

LATCHING SOLENOIDS SWITCHES

12 VDC & 24 VDC **BIG BOY** 200 AMP LATCHING SOLENOID SWITCHES

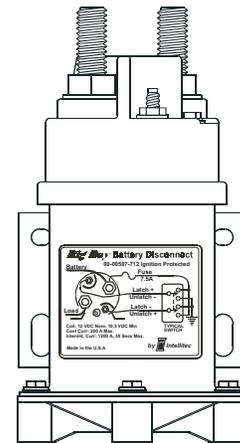
FEATURES & BENEFITS

- Provides Remote Control of the Battery
- Requires **NO** Continuous Battery Drain
- Reduces Length and Weight of **Un-fused** Battery Cables
- Eliminates the Need for Mechanical Battery Switches
- Can be Installed Near Batteries
- Ignition Protected (SAE J1171)
- Prevents Accidental Battery Discharge
- Three Year Factory Warranty

The Big Boy 200 Amp Latching Solenoid provides a simple, reliable, and cost effective means to connect or disconnect a vessel's battery system by remote control. Efficient placement of the Big Boy, in close proximity to the battery, reduces the potential fire hazard and voltage drop caused by long runs of heavy un-fused battery cable. The Big Boy eliminates the nuisance of repeated trips to the engine room, each time the vessel is placed in or out of service, to open or close an unsightly, bulky, mechanical, battery switch. Instead, a compact low current control switch with an integral green LED indicator and locking mechanism, placed conveniently at the helm or fly bridge, alerts the operator to the current battery status. The control switch locking mechanism prevents alternator damage caused by the accidental disconnection of the battery while the engine is in operation.

The Big Boy incorporates Intellitec patent No. 4,628,289 simple magnetic latching mechanism. This latching mechanism requires NO current draw to maintain the Big Boy Solenoid switch contacts in the open or closed position. This exclusive latching feature provides **continuous switch operation without discharging the battery.**

To close the Big Boy Latching Solenoid contacts, a momentary positive DC voltage is applied to the unmarked Big Boy coil terminal, and a negative DC voltage is connected to the "S" coil terminal (see wiring diagram). When the power is removed, the contacts close and the control switch integral green LED indicator, located at the helm or fly bridge, is automatically illuminated.



Big Boy 200 AMP Latching Solenoid Switches

The Big Boy switch contacts can safely carry up to 200 Amps of DC current continuously and up to 1200 Amps for periods of up to 30 seconds.

To open the Big Boy Latching Solenoid contacts, a momentary negative DC voltage is applied to the unmarked Big Boy coil terminal, and a positive DC voltage is connected to the "S" coil terminal. When the power is removed, the contacts open and the control switch LED is automatically turned off.

The Big Boy Latching Solenoid is ignition protected and tested to SAE J1171 in compliance with ABYC standards E-9.8.1 and E-9.4 NOTE 7.

Over current protection is required for the Big Boy's coil and integral LED, which is compliant with ABYC standards E-9.11.1 (7/40-inch rule), E-9.12.5.2.3 (5000 AIC fuse rating), and E-9.12.6.2 (ignition protection). Our 7.5 Amp fuse (P/N 010-002) is tested to UL 1500 and complies with these standards (see wiring diagram).

The Big Boy's patented latching mechanism is resistant to the shock and low frequency vibration found in the marine environment.

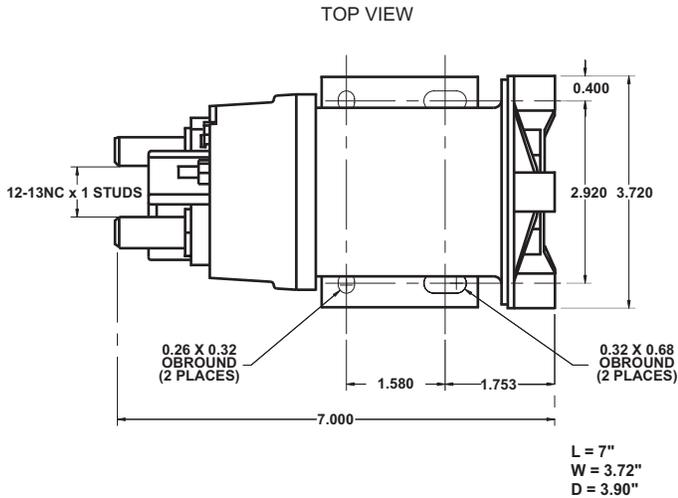
Specifications

Nominal Actuation Voltage	12 Volts	24 Volts
Part Number	139-032-B	139-033-B
Actuation Current	5.6 Amps	2.8 Amps
Minimum Activation Voltage	9 Volts	18 Volts
Maximum Continuous Current	200 Amps	200 Amps
Max. Short Term Carry Current (30 Seconds)	1200 Amps	1200 Amps
Maximum Ambient Temperature	185° F	185° F
Minimum Ambient Temperature	-40° F	-40° F
Contact Life at Full Load	Min. of 10,000 Cycles	Min. of 10,000 Cycles
Maximum Actuation Time	0.2 Seconds	0.2 Seconds



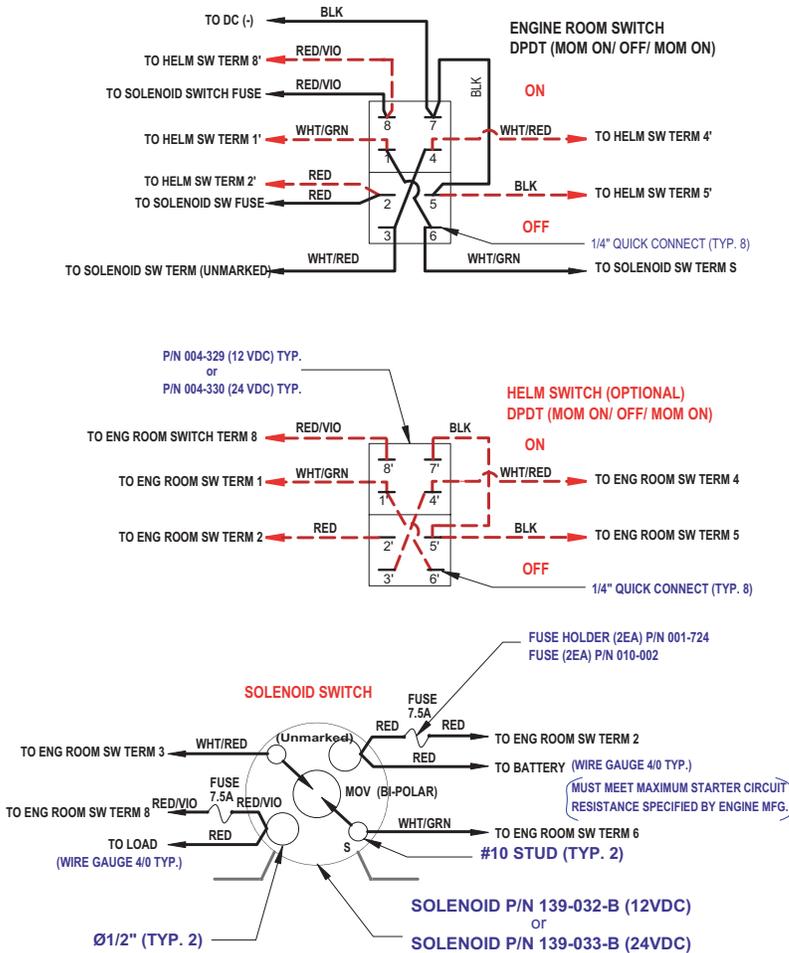
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Mounting Dimensions



Paneltronics, Inc. is a company committed to total quality and continuous product research, development and improvement, therefore all information, specifications and prices are subject to change without notice.

Wiring Diagram



NOTE
All wire #14 AWG unless otherwise specified. A protective dielectric coating (Liquid Electrical Tape™) to seal out moisture and prevent corrosion should be applied to all solenoid electrical connections.

In a typical installation, The Big Boy Latching Solenoid is mounted near the vessel's battery to minimize battery cable length. Efficient placement of these two circuit components reduces battery cable resistance and weight and as a result, system cost. Minimizing un-fused battery cable length also reduces the risk of shorting to ground. Control switches with integral green LED indicators permit operation of the Big Boy Latching Solenoid from multiple convenient locations, such as the helm, the fly bridge, or the engine room (see wiring diagram). A metal oxide varistor (MOV) is included to eliminate possible back EMF from the Big Boy's coil.

The New Big Boy 200 Amp Latching Solenoid Switch operates on the same principle as the Little Boy 100 Amp version, which has been used by the industry for over ten years. However, the 200 Amp Big Boy is intended for use on larger vessels, where continuous current draw is greater than 100 Amps and diesel engine average starting current exceeds 500 Amps.

Big Boy 200 Amp Latching Solenoid - Parts

Description	P/N
12 VDC Solenoid	139-032-B
Remote Switch (12 VDC LED)	004-329
Replacement MOV (12VDC)	139-034
24 VDC Solenoid	139-033-B
Remote Switch (24 VDC LED)	004-330
Replacement MOV (24 VDC)	139-035
Fuse 7.5 Amp	010-002
In-line Fuse Holder	001-724
Boot (ABYC E- 9.5.7.5)	1753-001
Switch Plate (2.5"W X 3.5" H)	111-231

12 VDC Big Boy Solenoid Kit P/N 139-032-KIT

Qty.	Description	P/N
1	Remote Switch	004-329
1	Switch Plate (2.5"W X 3.5" H)	111-231
2	Fuse 7.5 Amp	010-002
2	In-Line Fuse Holder	001-724
2	Boot (ABYC E-9.5.7.5)	1753-001

24 VDC Big Boy Solenoid Kit P/N 139-033-KIT

Qty.	Description	P/N
1	Remote Switch	004-330
1	Switch Plate (2.5"W X 3.5" H)	111-231
2	Fuse 7.5 Amp	010-002
2	In-Line Fuse Holder	001-724
2	Boot (ABYC E-9.5.7.5)	1753-001