PERKO®

Cat No. 8603 with Alternator Field Disconnect
BATTERY SWITCH
INSTALLATION AND OPERATING INSTRUCTIONS

For use with alternators and generators rated 6-32 V.D.C. switch rating: 380 amperes continuous, 850 intermittent. Locate switch to keep battery cables short as possible. All wiring to the switch shall be preformed by a QUALIFIED MARINE ELECTRICIAN, and in accordance with the "Fire Protection Standard For Motor Craft", N.F.P.A.* No. 302, The Standards of the American Boat and Yacht Council, Inc.*, and the U.S.C.G.* Safety Standards for Boat Electrical Systems (33 CFR 183). If the installation requires operation at the continuous rated switch capacity (380 AMPS) in engine compartments, then the minimum cable size recommended is: 3/0 (200° C Insulation) or 4/0 (125° C Insulation). Other cable sizes may be required due to length of run and load, therefore consult engine manufacturer's recommendations for battery cable size and specifications for the installation.

CAUTION: (1) Make sure connections at terminals No.1 and No. 2 are of the same polarity. Always STOP engines before switching to "OFF" position.
(2) Make-Before-Break feature allows switching between 1-all-2 positions with engine running.

Erratic operation, particularly after very long periods of idleness, can be cleared by rapidly switching back and forth briskly several times without any load connected.

NOTE: (1) Locate switch to keep battery cables short as possible.
(2) If switch is to be mounted in an area subject to corrosion, it is recommended that a liquid electrical coating be applied to the terminal connections.
(3) Terminal stud size is 1/2 inch. Torque terminal nuts to 21 ft-lbs.
(4) Mounting screw size #10 pan head or round head. Do not over-tighten screws to prevent deforming the switch.

The following diagrams illustrate a typical installation.

DIAGRAM #1
Single Engine
2 Batteries

SWITCH POSITION INDICATES WHICH BATTERY (#1, ALL, #2) IS CONNECTED TO THE ENGINE

DIAGRAM #2
2 Batteries
2 Engines
2 Switches
This allows either engine to be started by either battery.

Port switch indicates which battery(#1, All, #2) is connected to port engine and starboard switch indicates which battery(#1, All, #2) is connected to starboard engine.

DIAGRAM #3
2 Switches
2 Engines
2 Engine Batteries and separate bank of lighting batteries
This allows both engines to be used to charge lighting batteries.

Port switch indicates which battery (Port only, Port & Lighting, Lighting only) is connected to port engine and the starboard switch indicates which battery (Starboard only, Starboard & Lighting, Lighting only) is connected to starboard engine.

DIAGRAM #4 - ALTERNATOR FIELD DISCONNECT

Alternator Field Disconnect - used to break the field current and protect the alternator diodes if the battery switch is inadvertently turned to the "OFF" position with the engine running. Hook-up instructions and applicability are explained below.

A. Use minimum 14 AWG wire, suitable for use in marine engine compartments.
B. On systems with separate regulator, splice the field disconnect switch into the field wire "F" as shown:

1. At the Regulator:

2. At the Alternator:

C. **On unitized alternators with built-in regulator - a field disconnect cannot be installed.**