

# Automatic 200 Amp Programmable Auxiliary Battery Switch

## Models: ABS3-200A and ABS3-200B



### 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 10Sec and Off if BAT1 and BAT2 is less than 12.8V for greater than 10Sec. **(See ABS3 Owner's Manual OM-215)**

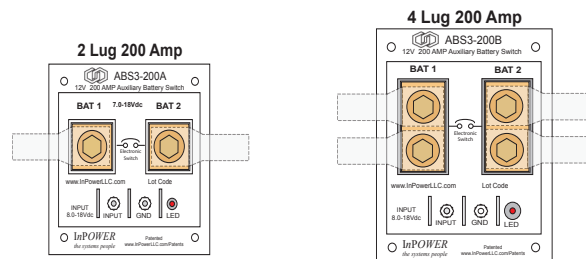
Optionally connecting 12 volts to the ABS3 input control enables the "boost start" feature. This feature allows both the auxiliary and chassis batteries to supply engine starting current. ON if +12V to input terminal if BAT1 or BAT2 Volts > 7.0V

The "boost start" can be made automatic by connecting the input to the engine start signal. InPower's ABS3 200 Amp Auxiliary Battery Switches are available in 2 and 4 Lug models. The 4 Lug model allows the ABS3 to serve as a high current junction block.

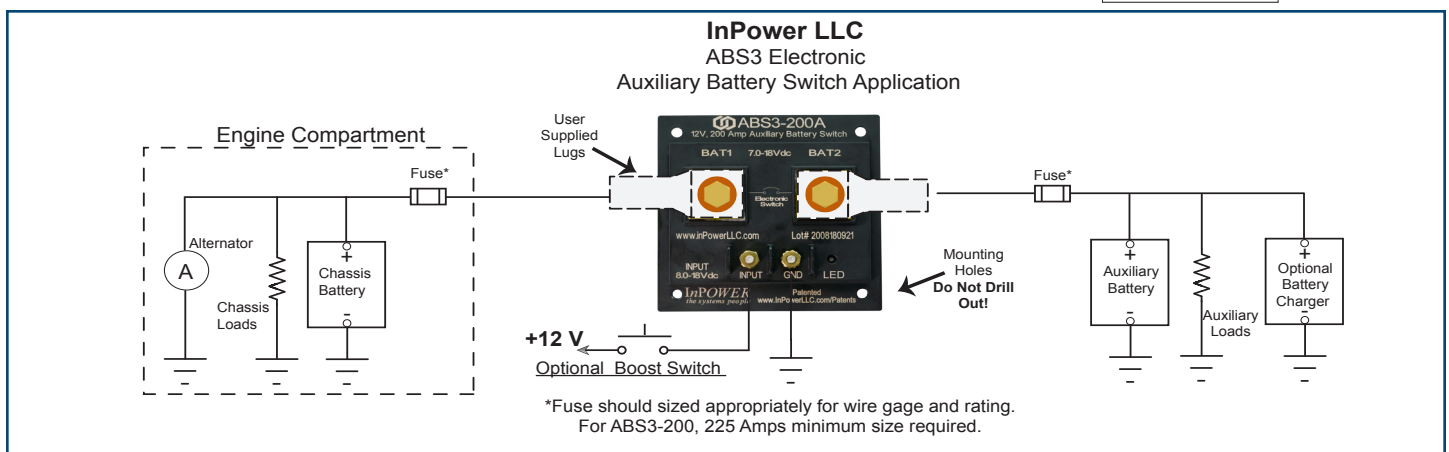
In addition, the 4 Lug model allows parallel power cabling between the auxiliary and chassis batteries. Parallel power cabling significantly reduces overall cable cost and increases wiring efficiency. **(See White Paper 1.042. HCC)**

### Key Features

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



### ABS3 System Diagram



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### Specifications

	ABS3-200A	ABS3-200B
Max Current Rating:	200 Amps	200 Amps
Standby Current:	3.8 milliamps	
Operating Volt Range:	+7.0 to +18.0 Volts	
Automatic 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 <b>INPUT</b> Terminal (if BAT1 and BAT2 Volts > 7.0V)	
Over-Current Trip:	205 Amps +/- 2 amps (for 1 Sec)	
Over Temp Shutdown:	> 185° F (> 85° C)	
Shorted Load:	250ms	
Shutdown Restart:	Automatic Clear (Temp and Fault) (after 10 Sec)	
LED (ON/OFF):	ON or OFF (Status of Switch)	
Temperature Range:	-40° to +185° F (-40° to +85° C)	

### Mechanical

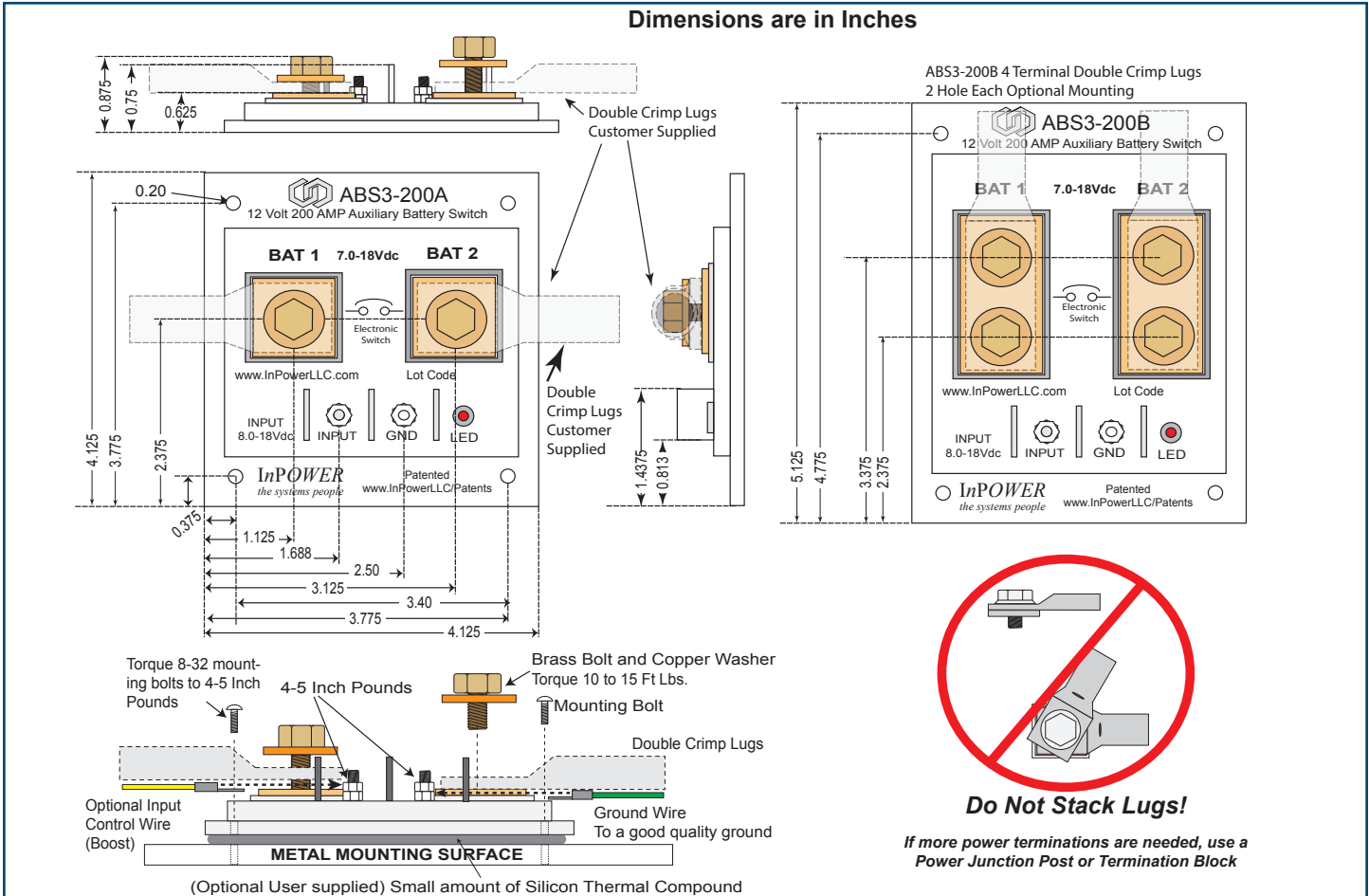
Weight:	0.40 lbs
Dimensions:	4.125" W x 4.125"L x 1.437"H
Power Terminals:	3/8 - 16 Brass Bolts with Copper Washers
Boost/Ground Terminals:	8-32 4-5 Inch Pounds
Ground Connection:	8-32 Ground stud for connection
Power Terminal Torque:	10 to 15 Foot Pounds
Designed to:	IP67

### Ordering Guide

	2 Lug	4 Lug
200 Amp Auxiliary Battery Switch	ABS3-200A	ABS3-200B

**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!

### 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