

SI - Auto Charging Relay

120A

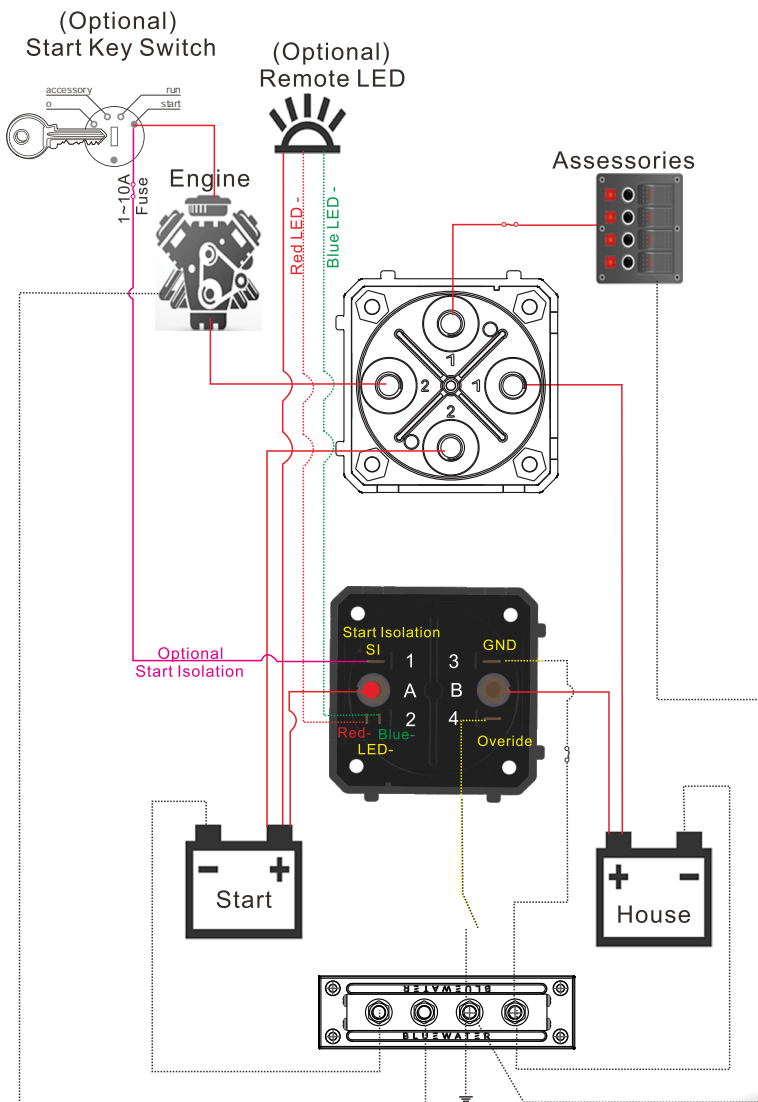
FEATURES

- ▶ Automatically combines two batteries when charging and isolates the two batteries when not charging.
- ▶ Allows temporary isolation of house loads from engine circuit during engine cranking to protect sensitive electronics : Start Isolation (SI) indicated by Slow Flash Yellow LED
- ▶ Supports high-output alternators up to 120 Amps
- ▶ Dual Color LEDs light show two batteries individual status : Fault / Charging / Discharging / Combine / SI / Override
- ▶ Dual Sensing - senses charge source on either battery bank
- ▶ Under voltage lockout - will not close when the lower battery is below 9.5V @12V or 19V @24V system - Lockout indicated by Fast Flash Red LED (Start Batt), or Fast Flash Green LED (House Batt)
- ▶ Waterproof rated IP67 - temporary immersion for 30 minutes
- ▶ Ignition protected - safe for installation aboard gasoline powered boats
- ▶ When the voltage of the main battery is insufficient to start the engine, Connect the "OVERRIDE" to the negative pole to start the engine indicated by Fast Flash Yellow LED

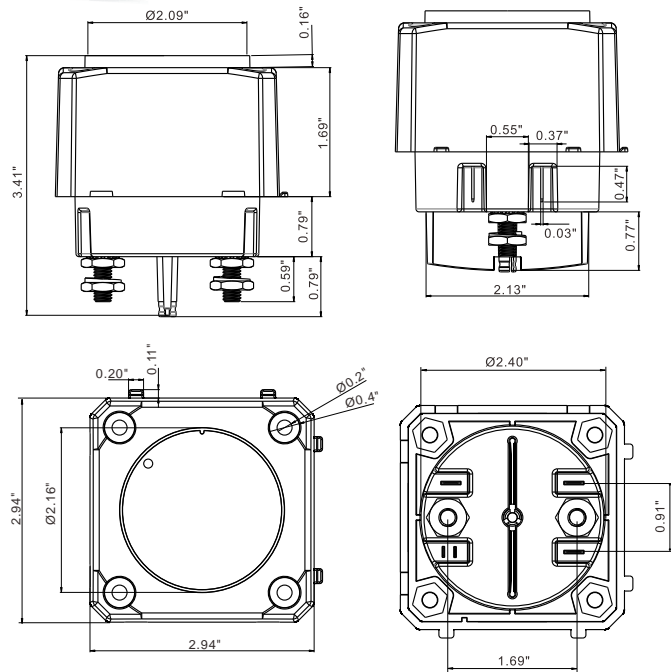
SPECIFICATION

Continuous Rating	120A	
Intermittent Rating (5 min)	140A	
Operating Current (combine)	135mA	
Operating Current (open)	2.16mA	
Terminal Stud Size	3/8" - 16 (M10)	
Terminal Stud Torque	140 in-lbs (15.8 Nm)	
Relay Contact Position	12V DC	24V DC
Combine	(30 sec.)	13.60V DC 27.2V DC
	(2 min.)	13.00V DC 26.0V DC
Open Low	(10 sec.)	12.35V DC 24.7V DC
	(30 sec.)	12.75V DC 25.5V DC
Over Voltage Lockout	16.00V DC	---
Under Voltage Lockout	9.50V DC	19.0V DC
Under Voltage Reset	10.00V DC	20.0V DC

WIRING



Drawing



SI-Auto Charging Relay
12V / 24V AUTO
125A CONT
140A MAX.

LED	BATTERY STATUS	REASON
Fast Flash	A No Connection Under 9.5V / Over 16V	A Fault
Fast Flash	B No Connection Under 9.5V / Over 16V	B Fault
Slow Flash	A 13V (2Min) --> Combine 13.6V(30Sec) --> Combine	A Charging
Slow Flash	B 13V (2Min) --> Combine 13.6V(30Sec) --> Combine	B Charging
Solid Yellow	A & B Under 12.75V (30Sec) Under 12.35V (10Sec)	Discharging
Slow Flash	A Isolated / Start Isolation	Start Isolation wire is energised to Bat +
Fast Flash	3 Sec --> Combine Override	Override wire is energised to GRD

BLU Æ WATER
IGNITION-PROTECTED
IP67
CE

This diagram is to show connection points only, and does not represent a complete installation diagram. see ABUC E-11 Standards for wire size and fuse values