ABS3-300

Automatic 300 Amp Programmable Auxiliary Battery Switch

Key Features

- *Ideal Auxiliary Battery Isolation*
- *Bidirectional Charging*
- *LED Indicator - Switch Status (On/Off)*
- *LoadLogic technology - Compensates for different loads (load startup and faults).*
- *Boost start the vehicle from the auxiliary battery if the chassis battery voltage is low*
- *Solid state - no moving parts*
- *Extremely efficient - No need for a massive heat sink*
- *Over-current, Over-Voltage, and Over-Temperature protection*

Technical Description

InPower's ABS3 Series of Auxiliary Battery Switches are the ideal solution for charging and isolating an auxiliary battery from a vehicle's chassis battery and alternator. InPower's ABS3 Series replaces outmoded battery isolators and unreliable mechanical battery separators. The ABS3 uses proven patented solid-state contactor and Cool Terminal technology.

Sophisticated microprocessor algorithms monitor over-current, over-voltage, under-voltage, and over-temperature conditions.

LoadLogic technology automatically compensates for initial connection (surge) and yet accurately detecting a dead short fault.

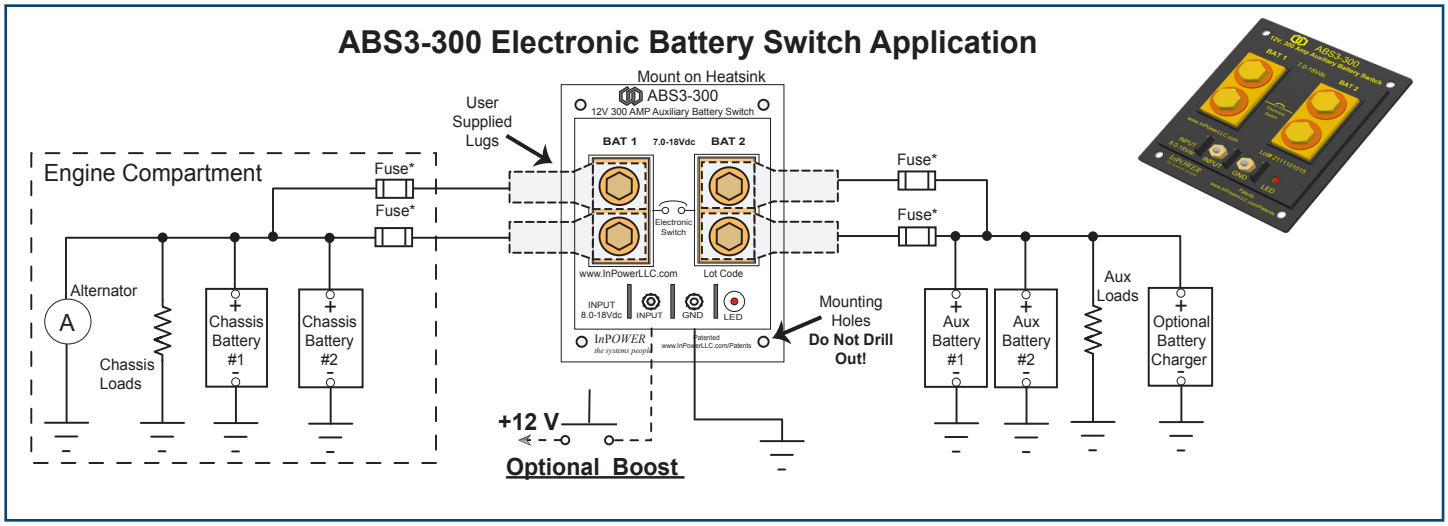
The auxiliary battery is charged from the chassis battery and alternator while the chassis battery is protected from auxiliary battery load discharge. Since the ABS3 is bidirectional, a charging device (such as a battery charger or genset) that is connected to the auxiliary battery will also supply charging current to the chassis battery. The unit will be On if BAT1 or BAT2 is more than 13.5V for more than 10 Sec and Off if BAT1 and BAT2 is less than 12.8V for greater than 10 Sec. **(See ABS3 Owner's Manual OM-215)**

Optionally connecting 12 volts to the ABS3 input control enables the "boost start" feature. This feature allows both the auxiliary and chassis batteries to supply engine starting current. ON if +12V to input terminal if BAT1 or BAT2 Volts > 7.0V. The "boost start" can be made automatic by connecting the input to the engine start signal.

In addition, this 4 Lug implementation allows parallel power cabling between the auxiliary and chassis batteries. Parallel power cabling significantly reduces overall cable cost and increases wiring efficiency. **(See White Paper 1.042.HCC)**

Load Considerations: Relays/Solenoids must incorporate Fly Back Suppression Diodes/Circuitry. These Relays/Solenoids (without suppression) can create large voltage and current spikes which damage electronics. Having inductive loads without suppression violates your unit's warranty and may damage your vehicle's electronics!

ABS3 System



InPOWER
Electrical System Solutions

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Specifications

	ABS3-300
Max Current Rating:	300 Amps
Standby Current:	3.8 milliamps
Operating Volt Range:	+7.0 to +18.0 Volts
Auto Trip Voltages:	ON if BAT1 or BAT2>13.5 for >10Sec OFF if BAT1 and BAT2<12.8 for >10Sec
Manual Operation:	ON if +12V to **INPUT** Terminal (if BAT1 and BAT2 Volts > 7.0V)
Over-Current Trip:	305 Amps +/- 3 amps (for 1 Sec)
Over Temp Shutdown:	> 185° F (> 85° C)
Shutdown Restart:	Automatic Clear (Temp and Fault) (after 30 Sec)
LED (ON/OFF):	ON or OFF (Status of Switch)
Temperature Range:	-40° to +185° F (-40° to +85° C)

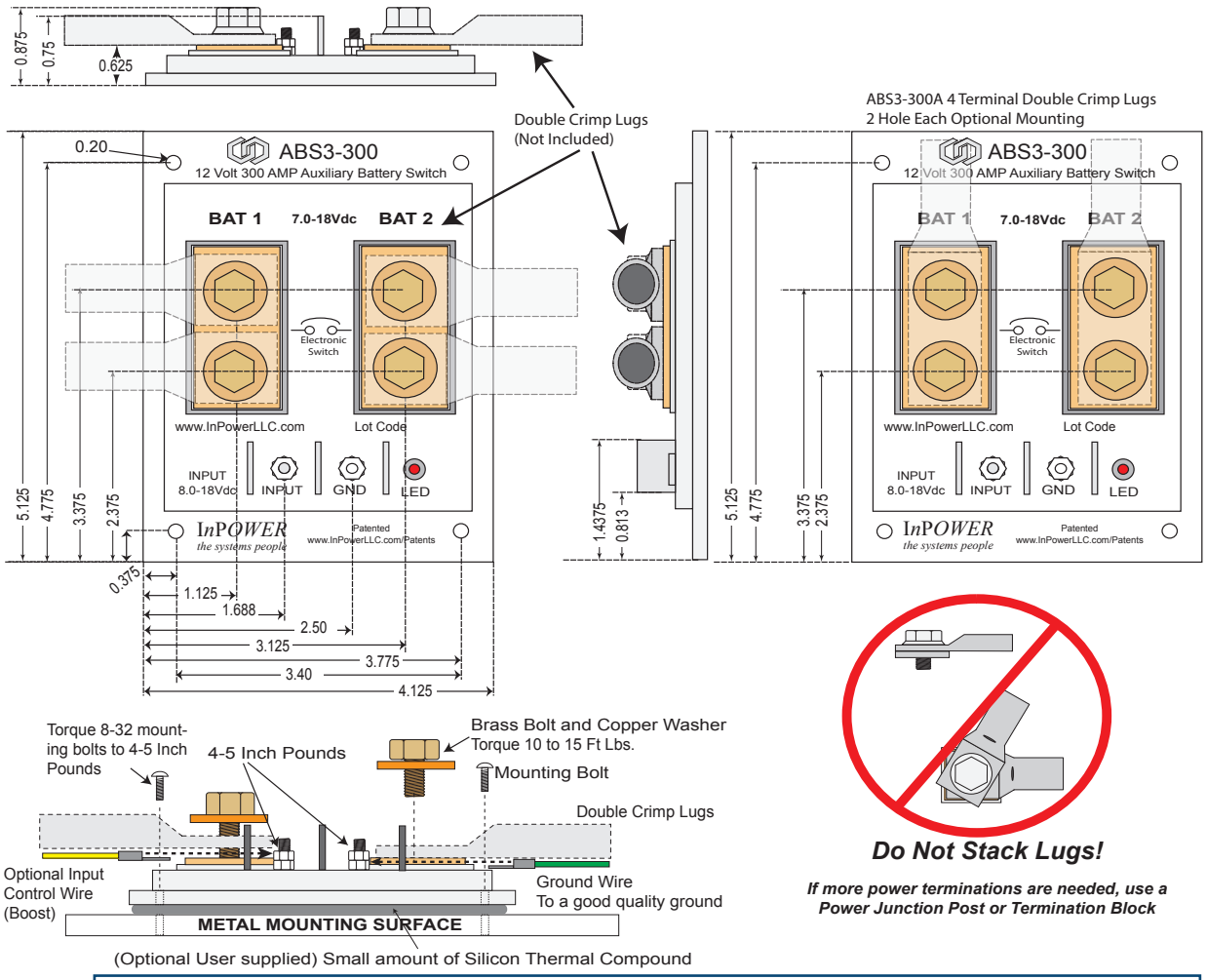
Mechanical

Weight:	0.40 lbs
Dimensions:	4.125” W x 5.125”L x 1.4375”H
Power Terminals:	3/8 - 16 Brass Bolts with Copper Washers
Boost/Ground Terminals:	8-32 4-5 Inch Pounds
Ground Connection:	8-32 Ground stud for connection
Power Terminal Torque:	10 to 15 Foot Pounds
Designed to IP67	

Ordering Guide

	4 Lug
300 Amp Auxiliary Battery Switch	ABS3-300

Mechanical Drawing



!IMPORTANT!

- Mount unit with 144 sq. inches of > 0.125 sheet metal for proper heat dissipation.
- Not for under-hood mounting
- Only use the supplied 0.50 inch long 3/8 - 16 Brass Bolts and Copper Washers - **Do Not Substitute**
- Protect lugs with boots or dielectric grease