



BATTERYLINK™ ACR

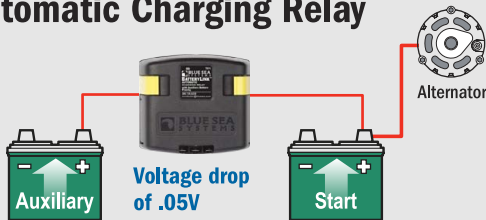
AUTOMATIC CHARGING RELAY WITH AUXILIARY BATTERY PRIORITY

AUTOMATICALLY COMBINES BATTERIES DURING CHARGING AND ISOLATES BATTERIES WHEN DISCHARGING

Optional Auxiliary Battery Priority connection shares the alternator charge with the Auxiliary battery longer allowing the use of auxiliary loads for an extended period of time when the engine is running.

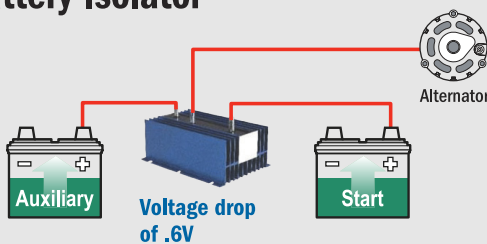
- One tenth of the voltage drop of a battery isolator results in a 60% higher charge rate (see below)
- Dual sensing to manage multiple charge sources
- 120A Continuous rating to support high output alternators
- Robust, fully sealed assembly for reliability in environments with vibration and moisture
- Clip-on cover insulates terminal connections
- Easy to install
- Integrated LED indicates ACR status
- Optional remote LED output for indication of ACR status

Automatic Charging Relay



An ACR has one tenth of the voltage drop of a battery isolator resulting in a 60% higher charge rate

Battery Isolator



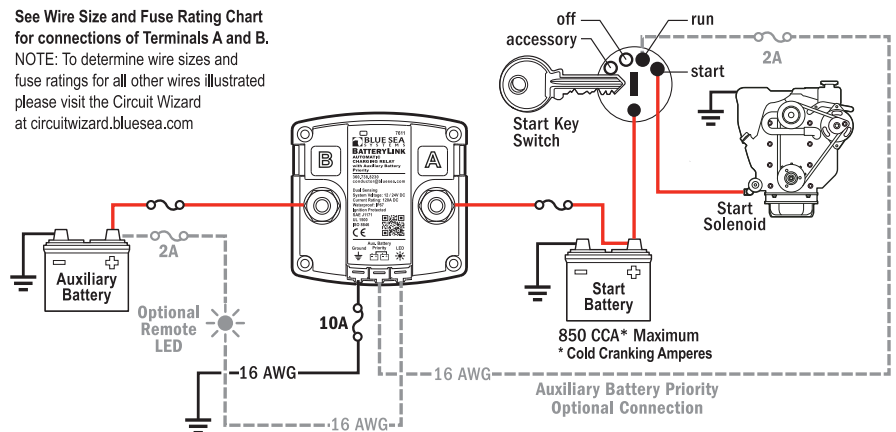
7611



7611 with cover

RECOMMENDED INSTALLATION DIAGRAM

See Wire Size and Fuse Rating Chart for connections of Terminals A and B.
NOTE: To determine wire sizes and fuse ratings for all other wires illustrated please visit the Circuit Wizard at circuitwizard.bluesea.com



LEGEND

- Positive ———
- Negative ———
- Optional Connection - - - - -
- Fuse

BATTERYLINK™ ACR

AUTOMATIC CHARGING RELAY

WITH AUXILIARY BATTERY PRIORITY

Specifications

Continuous Rating	120A	
Intermittent Rating (5 min.)	210A	
Maximum Cable Size	1/0 AWG	
Terminal Stud Size	3/8"-16 (M10)	
Maximum Torque	140 in-lb	
Weight	1.75 lb (0.79 kg)	

Relay Contact Position	12V DC	24V DC
Combine (30 sec.)	13.6V DC	27.2V DC
Combine (2 min.)	13.0V DC	26.0V DC
Open Low (30 sec.)	12.75V DC	25.5V DC
Open-Over Voltage Lockout	16.0V DC	32.0V DC

Auxiliary Battery Priority Optional Feature

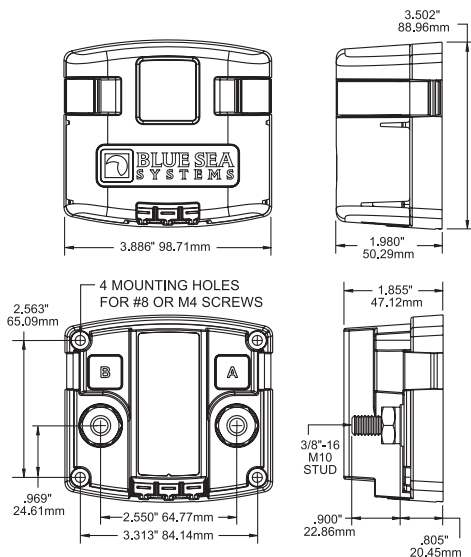
Open Low (30 sec.)	12.25V DC	24.5V DC
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Regulatory

CE marked, ISO 8846

Meets UL 1500, and SAE J1171 external ignition protection requirement

IP67—Protected against immersion up to 1 meter for 30 minutes



WIRE SIZE AND FUSE RATING CHART

Charging Amps	Minimum Wire Size*	Fuse Rating
≤ 60	#6 AWG	75-90A
≤ 80	#4 AWG	100-125A
≤ 100	#2 AWG	150A
≤ 120	#1 AWG	175A

* Larger wire sizes may be required to minimize voltage drop in long wire runs. For more information please consult the Circuit Wizard at www.circuitwizard.bluesea.com

Specifications subject to change.

See www.bluesea.com for additional information and specifications.

980012410 Rev.003

Choose the right ACR for your application

Step 1 Select an ACR that has a **CONTINUOUS** rating above the maximum alternator output rating and an **INTERMITTENT** rating that is above the largest load on the auxiliary battery.

Step 2 Review the **PRESET ACR SETTINGS**

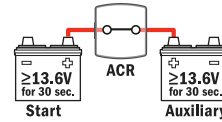
Step 3 Select the ACR with the desired **PRODUCT FEATURES**

Part Number	7601	7611	7610	7620	7622
CONTINUOUS	65A	120A	120A	500A	500A
INTERMITTENT	115A	210A	210A	700A	700A

PRESET ACR SETTINGS

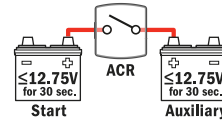
Combine Voltage

- Charge present
- Voltage in either battery is $\geq 13.6V$ for 30 sec.
- Relay will close combining batteries
- Combined batteries share charge



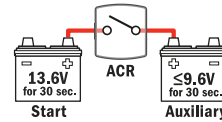
Open Voltage

- No charge present or loads exceed charge input
- Voltage in either battery is $\leq 12.75V$ for 30 sec.
- Relay will open isolating batteries
- Isolated batteries do not share charge



Under Voltage Lockout

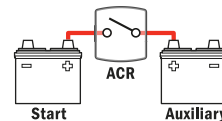
- Charge may or may not be present
- Voltage in either battery is $\leq 9.6V$ for 30 sec.
- Relay will open isolating batteries keeping defective battery from discharging both
- Isolated batteries do not share charge



PRODUCT FEATURES

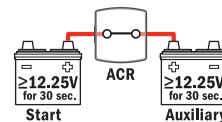
Start Isolation (SI)

- Condition: Engine starting**
- optional Start Isolation wire is connected
 - Relay is open isolating batteries
 - Batteries are isolated to protect sensitive electronics from voltage sags and spikes



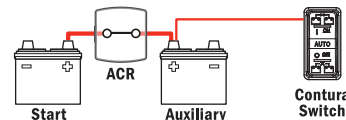
Auxiliary Battery Priority

- Condition: Engine running**
- optional Aux. Battery Priority wire is connected
 - Open voltage is lowered to 12.25V from 12.75V
 - Relay remains closed longer, combining batteries, to share alternator charge longer with auxiliary battery



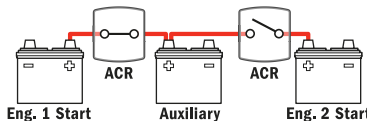
Start Assist

- Condition: Engine starting - press Contura Switch**
- Relay is closed combining batteries
 - Batteries are combined to share power in the event of a low start battery



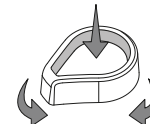
Engine Isolation

- Condition: Two engines are running**
- One relay is open and one relay is closed
 - Engine 1 Start and Engine 2 Start batteries are isolated to protect engine electronics - if requested by engine manufacturer



Manual Override

Manual override knob provides an added level of safety allowing manual control of functions and lockout for servicing



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LEGEND

Preset ACR Settings

Product Features