



MODEL #2300A HEAVY-DUTY SELECTOR

# Battery Switch

## EASY INSTALLATION

**Guest®** Heavy Duty Selector Switch is "make-before-break" single pole, triple-throw switch with alternator field circuit disconnect for use where high amperage is required, such as diesel engine starting. Rated at 360 amps continuous, 600 amps momentary, the switch is 5 1/2" square and 3 1/2" high.

**Warning:** It is important that cold start amperage requirements of your engine do not exceed the rated capacity of this switch.

The switch features:

1. Selection between either of two batteries or banks of batteries, operation of both batteries or banks of batteries in parallel, or complete disconnect of both batteries or banks of batteries.
2. Alternator field disconnect, which interrupts the alternator field when switch is turned to "off" position, thus preventing electric surges in the armature circuit which might burn out the alternator diodes.
3. Positive click stop in all positions, with large easy-to-read dial.
4. Rugged polycarbonate case with built-in skirt to protect electrical connections. Can be panel or flush mounted.
5. Heavy-duty copper contacts.
6. For use with 6, 12, 24, and 32 volt systems.

## Installation Instructions

### Mounting

Switch should be located as close to the batteries as possible with regards to convenience of operation. The battery and starter cable should be as short as possible.

There are three mounting positions:

1. Surface mounting with the wires going through the openings at the base of the switch.
2. Surface mounted with a hole in the mounting surface to permit wires to come through at the back of the switch.
3. Recessed mounting of the switch through a hole in the mounting surface.

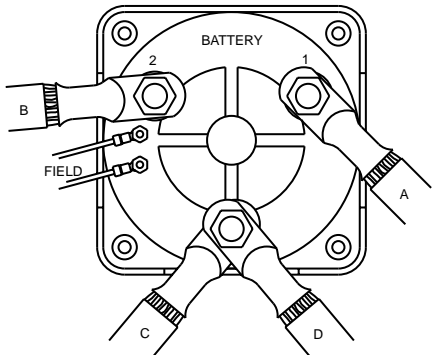
For surface mounting, place the switch in the desired location and, using the switch as a template, locate the four mounting holes. Then drill four equally-spaced #12 holes on 4 3/8" centers.

For recessed mounting, place the switch in the desired location, and using the switch as a template, locate the center. Cut a hole 5 1/4" dia. to permit the silver face plate to extend through the mounting surface. Then put the switch through the hole from the back and locate and drill the four #12 mounting holes. These holes should be on 4 3/8" centers. If flush mounting is desired, washers may be used on the mounting bolts between the switch flange and the mounting surface to adjust the portion of the switch that comes through the hole.

### Wiring

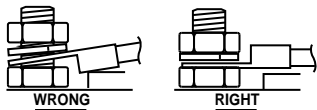
1. Battery cable should be 4/0 or sized in accordance with the engine manufacturer's recommendations. Other guides to wire sizes may be obtained from The American Boat and Yacht Council's Electrical Standards or The National Fire Protection Association's Standard for Motor Craft, NFPA 302. Terminals should be of the solder lug type. For 4/0 cable use Burndy #N250-250-MCM or equivalent. The brass terminal bolts are 1/2" diameter.
2. Wire for alternator field circuit disconnect switch should be #14 with terminal lugs on the ends.  
(See wiring diagrams for suggested installations).

## Recommended Mounting of Cables at Switch



1. Connect cable (A) from positive post of battery #1 to switch terminal #1.
2. Connect cable (B) from positive post of battery #2 to switch terminal #2.
3. Connect cable (C) from starter solenoid and cable (D) from accessory (load) to Feeder terminal on switch.
4. See "Wiring" for cable and terminal requirements.

## CABLE LUG INSTALLATION



### Remove Top Nut and Washer Only

Removing Bottom Nut Will Damage The Switch  
Tighten nut to 150 in-lbs.

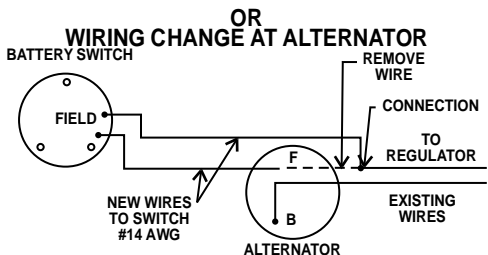
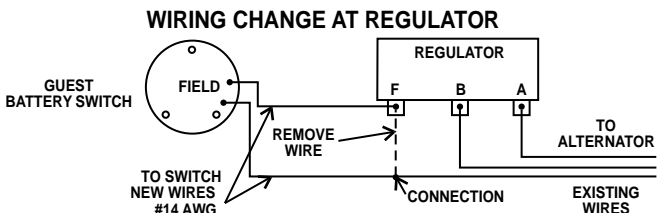
## SUGGESTED WIRING DIAGRAM FOR ALTERNATOR FIELD DISCONNECT CIRCUIT

### Alternators with EXTERNAL REGULATOR:

Remove regulator field wire (regulator "F" terminal) and connect to new wire leading to Guest® battery switch field terminal (either terminal). Add another wire from other switch field terminal and connect to regulator "F" terminal. Use #14 wire for new circuit. Carefully tape connections for proper insulation.

OR

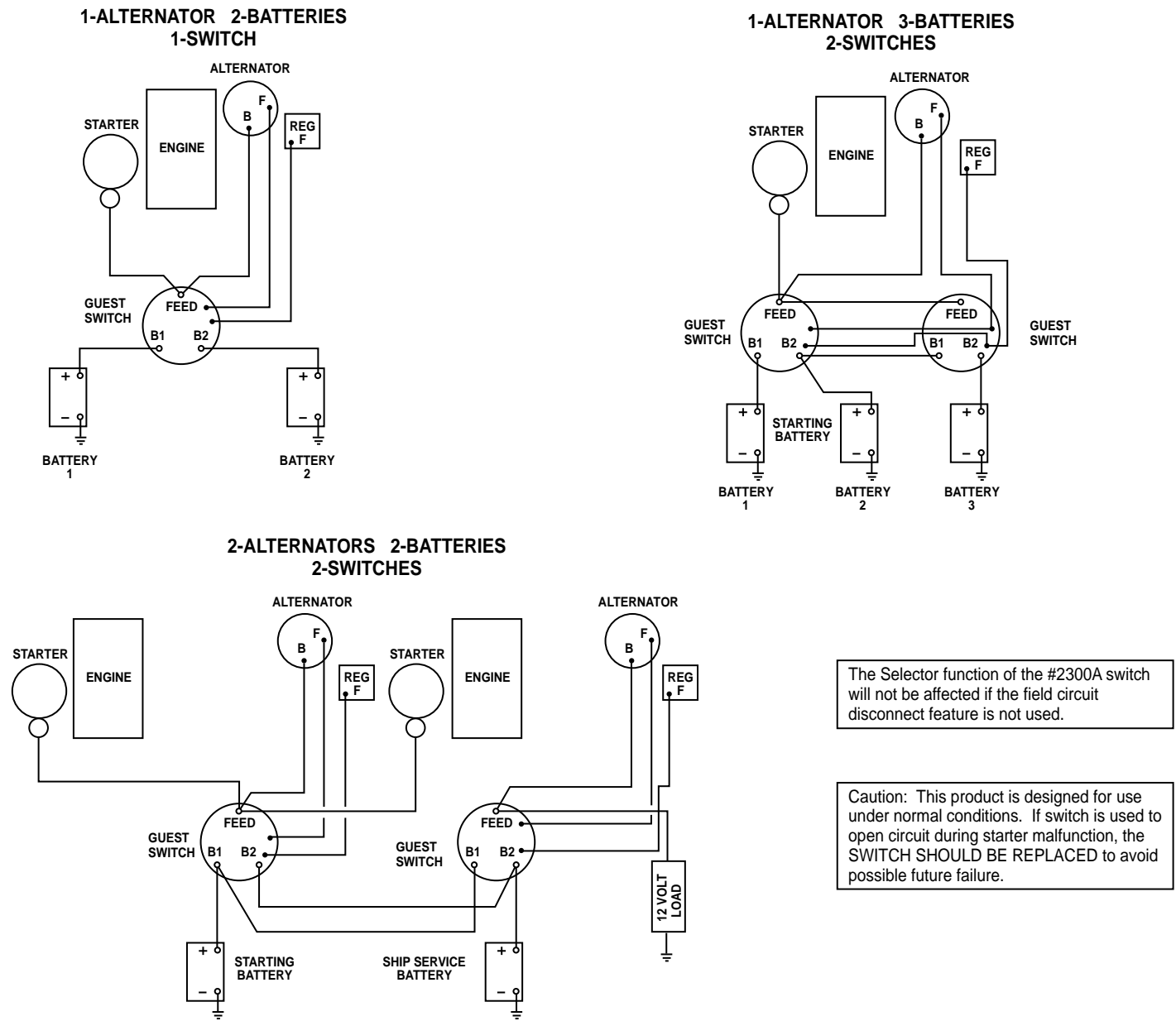
If it is easier to reach the alternator, remove alternator field wire (alternator "F" terminal) and connect to new wire leading to Guest® battery switch field terminal (either terminal). Add another wire from other switch terminal and install to alternator "F" terminal. Use #14 wire for new circuit. Carefully tape connections for proper insulation.



Alternators with INTERNAL REGULATOR:

The field circuit wire on alternators with internal regulators is located within the alternator housing and it is impractical to use the field disconnect feature. Protection of the alternator diodes can be achieved by installing a Guest® Isolator #2401A (for 70 ampere alternators) or other appropriate model.

See below for various wiring diagram for alternators with internal regulator:



BATTERY CHARGER SYSTEMS with battery selector switches, battery isolators and battery chargers

Guest® Battery Charger Systems keep your boat operating at full battery power, at the dock or underway, Chargers are fully automatic and will not overcharge batteries. Chargers also isolate A.C. shore power from boat's electrical system, provide extra boost for engine starting, function as converters.

Guest switches, isolators and battery chargers (and your alternator) form a comprehensive power selection and power maintenance system.

