts in a common 1-1/8" hole

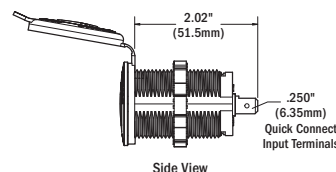
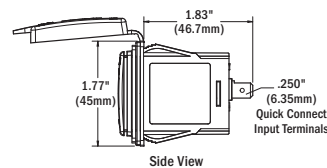
### Specifications

Maximum Output Current	4.8A DC (total)
Input Voltage	9V-32V DC
Output Voltage	5V DC $\pm$ 5%
Port Configuration	Intelligent Device Recognition
Parasitic Current Draw	1mA
Thermal Overload Protection	Yes
Short Circuit Protection	Yes
Reverse Polarity Protection	Yes
USB	2.0, Type A
Cutout Dimensions	1039 - 1.45" $\times$ 0.83" (36.83 $\times$ 21.08 mm) 1045 - 1-1/8" (29 mm) diameter

### Regulatory

RoHS, E certified

Part #	Description
1039	Contura Switch Mount Charger
1045	Socket Mount Charger



### Related Products



Maringo USB extension  
page 28



Water-Resistant Accessory Panels  
page 31



## 48V Dual USB 4A Chargers

Intelligent device recognition maximizes charge rate for phones, tablets, or other mobile devices



1038

1046

- Ideal for golf carts and other 48V systems
- Spring-hinged cover keeps debris and moisture out
- Charges at the speed required by specific devices
- Internal filtering for reduced electronic interference
- Over temperature protection
- Conformal coated circuit board for the harsh marine environment
- 1038 Mounts in an existing contura switch aperture
- 1046 Mounts in a common 1-1/8" hole

### Specifications

Maximum Output Current	4A DC (total)
Input Voltage	32V-64V DC
Output Voltage	5V DC ±5%
Port Configuration	Intelligent Device Recognition
Parasitic Current Draw	1mA
Thermal Overload Protection	Yes
Short Circuit Protection	Yes
Reverse Polarity Protection	Yes
USB	2.0, Type A
Cutout Dimensions	1038 - 1.45" × 0.83" (36.83 × 21.08 mm) 1046 - 1-1/8" (29 mm) diameter

### Regulatory

RoHS, E certified

PN	Description	PN	Description
1038	Contura Switch Mount Charger	1035	Spring-hinged cover for 1038 & 1039
1046	Socket Mount Charger	1036	Spring-hinged cover for 1046 & 1045

## 360 Panels

Integrates DC Socket and Dual USB Chargers with 360 Panel System



1472

1478

PN	Description	Width in (mm)	Height in (mm)	Depth in (mm)
1472	2 × 1011	4.88 (123.83)	4.75 (120.65)	1.50 (38.10)
1478	1 × 1011, 1 × 1016	4.88 (123.83)	4.75 (120.65)	1.50 (38.10)

### Related Products



Water-Resistant Accessory Panels  
page 31

## 12 Volt Socket and Plugs

Designed to withstand the rigors of wet environments and constant vibration

- Corrosion resistant materials
- Twist lock system - plug locks securely into socket
- Internal strain relief and cord seal
- Nickel plated copper alloy used for all current carrying components
- Plug has a sealing ring to keep out spray and make it seat firmly in the socket
- Socket features a protective dust cap that keeps debris and moisture out
- 1012 and 1013 heavy duty 18 gauge wire
- 1012 cord reaches up to 6 feet

### Specifications

Voltage Nominal	12V DC
Amperage Max. Operating	15A DC (socket)
Amperage Max. Operating	10A DC (plug)
Cutout Dimensions	1-1/8" (29 mm) diameter (socket)

PN	Description	Dust Cap
1010	Plug	--
1011	Black Socket	Yes
1011200	White Socket	Yes
1012	Single Plug with Single Socket Extension	Yes
1013	Single Plug with Dual Socket Extensions	Yes
1014	Mounting Bracket for Sockets	--
1015	Plug and Socket Set - Includes 1010 and 1011	Yes



1011

1011200

1010

1014

1012

1013

## 12V Sockets / Plugs / Accessories



### 12 Volt Socket with Protective Cap

- Stainless Steel
- Includes stainless steel mounting plate and wire set
- Max rating is 20 amps

Part # 20036



### SeaLink® Deluxe 12 Volt Socket w/ Old Style Ring

- Watertight sealing cap
- Easy to install with locking ring for rear access installation
- Compatible with standard 12V plugs
- Max rating is 20 amps

OEM # 12VRCO

OEM # 12VRCO.PG w/gasket

OEM # 12VRCY sealed seams



12VRC



12VRCW



12VRC.OEM



12VRCW.OEM

### SeaLink® Deluxe 12 Volt Socket

- Watertight sealing cap
- Easy to install, with supplied mounting plate for front panel installation, or locking ring for rear access installation
- Compatible with standard 12V plugs
- Max rating is 20 amps

Part # 12VRC black

Part # 12VRC.PG black w/gasket

Part # 12VRCW white

### SeaLink® Deluxe 12 Volt Socket

- Watertight sealing cap
- Easy to install with locking ring for rear access installation
- Compatible with standard 12V plugs
- No mounting plate
- Max rating is 20 amps

OEM # 12VRC.OEM black

OEM # 12VRCW.OEM white



### SeaLink® Deluxe 12 Volt Plug

- Moisture proof sealing ring
- LED power indicator light
- Interchangeable 10A fuse
- Internal strain relief and cord seal
- Compatible with standard 12V sockets
- Max rating is 10 amps

Part # 12VPG

OEM # 12VPG.OEM



12VDUSB

12VDUSBW-B

### SeaLink® Deluxe Dual USB Charger Socket

- 12V to 24V DC input
- 5V, 2.1 amp total output
- LED power indicator light for USB
- Water resistant cover protects against dust and water

Part # 12VDUSB black (with insulated terminals)

OEM # 12VDUSB-B black

OEM # 12VDUSBN-B black no LED

OEM # 12VDUSBW-B white

## 12V Sockets / Plugs / Accessories



### SeaLink® Deluxe 12 Volt Socket & Plug

- 12VRC and 12VPG packaged together

Part # 12VPK



12VCOMBO

12VCOMBOW-B

### SeaLink® Deluxe Dual USB Charger & 12V Socket

- 12V DC input
- Dual USB has 5V, 2.1 amp total output
- LED power indicator light for USB
- Socket has 12V DC output, rated up to 20 amps
- Water resistant covers protects against dust and water

Part # 12VCOMBO black (with insulated terminals)  
 OEM # 12VCOMBO-B black  
 OEM # 12VCOMBON-B black no LED  
 OEM # 12VCOMBOW-B white



12VDUSBAC-B

### SeaLink® Dual USB-A/C Combo Charger

- Two USB Ports: (1) USB-A and (1) USB-C
- Mounts in a 1 1/8" hole
- Water resistant cap
- LED power indicator

Part # 12VDUSBAC-B black



76080



## Intermittent Wiper Motor Controller

- Single speed and dual speed options
- Allows for the control of single motor systems, and synchronized control of dual motor systems
- Intuitive automotive-style functionality—features adjustable intermittent settings, adjustable continuous settings, and washer system operation
- IP67—Potted case for harsh environment durability
- Includes Contura Switch, SPDT (On)-Off-(On) (retail only)
- Easy to install with 1/4" spade connectors
- Reverse polarity protection
- Compatible with 12V and 24V DC motors

Single Speed Part # 76090 OEM # 76190  
 Dual Speed Part # 76080 OEM # 76180



150PHB

## Guest Shore Power AC Universal Plug Holder

- Black AC Universal Plug Holder is designed for all standard 120V AC plugs
- Plug clamp insert included - converts plug holder to an AC power cord
- No cutting, stripping, or rewiring of AC power cord
- Watertight and UV resistant cover, stainless steel mounting screws included
- Easy to reach safe AC power cord connections

Part # 150PHB black



## 12V Sockets / Plugs / Accessories



12MP.OEM

300259

### SeaLink® Mounting Plate

- Easy to install or retrofit
- 12MP.OEM use with 12VRCY, 12VRC.OEM, 12VRCO, or 12VBR.OEM
- 300259 use with 12VRCW.OEM

OEM # 12MP.OEM black  
OEM # 300259 white



### SeaLink® Socket Mounting Bracket

- Bracket for under dash mounting of the SeaLink® or ConnectPro® sockets
- Socket installs with rear mounting threaded nut
- Marine grade anodized aluminum
- Dimensions: 2" W x 2-1/2" H

Part # 12BKT



### Boot

- For use with 12V products
- Creates a weatherproof seal

Part # 300275



### Trolling Motor Adapter Terminal

- 6 gauge

Part # 12VPL.OEM



### USB Port

- 6 ft
- USB extension cable with weatherproof cap

Part # USBA6  
OEM # USBA6.OEM

### Related Products



Blue Sea Systems USB extension  
page 24



### SeaLink® Deluxe 12V Extension Cord

- Heavy duty 18 gauge wire, extends to over 6 feet
- Watertight cap
- Plug features an LED indicator light, moisture proof sealing ring, strain relief and built-in 10A fuse
- SeaLink® locking system
- Works with any standard 12V plug and socket

Part # 12VXT



### SeaLink® Deluxe 12V Dual Outlet Cord

- Heavy duty 18 gauge wire, extends to over 1 foot
- Watertight caps
- Plug features an LED indicator light, moisture proof sealing ring, strain relief and built-in 10A fuse
- SeaLink® locking system
- Works with any standard 12V plug and socket

Part # 12VAD

### 3-Wire 70A Charging System



#### 70A Motor Socket

- 70A continuous rating
- Universal design for 2 or 3-wire configuration 12V, 24V, 12/24V, 24/36V, 36V or 48V systems
- Floating pin design for maximum connectivity and durability
- Corrosion resistant, plated brass electrical components
- Watertight sealing cap
- Accepts 8 and 6 AWG wire

Part # 12VBR53  
OEM # 12VBR53.OEM



#### 70A Motor Plug

- 70A continuous rating
- Universal design for 2 or 3-wire configuration 12V, 24V, 12/24V, 24/36V, 36V or 48V systems
- Floating pin design for maximum connectivity and durability
- Corrosion resistant, plated brass electrical components
- Integrated strain relief
- Keyed design with thumbprint locator
- Accepts 8 and 6 AWG wire

Part # 12VBPS3  
OEM # 12VBPS3.OEM



#### 70A Motor Plug & Socket

- 70A continuous rating
- Universal design for 2 or 3-wire configuration 12V, 24V, 12/24V, 24/36V, 36V or 48V systems
- Floating pin design for maximum connectivity and durability
- Corrosion resistant, plated brass electrical components
- Socket contains watertight sealing cap
- Plug contains integrated strain relief and keyed design with thumbprint locator
- Accepts 8 and 6 AWG wire

Part # 12VCPS3

### 3-Wire ConnectPro® Charging System



PATENTED

#### ConnectPro® Socket

- Universal design for 2 or 3-wire configuration 12V, 24V, 12/24V, 24/36V or 36V systems
- Watertight sealing cap
- Corrosion resistant, plated brass electrical components
- Drain holes in receptacle keep water away from electrical components
- Perma-Lock™ screw terminals will not loosen under extreme hull vibration
- Standard 1-1/8" diameter mounting hole
- Easy to install, with supplied mounting plate for front panel installation, or locking ring for rear access installation
- Accepts 10 and 8 AWG wire
- Easily replaces other motor plugs and sockets
- Max rating is 40 amps

Part # 12VBR with mounting plate  
OEM # 12VBR.OEM without mounting plate



#### ConnectPro® Plug

- O-ring seal for waterproof connections
- Weather resistant plug cover
- Corrosion resistant, plated brass electrical components
- Accepts 16 to 8 AWG wire
- Ergonomic contoured grip for easy hook-up and ground blade alignment
- Max rating is 40 amps

Part # 12VBP  
OEM # 12VBP.OEM



#### ConnectPro® Socket & Plug

- 12VBR and 12VBP packaged together

Part # 12VCP



#### 6 Gauge ConnectPro® Wire Socket Adapter

- Allows 6 AWG wire connection to ConnectPro® receptacle
- Corrosion resistant, plated brass electrical components

Part # 12VBRAD  
OEM # 12VBRAD.OEM



#### ConnectPro® Socket, Plug & 6 Gauge Adapter

- 12VBR and 12VBP and 12VBRAD packaged together
- Max rating is 40 amps

Part # 12VCP6

## Inlets and Connectors

### Manual Inlet

- Designed for manual AC plug applications for fleet and emergency vehicles
- Standard footprint for easy retrofits
- UV resistant glass filled polyester for longevity in harsh environments
- Spring-loaded cover for water ingress protection
- Stainless steel screws and nickel plated blades for corrosion resistance
- Accepts 16AWG to 12AWG wire

### Female Connector

- Nylon housing provides long lasting durability, resistance to corrosion and a wide range of chemicals
- Integrated strain relief for a secure cord connection
- Stainless steel screws and nickel plated blades for corrosion resistance
- Accepts 16AWG to 12AWG wire



5278BWP



5369CRB

**15A**  
120V

Part #	Description	Configuration
5278BWP	15A 120V AC Manual Inlet	NEMA 5-15R
5269CRB	15A 120V AC Female Connector	NEMA 5-15P



5378BWP



5269CRB

**20A**  
120V

Part #	Description	Configuration
5378BWP	20A 120V AC Manual Inlet	NEMA 5-20R
5369CRB	20A 120V AC Female Connector	NEMA 5-15P



## Water-Resistant Accessory Panels

Easy to install accessory panels include a 15A circuit breaker switch and pre-wired harness. Panels offer customizable 12V charging and monitoring options.

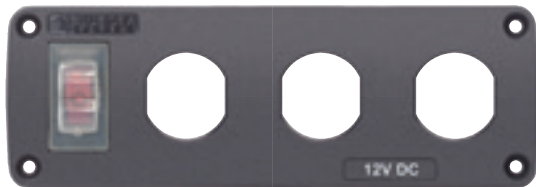
- Pre-wired harness included in all panels for easy installation
- Silicone breaker boots and gasket protects against water ingress
- Illuminated Carling Technologies 15A circuit breaker switch allows the ability to shut off panel preventing parasitic draw
- Polycarbonate/ABS panel face is UV-stabilized, flame retardant, and will not corrode
- 12V DC only

### Regulatory

E certified

IP45 (with cover closed) - protected against jets of water (see inside back cover)

Part #	Description	Width in (mm)	Height in (mm)	Depth in (mm)
4363	15A Circuit Breaker, 12V Socket, 2.1A Dual USB Charger	4.94 (125.4mm)	2.25 (57.2mm)	2.53 (64.3mm)
4364	15A Circuit Breaker, 2x Blank Apertures	4.94 (125.4mm)	2.25 (57.2mm)	Based on installed components
4365	15A Circuit Breaker, 12V Socket, 2x 2.1A Dual USB Chargers	6.61 (168.0mm)	2.25 (57.2mm)	2.53 (64.3mm)
4366	15A Circuit Breaker, 12V Socket, 2.1A Dual USB Charger, Mini Voltmeter	6.61 (168.0mm)	2.25 (57.2mm)	2.75 (69.8mm)
4367	15A Circuit Breaker, 3x Blank Apertures	6.61 (168.0mm)	2.25 (57.2mm)	Based on installed components
4368	15A Circuit Breaker, 12V Socket, 2x 2.1A Dual USB Chargers, Mini Voltmeter	8.29 (210.5mm)	2.25 (57.2mm)	2.75 (69.8mm)
4369	15A Circuit Breaker, 4x Blank Apertures	8.29 (210.5mm)	2.25 (57.2mm)	Based on installed components



4367



4364



4365



4363



4366



4368



4369

### Related Products



2.1A Dual USB Chargers  
page 24



4.8A Dual USB Chargers  
page 24



12V Socket  
page 25



Mini OLED Meters  
page 134

# POWER CONVERSION

## P12 Battery Chargers and Display

34



A four stage, three output, dry mount device designed for use in harsh environments.

## ProNauticP Series

36



Combines digital control and software-based power conversion technology with global energy management features.

## ChargeMaster Plus Series

38



ChargeMaster Plus is the next generation battery charger that integrates multiple functions into one single device.

## BatteryLink® Charger

38



Charge two batteries at or away from the garage.

## Guest ChargePro™ Series

42



Chargers ranging from 5 to 40 amps, with Fully automatic 5-Stage performance charging for 12 volt lead acid and AGM batteries.





# POWER CONVERSION

## TruePower Plus Inverters

44



Our next generation of TruePower Plus Inverters are available in both Modified Sine Wave (MS) and Pure Sine Wave (PS) models.

## Mac Plus DC/DC Converters

46



Mac Plus acts as both a 3-stage battery charger as well as a DC power supply.

## CombiMaster Inverter/Chargers

58

NEW



Delivers pure sine wave inverter power and multi-chemistry battery charging plus the intelligent new design communicates seamlessly with NMEA 2000, CZone, and MasterBus networks.

## PowerCombi Inverter/Chargers

63



PowerCombi is a pure sine wave Inverter/Charger offering grid quality AC power and battery charging in one low profile design.



## P12 Battery Chargers

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

Specifications	7531	7532
Total Output Current	25A	40A
Input AC Current	4.5A @ 115V AC 2.25A @ 230V AC	7.5A @ 115V AC 3.75A @ 230V AC
Recommended Battery Bank Sizes*	<b>60Ah Minimum</b> Example: 1 × Group 24 <b>330Ah Maximum</b> Example: 3 × Group 31	<b>60Ah Minimum</b> Example: 1 × Group 24 <b>440Ah Maximum</b> 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	
Max. 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	
LiFePO batteries	Custom profiles configurable	

\* Battery bank sizes are tested to California Energy Commission compliance (CEC). 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.

### IGNITION PROTECTED

Part #	Amps	Volts	Width in (mm)	Height in (mm)	Depth in (mm)
7531	25A	12V DC	8.46 (215)	13.00 (330.6)	4.30 (109)
7532	40A	12V DC	8.46 (215)	13.00 (330.6)	4.30 (109)

### Related Products



SI ACR  
page 85



ML Series ACR  
page 87



MRBF Fuse Block  
page 95



7532  
PATENTED



## Battery Charger Mounting Adapter

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

- For use with the P12 Battery Charger (page 34) or the ProNauticP Battery Charger (page 36)
- Mounts directly into industry standard mounting holes from existing chargers
- Integrated nuts allow battery charger mounting fasteners to be inserted from either the front or rear
- Fasteners included with the P-12 Adapter plate:
- Qty 4: #10-32 x 0.75" pan head machine screws
- Qty 4: #10-32 Nylock Nuts



Part #	Description
7512	Mounting Adapter

## EV Battery Charger Display

Intuitive battery monitoring for emergency vehicles

- Drop in replacement for traditional rectangular displays
- Automatically detects 1-3 battery banks
- AC charge indication verifies that power is connected and the battery charger is charging
- Plain language fault indication relays if there is a fault with the battery charger
- Dip switch selectable screen configuration allows the display to show voltage bar graphs or the P12 Battery Charger summary screen
- Displays voltage bar graphs even when AC power is not present
- Optional standby mode shuts off screen after 4-hours of inactivity
- Automatic ON based on motion with integrated knock sensor
- Bright, daylight readable, OLED display

### Specifications

Display Size	55mm x 28mm
Display Type	Yellow OLED
Input Voltage	6V-36V DC, reverse polarity protected
Max. Amperage Draw	50 mA
Minimum Standby Mode	< 1 mA in Standby Mode
Optional power saving mode	Optional power saving mode turns the display off after 4-hours of inactivity. Will resume normal function upon movement of the vehicle or by tapping the unit several times in succession.

Accuracy:	± 1% at 36 Volts DC
Number of Inputs:	3 battery inputs with common reference.

### Regulatory

Monitor face is IP66 – protected against powerful water jets when installed according to instructions.



**5 YEAR WARRANTY**

Part #	Description	Width in (mm)	Height in (mm)	Depth in (mm)
7517	EV Charger Display	4.7 (119.25)	3.2 (80.5)	1.2 (29.7)



## ProNauticP Series ProMar Digital Performance Charging All Digital Electronic Charging...

Winner of the IBEX Innovation Award, ProNauticP's Generation 3 ProMar Digital Performance Charging Platform combines digital control and software-based power conversion technology with global energy management features.

ProNauticP is designed for the growing demand for more 12-volt electronics on board today's power, sail, cruising and sport fishing boats. Highlighting twelve digitally-controlled performance charging profiles and a full digital display, ProNauticP offers features not seen on competitive chargers including: Self Test Diagnostics, real time system voltage and amperage, discreet fault indication and once-a-month storage reconditioning modes to extend the life of your batteries.

ProNauticP is designed to provide more time on the water enjoying what you like most... boating, sailing and fishing.

- Distributed-On-Demand™ Technology**  
Automatically senses and distributes up to full capacity to any one bank or combination of all banks.
- ProMar Digital Charging Performance - 12 Selectable Profiles**  
Up to 12 performance & precision 4-stage charging profiles: Charge, Condition, Auto Maintain and Recondition. Automatic dockside power mode for 12 Volt DC lighting and appliances. Factory set for Flooded (Lead Acid) batteries. AGM, GEL selectable.
- Power Factor Correction - Global AC Input**  
Auto-ranging (100-250V AC/50-60Hz) global AC input with reduced harmonic distortion allowing all models to operate off a household power outlet connection. ProNauticP consumes less power so more AC power is available on board.
- Conservation Energy Saver Mode**  
After fully charging and conditioning batteries, ProNauticP's Energy Saver Mode will monitor and Auto Maintain batteries only when needed, maintaining a full state of charge. This significantly reduces AC power consumption while lowering operating costs and maximizing reserve power performance.
- Digital Self-Calculating Absorption and Battery Health Reconditioning Mode**  
Automatically programs conditioning time based on discharge state of batteries. Automatically reconditions batteries after 21 days in the Auto Maintain Mode, improving reserve power performance & extending battery life.
- Service and Fault Mode LED Indicators 1 2 3**  
Real time indication of wiring faults or adverse conditions that may impact the operation of a boat's charging system.
- Automatic Fan Speed Control**  
Quiet operation. Innovative front exhaust prevents restriction of air flow and cooling.
- Automatic Temperature Compensation and Built-in Safety**  
Remote temperature probe included - Ignition protected and current limiting. Designed and constructed to: Marine ULc 1236, CE, CTick, FCC Class B and CEC.
- 5 Year Warranty

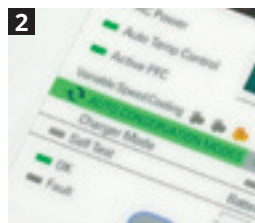


**5 YEAR  
WARRANTY**

**D<sup>2</sup>**  
Distributed-on-Demand  
Technology



**1**  
Dual Digital Displays and Power Output Bar



**2**  
Battery Type and EZ View Service Indicators



**3**  
Auto Conservation and Self Test Modes

Safety Certified by:



To Standards:  
UL 1236 SB  
CSA C22.2-107.2



Setting Standards for Safer Boating

### ProNauticP Series Selection



	ProNautic 1210P	ProNautic 1215P	ProNautic 1220P	ProNautic 1230P	ProNautic 1240P	ProNautic 1250P	ProNautic 1260P	ProNautic 2420P	ProNautic 2430P
<b>Part #</b>	<b>63110</b>	<b>63115</b>	<b>63120</b>	<b>63130</b>	<b>63140</b>	<b>63150</b>	<b>63160</b>	<b>63170</b>	<b>63180</b>
<b>Volts</b>	12	12	12	12	12	12	12	24	24
<b>Amps</b>	10 Amp	15 Amp	20 Amp	30 Amp	40 Amp	50 Amp	60 Amp	20 Amp	30 Amp
<b>Banks</b>	2 Bank	3 Bank	3 Bank	3 Bank	3 Bank	3 Bank	3 Bank	3 Bank	3 Bank
<b>AC Input Voltage</b>	100-260 Autoranging	100-260 Autoranging	100-260 Autoranging	100-260 Autoranging	100-260 Autoranging	100-260 Autoranging	100-260 Autoranging	100-260 Autoranging	100-260 Autoranging
<b>Amperage at 100/240V AC</b>	< 3.0 / < 1.5	< 4.0 / < 2.0	< 5.0 / < 2.5	< 6.0 / < 3.0	< 7.0 / < 3.5	< 10.0 / < 5.0	< 11.0 / < 5.5	< 7.0 / < 3.5	< 11.0 / < 5.5
<b>Cycle</b>	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
<b>Size (LxWxH)</b>	10.25"x8.5"x 3.5"	10.25"x8.5" x3.5"	10.25"x8.5" x3.5"	10.25"x8.5" x3.5"	10.25"x8.5" x3.5"	12.25"x8.5" x3.5"	12.25"x8.5" x3.5"	10.25"x8.5" x3.5"	12.25"x8.5" x3.5"
<b>Weight</b>	5 lbs	5 lbs	5 lbs	5 lbs	5 lbs	7 lbs	7 lbs	5 lbs	7 lbs

### Digitally Controlled Charge Profiles

Battery Type	12 Volt Models				24 Volt Models			
	Preset 1		Preset 2		Preset 1		Preset 2	
	Conditioning V DC	Auto Maintain V DC Range	Conditioning V DC	Auto Maintain V DC Range	Conditioning V DC	Auto Maintain V DC Range	Conditioning V DC	Auto Maintain V DC Range
Flooded	14.8V DC	12.8-13.6V DC	14.7V DC	12.8-13.4V DC	29.6V DC	25.6-27.2V DC	29.4V DC	25.6-26.8V DC
Sealed	14.4V DC	12.8-13.6V DC	14.6V DC*	12.8-13.4V DC*	28.8V DC	25.6-27.2V DC	29.2V DC*	25.6-26.8V DC*
AGM	14.4V DC	13.0-13.4V DC	14.6V DC	13.0-13.6V DC	28.8V DC	26.0-26.8V DC	29.2V DC	26.0-27.2V DC
GEL	14.0V DC	13.2-13.7V DC	14.4V DC	13.2-13.8V DC	28.0V DC	26.4-27.4V DC	28.8V DC	26.4-27.6V DC
LiFePO4 - Lithium	13.8V DC	13.2-13.8V DC	14.6V DC	13.2-14.6V DC	27.6V DC	26.4-27.6V DC	29.2V DC	26.4-29.2V DC
Calcium/Prgm Custom	15.1V DC	13.2-13.6V DC	PrgmV DC**	PrgmV DC**	30.2V DC	26.4-27.2V DC	PrgmV DC***	PrgmV DC***
Equalization	15.5V DC	15.5V DC	15.5V DC	15.5V DC	31.0V DC	31.0V DC	31.0V DC	31.0V DC

\* Factory setting \*\*Default : Conditioning = 13.6V DC, Auto Maintain = 13.2-13.6V DC \*\*\*Default: Conditioning = 27.2V DC, Auto Maintain = 26.4-27.2V DC



### Remote Temperature Sensor Probe (included)

The ProNauticP comes standard with a temperature probe that is plug and play. Once the temperature sensor is connected the charger will adjust its charge based on the batteries temperature.

Part # 63106



### Digital Display and Control Remote (optional)

ProNauticP optional remote available for interactive remote port for digital display and control.

Part # 63100

# ChargeMaster Plus Series Battery Chargers:

## All-in-one solution for faster and safer charging

ChargeMaster Plus is the next generation battery chargers that integrates multiple functions into one single device. Replacing auxiliary chargers, battery isolators and VSR, ChargeMaster Plus reduces system complexity and cost. Designed for versatility, it charges virtually any combination of three batteries at high speed and works anywhere in the world.



With the new Battery's best friend architecture, ChargeMaster Plus is capable of charging a multitude of battery chemistries, sizes and voltages. All batteries are charged with the fast and safe 3-step+ charge method.

Other unique features are:

- Revival mode: automatically revives even fully depleted batteries
- Multi voltage: charge 12V starter battery in a 24V system, without additional components (24 V models only).
- Priority charge: redirect available power to the lowest battery, for faster charging.
- Smart Input: charge all three batteries from one single alternator for continuous charging on the go.

### Global charging



The ChargeMaster Plus handles worldwide AC voltages and frequencies. Resisting large voltage fluctuations and high temperatures, it keeps working in harsh environments. For marine and mobile markets, ChargeMaster Plus is CE, ABYC, UL, SAE, CEC and RCM/C-Tick compliant.

### System simplicity



Nowadays, equipment must be self-explaining. The ChargeMaster Plus displays the charge phase of all three outputs in an understandable way. Robust and ergonomic connections save installation time. An integrated VSR eliminates the need for additional components and ensures that the alternator's energy is funnelled through to the batteries.

### Powerful connections

#### **NEW** Czone® Integration.



In modern applications, all electrical components work together. The CAN-based MasterBus enables the ChargeMaster Plus to communicate with displays, shunts and power systems. Models with the addition "CZone integrated" do not only support MasterBus, but also support CZone and NMEA communication, without the need of additional interfaces. The ChargeMasters Plus series can be configured via MasterBus or will accept a CZone configuration file just like any other CZone device. Other communication standards like ModBus, CANopen, LinBus, etc. are supported via additional interfaces. This wide range of communication interfaces makes the ChargeMaster Plus ideally suited for system integration. All models of the ChargeMaster Plus series can operate as a power supply for delicate communication equipment, or during the construction phase of a boat.



### ChargeMaster Plus Series Features

- MasterBus, CZone and NMEA communication.
- Multicharger with two outputs, one in/output, DC-DC converter, current limiter and VSR
- Charges multiple batteries while being underway
- Extended specifications: offers 20% more output at 14.4V and 80% charging power at 140°F (60°C)
- Safe Charge: quickly recognize the State of Charge for extended battery life
- Very wide operating range of 80-275V AC, 35-70 Hz
- Compact, easy to connect and quick to install

### INDUSTRY FIRST

Combine Lithium Ion, Gel or AGM, and large or small 12/24V battery banks on a single charger (24V models only).

### TECH tip™

ChargeMaster Plus simplifies charging systems. Charging faster and safer than ever, this all-in-one charging solution offers best value for money.

**CZONE®**



# ChargeMaster Plus Battery Chargers

## Specifications - 12V & 24V



ChargeMaster Plus	12/35-3	12/50-3	12/75-3	12/100-3	24/20-3	24/30-3	24/40-3	24/60-3	24/80-2	24/110-2	
Part #	44310305	44310505	44310755	44311005	44320205	44320305	44320405	44320605	44320805	44321105	
<b>General Specifications</b>											
Nominal output voltage	12V					24V					
Max. charge current per output	35V	50V	75A	100A	20A	30A	40A	60A	80A	100A	
Smart In-/Output output voltage	12V					12 or 24V			n.a.	n.a.	
Smart In-/Output output current	n.a.	n.a.	5-40A (adjustable)	5-10A at 12V	n.a.	n.a.	5-20A at 24V (adjustable)	5-20A at 24V (adjustable)	n.a.	n.a.	
Smart In-/Output input current	n.a.	n.a.	max. 40A	max. 40A	n.a.	n.a.	10A at 12V max, 20A at 24V	10A at 12V max, 20A at 24V	n.a.	n.a.	
Secondary output voltage	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14.25/28.5V (12/24V)		
Secondary output current	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	15A at 12V / 20A at 24V (adjustable)		
Max. AC current ( 230 V / 120 V)	2.4A/4.9A	3.5A/7A	5.6A / 11.8A	7.5A / 14.9A	2.8A/5.6A	4.1A / 8.4A	7.1A / 12.8A	10.1A / 18.7A	11.75 A / 23 A	15.75 A / 31.5 A	
Total charge current	35A at 14.4V	50A at 14.4V	75A at 14.4V	100A at 14.4V	20A at 28.8V	30A at 28.8V	40A at 28.8V	60A at 28.8V	80 A at 28.8 V	110 A at 28.8 V	
Number of outputs	3 (max.)					2 (max.)					
Recommended battery capacity	70-300 Ah	140-400 Ah	320-800 Ah	400-1000 Ah	160-400 Ah	200-500 Ah	160-400 Ah	200-500 Ah	280-700 Ah	400-1000 Ah	
Nominal input voltage	120/230V (80-275V) 50/60 Hz										
AC connection	screw terminals										
Power supply mode	yes										
Display/read-out	LED										
Dimensions, hxxwx d	11.5" X 8.3" X 4.1" (291 X 210 X 105 mm)		15.1" x 9.8" x 5" (384 x 250 x 127 mm)		11.5" X 8.3" X 4.1" (291 X 210 X 105 mm)			15.1" x 9.8" x 5" (384 x 250 x 127 mm)			
Weight	5.5 lb / 2.5 kg		13 lb / 5.9 kg		5.5lb / 2.5 kg			13 lb / 5.9 kg			
Approvals	CE, ABYC, UL1236, SAE J1171, ISO 8846, CEC, RCM/C-Tick										
<b>Technical Specifications</b>											
Charge characteristic <small>Charge characteristic can be set to your requirements</small>	IUoUo, automatic, 3-step+ for Gel/AGM/Lithium Ion (LiFePO4)/traction/spiral								IUoUo, automatic , 3-step+ for AGM/Gel/flooded/Lithium Ion and a user defined option		
Temperature compensation	-17 mV/°F (-30 mV/°C) temperature sensor included								-76 mV/°F (-60 mV/°C) temperature sensor included		
Voltage compensation	through MasterShunt								through automatic compensation or MasterShunt		
DC consumption	< 2 mA (MasterBus® off)										
Current Control function	yes, through MasterBus								through MasterBus or CZone		
Power factor	> 0.98										
Temperature range (ambient temp.)	-13°F to 176°F, derating > 104°F (-25°C to 80°C, derating > 40°C)										
Cooling	vario fan										
Protection degree	IP23, vertical mounting										
Protections	over-temperature, overload, short circuit, high/low battery voltage, ignition protection										
Communication	MasterBus, CZone, NMEA 2000®										
Charger Status Interface (alarm contact)	yes, using a Multipurpose Contact Output (part # 77030500)										
<b>Options</b>											
MasterView Read-out 77010050		Remote panel for reading the charge status of your battery charger, incl. error notifications.					Mastervolt USB Interface 77030100		Communication port between MasterBus and the USB port of your PC; makes possible reading and configuration of your MasterBus system on the PC when combined with MasterView System software (free to download).		
EasyView 5 77010310		Waterproof system monitor with 'daylight readable' color display and intuitive multi-language touchscreen to show the key system information at a glance. There is also a logbook feature for warnings and alarms, along with a buzzer and alarm notifications. The home button gives access to favorite pages.					Multipurpose Contact Output 77030500		MasterBus controllable potential-free contact, with alarm notification on the onboard system (low voltage or no AC), usable as CSI alarm contact.		
MasterShunt 77020110		MasterBus integrated battery monitor, with detailed information on the status of your batteries for a optimized charging process, incl. voltage, current, remaining time and consumption capacity in percentage.									





## 20A BatteryLink® Chargers

Charge two batteries at or away from the garage with a 20A multistage battery charger and integrated 170A Automatic Charging Relay (ACR)

- AC charging at the garage: Use AC shore power to charge two isolated battery banks with the 3 Stage 20 Amp battery charger
- DC charging away from the garage: Share the DC power from the alternator with both the Start and the Auxiliary battery through the integrated 170A ACR
- Battery Temperature Compensation prolongs battery life
- Start isolation protects sensitive electronics from voltage sags and spikes
- Emergency parallel allows remote ability to jump start by combining both batteries if start battery is low
- Includes LED remote indicator for charge status at the helm
- Snap-on insulating cover
- One-piece stainless flange nuts ensure safe and secure connections

### Specifications

Nominal Output Voltage	12V DC
Total Output Current	20A
Output Connections	2 positive, 1 negative
Universal AC Input Voltage	100V-240V AC, 50/60 Hz
Typical Float Voltage (25° C)	13.5V DC
Typical Absorption Voltage (25° C)	14.4V DC
ACR Continuous Rating	170A
ACR Combine Voltage	13.0V
ACR Open Voltage	12.75V
Terminal Stud Size	1/4"-20 (accepts M6 ring terminal)
Maximum 1/4" Terminal Stud Torque	60 in-lb (6.8 Nm)
Terminal Stud Size	3/8"-16 (accepts M10 ring terminal)
Maximum 3/8" Terminal Stud Torque	140 in-lb (15.8 Nm)
Quick Connect Terminal Size	1/4" x 0.032"
Warranty	5 Year
Battery Types	Flooded, AGM, TPPL

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

### North American Model

Part #	Description	Plug Style
7608	20A BatteryLink Charger	North American: NEMA 5-15P

### Regulatory

Designed and constructed for compliance to UL-1236 Marine, CSA 22.2 No. 107.2 and ABYC A-31 standards. Ignition protected per ISO 8846 and SAE J1171. Meets FCC Part 15, Class B requirements. Designed and tested to comply with California Energy Commission (CEC) efficiency standards.  
IP67 - protected against immersion up to 1 meter for 30 minutes (see inside back cover)

### International Models

Part #	Description	Plug Style
7607	20A BatteryLink Charger	European: CEE 7/7
7606	20A BatteryLink Charger	International: Bare wire

### Regulatory

CE certified, Designed and constructed for compliance to EN60335-2-29. Ignition protected per ISO 8846 and SAE J1171.  
IP67 - protected against immersion up to 1 meter for 30 minutes (see inside back cover)



7608



## TECH tip™

### AC & DC Battery Charging

#### AC Charging (In the Garage)

The BatteryLink Charger works like a typical AC charger. When you plug in the AC cord, power is supplied charging the batteries. Unlike a typical two bank charger, the BatteryLink Charger will charge both batteries simultaneously through the integrated ACR. When AC power is present, the ACR will combine both batteries and the AC charger will charge them as one bank.

#### DC Charging (On the road)

The BatteryLink Charger incorporates DC charging through an integrated 170A Automatic Charging Relay (ACR). An ACR uses a relay combined with a voltage sensing circuit. When a DC charge is being applied to the battery connected to the Start Battery stud, and causes the voltage to rise above 13.0V, the relay closes and combines the two batteries to share the charge. When the charge is taken away or a load on the battery causes the voltage to drop below 12.75V, the relay will open, isolating the two batteries. This means that even when the BatteryLink Charger is disconnected from AC power you can charge both your battery banks with an onboard DC charging source, like an engine alternator.

### Related Product



E Series Battery Switch page 76

## CHARGEPRO™

### Guest On-Board Battery Chargers

For 12, 24, 36 and 48 volt systems (model specific)

Guest On-Board battery chargers have been redesigned from the inside out with the customer in mind. Our newest generation On-Board battery chargers include leading advancements in digital charging technology and waterproof design/construction. Designed to maximize individual battery performance, extend battery life and show battery status better than ever before.

Every Guest charger has a dedicated output that delivers the full amount of amps per bank. The easy to read graphics indicates the status of each battery bank through the charging process.

ChargePro's low profile flangeless extruded aluminum housing is sealed by gaskets with heavy duty end caps for 100% waterproof performance to IP67. This new construction design delivers an increase in charging and thermal management performance. The new ChargePro Series is up to 40% lighter while increasing durability and ease of installation over prior generations of older technology epoxy filled plastic body chargers.

- All high frequency, digital charging technology
- Microprocessor and software control for precision, fully automatic 5-stage performance charging
- Fully automatic 5-stage performance charging
- Dedicated battery charging, sensing and control per bank
- Individual battery sensing and control
- Expanded LED charge status monitor
- Wiring and battery fault detection
- Auto-maintain energy saver mode
- Up to 40% lighter
- 100% Waterproof (IP67) and shock resistant for all fresh and saltwater applications
- All models are pre-wired for easy installation
- For all 12 volt flooded and AGM lead acid batteries
- Built-in safety: reverse polarity, over-current, over-voltage, over-temperature and ignition protection. In-line fuses for maximum DC wire protection.
- 2-year warranty



2713A



2711A



2708A



Expanded LED Display



Battery fault detection LEDs



Heavy-Duty strain reliefs



In-line safety fuses



NEMA 5-15P Plug



Certified to:  
UL STD 1236  
CSA C22.2 No. 107.2  
FCC Class B

IP67



Designed and  
Constructed to:

ABYC-31

**ABYC**  
Setting Standards for Safer Boating

## Guest ChargePro™ Series Selection ChargePro 5A to 20A Models



	ChargePro 5	ChargePro 4/4	ChargePro 10	ChargePro 5/5	ChargePro 5/5/5	ChargePro 10/10
Part #	2708A	2707A	2710A	2711A	2713A	2720A
Input Volts	90-135V AC 50/60Hz	90-135V AC 50/60Hz	90-135V AC 50/60Hz	90-135V AC 50/60Hz	90-135V AC 50/60Hz	90-135V AC 50/60Hz
DC System Voltage	12	12/24	12	12/24	12/24/36	12/24
Banks	1	2	1	2	3	2
Amps	5	4/4	10	5/5	5/5/5	10/10
Amps Per Bank	5	4	10	5	5	10
AC Cord Length	6'	6'	6'	6'	6'	6'
Size (W x H X L)	7.5" x 2.4" x 7.2"	7.5" x 2.4" x 9.0"	7.5" x 2.4" x 9.0"	7.5" x 2.4" x 9.0"	7.5" x 2.4" x 12.9"	7.5" x 2.4" x 12.9"
Weight (lbs)	3.2	4.5	4.2	4.7	6.7	6.6

## ChargePro 30A and 40A Models

Designed for demanding 12, 24, 36 and 48 volt battery systems requiring 10 amps per battery for the fastest charge times.



	ChargePro 10/10/10	ChargePro 10/10/10/10
Part #	2731A	2740A
Input Volts	90-135V AC 50/60Hz	90-135V AC 50/60Hz
DC System Voltage	12/24/36	12/24/36/48
Banks	3	4
Amps	10/10/10	10/10/10/10
Amps Per Bank	10	10
AC Cord Length	6'	6'
Size (W x H X L)	9.0" x 4.1" x 8.7"	9.0" x 4.1" x 8.7"
Weight (lbs)	8.0	8.5



Fan

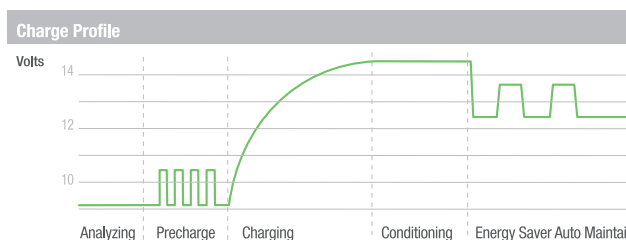


Expanded LED display



Heavy-Duty strain reliefs

## Fully Automatic Multi-Stage Performance Charging Overview



**ChargePro's 5-Stage Performance Charging algorithm is fully automatic and designed to maximize battery performance and extend battery life.**

**Stage 1 - Analyze Mode:** AC Power is applied. ChargePro's red Charging LED will flash indicating it is analyzing individual wiring connections for proper connection/polarity and that each battery is over 2.5 VDC and capable of accepting a precharge. When completed any errors will trip a battery specific red fault LED, or if no faults are present the red Charge LED will illuminate solid red.

**Stage 2 - Precharge Mode:** For batteries under 10 volts, this mode is designed to pulse the battery up to 10 volts before accepting full rated constant current (Stage3). During this mode the red charging LED will be illuminated with a solid on.

**Stage 3 - Charging Mode Constant Current:** During this mode the red charging LED will be illuminated with a solid on indicating each battery is being charge in constant current mode as controlled by temperature until the battery voltage is raised to a precise 14.6 volts DC and the red Charging LED will shut off.

**Stage 4 - Conditioning Mode Constant Voltage:** During this mode the amber Conditioning charging LED will be solid on indicating each battery is being conditioned at 14.6 volts for up to 3 hours until the battery is fully charged. Followed by the amber LED turning off while the charger enters into Stage 5.

**Stage 5 - Storage Recondition Mode** During this mode the blue AC Power and green Auto Maintain LED will be solid on indicating each battery is being monitored while the charger is in standby mode consuming little to no power until the battery drops under 12.8 volts (fully charged) and the charger will turn on and auto maintain the battery in a fully charged state. This is fully automatic and safe for short and long term storage.

## TruePower Plus Series

### Heavy Duty Marine, Mobile and Industrial Grade Inverters

Our next generation of TruePower Plus Inverters are available in both Modified Sine Wave (MS) and Pure Sine Wave (PS) models. Designed to convert 12V DC battery power to 115V AC and will automatically pass through AC Inlet power when present. TruePower Plus is rich with features including; Innovative dual color digital LCD message center, dual color gauges for AC power output and battery DC input, USB power port, GFCI convenience outlets, DC cable covers, and separate on/off remote. Our integrated AC cable strain reliefs and front screw connection terminal blocks allow for quick and easy installation without the added need for ring terminals for AC power connections.

Designed with soft start noise filtered technology and 2x surge capability for powering demanding loads. Shock resistant construction with internal conformal coated electronics for protection in harsh environments.

The TruePower Plus PS Series has all the features of our MS series but provides a Pure Sine 115V AC output ideal for high fidelity audio visual systems in addition to appliances with hysteresis and variable motor speed controls like washing machines and refrigeration etc.

- Intuitive dual color digital LCD message center
- Dual color gauges for AC power output and battery DC input
- Internal 30AAC transfer switch will automatically pass through AC inlet power when present
- USB power port and GFCI convenience outlets
- Compact and lightweight design
- Soft start noise filtered technology with 2x surge capability
- On/Off remote with 9 foot cable and DC cable covers included
- Integrated AC power cable strain reliefs for ease of installation
- Built-in safety with overload, over temperature, short circuit and reverse polarity protection
- Audible alarm and shut down for low and high DC voltage, overload and over temperature conditions
- Shock resistant construction with internal conformal coated electronics
- 2 Year Warranty



07100

Pure Sine Wave  
TECHNOLOGY



06150

Modified Sine Wave  
TECHNOLOGY

LEARN MORE  
TruePower Plus  
Inverters Video



Visit ProMariner  
on YouTube.com



Intuitive Dual Color Display and LCD Message Center



USB 5V DC/2.1 Amp Port GFCI Protected Outlets



Integrated AC Power Strain Reliefs with Front Screws



DC Cable Covers Black (-) and Red (+)



### TruePower Plus Display Functions

**DC to AC Output Gauge**—Indicates percentage of AC power being used versus output rating. The scale turns red when output demand exceeds output rating.

**Input Power**—Indicates if power is coming from DC (batteries) or AC inlet power.

**DC Input Level Gauge**—Indicates the battery DC voltage level. The scale turns red when battery voltage drops below 11V.

**System Status**—Dual color LCD with full system normal and fault condition messaging (no codes).

**Check**—Illuminates when a fault condition is present with LCD message.

### TruePower Plus Series Selection



Model	TruePower Plus 1000ps	TruePower Plus 2000ps	TruePower Plus 1200ms	TruePower Plus 1500ms	TruePower Plus 2000ms
Part #	07100	07200	06120	06150	06200
Wattage	1000 W	2000 W	1200 W	1500 W	2000 W
Surge Rating	2000 W	4000 W	2400 W	3000 W	4000 W
Sine Wave	Pure	Pure	Modified	Modified	Modified
Efficiency (optimum)	>90%	>90%	>90%	>90%	>90%
AC Output	115V AC / 60Hz	115V AC / 60Hz	115V AC / 60Hz	115V AC / 60Hz	115V AC / 60Hz
Internal AC Transfer Switch	30A	30A	30A	30A	30A
AC Crossover Time	<30 ms	<30 ms	<30 ms	<30 ms	<30 ms
DC Input	11-15V DC	11-15V DC	11-15V DC	11-15V DC	11-15V DC
Inverter Off DC Amp Draw	4 mA	4 mA	4 mA	4 mA	4 mA
Size	4" x 9.9" x 12.4"	4.5" x 10.6" x 15.4"	4" x 9.9" x 11.5"	4" x 9.9" x 12.4"	4.5" x 10.6" x 14.6"
Weight	8.5 lbs	12 lbs	7.5 lbs	7.5 lbs	12 lbs



### TruePower Plus Remote (included)

- On/Off control
- Input power source LED indicators
- Check fault LED indicator
- Remote mounting screws and 9 ft. cable included

Replacement Part # 07211

### TruePower Plus 1000PS OE

Designed exclusively for OEM.

- Pre-wired with 6' AC input NEMA 5-15P power cord and 6' AC output cable terminated with three push-in style wire connectors
- No GFCI



Part #	07101
Wattage	1000 watts
Surge Rating	2000 watts
Sine Wave	Pure
Efficiency (optimum)	>90%
AC Output	115V AC / 60Hz
Internal AC Transfer Switch	15A
AC Crossover Time	<30 ms
DC Input	11-15V DC
Inverter Off DC Amp Draw	4 mA
Size	4" x 9.9" x 11.5"
Weight	7.3 lbs



Pre-wired AC cables with over-molded strain relief



Push-in style connectors for 12 to 14 AWG stranded or solid copper wire

### ProSport Power Inverter Converts 12V DC power to 110V AC up to 150 W

Perfect for the on-board or on-the-road user to convert 12V DC battery power to 110V AC.

- Recharge and power portable electronics—Power devices from your car, RV, camper and more
- On the road power—Use with laptops, game consoles, portable DVD players, TVs and more
- Extruded aluminum case
- Universal cup holder design
- High surge capacity
- Power / status LED indicators
- Standard 110V AC receptacle
- Output short & input polarity protection
- Low Battery Shutdown
- Over temperature and overload protection



Part #	Surge Capability	Input	AC Output	Size (LxWxH)	Cable Length
79018	250 W	12V DC	110V AC / 60 Hz	2.625"x 2.625"x6"	3 ft

## Mac Plus DC-DC Converters: For 12V, 24V and 48V

A DC-DC converter can provide other voltages than applied in your basic system. By using a DC-DC converter, other voltages can be reached. They also ensure that all your equipment has a stable power supply with the right voltage.

### Mac Plus Series

- Professional use
- Converter and 3-step battery charger
- Parallel switchable
- Adjustable and programmable output voltage
- Voltage stabilization for a longer lifespan of halogen lights, etc
- Dimmer function
- Optimal charging in Euro 5/6 applications

The **Mac Plus** is ideal for charging service batteries in vehicles with a smart Euro 5/6 alternator, charging the batteries quickly, even when the alternator is inactive and the battery voltage very low. The automatic start/stop function ensures that empty starter batteries become a thing of the past. The Mac Plus comes with integrated MasterBus® (CAN) communication, CZone®/NMEA 2000® and and E-mark certification. It seamlessly charges Lithium Ion, Gel and AGM batteries via the tried and tested Mastervolt 3-stage charging method.

### DC Master Series

- Recreational and semi-professional use
- Easy to install using included mounting bracket
- Excellent price/performance ratio
- Available in isolated and non-isolated version



### Non-isolated or isolated

The non-isolated Mac Plus and DC Master models have an electrical connection between the input and output.

#### Features:

- Low costs
- Efficient: low heat generation
- Compact
- Suited to applications with negative earthing

The isolated Magic and DC Master models provide galvanic isolation between input and output circuits.

#### Features:

- Extra touch-proof
- Interference suppression for sensitive equipment
- Available with negative or positive grounding





**Programmable via laptop or PC**



Remote control the Mac or Magic via your laptop or PC or configure your personal preferences.

The device has a communication port and easy installation with a PC-Link and MasterAdjust software.

**Euro 5/6 solutions**



Charging service batteries in Euro 5/6 applications? The Mac Plus provides constant power to the service battery, even when the alternator is inactive.

**3-Step battery charger**



Connected to the 12V or 24V main battery, the converter can also be used as an advanced 3-step+ battery charger for Gel, AGM, flooded or Lithium Ion batteries

**Energy-saving dimmer function**



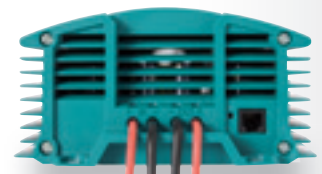
Many standard light dimmers convert part of the energy to heat and also lose unnecessary energy. The Mastervolt Magic converters regulate the power supply efficiently and without excessive heat build-up, for optimal safety (multiple Magic converters can be used for multiple lamps).

**Parallel operation**



Lots of consumers on board? The parallel configuration of several units will provide you over 100 amps. Advanced high-frequency technology with modern microprocessors ensures minimum power loss when switching from 24V to 12V and vice versa.

**Solid connections**



Galvanized brass connection block with screw terminal or chrome-plated fast-on for DC in/out for the Magic models. The robust M8 connections of the Mac Plus prevent any loosening due to vibrations.

## Mac Plus DC-DC Converters

**EXPANDED  
OFFERING**


### Specifications

	Mac Plus 12/12V-50	Mac Plus 12/24V-30	Mac Plus 24/12V-50	Mac Plus 24/24V-30	Mac Plus 24/24V-50
Part # (IP23)	<b>81205105</b>	<b>81205305</b>	<b>81205205</b>	<b>81205405</b>	<b>81205505</b>
<b>Specifications Input</b>					
Nominal input voltage	12V	12V	24V	24V	24V
Input range	8 - 16V DC	8 - 16V DC	16 - 32V DC	16 - 32V DC	16 - 32V DC
<b>Specifications Output</b>					
Nominal output voltage	12V DC	24V DC	12V DC	24V DC	24V DC
Output voltage	10-15V DC	20-30V DC	10-15V DC	20-30V DC	20-30V DC
Output voltage dimmer*	n.a.	n.a.	n.a.	n.a.	n.a.
Output voltage stabilisation	2% at extremes of temperatures, load and input				
Ripple	max. 1% peak peak	max. 1% peak peak	max. 1% peak peak	max. 1% peak peak	max. 1% peak peak
Power (max./nominal)	750 / 710 W	760 / 760 W	750 / 710 W	900 / 850 W	1500 / 1425 W
Max. current	50A	30A	50A	30A	50A
Parallel configuration	yes	yes	yes	yes	yes
Charge current - 3-step mode	50A	30A	50A	30A	50A
<b>General Specifications</b>					
Galvanic isolation	no	no	no	no	no
Voltage limited	yes	yes	yes	yes	yes
Efficiency	> 95% (at nom. input voltage, full load); 97% peak				
Protections	DC short circuit, overload, over-temperature, reversed polarity (fuse)				
Dimmer function	n.a.	n.a.	n.a.	n.a.	n.a.
Alarm contact	yes, through MasterBus® and CZone®				
Dimensions, HxWxD	10" x 6.5" x 2.6" 255 x 165 x 66 mm	10" x 6.5" x 2.6" 255 x 165 x 66 mm	10" x 6.5" x 2.6" 255 x 165 x 66 mm	10" x 6.5" x 2.6" 255 x 165 x 66 mm	10" x 6.5" x 2.6" 255 x 165 x 66 mm
Weight	4.4 lb / 2 kg	4.4 lb / 2 kg	4.4 lb / 2 kg	4.4 lb / 2 kg	4.4 lb / 2 kg
Approvals	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected
<b>Technical Specifications</b>					
3-Step charge option	yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)
DC consumption	<5 mA	<5 mA	<5 mA	<5 mA	<5 mA
Connections input/output	3 x M8 terminal for cable diameters of 10-50 mm <sup>2</sup> , (positive input, positive output, joint negative connection) 6-pole screw connection for cable diameters of 0.75-1.5 mm <sup>2</sup> (remote on/off, temperature sensor, voltage measurement)				
Temperature range (ambient temp.)	-13°F-140°F, >104°F derating (-25°C-60°C, >40°C derating)				
Cooling	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling
Protection degree	IP23	IP23	IP23	IP23	IP23
MasterBus compatible / CZone Compatible	yes / yes	yes / yes	yes / yes	yes / yes	yes / yes
Integrates with Fathom® Fathom 3000 Series Fathom 5000 Series Fathom 7000 Series	option option option	no option option	option option option	no option option	no no standard
<b>Options</b>					
EasyView 5 77010310	option	option	option	option	option
	Waterproof system monitor with 'daylight readable' color display and intuitive multi-language touchscreen to show the key system information at a glance. There is also a logbook feature for warnings and alarms, along with a buzzer and alarm notifications. The home button gives access to favorite pages.				
Temperature Sensors 41500500 , 6M 41500800 , 15M	included option	included option	included option	included option	included option

\* Adjustable with MasterAdjust software.





Mac Plus 12/48V-15 **81203205 NEW**    Mac Plus 24/48V-15 **81203405 NEW**    Mac Plus 48/12-50 **81203105 NEW**    Mac Plus 48/24-30 **81203305 NEW**

12V	24V	36/48V	36/48V
8 - 16V DC	18 - 32V DC	32 - 64V DC	32 - 64V DC
36/48V DC	36/48V DC	12V DC	24V DC
30-60V DC	30-60V DC	10-15V DC	20-30V DC
n.a.	n.a.	n.a.	n.a.
2% at extremes of temperatures, load and input			
max. 1% peak peak	max. 1% peak peak	max. 1% peak peak	max. 1% peak peak
900 / 855 W	900 / 855 W	750 / 710 W	900 / 855 W
15A	15A	50A	30A
yes	yes	yes	yes
15A	15A	50A	30A
no	no	no	no
yes	yes	yes	yes
> 95% at full output			
DC short circuit, overload, over-temperature, reversed polarity (fuse)			
n.a.	n.a.	n.a.	n.a.
yes, through MasterBus & CZone			
10" x 6.5" x 2.6" 255 x 165 x 66 mm	10" x 6.5" x 2.6" 255 x 165 x 66 mm	10" x 6.5" x 2.6" 255 x 165 x 66 mm	10" x 6.5" x 2.6" 255 x 165 x 66 mm
4.4 lb / 2 kg	4.4 lb / 2 kg	4.4 lb / 2 kg	4.4 lb / 2 kg
CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected	CE, E-Mark, SAE J1171 & ISO 8846 Ignition Protected
yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)	yes (DIP switch settings)
<5 mA	<5 mA	<5 mA	<5 mA
M8 screw terminal, wire size 10 to 50mm2 (AWG 0 to 8)			
-13°F-140°F, >104°F derating (-25°C-60°C, >40°C derating)			
natural cooling	natural cooling	natural cooling	natural cooling
IP23	IP23	IP23	IP23
yes (not powering) / yes	yes (not powering) / yes	yes (not powering) / yes	yes (not powering) / yes
no no standard	no no option	no no option	no no option
option	option	option	option
Waterproof system monitor with 'daylight readable' color display and intuitive multi-language touchscreen to show the key system information at a glance. There is also a logbook feature for warnings and alarms, along with a buzzer and alarm notifications. The home button gives access to favorite pages.			
included option	included option	included option	included option

**Mac Plus series:**

**Robust DC-DC charger guarantees optimal condition of your service battery**

Traditionally, a service battery is linked to the starter battery by means of a charge relay. The starter battery is located close to the alternator and receives most of the charge current. However, the service battery is usually further away. Long cables cause voltage drop, leading to slow charging, resulting in failing appliances and premature failure of the battery.

Modern, fuel efficient engines are equipped with smart alternators, following regulations such as Euro 5 and Euro 6. Instead of a constant output, smart alternators provide a variable voltage; after a brief charging period, voltage is reduced and the charging stops. Furthermore, the energy produced by regenerative braking leads to voltage peaks. Service batteries coupled in the traditional way will receive hardly any charge and may be damaged by these peak voltages.

To solve these issues, Mastervolt® introduces the Mac Plus DC-DC chargers, available in 12, 24 and 48V (and supports 36V). The Mac Plus monitors the service battery and compensates the voltage loss. The proven 3-step charge method ensures a quick and safe charge. Moreover, by stabilizing the charge voltage, Mac Plus protects your service battery and sensitive equipment.

**Features**

- Fast and safe charging during short trips
- Fanless design for silent operation
- Suitable for flooded, Gel, AGM and Li-Ion batteries (incl. LiFePO4)
- Charges even fully depleted batteries
- Engine run detection protects starter battery
- Adjustable current limits to meet Euro 5/6 requirements
- Voltage stabilisation protects sensitive equipment, lights and loads
- Parallel operation to obtain charging capacities well over 100 amps
- MasterBus for intelligent system monitoring and automation
- Temperature compensation and voltage sense for an optimal charging result
- E-mark certification for mobile applications.
- Power supply mode
- Heavy duty connections for easy installation and quick set up via DIP switches

## DC Master Specifications Non-Isolated



	24/12-3A	24/12-6A	24/12-12A	24/12-24A
Part #	<b>81400100</b>	<b>81400200</b>	<b>81400300</b>	<b>81400330</b>
<b>Input Specifications</b>				
Nominal input voltage	24V	24V	24V	24V
Input range	20-32V DC	20-32V DC	20-32V DC	20-32V DC
<b>Output Specifications</b>				
Nominal output voltage	13.6V	13.6V	13.6V	13.6V
Maximum power	82 W	136 W	245 W	408 W
Nominal power	41 W	82 W	164 W	326 W
Current max. 2 minutes* / continuous	6A / 3A	10A / 6A	18A / 12A	30A / 24A
DC consumption	< 15 mA	< 15 mA	< 15 mA	< 15 mA
<b>General Specifications</b>				
Dimensions, HxWxD	2.6" x 3.4" x 2" 67 x 87 x 50 mm	3.5" x 3.4" x 2" 89 x 87 x 50 mm	5" x 3.4" x 2" 127 x 87 x 50 mm	5" x 3.4" x 2" 167 x 87 x 50 mm
Weight	0.5 lb / 200 gr	0.6 lb / 270 gr	0.9 lb / 405 gr	1.4 lb / 635 gr
Approvals	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark
Galvanic isolation	no	no	no	no
Stabilized	yes	yes	yes	yes
Connections input/output	fast-on	fast-on	fast-on	fast-on
Temperature range (ambient temp.)	-13°F to 176°F, >86°F derating (-25°C to 80°C, >30°C derating)			
Cooling	natural cooling	natural cooling	natural cooling	natural cooling
Protection degree	IP53	IP53	IP53	IP53

## Isolated



	12/12-3A	12/12-6A	24/12-3A	24/12-6A
Part #	<b>81500600</b>	<b>81500700</b>	<b>81500100</b>	<b>81500200</b>
<b>Input Specifications</b>				
Nominal input voltage	12V	12V	24V	24V
Input range	10-15.5V DC	10-15.5V DC	20-32V DC	20-32V DC
<b>Output Specifications</b>				
Nominal output voltage	13.6V	13.6V	13.6V	13.6V
Maximum power	54 W	108 W	82 W	136 W
Nominal power	41 W	82 W	41 W	82 W
Current max. 2 minutes* / continuous	4A / 3A	8A / 6A	6A / 3A	10A / 6A
DC consumption	< 15 mA	< 15 mA	< 15 mA	< 15 mA
<b>General Specifications</b>				
Dimensions, HxWxD	3.5" x 3.4" x 2" 89 x 87 x 50 mm	5" x 3.4" x 2" 127 x 87 x 50 mm	3.5" x 3.4" x 2" 89 x 87 x 50 mm	5" x 3.4" x 2" 127 x 87 x 50 mm
Weight	0.6 lb / 290 gr	1 lb / 440 gr	0.6 lb / 290 gr	1.1 lb / 505 gr
Approvals	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark
Galvanic isolation	yes	yes	yes	yes
Stabilized	yes	yes	yes	yes
Connections input/output	fast-on	fast-on	fast-on	fast-on
Temperature range (ambient temp.)	-13°F to 176°F, >86°F derating (-25°C to 80°C, >30°C derating)			
Cooling	natural cooling	natural cooling	natural cooling	natural cooling
Protection degree	IP53	IP53	IP53	IP53

\* Two minutes of extra power for short power boosts.



12/24-3A  
**81400400**



12/24-7A  
**81400500**



48/12-6A  
**81400600**



48/12-9A  
**81400700**



48/12-20A  
**81400800**

12V	12V	48V	48V	48V
10-15.5V DC	10-15.5V DC	40-62V DC	40-62V DC	40-62V DC
27.2V	27.2V	13.6V	13.6V	13.6V
109 W	245 W	109 W	132 W	326 W
82 W	191 W	82 W	108 W	272 W
4A / 3A	9A / 7A	8A / 6A	11A / 9A	24A / 20A
<15 mA	<25 mA	<15 mA	<15 mA	<25 mA
3.5" x 3.4" x 2" 89 x 87 x 50 mm	6.6" x 3.4" x 2" 167 x 87 x 50 mm	3.5" x 3.4" x 2" 89 x 87 x 50 mm	5" x 3.4" x 2" 127 x 87 x 50 mm	5" x 3.4" x 2" 217 x 87 x 50 mm
0.6 lb / 290 gr	1.3 lb / 610 gr	0.6 lb / 270 gr	0.8 lb / 370 gr	1.7 lb / 765 gr
CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark
no	no	no	no	no
yes	yes	yes	yes	yes
fast-on	fast-on	fast-on	fast-on	fast-on
-13°F to 176°F, >86°F derating (-25°C to 80°C, >30°C derating)				
natural cooling	natural cooling	natural cooling	natural cooling	natural cooling
IP53	IP53	IP53	IP53	IP53



24/12-12A  
**81500300**



24/12-24A  
**81500350**



24/24-3A  
**81500400**



24/24-7A  
**81500500**

24V	24V	24V	24V
20-32V DC	20-32V DC	20-32V DC	20-32V DC
13.6V	13.6V	27.2V	27.2V
245 W	408 W	109 W	245 W
164 W	326 W	82 W	191 W
18A / 12A	30A / 24A	4A / 3A	9A / 7A
<15 mA	<15 mA	<15 mA	<25 mA
6.6" x 3.4" x 2" 167x87x50 mm	8.5" x 3.4" x 2" 217 x 87 x 50 mm	5" x 3.4" x 2" 127 x 87 x 50 mm	8.5" x 3.4" x 2" 217 x 87 x 50 mm
1.3 lb / 590 gr	1.7 lb / 785 gr	1.1 lb / 440 gr	1.8 lb / 820 gr
CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark
yes	yes	yes	yes
yes	yes	yes	yes
fast-on	fast-on	fast-on	fast-on
-13°F to 176°F, >86°F derating (-25°C to 80°C, >30°C derating)			
natural cooling	natural cooling	natural cooling	natural cooling
IP53	IP53	IP53	IP53

**Complete package DC Master**



All DC Master converters come with a mounting bracket, screws and fast-ons.

For detailed specifications, dimensional drawings, 3D files, images, certificates and manuals see **mastervolt.com**.

## AC Master Series Inverters: Reliable AC power for recreational and semi-professional use



These affordable sine wave inverters convert 12V or 24V battery voltage into reliable grid power, making them ideal for recreational and semi-professional applications.

The AC Master series is easy to install and delivers full output, even under the most demanding conditions. The pure sine wave technology provides an outstanding power quality, ensuring the correct functioning of sensitive equipment. The usage of high frequency switching technology eliminates any annoying humming and buzzing sounds.

Representing complete value for money, these ruggedly built inverters provide essential home comforts when you're far from the nearest grid connection.

### Applications

Both recreational and semi-professional use, where grid power varies or is unavailable. Applications include lighting, appliances, electric cooking and power tools. For (mobile) applications in your home, office or service vehicle, or during your holidays.





### AC Master Series Features

- Pure sine wave technology protects sensitive equipment
- Delivers full output at high peak power under the most demanding conditions
- Automatic power saving system for extended runtime
- Compact and lightweight design, saving valuable installation time
- Reliable and safe operation; protected against over-temperature, overload, short circuit, high or low battery voltage
- Variable speed fan for quiet operation at low power
- Optional remote control for instant switch off of the inverter and all connected equipment (not available for the 300 and 500 W models).
- Convenient plug connection for all models, 2500/3500 Watt models also hard wired.

**In addition, the 2500/3500 Watt models offer:**

- Combine two (2) up to 15 units to obtain high power or 3-phase systems
- Integrated transfer system, switches automatically between AC power sources



## AC Master Inverters

### Specifications - 12V



AC Master  
12/700 (120V)





AC Master  
12/2000 (120V)



AC Master  
12/300



AC Master  
12/500

Part #	28510700	28512000	N.A.	N.A.
Part # (with IEC outlet)	N.A.	N.A.	28010302	28010502
<b>General Specifications</b>				
Output voltage	100/110/115/120 V — 50/60 Hz (selectable)		230V – 50 Hz (± 0.1%)	230V – 50 Hz (± 0.1%)
Output waveform	true sine		true sine	true sine
Nominal battery voltage	12V		12V	12V
Recommended battery capacity	≥ 100 Ah	≥ 200 Ah	≥ 60 Ah	≥ 100 Ah
Continuous power at 77°F (25°C), cos phi 1	700 W	2000 W	300 W	500 W
Continuous power at 104°F (40°C), cos phi 1	700 W	2000 W	250 W	400 W
Peak load	< 810 W (1 min.) < 1230 W (1 sec.)	< 2300 W (1 min.) < 3500 W (1 sec.)	600 W	800 W
AC connection	North American socket with GFCI	North American socket with GFCI	universal	universal
Efficiency	91 %	92%	90%	90%
Parallel configuration	n.a.	n.a.	n.a.	n.a.
3-Phase configuration	n.a.	n.a.	n.a.	n.a.
Display/read-out	LED indication: battery voltage, load level, status		LED display	LED display
Dimensions, hxxwxd	7.9" x 13" x 3.3" 200 x 330 x 83 mm	9.8" x 17.4" x 3.3" 248 x 443 x 83 mm	8.3" x 5.1" x 2.4" 210 x 130 x 60 mm	8.3" x 5.1" x 2.4" 210 x 130 x 60 mm
Weight	6 lb / 2.7 kg	11.5 lb / 5.2 kg	2.55 lb / 1.16 kg	2.69 lb / 1.22 kg
Alarms	potential free alarm contact	potential free alarm contact	4 alarm modes	4 alarm modes
Approvals	safety: UL 458, EMC: FCC class B	safety: UL 458, EMC: FCC class B	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
<b>Technical specifications</b>				
Technology	high frequency, input & output fully isolated		high frequency, input & output fully isolated	
Input current (nominal load)	70A	200 A	22.5A	37.5A
No-load power consumption (energy saving mode)	< 0.1A	< 0.1 A	0.33A – 4 W	0.33A – 4 W
Minimal DC fuse (slow blow)	100A	250 A	2x 40A	2x 40A
Minimal cable size	25 mm <sup>2</sup>	70 mm <sup>2</sup>	1.5 meter DC cable delivered as standard	
Harmonic distortion typical	< 5%	< 3 %	< 6%	< 6%
Cos phi	all power factors allowed		all power factors allowed	
Transfer system	n.a.	n.a.	n.a.	n.a.
Temperature range (ambient temp.)	-4°F to 140°F, derating power > 104°F (-20°C to 60°C, derating power > 40°C)			
Protection degree	IP21, horizontal wall mounting		IP23, vertical wall mounting	
Protections	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)		over-temperature, overload, short circuit, high/low battery voltage	
Cooling	temperature and load controlled fan		natural/forced	natural/forced
MasterBus® compatible	yes, using a MasterBus AC Master Interface Part # 77032700		no	no
<b>Options</b>				
AC Master Remote Control* 70405080		option	option	n.a.
MasterBus AC Master Interface Integrates the AC Master inverter in a MasterBus network 77032700		option	option	n.a.

\*On/off control for the AC Master sine wave inverter with a clear on/off indicator which indicates when the inverter is active. In addition, the AC Master Remote Control makes it possible to turn the inverter on or off automatically by means of a 12-volt input, for example when switching on the onboard AC power or while starting an engine. The AC Master Remote Control comes with 25 ft (8 m) cable.



AC Master 12/700

AC Master 12/1000

AC Master 12/1500

AC Master 12/2000

AC Master 12/2500

AC Master 12/3500

**28010700**

**28011000**

**28011500**

**28012000**

**28012500**

**28013500**

N.A.

N.A.

N.A.

N.A.

N.A.

N.A.

200/220/230/240V — 50/60 Hz (selectable)

200/220/230/240V — 50/60 Hz (selectable)

230/240V — 50/60 Hz (selectable)

true sine

true sine

true sine

true sine

true sine

true sine

12V

12V

12V

12V

12V

12V

≥ 100 Ah

≥ 130 Ah

≥ 160 Ah

≥ 200 Ah

≥ 270 Ah

≥ 360 Ah

700 W

1000 W

1500 W

2000 W

2500 W

3500 W

700 W

1000 W

1500 W

2000 W

2500 W

3500 W

< 810 W (1 min.)  
< 1230 W (1 sec.)

< 1150 W (1 min.)  
< 1750 W (1 sec.)

< 1730 W (1 min.)  
< 2650 W (1 sec.)

< 2300 W (1 min.)  
< 4000 W (1 sec.)

< 3000 W (1 min.)  
< 4000 W (1 sec.)

< 4500 W (1 min.)  
< 6000 W (1 sec.)

plug connection EU (Schuko) or UK

plug connection EU (Schuko) or UK

plug connection EU (Schuko) or UK

plug connection EU (Schuko)

hardwired + plug connection EU (Schuko)

hardwired + plug connection EU (Schuko)

91%

92%

93%

94%

88%

90%

n.a.

n.a.

n.a.

n.a.

yes, up to 15 units

yes, up to 15 units

n.a.

n.a.

n.a.

n.a.

yes, 3 units

yes, 3 units

LED indication: battery voltage, load level, status

LED indication: battery voltage, load level, status

LED indication: battery voltage, load level, status

7.9" x 13" x 3.3"  
200 x 330 x 83 mm

7.9" x 14.6" x 3.3"  
200 x 372 x 83 mm

9.8" x 16.6" x 3.3"  
248 x 421 x 83 mm

9.8" x 17.4" x 3.3"  
248 x 443 x 83 mm

11.1" x 17.2" x 5"  
283 x 436 x 128 mm

11.1" x 19.5" x 5"  
283 x 496 x 128 mm

6 lb / 2.7 kg

7.3 lb / 3.3 kg

9.3 lb / 4.2 kg

11.5 lb / 5.2 kg

17.6 lb / 8 kg

22 lb / 10 kg

potential free alarm contact

potential free alarm contact

potential free alarm contact

potential free alarm contact

potential free alarm contact

potential free alarm contact

CE, E-mark, RCM

CE, E-mark, RCM

CE, E-mark, RCM

CE, Safety: EN60950-1, E-mark: CISPR25, ISO11452-2, ISO7637-2, EMC: EN55022, EN55024, EN61000-3-2; -3-3, EN61000-4-2,3,4,5,6,8,11

CE, E-mark, RCM

CE, E-mark, RCM

high frequency, input & output fully isolated

high frequency, input & output fully isolated

high frequency, input & output fully isolated

70A

100A

150A

200 A

250A

350A

< 0.1A

< 0.1A

< 0.1A

< 0.1 A

< 1.1A

< 1.4A

100A

125A

175A

250 A

300A

400A

25 mm<sup>2</sup>

35 mm<sup>2</sup>

50 mm<sup>2</sup>

70 mm<sup>2</sup>

95 mm<sup>2</sup>

120 mm<sup>2</sup>

< 5%

< 5%

< 3%

< 5 %

< 3%

< 3%

all power factors allowed

all power factors allowed

all power factors allowed

n.a.

n.a.

n.a.

n.a.

integrated, automatic (inverter to grid: 8-10 ms, grid to inverter: 16-50 ms). Not for parallel & 3-phase operation (external transfer system possible).

-4°F to 140°F, derating power > 104°F (-20°C to 60°C, derating power > 40°C)

IP21, horizontal wall mounting

IP21, horizontal wall mounting

IP21, horizontal wall mounting

over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)

over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)

over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)

temperature and load controlled fan

temperature and load controlled fan

temperature and load controlled fan

yes, using a MasterBus AC Master Interface Part # 77032700

yes, using a MasterBus AC Master Interface Part # 77032700

yes, using a MasterBus AC Master Interface Part # 77032700

option

option

option

option

option

option

option

option

option

option



option

option

## AC Master Inverters

### Specifications - 24V



	AC Master 24/700 (120V)	AC Master 24/2000 (120V)	AC Master 24/300 (230V)	AC Master 24/500 (230V)
Part #	<b>28520700</b>	<b>28522000</b>	<b>28020300</b>	<b>28020500</b>
Part # (with UK plug)	n.a.	n.a.	n.a.	n.a.
Part # (with NZ/AU plug)	n.a.	n.a.	n.a.	n.a.
Part # (with IEC outlet)	n.a.	n.a.	<b>28020302</b>	<b>28020502</b>
<b>General Specifications</b>				
Output voltage	100/110/115/120 V — 50/60 Hz (selectable)		230V – 50 Hz (± 0.1%)	230V – 50 Hz (± 0.1%)
Output waveform	true sine		true sine	true sine
Nominal battery voltage	24V		24V	24V
Recommended battery capacity	≥ 50 Ah		≥ 30 Ah	≥ 50 Ah
Continuous power at 77°F (25°C), cos phi 1	700 W		300 W	500 W
Continuous power at 104°F (40°C), cos phi 1	700 W		250 W	400 W
Peak load	< 810 W (1 min.) < 1230 W (1 sec.)		600 W	800 W
AC connection	North American socket with GFCI		universal	universal
Efficiency	93%		91%	91%
Parallel configuration	n.a.		n.a.	n.a.
3-Phase configuration	n.a.		n.a.	n.a.
Display/read-out	LED indication: battery voltage, status	LED indication: battery voltage, load level, status	LED display	LED display
Dimensions, hwxwx d	7.9" x 13" x 3.3" 200 x 330 x 83 mm	9.8" x 17.4" x 3.3" 248 x 4432 x 83 mm	8.3" x 5.1" x 2.4" 210 x 130 x 60 mm	8.3" x 5.1" x 2.4" 210 x 130 x 60 mm
Weight	6 lb / 2.7 kg	11.5 lb / 5.2 kg	2.55 lb / 1.16 kg	2.69 lb / 1.22 kg
Alarms	potential free alarm contact		4 alarm modes	4 alarm modes
Approvals	safety: UL 458EMC: FCC class B		CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
<b>Technical Specifications</b>				
Technology	high frequency, input & output fully isolated		high frequency, input & output fully isolated	
Input current (nominal load)	35A	100A	11A	19A
No-load power consumption (energy saving mode)	< 0.06A	< 0.05A	0.16A – 4 W	0.16A – 4 W
Minimal DC fuse (slow blow)	50A	125A	40A	40A
Minimal cable size	16 mm <sup>2</sup>	35 mm <sup>2</sup>	1.5 m DC cable delivered as standard	1.5 m DC cable delivered as standard
Harmonic distortion typical	< 5%		< 6%	< 6%
Cos phi	all power factors allowed		all power factors allowed	
Transfer system	n.a.		n.a.	n.a.
Temperature range (ambient temp.)	-4°F to 140°F, derating power > 104°F (-20°C to 60°C, derating power > 40°C)			
Protection degree	IP21, horizontal wall mounting		IP23, vertical wall mounting	
Protections	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)		over-temperature, overload, short circuit, high/low battery voltage	
Cooling	temperature and load controlled fan		natural/forced	natural/forced
MasterBus® compatible	yes, using a MasterBus AC Master Interface Part # 77032700		no	no
<b>Options</b>				
AC Master Remote Control* 70405080		option	option	n.a.
MasterBus AC Master Interface Integrates the AC Master inverter in a MasterBus network 77032700		option	option	n.a.

\*On/off control for the AC Master sine wave inverter with a clear on/off indicator which indicates when the inverter is active. In addition, the AC Master Remote Control makes it possible to turn the inverter on or off automatically by means of a 12-volt input, for example when switching on the onboard AC power or while starting an engine. The AC Master Remote Control comes with 25 ft (8 m) cable.





AC Master  
24/700

AC Master  
24/1000

AC Master  
24/1500

AC Master  
24/2000

AC Master  
24/2500

**28020700**

**28021000**

**28021500**

**28022000**

**28022500**

**28220700**

**28221000**

**28221500**

n.a.

**28222500**

**28420700**

**28421000**

**28421500**

n.a.

**28422500**

n.a.

n.a.

n.a.

n.a.

n.a.

200/220/230/240V — 50/60 Hz (selectable)

200/220/230/240V — 50/60 Hz (selectable)

230/240V — 50/60 Hz (selectable)

true sine

true sine

true sine

true sine

true sine

24V

24V

24V

24V

24V

≥ 50 Ah

≥ 65 Ah

≥ 80 Ah

≥ 110 Ah

≥ 135 Ah

700 W

1000 W

1500 W

2000 W

2500 W

700 W

1000 W

1500 W

2000 W

2500 W

< 810 W (1 min.)  
< 1230 W (1 sec.)

< 1150 W (1 min.)  
< 1750 W (1 sec.)

< 1730 W (1 min.)  
< 2650 W (1 sec.)

< 2300 W (1 min.)  
< 4000 W (1 sec.)

< 3000 W (1 min.)  
< 4000 W (1 sec.)

plug connection EU (Schuko) or UK

plug connection EU (Schuko) or UK

plug connection EU (Schuko) or UK

plug connection EU (Schuko)

hardwired + plug connection EU (Schuko)

93%

94%

94%

94%

88%

n.a.

n.a.

n.a.

n.a.

yes, up to 15 units

n.a.

n.a.

n.a.

n.a.

yes, 3 units

LED indication: battery voltage, load level, status

LED indication: battery voltage, load level, status

LED indication: battery voltage, load level, status

LED indication: battery voltage, load level, status

LED indication: battery voltage, load level, status

7.9" x 13" x 3.3"  
200 x 330 x 83 mm

7.9" x 14.6" x 3.3"  
200 x 372 x 83 mm

9.8" x 16.6" x 3.3"  
248 x 421 x 83 mm

9.8" x 17.4" x 3.3"  
248 x 443 x 83 mm

11.1" x 17.2" x 5"  
283 x 436 x 128 mm

6 lb / 2.7 kg

7.3 lb / 3.3 kg

9.3 lb / 4.2 kg

11.5 lb / 5.2 kg

17.6 lb / 8 kg

potential free alarm contact

potential free alarm contact

potential free alarm contact

potential free alarm contact

potential free alarm contact

CE, E-mark, RCM

CE, E-mark, RCM

CE, E-mark, RCM

CE, Safety: EN60950-1, E-mark: CISPR25, ISO11452-2, ISO7637-2, EMC: EN55022, EN55024, EN61000-3-2, -3-3, EN61000-4,2,3,4,5,6,8,11

CE, E-mark, RCM

high frequency, input & output fully isolated

high frequency, input & output fully isolated

35A

50A

75A

100 A

125A

< 0.06A

< 0.05A

< 0.05A

< 1.0 A

< 0.7A

50A

63A

100A

160 A

160A

16 mm<sup>2</sup>

16 mm<sup>2</sup>

25 mm<sup>2</sup>

35 mm<sup>2</sup>

50 mm<sup>2</sup>

< 5%

< 5%

< 5%

< 5 %

< 5%

all power factors allowed

all power factors allowed

all power factors allowed

all power factors allowed

n.a.

n.a.

n.a.

n.a.

integrated, automatic (inverter to grid: 8–10 ms, grid to inverter: 16–50 ms). Not for parallel & 3-phase operation (external transfersystem possible).

-4°F to 140°F, derating power > 104°F (-20°C to 60°C, derating power > 40°C)

IP21, horizontal wall mounting

IP21, horizontal wall mounting

over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)

over-temperature, overload, short circuit, high/low battery voltage

over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)

over-temperature, overload, short circuit, high/low battery voltage

temperature and load controlled fan

temperature and load controlled fan

yes, using a MasterBus AC Master Interface Part # **77032700**

yes, using a MasterBus AC Master Interface Part # **77032700**

option

option

option

option

option

option

option

option

option

option

## CombiMaster® Inverter/Chargers **NEW**

The CombiMaster inverter/charger delivers pure sine wave inverter power and multi-chemistry battery charging plus the intelligent new design communicates seamlessly with NMEA 2000®, CZone and MasterBus® networks, and integrates with the Fathom® e-power system.

Designed with the customer in mind and using the latest technology, the CombiMaster is all about user-friendliness and reliability. But don't let that friendly appearance misguide you: the powerful CombiMaster range drives even the most complex and heavy loads with ease!

With the CombiMaster, power dips and failures belong to the past. The automatic AC transfer system switches seamlessly between generator or mains and inverter output, ensuring a constant power supply. Its Power Assist function prevents tripping of the mains fuse in case you're connected to a weak land line or small generator.

The CombiMaster delivers unmatched performance at an unprecedented price. As you would expect from Mastervolt®, the CombiMaster is completed with MasterBus, CZone and NMEA 2000® compatible communication and Fathom integration, allowing for a broad range of monitoring and system integration options.



### CombiMaster Features

- Dependable quality for leisure and semi-professional applications
- Most compact and lightweight inverter/charger in its class
- Reliable, cost effective and hum-free
- High power rating and >200% peak power to start even the heaviest loads
- Pure sine technology prevents malfunctions and damage to electronic equipment
- Low-loss HF technology allows for longer operation from your batteries
- Powerful and Intelligent 3-step+ battery charger for fast and safe charging
- Fast, automatic switching between mains and inverter mode
- Power assist prevents blown mains fuses.
- Generator compatible
- Quick installation and heavy duty connections
- UL, CE and E-mark certified
- With a DC input voltage range from 10-18V DC and flat battery support at 25% under 10V. The new CombiMaster ensures fast, safe, and efficient charging of your Flooded, AGM, Gel, Li-ion batteries.
- Wide AC input range (90-140V AC) insures functionality of AC devices even with adverse input power conditions
- The new 24V models in 3500W & 4500W and 48V 5000W unit can create parallel and series stacked systems to power up to 35kW and be used to power split phase loads.

### Remote Control and Monitoring Options

- MasterBus compatible via SmartRemote or EasyView 5 displays.
- CZone compatible via Touch 5 or Touch 10.
- NMEA 2000® compatible via 3rd Party MFD.



# CombiMaster® **EXPANDED OFFERING** Inverter/Chargers

## Specifications - 120V



CombiMaster  
12/1500-60



CombiMaster  
12/2000-100



CombiMaster  
12/3000-160



CombiMaster  
12/3500-200

Part #	35511500	35512000	35513000	35513500
<b>General Specifications Sine Wave Inverter</b>				
Nominal DC voltage	12V (10.2–16V)	12V (10.2–16V)	12V (10.2–16V)	12V (10.2–16V)
Continuous power at 104°F (40°C)	1500 W	2000 W	3000 W	3500 W
Peak power (30 sec)	2250 W	3000 W	4500 W	5250 W
Surge power (5 sec)	3000 W	4000 W	6000 W	7000 W
Parallel Stacking	no	no	no	yes, up to 3
Synchronize with mains/generator	yes	yes	yes	yes
Output voltage	120V (50/60 Hz, configurable)		120V (50/60 Hz, configurable)	
Output waveform	pure sine	pure sine	pure sine	pure sine
Max. efficiency	93%	92%	90%	93%
Max. ripple on DC (battery at full load)	<15%	<15%	<15%	<15%
Battery no-load power consumption	≤30 W	≤30 W	≤30 W	≤30 W
Energy saving mode consumption	≤10 W	≤10 W	≤10 W	≤20W
<b>General Specifications Battery Charger</b>				
Input voltage range	90-140V	90-140V	90-140V	90-140V
Max. input current	9	16.5	25	32
Max. charge current at 104°F (40°C)	60A@14.25V	100A@14.25V	160A@14.25V	200A@14.25V
Battery temperature sensor	yes, included	yes, included	yes, included	yes, included
Battery voltage sense	yes, automatic	yes, automatic	yes, automatic	yes, automatic
Flat battery support (minimum charging)	yes, below 10V @ 25% power		yes, below 10V @ 25% power	
Continuous Battery Charge Output	60A DC	100A DC	160A DC	200A DC
Temp Range	-13°F to 140°F (-25°C to 60°C)		-13°F to 140°F (-25°C to 60°C)	
<b>Specifications Transfer System</b>				
AC input	30A (switched)	30A (switched)	30A (switched)	50A (switched)
AC output	40A	40A	40A	85A
AC input fuse	30A	30A	30A	50A
<b>General Specifications</b>				
Display/read-out	LED display	LED display	LED display	LED display
Dimensions, hxwx d	14.6" × 11.2" × 6.1" 371 × 284 × 155 mm	17.6" × 11.2" × 6.1" 448 × 284 × 155 mm	17.6" × 11.2" × 6.1" 448 × 284 × 155 mm	22" × 14.2" × 6.7" 559 × 361 × 170 mm
Weight	15.2 lb / 6.9 kg	20.5 lb/9.3 kg	20.5 lb / 9.3 kg	25 lb/11.3 kg
Approvals	ABYC A31, UL1236, UL1741, SAEJ1171, FCC class B		ABYC A31, UL1236, UL1741, SAEJ1171, FCC class B	
<b>Technical Specifications</b>				
Charge characteristic	IUoUo, automatic / 3-step+ for flooded, Gel/AGM, Lithium configurable			
Recommended battery capacity	~ 100-800 Ah (based on gel batteries, may differ for other types)		~ 200-1000 Ah (based on gel batteries, may differ for other types)	
Ground relay	yes, selectable	yes, selectable	yes, selectable	Yes, always on
Temperature range (ambient temp.)	-13°F to 140°F, derating 104°F (-25°C to 60°C, derating > 40°C)			
Cooling	Forced Air / Fan 80mm	Forced Air / Fan 80mm	Forced Air / Fan 80mm	Forced Air 92 or 120mm
Protection degree	IP23	IP23	IP23	IP23
Humidity protection	conformal coating, max. 95% relative humidity, non condensing			
Protections	over temperature, overload, short circuit, high/low battery voltage			
Power Assist	yes	yes	yes	yes
Power Sharing	yes	yes	yes	yes
Communciation	MasterBus, NMEA 2000® CZone® (config file needed for NMEA 2000®)			

\*Approvals pending. Specifications subject to change.



CombiMaster 24/2000-60	CombiMaster 24/3000-70	CombiMaster 24/3500-100	CombiMaster 24/4500-120-HT	CombiMaster 48/5000-70-HT
35522000	35523000	35523500	35524500	35545000
24V (20.4-32V)	24V (20.4-32V)	24V (20.0-32V)	24V (20.0-32V)	48V (40-64V)
2000 W	3000 W	3500 W	4500 W	5000W
3000 W	4500 W	4500 W	6750 W	7500 W
4000 W	6000 W	7000 W	9000 W	10000 W
no	no	yes, up to 7	yes, up to 7	yes, up to 8
yes	yes	yes	yes	yes
120V (50/60 Hz, configurable)		120V (50/60 Hz, configurable)		
pure sine	pure sine	pure sine	pure sine	pure sine
92%	90%	93%	93%	93%
< 5%	< 5%	< 5%	< 5%	< 5%
≤30 W	≤30 W	≤30 W	≤ 47 W	≤ 57 W
≤10 W	≤10 W	≤20 W	≤ 25 W	≤ 30 W
90-140V	90-140V	90-140V	90-140V	90-140V
16.5	25	32	38 A Adjustable	45 A Adjustable
60A@28.5V	70A@28.5V	100A@28.5V	120A@28.5V	70A @ 57V
yes, included	yes, included	yes, included	yes, included	yes, included
yes, automatic	yes, automatic	yes, automatic	yes, automatic	yes, automatic
Yes, below 20V @ 25% power		Yes, below 20V @ 25% power		Yes, below 20V @ 25% power
60A DC	70A DC	100A DC	120A DC	70A DC
-13°F to 140°F (-25°C to 60°C)		-13°F to 140°F (-25°C to 60°C)		-13°F to 140°F (-25°C to 60°C)
30A (switched)	30A (switched)	50A (switched)	50A (switched)	50A (switched)
40A	40A	85A	85A	85A
30A	30A	50A	50A	50A
LED display	LED display	LED display	LED display	LED display
17.6" x 11.2" x 6.1" 448 x 284 x 155 mm	17.6" x 11.2" x 6.1" 448 x 284 x 155 mm	22" x 14.2" x 6.7" 559 x 361 x 170 mm	22" x 14.2" x 6.7" 559 x 361 x 170 mm	22" x 14.2" x 6.7" 559 x 361 x 170 mm
20.5 lb / 9.3 kg	20.5 lb / 9.3 kg	25 lb/11.3 kg	27 lb / 12.2 kg	27 lb / 12.2 kg
ABYC A31, UL1236, UL1741, SAEJ1171, FCC class B		ABYC A31, UL1236, UL1741, SAEJ1171, FCC class B		
IUoUo, automatic / 3-step+ for flooded, Gel/AGM, Lithium configurable				
~100-800 Ah (based on gel batteries, may differ for other types)	~140-1000 Ah (based on gel batteries, may differ for other types)	~ 200-1000 Ah (based on gel batteries, may differ for other types)		
yes, selectable	yes, selectable	Yes, always on	Yes, configurable through jumper	Yes, configurable through jumper
-13°F to 140°F, derating 104°F (-25°C to 60°C, derating > 40°C)				
Forced Air / Fan 80mm	Forced Air / Fan 80mm	Forced Air 92 or 120mm	Forced Air 92 or 120mm	Forced Air 92 or 120mm
IP23	IP23	IP23	IP23	IP23
conformal coating, max. 95% relative humidity, non condensing over temperature, overload, short circuit, high/low battery voltage				
yes	yes	yes	yes	yes
yes	yes	yes	yes	yes
MasterBus, NMEA 2000®, CZone (config file needed for NMEA 2000®)				

## CombiMaster® Inverter/Chargers

### Specifications – 230V



Part #	CombiMaster 12/2000-60	CombiMaster 12/3000-100	CombiMaster 24/2000-40	CombiMaster 24/3000-60
<b>General Specifications</b> <b>Sine Wave Inverter</b>				
Nominal DC voltage	12V (10.2–16V)	12V (10.2–16V)	24V (20.4–32V)	24V (20.4–32V)
Continuous power at 104°F (40°C)	2000V A / 1600 W	3000V A / 2600 W	2000V A / 1600 W	3000V A / 2600 W
Peak power (30 sec)	3000V A / 2400 W	4500V A / 3900 W	3000V A / 2400 W	4500V A / 3900 W
Surge power (5 sec)	4000V A / 3200 W	6000V A / 5200 W	4000V A / 3200 W	6000V A / 5200 W
Synchronize with mains/generator	yes	yes	yes	yes
Output voltage	230V 50/60 Hz, configurable	230V 50/60 Hz, configurable	230V 50/60 Hz, configurable	230V 50/60 Hz, configurable
Output waveform	true sine	true sine	true sine	true sine
Max. efficiency	≥ 93%	≥ 93%	≥ 93%	≥ 93%
Max. ripple on DC (battery at full load)	< 15%	< 15%	< 15%	< 15%
Battery no-load power consumption	20 W on mode / < 1 mA off mode	30 W on mode / < 1 mA off mode	20 W on mode / < 1 mA off mode	30 W on mode / < 1 mA off mode
Energy saving mode consumption	10 W	10 W	10 W	10 W
<b>General Specifications</b> <b>Battery Charger</b>				
Input voltage range	90–280V power derating below 170V	90–280V power derating below 170V	90–280V power derating below 170V	90–280V power derating below 170V
Max. input current	6A (adjustable)	10A (adjustable)	8A	13A
Max. charge current at 104 °F (40 °C)	60A at 14.25V, configurable	100A at 14.25V, configurable	40A at 28.5V, configurable	60A at 28.5V, configurable
Battery temperature sensor	yes, included	yes, included	yes, included	yes, included
Battery voltage sense	automatic compensation	automatic compensation	automatic compensation	automatic compensation
<b>Specifications Transfer System</b>				
AC input	25A (switched)	25A (switched)	25A (switched)	25A (switched)
AC output	33A	33A	33A	38A
AC input fuse	yes	yes	yes	yes
Transfer speed	10 ms for narrow input range, 20 ms for wide range, configurable	10 ms for narrow input range, 20 ms for wide range, configurable	10 ms for narrow input range, 20 ms for wide range, configurable	10 ms for narrow input range, 20 ms for wide range, configurable
Transfer voltage range		narrow input range (170-280V) wide range (90-280V)		
Transfer frequency range	40–65 Hz	40–65 Hz	40–65 Hz	40–65 Hz
<b>General Specifications</b>				
Display/read-out	LED display	LED display	LED display	LED display
Dimensions, hwxwd	14.6" × 11.2" × 6.1" 371 × 284 × 155 mm	17.6" × 11.2" × 6.1" 448 × 284 × 155 mm	14.6" × 11.2" × 6.1" 371 × 284 × 155 mm	17.6" × 11.2" × 6.1" 448 × 284 × 155 mm
Weight	15.2 lb / 6.9 kg	20.5 lb / 9.3 kg	15.2 lb / 6.9 kg	20.5 lb / 9.3 kg
Approvals	CE, E-mark, AZ/NZS	CE, E-mark, AZ/NZS	CE, E-mark, AZ/NZS	CE, E-mark, AZ/NZS
<b>Technical Specifications</b>				
Charge characteristic	IUoUo, automatic / 3-step+ for flooded, Gel/AGM and MLI, configurable	IUoUo, automatic / 3-step+ for flooded, Gel/AGM and MLI, configurable	IUoUo, automatic / 3-step+ for flooded, Gel/AGM and MLI, configurable	IUoUo, automatic / 3-step+ for flooded, Gel/AGM and MLI, configurable
Recommended battery capacity	~100–800 Ah (based on gel batteries, may differ for other types)	~200–1000 Ah (based on gel batteries, may differ for other types)	~100–800 Ah (based on gel batteries, may differ for other types)	~140–1000 Ah (based on gel batteries, may differ for other types)
Ground relay	yes, configurable by means of mechanical jumper	yes, configurable by means of mechanical jumper	yes, configurable by means of mechanical jumper	yes, configurable by means of mechanical jumper
Temperature range (ambient temp.)		-13°F to 140°F, derating 104°F (-25°C to 60°C, derating > 40°C)		
Cooling	vario fan	vario fan	vario fan	vario fan
Protection degree	IP23 (vertical mounting)	IP23 (vertical mounting)	IP23 (vertical mounting)	IP23 (vertical mounting)
Safety class	IEC protection class I	IEC protection class I	IEC protection class I	IEC protection class I
Humidity protection		conformal coating, max. 95% relative humidity, non condensing		conformal coating, max. 95% relative humidity, non condensing
Protections		over temperature, overload, short circuit, high/low battery voltage		over temperature, overload, short circuit, high/low battery voltage
Power Assist	yes, will support AC input power from the battery	yes, will support AC input power from the battery	yes, will support AC input power from the battery	yes, will support AC input power from the battery
Power Sharing	yes, allows you to select AC Input fuse setting	yes, allows you to select AC Input fuse setting	yes, allows you to select AC Input fuse setting	yes, allows you to select AC Input fuse setting
Communication		MasterBus & CZone		MasterBus & CZone
Integrates with Fathom	yes, in combination with batteries, smart battery management and display UI	yes, in combination with batteries, smart battery management and display UI	yes, in combination with batteries, smart battery management and display UI	yes, in combination with batteries, smart battery management and display UI
<b>New available accessories (3500 W / 4500 W &amp; 5000 W models only)</b>				
6502200010		Mastervolt® CombiMaster Current Sharing cable 1 mtr		
6502200030		Mastervolt CombiMaster Current Sharing cable 3 mtr		
6502200060		Mastervolt CombiMaster Current Sharing cable 6 mtr		
6502200410		Mastervolt CombiMaster Communication cable 1 mtr		
6502200430		Mastervolt CombiMaster Communication cable 3 mtr		
6502200460		Mastervolt CombiMaster Communication cable 6 mtr		
6502200500		Mastervolt Cable Strain Relief Bracket		
6502200600		CombiMaster Cabel Kit for 2 units in Parallel		
6502200700		CombiMaster Cabel Kit for 3rd unit in Parallel		
6502200800		CombiMaster Cabel Kit for Split phase operation		

# PowerCombi Inverter/Chargers

## Simple. Independent. Flexible

Introducing the PowerCombi Inverter/Charger from Mastervolt. PowerCombi is a pure sine wave inverter/charger offering grid quality AC power and battery charging in one low profile design. Designed to be an independent inverter/charger, yet can easily be integrated into a CZone®/MasterBus® network (with additional interface). With a built in transfer switch, 2x surge for 3s and on site dipswitch programming—the PowerCombi offers simple installation with multiple operating modes, and can charge various battery chemistries—including a custom profile for use with Li-ion. Full certifications make it perfect for use in RV's, boats, and specialty vehicles. Add a battery temperature sensor (BTS), remote display and a communication interface for custom applications.



PowerCombi  
12V/1200W-50A



PowerCombi  
12V/2000W-100A

Part #	36211200	36212000
Part # Kit (Includes Remote, BTS)	36211201	36212001
<b>Specifications</b>		
Continuous Power Rating 77°F (25°C)	1200 W	2000 W
Continuous Power Rating 104°F (40°C)	1200 W	2000 W
Surge	2400 W (3s)	4000 W (3s)
AC Voltage/Frequency	120V-50/60Hz selectable HF - Pure	120V-50/60Hz selectable HF - Pure
Idle Power Full	25 W	36 W
Inverter Efficiency	89%	89%
DC Input Voltage Range	10.5-16.5V	10.5-16.5V
Nominal DC Voltage	12V	12V
Flat battery support (minimum charging)	NO (6V)	NO (6V)
Continuous Battery Charge Output	50A DC	100A DC
DC Output (second)	20A DC	20A DC
Battery Types	Flooded, Gel, AGM, custom	Flooded, Gel, AGM, custom
Transfer Switch (Speed)	30A (10ms)	30A (10ms)
Dimensions, hxwx d	15.19" x 9.88" x 4.57" (386 x 251 x 116 mm)	17.83" x 9.88" x 4.57" (453 x 251 x 116 mm)
Weight	10.0 lb / 4.55 kg	13.5 lb / 6 kg
Approvals	UL458 & Supplement SA/CSA C22.2, UL 1741 no. 107.1-01KKK-A-1822F	
<b>Technical Specifications</b>		
Temperature range (ambient temp.)	4°F to 140°F (-20°C to 60°C)	4°F to 140°F (-20°C to 60°C)
Communications	MasterBus compatible via MasterBus Interface 77032900	
<b>Options</b>		
Temperature Sensor 41500700	recommended	recommended
PowerCombi Remote Control 77010700	option	option
MasterBus PowerCombi Interface 77032900	option	option

Control and monitor your PowerCombi inverter / charger via this easy to use remote monitor. The LCD display is used for setting up the inverter/charger operation, as well as viewing current status or fault messages.

By adding the MasterBus PowerCombi Interface to your installation, you can control the PowerCombi via the MasterBus communication network. A RJ45 communication cable is included in the delivery.

# BATTERIES

## MLI Lithium Ion Batteries

68



The Mastervolt MLI range is top of the line. It offers large capacity batteries designed for extreme duty cycling, with all possible features such as integrated Battery Management System (BMS) and MasterBus/CAN communication.

## MVG Gel Series

69



Ideal as service battery and for cyclic use. For medium to large 12V and 24V systems with a high number of charging and discharging cycles. Charges very quickly.

## RELiON Legacy Series Lithium Ion Batteries

70



RELiON's Legacy Series LiFePO4 batteries are the perfect combination of size and capacity for many applications such as RV, marine, solar energy systems and more.





# BATTERIES

## RELiON Low Temperature Series Lithium Ion Batteries

71



RELiON's Low Temperature Series lithium ion batteries are cold weather performance batteries that can safely charge in temperatures down to -4°F.

## RELiON InSight Series® Lithium Ion Batteries

72



InSight Series LiFePO4 batteries come in GC2/GC8 size with 12, 24, 36 and 48V options used in RVs, material handling, floor care equipment and more.



## Lithium Ion Batteries

Lithium Ion is the battery technology of today. Do you want to be the fastest or best performing? Do you want to save energy or burn less fuel? Do you want your investment to last longest? Do you want to be 'out there' longest without getting anxious about your energy? Then Lithium Ion (LiFePO4) is your choice of batteries.



### A few of its outstanding features

- Space and weight savings up to 70%
- Three times the lifespan of traditional batteries (2000 cycles)
- Extremely fast charging and discharging
- High efficiency: not wasting energy
- Safe operation
- MasterBus, CZone and NMEA 2000 communication

**CZONE**



### Safest Lithium Ion technology available

The term Lithium Ion encompasses multiple chemistries, having slightly different compositions of materials. These differences result in variations of energy and power density, lifespan, cost and safety. As safety is our primary concern, Mastervolt chooses to use only the safest available Lithium Ion chemistry, Lithium-iron phosphate (LiFePO4).

### Mastervolt brings Lithium Ion technology in two product ranges

#### MLI series

Large capacity series, fully equipped for extreme cycling, like running airconditioning, pumps or electric motors for long periods of time with short intermittent charging.

#### MLS series

Small capacity series, entry model for smaller applications, such as portable/mobile equipment or backup power.

#### MLI Series

The MLI series is designed to be able to enjoy all the best properties of Lithium Ion technology in the harshest conditions (high charge/discharge currents, flooded environment, mechanical shock or vibrations). To do this, the MLI batteries bring two things on top of Lithium-iron phosphate cells: a sturdy, waterproof housing and the best Battery Management System (BMS). The BMS ensures optimal use of each individual cell, even during fast charge and discharge, and has integrated battery monitoring to always have the best information on the state of your battery. Last but not least, it has MasterBus/CAN and CZone/NMEA communication to the Mastervolt battery charger or to any CZone/NMEA based product to ensure the best possible recharging and lifetime of the battery.



#### MLS Series

The MLS series is the MLI's smaller brother, for smaller capacity applications where reducing weight/volume and/or increasing cycle life is key. It is specifically designed to be as easy as possible to install. The MLS series comes with an integrated safety switch, this saves installation and commissioning time.



For higher capacity, multiple MLS batteries can easily be connected in parallel. While the MLS series is a little less heavy duty than the MLI Ultra series, it gives an ideal entry to the benefits of Lithium Ion technology. Perhaps consider replacing your existing lead-acid battery?

### TECH tip

#### Performance Ready

The beating heart of the electrical system onboard all boats participating in the Volvo Ocean Race was formed by two Mastervolt MLI Ultra 24/5000 Lithium Ion (LiFePO4) batteries, which performed seamlessly throughout the race. Choose indestructible Mastervolt Lithium Ion batteries, like the Volvo Ocean Race boats.



**Suitable for large battery banks**

The MLI series is ideal for electric and hybrid applications, and can be connected in parallel unlimited. The built-in common-rail technology offers an easy series connection of multiple MLI Ultra batteries.

**TECH tip**

The MLS series is designed to be extremely easy to install without any additional components. All the models comprise of a tough waterproof plastic case. This makes it a straight-forward replacement for most existing lead-acid batteries.



**Safe operation**

The Mastervolt MLI series is equipped with an integrated Battery Management System (BMS) and communication through MasterBus/CAN and CZone/NMEA. Even in the harshest cycling conditions this guarantees efficient and safe operation of the battery. The MLS batteries come with an integrated automatic safety switch. Safety always comes first.



**Superior performance**

Mastervolt Lithium Ion (LiFePO4) batteries have a realistic lifespan of over 2000 cycles at a depth of discharge (DOD) of 80%. This means five times more energy storage than lead acid batteries thanks to features such as extremely high efficiency, the almost complete absence of self discharge and the minimal build-up of the infamous 'memory effect'.



**Weight reduction**

As speed and performance are crucial aspects, a Lithium Ion (LiFePO4) battery – which takes up 70% less weight than similar lead acid batteries – offers considerable benefits. A vessel or vehicle with a capacity of 20 kWh on board, can easily save up to 500 kg and achieve a substantially better performance.



**Easy installation**

The MLI series includes two integrated handles with a recess for the correct and practical installation of the cables. The battery poles are easily accessible and completely protected, so no extra isolation covers are needed. The MLS batteries make a great 'drop-in replacement' for a system with lead-acid batteries, because no system changes or additional components are required.

## MLI Lithium Ion Series — CZone/ MasterBus® Compatible

- Top performance, heavy duty Lithium Ion batteries
- Ideal for running heavy loads for long periods and short charge times
- Saves up to 70% in space and weight
- Three times the lifespan of traditional batteries (2000 cycles)
- High cycle efficiency
- Fast charging up to half an hour
- High discharge rate up to 2.5C
- CZone / NMEA 2000®, or MasterBus / CAN communication
- Integrated Battery Management System (BMS)
- Integrated battery monitoring (Ah consumed, state of charge)
- Series connection up to 10 batteries possible
- Waterproof electronics cabinet
- Extremely safe LiFePO4 chemistry
- Tested and certified according to UN38.3



### Specifications

	MLI Ultra 12/1250	MLI Ultra 24/1250	MLI Ultra 12/3000	MLI Ultra 12/6000	MLI Ultra 24/6000
Part #	<b>66011250</b>	<b>66021250</b>	<b>66013000</b>	<b>66016000</b>	<b>66026000</b>
<b>General Specifications</b>					
Nominal battery voltage	12V	24V	12V	12V	24 V
Nominal battery capacity	100 Ah	50 Ah	200 Ah	460 Ah	230 Ah
Nominal battery energy capacity	1250 Wh	1250 Wh	3000 Wh	6000 Wh	6000 Wh
Max. charge current	100A (1 C)	50A (1 C)	230 A (1 C)	500A (1.4 C)	230 A (1 C)
Continuous discharge current	200A (2 C)	100A (2 C)	500A (2.5 C)	500A (1.4 C)	500A (2.5 C)
Peak discharge current	500A (5C) for 10s	250A (5C) for 10S	1800A (9 C) for 10s	1800A (4.5 C) for 10s	1800A (9 C) for 10s
Cycle life	3500 cycles at 80% DOD		3500 cycles at 80% DOD at 77°F (25°C), max. C3 charge and C2 discharge		
Battery monitoring	integrated	integrated	integrated	integrated	integrated
Communication	MasterBus, CZone, NMEA 2000®	MasterBus, CZone, NMEA 2000®	MasterBus, CZone, NMEA 2000®	MasterBus, CZone, NMEA 2000®	MasterBus, CZone, NMEA 2000®
Battery terminals	M6	M6	M8	M8	M8
Mounting position	upright (recommended) or either long side		upright (recommended) or either long side		
Max. outer dimensions, l x w x h (incl. terminals/grip handles)	12.9" x 6.7" x 9.3" 327 x 171 x 235 mm	12.9" x 6.7" x 9.3" 327 x 171 x 235 mm	13.4" x 7.8" x 14" 341 x 197 x 355 mm	24.5" x 7.8" x 14" 622 x 197 x 355 mm	24.5" x 7.8" x 14.0" 622 x 197 x 355 mm
Weight	30 lb / 15 kg	30 lb / 15 kg	56 lb / 25.4 kg	103.0 lb / 46.7 kg	103.0 lb / 46.7 kg
<b>Technical Specifications</b>					
Battery chemistry	Lithium Iron Phosphate	Lithium Iron Phosphate	Lithium Iron Phosphate	Lithium Iron Phosphate	Lithium Iron Phosphate
Protection degree	IP65	IP65	IP65 (electronics cabinet)	IP65 (electronics cabinet)	IP65 (electronics cabinet)
Parallel connection	yes, unlimited	yes, unlimited	yes, unlimited	yes, unlimited	yes, unlimited
Series connection	yes, up to 4 batteries	yes, up to 2 batteries	yes, up to 10 batteries. Systems over 48V require a separate battery box to prevent access to high voltage parts		
Protections	over voltage, under voltage, over temperature		over voltage, under voltage, over temperature		
Safety relay/with Bracket	n.a	n.a	Required part # 7700B-BSS (12V) / 7702B-BSS (24V) and with bracket 79007712 (12V) / 79007724 (24V)		
Safety relay controls	integrated	integrated	integrated	integrated	integrated
Integrates with Fathom®	yes, in combination with batteries, smart battery management and display UI				

### Related Products



ProNauticP Series  
Battery Charger  
page 36



Chargemaster  
Plus Battery Charger  
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Terminals  
& Covers  
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ML-Remote  
Battery Switches  
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## MVG Gel Series

- Perfect service battery for medium and large 12V and 24V systems
- Extremely long lifespan
- No gas formation with normal use
- Fast recharge, high charge current possible
- For intensive cycle use with a high number of charge/discharge cycles
- Very low self discharge
- High return on investment



	MVG 12/25	MVG 12/55	MVG 12/85	MVG 12/120	MVG 12/140	MVG 12/200
<b>Part #</b>	<b>64000250</b>	<b>64000550</b>	<b>64000850</b>	<b>64001200</b>	<b>64001400</b>	<b>64002000</b>
<b>Nominal battery voltage</b>	12V	12V	12V	12V	12V	12V
<b>Nominal battery capacity C20*</b>	25 Ah	55 Ah	85 Ah	120 Ah	140 Ah	200 Ah
<b>Max charge current</b>	12.5A	27.5A	42.5A	60A	70A	100A
<b>CCA to DIN</b>	110A	230A	270A	450A	540A	630A
<b>CCA to SAE</b>	175A	380A	450A	760A	920A	1100A
<b>Battery terminal</b>	A-type	A-type	A-type	A-type	A-type	A-type
<b>Max. outer Dimensions** LxWxH</b>	6.6" x 6.9" x 5" 167 x 176 x 126 mm	10.3" x 5.4" x 9.1" 261 x 136 x 230 mm	13" x 6.7" x 9.3" 330 x 171 x 236 mm	20.2" x 7.4" x 8.8" 513 x 189 x 223 mm	20.2" x 8.8" x 8.8" 513 x 223 x 223 mm	20.4" x 10.8" x 9.4" 518 x 274 x 238 mm
<b>Weight</b>	21.2 lb / 9.6 kg	41.9 lb / 19 kg	71.9 lb / 32.6 kg	90.4 lb / 41 kg	108 lb / 49 kg	154.3 lb / 70 kg

\* C20 = battery capacity at a discharge time of 20 hours, till 10.5V per battery.    \*\*Including terminals and grip handles

### Related Products



Terminals & Covers  
page 146



## Legacy Series

RELiON's deep cycle lithium batteries are the perfect drop-in replacements for Group 24, 27, 31, and 8D AGM, GEL, or lead-acid batteries. They are the perfect combination of size and capacity to fit many applications including, RV, marine, solar energy systems, and more. RELiON lithium batteries provide more energy for high consumption than traditional lead-acid batteries. They also offer ultra-fast charging and discharging, high efficiency, and longer cycle life – plus no maintenance!

- Designed to outperform traditional lead-acid batteries on the road, on the water, or off the grid, enjoy the freedom that comes with having more usable energy in a lightweight, no-maintenance package that's safe, reliable, and worry-free.
- Constant Power: Full power is available throughout discharge. Voltage does not drop like lead-acid.
- Temperature Tolerant: Legacy Series batteries can handle a wide variety of conditions and are even 2.5x more efficient at low temperatures than lead-acid while being able to safely operate up to 149°F (65°C).
- More Useable Capacity: Lead-acid batteries are typically sized up to two times your energy needs to account for extended periods without sun and less usable energy with higher rates of discharge. Plus, you are typically cautioned to limit your use to 50% of the rated capacity, as using more can significantly reduce performance. Lithium batteries provide 100% of their rated capacity, regardless of the rate of discharge. And, you can use it all and still get a substantially longer cycle life.



- Partial State of Charge Tolerant: Partial state of charge, known as PSOC, which is a killer of lead-acid batteries, does not affect performance or battery life of a lithium battery. Sometimes batteries don't get fully charged, or they regularly operate in a partial state of charge. Either way, you can count on RELiON lithium batteries living a long and productive life.
- Lightweight: RELiON Legacy Series batteries provide more power than lead-acid batteries and are typically half the weight. Boosting both performance and agility on the water.
- Maintenance Free: Plug, play, and charge. No watering, no corrosion.
- Eco-friendly & Safe: RELiON lithium batteries are the ultimate clean energy. No gassing, no fumes, and no pollution. Enjoy reliable power, while protecting the environment, using these non-hazardous batteries.
- Longer Life: LiFePO4 batteries last up to 10x longer than lead-acid.



Part Number		RB20	RB52	RB100	RB200	RB300	RB24V52
Volts		12V	12V	12V	12V	12V	24V
BCI Group Size		NA	NA	31	8D	8D	31
Capacity @ 25°C (77°F)	AH	20	52	100	200	300	52
	Min @ 25A	NA	120	240	480	720	120
Energy (kWh)		256	640	1280	2560	3840	1280
Current Capability	Continuous (A)	20	50	100	100	100	50
	Peak (A)	40	100	200	200	200	100
Max Modules in series		3	4	6	6	6	1
Dimensions inches (mm)	Length	7.1 (181)	7.8 (197)	13.0 (329)	20.6 (522)	20.6 (522)	13.0 (329)
	Width	3.0 (76)	6.5 (166)	6.8 (172)	10.5 (267)	10.5 (267)	6.8 (172)
	Height	6.7 (169)	6.8 (173)	8.4 (214)	8.7 (220)	8.7 (220)	8.4 (214)
Weight lbs (kg)		5.6 (2.55)	13.7 (6.2)	26.4 (11.98)	61.1 (27.7)	75.8 (34.36)	29.1 (13.2)
Terminal Type		M6	M8	M8	M8	M8	M8
Case Material		ABS	ABS	ABS	ABS	ABS	ABS

## Low Temperature Series

The LT Series lithium iron phosphate batteries are cold-weather performance batteries that can charge at temperatures down to -20°C (-4°F). How? The system features proprietary technology that draws power from the charger itself, requiring no additional components. The entire process of heating and charging is completely seamless. Simply plug the battery into the regular lithium charger and the internal heating and monitoring system takes care of the rest.



Designed specifically for cold weather applications such as off-grid power and cold storage material handling. RELiON's Low Temperature Series lithium iron phosphate batteries are also lightweight, no-maintenance, reliable, and worry-free, and can safely charge at temperatures down to -20°C (-4°F).

### Same Battery, Enhanced Technology

Our Low Temperature Series batteries look and operate exactly like our other batteries, with the same power and performance. They have the same charge time at above-freezing temperatures. They also feature the same dimensions, configuration, and connectivity of its standard counterparts, making them drop-in replacements in applications that already use RELiON batteries. And they're ideal upgrades for those who are still using lead-acid batteries in low-temperature environments.



RB24V100	RB36V40	RB48V25	RB48V200	RB20-LT	RB52-LT	RB100-LT	RB300-LT
24V	36V	48V	48V	12V	12V	12V	12V
8D	31	24	NA	NA	NA	31	8D
100	40	25	200	20	52	100	300
240	96	NA	480	NA	120	240	720
2560	1536	1280	10240	256	640	1280	3840
100	50	20	200	20	50	100	100
200	100	25	250	40	100	200	200
1	1	1	1	NA	NA	NA	NA
20.6 (522)	13.0 (329)	10.2 (260)	34.3 (867)	7.1 (181)	7.8 (197)	13.0 (329)	20.6 (522)
10.5 (267)	6.8 (172)	6.6 (168)	14.2 (358)	3.0 (76)	6.5 (166)	6.8 (172)	10.5 (267)
8.7 (220)	8.4 (214)	8.2 (210)	15.6 (393)	6.7 (169)	6.8 (173)	8.4 (214)	8.7 (220)
61.1 (27.7)	30.9 (14)	27.6 (12.5)	302 (137)	6.6 (3)	14.1 (6.38)	27.9 (12.64)	76.1 (34.54)
M8	M8	M8	M10	M6	M8	M8	M8
ABS	ABS	ABS	STEEL	ABS	ABS	ABS	ABS

## InSight Series<sup>®</sup>

From its superior battery design to its one-of-a-kind BMS, InSight batteries offer exclusive advantages you won't find in competitive products, giving you an exceptional return on investment for years to come.

### The Features that Make InSight Superior

#### EASY INSTALLATION

InSight batteries come in BCI group size GC2/GC8 allowing for easy installation without modifying trays or battery compartments.

#### SCALABLE SYSTEM

InSight batteries offer freedom and flexibility by utilizing parallel connections, so you can scale your system to provide increased power and energy as needed.

#### INTELLIGENT COOLING

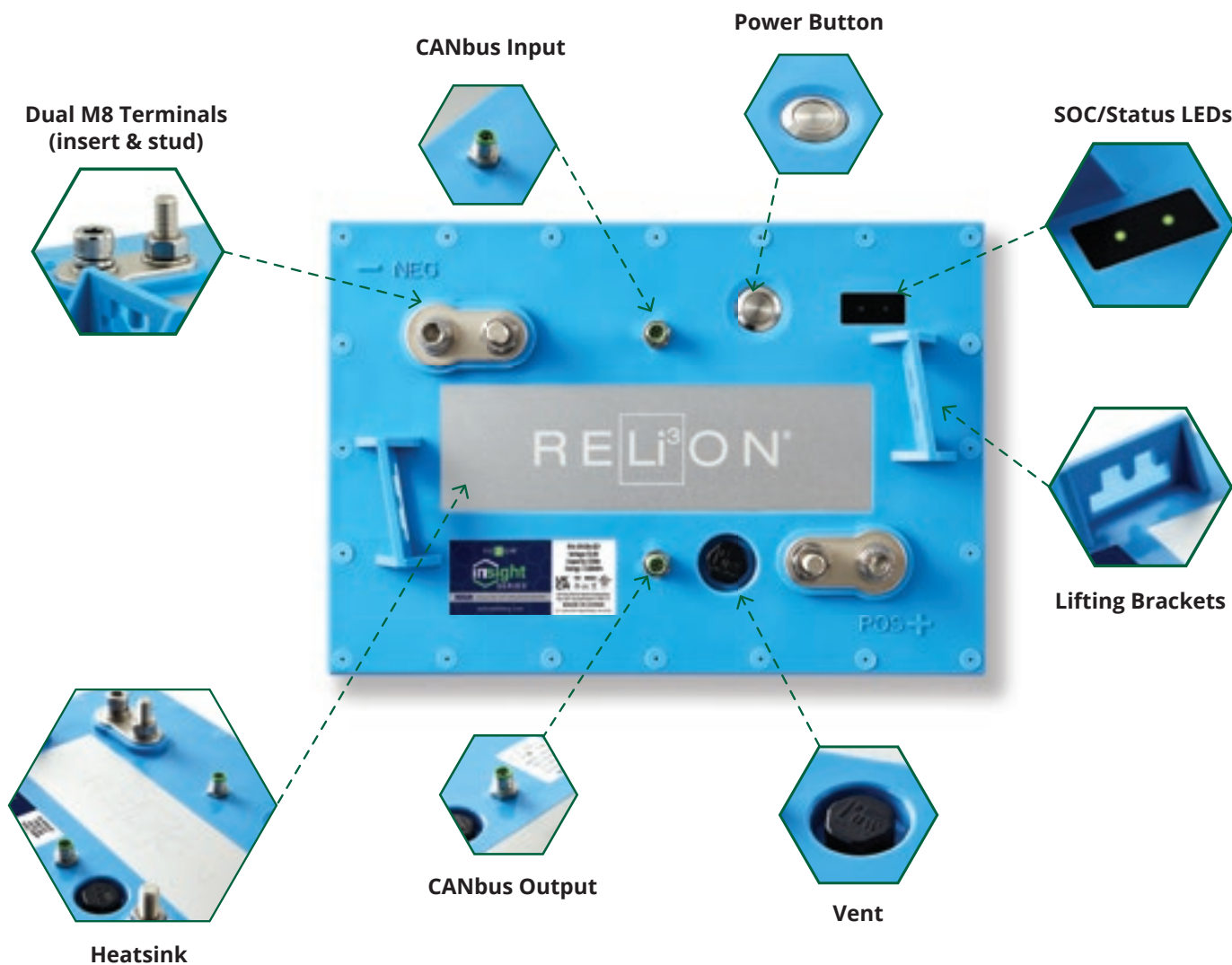
InSight Series<sup>®</sup> uses a carefully engineered cooling management system to quickly remove heat from inside the battery during conditions of high discharge and recharge currents. This prevents overheating of critical components and extends the life of the battery.

#### SUPERSMART BMS<sup>™</sup>

The robust battery management system features a combined total of 48 charge and discharge MOSFETs that control current flow in and out of the battery, along with multilayer protective devices that prevent over/under voltage, current and temperature conditions. The multilayer protection allows InSight batteries to pass stringent UL safety standards.

#### ROBUST COMMUNICATION

CANbus connections allow batteries to communicate real-time operating statistics like the voltage, current, state of charge and state of health, making InSight batteries more user friendly. Plus, all batteries feature a sleep and pulse recovery operation mode to conserve power.







Part Number		12V120-1-GC2	12V120-1-GC2-LT	24V060-GC2	24V060-1-GC2-LT	48V030-GC2	48V030-GC2-LT
BCI Group Size		GC2	GC2	GC2	GC2	GC2	GC2
Capacity @ 25°C (77°F)	AH	120	120	60	60	30	30
	Min @ 25A	288	288	144	144	72	72
Energy (kWh)		1.536	1.536	1.536	1.536	1.536	1.536
Current Capability	Continuous (A)	160	160	100	100	100	100
	Peak (A)	400	400	240	240	200	200
Dimensions inches (mm)	Length	10.2 (260)	10.2 (260)	10.2 (260)	10.2 (260)	10.2 (260)	10.2 (260)
	Width	7.1 (180)	7.1 (180)	7.1 (180)	7.1 (180)	7.1 (180)	7.1 (180)
	Height	10.9 (276)	10.9 (276)	10.9 (276)	10.9 (276)	10.9 (276)	10.9 (276)
Weight lbs (kg)		34.4 (15.6)	34.4 (15.6)	34.4 (15.6)	34.4 (15.6)	34.4 (15.6)	34.4 (15.6)
Terminal Type		M8	M8	M8	M8	M8	M8
Case Material		ABS	ABS	ABS	ABS	ABS	ABS

## InSight Series<sup>®</sup> Plug-N-Play Accessories

### InSight Fuel Gauge

#### Real-Time Data on Your Battery Bank

The InSight Fuel Gauge is a low current draw (29 milliamps), constantly backlit battery gauge that will show the state of charge (SOC) for up to 10 InSight Batteries connected in parallel.

Over time, we've learned that voltage-based gauges are not accurate when measuring lithium-based chemistry. That is why we developed a fuel gauge that receives real-time current data from all parallel connected battery CANs and calculates the remaining amp hours as a percentage from 0-100%.



### InSight Remote Button

The InSight Series Remote Button gives you the convenience to power on and off your InSight batteries without having to access the battery compartment. This high-quality plug-and-play accessory saves you time and energy.



### InSight Battery Spacer

InSight Battery Spacers are used to fill the empty battery slots when installing our InSight batteries. By using our Battery Spacers to fill the empty spots, you're able to use the existing battery hold-down that comes in your vehicle or equipment. This makes installation easier while ensuring your batteries are properly held down.

# BATTERY MANAGEMENT

## Manual Battery Switches

76



Commonly used on small boats or vehicles where the batteries are located near the operator, allowing the high amperage switching and the control of the switch to be the same location.

## Master Disconnect Switches

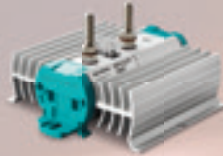
77



Compact lever-operated battery disconnect switch

## Charge Mate

80



The Charge Mate series connects both batteries during charging and keeps them isolated when discharging.

## Solenoids

80



Remotely switch high amperage loads with a low amperage on-off switch.

# BATTERY MANAGEMENT

## ML Series Remote Battery Switches (RBS)

82



Used when there is not an easily accessible location near the batteries to mount the battery switch, requiring either a long cable run or a battery switch mounted in a difficult to access location.

## M LVD Low Voltage Disconnect

83



Senses low battery voltage and disconnects non-critical loads to save power for engine starting.

## Automatic Timer Disconnect (ATD)

84



Adjustable time or voltage based battery disconnect automatically shuts off devices to preserve battery power.

## Automatic Charging Relays (ACR)

85



Automatically combines two battery banks during charging and isolates batteries when discharging and optionally when starting the engine.



Battery management is central to the safe operation of a vehicle. The safe switching between batteries, loads, and charge sources is achieved using products in this section.

## M Series Battery Switches

300 Amps continuous rating for outboards and small gasoline or diesel engines

- Tin-plated copper studs for maximum conductivity and corrosion resistance
- Studs accept 3/8" (M10) ring terminals
- 7/8" (22 mm) stud length accepts multiple cable terminals
- Blue Sea Systems one-piece terminal stud design never loosens over time
- One-piece stainless flange nuts ensure safe and secure connections
- Isolating cover protects rear contacts
- Breakout tabs allow wire access in any direction
- 6 Circuit label set included (not included with 6005 and 6005200)

Specifications	6004, 6005, 6006	6007	6010, 6011
	6004200	6007200	6010200
	6005200	6008	6011200
	6006200	6008200	
Cranking Rating: 30 sec.	900A	900A	675A per circuit
Intermittent Rating: 5 min.	500A	500A	450A per circuit
Continuous Rating	300A	300A	300A per circuit
Voltage Max. Operating	48V DC	32V DC	32V DC

### Regulatory

CE marked, ISO 8846, UL Listed – UL 1107 electric power switches  
 Meets American Boat and Yacht Council (ABYC) requirements  
 Meets UL 1500 and SAE J1171 external ignition protection requirements  
 IP66 – protected against powerful water jets (see inside back cover)

**IGNITION  
PROTECTED**

## E Series Battery Switches

350 Amps continuous rating for inboard gasoline or diesel engines

- Tin-plated copper studs for maximum conductivity and corrosion resistance
- Accepts up to 4/0 AWG (120 mm<sup>2</sup>) battery cables
- Studs accept 3/8" (M10) ring terminals
- 7/8" (22 mm) stud length accepts multiple cable terminals
- Blue Sea Systems one-piece terminal stud design never loosens over time
- One-piece stainless flange nuts ensure safe and secure connections
- Fits most standard Perko and Guest battery switch hole patterns
- Tactile indicator conveys knob position by feel

Specifications	9003E 9004E	9001E 9002E 11001	5510E 5511E
Cranking Rating: 30 sec.	1,200A	1,200A	700A per circuit
Intermittent Rating: 5 min.	600A	600A	525A per circuit
Continuous Rating	350A	350A	350A per circuit
Voltage Max. Operating	48V DC	32V DC	32V DC

### Regulatory

CE marked, ISO 8846, UL Listed – UL 1107 electric power switches  
 Meets American Boat and Yacht Council (ABYC) requirements  
 Meets UL 1500 and SAE J1171 external ignition protection requirements  
 IP66 – protected against powerful water jets (see inside back cover)

**IGNITION  
PROTECTED**

Part #	Description	Color
6004	Single Circuit ON-OFF with Locking Key	Red
6004200	Single Circuit ON-OFF with Locking Key	Black
6005	Single Circuit ON-OFF with Key	Red
6005200	Single Circuit ON-OFF with Key	Black
6006	Single Circuit ON-OFF	Red
6006200	Single Circuit ON-OFF	Black
6007	Selector 4 Position	Red
6007200	Selector 4 Position	Black
6008	Selector 3 Position	Red
6008200	Selector 3 Position	Black
6010	Dual Circuit™	Red
6010200	Dual Circuit™	Black
6011	Dual Circuit Plus™	Red
6011200	Dual Circuit Plus™	Black
7903	Removable key for 6004	Red
7903200	Removable key for 6004200	Black
7900	Removable key for 6005	Red
7900200	Removable key for 6005200	Black
7901	Removable knob	Red
7901200	Removable knob	Black
9159	Paralleling link bus (2 pack)	-
1139	360 Panel Battery Switch Module	-

For the full list of specifications and operation diagrams see page 78

Part #	Description	AFD*
5510E	Dual Circuit™	--
5511E	Dual Circuit Plus™	--
9001E	Selector 4 Position	--
9002E	Selector 4 Position	Yes
9003E	Single Circuit ON-OFF	--
9004E	Single Circuit ON-OFF	Yes
11001	Selector 3 Position	Yes

For the full list of specifications and operation diagrams see page 78

\* Includes Alternator Field Disconnect (AFD) which protects the diodes in the alternator in the event of the switch being switched to the OFF position while the engine is running. If the AFD is not used to protect the alternator, an LED can be connected to the AFD terminals to indicate when the battery switch is in any position but OFF.

### Related Products



SI ACR  
page 85

## HD Series Battery Switches

Up to 600 Amps continuous rating for large diesel engines

- Tin-plated copper studs for maximum conductivity and corrosion resistance
- Accepts up to 4/0 AWG (120 mm<sup>2</sup>) battery cables
- Studs accept 1/2" (M12) ring terminals
- 7/8" (22 mm) stud length accepts multiple cable terminals
- Blue Sea Systems one-piece terminal stud design never loosens over time
- One-piece stainless flange nuts ensure safe and secure connections
- Fits most Perko and Guest low amperage battery switch hole patterns
- Case design allows surface or rear mounting options
- Tactile indicator conveys knob position by feel

Specifications	3000, 3001	3002, 3003, 11003
Cranking Rating: 30 sec.	1,750A	1,600A
Cranking Rating: 1 min.	1,325A	1,150A
Intermittent Rating: 5 min.	900A	700A
Continuous Rating	600A	500A
Voltage Max. Operating	32V DC	32V DC

### Regulatory

CE marked, ISO 8846, UL Listed - UL 1107 electric power switches  
 Meets American Boat and Yacht Council (ABYC) requirements  
 Meets UL 1500 and SAE J1171 external ignition protection requirements  
 IP66 – protected against powerful water jets (see inside back cover)

**IGNITION PROTECTED**

Part #	Description	AFD*
3000	Single Circuit ON-OFF	--
3001	Single Circuit ON-OFF	Yes
3002	Selector 4 Position	--
3003	Selector 4 Position	Yes
11003	Selector 3 Position	Yes

\* Includes Alternator Field Disconnect (AFD) which protects the diodes in the alternator in the event of the switch being switched to the OFF position while the engine is running. If the AFD is not used to protect the alternator, an LED can be connected to the AFD terminals to indicate when the battery switch is in any position but OFF.

For the full list of specifications and operation diagrams see page 78



bepmarine.com

## Master Disconnect

- Compact lever-operated battery disconnect switch
- Rated for 175A for use in 12V DC systems
- Suitable for 6–36V DC system configurations
- Includes face plate



Part #	1001001	1001002
Action	Off-On	Off-On
Family	175A	125A
Nominal Voltage	6–36V DC	6–36V DC
Ratings	175A at 12V continuous	175A at 12V continuous
Termination Type	3/8" Brass Nut	3/8" Brass Nut



marinco.com

## Heavy-duty Diesel Power Battery Switches

- For 6V, 12V, 24V or 36V systems
- Built with heavy-duty copper sweep contacts to ensure positive circuit control
- Rugged internal components protected by a tough, impact resistant polycarbonate housing that is impervious to the elements
- All feature Alternator Field Disconnect (AFD) allowing selection of any position, including "off", without damage to alternator or electrical system
- Cable lug size: 1/2"
- 2304A and 2304A-B have 3 studs



OEM # 2303A-B



OEM # 2304A-B

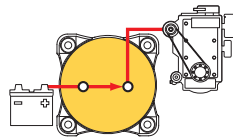


OEM # 2300A-B

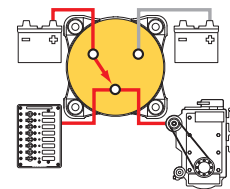
# Manual Battery Switch Specification Table

Switch Type	Single Circuit ON-OFF					Selector 3 Position		
Function	Switches a single battery to a single load group					Switches either isolated battery bank to loads		
Switch Family	m-Series		e-Series	HD-Series		m-Series	e-Series	HD-Series
Part #	6004	6005	6006	9003E, 9004E*	3000, 3001*	6008	11001	11003
Page #	26		28	30		26	28	30
Battery Inputs	1		2		2			
Switch Positions	2		3		3			
Battery Combine	--		--		--			
Make Before Break Contact	N/A		N/A		N/A			
Cranking Rating (30 sec.)	900A		1,200A	1,750A	900A	1,200A	1,600A	
Intermittent Rating (5 min.)	500A		600A	900A	500A	600A	700A	
Continuous Rating	300A		350A	600A	300A	350A	500A	
Voltage Maximum Operating	48V DC		48V DC	32V DC	32V DC	32V DC		
Width in (mm)	2.83" (72 mm)		3.85" (98 mm)		2.83" (72 mm)	3.85" (98 mm)		
Height in (mm)	2.83" (72 mm)		3.85" (98 mm)		2.83" (72 mm)	3.85" (98 mm)		
Mounting Centers	2.18" (55 mm)		3.00" (76 mm)		2.18" (55 mm)	3.00" (76 mm)		
Mounting Hardware	#10 (M5) Screws		1/4" (M6) Screws		#10 (M5) Screws	1/4" (M6) Screws		
Terminal Stud Size	3/8"-16 (M10)			1/2" (M12)	3/8"-16 (M10)	3/8"-16 (M10)	1/2" (M12)	
Terminal Stud Length	7/8" (22 mm)			7/8" (22 mm)				
Max. Terminal Stud Torque	120 in-lb (13.56 N-m)		140 in-lb (15.82 N-m)	220 in-lb (24.86 N-m)	120 in-lb (13.56 N-m)	140 in-lb (15.82 N-m)	220 in-lb (24.86 N-m)	
Terminal Stud Material	Tin-plated copper				Tin-plated copper			
Cable Size to Meet Ratings ‡	4/0 AWG (120 mm <sup>2</sup> )				4/0 AWG (120 mm <sup>2</sup> )			
Cable Clearance for 4/0 Cables	1.12" (28.4 mm)		1.10" (27.9 mm)		1.12" (28.4 mm)	1.10" (27.9 mm)		
Ignition Protected	UL 1500, SAE J1171				UL 1500, SAE J1171			
Ingress Protected	IP66 - protected against powerful water jets				IP66 - protected against powerful water jets			

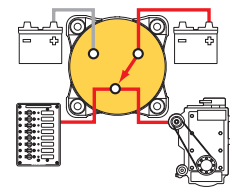
These diagrams are intended for reference of how the switches operate and are not wiring diagrams. Consult an ABYC certified marine electrical professional for system design and circuit protection.



Switch set to ON










Switch set to 1

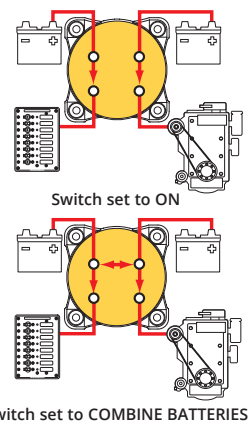
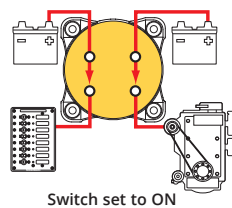
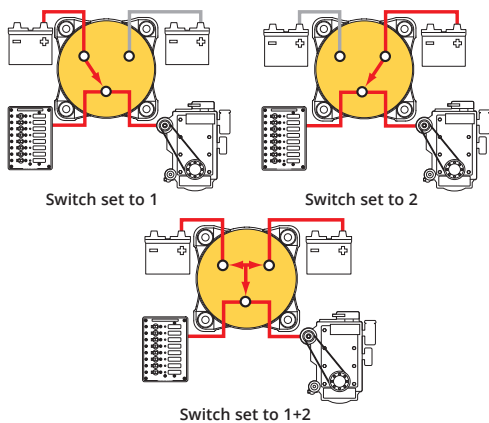


Switch set to 2

\* Includes Alternator Field Disconnect (AFD) protects the diodes in the alternator in the event of the switch being switched to the OFF position while the engine is running. If the AFD is not used to protect the alternator, an LED can be connected to the AFD terminals to indicate when the battery switch is in any position but OFF.

‡ Reducing cable size will reduce current rating

Selector 4 Position			Dual Circuit™		Dual Circuit Plus™	
Switches isolated battery banks to all loads or combines battery banks to all loads			Simultaneously switches two isolated battery banks		Simultaneously switches two isolated battery banks or combines battery banks to all loads	
m-Series	e-Series	HD-Series	m-Series	e-Series	m-Series	e-Series
						
<b>6007</b>	<b>9001E, 9002E*</b>	<b>3002, 3003*</b>	<b>6010</b>	<b>5510E</b>	<b>6011</b>	<b>5511E</b>
26	28	30	26	28	26	28
	2			2		2
	4			2		3
	Yes			--		Yes
	Yes			--		Yes
900A	1,200A	1,600A	675A per circuit	700A per circuit	675A per circuit	700A per circuit
500A	600A	700A	450A per circuit	525A per circuit	450A per circuit	525A per circuit
300A	350A	500A	300A per circuit	350A per circuit	300A per circuit	350A per circuit
32V DC			32V DC		32V DC	
2.83" (72 mm)	3.85" (98 mm)		2.83" (72 mm)	3.85" (98 mm)	2.83" (72 mm)	3.85" (98 mm)
2.83" (72 mm)	3.85" (98 mm)		2.83" (72 mm)	3.85" (98 mm)	2.83" (72 mm)	3.85" (98 mm)
2.18" (55 mm)	3.00" (76 mm)		2.18" (55 mm)	3.00" (76 mm)	2.18" (55 mm)	3.00" (76 mm)
#10 (M5) Screws	1/4" (M6) Screws		#10 (M5) Screws	1/4" (M6) Screws	#10 (M5) Screws	1/4" (M6) Screws
3/8"-16 (M10)	3/8"-16 (M10)	1/2" (M12)	3/8"-16 (M10)		3/8"-16 (M10)	
7/8" (22 mm)			7/8" (22 mm)		7/8" (22 mm)	
120 in-lb (13.56 N-m)	140 in-lb (15.82 N-m)	220 in-lb (24.86 N-m)	120 in-lb (13.56 N-m)	140 in-lb (15.82 N-m)	120 in-lb (13.56 N-m)	140 in-lb (15.82 N-m)
Tin-plated copper			Tin-plated copper		Tin-plated copper	
4/0 AWG (120 mm²)			4/0 AWG (120 mm²)		4/0 AWG (120 mm²)	
1.12" (28.4 mm)	1.10" (27.9 mm)		1.12" (28.4 mm)	1.10" (27.9 mm)	1.12" (28.4 mm)	1.10" (27.9 mm)
UL 1500, SAE J1171			UL 1500, SAE J1171		UL 1500, SAE J1171	
IP66 - protected against powerful water jets			IP66 - protected against powerful water jets		IP66 - protected against powerful water jets	



## Charge Mate

A secondary battery is becoming increasingly common. As a second battery can prevent the main battery from depleting and being unable to start, this seems like a safe and reliable solution. The second battery, however, also has to be charged regularly. The Charge Mate series connects both batteries during charging and keeps them isolated when discharging. The Charge Mate 1202 and 2502 are especially practical for small systems, the Charge Mate Pro provides additional functionality by limiting the charge current to the second battery to 40A or 90A. The main battery is therefore charged with priority. The return current is automatically blocked and power dips of the onboard network are reduced. An emergency start function is possible by connecting an optional bypass switch.



	Charge Mate 1202	Charge Mate 2502	Charge Mate Pro 40	Charge Mate Pro 90	Charge Mate Pro Lithium 40	Charge Mate Pro Lithium 90
Part #	<b>83301202</b>	<b>83302502</b>	<b>83304002</b>	<b>83309002</b>	<b>83304004</b>	<b>83309004</b>
Battery voltage	12/24V		automatic 12/24 V detection	automatic 12/24 V detection	automatic 12/24 V detection	automatic 12/24 V detection
Max. current	120A	500A	limited to 40 A	imited to 90A; > 77°F derating power	limited to 40 A	imited to 90A; > 77°F derating power
Number of modes	n.a.	on, off, auto, start assist	on, off, auto, start assist	on, off, auto, start assist	on, off, auto, start assist	on, off, auto, start assist
Dimensions, hxwx	76 x 46 x 46 mm 3 x 1.8 x 1.8 inch	90 x 80 x 85 mm 3.5 x 3.1 x 3.3 inch	157 x 140 x 80 mm 6.2 x 5.5 x 3.1 inch	158 x 140 x 80 mm 6.2 x 5.5 x 3.1 inch	157 x 140 x 80 mm 6.2 x 5.5 x 3.1 inch	158 x 140 x 80 mm 6.2 x 5.5 x 3.1 inch
Weight	0.125kg / 0.3lb	0.65kg / 1.4lb	0.88 kg / 1.9 lb	0.88 kg / 1.9 lb	0.88 kg / 1.9 lb	0.88 kg / 1.9 lb
No-load power consumption	switch open: < 1 mA at 12/24 V DC	switch open: < 1 mA at 12/24 V DC	switch open: < 1 mA at 12/24 V DC	switch open: < 1 mA at 12/24 V DC	switch open: < 1 mA at 12/24 V DC	switch open: < 1 mA at 12/24 V DC
Inrush current (250ms)	2000A	2000A	n.a.	n.a.	n.a.	n.a.
Switch on voltage	13-15V(12V) / 26-30V(24V)	13-15V(12V) / 26-30V(24V)	13,5V @12V / 27V @ 24V	13,5V @12V / 27V @ 24V	13,7V @12V / 27.4V @ 24V	13,7V @12V / 27.4V @ 24V
Switch on delay	5 sec	30 sec	5 sec	5 sec	5 sec	6 sec
Switch off voltage	<12.75V @12V / <25.5V @ 24V	<12.75V... >15V @12V / <25.5V >30V @ 24V	12,75V @12V / 24.5V @ 24V	12,75V @12V / 24.5V @ 24V	13,3V @12V / 26.6V @ 24V	13,3V @12V / 26.6V @ 24V
Switch off delay	no	3 min	2.5 sec	2.5 sec	2.5 sec	2.5 sec
Relay	electro-mechanical	electro-mechanical	electronically (mosfets with low voltage drop of max 0.2 V)	electronically (mosfets with low voltage drop of max 0.2 V)	electronically (mosfets with low voltage drop of max 0.2 V)	electronically (mosfets with low voltage drop of max 0.2 V)
Ambient temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 140°F (-40°C to 60°C)	-40°F to 140°F (-40°C to 60°C)	-40°F to 140°F (-40°C to 60°C)	-40°F to 140°F (-40°C to 60°C)	-40°F to 140°F (-40°C to 60°C)
Protection degree	IP21	IP21	IP65	IP65	IP65	IP65
Battery types	all batteries	all batteries	For AGM/GEL starter and all types of service batteries	For AGM/GEL starter and all types of service batteries	For Lithium starter and all types of service batteries	For Lithium starter and all types of service batteries

**BEP**

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## Solenoids

- Remotely switch high amperage loads with a low amperage on-off switch
- Rated from 65A up to 100A for use in 12V DC systems
- Available with steel and PVC coated housings

Part #	Family	Nominal Voltage	Rated	Termination
<b>1002203</b>	Remote Switching	12V DC	65A @ 12V DC	10-32 thread and 5/16-24 thread
<b>1002201</b>	Motor Reversing	12V DC	75A @ 12V DC	5/16-24 thread & 1/4 blade
<b>1002205</b>	PVC Coated	12V DC	85A @ 12V DC	10-32 thread and 5/16-24 thread
<b>1002204</b>	Remote Switching	12V DC	85A @ 12V DC	10-32 thread and 5/16-24 thread
<b>1002202</b>	Solid State	9-31V DC	85A @ 12V DC	5/16-18 thread & wire leads, 16 AWG, 8"
<b>1002206</b>	Engine Starting	12V DC	100A @ 12V DC	5/16"-24 thread
<b>1002207</b>	Remote Switching	12V DC	120A @ 12V DC	10-32 thread and 5/16-24 thread



1002203, 1002204, 1002207



10012202



10012201



10012206



10012205



## L Series Solenoid Switch

250 Amp switch is remotely activated using a low amp switch and smaller gauge wire

- Hermetically sealed contacts
- Activated by a remote ON-OFF switch
- Coil control circuit minimizes heating and amperage draw

### Specifications

Operating Temp. Range	-55°C to +85°C
Coil Circuit Connection	20 AWG Tinned Wire
Voltage Nominal	12/24V DC
Coil Function	Normally Open
Operating Current	3.6A When Changing State 0.13A @ 12V, 0.07A @ 24V Continuous
Voltage Input	9V-36V DC
Mounting Screws	#10 or M5
Mounting Screw Torque	15-35 in-lb (1.7-4 Nm)
Weight	0.9 lb (0.41 kg)
<b>Contact Rating:</b>	
Continuous Rating	300A*
Cranking Rating (30 sec.)	1,000A*
Voltage Maximum	800V DC

\*2/0 Cable in 50° C ambient

### Regulatory

CE marked for EC applications  
 Ignition protected - ISO 8846 and SAE J1171  
 UL Certified - UL 508 Industrial Control Equipment  
 IP67-protected against immersion up to 1 meter for 30 minutes



### Wire Size and Current Ratings

Wire Size	Cranking 30 sec.	Intermittent 5 min.	Continuous (UL 1107)
1/0 AWG	900A	275A	250A
2/0 AWG (70 mm²)	1000A	400A	300A
2x 2/0 AWG (2x 70 mm²)	1,450A	600A	450A

Part #	Description
9012	L Series Solenoid Switch

For the full list of specifications see page 78



## TECH tip

### Solenoid vs Remote Battery Switch

**Solenoid:** An electronic switch with no manual control, for circuits where a manual battery disconnect is offered elsewhere in the circuit.

**Remote Battery Switch:** A solenoid or relay with a manual control switch allowing for switching if control circuit is compromised and for service lockout.

## ML Series Solenoid Switches

500 Amp magnetic latching (bi-stable) solenoid provides switching under load where manual control is not required

- Silver alloy contacts provide high reliability for switching live loads
- LED output to remotely indicate switch state - requires optional LED or Remote Control Contura Switch with integrated LED (included in retail package)
- 3/8"-16 tin-plated copper studs for maximum conductivity and corrosion resistance
- One-piece stainless flange nuts ensure safe and secure connections
- Label recesses for circuit identification
- Retail package includes 2145 Remote Control Contura Switch

### Regulatory

CE marked, meets ISO 8846 and SAE J1171 external ignition protection requirements  
 IP66 - protected against powerful water jets (see inside back cover)



### Wire Size and Current Ratings

Wire Size	Cranking 30 sec.	Intermittent 5 min.	Continuous (UL 1107)
2/0 AWG (70 mm²)	1,000A	400A	225A
4/0 AWG (120 mm²)	1,100A	400A	300A
2x 4/0 AWG (2x 120 mm²)	1,450A	700A	500A



7701



Remote Control Contura Switch included in retail package



Duetch DTM Cable End now offered for both retail and bulk units. Other connector plugs are available for high volume OEM applications.

### Related Product



Paralleling Link Bus page 82

Part #	Contact Voltage	Control Voltage	Signal Voltage	Cable End
7701	0-64V <b>UPDATED</b>	9-16V	12V Momentary	Stripped Wire
7701100	0-64V <b>UPDATED</b>	9-16V	12V Momentary	Deutsch DTM
7703	0-64V <b>UPDATED</b>	18-32V	24V Momentary	Stripped Wire
7703100	0-64V <b>UPDATED</b>	18-32V	24V Momentary	Deutsch DTM

For the full list of specifications see page 88  
 For the dimension drawing see page 82

## ML Series Remote Battery Switches

500 Amp magnetic latching switch provides high amperage switching under load, manually or from remote locations

- Silver alloy contacts provide high reliability for switching live loads
- LED output to remotely indicate switch state - requires optional LED
- 3/8"-16 tin-plated copper studs for maximum conductivity and corrosion resistance
- One-piece stainless flange nuts ensure safe and secure connections
- Label recesses for circuit identification
- Retail package includes a Remote Control Contura Switch

Specifications	12V DC	24V DC
Terminal Stud Size	3/8"-16 (M10)	3/8"-16 (M10)
Maximum Terminal Stud Torque	140 in-lb (15.8 N•m)	140 in-lb (15.8 N•m)
Cable Size to Meet Rating	4/0 AWG (120mm <sup>2</sup> )	4/0 AWG (120mm <sup>2</sup> )
Terminal Ring Diameter Clearance	1.12" (28.4 mm)	1.12" (28.4 mm)

### Regulatory

CE marked, meets ISO 8846 and SAE J1171 external ignition protection requirements  
IP66 - protected against powerful water jets (see inside back cover)

### IGNITION PROTECTED

### Wire Size and Current Ratings

Wire Size	Cranking 30 sec.	Intermittent 5 min.	Continuous (UL 1107)
2/0 AWG (70 mm <sup>2</sup> )	1,000A	400A	225A
4/0 AWG (120 mm <sup>2</sup> )	1,100A	400A	300A
2x 4/0 AWG (2x 120 mm <sup>2</sup> )	1,450A	700A	500A

Part #	Contact Voltage	Control Voltage	Signal Voltage	Cable End
7700	0-64V <b>UPDATED</b>	9-16V	12V Momentary	Stripped Wire
7700100	0-64V <b>UPDATED</b>	9-16V	12V Momentary	Deutsch DTM
7702	0-64V <b>UPDATED</b>	18-32V	24V Momentary	Stripped Wire
7702100	0-64V <b>UPDATED</b>	18-32V	24V Momentary	Deutsch DTM
7713	9-16V	9-16V	12V Continuous	Stripped Wire
7713100	9-16V	9-16V	12V Continuous	Deutsch DTM
7717	18-32V	18-32V	24V Continuous	Stripped Wire
7717100	18-32V	18-32V	24V Continuous	Deutsch DTM
9160	Paralleling link bus			

For the full list of specifications see page 88



Remote Control Contura Switch included in retail package



Deutsch DTM Cable End now offered for both retail and bulk units. Other connector plugs are available for high volume OEM applications.

### Related Products



Paralleling Link Bus 9160 see table



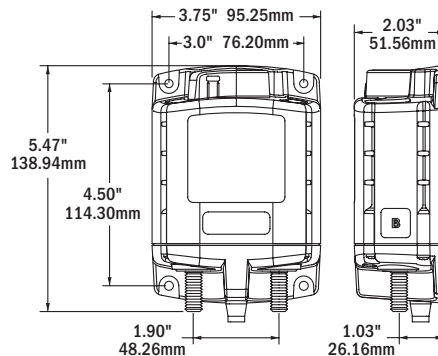
ML Series ACR page 87



7700



7713



# M LVD Low Voltage Disconnect

Senses low battery voltage and disconnects non-critical loads to save power for engine starting



- Status light in both M-LVD and Remote Control Switch provides visual warning of low voltage state prior to disconnect
- Alarm output for audible warning of low voltage state prior to disconnect (optional alarm required)
- One-piece stainless flange nuts ensure safe and secure connections
- Remote Control Switch functions:
  - Adjusts disconnect voltage
  - Temporarily delays circuit disconnect for 10 minutes
  - Temporarily disconnects circuits until voltage rises
  - Silences alarm (optional alarm required)
- Remote Control Switch included in retail package

### Specifications

Intermittent Rating: 5 min.	115A
Continuous Rating	65A
Nominal Voltage	12V DC
Cable Size (to meet current ratings)	6 AWG (16mm <sup>2</sup> )
Terminal Stud Size	1/4"-20 (M6)
Disconnect Voltage	11.3V-12.1V Adjustable
Reconnect Voltage	13V DC

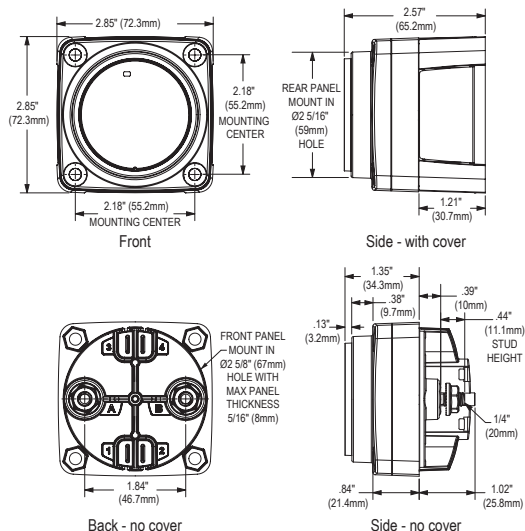
### Regulatory

Meets ISO 8846 and SAE J1171 external ignition protection requirements

**IGNITION PROTECTED**

Part #	Description
7635	M LVD Low Voltage Disconnect

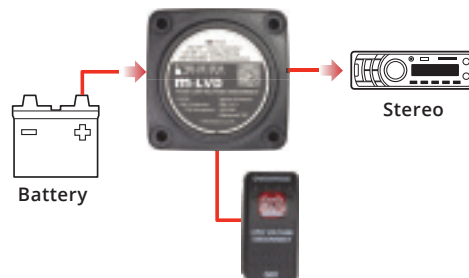
For the full list of specifications see page 88



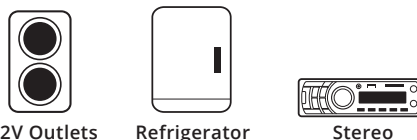
### Mounting Options



### M LVD System



### Common Applications



Also serves as a low voltage monitor

### Related Products



Floyd Bell Turbo Series Alarm page 135



## ATD Automatic Timer Disconnect

Select from 4 methods to manage your batteries: Timer Disconnect, Low Voltage Disconnect, Automatic Charging Relay, or Solenoid

### Timer Disconnect

- 12V signal triggers relay to connect battery power to devices
- When signal is removed the timer is activated and will disconnect devices after a preset time
- Timer ranges from 15 minutes to 4 hours
- Optional charge sense can be used instead of 12V signal to reduce wiring
- Test mode disconnects devices after 5 seconds to confirm relay and timer are operational

### Low Voltage Disconnect

- Senses low battery voltage and automatically disconnects devices to save power
- Adjustable voltage setting at 11.0V, 11.5V, or 12.0V
- Low voltage setting can be used in conjunction with timer disconnect. Low voltage will disconnect devices prior to preset time to preserve battery power.

### Automatic Charging Relay

- Automatically combines two battery banks for charging off a single charging source (i.e. alternator)
- Isolates batteries when charging source is not present or discharging
- Single side sensing design only monitors the voltage of the start battery
- Ideal for auxiliary batteries that are AGM or larger than the start battery

### Solenoid

- 12V signal will connect or disconnect relay without any time delay.

### Specifications

Nominal Voltage	12V DC
Input Voltage Range	9.5-16V
Continuous Rating	120A
Intermittent Rating: 5 min.	210A
(Combine) Amperage Operating Current	175mA
(Open) Amperage Operating Current	4mA
Cable Size to Meet Current Ratings	1 AWG (50mm <sup>2</sup> )
Maximum Cable Size	1/0 AWG (50mm <sup>2</sup> )
Terminal Stud Size	3/8"-16 (M10)
Terminal Stud Torque	140 in-lb (15.82Nm)
Time Range	15 Minutes - 4 Hours

### Regulatory

CE marked, Meets ISO 8846 and SAE J1171 external ignition protection requirements

IP67-protected against immersion up to 1 meter for 30 minutes (see inside back cover)

**IGNITION  
PROTECTED**

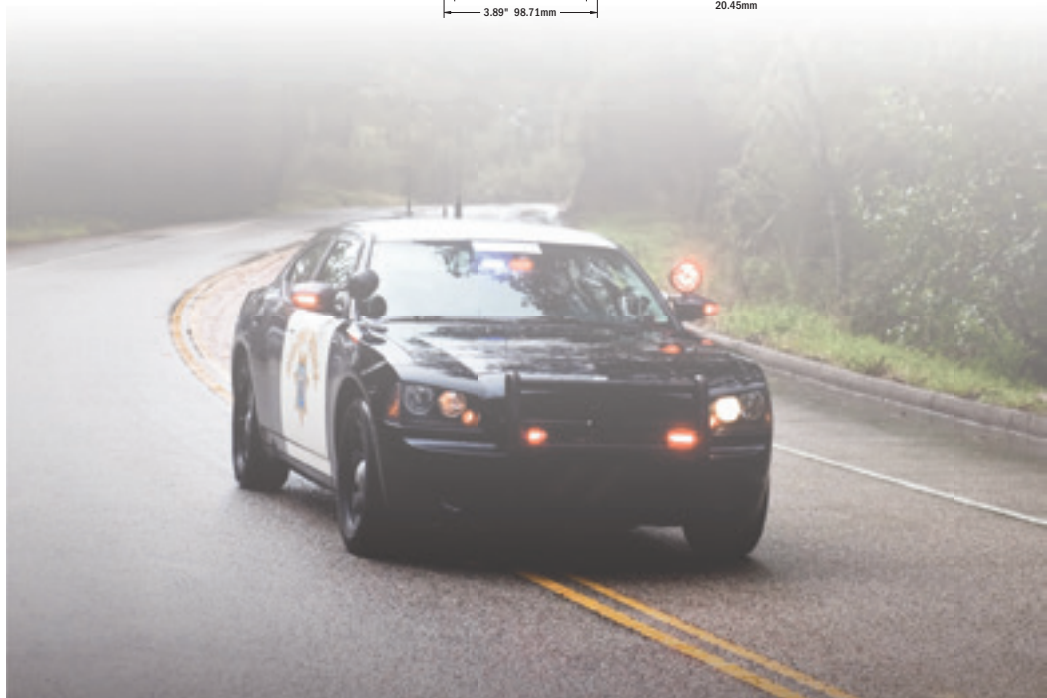
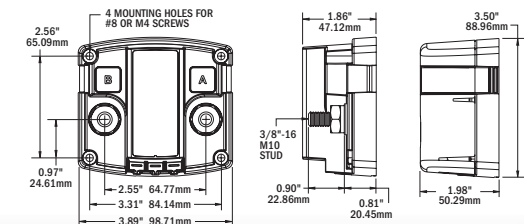
Part #	Description
7615	Automatic Timer Disconnect

For the full list of specifications see page 88

### Related Products



MRBF Terminal  
Fuse Blocks  
page 105



## SI ACR Automatic Charging Relay

Automatically combines batteries during charging, isolates batteries when discharging and when starting engines

- 120A continuous rating to support high output alternators
- 12V/24V DC auto ranging voltage input
- Senses charging on two battery banks
- Side and bottom knockouts for cable connections
- Clip-on cover insulates terminal connections
- Studs accept multiple cable terminals
- One-piece stainless flange nuts ensure safe and secure connections
- Integrated LED indicates ACR status
- Quick connect terminals for ground and optional features

### Optional Features

- **Start Isolation** allows temporary isolation of House loads from Engine circuit during engine cranking to protect sensitive electronics from sags and spikes
- Remote LED remotely indicates ACR states - requires optional LED

### Specifications

Intermittent Rating: 5 min.	210A	
Continuous Rating	120A	
(Combine) Amperage Operating Current	175mA	
(Open) Amperage Operating Current	15mA	
Nominal Voltage	12V / 24V DC	
Cable Size to Meet Current Ratings	1 AWG (50mm <sup>2</sup> )	
Maximum Cable Size	1/0 AWG (50mm <sup>2</sup> )	
Terminal Stud Size	3/8"-16 (M10)	
<b>Relay Contact Position</b>	<b>12V DC</b>	<b>24V DC</b>
Combine (30 sec.)	13.6V DC	27.2V DC
(2 min.)	13.0V DC	26.0V DC
Open (10 sec.)	12.35V DC	24.7V DC
(30 sec.)	12.75V DC	25.5V DC
Over Voltage Lockout	16.0V DC	30.0V DC
Under Voltage Lockout	9.5V DC	19.0V DC
Under Voltage Recovery	10.0V DC	20.0V DC

### Regulatory

CE marked, ISO 8846, meets UL 1500 and SAE J1171

external ignition protection requirements

IP67 - protected against immersion up to 1 meter for 30 minutes (see inside back cover)

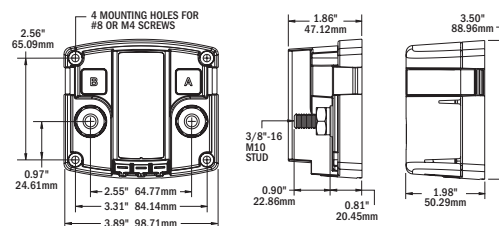


Part #	Description
7610	SI ACR Automatic Charging Relay

For the full list of specifications see page 88



cover off



### Related Products



E Series Battery Switch page 76



MRBF Terminal Fuse Blocks page 105



## BatteryLink® Automatic Charging Relay

Automatically shares single source of charge with auxiliary battery

- 120A continuous rating to support high output alternators
- 12V/24V DC auto ranging voltage input
- Senses charging on two battery banks
- Side and bottom knockouts for cable connections
- Clip-on cover insulates terminal connections
- Studs accept multiple cable terminals
- One-piece stainless flange nuts ensure safe and secure connections
- Integrated LED indicates ACR status
- Quick connect terminals for ground and optional features

### Optional Features

- **Optional Auxiliary Battery Priority** connection shares the alternator charge with the Auxiliary battery longer when the engine is running to allow the use of auxiliary loads for an extended period of time
- Remote LED remotely indicates ACR states - requires optional LED

### Specifications

Intermittent Rating: 5 min.	210A
Continuous Rating	120A
(Combine) Amperage Operating Current	175mA
(Open) Amperage Operating Current	15mA
Nominal Voltage	12V / 24V DC
Cable Size to Meet Ratings	1 AWG (50mm <sup>2</sup> )
Maximum Cable Size	1/0 AWG (50mm <sup>2</sup> )
Terminal Stud Size	3/8"-16 (M10)
Maximum Battery Size	850 CCA
<b>Relay Contact Position</b>	<b>12V DC</b> <b>24V DC</b>
Combine (30 sec.)	13.6V DC      27.2V DC
(2 min.)	13.0V DC      26.0V DC
Open Low (30 sec.)	12.75V DC      25.5V DC
Over Voltage Lockout	16.0V DC      --

### Auxiliary Priority - Optional Feature

Open Low (30 sec.)	12.25V DC	24.5V DC
--------------------	-----------	----------

### Regulatory

CE marked, ISO 8846, UL 1500, meets SAE J1171 external ignition protection requirements  
IP67 - protected against immersion up to 1 meter for 30 minutes (see inside back cover)

**IGNITION  
PROTECTED**



cover off

Part #	Description
7611	BatteryLink ACR

For the full list of specifications see page 88

For the dimension drawing see page 85

### Related Products



E Series  
Battery Switch  
page 76



MRBF Terminal  
Fuse Blocks  
page 105



## ML Series Automatic Charging Relays

500 Amp magnetic latching (bi-stable) relay automatically combines batteries during charging and isolates batteries when discharging and when starting engine

- Magnetic Latching (ML) relay draws very low current in the ON state
- Start Isolation (SI) can be configured for temporary isolation of House loads from Engine circuit during engine cranking to protect sensitive electronics
- Engine Isolation (EI) can be configured for isolation of two engines while both are running to protect engine electronics and maximize alternator output
- Manual override knob provides an added level of safety allowing control with or without power and offering LOCKED OFF capability for servicing
- Senses charging on two battery banks
- LED output to remotely indicate switch state - requires optional LED or Remote Control Contura Switch 2146 with integrated LED (included in retail package)
- 3/8"-16 tin-plated copper studs for maximum conductivity and corrosion resistance
- One-piece stainless flange nuts ensure safe and secure connections
- Silver alloy contacts provide high reliability for live switching

### Specifications

Live Current Switching	300A @ 12V DC-10,000 Cycles	
Relay Contact Position	12V DC	24V DC
Combine (30 sec.)	13.5V DC	27.0V DC
(2 min.)	13.0V DC	26.0V DC
Open (10 sec.)	12.35V DC	24.7V DC
(30 sec.)	12.75V DC	25.5V DC
Over Voltage Lockout	16.2V DC	32.4V DC
Under Voltage Lockout	9.6V DC	19.2V DC
Under Voltage Recovery	10.0V DC	20.0V DC

### Regulatory

CE marked, meets ISO 8846 and SAE J1171 external ignition protection requirements  
IP66 - protected against powerful water jets (see inside back cover)

**IGNITION PROTECTED**

### Wire Size and Current Ratings

Wire Size	Cranking 30 sec.	Intermittent 5 min.	Continuous (UL 1107)
2/0 AWG (70 mm <sup>2</sup> )	1,000A	400A	225A
4/0 AWG (120 mm <sup>2</sup> )	1,100A	400A	300A
2x 4/0 AWG (2x 120 mm <sup>2</sup> )	1,450A	700A	500A

PN	Coil Volts	Cable End	Manual Control
7620	12V DC	Stripped Wire	No
7620100	12V DC	Deutsch DTM	No
7622	12V DC	Stripped Wire	Yes
7622100	12V DC	Deutsch DTM	Yes
7621	24V DC	Stripped Wire	No
7621100	24V DC	Deutsch DTM	No
7623	24V DC	Stripped Wire	Yes
7623100	24V DC	Deutsch DTM	Yes

For the full list of specifications see page 89  
For the dimension drawing see page 82

### Related Products



ML Series Remote Battery Switches page 82



MRBF Terminal Fuse Blocks page 105



Paralleling Link Bus page 82



7622



7620










Remote Control Contura Switch included in retail package



Deutsch DTM Cable End now offered for both retail and bulk units. Other connector plugs are available for high volume OEM applications.

## Solenoid and Remote Battery Switch Specification Table

Product Type	Solenoid Switches			Remote Battery Switches (RBS)			
Function	Provides high-amp switching			Provides high-amp switching with manual override			
Product	L-Series Solenoid	ML-Series Solenoid		ML-Series RBS			
Part #	 <b>9012</b>	 <b>7701</b>	 <b>7703</b>	 <b>7700</b>	 <b>7702</b>	 <b>7713</b>	 <b>7717</b>
Manual Control	--	--	--	Yes	Yes	Yes	Yes
Nominal Voltage	12V/24V DC	12V DC	24V DC	12V DC	24V DC	12V DC	24V DC
Operating Voltage (contacts)	9-36V	0-64V <b>UPDATED</b>	0-64V <b>UPDATED</b>	0-64V <b>UPDATED</b>	0-64V <b>UPDATED</b>	9-16V	18-32V
Control Voltage	0-800V	9-16V	18-32V	9-16V	18-32V	9-16V	18-32V
Cranking Rating (30 sec.)	1,000A DC	1,450A DC		1,450A DC			
Intermittent Rating (5 min.)	400A DC	700A DC		700A DC			
Continuous Rating	300A DC	500A DC		500A DC			
Amperage Operating Current - continuous @ 25°C nominal VDC	0.13A @ 12V DC 0.07A @ 24V DC	0mA		0mA		< 13mA	
Amperage Operating Current - when changing state	3.6A DC	< 7.0A DC	< 4.0A DC	< 7.0A DC	< 4.0A DC	< 7.0A DC	< 4.0A DC
Switching Cycles	300,000	100,000		100,000			
Live Switching Cycles	10,000 @ 12V, 300A 10,000 @ 24V, 300A	10,000 @ 12V, 300A 10,000 @ 24V, 150A 2000 @ 48V, 100A		10,000 @ 12V, 300A 10,000 @ 24V, 150A 2000 @ 48V, 100A		10,000 @ 12V, 300A	10,000 @ 24V, 150A
Control Signal	Continuous	Momentary		Momentary		Continuous	
Coil Function	Normally Open	Magnetic Latching Bi-Stable		Magnetic Latching Bi-Stable		Magnetic Latching Auto-Releasing	
Remote Control Switch Included	--	2145 SPDT (ON)-OFF-(ON)		2145 SPDT (ON)-OFF-(ON)		2155 SPDT ON-ON	
Control Circuit Connection	Tinned Wire	Tinned Wire or Deutsch Connector		Tinned Wire or Deutsch Connector		Tinned Wire or Deutsch Connector	
Mounting	#10 or M5	#10 or M5		#10 or M5		#10 or M5	
Terminal Stud Size	5/16" (M8)	3/8"-16 (M10)		3/8"-16 (M10)		3/8"-16 (M10)	
Terminal Stud Length	5/8" (16 mm)	7/8" (22 mm)		7/8" (22 mm)		7/8" (22 mm)	
Maximum Terminal Stud Torque	90 in-lb (10.0 Nm)	140 in-lb (15.5 Nm)		140 in-lb (15.5 Nm)		140 in-lb (15.5 Nm)	
Cable Size to Meet Ratings	2/0 AWG (70mm <sup>2</sup> )	4/0 AWG (120 mm <sup>2</sup> ) × 2		4/0 AWG (120 mm <sup>2</sup> ) × 2		4/0 AWG (120 mm <sup>2</sup> ) × 2	
Terminal Ring Diameter Clearance	not rated	1.12" (28.4 mm)		1.12" (28.4 mm)		1.12" (28.4 mm)	
Width	3.17" (80.50 mm)	3.75" (95.2 mm)		3.75" (95.2 mm)		3.75" (95.2 mm)	
Height	2.63" (66.80 mm)	5.47" (138.9 mm)		5.47" (138.9 mm)		5.47" (138.9 mm)	
Depth	2.86" (72.64 mm)	2.03" (51.6 mm)		2.03" (51.6 mm)		2.03" (51.6 mm)	
Ignition Protected	ISO 8846 SAE J1171	ISO 8846, SAE J1171		ISO 8846, SAE J1171			
Ingress Protected (see inside back cover)	IP67 - protected against immersion up to 1 meter for 30 minutes	IP66 - protected against powerful water jets		IP66 - protected against powerful water jets			



## Non-Critical Load Disconnect and Automatic Charging Relay Specification Table

Non-critical Load Disconnects		Automatic Charging Relays (ACR)					
Disconnects non-critical loads after a set voltage	Disconnects non-critical loads after a set time	Allows charging of multiple batteries from a single charge source					
m-LVD	ATD	SI-ACR	BatteryLink ACR	ML-Series ACR			
<b>7635</b>	<b>7615</b>	<b>7610</b>	<b>7611</b>	<b>7620</b>	<b>7622</b>	<b>7621</b>	<b>7623</b>
--	--	--	--	--	Yes	--	Yes
12V DC	12V DC	12V/24V DC	12V/24V DC	12V DC	12V DC	24V DC	24V DC
--	--	--	--	--	--	--	--
				1,450A DC			
115A DC	210A DC	210A DC		700A DC			
65A DC	120A DC	120A DC		500A DC			
4mA open 95mA connected	15mA open 175mA connected	15mA open 175mA combined		< 13mA			
				< 7.0A DC		< 4.0A DC	
				100,000			
				Normally Open			
SPDT (ON)-OFF-(ON)					Magnetic Latching Bi-Stable		
					2146 SPDT ON-OFF-ON		
				Tinned Wire or Deutsch Connector			
#10 or M5	#8 or M4	#8 or M4		#10 or M5			
1/4"-20 (M6)	3/8"-16 (M10)	3/8"-16 (M10)		3/8"-16 (M10)			
7/16" (11 mm)	7/8" (22 mm)	7/8" (22 mm)		7/8" (22 mm)			
60 in-lb (6.8 Nm)	140 in-lb (15.8 Nm)	140 in-lb (15.8 Nm)		140 in-lb (15.8 Nm)			
6 AWG (16 mm <sup>2</sup> )	1/0 AWG (50 mm <sup>2</sup> )	1/0 AWG (50 mm <sup>2</sup> )		4/0 AWG (120 mm <sup>2</sup> ) × 2			
0.80" (20.3 mm)	1.05" (26.7 mm)	1.05" (26.7 mm)		1.12" (28.4 mm)			
2.85" (72.3 mm)	3.89" (98.7 mm)	3.89" (98.7 mm)		3.75" (95.3 mm)			
2.85" (72.3 mm)	3.50" (89.0 mm)	3.50" (89.0 mm)		5.47" (138.9 mm)			
2.57" (65.2 mm)	1.98" (50.3 mm)	1.98" (50.3 mm)		2.03" (51.6 mm)			
ISO 8846 SAE J1171	ISO 8846 SAE J1171	ISO 8846, UL1500 SAE J1171		ISO 8846, SAE J1171			
IP67 - protected against immersion up to 1 meter for 30 minutes	IP66 - protected against powerful water jets		IP66 - protected against powerful water jets				

## ML-Series Li-ion Automatic Charging Relay

500A magnetic latching relay automatically combines batteries during charging and isolates batteries when discharging and when starting engine.

- Engineered specifically for lithium iron phosphate batteries (LiFePO4 only)
- Magnetic Latching (ML) relay draws very low current in the ON or OFF state
- Start Isolation (SI) can be configured for temporary isolation of house loads from engine circuit during engine cranking to protect sensitive electronics
- Engine Isolation (EI) can be configured for isolation of two engines while both are running to protect engine electronics and maximize alternator output
- Manual override knob provides an added level of safety allowing control with or without power and offering LOCKED OFF capability for servicing
- Senses charging on two battery banks
- LED output to remotely indicate switch state - requires optional LED or Remote Control Contura Switch with integrated LED (included in retail package)
- 3/8"-16 Tin-Plated Copper studs for maximum conductivity and corrosion resistance
- One-piece stainless flange nuts ensure safe and secure connections
- Label recesses for circuit identification

Specifications	12V DC	24V DC
Terminal Stud Size	3/8"-16 (M10)	3/8"-16 (M10)
Maximum Terminal Stud Torque	140 in-lb (15.8 N·m)	140 in-lb (15.8 N·m)
Cable Size to Meet Rating	4/0 AWG (120mm <sup>2</sup> ) x 2	4/0 AWG (120mm <sup>2</sup> ) x 2
Terminal Ring Diameter Clearance	1.12" (28.4 mm)	1.12" (28.4 mm)

### Regulatory

ABYC C-7, CE marked, Meets ISO 8846 and SAE J1171 external ignition protection requirements  
IP66 - protected against powerful water jets (see inside back cover)

**IGNITION  
PROTECTED**

### Wire Size and Current Ratings

Wire Size	Cranking 30 sec.	Intermittent 5 min.	C-7 (UL 1107)
2/0 AWG (70 mm <sup>2</sup> )	1,000A	400A	225A
4/0 AWG (120 mm <sup>2</sup> )	1,000A	400A	300A
2x 4/0 AWG (2x 120 mm <sup>2</sup> )	1,000A	700A	500A

Part #	Coil Volts	Cable End	Manual Control
7620300	12V DC	Stripped Wire	No
7620301	12V DC	Deutsch DTM	No
7622300	12V DC	Stripped Wire	Yes
7622301	12V DC	Deutsch DTM	Yes
7621300	24V DC	Stripped Wire	No
7621301	24V DC	Deutsch DTM	No
7623300	24V DC	Stripped Wire	Yes
7623301	24V DC	Deutsch DTM	Yes
9160	Paralleling link bus		

For the full list of specifications see page 91



Remote Control Contura Switch included in retail package

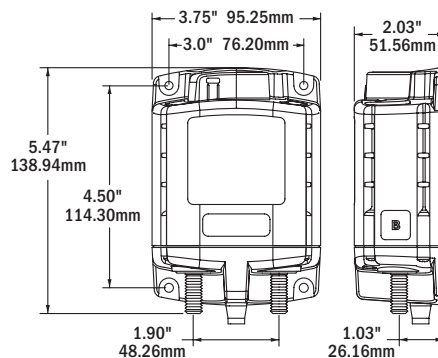


Deutsch DTM Cable End now offered for both retail and bulk units. Other connector plugs are available for high volume OEM applications.



**9160 Paralleling Link Bus**  
For paralleling ML-Remote Battery Switches and Automatic Charging Relays

- Tin-plated Copper for maximum conductivity and corrosion resistance
- Sold individually



# Lithium Iron Phosphate Automatic Charging Relay Specification Table



Part #	7620300 7620301	7622300 7622301	7621300 7621301	7623300 7623301
Manual Control	--	Yes	--	Yes
Nominal Voltage	12V DC		24V DC	
Cranking Rating (30 sec.)	See Wire Size and Current Ratings table.			
Intermittent Rating (5 min.)	See Wire Size and Current Ratings table.			
Continuous Rating	See Wire Size and Current Ratings table.			
Amperage Operating Current - continuous @ 25°C nominal VDC	< 13mA			
Amperage Operating Current - when changing state	< 7.0A DC		< 4.0A DC	
Switching Cycles	100,000			
Coil Function	Magnetic Latching Bi-Stable			
Remote Control Switch Included	2146 SPDT ON-OFF-ON			
Control Circuit Connection	Tinned Wire or Deutsch Connector			
Mounting	#10 or M5			
Terminal Stud Size	3/8"-16 (M10)			
Terminal Stud Length	7/8" (22 mm)			
Maximum Terminal Stud Torque	140 in-lb (15.8 Nm)			
Cable Size to Meet Ratings	4/0 AWG (120 mm <sup>2</sup> ) × 2			
Terminal Ring Diameter Clearance	1.12" (28.4 mm)			
Weight	2.04lb (0.93 kg)			
Regulatory	ABYC C-7, CE marked, Meets ISO 8846 and SAE J1171 external ignition protection requirements IP66 - protected against powerful water jets			

**Related Products**



ML Series ACR page 87



ML Series Remote Battery Switches page 82



MRBF Terminal Fuse Blocks page 105



Paralleling Link Bus page 82



Stud Mount Insulators page 147

# CIRCUIT PROTECTION

## Fuses

94



Available in amperage ranges of .25A in the smallest glass fuse to 750A in a fuse intended to provide DC Main protection on large battery banks.

## Fuses Holders

96



In-line fuse holders are compact and hold a single low-amperage fuse.

## Water-Resistant ST-Blade Fuse Block

97



Fuse blocks mount to a solid surface and may hold a single fuse or multiple fuses.

## ST-Blade Fuse Blocks

97



Fuse blocks mount to a solid surface and may hold a single fuse or multiple fuses.



# CIRCUIT PROTECTION

## Emergency Vehicle Label Kit

104



180 Reinforced, weatherproof labels. Designed for specific emergency vehicle applications.

## Circuit Breaker Blocks

110



Innovative block designed for Push-Button CLB Circuit Breakers with quick connect terminals. Easily snap circuit breakers into place. Common Source versions eliminate the need for a wiring harness.

## Circuit Breakers

111



Circuit breakers offer the ability to reset instead of replace the device after a fault. Available circuit breakers include styles with and without switching, and for DC and AC systems.

## ATO®/ATC® -Style Low Profile Circuit Breakers

115

**NEW**



Use a manually resettable circuit breaker instead of a fuse.



Best practices recommend every wire, except the engine starting circuit, have circuit protection.

## ATM® Fuses

### Mini blade-type fuse

- Color-coded for easy identification
- Visible indication of blown condition
- Tin-plated connector blades for corrosion resistance



### Specifications

Interrupting Capacity	1,000A
Voltage Max. Operating	32V DC
Blow Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

Part #	Amps	Retail Pack
5261	2A	2
5262	3A	2
5263	4A	2
5270	5A	2
5264	7.5A	2
5271	10A	2
5272	15A	2
5273	20A	2
5265	25A	2
5274	30A	2
5286	5A, 10A, 15A, 20A, 30A	5

## ATO® or ATC® Fuses

### Fast-acting blade fuse

- Color-coded for easy identification
- Visible indication of blown condition
- Tin-plated connector blades for corrosion resistance



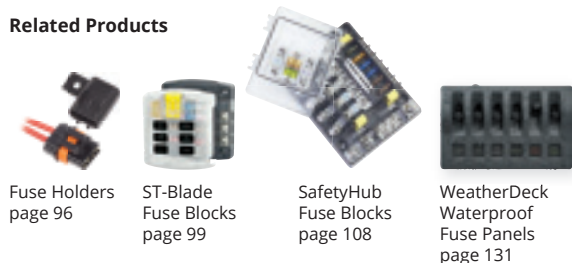
### Specifications

Interrupting Capacity	1,000A
Voltage Max. Operating	32V DC
Blow Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

Part #	Amps	Retail Pack	Part #	Amps	Retail Pack
5235	1A	2	5235100	1A	25
5236	2A	2	5236100	2A	25
5237	3A	2	5237100	3A	25
5238	4A	2	5239100	5A	25
5239	5A	2	5240100	7.5A	25
5240	7.5A	2	5241100	10A	25
5241	10A	2	5242100	15A	25
5242	15A	2	5243100	20A	25
5243	20A	2	5244100	25A	25
5244	25A	2	5245100	30A	25
5245	30A	2			
5246	40A	2			
5287	5A, 10A, 15A, 20A, 25A, 30A	6			

Protect your system with the correct size wire and fuse, see page 152

### Related Products



Fuse Holders page 96  
ST-Blade Fuse Blocks page 99  
SafetyHub Fuse Blocks page 108  
WeatherDeck Waterproof Fuse Panels page 131

## easyID™ ATC® Fuses

### Fast-acting easyID™ illuminated blade fuses use Light Emitting Diode (LED) technology to show when a fuse has blown

- Color-coded for easy identification
- Visible indication of blown condition
- Tin-plated connector blades for corrosion resistance



### Specifications

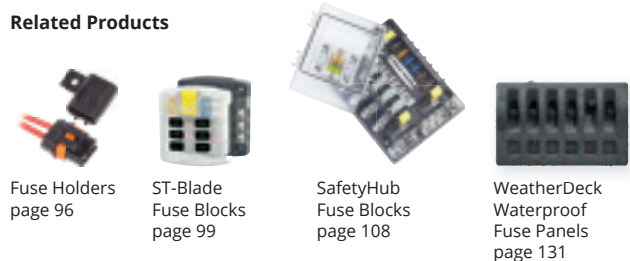
Interrupting Capacity	1,000A
Voltage Max. Operating	32V DC
Blow Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

Part #	Amps	Retail Pack
5291	3A	2
5292	5A	2
5293	7.5A	2
5294	10A	2
5295	15A	2
5296	20A	2
5297	25A	2
5298	30A	2
5299	40A	2
5290	3x 3A, 3x 5A, 3x 7.5A, 3x 10A, 6x 15A, 3x 20A, 3x 25A, 3x 30A, 3x 40A	30



5290

### Related Products



Fuse Holders page 96  
ST-Blade Fuse Blocks page 99  
SafetyHub Fuse Blocks page 108  
WeatherDeck Waterproof Fuse Panels page 131

## MAXI® Fuses

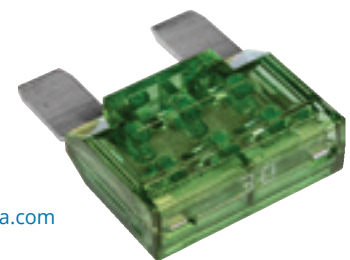
### Provides economical branch circuit protection

- Color-coded for easy identification
- Silver-plated connector blades for corrosion resistance
- Visible indication of blown condition

### Specifications

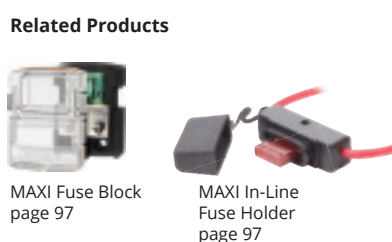
Interrupting Capacity	1,000A
Voltage Max. Operating	32V DC
Blow Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

Part #	Amps	Retail Pack
5138	30A	1
5139	40A	1
5140	50A	1
5141	60A	1
5142	70A	1
5143	80A	1



Protect your system with the correct size wire and fuse, see page 152

### Related Products



MAXI Fuse Block page 97  
MAXI In-Line Fuse Holder page 97

## AMI® or MIDI® Fuses

Compact fuse for main or branch 30A to 200A circuit protection

- Color-coded for easy identification
- Visible indication of blown condition
- Tin-plated connector blades for corrosion resistance



### Specifications

Interrupting Capacity	5,000A @ 16V DC 2,000A @ 32V DC
Voltage Max. Operating	32V DC



### Regulatory

Meets SAE J1171 external ignition protection requirements when used with Blue Sea Systems' Fuse Blocks  
IP66 – protected against powerful water jets (see inside back cover)

Part #	Amps	Color	Retail Pack
5250	30A	Orange	2
5251	40A	Green	2
5252	50A	Red	2
5253	60A	Yellow	2
5254	70A	Brown	2
5255	80A	White	2
5256	100A	Blue	2
5257	125A	Pink	2
5258	150A	Lt Blue	2
5259	175A	Tan	2
5260	200A	Purple	2

### Related Products



Safety Fuse Block 7720 page 107



SafetyHub Fuse Blocks page 108

## MEGA® or AMG® Fuses

Economical fuse for 100A to 300A circuit protection

### Specifications

Interrupting Capacity	2,000A @ 32V DC
Voltage Max. Operating	32V DC
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>



### Regulatory

Meets SAE J1171 external ignition protection requirements When used with Blue Sea Systems' Safety Fuse Block 7721 (page 107)  
IP66 – protected against powerful water jets (see inside back cover)

Part #	Amps	Retail Pack
5101	100A	1
5102	125A	1
5103	150A	1
5104	175A	1
5105	200A	1
5107	250A	1
5108	300A	1

Protect your system with the correct size wire and fuse, see page 152

### Related Products



MEGA or AMG Fuse Block page 97



Safety Fuse Block 7721 page 107

## MRBF Fuses

Space-saving ignition protected fuse for 30 to 300 Amp loads. Must use with MRBF Fuse Blocks

- MRBF-Marine Rated Battery Fuse
- Color-coded for easy identification
- Visible indication of blown condition



### Specifications

Interrupting Capacity	10,000A @ 14V DC 5,000A @ 32V DC 2,000A @ 58V DC
Voltage Max. Operating	58V DC
Fuse Hole Opening	M8 (5/16")
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>



### Regulatory

Meets SAE J1171 external ignition protection requirements  
IP66 – protected against powerful water jets (see inside back cover)

**ABYC E-11.10.1.1.1.** Overcurrent Protection Device Location - Ungrounded conductors shall be provided with overcurrent protection within a distance of seven inches (175mm) of the point at which the conductor is connected to the source of power measured along the conductor

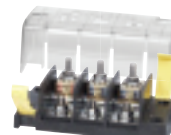
Part #	Amps	Color	Retail Pack
5175	30A	LT Green	1
5176	40A	LT Blue	1
5177	50A	Red	1
5178	60A	Gold	1
5180	75A	Brown	1
5181	80A	Lime	1
5182	90A	Purple	1
5183	100A	Yellow	1
5184	125A	Green	1
5185	150A	Orange	1
5186	175A	White	1
5187	200A	Blue	1
5189	250A	Pink	1
5190	300A	Gray	1

Protect your system with the correct size wire and fuse, see page 152

### Related Products



MRBF Terminal Fuse Blocks page 105



MRBF Surface Mount Fuse Blocks page 105

## TECH tip™

### Color Coding

The circuit protection color coded packaging matches fuses with the corresponding fuse holder or fuse block for easier component selection. Look for color rectangles on the packaging of each fuse holder and fuse block, and match the color with the fuse packaging to find the correct fuse type. Some fuse blocks require two different fuse types.

## Class T Fuses

High interrupt capacity for large battery banks including Lithium-Ion and TPPL batteries



- Extremely fast
- short-circuit response
- Recommended by most inverter manufacturers

### Specifications

Interrupting Capacity	20,000A @ 125V DC
Voltage Max. Operating	125V DC
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

### Regulatory

UL listed to standard 248-15

Part #	Amps	Retail Pack
5112	110A	1
5113	125A	1
5114	150A	1
5115	175A	1
5116	200A	1
5117	225A	1
5118	250A	1
5119	300A	1
5120	350A	1
5121	400A	1

Protect your system with the correct size wire and fuse, see page 152

### Related Products



Class-T Fuse Blocks  
page 106

## ANL Fuses

For 35A to 750A circuit protection

- Silver-plated connector blades for corrosion resistance
- Visible indication of blown condition

### Specifications

Interrupting Capacity	6,000A @ 32V DC
Voltage Maximum Operating	32V DC
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

### Regulatory

35-500A ONLY – Meets SAE J1171 external ignition protection requirements

**IGNITION  
PROTECTED**

Part #	Amps	Retail Pack	Part #	Amps	Retail Pack
5164	35A	1	5129	200A	1
5165	40A	1	5131	250A	1
5122	50A	1	5133	300A	1
5123	60A	1	5135	350A	1
5124	80A	1	5136	400A	1
5125	100A	1	5137	500A	1
5126	130A	1	Not Ignition Protected		
5127	150A	1	5161	600A	1
5128	175A	1	5163	750A	1

### Related Products



ANL Fuse Blocks  
page 106

## ATO® or ATC® In-Line Fuse Holder

In-Line fuse holder for ATO or ATC Fuses

- Supplied with 12 AWG pigtails
- 30A Max. fuse amperage
- Fuse sold separately (page 94)

Part #	Description
5064	ATO or ATC In-Line Fuse Holder



## ATO® or ATC® Waterproof In-Line Fuse Holder

Waterproof in-Line fuse holder for ATO or ATC Fuses

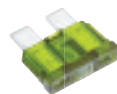
- Supplied with 12 AWG pigtails
- 30A Max. fuse amperage
- Fuse sold separately (page 94)

Part #	Description
5065	Waterproof In-Line Fuse Holder

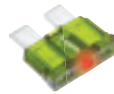


Protect your system with the correct size wire and fuse, see page 152

### Related Products



ATO or ATC Fuses  
page 94



easyID ATC Fuses  
page 94

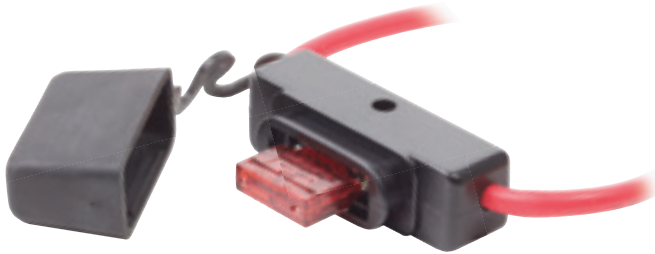
**CIRCUIT wizard™**

Use the Blue Sea Systems Circuit Wizard to select the correct wire size, circuit breaker, or fuse and fuse holder.  
[www.circuitwizard.blueseas.com](http://www.circuitwizard.blueseas.com)



## MAXI® In-Line Fuse Holder

In-line fuse holder for MAXI Fuses



- Supplied with 5 inch #6 lead wires and two adhesive lined sealing shrink wrap tubes for sealed terminations
- Firewall mounting hole permits two or more holders to be mounted together
- Protective cover with retaining strap
- Fuse sold separately (page 94)

### Specifications

Voltage Max. Operating	32V DC
Amperage Max. Continuous	48A
Fuse Max. Amperage	60A
Mounting Hole	1/4", M6, or #12 Screws

Part #	Description
5068	In-Line MAXI Fuse Holder

### Related Products



MAXI Fuses  
page 94

## MEGA® or AMG® Fuse Block

Provides an economical system for 100 to 300 Amp fusing

- Insulating cover with breakouts satisfies ABYC/USCG insulation requirements
- Stainless steel studs provide resistance to corrosion and allow high torque
- UL 94-V0 base resists high heat
- Fuses sold separately (page 95)

### Specifications

Voltage Max. Operating	32V DC
Amperage Max. Operating	300A
Wire Size to Meet Rating	4/0 AWG (120mm <sup>2</sup> )
Fuses available	100-300 Amps

Part #	Terminal Stud Size	Mounting
5001	5/16"-18 (M8)	#10 (M5) Screws



### Related Products



MEGA or AMG Fuses  
page 95

## MAXI® Fuse Block

Ignition protected fuse block allows for installation in a gasoline engine compartment



NOTE: 5006100 replaces 5006

- Snap-on terminal cover insulates all conductive parts, satisfying ABYC/USCG requirements
- Cover breakouts allow wires from sides or bottom
- Terminal screws compress fuse blades within blocks for low resistance connections
- Label recess accepts large format label from [blueseas.com](http://blueseas.com)
- Fuses sold separately (page 94)

### Specifications

Voltage Max. Operating	32V DC
Amperage Max. Operating	80A
Wire Size	14-4 AWG
MAXI Fuses available	30A-80A
Screw Terminal Torque	25 in-lb
Mounting	#10 Screws

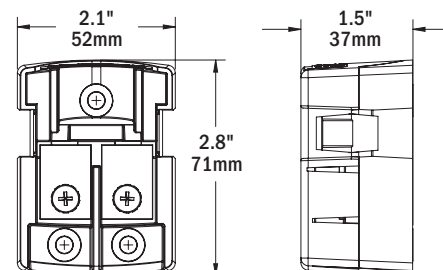
### Regulatory

Meets ISO 8846 and SAE J1171 external ignition protection requirements when cover is securely latched and all mounting screws are installed. CE certified.



Part #	Description
5006100	MAXI Fuse Block

For the full list of specifications, see page 109



### Related Products



MAXI Fuses  
page 94

## ST-Blade Water-Resistant Fuse Block **NEW**

Provides water-resistant circuit protection for ATO/ATC fuses & circuit breakers in a compact footprint. The single side nesting design allows for wire entry from one side to maximize space.

- Water-resistant design with standard ring or fork type terminals allows for simple wiring with standard tools
- Accepts a wide range of wire sizes
- Includes 3 wire plugs to maintain water resistant rating if less than 4 loads are required
- Accepts ATO and ATC fast-acting blade fuses (page 94)
- Accepts ATO/ATC-Style Low Profile Circuit Breakers (page 115)
- Nests with other ST-Blade Water-Resistant Fuse Blocks and Water-Resistant 100A Bus Bars to reduce wire
- Insulating cover meets ABYC/USCG insulation requirements
- Tin-plated copper busses and fuse clips
- Includes four write-on circuit labels
- Small format standard and custom labels available
- Spare fuse and fastener storage in cover
- Fuses (page 94) and circuit breakers (page 115) sold separately

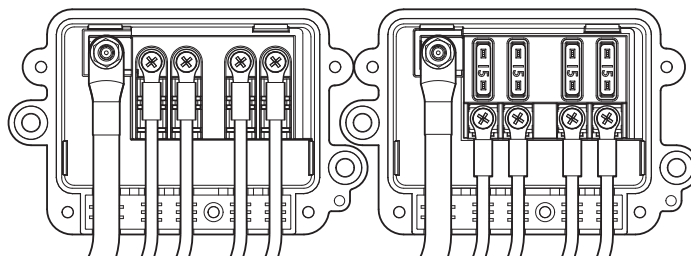
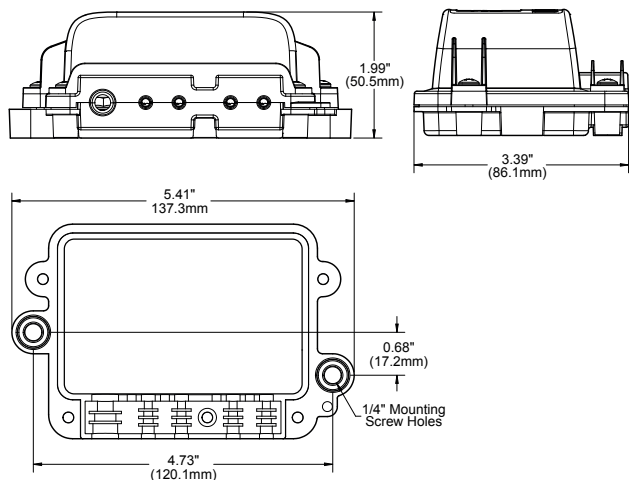
Voltage Max. Operating	32V DC
Amperage Max. Operating	80A per block / 25A per circuit
Fuse Type	ATO or ATC Fuses, or circuit breakers
Input Wire Size	(1) 8 AWG to 4 AWG
Load Wire Size	(4) 16 AWG to 10 AWG
Bus Material	Tin-Plated Copper C11000
Mounting Thru-hole	Clearance for 1/4" (6mm) screws
Screw Terminal	#8-32 Screws with captive star lock washer

### Regulatory

IP66 - protected against powerful water jets (see inside back cover).  
CE certified.

Part #	Description
5056	ST-Blade Water-Resistant Fuse Block

For the full list of specifications, see page 109



Nested Water-Resistant Fuse Block 5056 and Water-Resistant BusBar 2356 page 118

### TECH tip

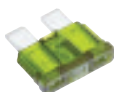
#### Water-Resistant ST-Blade Fuse Block

The Blue Sea Systems' new Water-Resistant ST-Blade Fuse Block is rated IP66 and can withstand water from heavy seas or projected in powerful jets, allowing for flexible installations anywhere on boats and vehicles. It is rated up to 80A continuous for the entire fuse block or up to 25A continuous per circuit. It can be used as a standalone fuse block, or nested with Blue Sea Systems' new Water-Resistant BusBar (page 96) which provides consolidated wire management when mounted side by side (reference nesting image). The taller cover on the fuse block accommodates installation of ATO/ATC fuses as well as Blue Sea Systems' new line of push-to-reset ATO/ATC-style circuit breakers, which gives the benefit of having resettable circuit protection in a compact footprint.

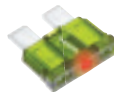
### Related Products



Water-Resistant BusBar  
page 118



ATO or ATC Fuses  
page 94



easyID ATC Fuses  
page 94



ATO/ATC  
Circuit Breakers  
page 115

# ST-Blade Battery Terminal Mount Fuse Block and Kit

Easily add 4 fused circuits to the terminal of a battery. Provides power to new accessories in your boat or vehicle.

- Fuse block mounts on the battery terminal stud
- Fuse block incorporates screw terminals for securing wires
- Fuse block accepts Blue Sea Systems small format circuit labels
- Fuse block Insulating cover meets ABYC/USCG insulation requirements
- Fuse block and kit include Nylon insulated ring terminals for each screw terminal
- Fuse block and kit Include four write-on circuit labels
- Fuse block and kit include four 16-14 AWG and four 12-10 AWG Nylon insulated ring terminals
- Kit includes a 4-circuit negative busbar that mounts on the negative battery terminal
- Fuses sold separately (page 94)

### Specifications Fuse Block

Voltage Max. Operating	32V DC
Amperage Max. Operating	100A per block / 30A per circuit
Fuse Type	ATO or ATC Fuses
Bus Material	Tin-Plated Copper C11000
Mounting Thru-hole	Clearance for 3/8" [M10] stud
Screw Terminal	#8-32 Screws with captive star lock washer

### Regulatory

Meets ISO 8846 and SAE J1171 external ignition protection requirements. CE certified

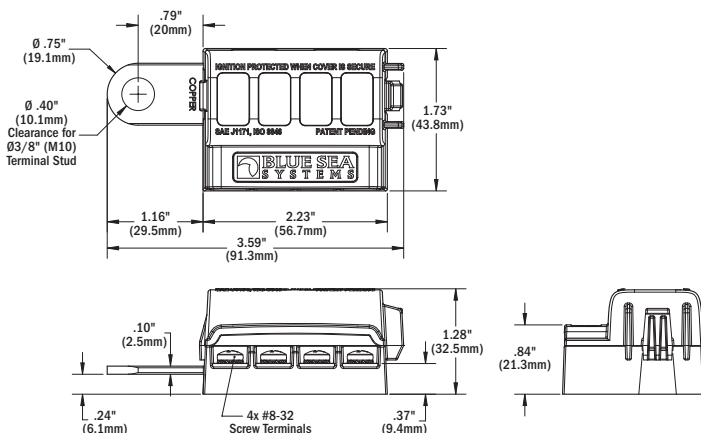


### Specifications BusBar (included with kit)

Continuous Rating	100A DC
Voltage Max. Operating	32V DC
Bus Material	Tin-Plated Copper C11000
Mounting Thru-hole	Clearance for 3/8" [M10] stud
Screw Terminal	#8-32 Screws with captive star lock washer

Part #	Description
5023	ST-Blade Battery Terminal Mount Fuse Block
5024	ST-Blade Battery Terminal Mount Fuse Block Kit

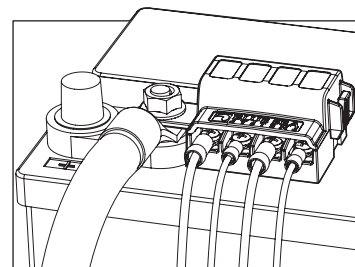
For the full list of specifications, see page 109



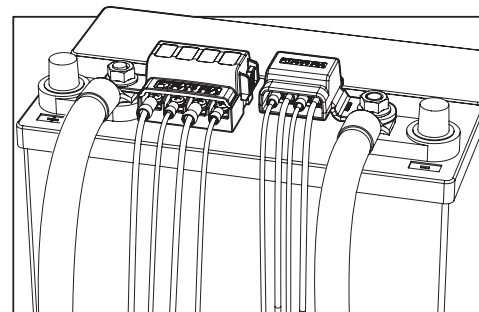
### Related Products



5023



5024



## ST-Blade Fuse Blocks

ATO/ATC fuse block consolidates branch circuits and eliminates in-line fuses

- Independent source fuse block
- Can be used for 24-hour circuits and switched circuit in same block
- Screw terminals for securing wires accept ring terminals
- Clear insulating cover with label recesses and storage for one fuse, satisfies ABYC/USCG insulation requirements
- Easy to open, push button latch for easy access to fuses
- Tin-plated copper buses and fuse clips
- Fuse Block with cover includes 20 write-on circuit labels and two Terminal Block Jumpers PN 9217
- Small format standard and custom labels available
- Fuses sold separately (page 94)

### Specifications

Voltage Max. Operating	32V DC
Amperage Max. Operating	30A per circuit
Amperage Max. Operating	40A per jumped circuit group
Fuse Type	ATO or ATC Fuses
Screw Terminal	#8-32 Screws with captive star lock washer
Mounting	#8 Screw (M4)



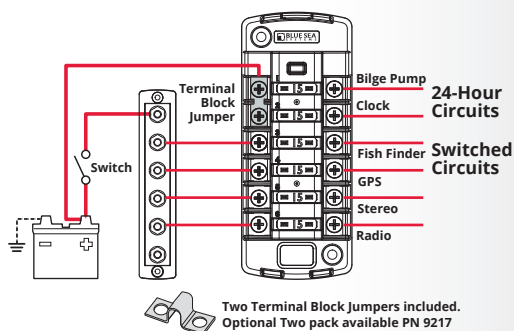
5035

Part #	Circuits	Cover
5035	6	Yes
5037	6	-

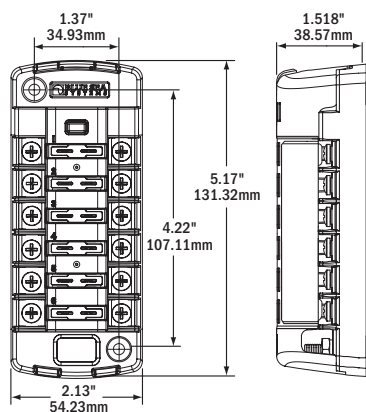
For the full list of specifications, see page 109

### Application Diagram

Two 24-Hour Circuits and Four Switched Circuits



5037



### Related Products



ATO or ATC Fuses  
page 94



easyID ATC Fuses  
page 94



Terminal Block Jumpers  
page 124

### TECH tip™

#### Fuse Sizing Best Practices - 80% Rule

It is a common misconception that a fuse should be rated for the same amperage as the circuit. Fuses include a metal component designed to heat up when current runs through them. The more current, the hotter the metal gets. When too much current runs through the fuse, the metal heats up enough to separate, breaking the circuit. This means that rating a fuse at the same amperage as the circuit will produce the maximum heat in the fuse without actually breaking the circuit. For this reason the National Electrical Code recommends limiting the amount of current in a circuit to 80% of the fuse rating in that circuit. In other words a 40A fuse would be appropriate for a circuit with a maximum of 32A continuous. This is why you will see many fuse blocks with maximum continuous amperage ratings around 80% of the largest available fuse.

# ST-Blade Split Bus Fuse Block

Two isolated 6-circuit fuse blocks with a negative bus. For use when a mix of switched and 24-hour circuits are desired in the same block

- Common and/or independent source fuse block
- Provides two isolated groups of six ATO/ATC fuses
- For use with either two isolated batteries or with a single battery providing a mix of 24-hour and switched circuits
- Clear insulating cover satisfies ABYC/USCG insulation requirements and provides storage for two spare fuses
- Accepts ring terminals
- Easy to open, push button latch provides easy access to fuses
- Tin-plated copper buses and fuse clips
- Includes 20 write-on circuit labels
- Fuses sold separately (page 94)

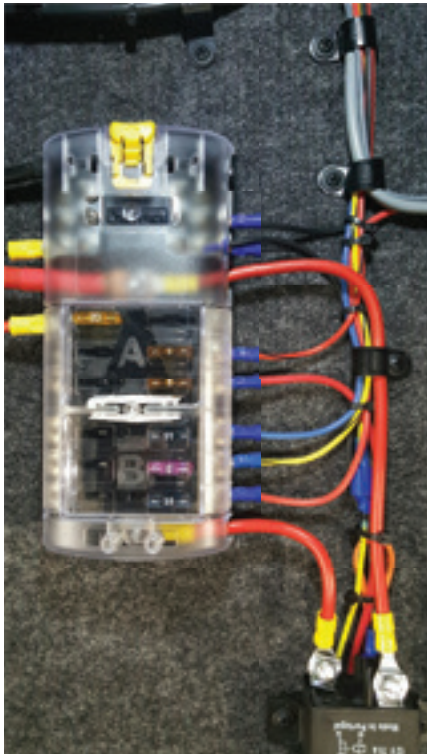
### Specifications

Voltage Max. Operating	32V DC
Amperage Max. Operating	30A per circuit
	100A total (not to exceed 80A per load group)
Fuse Type	ATO or ATC Fuses
Screw Terminal	#8-32 Screws with captive star lock washer
Mounting	#8 Screw (M4)
Recommended Wire Size	Positive Feed: 4-6 AWG (25-16 mm <sup>2</sup> )
	Branch Circuits: 10-16 AWG (6-15 mm <sup>2</sup> )
Recommended Torque	#10 Stud: 24 in-lb (2.71 N-m)
	#8 Screw: 18 in-lb (2.03 N-m)



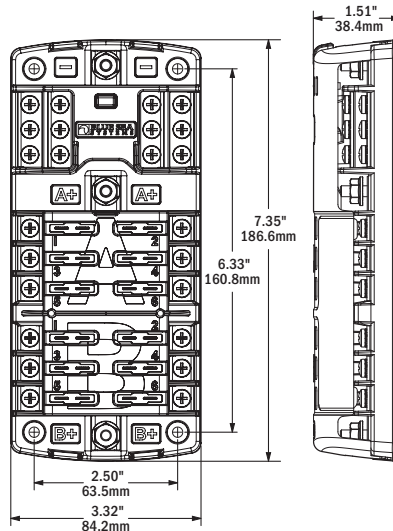
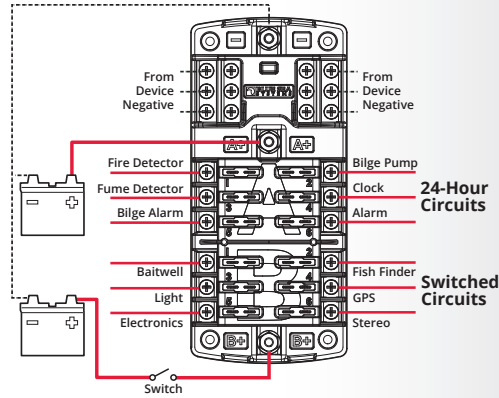
Part #	Circuits	Cover	Negative Bus	Positive Bus
5032	12	Yes	#10-32 stud	#10-32 stud

For the full list of specifications, see page 109

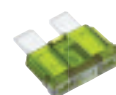


### Application Diagram

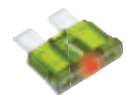
Six 24-Hour Circuits and Six Switched Circuits



### Related Products



ATO or ATC Fuses page 94



easyID ATC Fuses page 94

## ST-Blade Compact Fuse Blocks

Provides surface mount circuit protection for ATO/ATC Fuses in a compact footprint. The single side design allows wire entry from one side to maximize space.

- Compact common source fuse block
- Accepts ATO and ATC fast acting blade fuses
- Single side entry wiring
- Ignition Protected - for use in a gasoline engine compartment
- Insulating cover meets ABYC/USCG insulation requirements
- Tin-plated copper buses and fuse clips
- Accepts ring or snap fork type terminals
- Small format standard and custom labels available
- Fuses sold separately (page 94)

### Specifications

Voltage Max. Operating	32V DC
Amperage Max. Operating	30A per circuit
Amperage Max. Operating	100A per block
Fuse Type	ATO or ATC Fuses
Screw Terminal	#8-32 Screws with captive star lock washer
Mounting	#8 Screw (M4)

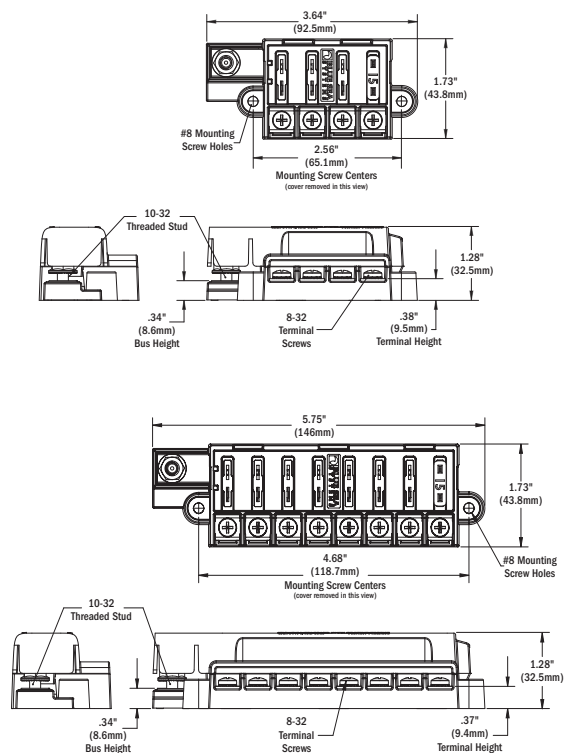
### Regulatory

Meets ISO 8846 and SAE J1171 external ignition protection requirements. CE certified.

**IGNITION  
PROTECTED**

Part #	Circuits	Cover
5045	4	Yes
5046	8	Yes

For the full list of specifications, see page 109



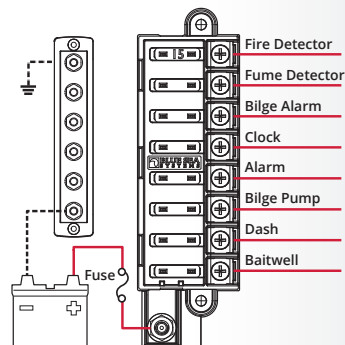
5045



5046

### Application Diagram

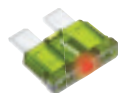
Eight 24-Hour Circuits



### Related Products



ATO or ATC Fuses  
page 94



easyID ATC Fuses  
page 94

# ST-Blade Fuse Blocks

Fuse block consolidates branch circuits and in-line fuses

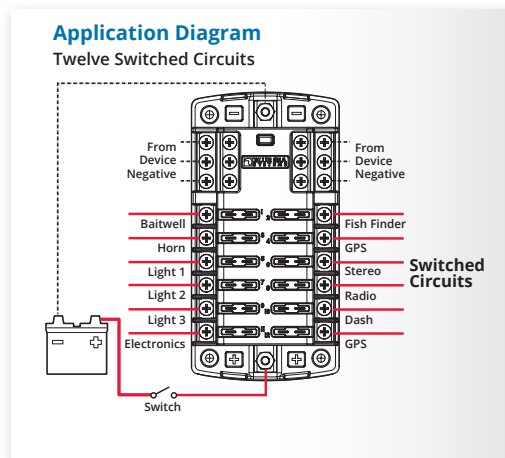
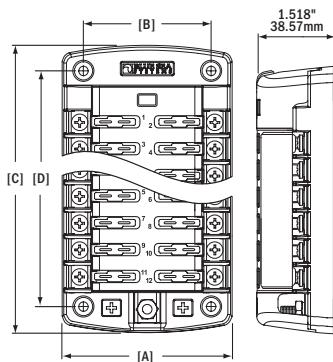
- Common source fuse block
- Accepts ATO and ATC fast acting blade fuses
- Screw terminals for securing wires accept ring terminals
- One-piece stainless flange nuts ensure safe and secure connections
- Clear insulating cover with label recesses and storage for two fuses, satisfies ABYC/USCG insulation requirements
- Easy to open, push button latch for easy access to fuses
- Tin-plated copper buses and fuse clips
- Fuse blocks with covers include 20 write-on circuit labels small format standard and custom labels available
- Fuses sold separately (page 94)

## Specifications

Voltage Max. Operating	32V DC
Amperage Max. Operating	30A per circuit
Amperage Max. Operating	100A per block
Positive Bus	#10-32 stud
Fuse Type	ATO or ATC Fuses
Screw Terminal	#8-32 Screws with captive star lock washer
Mounting	#8 Screw (M4)

Part #	Circuits	Cover	Negative Bus	[A] Width in (mm)	[B] Mounting Centers in (mm)	[C] Height in (mm)	[D] Mounting Centers in (mm)
5025	6	Yes	#10-32 stud	3.32 (84.20)	2.50 (63.50)	4.89 (124.31)	3.88 (95.58)
5028	6	Yes	--	3.32 (84.20)	2.50 (63.50)	3.65 (92.76)	2.64 (67.03)
5030	6	--	#10-32 stud	3.32 (84.20)	2.50 (63.50)	4.89 (124.31)	3.88 (95.58)
5033	6	--	--	3.32 (84.20)	2.50 (63.50)	3.65 (92.76)	2.64 (67.03)
5026	12	Yes	#10-32 stud	3.32 (84.20)	2.50 (63.50)	6.47 (164.39)	5.46 (138.66)
5029	12	Yes	--	3.32 (84.20)	2.50 (63.50)	5.23 (132.84)	4.22 (107.11)
5031	12	--	#10-32 stud	3.32 (84.20)	2.50 (63.50)	6.47 (164.39)	5.46 (138.66)
5034	12	--	--	3.32 (84.20)	2.50 (63.50)	5.23 (132.84)	4.22 (107.11)

For the full list of specifications, see page 109



5028 with cover  
5033 without cover



5025 with cover  
5030 without cover



5029 with cover  
5034 without cover

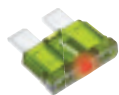


5026 with cover  
5031 without cover

## Related Products



ATO or ATC Fuses  
page 94



easyID ATC Fuses  
page 94



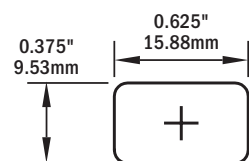
WeatherDeck  
Switch Only  
page 131

## Emergency Vehicle Label Set

For emergency vehicles

- 180 Reinforced, weatherproof labels
- Used on ST Blade Fuse Blocks

Part #	Color	Quantity
7870	Black	180 Labels



### Related Products



ST Blade  
Fuse Blocks  
page 99



ON/OFF	CORNER	HAND-HELD	LIGHT 2	RAPID FLASH	STEP
12V SOCKET	CORNER STROBE	HAZARD	LOAD SHED	REAR	STROBE
12V SOCKET 1	CRUISE	HEADLT FLASH	LOCK	REAR CUT	SUCTION ON/OFF
12V SOCKET 2	DECK	HEAT	LOW POWER	REAR FLASH	SURE EJECT
A/H	DIM	HEAT/AC ON/OFF	LOWER	REAR FLOOD	TAIL
AIR COMP	DIRECTNL ARROW	HEAT/AC SELECT	LVD	REAR ILS	TAKE DOWN
AIR HORN	DOME	HI-IDL	MAN	REAR OSC	TAP II
AIREL	DOME HI/LOW	HI-LOW	MAP LIGHT	REAR SCENE	TCL
ALARM	DOME LIGHT	HLVD	MDC	REAR STROBE	TEMP METER
ALLEY LIGHTS	DOOR	HORN	MESSAGE BOARD	RED	THERMAL CAMERA
ALPR	EMERG	HORN SIREN	MODEM	RELAY	TIMER
AMBER	EXHAUST VENT	IGN RELAY	MONITOR	RESET	TONE
AMP METER	FAN HI/LOW	INFARED	MONITOR 1	RIGHT	TOW
AREA	FAST	INTER	MONITOR 2	RIGHT ALLEY	TRAFFIC
AUX	FLASH	JOG	OSC	RIGHT ARROW	TRUNK
AUX 1	FLASH LIGHT	JOG LEFT	PA	RIGHT DOME	UPPER
AUX 2	FLOOD	JOG RIGHT	PATIENT DOME	RIGHT FLOOD	USB
AUX 3	FOG	LED	PERIMETER	RIGHT SCENE	USB 1
BACK UP	FRONT	LED 1	PERIMETER 1	RISER	USB 2
BLUE	FRONT CUT	LED 2	PERIMETER 2	ROTLR	USB 3
BOX	FRONT FLASH	LED 3	PRIM	ROT	VIDEO
BRAKE	FRONT FLOOD	LED 4	PRIORITY	SCENE	VIDEO CAMERA
CAB	FRONT ILS	LEFT	PURSUIT	SCENE LIGHT	VOLT METER
CABINET LIGHTS	FRONT LT BAR	LEFT ALLEY	Q SIR	SEARCH LIGHT	WAIL
CAMERA 1	FRONT OSC	LEFT ARROW	RADAR	SEC	WARN
CAMERA 2	FRONT ROT	LEFT DOME	RADIO	SIDE	WARNING
CENTER	FRONT STROBE	LEFT FLOOD	RADIO 1	SLOW SPEED	WHT LT CUT
CLEAR	GREEN	LEFT SCENE	RADIO 2	SM	WIG WAG
COMPUTER	GRILL	LIGHT	RADIO 3	SPOT	WORK
COOL	GUN LOCK	LIGHT 1	RADIO CHARGER	START STOP	YELP



## MRBF Surface Mount Fuse Blocks

- MRBF-Marine Rated Battery Fuse
- Surface mount fuse blocks accommodate three MRBF fuses for consolidated high amperage circuit protection
- The independent source fuse block is ideal for 3 output battery chargers
- The common source fuse block provides 3 loads from a single source
- Clip-on cover insulates terminal connections
- Versatile wiring options allow all wires to come out a single side
- Label recesses for easy circuit identification
- One-piece stainless flange nuts ensure safe and secure connections
- Ignition protected when used with MRBF fuses
- Fuses sold separately (page 95)

### Specifications

Voltage Max. Operating	58V DC
Amperage Max. Operating	240A per circuit
Terminal Fuses Available	30-300 Amps

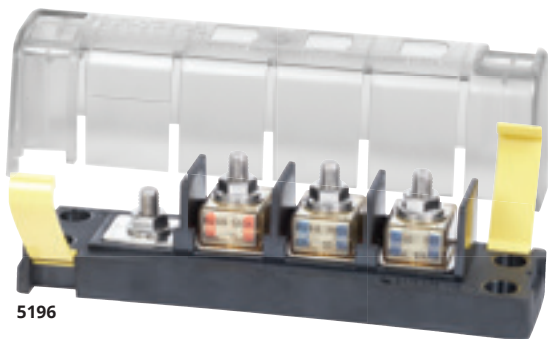
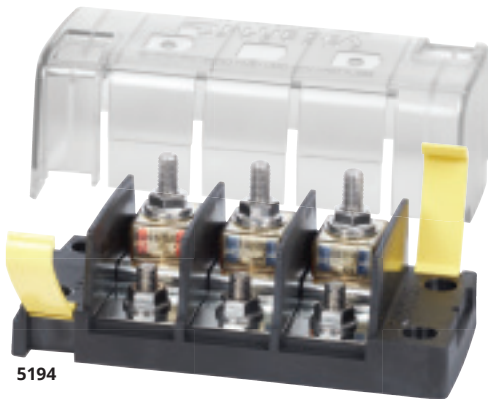
### Regulatory

Meets SAE J1171 external ignition protection requirements



Part #	Description	Terminal Stud Size	Mounting	Fuses
5194	Independent Source	M8 (5/16"-18)	Surface Mount M5 (#10)	3
5196	Common Source	M8 (5/16"-18)	Surface Mount M5 (#10)	3

For the full list of specifications, see page 109



### Related Products



MRBF Fuses  
page 95

## MRBF Terminal Fuse Blocks

Satisfies ABYC 7" circuit protection rule by mounting on a 3/8" battery post, battery switch, or bus bar

- MRBF-Marine Rated Battery Fuse
- Appropriate for DC Main, inverter, windlass, and bow thruster circuit protection
- Weatherproof – suitable for small open-cockpit boats and other harsh environments
- Insulating cap prevents accidental shorts
- Ignition protected when used with MRBF fuses
- Fuses sold separately (page 95)

### Specifications

Voltage Max. Operating	58V DC
Amperage Max. Operating	300A
Terminal Fuses Available	30-300 Amps

### Regulatory

Meets SAE J1171 external ignition protection requirements



Part #	Description	Terminal Stud Size	Mounting	Fuses
5191	MRBF Fuse Block	M8 (5/16"-18)	3/8"	1
2151	MRBF Fuse Block	M8 (5/16"-18)	3/8"	2

For the full list of specifications, see page 109



### Related Products



MRBF Fuses  
page 95

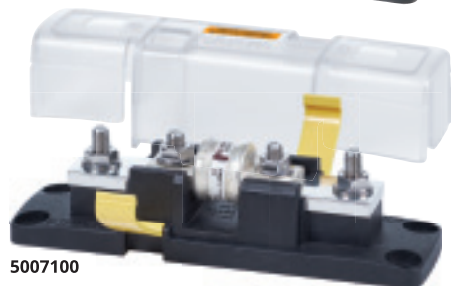
## Class T Fuse Blocks

Allows the use of Class T fuses for fast acting circuit protection of inverters and other electronics

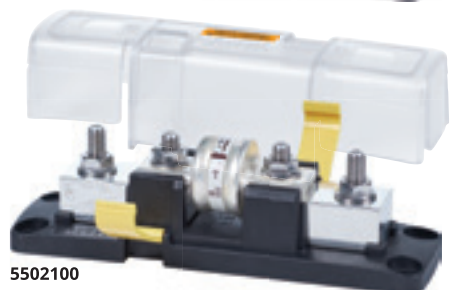


5502

NOTE:  
5502 replaces 5002



5007100



5502100

- Four stud design provides ample access around connecting stud to install large cable lugs without obstruction from the fuse
- Insulating cover satisfies ABYC/USCG insulation requirements
- Cover breakouts allow wire access in any direction
- Stud design ensures secure fuse mounting even with high heat
- Stainless steel studs provide resistance to corrosion and high torque
- One-piece stainless flange nuts ensure safe and secure connections
- UL 94-V0 base resists high heat
- Fuse sold separately (page 96)

### Specifications

Voltage Max. Operating	160V DC
Cable Size	Up to 4/0 AWG (120 mm <sup>2</sup> )
Fuse Mounting Blocks	Tin-Plated Copper

### 5007100 and 5502100 Regulatory

Meets ISO 8846 and SAE J1171 external ignition protection requirements when cover is secure



Part #	Amps	Ignition Protected	Terminal Stud Size	Mounting
5502	225A-400A	--	3/8"-16 (M10)	1/4" (M6) Screws
5007100	110A-200A	Yes	1/4"-20 (M6)	1/4" (M6) Screws
5502100	225A-400A	Yes	5/16"-18 (M8)	1/4" (M6) Screws

For the full list of specifications, see page 109

### Related Products



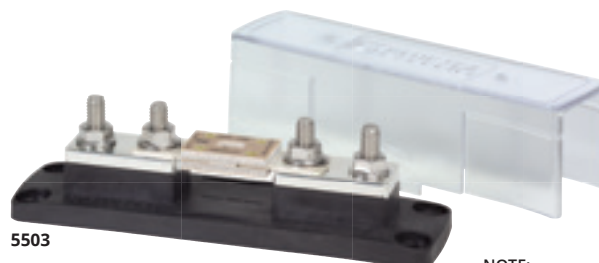
Class T Fuses  
page 96

## ANL® Fuse Blocks

Accepts a wide range of ANL fuse amperages for versatile fusing



5005



5503

NOTE:  
5503 replaces 5003

- Swing out design allows replacement of the fuse without removing fasteners
- Accepts 5/16" (M8) ring terminals
- Insulating cover satisfies ABYC/USCG insulation requirements
- Cover breakouts allow wire access in any direction
- Insert molded studs ensure secure fuse mounting
- Stainless steel studs provide resistance to corrosion and high torque
- One-piece stainless flange nuts ensure safe and secure connections
- UL 94-V0 base resists high heat
- Fuse sold separately (page 96)

### Specifications

	5503	5005
Voltage Max. Operating	32V DC	32V DC
Terminal Stud Size	5/16"-18 (M8)	5/16"-18 (M8)
Cable Size	Up to 4/0 AWG	Up to 2/0 AWG
Fuse Mounting Blocks	Tin-Plated Copper	Tin-Plated Copper
ANL Fuses Available	35-750 Amps	35-300 Amps

Part #	Terminal Stud Size	Amps Max. Operating	Mounting
5005	5/16"-18 (M8)	300A	#10 (M5) Screws
5503	5/16"-18 (M8)	750A	1/4" (M6) Screws

For the full list of specifications, see page 109

### Related Products

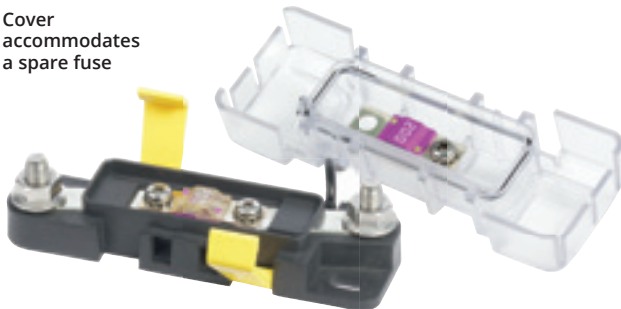


ANL Fuses  
page 96

## AMI®/MIDI® Safety Fuse Block

Ignition protected for use on gasoline powered boats with 30A to 200A circuits

Cover accommodates a spare fuse



**VIDEO**  
blueseas.com/video

- Sealed cover protects fuses from a harsh environment and satisfies ABYC/USCG insulation requirements
- Cover breakouts allow wire access in three directions
- One-piece stainless flange nuts ensure safe and secure connections
- Accepts square format standard or custom label
- Fuses sold separately (page 95)

### Specifications

Voltage Max. Operating	32V DC
Wire Size to Meet Rating	2/0 AWG (70 mm <sup>2</sup> )
Mounting holes	Accept 1/4" (M6) Screws
Terminal Stud Size	M8
Terminal Screw Size	M5 Stainless Steel

### Regulatory

CE marked

Meets ISO 8846 and SAE J1171 external ignition protection requirements when cover is secure

IP66 – protected against powerful water jets (see inside back cover)



Part #	Fuse Type	Amps Max. Operating
7720	AMI or MIDI	200A

### Related Products



AMI or MIDI Fuses  
page 95



### ABYC guidelines and Ignition Protection

Blue Sea Systems fuse blocks marked ignition protected are designed and tested for ignition protection, enabling them to be installed in a compartment where gasoline or other explosive fumes may be present.

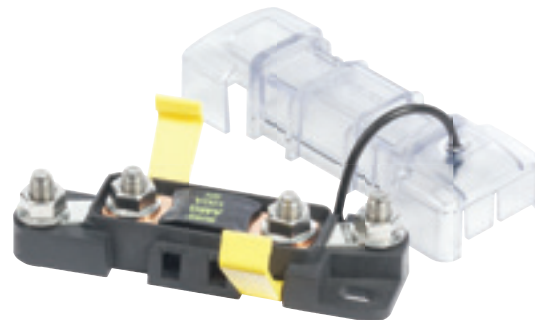
Blue Sea Systems' fuse blocks that meet the U.S. Coast Guard ignition protection requirements include the MAXI, ST Blade Battery Terminal Mount, ST Blade Compact, Terminal MRBF, Class T, Safety, and SafetyHub Fuse Blocks.

#### The U.S. Coast Guard states:

*An electrical component that is "ignition protected" is capable of operating in an explosive environment without igniting that environment. "Ignition protection" of electrical devices is accomplished by the use of seals, flame arrestors and potting (sealing), or a combination of such means.*

## MEGA®/AMG® Safety Fuse Block

Ignition protected for use on gasoline powered boats with 30A to 300A circuits



**VIDEO**  
blueseas.com/video

- Sealed cover protects fuses from a harsh environment and satisfies ABYC/USCG insulation requirements
- Cover breakouts allow wire access in three directions
- One-piece stainless flange nuts ensure safe and secure connections
- Accepts square format standard or custom label
- Fuses sold separately (page 95)

### Specifications

Voltage Max. Operating	32V DC
Wire Size to Meet Rating	2/0 AWG (70 mm <sup>2</sup> )
Mounting holes	Accept 1/4" (M6) Screws
Terminal Stud Size	M8

### Regulatory

CE marked

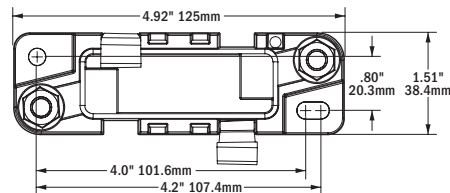
Meets ISO 8846 and SAE J1171 external ignition protection requirements when cover is secure

IP66 – protected against powerful water jets (see inside back cover)

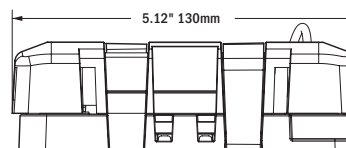


Part #	Fuse Type	Amps Max. Operating
7721	MEGA or AMG	300A

For the full list of specifications, see page 109



7720 and 7721 DIMENSIONS



7720 and 7721 COVER FRONT

### Related Products



MEGA or AMG Fuses  
page 95

## SafetyHub 100 Fuse Block

The SafetyHub 100 combines an ignition protected fuse block and integrated connecting plugs. It is safe for use on gasoline powered boats, reduces wiring connections, and consolidates up to seven fused circuits.



- Accepts three MIDI or AMI Fuses for high-amp circuits including panel feeds, windlasses, and stereo amplifiers
- Accepts four ATO or ATC Fuses for circuits including bilge pumps, electronics and lights
- Sealed cover protects fuses from a harsh environment and satisfies ABYC/USCG insulation requirements
- Integrated connector plug eliminates loose wires and provides a secure, waterproof connection
- Fuses sold separately (page 94)

### Specifications

Amperage Max. Operating (combined)	280A
Voltage Nominal Operating	12V DC
Minimum Cable Size to Meet Ratings	4/0 AWG (120 mm <sup>2</sup> )
Recommended Ring Terminal	M8 (5/16")

### MIDI or AMI Fuse Block

Amperage Max. Operating (per block)	240A <sup>†</sup>
Amperage Max. Operating (per circuit)	170A <sup>†</sup>
Fuse Amperages Available	30–200A
Minimum Cable Size to Meet Ratings	2/0 AWG (70 mm)

### ATO or ATC Fuse Block

Amperage Max. Operating (per block)	50A <sup>†</sup>
Amperage Max. Operating (per circuit)	20A <sup>†</sup>
Fuse Amperages Available	1A–30A

### Regulatory

CE marked  
Meets ISO 8846 and SAE J1171 external ignition protection requirements when cover is secure  
IP66 – protected against powerful water jets (see inside back cover)

<sup>†</sup> Ratings are dependent on input cable sized for appropriate amperages

Part #	Description
7725	SafetyHub 100



### Related Products



ATO or ATC Fuses  
page 94



easyID ATC Fuses  
page 94



AMI or MIDI Fuses  
page 95

## SafetyHub 150 Fuse Block

The SafetyHub 150 is an ignition protected fuse block with screw termination. It is safe for use on gasoline powered boats, reduces wiring connections, and consolidates up to ten fused circuits.



- Accepts four AMI or MIDI Fuses for high-amp circuits including panel feeds, windlasses, and stereo amplifiers
- Accepts six ATO or ATC Fuses for circuits including bilge pumps, electronics and lights
- Sealed cover protects fuses from a harsh environment and satisfies ABYC/USCG insulation requirements
- Negative bus provides common location for negative connection
- Circuit identification label with write-on capability
- Fuse puller to remove ATO or ATC Fuses
- Cover provides storage space for spare fuses and mounting screws
- One-piece stainless flange nuts ensure safe and secure connections
- Fuses sold separately (page 94)

### Specifications

Amperage Max. Operating (combined)	280A
Voltage Max. Operating	32V DC
Minimum Cable Size to Meet Ratings	4/0 AWG (120 mm <sup>2</sup> )
Recommended Ring Terminal	M8 (5/16")
Stud Size	M8

### MIDI or AMI Fuse Block

Amperage Max. Operating (per block)	280A <sup>†</sup>
Amperage Max. Operating (per circuit)	170A <sup>†</sup>
Fuse Amperages Available	30A–200A
Minimum Cable Size to Meet Ratings	2/0 AWG (70 mm <sup>2</sup> )
Screw Size	M5

### ATO or ATC Fuse Block

Amperage Max. Operating (per block)	50A <sup>†</sup>
Amperage Max. Operating (per circuit)	25A <sup>†</sup>
Fuse Amperages Available	1A–30A
Screw Size	#8-32

### Regulatory

CE marked  
Meets ISO 8846 and SAE J1171 external ignition protection requirements when cover is secure  
IP66 – protected against powerful water jets (see inside back cover)

<sup>†</sup> Ratings are dependent on input cable sized for appropriate amperages

Part #	Description
7748	SafetyHub 150



For the full list of specifications, see page 109

# Fuse Block Specification Table

Product	MAXI		ST Blade				
Page number	page 97	page 98	page 99	page 100	page 101	page 102	page 103
For use with	MAXI	ATO or ATC	ATO or ATC	ATO or ATC	ATO or ATC	ATO or ATC	ATO or ATC
Maximum Voltage	32V DC	32V DC	32V DC	32V DC	32V DC	32V DC	32V DC
Maximum Amperage per circuit	80A	25A	30A	30A	30A	30A	30A
Maximum Amperage per block	80A	80A	100A	40A per jumped circuit group	100A (not to exceed 80A per load group)	100A	100A
Available Fuses	30-80A	1-30A	1-30A	1-30A	1-30A	1-30A	30-300A
Ingress Protected	IP66-protected against powerful water jets.	IP66-protected against powerful water jets.	IP66-protected against powerful water jets.	--	--	IP66-protected against powerful water jets.	--
Ignition Protected	ISO 8846, SAE J1171 when cover is secure.	--	ISO 8846, SAE J1171 when cover is secure.	--	--	ISO 8846, SAE J1171 when cover is secure.	--

Product	MRBF Terminal	MRBF Surface	MRBF Surface	MEGA or AMG	Class T	Class T	Class T
Page number	page 105	page 105	page 105	page 97	page 106	page 106	page 106
For use with	Terminal (MRBF)	Terminal (MRBF)	Terminal (MRBF)	MEGA or AMG	Class T	Class T	Class T
Maximum Voltage		58V DC		32V DC	160V DC	160V DC	160V DC
Maximum Amperage per circuit	300A	240A	240A	300A	320A	160A	320A
Maximum Amperage per block	300A	--	300A	300A	320A	160A	320A
Available Fuses		30-300A		100-300A	225-400A	110-200A	225-400A
Ingress Protected	IP66 when used with Blue Sea Systems' Terminal (MRBF) Fuses.	--	--	--	--	--	--
Ignition Protected	SAE J1171 when used with Blue Sea Systems' MRBF fuses.			--	--	ISO 8846, SAE J1171 when cover is secure.	ISO 8846, SAE J1171 when cover is secure.

Product	ANL	ANL	Safety AMI or MIDI	Safety MEGA or AMG	SafetyHub 100	SafetyHub 150
Page number	page 106	page 106	page 107	page 107	page 108	page 108
For use with	ANL	ANL	AMI or MIDI	MEGA or AMG	AMI or MIDI and ATO or ATC	
Maximum Voltage	32V DC	32V DC	32V DC	32V DC	12V DC	32V DC
Maximum Amperage per circuit	300A	750A	200A	300A	AMI or MIDI: 250A ATO or ATC: 30A	AMI or MIDI: 170A ATO or ATC: 25A
Maximum Amperage per block	300A	750A	200A	300A	ATO or ATC: 50A	AMI or MIDI: 280A ATO or ATC: 50A
Maximum Total Amperage (combined)	35-300A	--	--	--		280A
Available Fuses	--	35-750A	30-200A	100-300A	AMI or MIDI: 30-200A ATO or ATC: 1-30A	AMI or MIDI: 30-200A ATO or ATC: 1-30A
Ingress Protected	--	--	IP66-protected against powerful water jets.	--	IP66-protected against powerful water jets.	--
Ignition Protected	--	--	ISO 8846, SAE J1171 when cover is secure.	--	ISO 8846, SAE J1171 when cover is secure.	--

# ST CLB Circuit Breaker Blocks

Compact surface mount solution providing secure screw termination where Push Button Reset-Only CLB Circuit Breakers are desired

- Clear insulating cover with square format label recesses, satisfies ABYC/USCG insulation requirements
- Quick connect clips allow circuit breakers to snap easily into place
- Tin-plated copper busses and screw terminals
- Breakouts allow wire access in two directions
- Accepts ring terminals
- Optional push button waterproof boots or dress nuts can be installed over cover
- Accepts square labels
- Optional jumper 5049, for use with 5050 and 5051
- Circuit breakers sold separately (page 111)

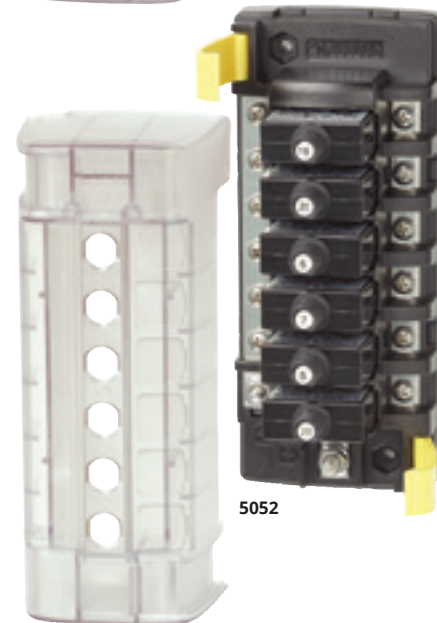
## Specifications

Voltage Max. Operating	32V DC
Amperage Max. Operating	32A (per circuit)
Amperage Max. Operating	100A (per block - common source)
Amperage Max. Operating	40A (per jumped circuit group - independent source)
Temp. Operating Range	-10°C to 60°C
Breaker Type	Push Button Reset-Only Circuit Breaker with Quick Connect Terminals
Screw Terminal	#8-32 Screws with Captive Star Lock Washer
Ring Terminals	Screw Terminals #8 (M4), Negative Bus #10 (M5)
Mounting	#8 Screw (M4) or #8 Nut

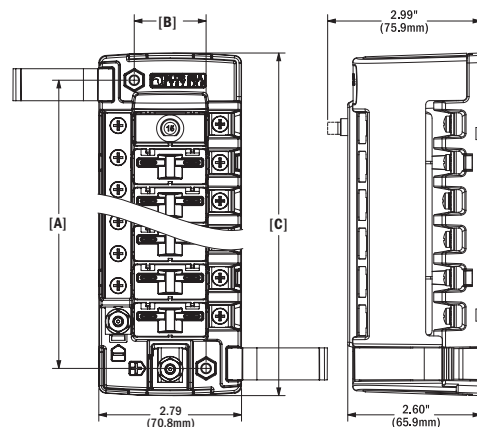
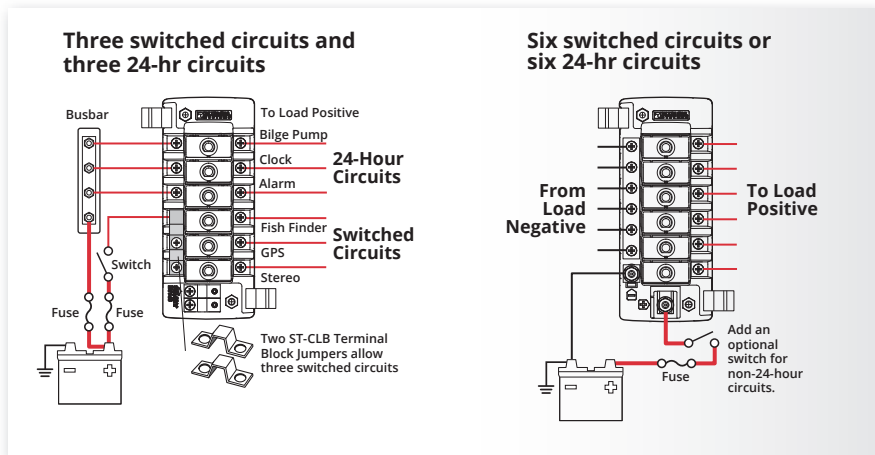
Part #	Positions	Negative Bus	Source	[A] Mounting Centers in (mm)	[B] Mounting Centers in (mm)	[C] Height in (mm)
5050	6	--	Independent	5.63 (142.9)	1.40 (35.6)	6.69 (169.9)
5051	12	--	Independent	10.13 (257.2)	1.71 (43.4)	11.19 (284.2)
5052	6	#10-32 stud	Common	5.63 (142.9)	1.40 (35.6)	6.69 (169.9)
5054	12	#10-32 stud	Common	10.13 (257.2)	1.71 (43.4)	11.19 (284.2)
5049	ST CLB Block Jumper, 5 per pack					



5050



5052



## Related Products



ST CLB Circuit Breaker Block Jumper 5049 (see table)

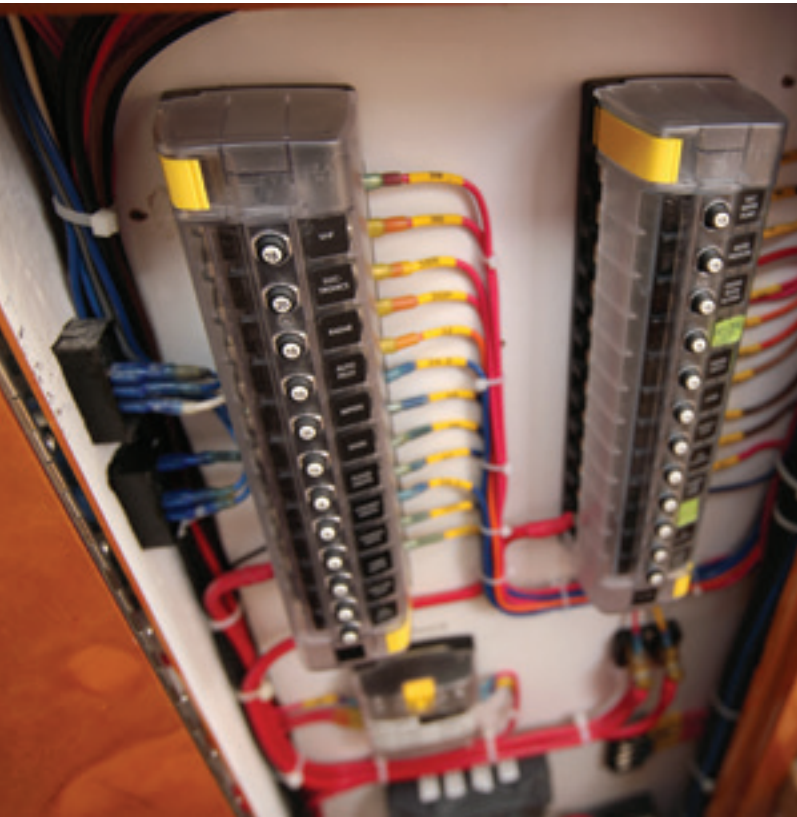


CLB Circuit Breaker Boots page 111



Push Button Reset-Only CLB Circuit Breakers page 111

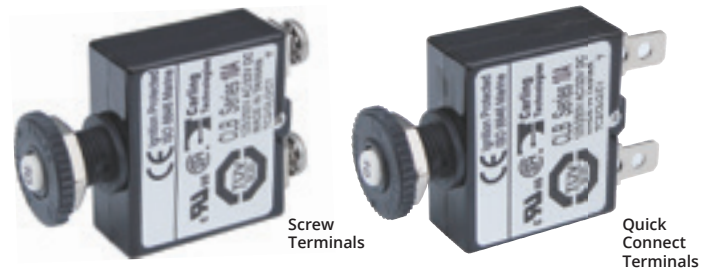




True North Yachts installs ST-CLB blocks aboard their boats, including the True North 38.

## Push Button Reset-Only CLB Circuit Breakers

Provides economical circuit protection for 3 to 40 Amp loads when switching is provided elsewhere or not required



- Quick connect or screw terminal style
- Compact design enables high density circuit protection configurations
- Push-to-reset operation
- Trip Free design cannot be held ON during fault current condition
- Optional push button waterproof boot

### Specifications

Interrupting Capacity	3,000A @ 14.7V DC / 2,500A @ 32V DC
Voltage Max. Operating	32V DC
Temperature Min. Operating	-10°C
Temperature Max. Operating	60°C
Type	Thermal trip, manual reset
Terminals	#8 Screw Terminals or 1/4" Male Quick Connect Terminals
Screw Terminal Torque	6 in-lb max.
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>
Thread	3/8"-27 UNS

### Regulatory

CE marked  
UL Recognized – UL 1077 – UL/cUL (USA and Canada), TUV certified  
Meets UL 1500 and ISO 8846 external ignition protection requirements

**IGNITION  
PROTECTED**

## CLB Circuit Breaker Waterproof Boots

Protects push button circuit breakers in wet environments

- Used on WeatherDeck Panels (page 131)
- Replaces dress nut mounting on circuit breakers

### Specifications

Thread Material	Nickel-Plated Brass
Thread	3/8"-27

### Regulatory

IP67 – protected against immersion up to 1 meter for 30 minutes



4135

4136

4137

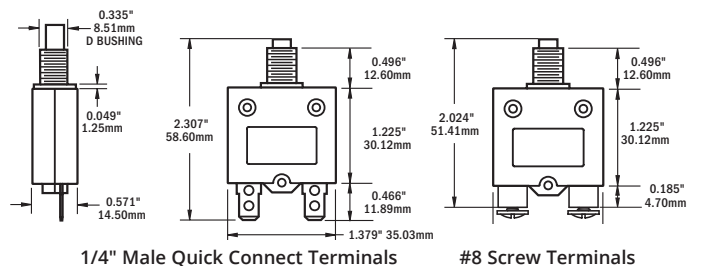
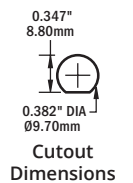
Part #	Description	Retail Pack
4135	Clear	2
4136	White	2
4137	Black	2

### Related Products



WeatherDeck Circuit Breaker Panels page 131

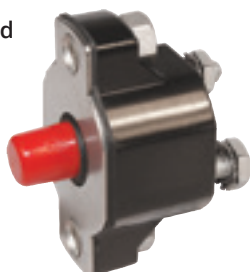
Screw Terminals Part #	QC Terminals Part #	Amps
2129	7050	3A DC
2130	7052	5A DC
2131	7053	7A DC
2132	7054	10A DC
2133	7056	15A DC
2134	7057	20A DC
2135	7058	25A DC
2136	7059	30A DC
2137	7061	40A DC



## Medium Duty Push Button Reset-Only Circuit Breakers

Provides circuit protection for 15 to 60 Amp loads when switching is provided elsewhere or not required

- Weatherproof
- Can be used as Main or Branch
- Push-to-reset operation
- Trip Free design cannot be held ON during fault current condition
- Captive star lock washers meet requirements for anti-rotation and eliminates handling of small, easily dropped parts



### Specifications

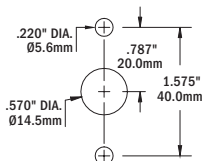
Interrupting Capacity	5,000A @ 32V DC 3,000A @ 120V AC
Voltage Max. Operating	32V DC / 120V AC
Temperature Min. Operating	-54°C
Temperature Max. Operating	74°C
Type	Thermal trip, manual reset
Terminal Stud	#10-32 Stainless Steel
Terminal Stud Torque	30 in-lb max.
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>
Mounting Thread	#8 -32

### Regulatory

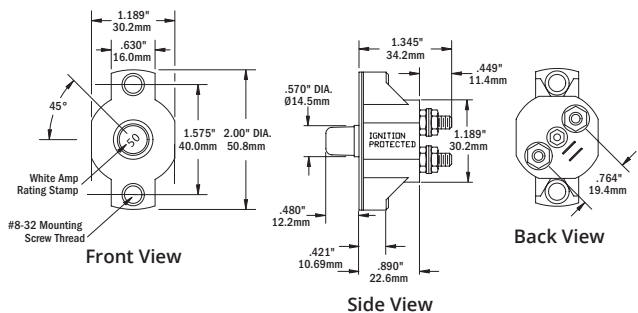
SAE J1428, SAE J553, UL 1077  
Meets UL 1500 external ignition protection requirements

### IGNITION PROTECTED

Part #	Amps
2138	15A DC
2139	20A DC
2140	30A DC
2141	40A DC
2142	50A DC
2143	60A DC



Cutout Dimensions



## Marine Grade Short Stop Circuit Breakers

Use a circuit breaker instead of a fuse

- Designed with corrosion resistant materials to withstand harsh environments
- IP64 water resistant boot protects against dust and splashing water
- Push-to-reset operation only disconnects when tripped
- Stainless steel nyloc nuts for secure connections
- Red insulating boot included in retail package only



### Specifications

Interrupting Capacity	2,500A @ 28V DC
Voltage Max. Operating	28V DC
Temperature Min. Operating	-10°C
Temperature Max. Operating	60°C
Type	Thermal trip, manual reset
Terminals	#10-32" Studs
Screw Terminal Torque	24 in-lb max.
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

### Regulatory

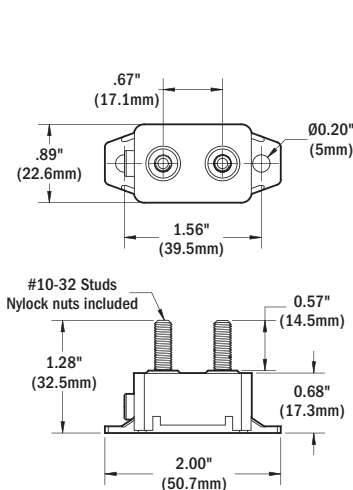
IP64, SAE J553, Meets SAE J1171 external ignition protection requirements

### IGNITION PROTECTED

Part #	Amps
7150	5A DC
7151	10A DC
7152	15A DC
7153	20A DC
7154	25A DC
7155	30A DC
7156	40A DC
7157	50A DC
7160	Insulating Boot



Shown with Insulating Boot



Push-Button to Reset



# Single Pole Thermal Type Breakers

- **Ratings:** 30-150A; 30V DC
- **Interrupt Capacity:** 3000A
- **Operating Temperature:** -25°F (-32°C) to 180°F (82°C)
- **Storage Temperature:** -30°F (-34°C) to 300°F (149°C)
- **Applications:** Auxiliary and accessory circuits – trucks, buses, and RV applications, battery chargers and DC audio systems. Series 184 & 185 are sealed for engine compartment and bilge area applications.
- **Housing:** Thermoset plastic; UL rated 94VO; 311°F (155°C). Stud insulators are provided on covered units with F (Surface Mount) bases; tin plated copper studs, brass rivets and stainless steel locking nuts.
- **Mounting:** Panel or surface
- **Terminal Stud Torque:** 50 in-lb (5.6Nm) max.
- **Indicator:** Series 184 & 185 have a unique reset mechanism providing visible indication of tripped condition
- **Ingress Protection Rating:** IP67
- **Approvals:** Complies with SAEJ1625, J1171 and UL1500 (Ignition protected) specifications.



184100F-01-1



185100P-01-1

**Manual reset** versions only switch off on electrical overload i.e. cannot be manually switched

**Switchable reset** versions can be manually switched to isolate the circuit



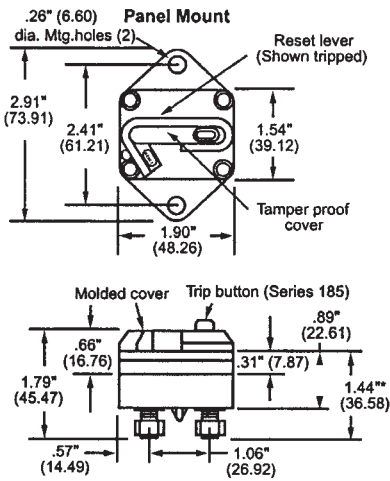
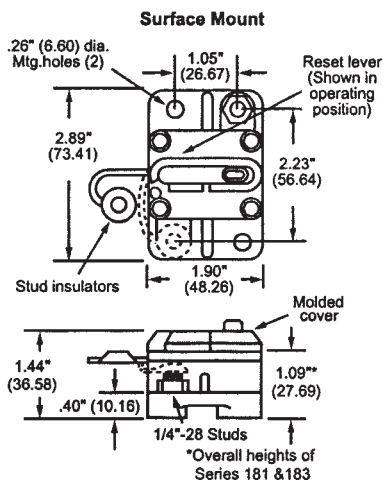
## Panel Mount Stud size: 1/4"

Amperage	Automatic	Manual	Switchable
30A	181030P-01-1	184030P-01-1	185030P-01-1
40A	181040P-01-1	184040P-01-1	185040P-01-1
50A	181050P-01-1	184050P-01-1	185050P-01-1
60A	181060P-01-1	184060P-01-1	185060P-01-1
70A	181070P-01-1	184070P-01-1	185070P-01-1
80A	181080P-01-1	184080P-01-1	185080P-01-1
90A	181090P-01-1	184090P-01-1	185090P-01-1
100A	181100P-01-1	184100P-01-1	185100P-01-1
120A	181120P-01-1	184120P-01-1	185120P-01-1
135A	181135P-01-1	184135P-01-1	185135P-01-1
150A	181150P-01-1	184150P-01-1	185150P-01-1

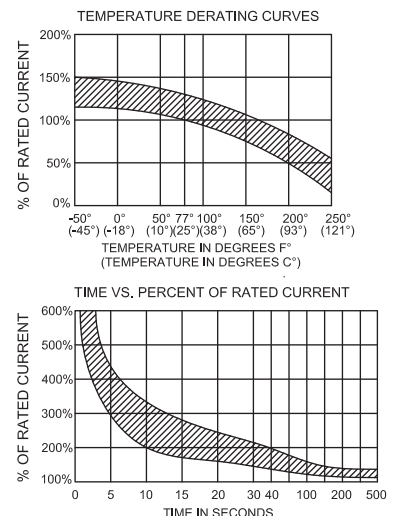
## Surface Mount Stud size: 1/4"

Amperage	Automatic	Manual	Switchable
30A	181030F-01-1	184030F-01-1	185030F-01-1
40A	181040F-01-1	184040F-01-1	185040F-01-1
50A	181050F-01-1	184050F-01-1	185050F-01-1
60A	181060F-01-1	184060F-01-1	185060F-01-1
70A	181070F-01-1	184070F-01-1	185070F-01-1
80A	181080F-01-1	184080F-01-1	185080F-01-1
90A	181090F-01-1	184090F-01-1	185090F-01-1
100A	181100F-01-1	184100F-01-1	185100F-01-1
120A	181120F-01-1	184120F-01-1	185120F-01-1
135A	181135F-01-1	184135F-01-1	185135F-01-1
150A	181150F-01-1	184150F-01-1	185150F-01-1

Inner cartons of 20, Master cartons of 100



## Temperature and Current Rating



## 285 Series Circuit Breakers

Provides circuit protection for 25 to 150 Amp loads when switching and circuit protection are both required

- Visible yellow reset lever shows open condition
- Trip-free design cannot be held closed after trip
- Drop in replacement for 185 Series Circuit Breakers
- 3,000A AIC for medium battery banks

### Specifications

Interrupting Capacity	3,000A @ 48V DC†
Voltage Max. Operating	48V DC
Temperature Min. Operating	-40°C
Temperature Max. Operating	85°C
Type	Thermal
Class	Type III – Switchable/Manual Reset – Trip Free
Terminal Stud	M6 (accepts 1/4" Ring Terminal)
Terminal Stud Torque	50 in-lb (7.9 Nm)
Mounting Hole	Accepts 1/4" screw (M6)

### Regulatory

CE marked  
 Meets SAE J1171 external ignition protection requirements,  
 †AIC ratings achieved using SAE J1625  
 IP67 – protected against immersion up to  
 1 meter for 30 minutes (see inside back cover)



7087



7187

Panel Mount Part #	Surface Mount Part #	Amps
7080	7180	25A DC
7081	7181	30A DC
7082	7182	40A DC
7083	7183	50A DC
7084	7184	60A DC
7085	7185	70A DC
7086	7186	80A DC
7087	7187	100A DC
7088	7188	120A DC
7089	7189	150A DC

## 187 Series Circuit Breakers

Provides circuit protection for 25 to 200 Amp loads when switching and circuit protection are both required

- Self-trimming case eliminates need for mounting panels or trim bezels
- Visible yellow reset lever shows open condition
- Trip-free design cannot be held closed after trip
- Large clearance around terminal studs accepts up to 1/0 AWG lugs
- Recessed mounting holes for clean appearance
- Robust 5/16"-18 terminals provide high torque connections
- 5,000A AIC for large battery banks

### Specifications

Interrupting Capacity	5,000A @ 12V DC 3,000A @ 24V DC 1,500A @ 42V DC
Voltage Max. Operating	48V DC
Temperature Min. Operating	-40°C
Temperature Max. Operating	85°C
Type	Thermal
Class	Type III – Switchable/Manual Reset – Trip Free
Terminal Stud	5/16"-18
Terminal Stud Torque	75 in-lb max.
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>
Mounting Hole	Accepts #10 (M5) Screw

### Regulatory

CE marked  
 Meets SAE J1171 external ignition protection requirements  
 IP66 – protected against powerful water jets (see inside back cover)



7044



7140

Panel Mount Part #	Surface Mount Part #	Amps
7035	7135	25A DC
7036	7136	30A DC
7038	7138	40A DC
7039	7139	50A DC
7040	7140	60A DC
7041	7141	70A DC
7042	7142	80A DC
7043	7143	90A DC
7044	7144	100A DC
7046	7146	120A DC
7048	7148	150A DC
7049	7149	200A DC



## Thermal Breaker Mounting Options

Provides mounting for Cooper Bussmann® 285 Series or 185 Series Panel Mount Circuit Breakers

Part #	Description	Width in (mm)	Height in (mm)
7198	Self-trimming molded rubber bezel	2.44 (61.90)	3.31 (84.07)
7098	Circuit breaker adapter bezel allows circuit breaker mounting in a 2-1/8" round hole	2.44 (61.90)	3.31 (84.07)
1477	Provides circuit breaker mounting in the 360 Panel System	4.88 (123.83)	4.75 (120.65)



7198



7098



1477

## ATO®/ATC®-Style Low Profile Circuit Breakers **NEW**

Use a manually resettable circuit breaker instead of an ATO or ATC fuse

- Drop in replacement for ATO and ATC blade style fuses
- Manual push button reset complies with ABYC circuit protection requirements
- Compatible with Water-Resistant ST-Blade Fuse Block 5056 with cover secured (page 98)
- Compatible with all other ST-Blade Fuse blocks without cover

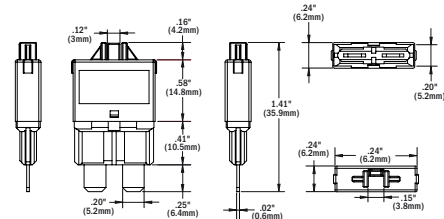
Interrupting Capacity	2,000A @ 28V DC
Voltage Max. Operating	32V DC
Temperature Min. Operating	-40°C (-40°F)
Temperature Max. Operating	85°C (185°F)
Type	Thermal trip, manual reset
Trip Time Delay	See <a href="http://blueseas.com">blueseas.com</a>

### Regulatory

SAE J553, UL 1500, ISO 10924-4, Meets SAE J1171 external ignition protection requirements

**IGNITION PROTECTED**

Part #	Amps	Color	Retail Pack
7062	5A	LT. Brown	2
7063	7.5A	Brown	2
7064	10A	Red	2
7065	15A	Blue	2
7066	20A	Yellow	2
7067	25A	White	2
7068	30A	Green	2



### Related Products



Water-Resistant ST-Blade Fuse Block  
page 98



ST-Blade Fuse Blocks  
page 100

# CONNECTORS

## Water-Resistant BusBar

118

NEW



Provides secure water-resistant bussing for harsh environments.

## Battery Terminal Mount BusBars

118



Easily add positive and negative busbars to the battery terminal.

## BusBars

119



BusBars distribute positive wires or collect negative returns. BusBars range in capacity from 100A to 600A, with a variety of terminal stud configurations.

## PowerBars

123



Complex wiring systems require a single point to consolidate large and small conductors.



# CONNECTORS

## Terminal Blocks

124



Terminal blocks allow termination of wires from a multi-conductor cable in one location. Individual wires can then be split off to various loads.

## PowerPost Connectors

125



Insulated single stainless steel stud terminates multiple large conductors.

## Feed Through Connectors

125



Eliminates chafe and provides strain relief when passing high current through hulls, decks, and bulkheads.

## CableClams

127



Provides a waterproof pass-through for antenna cables without requiring removal of the factory installed connector.

Connectors are the backbone of every electrical system and safely keep current flowing.

## Water-Resistant - 100A BusBar **NEW**

Provides secure water-resistant bussing for harsh environments. The single side nesting design allows for wire entry from one side to maximize space.

- Water-resistant design with standard ring or fork type terminals allows for simple wiring with standard tools.
- Accepts a wide range of wire sizes
- Includes 3 wire plugs to maintain water-resistant rating if less than 4 wires are used
- Nests with other Water-Resistant 100A Common BusBars and ST-Blade Water-Resistant Fuse Block for space saving wiring
- Ideal for positive distribution and for the collection of negative or AC ground circuits
- Insulating cover meets ABYC/USCG insulation requirements
- Tin-plated copper busses and fuse clips
- Includes four write-on circuit labels
- Small format standard and custom labels available

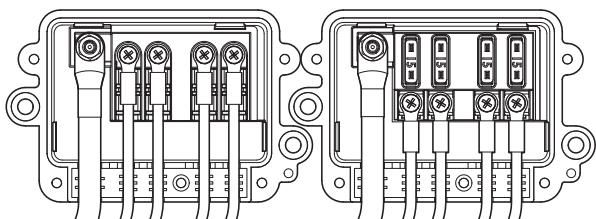
Continuous Rating	100A AC / 100A DC
Voltage Max. Operating	300V AC / 48V DC
Input Wire Size	(1) 8 AWG to 4 AWG
Load Wire Size	(4) 16 AWG to 10 AWG
Mounting Holes	Accepts 1/4" (6mm) Screws
Bus Material	Tin-Plated Copper C11000

### Regulatory

CE certified

Part #	Cover	Terminal Screws	Terminal Studs
2356	Yes	4 × #8-32	1 × #10-32

For the dimensioned drawings see page 100



Nested ST-Blade Water-Resistant Fuse Block 5056 and Water-Resistant - 100A BusBar 2356

### Related Products



ST-Blade Water-Resistant Fuse Block page 100

## Battery Terminal Mount BusBars

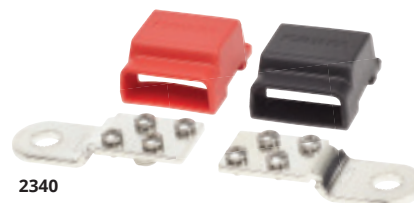
Easily add positive and negative busbars to the battery terminals

- Easily add positive and negative busbars directly to a threaded-post battery terminal
- Tin-plated pure electrical copper for maximum conductivity
- Insulating covers meet ABYC/USCG insulation requirements
- Screw terminals for securing wires
- 2340 Includes four 16-14 AWG and four 12-10 AWG Nylon Insulated ring terminals

### Specifications

Continuous Rating	100A DC
Voltage Max. Operating	32V DC
Bus Material	Tin-Plated Copper C11000
Mounting Thru-hole	Clearance for 3/8" (M10) stud
Screw Terminal	#8-32 Screws with Captive Star Lock washer

Part #	Description
2340	Positive + Negative
2341B	Positive
2342B	Negative

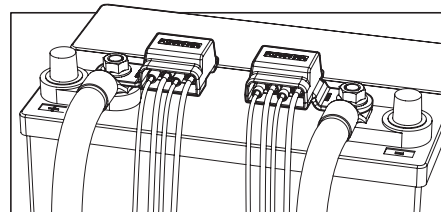


2340

### Related Products



ST Blade Battery Terminal Mount Fuse Block Kit page 99



## DualBus - 100A Common BusBars

Combines two buses on one block

- Combines negative and positive buses for DC Systems and neutral and ground buses for AC Systems

### Specifications

Continuous Rating	100A AC/DC
Voltage Max. Operating	300V AC/48V DC
Bus Material	Tin-Plated Copper C11000

### Regulatory

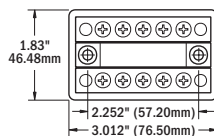
CE certified



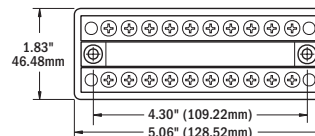
2701

2709

Part #	Cover	Terminal Screws	Mounting Holes
2701	--	5 per bus × #8-32	Accept #10 (M5) Screws
2702	--	10 per bus × #8-32	Accept #10 (M5) Screws
2709	Cover for BusBar 2701		
2710	Cover for BusBar 2702		



2701



2702

## MiniBus - 100A Common BusBars

Provides busing for limited space applications

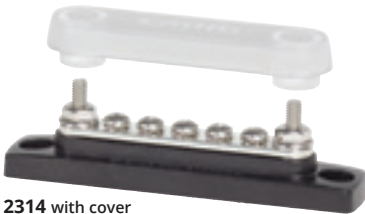
- One-piece serrated flange nut ensures correct and secure connections

### Specifications

Continuous Rating	100A AC/DC
Voltage Max. Operating	300V AC/48V DC
Mounting Holes	Accepts #10 (M5) Screws
Bus Material	Tin-Plated Copper C11000

### Regulatory

CE certified



2314 with cover  
2304 without cover

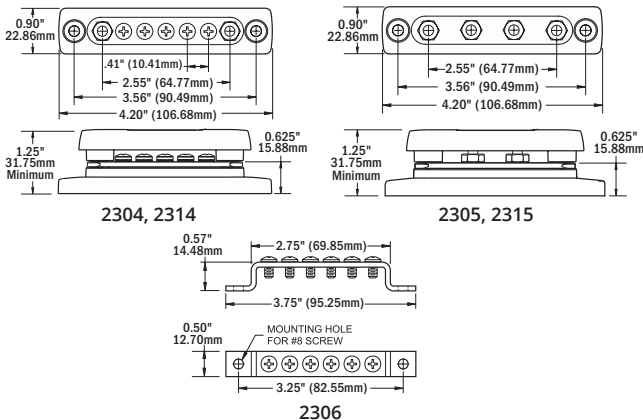


2315 with cover  
2305 without cover



2306 is DC only rated.  
Mounting holes accept #8 screws

Part #	Cover	Terminal Screws	Terminal Studs
2304	--	5 × #8-32	2 × #10-32
2314	Yes	5 × #8-32	2 × #10-32
2305	--	--	4 × #10-32
2315	Yes	--	4 × #10-32
2306	--	6 × #8-32	--
2713	Cover For MiniBus 2304 and 2305		



## 150A Common BusBars

Insert-molded stainless steel studs eliminate the need for securing nut and allow high torquing for excellent electrical contact

- For positive distribution and for the collection of negative or AC ground circuits
- One-piece serrated flange nut ensures correct and secure connections

### Specifications

Continuous Rating	130A AC/150A DC
Voltage Max. Operating	300V AC/48V DC
Mounting Holes	Accepts #10 (M5) Screws
Bus Material	Tin-Plated Copper C11000

### Regulatory

CE certified

Part #	Cover	Terminal Screw	Terminal Stud
2301	--	10 × #8-32	2 × 1/4"-20
2300	Yes	10 × #8-32	2 × 1/4"-20
2302	--	20 × #8-32	2 × 1/4"-20
2312	Yes	20 × #8-32	2 × 1/4"-20
2303	--	--	4 × 1/4"-20
2307	Yes	--	4 × 1/4"-20
2715	Cover For BusBar 2301 and 2303		
2716	Cover For BusBar 2302		

Note: 2715 replaces 2706, 2716 replaces 2707



2300 with cover  
2301 without cover



2307 with cover  
2303 without cover

## DualBus Plus - 150A Common BusBars

Secure, clear polycarbonate cover snaps on easily to meet ABYC insulation requirements

- Combines negative and positive buses on one block
- Cover release buttons
- One-piece stainless flange nuts ensure safe and secure connections



2722

### Specifications

Continuous Rating	130A AC/150A DC
Voltage Max. Operating	300V AC/48V DC
Mounting Holes	Accept #10 (M5) Screws
Bus Material	Tin-Plated Copper C11000

### Regulatory

CE certified

Part #	Terminal Screws	Terminal Studs
2722	5 per bus × #10-32	2 per bus × 1/4"-20 Stud
2723	5 per bus × #10-32	2 per bus × 5/16"-18 Stud

## MaxiBus - 250A Common BusBars

Now with insert-molded stainless steel studs and optional fully enclosed insulating base and cover

- Insulating cover with breakouts for easy wire access
- Insulating cover meets ABYC insulation requirements
- One-piece serrated flange nuts ensure correct and secure connections

### Specifications

Continuous Rating 250A AC/DC  
 Voltage Max. Operating 300V AC/48V DC  
 Mounting Holes Accepts #10 (M5) Screws  
 Bus Material Tin-Plated Copper C11000

### Regulatory

CE certified

Part #	Terminal Studs	Terminal Screws	[A] Length in (mm)	[B] Mounting Centers in (mm)
2105	2 × 5/16" -18	12 × #10-24	7.75 (197.00)	7.125 (181.00)
2126	6 × 5/16" -18	-	7.75 (197.00)	7.125 (181.00)
2718	Cover for 2105 and 2126	-	8.78 (223.10)	5.41 (137.30)
2127	4 × 5/16" -18	-	5.875 (149.00)	5.25 (133.00)
2128	2 × 5/16" -18	6 × #10-24	5.875 (149.00)	5.25 (133.00)
2719	Cover for 2127 and 2128	-	6.70 (170.00)	4.10 (104.10)



2128



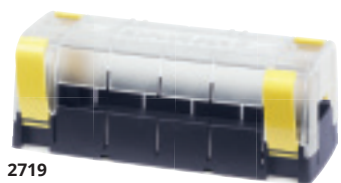
2105



2127



2126



2719

Mounting holes for: 285 Series Surface Mount Circuit Breakers and DC Shunts



2718

Mounting holes for: PowerBar 600A Common BusBar

### 2719 Related Products



285 Series Circuit Breakers  
7180-7189  
page 114

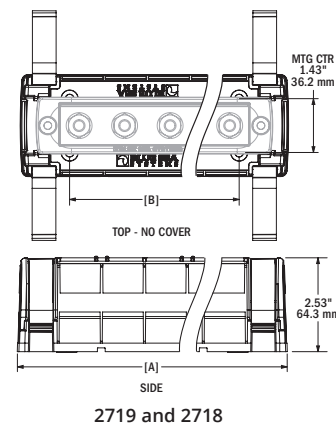
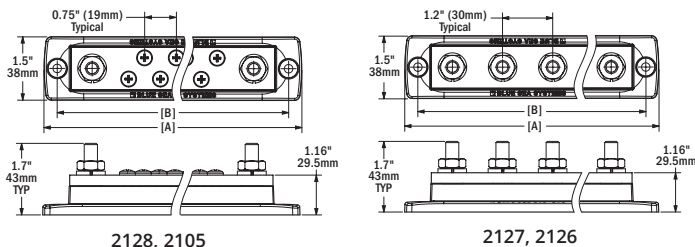


DC Shunts  
page 135

### 2718 Related Products



PowerBar 600A  
Common Bus Bar 2104  
page 122

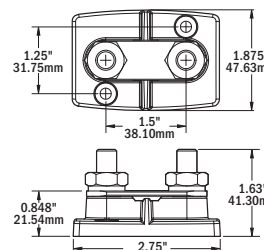


## PowerBar Common BusBars

Provides compact high-amp busing with 3/8" terminal studs



2019



### Specifications

Continuous Rating up to 200 Amps  
 Voltage Max. Operating 48V DC  
 Mounting Holes Accepts #10 (M5) Screws  
 Bus Material Tin-Plated Copper C11000

### Regulatory

CE certified

Part #	Terminal Studs	Insulators
2019	2 × 3 / 8" -16	Yes
2020	2 × 3 / 8" -16	--



## Pro Installer Heavy-duty BusBars

Pro Installer Heavy-duty Bus Bars provide a robust means to connect (bus) together the multitude of large cables found in modern electrical installations. They offer unrivaled flexibility to meet the requirements of any installation, saving significant cost and space.

### Specifications

- 4 Stud-500A bus bar: 8 mm (5/16") stainless steel studs
- 3, 5, and 8 stud-650A bus bars: 10 mm (3/8") stainless steel studs
- Studs treated with anti-seize lubricant
- 50V DC
- Tinned CDA102 Copper conductors
- Stainless steel studs, washers, nuts for longevity in a harsh environment
- Generous stud lengths, metric threads



Pro Installer Link Bar 5/pkg

Description	Part #	OEM #
3 Stud Bus Bar	777-BB3S-650	777-BB3S-650-B
4 Stud Bus Bar	777-BB4S-500	777-BB4S-500-B
5 Stud Bus Bar	777-BB5S-650	777-BB5S-650-B
8 Stud Bus Bar	777-BB8S-650	777-BB8S-650-B
Pro Installer Link Bar 5/pkg	--	779-LB-1-B
Pro Installer Link Bar 5/pkg	--	779-LB-2-B
Pro Installer Link Bar 5/pkg	--	779-LBJ-2-B



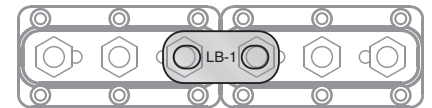
**LB-1** (marking)  
OEM # 779-LB-1-B



**LB-2** (marking)  
OEM # 779-LB-2-B



**LBJ-2** (marking)  
OEM # 779-LBJ-2-B



## Pro Installer Z BusBars

BEP Products have created a completely new concept for small cable termination with the Z-Bar range. These Bus Bars maximize power density by utilizing high and low level bars to optimize cable runs, saving even more installation space.

### Specifications

- 10 Way and 18 Way versions
- 4x 6 mm (1/4") studs with anti-seize lubricant
- 4 mm (5/32") terminals with captive lock washers
- 200A maximum per bar (2x 200A)
- 50V DC
- Tinned CDA102 Copper conductors
- Stainless steel studs, washers, nuts for longevity in a harsh environment
- Metric threads

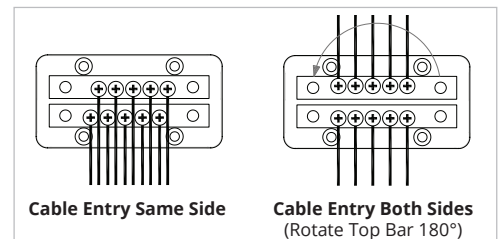


Find out more.  
Watch the video.

Description	Part #	OEM #
10 way, Z Bus Bar	777-Z10W-200	777-Z10W-200-B
18 way, Z Bus Bar	777-Z18W-200	777-Z18W-200-B
Pro Installer Link Bar 5/pkg	--	779-LBZ-2-B



**LBZ-2** (marking)  
OEM # 779-LBZ-2-B 5/pkg



## PowerBar - 600A Common BusBar

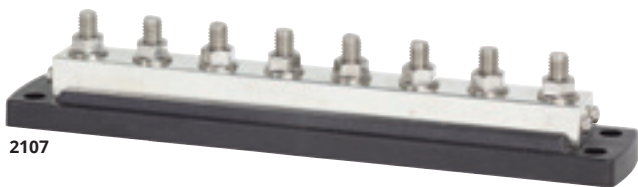
High amperage BusBar with 3/8" terminal studs



2708



2104



2107

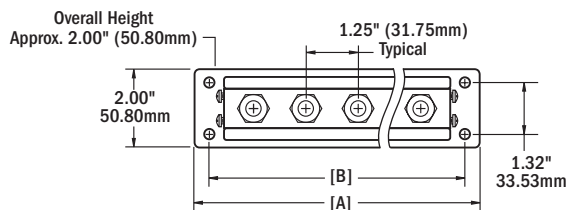
### Specifications

Continuous Rating	545A AC/600A DC
Voltage Max. Operating	300V AC/48V DC
Mounting Holes	2104—Accepts 1/4" Screws 2107—Accepts #10 (M5) Screws
Bus Material	Tin-Plated Copper C11000

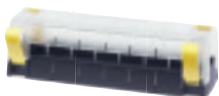
### Regulatory

CE certified

Part #	Terminal Studs	Terminal Screws	[A] Length in (mm)	[B] Mounting Centers in (mm)
2104	4 x 3 / 8" -16	4 x #8-32	7.0 (177.8)	6.25 (158.74)
2107	8 x 3 / 8" -16	4 x #8-32	11.375 (288.93)	10.375 (263.53)
2708	Cover For 2104			



### Related Products



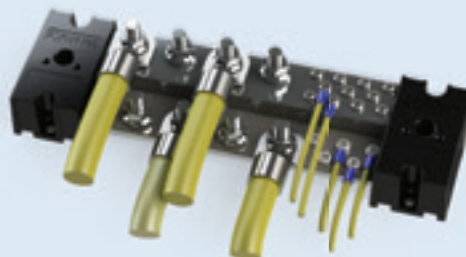
MaxiBus Cover 2718  
page 120

## TECH tip™

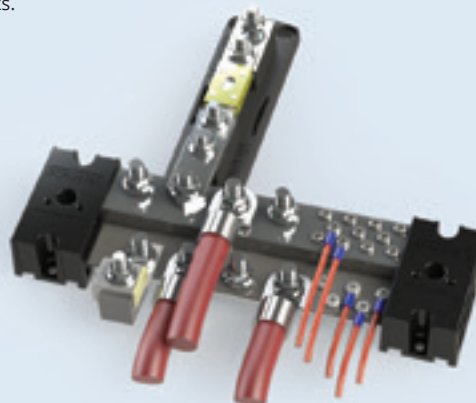
### PowerBar 1000 Explained

The PowerBar 1000 offers mounting and application flexibility. Coupled with security features like serrated flange nuts and an insulating cover, the PowerBar 1000 is an organized and secure termination point for the boat or vehicle's critical electrical connections.

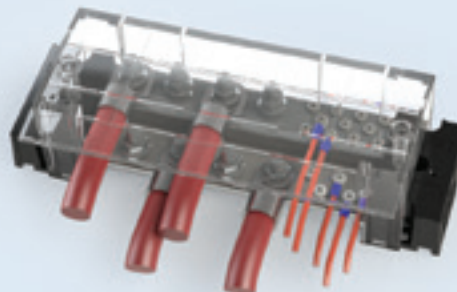
PowerBar 1000 used as a grounding bus and high density collecting point for both large and small gauge conductors.



PowerBar 1000 used as a high amperage positive distribution bus for various types and sizes of fuses as well as high density collecting point for both large and small gauge conductors. Typically this configuration would include the snap on insulating cover but pictured without to better show fuse blocks.



PowerBar 1000 used as a positive distribution bus and high density collecting point for both large and small gauge conductors. Pictured with snap on insulating cover.



Gang two or more PowerBars together



## PowerBar 1000

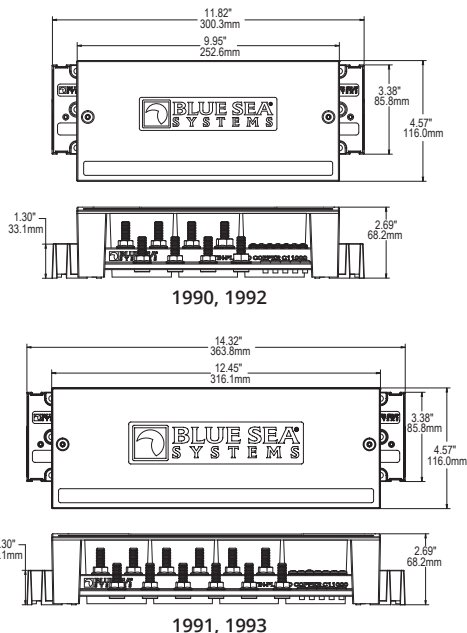
Complex wiring systems require a single point to consolidate large and small conductors. The PowerBar 1000 offers a 1,000 Amp busbar with various size studs and screws to connect conductors and fuse blocks. A snap-on insulating cover is included in retail packages and can be purchased separately when purchased in bulk.

- 1,000 Amp busbar for large complex wiring systems
- Tin plated pure electrical copper for maximum conductivity
- Stepped bus design offers two elevations for conductors which doubles the density of the wire loom compared to traditional bus bars
- Busbar and fuse block elevations match common fuse blocks allowing for multiple fuse block attachment, eliminating the need for connecting cables
- One-piece serrated flange nuts ensure correct and secure connections
- Stainless steel 8-32 screws with captive lock washers for securing smaller gauge wires
- Busbar may be cut to a shorter length to accommodate constricted spaces
- Bi-directional busbar end caps allow the ganging of additional busbars
- Snap on insulating cover meets ABYC and USCG requirements and includes label recess
- Models available to accommodate either 3/8" or 5/16" terminals

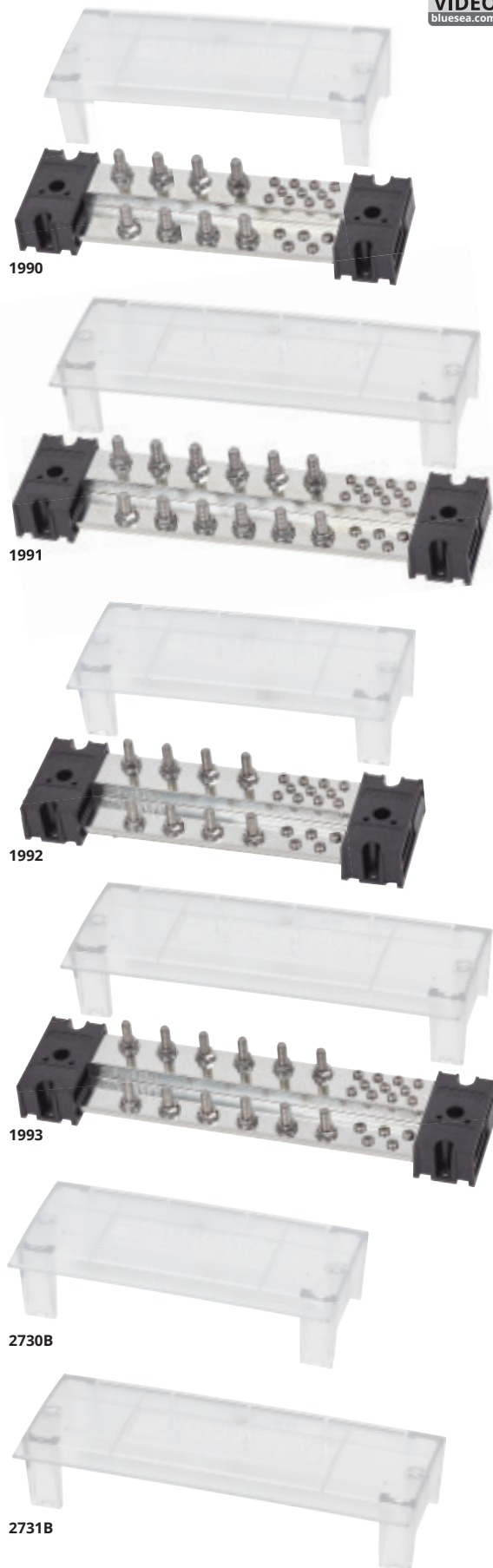
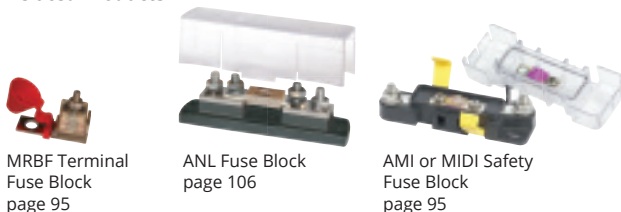
### Specifications

Continuous Rating	1000A
Voltage Max. Operating	150V
Mounting Holes	Accepts #10 (M5) Screws
Bus Material	Tin-Plated Copper C11000

Part #	Cover	Terminal Studs	Terminal Screws
1990	Yes	8 x 3/8" - 8	5 x #10-24, 11 x #8-32
1991	Yes	12 x 3/8" - 12	5 x #10-24, 11 x #8-32
1992	Yes	8 x 5/16" - 8	5 x #10-24, 11 x #8-32
1993	Yes	12 x 5/16" - 12	5 x #10-24, 11 x #8-32
2730B	PowerBar 1990 and 1992 Cover	--	--
2731B	PowerBar 1991 and 1993 Cover	--	--



### Related Products



## Terminal Blocks

Fully insulated independent terminal blocks to isolate circuits

- Each screw pair is one isolated circuit
- Terminal Block Jumpers allow creation of common circuits
- Closed back design insulates power from the mounting surface

### Specifications

Bus Material Nickel-Plated Brass  
 Base Material High temp UL 94 VO thermoplastics

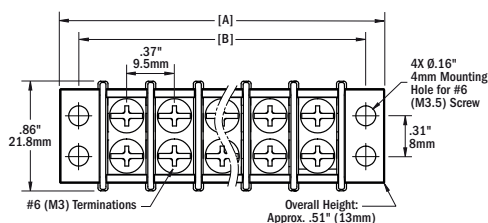
### Regulatory

RoHS and UL Recognized  
 CE certified

Part #	Circuits	AC/DC Amps	AC/DC Volts	Terminal Screw	[A] Length in (mm)	[B] Mounting Centers in (mm)
2402	2	20A	300V	M3.5 (#6)	1.43 (36.20)	1.13 (28.70)
2404	4	20A	300V	M3.5 (#6)	2.17 (55.00)	1.87 (47.60)
2406	6	20A	300V	M3.5 (#6)	2.91 (74.00)	2.62 (66.60)
2408	8	20A	300V	M3.5 (#6)	3.66 (93.00)	3.37 (85.60)
2410	10	20A	300V	M3.5 (#6)	4.41 (112.00)	4.12 (104.60)
2502	2	30A	600V	M4 (#8)	2.13 (54.00)	1.69 (42.80)
2504	4	30A	600V	M4 (#8)	3.25 (82.60)	2.81 (71.40)
2506	6	30A	600V	M4 (#8)	4.38 (111.20)	3.94 (100.00)
2508	8	30A	600V	M4 (#8)	5.50 (139.70)	5.06 (128.50)
2510	10	30A	600V	M4 (#8)	6.63 (168.30)	6.18 (157.10)
2512	12	30A	600V	M4 (#8)	7.75 (196.80)	7.31 (185.60)
2602	2	65A	600V	M5 (#10)	2.51 (63.80)	2.06 (52.40)
2604	4	65A	600V	M5 (#10)	3.89 (98.70)	3.44 (87.30)
2606	6	65A	600V	M5 (#10)	5.26 (133.60)	4.81 (122.20)
2608	8	65A	600V	M5 (#10)	6.63(168.50)	6.19 (157.10)
2610	10	65A	600V	M5 (#10)	8.01 (203.40)	7.56 (192.00)



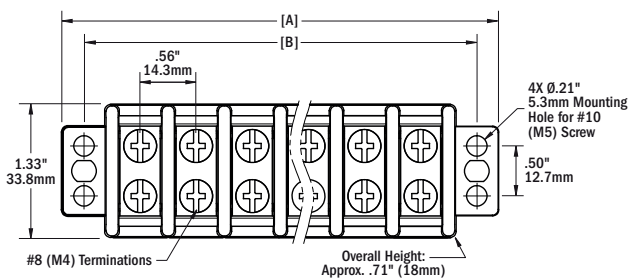
2406



2402-2410



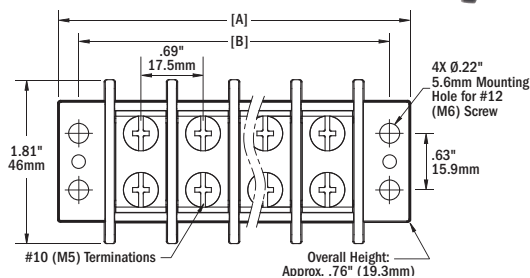
2506



2502-2512



2606



2602-2610

## Terminal Block Jumpers

Combines independent circuits on Terminal Blocks and ST-Blade Fuse Blocks 5035 and 5037

### Specifications

Bus Material Nickel-Plated Brass  
 Continuous Amperage Equivalent to matching block

Part #	Description	Retail Pack
9218	For use with 20A Terminal Blocks	5
9217	For use with 30A Terminal Blocks and ST Blade Fuse Blocks 5035 & 5037	5
9216	For use with 65A Terminal Blocks	5



### Related Products



ST Blade Fuse Blocks page 100

## TECH tip

### Connector & Insulators Explained

**Tin-plated copper buses** provide maximum conductivity and corrosion resistance.

**Insert-molded stainless steel studs** eliminate the need for securing nuts and allow high torquing for excellent electrical contact.

**UL 94-V0 rated** base materials resist high heat.

**Terminal Screws** incorporate stainless steel split ring lock washers and captive star-type lock washers keep connections tight in high vibration environments.

**One-Piece Serrated Flange Nuts** ensure correct and secure connections which do not cause resistance.

**Insulating covers** meet ABYC and USCG insulation requirements.

## PowerPost Cable Connectors

Insulated single stainless steel stud terminates multiple large conductors



- One-piece serrated flange nuts ensure correct and secure connections

### Specifications

Continuous Rating Not rated—amperage flows between terminals stacked on post and is determined by wire and terminals used.

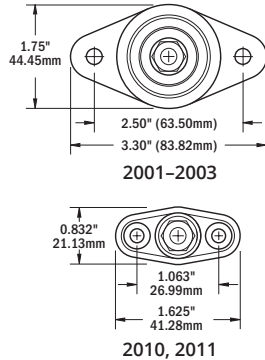
Voltage Max. Operating 48V DC

Mounting Holes Accepts #8 Screws (2010, 2011)  
Accepts 1/4" Screws (2001, 2002, 2003)

### Regulatory

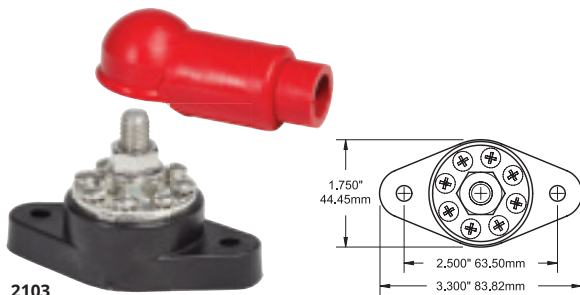
CE certified

Part #	Terminal Stud
2010	#10-32 × 5/8"
2011	1/4"-20 × 3/4"
2001	1/4"-20 × 1-1/16"
2002	5/16"-18 × 7/8"
2003	3/8"-16 × 7/8"



## PowerPost Plus Cable Connectors

Enables connection of multiple smaller wires in spaces where a traditional bus bar may not fit



- 150 Amp bus allows small wire connections at high amperage cable connections
- One-piece serrated flange nut ensures correct and secure connections

### Specifications

Continuous Rating 150A DC

Voltage Max. Operating 48V DC

Mounting Holes Accepts 1/4" Screws

Bus Material Tin-Plated Copper

### Regulatory

CE certified

Part #	Terminal Stud	Terminal Screws
2101	1/4"-20 × 1"	8 × #8-32
2102	5/16"-18 × 3/4"	8 × #8-32
2103	3/8"-16 × 3/4"	8 × #8-32

## Dual PowerPost Cable Connectors

Provides a termination point for extending the length of outboard harnesses or other conductors

- Designed for connecting high amperage conductors
- 2018 is also designed for outboard engine installation when factory cables need to be extended
- One-piece serrated flange nuts ensure correct and secure connections

### Specifications

Continuous Rating Not rated—amperage flows between terminals stacked on post and is determined by wire and terminals used.

Voltage Max. Operating 48V DC

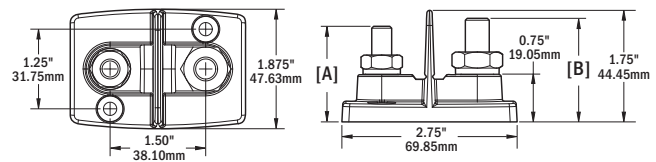
Mounting Holes Accepts #10 (M5) Screws

### Regulatory

CE certified



Part #	Terminal Studs	Insulating Cover	Stud Height A in (mm)	Stud Height B in (mm)
2016	2 × 5/16"-18	Yes	1.50 (38.1)	1.50 (38.1)
2016100	2 × 5/16"-18	--	1.50 (38.1)	1.50 (38.1)
2017	2 × 3/8"-16	Yes	1.63 (41.3)	1.63 (41.3)
2017100	2 × 3/8"-16	--	1.63 (41.3)	1.63 (41.3)
2018	1 × 5/16"-18, 1 × 3/8"-16	Yes	1.50 (38.1)	1.63 (41.3)
2018100	1 × 5/16"-18, 1 × 3/8"-16	--	1.50 (38.1)	1.63 (41.3)



## Terminal Feed Through Connectors

Eliminates chafe and provides strain relief when passing high current through hulls, decks and bulkheads

- Protects large cables that are subject to chafing when passed through holes
- The large terminals have a mounting face that can be gasketed or bedded to provide a water-tight installation
- One-piece serrated flange nut ensures correct and secure connections

### Specifications

Stud Material Tin-Plated Copper Alloy

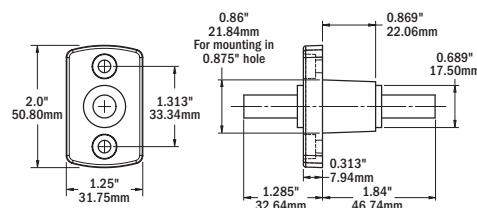
Mounting Holes Accepts #10 (M5) Screws

### Regulatory









Rated IP66 - protected against powerful water jets
















Part #	Terminal Stud	Amps	Volts	Color
2201	5/16"-18	250A	48V	Black
2202	5/16"-18	250A	48V	Red
2203	3/8"-16	250A	48V	Black
2204	3/8"-16	250A	48V	Red










# Connector Comparison

Product	Water-Resistant BusBar	Battery Terminal Mount BusBars	DualBus 100A Common BusBars		MiniBus 100A Common BusBars			DualBus Plus 150A Common BusBars
								
Page #	page 118	page 118	page 118	page 118	page 119	page 119	page 119	page 119
Part #	2356	2340	2701	2702	2304	2305	2306	2722 & 2723
Continuous Rating	100A AC/DC	100A DC	100A AC/DC		100A AC/DC			130A AC / 150A DC
Max. Voltage	300V AC / 48V DC	32V DC	300V AC / 48V DC		300V AC / 48V DC			300V AC / 48V DC
Terminal Screw	4 × #8-32	4 \ bus × #8-32	5 \ bus × #8-32	10 \ bus × #8-32	5 × #8-32	--	6 × #8-32	5 per bus × #8-32
Terminal Stud	1 × #10-32	--	--		2 × #10-32	4 × #10-32	--	2 per bus × 1/4"-20 or 2 per bus × 5/16"-18
Insulating Cover	Included	Included	Cover available		Cover available			Included

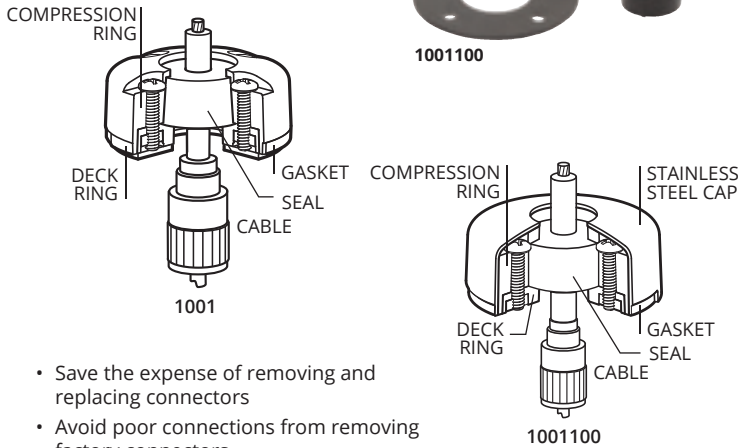
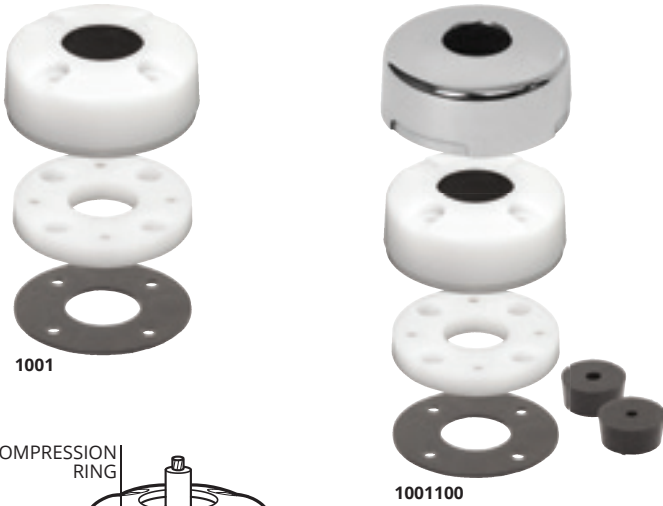
Product	150A Common BusBars				MaxiBus 250A Common BusBars			
								
Page #	page 119	page 119	page 119	page 120	page 120	page 120	page 120	page 120
Part #	2300	2312	2307	2128	2105	2127	2126	
Continuous Rating	130A AC / 150A DC	130A AC / 150A DC	130A AC / 150A DC	250A AC/DC	250A AC/DC	250A AC/DC	250A AC/DC	250A AC/DC
Max. Voltage	300V AC 48V DC	300V AC 48V DC	300V AC 48V DC	300V AC 48V DC	300V AC 48V DC	300V AC 48V DC	300V AC 48V DC	300V AC 48V DC
Terminal Screw	10 × #8-32	20 × #8-32	--	6 × #10-24	12 × #10-24	--	--	--
Terminal Stud	2 × 1/4"-20	2 × 1/4"-20	4 × 1/4"-20	2 × 5/16"-18	2 × 5/16"-18	4 × 5/16"-18	6 × 5/16"-18	
Insulating Cover	Cover available	Cover available	Cover available	Cover available	Cover available	Cover available	Cover available	Cover available

Product	PowerBar Common BusBar	Terminal Blocks				PowerBar 1000A	
							
Page #	page 120	page 124	page 124	page 124	page 123	page 123	
Part #	2019	20A Series	30A Series	65A Series	1992 & 1993	1990 & 1991	
Continuous Rating	Determined by wire up to 200A	20A AC/DC	30A AC/DC	65A AC/DC	1000A	1000A	
Max. Voltage	48V DC	300V AC/DC	600V AC/DC	600V AC/DC	150V	150V	
Terminal Screw	--	#6	#8	#10	5 × #10-24, 11 × #8-32	5 × #10-24, 11 × #8-32	
Terminal Stud	2 × 3/8"-16	--	--	--	8 × 5/16"-8 or 12 × 5/16"-8	8 × 3/8"-8 or 12 × 3/8"-8	
Insulating Cover	Included	--	--	--	Included	Included	

Product	PowerBar 600A Common BusBars		Terminal Feed Through Connectors	PowerPost Cable Connectors		PowerPost Plus Cable Connectors	Dual PowerPost Cable Connectors
							
Page #	page 122	page 122	page 125	page 125	page 125	page 125	page 125
Part #	2104	2107	2201-2204	2010 & 2011	2001-2003	2101-2103	2016-2018
Continuous Rating	545A AC/600A DC	545A AC/600A DC	250A DC	Determined by wire and terminals		150A DC	Determined by wire and terminals
Max. Voltage	300V AC / 48V DC	300V AC / 48V DC	48V DC	48V DC	48V DC	48V DC	48V DC
Terminal Screw	4 × #8-32	4 × #8-32	--	--	--	8 × #8-32	--
Terminal Stud	4 × 3/8"-16	8 × 3/8"-16	5/16"-18 or 3/8"-16	1 × #10-32 or 1 × 1/4"-20	1 × 1/4"-20 or 1 × 5/16"-18 or 1 × 3/8"-16	1 × 1/4"-20 or 1 × 5/16"-18 or 1 × 3/8"-16	2 × 5/16"-18 or 2 × 3/8"-16 or 1 × 5/16"-18 and 1 × 3/8"-16
Insulating Cover	Cover available	--	--	Included	Included	Included	Included

## CableClams

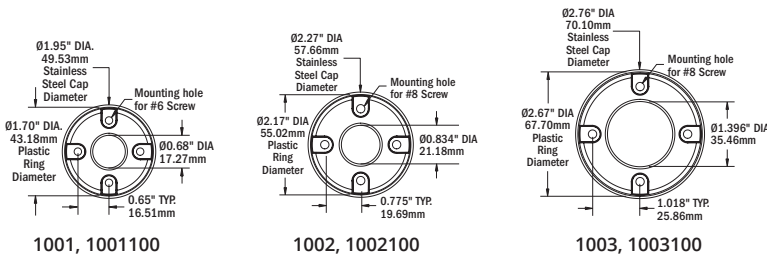
Provides a waterproof pass-through for antenna cables without requiring removal of the factory installed connector



- Save the expense of removing and replacing connectors
- Avoid poor connections from removing factory connectors
- Use 1001, 1001100 for GPS cables, 1002, 1002100 for VHF cables, 1003, 1003100 for Radar cables
- Pre-drilled and slit rubber seals for easier installation
- 1001100, 1002100, 1003100 includes a 316 stainless steel dress cap which conceals mounting hardware and matches other deck hardware
- Stainless steel fasteners included

### Specifications

Ring Material UV-Stabilized Thermoplastic  
Seal Material UV-Stabilized Buna-N Rubber

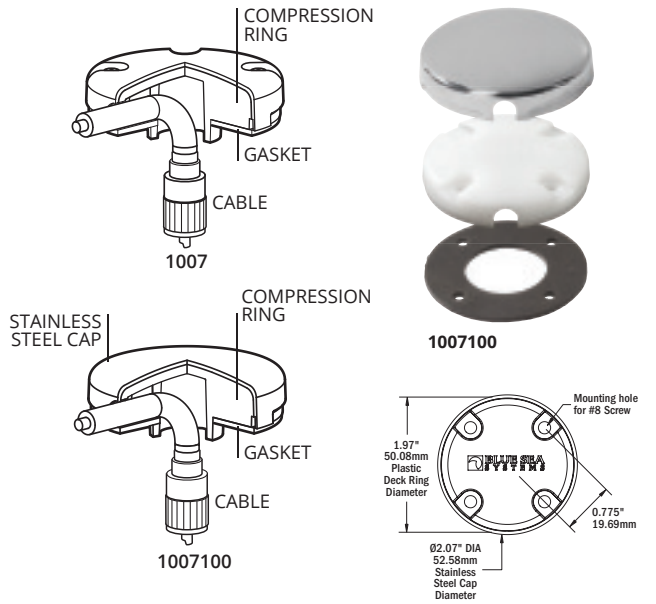


1001, 1001100      1002, 1002100      1003, 1003100

Part #	Seals Included	Max. Connector Diameter in (mm)	Max. Cable Diameter in (mm)	Dress Cap	Mounting Holes Accept
1001	--	0.68 (17.0)	0.31 (8.0)	--	#6 x 7/8" screws
1001100	3	0.68 (17.0)	0.31 (8.0)	Yes	#6 x 7/8" screws
1002	--	0.83 (21.0)	0.44 (11.0)	--	#8 x 7/8" screws
1002100	3	0.83 (21.0)	0.44 (11.0)	Yes	#8 x 7/8" screws
1003	--	1.40 (35.0)	0.56 (14.0)	--	#8 x 7/8" screws
1003100	1	1.40 (35.0)	0.56 (14.0)	Yes	#8 x 7/8" screws

## Side-Entry CableClams with Stainless Steel Dress Cap

Provides a waterproof side-entry for cables without requiring removal of the factory installed connector



- Simple one-piece design for easy side-entry installations
- Low profile, contoured edge reduces the risk of tangling lines
- 1007100 includes a 316 stainless steel dress cap which conceals mounting hardware and matches other deck hardware
- Stainless steel fasteners included

### Specifications

Ring Material UV-Stabilized Thermoplastic  
Gasket Material UV-Stabilized Buna-N Rubber

Part #	Max. Connector Diameter in (mm)	Max. Cable Diameter in (mm)	Dress Cap	Mounting Holes Accept
1007	1.00 (25.40)	0.28 (7.112)	--	#8 x 7/8" screws
1007100	1.00 (25.40)	0.28 (7.112)	Yes	#8 x 7/8" screws



# SWITCHING & MONITORING

## Water-Resistant Panels

130



Designed for exposed mounting applications.

## Waterproof Panels

131



Designed for open-cockpit and flybridge applications.

## OLED Digital Meters

132



Measures essential electrical system parameters with adjustable alarms and an auto-dimming display.

## DC Shunts & AC Transformers

135



DC Shunts:  
For use with DC Ammeters.  
AC Transformers:  
For use with AC Ammeters

## Floyd Bell DC Alarm

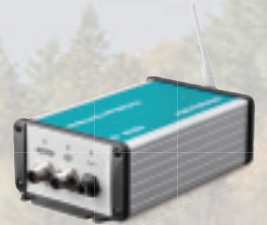
135



Loud intermittent beep tone alerts operator

## CZone® Wireless Interface

138



The Wireless Interface (WI) is a digital control and monitoring interface module designed to connect your tablet to the CZone network over WiFi.





# SWITCHING & MONITORING

## CZone® Touch Display

139



CZone displays are designed with both the manufacturer and end-user in mind. The easy-to-use display screens put the control of all components directly at your fingertips. Multiple display interfaces can be used in the same system. The scroll and click interface is simple to use in the roughest of seas or bumpiest of roads.

## CZone® Control 1

142

NEW



The Control 1 combines multiple input and output devices in to a single module, minimizing installation time, interconnections and footprint.

## CZone® Contact 6 PLUS

144

NEW



Utilising proven CZone® digital switching technology the Contact 6 PLUS is a robust and affordable digital switching solution.

## SmartRemote

146



With the SmartRemote display, checking your Mastervolt or CZone product has never been easier.

## EasyView 5 MasterBus® Display

147



The EasyView 5 features a sharp, waterproof display which is clearly readable in daylight. Easily customizable favorite pages show all relevant system information at a glance.



## Water-Resistant Circuit Breaker Switch Panels

Designed for exposed mounting applications

- Available in gray or camouflage finish
- Illuminated 15A circuit breakers provide switching, ON indication and overcurrent protection
- Industry-standard sizes and mounting allow these panels to be easily retrofitted in an existing application
- Polycarbonate/ABS panel surface is UV-stabilized, flame retardant and will not corrode
- Silicone breaker boots and EPDM gasket protects against water ingress
- Low profile makes it easy to install in tight spaces
- Fast-on circuit breaker connectors make it quick to wire
- Two-wire connection for powering all panels is simple and requires #10 ring terminals. Terminals screw to busbars for secure connections
- Set of 15 square format circuit labels are included, and are easy to replace. Additional standard or custom labels are available through Blue Sea Systems

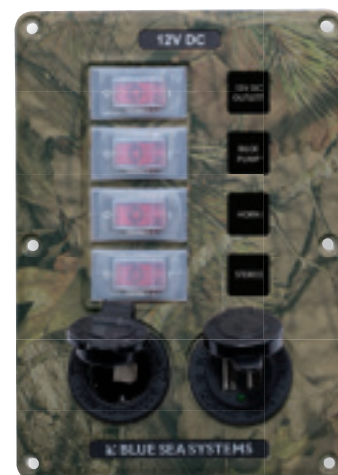
Nominal Voltage	12V DC
Amperage Max. Operating	45A
Terminal Type	1/4" Male quick connect
Hardware	Stainless Steel #6 x 5/8" mounting screws
Ring Terminal Size	M5 (#10)

### Regulatory

Panel front is IP45 (4321 & 4324 only, with cover closed) or IP66 when mounted with gasket in place - protected against powerful water jets (see inside back cover)



4321  
Gray



4324  
Camo

Part #	Description	Color	Width in (mm)	Height in (mm)	Depth in (mm)	Width Mounting Centers in (mm)	Height Mounting Centers in (mm)
4320	4 positions	Gray	4.70 (119.38)	5.03 (127.76)	1.75 (44.45)	4.13 (104.90)	4.45 (113.03)
4321	4 pos. + 12 Volt Socket & Dual USB Charger	Gray	4.70 (119.38)	6.68 (169.67)	2.71 (68.83)	4.13 (104.90)	6.10 (154.94)
4322	6 positions	Gray	4.70 (119.38)	6.68 (169.67)	1.75 (44.45)	4.13 (104.90)	6.10 (154.94)
4323	4 positions	Camo	4.70 (119.38)	5.03 (127.76)	1.75 (44.45)	4.13 (104.90)	4.45 (113.03)
4324	4 pos. + 12 Volt Socket & Dual USB Charger	Camo	4.70 (119.38)	6.68 (169.67)	2.71 (68.83)	4.13 (104.90)	6.10 (154.94)
4325	6 positions	Camo	4.70 (119.38)	6.68 (169.67)	1.75 (44.45)	4.13 (104.90)	6.10 (154.94)



4322



4325



4320



4323



# WeatherDeck® Waterproof Panels

Designed for open-cockpit and flybridge applications

- **Fuse Model:** Bicolored LEDs illuminate circuit labels to quickly identify OFF (Red), ON (Green), or Blown (No color) circuits
- **Circuit Breaker Panels:** Green LEDs illuminate circuit labels
- **Fuse and Circuit Breaker Panels:**
  - Backlighting is compatible with Blue Sea Systems' DeckHand Dimmers
  - Independent label backlighting allows switching and dimming
- **Switch Only Panels:** No circuit protection or illuminated circuit labels
- Integrated switch guards reduce the risk of accidental switching
- Panels can be mounted in four different orientations
- Panel front rated IP67 when properly mounted with watertight mounting gasket
- UV stabilized weather-resistant faceplate snaps on and off providing access to components and concealing mounting screws
- Square Format Label Set 4215 included

## Circuit Breaker Panel Specifications

Voltage Max. Operating	24V DC
Amperage Max. Operating	15A @ 12V DC (per circuit) 9A @ 24V DC (per circuit)
Amperage Operating Current (backlight)	10mA (per illuminated circuit)
Panel Cumulative Rating	45A
Switch Rating	15A Max.
Backlighting Voltage	12 or 24V DC
Backlighting Amperage Draw	10mA (per illuminated circuit)
Circuit Breaker Rating	15A

## Fuse Panel Specifications

Voltage Max. Operating	12V DC
Amperage Max. Operating	15A @ 12V DC (per circuit)
Amperage Operating Current (backlight)	10mA (per illuminated circuit)
Panel Cumulative Rating	2 Pos. (30A), 4 Pos. (60A), 6 Pos. (90A), 8 Pos. (100A)
Switch Rating	15A Max.
Backlighting Voltage	12V DC Nominal
Fuses Available	1-30A

## Switch Only Panel Specifications

Voltage Max. Operating	24V DC
Amperage Max. Operating	15A @ 12V DC (per circuit)
Switch Rating	15A Max.

## Regulatory

IP67 - protected against immersion up to 1 meter for 30 minutes (see inside back cover)



Circuit Breaker Panel



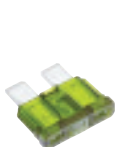
Fuse Panel



Switch Only Panel

Part #	Description	Pos.	Circuit Breakers	Fuses	Label Backlight	Volts	Width in (mm)	Height in (mm)	Depth in (mm)	Width Mounting Centers in (mm)	Height Mounting Centers in (mm)
4374	Circuit Breaker Panel	4	Yes	--	Yes	12/24V	4.25 (107.95)	4.30 (109.22)	3.50 (88.90)	3.69 (93.73)	3.74 (95.00)
4376	Circuit Breaker Panel	6	Yes	--	Yes	12/24V	4.25 (107.95)	6.00 (152.40)	3.50 (88.90)	3.69 (93.73)	5.44 (138.18)
4378	Circuit Breaker Panel	8	Yes	--	Yes	12/24V	4.25 (107.95)	7.70 (195.58)	3.50 (88.90)	3.69 (93.73)	7.14 (181.36)
4302	Fuse Panel	2	--	Yes	Yes	12V	3.88 (98.55)	2.60 (66.04)	2.50 (63.50)	3.31 (84.07)	2.04 (51.82)
4304	Fuse Panel	4	--	Yes	Yes	12V	3.88 (98.55)	4.30 (109.22)	2.50 (63.50)	3.31 (84.07)	3.74 (95.00)
4306	Fuse Panel	6	--	Yes	Yes	12V	3.88 (98.55)	6.00 (152.40)	2.50 (63.50)	3.31 (84.07)	5.44 (138.18)
4308	Fuse Panel	8	--	Yes	Yes	12V	3.88 (98.55)	7.70 (195.58)	2.50 (63.50)	3.31 (84.07)	7.14 (181.36)
4303	Switch Only Panel	2	--	--	--	12/24V	3.88 (98.55)	2.60 (66.04)	2.50 (63.50)	3.31 (84.07)	2.04 (51.82)
4305	Switch Only Panel	4	--	--	--	12/24V	3.88 (98.55)	4.30 (109.22)	2.50 (63.50)	3.31 (84.07)	3.74 (95.00)
4307	Switch Only Panel	6	--	--	--	12/24V	3.88 (98.55)	6.00 (152.40)	2.50 (63.50)	3.31 (84.07)	5.44 (138.18)
4309	Switch Only Panel	8	--	--	--	12/24V	3.88 (98.55)	7.70 (195.58)	2.50 (63.50)	3.31 (84.07)	7.14 (181.36)

## Related Products



ATO or ATC Fuses page 115



ST-Blade Fuse Blocks page 100



ST-CLB Circuit Breaker Blocks page 110



Push Button Circuit Breakers page 111



CLB Circuit Breaker Waterproof Boots page 111

## M2 OLED Digital Meters

The M2 Organic LED Digital Monitor measures essential electrical system parameters with adjustable alarms and an auto-dimming display. The M2 Monitors include a MOSFET External Circuit Relay (ECR) which can be used to control external circuits based on any value measured by the M2.

- Auto-dimming, bright Organic LED display is easy to read
- 80dB alarm on all models
- Isolated 500mA MOSFET relay
- Includes external DC Shunt or AC Current Transformer when required

### Specifications

Display Size	55mm x 28mm
Power Supply Voltage	7-70V DC*
Range (Power Consumption)	0.3W-1.0W

\* Variable with voltage, display intensity, and sleep mode

### Regulatory

Monitor face is IP66 - protected against powerful water jets when installed according to instructions

## M2 Vessel Systems Monitor (VSM)

Performs comprehensive monitoring of four critical systems in one compact organic LED digital monitor

### DC System Monitoring (up to two batteries)

One input monitors the DC voltage, state-of-charge, current for one battery bank and another input monitors the voltage of an additional battery bank. Alarms include high and low voltage, high current, and low battery.

### AC System Monitoring

The VSM monitors a single AC voltage, current, and frequency. Alarms include high and low voltage, high current, and high and low frequency.

### Tank Monitoring

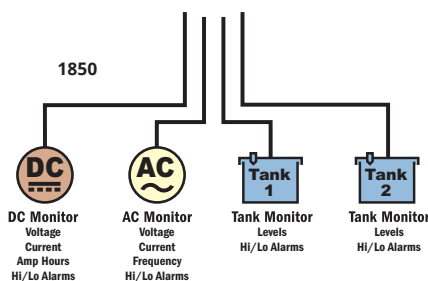
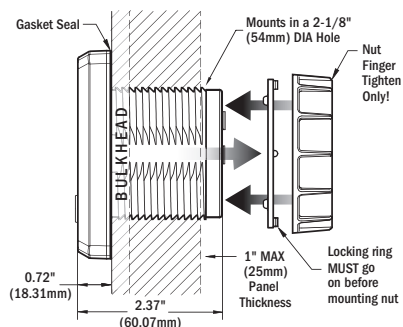
The VSM has two tank monitoring auxiliary inputs. Tank status can be represented in both capacity (gallons or liters) or as a percentage of capacity. Custom tank shapes can be auto-calibrated or programmed. Both high and low level alarms can be set for all tanks.

### M2 OLED Mounting Options



Part #	Description	Width in (mm)	Height in (mm)
1525	360 Blank M2 OLED Panel	4.88 (123.83)	4.75 (120.65)

### M2 OLED Surface Mount



### Connection Table

System	Inputs	Functions
DC	2	DC Voltage Battery 1, State-of-Charge, & Current DC Voltage Battery 2
AC	1	AC Voltage, Current, & Frequency
Auxiliary	2	Tank 1, Tank 2

### Ultrasonic Tank Senders

Part #	Description
1810	Diesel, Water, Waste Ultrasonic Tank Sender (32" tank depth)
1811	Gasoline Ultrasonic Tank Sender (24" tank depth)



### Tank Senders Supported:

- 10-180 Ω VDO
- 240-33 Ω Teleflex
- 1810 & 1811 (sold separately)

### Related Products



ML Series Remote Battery Switches page 82 | DC Shunts page 135 | Floyd Bell Turbo Series Alarm page 135 | AC Current Transformer page 135 | Temperature Sensors page 135

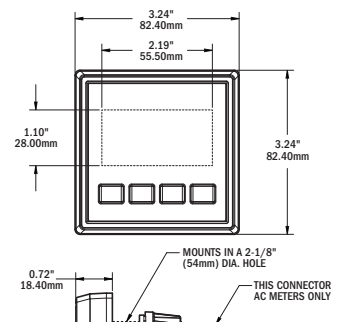


Description	AC Ammeter	AC Voltmeter	AC Multimeter
<b>Functions</b>	Monitors current on two circuits	Monitors voltage on two circuits or both legs of 120/240V	Monitors voltage, current, frequency, and power on two circuits or both legs of 120/240V
<b>Voltage</b>			
Accuracy	--	± 1.0%	± 1.0%
Operating	7V-70V DC	7V-70V DC	7V-70V DC
Range	--	50V-250V AC (RMS)	50V-250V AC (RMS)
Resolution	--	1V AC	1V AC
<b>Current</b>			
Current Transformer	1 x 8256 (150A/50mA)	--	1 x 8256 (150A/50mA)
Accuracy	± 2.0%	--	± 2.0%
Range	0A-150A (300A optional) †	--	0A-150A (300A optional) †
Resolution (100 to 150)	1A	--	1A
Resolution (0.0 to 99.9)	0.1A	--	0.1A
<b>Frequency</b>			
Range	--	--	40Hz-90Hz
Resolution	--	--	1 Hz
<b>Power</b>			
Range	--	--	0W-45kW
Resolution (0W-9990W)	--	--	10W
Resolution (10kW-45kW)	--	--	0.1kW
Alarm/Relay Activation	High Current	High and Low Voltage	High and Low Voltage & Current

† Will achieve 300A with an optional current transformer 1829, see page 135



Description	Tank	Temperature
<b>Functions</b>	Monitors up to 4 tanks	Monitors up to 4 locations
<b>Operating</b>	7V-40V DC	7V-70V DC
<b>Senders</b>	North American, 240Ω-33Ω European, 10Ω-180Ω Blue Sea Systems Ultrasonic (1810, 1811) Custom Ranges to 300Ω	4 x PN 1821 (included)
<b>Alarm/Relay Activation</b>	High and Low Level	High and Low Temperature
<b>Other</b>	Custom tanks shapes Auto calibration	Measures in Fahrenheit or Celsius -40°C - 120°C (-40°F - 250°F)



Description	DC SoC Monitor	DC Ammeter	DC Voltmeter	DC Multimeter
<b>Functions</b>	Monitors state-of-charge on one battery bank and voltage on three battery banks	Monitors current on two circuits	Monitors the voltage on up to four battery banks	Monitors the voltage of two battery banks and the current on one circuit
<b>Voltage</b>				
Voltages	12V, 24V, 36V, 48V	--	--	--
Accuracy	± 1.0%	--	± 1.0%	± 1.0%
Operating	7V-70V DC	--	7V-70V DC	7V-70V DC
Resolution	0.01V DC	--	0.01V DC	0.01V DC
<b>Current</b>				
Shunt	1 x 8255 (500A/50mV)	1 x 8255 (500A/50mV)	--	1 x 8255 (500A/50mV)
Accuracy	± 1.0%	± 1.0%	--	± 1.0%
Range	-500A to 500A	-500A to 500A	--	-500A to 500A
Resolution (100 to 500)	1A	1A	--	1A
Resolution (99.9 to 500)	0.1A	0.1A	--	0.1A
Alarm/Relay Activation	High & Low Voltage, High Current & Low Battery	High & Low Voltage, High Current & Low Battery	High & Low Voltage	High & Low Voltage, High Current & Low Battery



Description	Vessel Systems Monitor
<b>Functions</b>	Performs comprehensive monitoring of four systems
<b>DC Specifications</b>	
Nominal System Voltage	12V, 24V, 36V, 48V
Operating	7V-70V DC
Minimum Current Draw	15 mA @ 12V, display off 8 mA @ 24V, display off
Voltage Accuracy	+/- 1%
Range	-500A to 500A
Current Accuracy	+/- 1.0%
<b>AC Specifications</b>	
Nominal System Voltage	120V @ 60Hz, North America 230V @ 50Hz, Typical of Europe
Operating Voltage	0-300V
Voltage Accuracy	+/- 1.0%
Current Range	0-150A
Current Accuracy	+/- 2%
Frequency	40-90Hz

## Mini OLED Meters

Monitors essential electrical system parameters on a bright, waterproof, daylight readable OLED screen

- Compact size enables mounting in any convenient location
- Now available with yellow or blue OLED screens
- Reverse polarity protected
- Mounts in a common 1-1/8 in hole

Cutout Dimensions 1-1/8" (29 mm) diameter  
 Lifecycles Blue OLED: 10,000 hours  
 Yellow OLED: 100,000 hours



### Regulatory

CE marked  
 IP66 - protected against powerful water jets (see inside back cover)

Part #	1733 1733200	1732 1732200	1741 1741200	1739 1739200
Description	Voltmeter	Ammeter	Temp Meter	Tank Meter
Nominal Voltage	12 / 24V DC	12 / 24V DC	12 / 24V DC	12 / 24V DC
Input Voltage	8V-36V DC	8V-36V DC	8V-36V DC	8V-36V DC
Max. Operating Current	15mA	15mA	10mA	17mA
Resolution	0.01V DC	0.1A	1°F or 1°C	5%
Accuracy	+/- 1%	+/- 2%	+/- 1.25%	--
Intermittent: 5 min.	--	110A	--	--
Cranking: 30 sec.	--	175A	--	--
DC Shunt (included)	--	9230 (100A/50mV)	--	--
Temp Sensor (included)	--	--	1820*	--
Monitors*	8V-36V DC	-100A -100A DC	-40°F - 175°F (-40°C - 80°C)	Tank Level
Compatible Senders	--	--	--	North American: 240-33Ω European: 10-180Ω

\* With optional 1821 sensor, Temp Meters 1741 and 1741200 monitor: -40°F - 250°F (-40°C - 120°C)

## Mini Clamp Multimeter

Compact and feature-rich AC/DC Multimeter simplifies diagnosis of electrical problems

- Clamp allows measurement of AC and DC current in wires without disturbing the circuits or contacting live terminals
- Compact size allows comfortable one hand operation, portability, and access to confined areas
- Auto range simplifies operation by automatically selecting the range that best fits the data
- Additional functions include: Data Hold, Overload Display, and AutoPower-Off
- True RMS AC measurement is accurate for normal sine wave and modified sine wave inverter output

### Specifications

AC Amperes	0.01-400 Amps
AC Voltage	0.001-600 Volts
DC Amperes	0.01-400 Amps
DC Voltage	0.001-600 Volts
Resistance/Continuity Alarm	0.1-40MΩ
Measurement Resolution	4300 counts

### Regulatory

CE marked  
 CAT III, 600 Volts

Part #	Description
8110	Mini Clamp Multimeter



Includes test leads and carrying case



1733200  
Blue OLED

1733  
Yellow OLED



1741200  
Blue OLED

1741  
Yellow OLED



1732200  
Blue OLED

1732  
Yellow OLED



1739200  
Blue OLED

1739  
Yellow OLED

### Related Products



Water-Resistant Accessory Panels  
 page 31

## DC Shunts

### Use with DC Ammeters

For continuous operation, it is recommended that shunts not be run at more than two-thirds (66%) the rated current under normal conditions

### Specifications

Shunt Type	Resistive
Full Scale	50 mV
Amperage Max. Operating	66% of Rated Current
Amperage Int. (5 min.)	100% - Full scale rating
Amperage Int. (3 sec.)	300% - Full scale rating

Part #	For Use With	Ratio
9228	Analog Ammeter	50A DC/50mV DC
9230	Analog Ammeter	100A DC/50mV DC
9231	Analog Ammeter	150A DC/50mV DC
9233	Analog Ammeter	200A DC/50mV DC
8255	Digital Ammeter	500A DC/50mV DC



9228



9233



8255

## Temperature Sensor

### Use with the P12 Battery Charger, M2 OLED, and Mini OLED Meters

- Installs with double-sided tape

### Specifications

Wire Size	16 AWG
Wire Length 1820	12" (31 cm)
Wire Length 1821	18" (46 cm)



1820



1821

Part #	Description	IP Rating	Temperature Range
1820	Temp Sensor	IP68 Submersible	-40°F to 175°F (-40°C to 80°C)
1821	Temp Sensor	IP65 Non-submersible	-40°F to 300°F (-40°C to 150°C)

### Related Products



P12 Battery Charger page 34



2719 Enclosure page 120



M2 OLED Digital Meters page 132



Mini OLED Digital Meters page 134

## AC Current Transformers

### Use with AC Ammeters

Part #	For Use With	Ratio
8073	Analog Ammeter	50A AC/50mA AC
8257	Analog Ammeter	100A AC/50mA AC
8256	Digital and M2 Ammeter	150A AC/50mA AC
1829	M2 Ammeter	300A AC/50mA AC



1829



8073

## Floyd Bell Turbo Series DC Audible Alarm

### Loud intermittent beep tone audibly alerts operator

- Rotating bezel adjusts alarm volume
- Threaded attachment ring
- Fits 1 inch round aperture

### Specifications

Voltage Nominal	12V / 24V DC
Operating Voltage	5-30V DC
Operating Current	5 mA @ 5V DC 25 mA @ 30V DC
Operating Frequency	2900 ± 250 Hz
Terminals	Male 1/4" Quick Connect

### Regulatory

IP68 - Withstands water submergence and dust exposure  
UL Recognized



Part #	Description
1070	Floyd Bell Turbo Series Alarm

**CZONE**  
LET CZONE DO THE THINKING

## Digital Control and Monitoring

CZone digital control and monitoring simplifies installation of electrical systems through the replacement of complicated, cumbersome traditional wiring. CZone is perfect for Marine and Mobile applications and replaces switch and fuse panels with networked digital interfaces providing ultimate control of onboard electrical systems.

With one touch, CZone's intelligent management simplifies operation by combining multiple circuits through Mode selection and offers effortless Monitoring oversight of key systems and components while retaining advanced Control of specific circuits and functions.

CZone can take care of all the little things, leaving more time for the user to focus on what they value. Whether you are preparing the boat for the evening's entertaining, hitting the open road away from stable power, or focusing on getting the job done, let CZone do the thinking.



## Marine, Recreational, Specialty or Emergency Vehicle

CZone delivers purpose built functionality for the Marine, Recreational Vehicle, and Specialty or Emergency Vehicle Markets.

### Recreational Vehicle

CZone offers the industry leading solution for complete recreational vehicle switching for your smart vehicle. Larger recreational vehicles host complex onboard electrical systems to provide the user with functionality from broad integration for control and monitoring of multiple vehicle systems, to automation of key functions such as power management and storage, and to provide the user with a simple clean and friendly interface.



### Specialty & Emergency Vehicle

Vehicle digital control and monitoring automation offers operating efficiency and cost savings. Speed up deployment times with mode selection. Ensure uptime through complete power integration management. Maintain simple, straightforward operation for personnel with easier training and operating instructions, or improve maintenance and configuration standardization easily across a fleet.



## CZone® Wireless

Enjoy wireless control of your boat or vehicles system using iPad tablet or key fob remote control.



### Wireless Key Fob

Key-less control for your car is now just a way of life. From central locking and boot opener, to engine start and stop.

Industry leading boat and recreational vehicle manufacturers understand the benefits of keyless functionality to ensure their products are innovative and packed features, from controlling start-up and shutdown of house batteries, to illuminating deck lighting for safe easy access in low light conditions.

Control up to 4 different functions or utilise a predefined Mode of operation from each CZone key fob remote.

**Requires analogue input from Combination Output Interface (COI) or Signal Interface (SI).**

### iPad Wireless

Control any function in your system from the convenience of your iPad tablet in the comfort of the vessel's saloon lounge or RV's fold-out deck chair.

Control lighting circuits individually, groups of circuits or complete Mode selection. Set the mood or environment to match what you're doing.

Monitor house battery state of charge, voltage and current usage. See how much endurance you have until you need to supply the system with charge.

**Requires Wireless Interface (WI) or Touch 5 with built-in WiFi (see page 141).**



## CZone® Wireless Interface

The Wireless Interface (WI) is a digital control and monitoring interface module designed to connect your tablet to the CZone network over WiFi. Handling up to three (3) devices, the WI can offer connectivity of its own internal access point or can interface with other WiFi network systems on your vessel.

**Use the built in Ethernet port for a better connection to an existing network.**

80-911-0090-00 Wireless Interface

80-911-0095-00 WI MasterBus Connector  
(required for MasterBus connection)

### Features:

- User-friendly homepage to monitor and control onboard circuits
- Integrated control and monitoring of power products including battery chargers and inverters
- Monitor AC/DC power and batteries
- Monitor tank levels
- Receive visible alarms
- Connect a maximum of three devices simultaneously
- Ability to personalize homepage to display favorite circuits, modes & monitoring
- Customize your layout
- Connects to CZone or MasterBus networks for control and monitoring of systems



### Hardware:

- The Wireless Interface acts as the hub between MasterBus/CZone networks and local WiFi devices

*NOTE: WI MasterBus connector required for MasterBus connection*

- Ethernet connection to connect to other LANs
- USB connection for configuration updates
- Tested to FCC, CE, EMC
- Power cable and aerial included

MasterBus powering	no
Dimensions, hwxwd	4.1" x 7.5" x 2.4" / 105 x 190 x 60 mm
Weight	1.5 lb / 0.685 kg
Protection degree	IP54
Delivered with	power cable, WiFi antenna, USB extension cable, user's manual

## Touch 10 Generation 2

Premium touch interface with glass dash styling and low profile mounting

The generously sized Touch 10 provides excellent viewability and is the premium gateway into your integrated CZone system. Sleek and attractive, this display will complement the interior of any high-end application. But it's not all about looks - with the Touch 10, your CZone system is in good hands.

Capacitive high-bright touch display offers impressive daylight visibility with crisp graphic detail and elegant touch sensitivity. Full control offers an impressive wrap-sheet. Use mode selection to pick the right system configuration for you. Control and monitor key system functions and status, from tank level to current draw.

- Sleek glass dash styling
- Optically bonded IPS LCD provides excellent viewing angles
- 24 bit color for better color accuracy and contrast
- High resolution 1024 X 600 pixel for sharp and clear images
- 500nit brightness dimmable for night-time viewing
- NMEA 2000 compatible
- New dual core processor provides lightning fast performance
- Wide 8–32V DC range
- Consistent and familiar CZone 2.0 User Interface, customizable for any OEM

**80-911-0216-00** Touch 10 Generation 2

**Accessories**

**80-911-0032-00** Touch 10 Power Cable, 2 pin, 6.5ft (2m)

**80-911-0114-00** Touch 10 Mounting Bracket Kit



Slim side profile.



Screen	10.1" LED-backlit Projected Capacitive Touch display with IPS Technology
Aspect Ratio	Widescreen 16:10
Resolution	1280 x 800 pixels
Protection	IPX6
Dimensions (WxHxD)	7.72" x 10.83" x 1.61" (196 x 275 x 41 mm)
Weight	4.0 lb / 1.8 kg
Brightness	500nit
Input voltage	8–32V
Power consumption	1A @ 12V, 500mA @ 24V
Interfaces	NMEA 2000, USB2.0, Ethernet



## Touch 7

Introducing the CZone Touch 7. With an excellent 7" IPS LCD panel it can be viewed from any angle. The Touch 7 features all new electronics with the fastest dual core processor ever in a CZone Touch display and built-in Wi-Fi connectivity and Ethernet for tablet pairing. Installation is easy with front mount installation and screwless rear access, shallow 35mm mounting depths (including cable) and a wide 8–32V DC range. The Touch 7 also uses the familiar and easy to use CZone 2.0 User Interface, customizable for any OEM. The Touch 7 is primarily designed for RV applications, and any marine application should be reserved for parts of the vessel that remain dry.

- Easy to use touch interface
- Glass dash styling
- 24 bit color for better color accuracy and contrast
- 550 cd/m2 brightness dimmable for nighttime viewing
- Built in Wi-Fi connectivity
- NMEA 2000 compatible



**80-911-0200-00** CZone Touch 7 Kit\*

### Accessories

**80-911-0201-00** Touch 7 Mounting Bracket Kit

**80-911-0202-00** Touch 7 1M NMEA 2000 Drop Cable

**80-911-0203-00** Touch 7 Power Connector

\*Kit includes mounting bracket, 1M Network drop and power connector

Screen	7" IPS
Resolution	1024 x 600 pixels
Protection	IPX0
Dimensions (WxHxD)	5.12" x 7.68" x 1.61" (130 x 195 x 41 mm)
Brightness	550 cd/m <sup>2</sup>
Operating Voltage	8-32V DC
Current Draw	430mA @ 12V (operating - backlight 100%) 130mA @ 12V (standby - backlight off)
Interfaces	USB 2.0, Ethernet, NMEA 2000, Wi-Fi



## Touch 5

**Built-in WiFi allows direct-connection of an iPad for wireless control and monitoring of the system.**

The compact Touch 5 is small but mighty, offering a powerful touch screen interface for CZone's powerful digital control and monitoring. With a compact sleek design, the Touch 5 complements nearly any vessel dash or vehicle space.

Built-in WiFi connectivity brings your CZone system into the wireless dimension, allowing full control of system functions—from mode selection, system monitoring and individual circuit control—straight to your fingertips, no matter where onboard you are.

- Easy to use touch interface
- Glass dash styling
- Super bright widescreen display
- Low profile flush mounting
- Reduced system cost and complexity, combines display and Wireless Interface functionality into one unit
- IPX7 water ingress protection
- Built-in WiFi connectivity
- Micro SD card slot
- NMEA 2000 compatible

**80-911-0124-00** Touch 5

**80-911-0135-00** Touch 5 retrofit plate 12V kit\*

**80-911-0136-00** Touch 5 retrofit plate 24V kit\*\*

\*Required for retrofitting CZone 3.5" Display Interface.

\*\*Required for retrofitting CZone 3.5" Display Interface. Supplied with 3A 24/12V Converter.



Screen	5" LED-backlit Projected Capacitive Widescreen Touch
Resolution	800 x 480 pixels
Protection	IPX7
Dimensions (WxHxD)	5.98" x 4.72" x 2.28" (152 x 120 x 57.9 mm)
Brightness (cd/m2)	1200 cd/m <sup>2</sup>
Input voltage	12V DC
Power consumption	900mA @ 13.5v
Interfaces	NMEA 2000, Micro SD



## CZone® Control 1 **NEW**

The Control 1 combines multiple input and output devices in to a single module, minimizing installation time, interconnections and footprint. The Control 1 incorporates many of the core features and benefits of the fully featured Combination Output Interface (COI), but has been re-engineered to offer improved cost-per-channel value. The Control 1 features the same rugged design as the fully featured COI with IPX5 water ingress protection and complete mechanical fuse and bypass on all circuits as required by ABYC/CE. Industry standard Deutsch connectors provide "plug and play" installation.

Control 1 Interface	
Channels	24
Output Channels High	4 x 25A
Output Channels Low	12 x 10A dimmable
Analogue Inputs	8x analogue inputs: positive or negative switching, 0-32 volt, 0-1000 ohm resistance & 4-20mA current
Additional Monitoring	Volt sense on main positive stud
Current Sensing	Not available
Circuit Protection	Mechanical ATC fuse override with alarm
Digital Switch Breakout	Not available
Maximum Continuous Current	150A @ 104°F (40°C) - derating above 104°F (40°C)
Power Supply	M8 (5/16") stud positive, M6 (1/4") negative
Voltage	9-32V (with power available LED)
Power Consumption	Operating (all channels on) = 100mA @ 13.2V Operating (all channels off) = 75mA @ 13.2V
Circuit Bypass	Mechanical protection/bypass all output channels
Bilge Pump Circuits	4 x channels high: integrated manual control & pump running detection
Ingress Protection	IPx5 (mounted at 0°, +/-90°)
Communication	NMEA 2000
Certification	CE, ABYC, NMEA, ISO8846/SAEJ1171 ignition protected
Weight	4.2lb / 1.9kg
NMEA 2000 PGN Output	Fluid level, pressure, temperature, battery volts
Connectors	Deutsch DTP and DT
Dimensions (including cover)	13.3" x 9.3" x 2.4" 338 x 235 x 62mm
Output Voltage	12/24V

## CZone® RV1 - Mid Spec

RV1 is CZone's first dedicated digital switching and integration module for recreational & specialty vehicles. RV1 features an impressive 76 input and output channels including 8 reversing motor channels for direct control of slide outs, awnings, shades and levelling systems. RV1 also includes the latest smart switching technology, built-in battery monitoring and multiple network interfaces for seamless 3rd party system integration. By consolidating the functionality of multiple CZone modules into one compact unit, RV1 reduces system cost, complexity and installation time. RV1 enables RV builders to meet customer expectations for smart, automated and connected systems at an affordable price point.



Part #	Description
80-911-0122-00	Control 1 Interface (connectors not included)

### Features

- High density 24 channel module delivering reduce cost per channel
- Designed for small marine or recreational and specialty vehicle application
- Retains core functions available in Combination Output Interface
- Full mechanical fuse protection plus bypass on all circuits as required by ABYC/CE
- Proven, rugged CZone design includes IPX5 Water Ingress Protection and NMEA 2000 certification
- Integrated manual bilge pump control & pump running detection

### Accessories

80-911-0131-00	Deutsch connector kit Includes all necessary Deutsch plugs, contacts, wafers & seals
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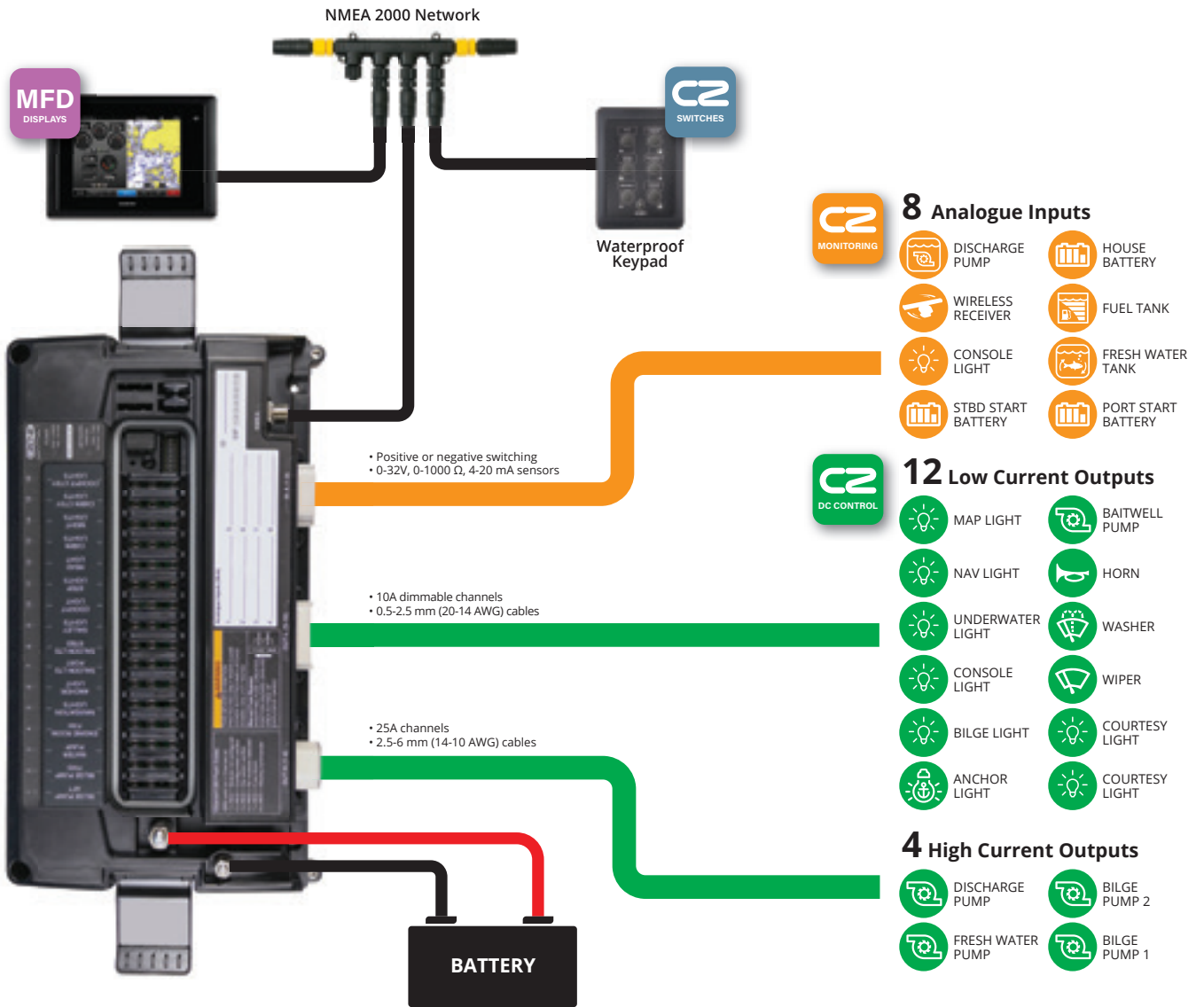


Part #	Description
80-911-0221-00	RV1 - Mid Spec

### Features

- Compact footprint, 70% smaller than equivalent legacy CZone system
- 36 Output and 8 Reversing Motor (H-Bridge) channels
- 32 Signal Inputs for 0-32V, 0-1000Ω sensors and pos/neg switches
- PWM and smooth start on all outputs
- Current monitoring, software fusing and low/run current detection all outputs
- Internal battery monitoring (SOC, Volts, Amps, Time Remaining)
- 12/24V system support and sleep mode (<5mA)
- CZone, RV-C, CAN & LIN Bus network interfaces built-in
- Auto Generator Start and Load Shedding capabilities
- Automatic Climate Control

Control 1 System Example



## Contact 6 PLUS **NEW**

Utilising proven CZone® digital switching technology the Contact 6 PLUS is a robust and affordable digital switching solution. Featuring 6x 15A solid state ignition protected fused outputs with circuit bypass for system redundancy. The Contact 6 PLUS can be networked into an existing CZone system or installed stand alone with the CZone Waterproof Keypads or compatible Multi-Function Displays.

Contact 6 PLUS	
Circuit Protection	ATC fuse with blown fuse alarms
NMEA 2000 Connectivity	1 x CAN Micro-C port
Output Wire Range	24-8 AWG (0.5 - 6mm)
Output Channels	6 x 15A 12/24V
Maximum Current	60A total module current
Dimming	All channels, PWM @100Hz
Power Supply	M6 (1/4") positive terminal (9-32V)
Network Supply Voltage	9-16V via NMEA 2000
Circuit Bypass	Mechanical fuse bypass on all channels
Ingress Protection	IPx5 (mounted vertical)
Compliance	CE, ABYC, NMEA, ISO8846/SAEJ1171 Ignition Protected
Power Consumption Max	75mA
Power Consumption Standby	0.3mA
Warranty Period	2 years
Operating Temperature Range	-5°F to +131°F (-15°C to +55°C)
Storage Temperature Range	-40°F to +185°F (-40°C to +85°C)
Dimensions WxHxD	7.97" x 5.06" x 1.77" (202.5 x 128.5 x 45mm)
Weight	1.32lbs/600g



### Features

- Circuit dimming & smooth start capability
- Status LED's for all outputs
- Ultra low current draw
- Built-in timer functions for circuits like live bait tanks
- Voltage monitoring on the NMEA 2000 Network
- Built-in Load Shedding allows non-essential loads to be turned off to preserve battery life
- Built-in default configurations selectable via dip switch
- Affordable add-on module to larger CZone systems
- Blown fuse detection and warning

Part #	Description
80-911-0160-00	Contact 6 PLUS Interface (interface only)
<b>Accessories</b>	
80-911-0179-00	Contact 6 PLUS Connector & Seal Kit 1x 6-position Phoenix Plug (with screws) & 1x Gumbot Seal



80-911-0163-00



80-911-0162-00

## CZone Waterproof Keypads

- IPX7 waterproof low profile keypads
- Status LEDs with blown fuse fault indication
- Dimmable RGB circuit back lighting
- Available in portrait or landscape with 3 mounting options—front, rear and flush mount
- Easy to install with a single plug connection

Part #	Description
80-911-0162-00	Waterproof Keypad—landscape
80-911-0163-00	Waterproof Keypad—portrait
80-911-0174-00	Waterproof Keypad Spare Parts Kit
<b>Accessories</b>	
80-911-0179-00	Waterproof Keypad Spare Parts Kit
SET-KEYPAD-1	Label set for Waterproof Keypad (marine)



6-way

80-911-0171-00



12-way

80-911-0172-00

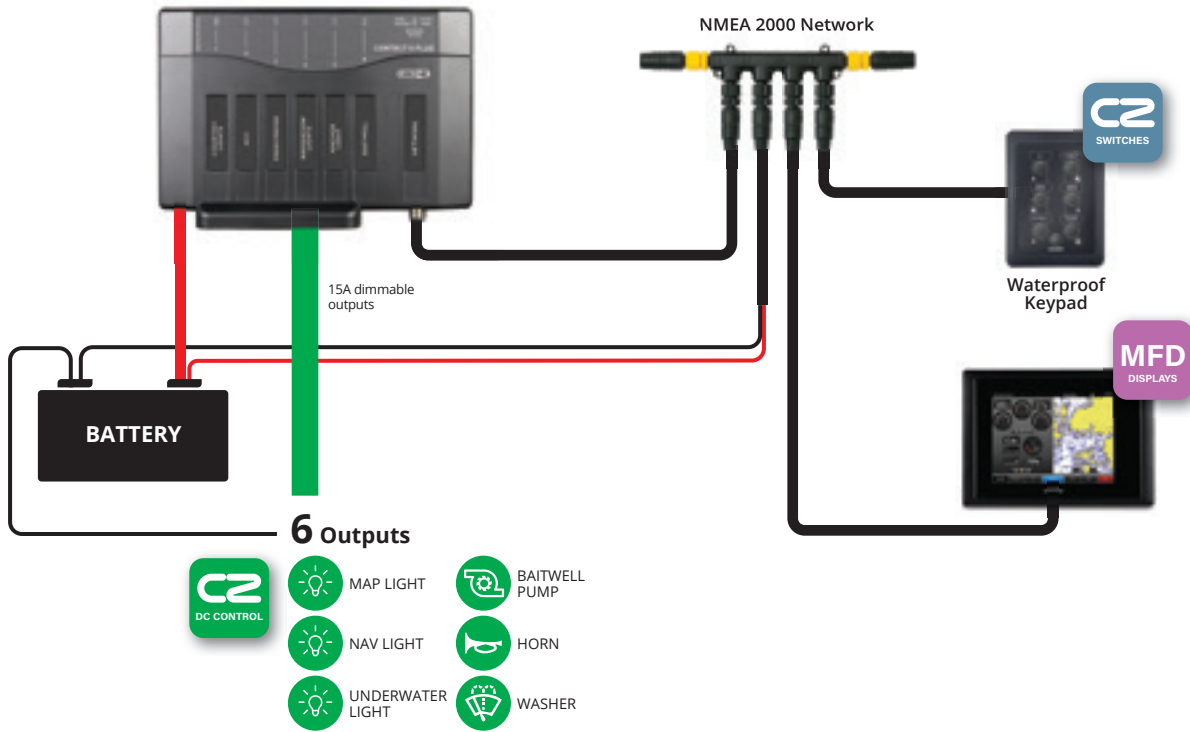
## CZone 2 & 3 Module Smart Harness **NEW**

- All in one smart-harness for straight forward plug and play installation
- 3 Module Smart Harness connects two 6-button Waterproof Keypads to the Contact 6 PLUS Module
- Not required when connecting to NMEA 2000 Network

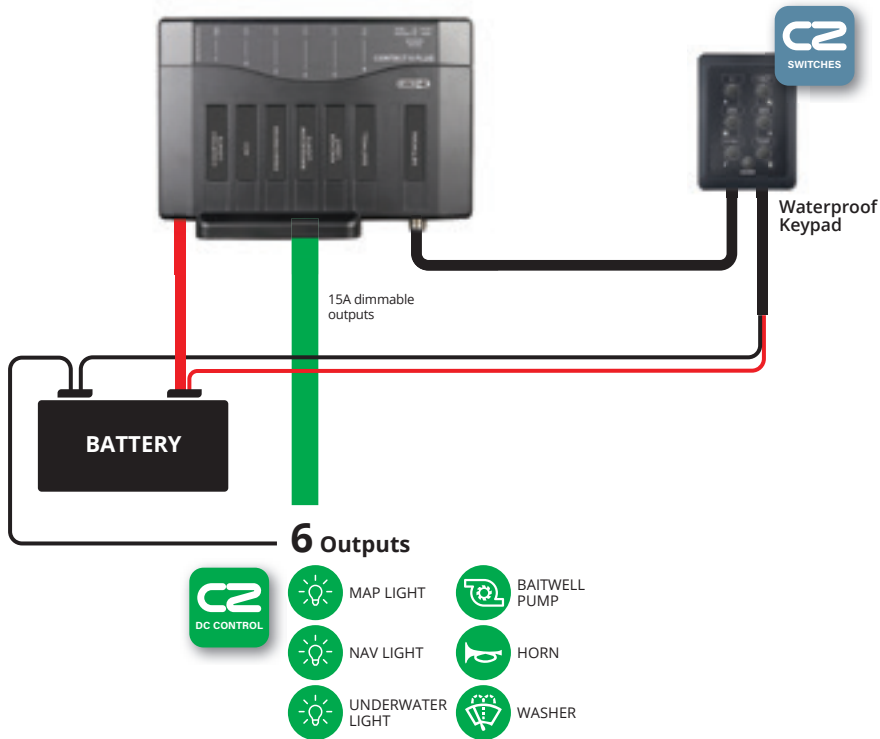
Part #	Description
80-911-0171-00	2 module Smart Harness
80-911-0172-00	3 module Smart Harness



### Contact 6 PLUS Networked System Example



### Contact 6 PLUS Standalone System Example



## SmartRemote — CZone®/ MasterBus Compatible **NEW**

CZONE



### Compact single device display

With the SmartRemote display, checking your Mastervolt or CZone product has never been easier.

Mastervolt offers an extensive range of touch displays for both CZone and MasterBus networks. These displays offer advanced monitoring and control of multiple devices within your energy system.

The new SmartRemote display is different, in many ways:

- Controls a single device
- Shows four important parameters of the connected device
- Allows simple settings such as enable/disable or adjusting a shore fuse setting;
- Fun to use.

### Ease of Installation

The SmartRemote display can be panel mounted or may be integrated into a Blue Sea Systems Custom 360 bezel, and fixed using the included locking ring. Connection is as easy as 1-2-3: just connect the included network cable to a CZone or MasterBus device\*. In case multiple devices are present on the bus, simply detect the device you wish to monitor.

### Applications

The Smart Remote completes any MasterBus or CZone system. With its handy functionality and compact size, the SmartRemote is ideal as a remote panel in entry level power systems or as a dedicated device monitor / control in larger systems. Applications include yachts, vehicles and stationary systems.

\* At the time of writing, SmartRemote supports CombiMaster only. Our engineers are working hard to support more devices soon. Wondering if your device is supported, and which parameters will be displayed? Check the Downloads section for an overview of supported devices or contact Mastervolt.



### Features

- Clear, back lit color display
- Shows essential information and basic settings for a single device
- Easy mounting, plug and play
- Blue Sea Systems Custom 360 panel compatibility
- Bus powered—no power supply needed

	SmartRemote
Part #	<b>77010600</b>
Power supply	bus powered, < 160 mW (idle mode)
Interfaces	MasterBus & CZone / NMEA 2000
Resolution	320 x 240 pixels - 16 bits color
Display	2.8 inch
Mounting	panel mount (cutout: Ø 52 mm, 4 screws included) – Blue sea 360 panel mount
Dimensions, hxwx d	2.8" x 2.8" x 1.16" - Ø 2" 72 x 72 x 29.4 mm - Ø 52 mm
Weight	0.16 lb / 0.075 kg
Delivered with	MasterBus cable, CZone-MasterBus drop cable 1m, user's manual
Protection degree	IP20



## EasyView 5

**Waterproof System Monitor with intuitive touchscreen.**  
Controlling your Mastervolt system has never been easier!

The EasyView 5 features a sharp, waterproof display which is clearly readable in daylight. Thanks to the color touchscreen and multi-language menu, the display is a pleasure to operate. Easily customizable favorite pages show all relevant system information at a glance.

### Applications

The EasyView 5 completes any MasterBus system. With its handy functionality and compact size, the EasyView is ideal for yachts, vehicles and stationary systems. Applicable in various markets such as marine, mobile (recreational and professional), infrastructure, offshore, off grid and industrial. The possibilities are endless!



### Features

- Waterproof, 'daylight readable' color display
- Intuitive touch control
- Customizable favorite pages
- Log book for warnings and alarms
- Buzzer and Home button
- Easy mounting: front mount, wall mount or retrofit
- MasterBus powered, or 12V/24V input
- Easy updating through MasterBus and USB

	EasyView 5
Part #	77010310
<b>General specifications</b>	
Power supply	MasterBus powered, or 12V/24V input
Resolution	480 x 272 pixels
Colour depth	16 bits
Display/read-out	4.3 inch high contrast display with capacitive touch control
Languages on display	ENG, NL, DE, SP, IT, FRA, FIN, SWE, DEN, NOR
Mounting	front mount, wall mount and MasterView Easy retrofit
Alarms	buzzer integrated
Dimensions, hwxwd	4.4" x 5.0" x 1.7" 113 x 127 x 43 mm
Weight	0.7 lb / 0.315 kg
Delivered with	UV protection cover, wall mount casing, MasterBus cable
<b>Technical specifications</b>	
MasterBus connection	yes
Power consumption	< 160 mW (idle mode)
Connections	2x MasterBus, USB, 12V/24V
Protection degree	IP67; waterproof front

### Some examples of the many possibilities:



#### Customize Favorites

Customize favorite pages to meet your specific needs for information and control, to show information in the most convenient way.



#### Adjust Parameters

Use the EasyView 5 to adjust frequently used settings, like the shore fuse or to switch on your inverter.



#### Modify System Settings

In the system page you will find every possible system setting.



#### Alarms and Logs

No surprises! The EasyView 5 helps to keep your system in top condition by assisting you with alerts. Logging of the alarms provides valuable insight in the operation of your system.

# TERMINALS & BOOTS



# TERMINALS & BOOTS

## Battery Terminals

150



Provides proper connections to batteries for maximum conductivity.

## Anti-Corrosion Rings

150



Prevents acid leak corrosion. Made from non-woven felt and saturated in a battery corrosion preventative compound.

## Stud Mount Insulating Boots

151

NEW



Quickly and easily insulate conductive posts and studs.

## PowerPost Insulators

151



Protects against accidental short circuits.



## Lead Battery Terminals

Description	Positive / Negative	Stud Size	Qty/ Pkg	Part #
Wing Nut Style	Negative	5/16" (8 mm)	1	260100
Yellow Brass Nut	Positive	3/8" (10 mm)	1	260200
	Pos/Neg	5/16" & 3/8" (8 & 10 mm)	1/1	260325



260100

260200



## Tinned Brass Battery Terminals

Description	Positive / Negative	Stud Size	Qty/ Pkg	Part #
Wing Nut Style	Negative	5/16" (8 mm)	1	260010
Yellow Brass Nut	Positive	3/8" (10 mm)	1	260012
	Pos/Neg	5/16" & 3/8" (8 & 10 mm)	1/1	260322



260010

260012

## Battery Terminal Boots

Description	Size	Color	Qty/ Pkg	Part #
Wing Nut Style	4 & 2 (19 & 32 mm <sup>2</sup> )	Black/Red	1/1	260350
Right Angle	8-2 (8-32 mm <sup>2</sup> )	Red	1	260381



260350

260381

## Battery Clips

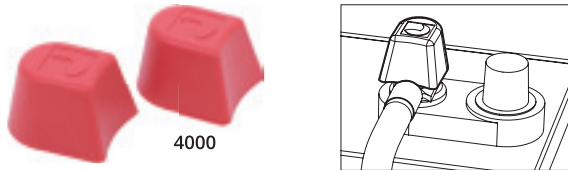
Color	Size	Qty/ Pkg	Part #
Red/Black	10A	1/1	260505



## Stud Mount Insulating Boots **NEW**

Quickly and easily insulate conductive posts and studs

- Press-fit design works with all 5/16" (M8) and 3/8" (M10) posts and studs
- Ideal for ML-Series Remote Battery Switches, Solenoids & Automatic Charging Relays, battery terminals, power posts, bus bars, battery switches, and much more.
- For use with insulated ring terminals and lugs only

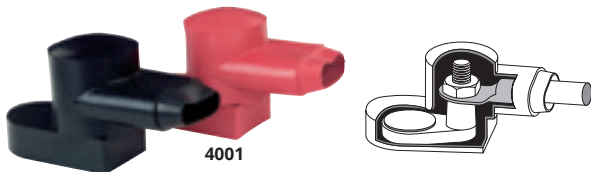


Part #	Cable Size (AWG)	Color	Package
4000	All	Red	Retail/2

## Rotating CableCap Insulators

Insulates battery terminals which have integral wing nut posts

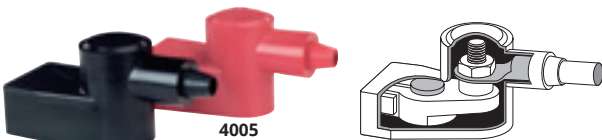
- Top rotates 360 degrees to allow cable entry from any angle



Part #	Cable Size (AWG)	Color	Package
4001	All	Red/Black	Pair/Retail
9030B	All	Black	Bulk/Not for retail
9031B	All	Red	Bulk/Not for retail

## Standard CableCap Insulators

Insulates battery terminals which have added adapter terminals



Part #	Cable Size (AWG)	Color	Package
4005	4, 2, 1	Red/Black	Pair/Retail
4006	1/0, 2/0	Red/Black	Pair/Retail
9038B	4, 2, 1	Black	Bulk/Not for retail
9039B	4, 2, 1	Red	Bulk/Not for retail
9040B	1/0, 2/0	Black	Bulk/Not for retail
9041B	1/0, 2/0	Red	Bulk/Not for retail

## Automotive CableCap Insulators

Insulates battery terminals which have standard automotive posts



Part #	Cable Size (AWG)	Color	Package
4016	4, 2, 1	Red/Black	Pair/Retail
4017	1/0, 2/0	Red/Black	Pair/Retail
9176B	1/0, 2/0	Red	Bulk/Not for retail
9177B	1/0, 2/0	Black	Bulk/Not for retail

## Square CableCap Insulators

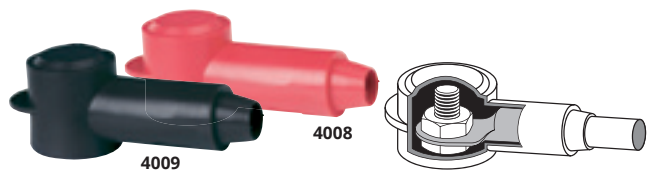
Insulates battery terminals which have in-line dual posts



Part #	Cable Size (AWG)	Color	Package
4018	1/0	Red/Black	Pair/Retail
4019B	1/0	Red	Bulk/Not for retail
4020B	1/0	Black	Bulk/Not for retail

## Stud CableCap Insulators

Insulates single stud on alternators, starters, windlasses and high amperage termination points



Part #	Cable Size (AWG)	Color	Package
4008	18-10	Red	Retail/3
4009	18-10	Black	Retail/3
4010	8-4	Red	Retail/2
4011	8-4	Black	Retail/2
4012	2-2/0	Red	Retail/1
4013	2-2/0	Black	Retail/1
4014	3/0-4/0	Red	Retail/1
4015	3/0-4/0	Black	Retail/1

## PowerPost Insulator

Provides electrical insulation for single studs and large cables

- Included with 2001, 2002, 2003, 2101, 2102, 2103, and 2019

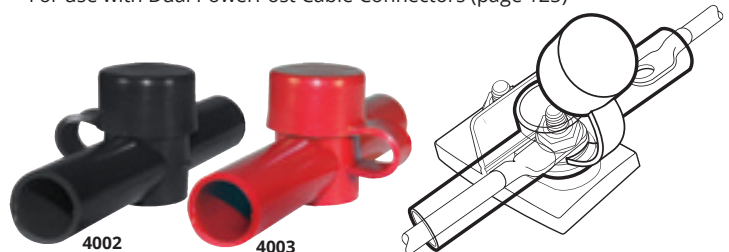


Part #	Cable Size (AWG)	Color	Package
4004	up to 2/0	Red	Retail

## Dual Entry PowerPost Cable Insulators

Protects against accidental short circuits

- For use with Dual PowerPost Cable Connectors (page 125)



Part #	Cable Size (AWG)	Cable Entry Size in (mm)	Color	Package
4002	up to 2/0	0.7 (17.8)	Black	Retail/1
4003	up to 2/0	0.7 (17.8)	Red	Retail/1

# Protect Your System

## with the correct size wire and fuse



Scan to download the app or go to [www.circuitwizard.blueseas.com](http://www.circuitwizard.blueseas.com)

### 1. Choose the Correct Wire

a) Locate the **CURRENT FLOW IN AMPS** of your circuit

b) Select the **CIRCUIT TYPE**

- Non-critical circuits with 10% allowable voltage drop include: general lighting, winches, pumps, general appliances
- Critical circuits with 3% allowable voltage drop include: panel main feeders, computers, electronics, light-bars

c) Find the **CIRCUIT LENGTH**

The circuit length is the length of the negative wire added to the length of the positive wire.

Calculations are based on 105°C wire. For wire rated at 90°C or lower, or for wire that passes through an engine compartment, the first row does not apply.

d) Intersect the **CURRENT FLOW IN AMPS** with **CIRCUIT LENGTH** to identify the correct wire size

*Example: A windlass rated 80A is 25 ft. from the battery. The circuit length is the total length of the positive and negative wire added together, which in this example is 50 ft. The circuit type is 'non-critical', and the correct wire size is 4 AWG.*

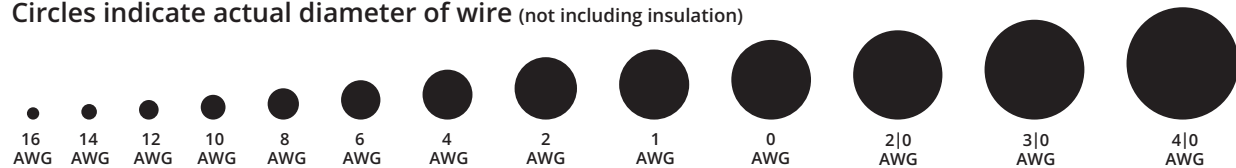
Calculations are based on 105°C wire. For more detailed calculations, download the Circuit Wizard app or go to [circuitwizard.blueseas.com](http://circuitwizard.blueseas.com)

### WIRE SELECTION CHART

Standard and Metric Wire Comparison Table	CIRCUIT TYPE		CURRENT FLOW IN AMPS																
	10% VOLTAGE DROP Non Critical	3% VOLTAGE DROP Critical	5A	10A	15A	20A	25A	30A	40A	50A	60A	70A	80A	90A	100A	120A	150A	200A	
	0 to 20 ft. (0 to 6.1 M)	0 to 6 ft. (0 to 1.8 M)	0 to 20 ft. (9.1 M)	50 ft. (15.2 M)	65 ft. (19.8 M)	80 ft. (24.4 M)	100 ft. (30.5 M)	130 ft. (39.6 M)	165 ft. (50.3 M)	200 ft. (61.0 M)	30 ft. (9.1 M)	50 ft. (15.2 M)	65 ft. (19.8 M)	80 ft. (24.4 M)	100 ft. (30.5 M)	130 ft. (39.6 M)	165 ft. (50.3 M)	200 ft. (61.0 M)	
Available Wire Size AWG	16	14	12	10	8	6	4	2	1	0	2 0	3 0	4 0						
Available Wire Size Metric	1.5	2.5	4	6	10	16	25	35	50	70	95	120							
KEY	AWG WIRE SIZE      CLOSEST EQUIVALENT IN METRIC																		

### AWG WIRE SIZE CHART

Circles indicate actual diameter of wire (not including insulation)



Although this process uses information from ABYC E-11 to recommend wire size and circuit protection, it may not cover all of the unique characteristics that may exist. If you have specific questions about your installation please consult an electrical professional.



## 2. Choose the Correct Fuse and Fuse Amperage

a) Choose a fuse type by following the line of the AWG WIRE SIZE determined from the Wire Selection Chart

Appropriate fuses will have an amperage that intersects the AWG Wire Size line.

b) The appropriate fuse amperage will be found in one of the four gray bars below the fuse type

- Single Wire, Outside Engine Compartment = First column dark gray bar
- Single Wire, Inside Engine Compartment = First column light gray bar
- Bundled Wire, Outside Engine Compartment = Second column dark gray bar
- Bundled Wire, Inside Engine Compartment = Second column light gray bar

*Example: For a 4 AWG single 105°C rated wire outside an engine compartment, the maximum fuse amperage is 150A.*

**Note:**

Possible fuse amperages for a circuit can fall between a range of maximum and minimum fuse amperages. The procedure in step 1 calculate the maximum fuse amperage which reduces nuisance blows but may offer less protection than a lower amperage fuse.

The minimum fuse amperage is calculated by multiplying the current flow in amps by 125%.

If the product instructions specify a fuse amperage, use that value if it is under the maximum amperage found in the step 1 procedure.

If the specified fuse amperage is over the maximum suggested, move down the column and choose the wire size that intersects with the specified fuse amperage.

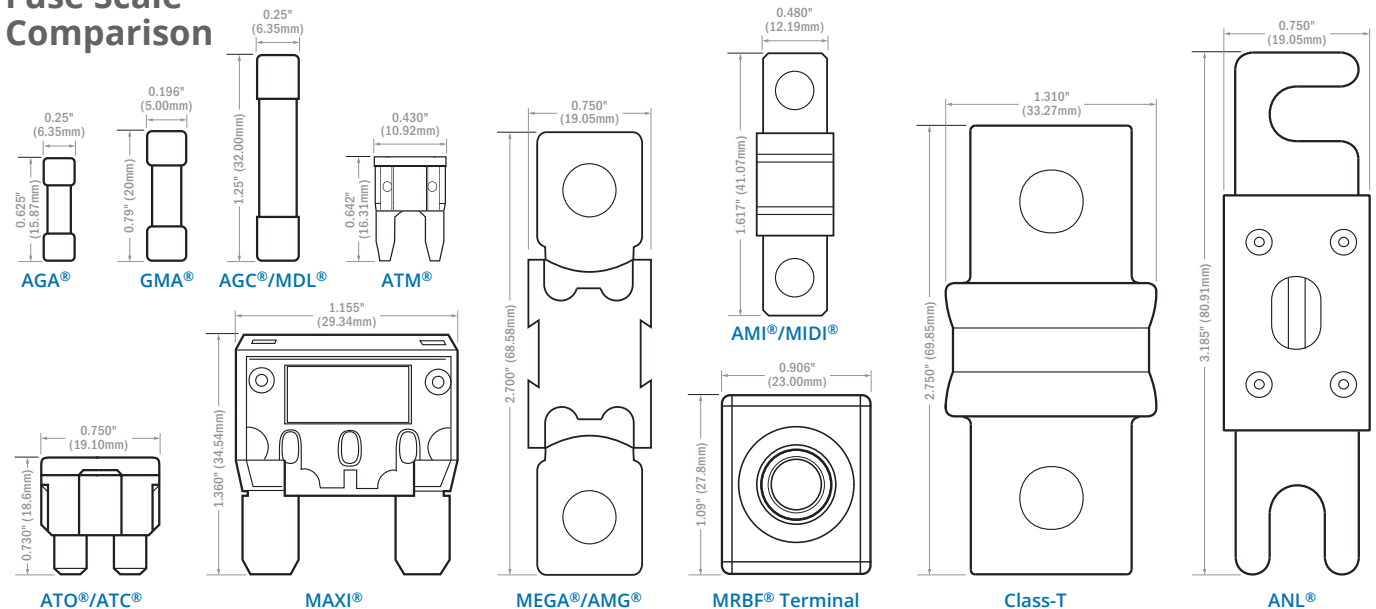
Calculations are based on 105°C wire. For more detailed calculations, download the Circuit Wizard app or go to [circuitwizard.blueseas.com](http://circuitwizard.blueseas.com)

### FUSE SELECTION CHART

LEGEND	AGC® MDL® Fuse		ATO® or ATC® Fuse		MAXI® Fuse		AMI® or MIDI® Fuse		MRBF Terminal Fuse		MEGA® or AMG® Fuse		CLASS T Fuse		CLASS T Fuse		ANL® Fuse								
	.25A to 30A		1A to 30A		30A to 80A		30A to 200A		30A to 300A		100A to 300A		110A to 200A		225A to 400A		35A to 400A								
	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES	SINGLE WIRE	BUNDLED WIRES							
AWG WIRE SIZE	16 AWG	25A	20A	20A	15A	25A	20A	20A	15A																
	14 AWG	30A	25A	20A	30A	25A	20A	30A	30A																
	12 AWG		30A	25A		30A	25A		50A	40A															
	10 AWG								60A	50A									35A						
	8 AWG								60A	50A									50A	40A	40A	35A			
	6 AWG								80A	70A									80A	60A	50A	40A			
	4 AWG								80A	70A									125A	100A					
	2 AWG								150A	125A	125A	100A	125A	100A	150A	125A	100A	150A	110A						
	1 AWG								200A	175A	150A	125A	200A	175A	150A	125A	200A	175A	150A	125A					
	0 AWG								200A	175A	150A	250A	200A	175A	150A	200A	175A	150A	250A						
2/0 AWG									200A	175A	300A	250A	200A	175A	300A	250A	200A	175A	300A	250A					
3/0 AWG										300A	225A	200A	300A	225A	200A				200A	350A	300A	225A			
4/0 AWG											300A	250A	300A	250A	200A				400A	350A	250A	225A			
												300A	250A	300A	250A	400A	400A	300A	250A	400A	400A	300A	250A		

Although this process uses information from ABYC E-11 to recommend wire size and circuit protection, it may not cover all of the unique characteristics that may exist. If you have specific questions about your installation please consult an electrical professional.

### Fuse Scale Comparison



### 3. Choose the Fuse Holder

a) Using the fuse type chosen from the Fuse Selection Chart, follow the column down to find fuse holders or fuse blocks that meet your specific requirements

b) Consider environmental factors:

- Ignition protection is required where flammable vapors may accumulate

*Example: Engine compartment*

- Ingress protection protects fuses from spray, washdown, and humidity. IP66-protected against powerful water jets

c) Decide between an in-line fuse holder or a fuse block:

- In-line fuse holders are compact and hold a single low-amperage fuse
- Fuse blocks mount to a solid surface and may hold a single fuse or multiple fuses

### FUSE HOLDER SELECTION CHART

AGC® MDL®	ATO® or ATC® Fuse	MAXI® Fuse	AMI® or MIDI® Fuse	MRBF TERMINAL Fuse	MEGA® or AMG® Fuse	CLASS T Fuse 110A to 200A	CLASS T Fuse 225A to 400A	ANL® Fuse
Crimpable In-Line Fuse Holder 5060	ATO® or ATC® In-Line Fuse Holders 5064 5065	MAXI® In-Line Fuse Holder 5068	AMI® or MIDI® Safety Fuse Block 7720 ●●	Terminal MRBF Fuse Blocks 5191 ●	MEGA® or AMG® Fuse Block 5001	CLASS T Fuse Block 5007100 ●	CLASS T Fuse Block 5502	ANL® Fuse Blocks 5005 ●
Waterproof In-Line Fuse Holders 5061 ●	ST Blade Fuse Blocks Battery Terminal Mount 5023 ●	MAXI® Fuse Block 5006100 ●	SafetyHub Fuse Blocks 7748 ●●	5194 ●	MEGA® or AMG® Safety Fuse Block 7721 ●●		5502100 ●	5503 ●
5062 ●	Compact Fuse Block 5045 ● 5046 ●		7725 ●●	5194 ●				
Heavy Duty In-Line Fuse Holder 5063	Split Bus 5032 Common Sourced 5025 5026 5028 5029			5194 ●				
ST Glass Fuse Blocks 5015 5018	Independent Sourced 5035			5196 ●				
	SafetyHub Fuse Blocks 7748 ●● 7725 ●●							

Additional replacement fuses available from Blue Sea Systems:

GMA® Fuse 1A to 10A	AGA® Fuse 20A	ATM® Fuse 5A to 30A
------------------------	------------------	------------------------

**LEGEND**  
● Ingress protection  
● Ignition protection

Part #	Page	Part #	Page	Part #	Page	Part #	Page
1001	127	1016	24	12V120-1-GC2-LT	73	12VRC.OEM	26
1001001	77	1016200	24	12VAD	28	12VRC.PG	26
1001002	77	1035	25	12VBP	29	12VRCO	26
1001100	127	1036	25	12VBP.OEM	29	12VRCO.PG	26
10012201	80	1038	25	12VBPS3	29	12VRCW	26
10012202	80	1039	24	12VBPS3.OEM	29	12VRCW.OEM	26
10012203	80	1044	24	12VBR	29	12VRCY	26
10012205	80	1045	24	12VBR.OEM	29	12VXT	28
10012206	80	1046	25	12VBRAD	29	1472	25
1002	127	104SPP	21	12VBRAD.OEM	29	1477	115
1002100	127	104SPP-25.OEM	21	12VBR53	29	1478	25
1002201	80	104SPP-50.OEM	21	12VBR53.OEM	29	150025	22
1002202	80	104SPP.OEM	21	12VCOMBO	27	150025NL	22
1002203	80	105SPP	21	12VCOMBO-B	27	150050	22
1002204	80	106A	21	12VCOMBON-B	27	150050NL	22
1002205	80	1070	135	12VCOMBOW-B	27	150PHB	27
1002206	80	11001	76, 79	12VCP	29	150SSP	21
1002207	80	11003	77, 79	12VCP6	29	151225	22
1003	127	110A	21	12VCPS3	29	151250	22
1003100	127	111A	21	12VDUSB	26	1525	132
1007	127	1139	76	12VDUSB-B	26	1732	134
1007100	127	115A	21	12VDUSBAC-B	27	1732200	134
1010	25	117A	21	12VDUSBN-B	26	1733	134
1011	25	118A	21	12VDUSBW-B	26	1733200	134
1011200	25	121A	21	12VPG	26	1739	134
1012	25	123A	21	12VPG.OEM	26	1739200	134
1013	25	12BKT	28	12VPK	27	1741	134
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# Ingress Protection (IP) Ratings Guide



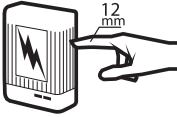

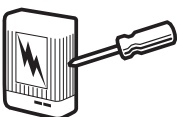









Example:

An IP65 rating can be determined using the adjacent table and example:

- The first number of the rating example, 6, in the gray column means the enclosure is dust tight
- The second number of the rating example, 5, in the blue column means the enclosure is protected against jets of water

The IP rating system was established by the International Electrotechnical Commission (IEC), an organization for international standards and conformity assessment. The IEC collaborates closely with the International Organization for Standardization (ISO). A complete description of the IP ratings and associated tests is found in IEC Publication 529. Although these ratings were initially developed as a way to classify enclosures, they now provide a convenient, practical way to compare levels of sealing. Many electrical products have an Ingress Protection (IP) rating which identifies the environmental factors needing consideration prior to the product's installation.

This is important when deciding when to mount products in a dry and clean environment versus a wet and/or dusty environment. The IP rating indicates the degree of protection provided. The numbers following IP represent levels of sealing and can range from no protection to full protection against dust and water. The table provides a description of the protection at each level.

SOLIDS		WATER	
1	 Protected against a solid object greater than 50 mm such as a hand.	1	 Protected against vertically falling drops of water. Limited ingress permitted.
2	 Protected against a solid object greater than 12 mm such as a finger.	2	 Protected against vertically falling drops of water with enclosure tilted up to 15 degrees from the vertical. Limited ingress permitted.
3	 Protected against a solid object greater than 2.5 mm such as a screwdriver.	3	 Protected against sprays of water up to 60 degrees from the vertical. Limited ingress permitted for three minutes.
4	 Protected against a solid object greater than 1 mm such as a wire.	4	 Protected against water splashed from all directions. Limited ingress permitted.
5	 Dust Protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment. Two to eight hours.	5	 Protected against jets of water. Limited ingress permitted.
6	 Dust tight. No Ingress of dust. Two to eight hours.	6	 Water from heavy seas or water projected in powerful jets shall not enter the enclosure in harmful quantities.
		7	 Protection against the effects of immersion in water between 15 cm and 1 m for 30 minutes.
		8	 Protection against the effects of immersion in water under pressure for long periods.

Rating Example:

**IP65**

INGRESS PROTECTION



Ancor

BEP

Blue Sea Systems

CZone

Fathom e-Power

Marinco

Mastervolt

ProMariner

RELION

N85 W12545 Westbrook Crossing

Menomonee Falls, WI 53051 USA

p 800.307.6702

f 800.799.3779

e. tech.marinco@navicogroup.com

e. tech.blueseas@navicogroup.com

e. tech.mastervolt@navicogroup.com

e. tech.promariner@navicogroup.com

e. relion-technicalsupport@navicogroup.com

navicogroup.com

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