



# Battery Disconnect Solenoid

COACHMEN CLASS B

INSTALLATION GUIDE

## INTRODUCTION

This installation guide is intended to aid a certified technician in installing a Battery Disconnect Solenoid in place of the Battery Guard (BG160).

The installation will require:

- KIB REL200A-HW Battery disconnect solenoid
- Single Pole Single Throw(SPST) 12 volt rocker switch
- In-line fuse holder with 5-amp ATC fuse
- Bell cap, WAGO, or butt connector
- 5/16" Ring terminal blue
- Tools:
  - Crimping tool
  - Wire strippers
  - 3/8" socket wrench
  - 1/2" socket wrench

## LOCATE BATTERY GUARD BG160

The battery guard is located behind the Distribution/Breaker box on the road side of the vehicle and is accessible by removing the jump seat lid or bed board.

## INSTALLATION

### 1) Remove battery power

- On AGM/Generator coaches, remove positive cable from the battery or AUX side of 150A auto-reset breaker(near the battery)
- On Li3 Lithium systems, power down the BMS using the silver button on the Freedom E-Gen panel or the blue-lit button on the side of the BMS.

### 2) Replace BG160 with Battery Disconnect solenoid.

- Unmount the BG160 by removing the three mounting screws.
- Remove/unbolt the 16ga white ground wire with #10 ring terminal from the “Gnd” post of the BG160 and install the wire on the bottom #10 post of the Battery disconnect solenoid.
- Remove/unbolt the 16ga Purple wire with #10 ring terminal from the “Sig” post of the BG160 and install the wire on the top #10 post of the Battery disconnect solenoid.
- Remove/unbolt the cables and all wires from the “Load” post of the BG160 and install them on the right 5/16” post of the battery disconnect solenoid.
- Remove/Cut the 16ga Purple wire from the “Ign” post of the BG160 and install on the left 5/16” post of the battery disconnect with an in-line 5 amp fuse and 5/16” ring terminal.
- Remove/unbolt the cables and all wires from the “Batt” post of the BG160 and install them on the left 5/16” post of the battery disconnect switch.
- Securely mount the battery disconnect solenoid where the BG160 used to be.
- Torque solenoid post nuts to 50 in-lbs.

### 3) Replace momentary Use/Store switch with SPST switch.

- Unmount the Use/Store switch from the main switch panel by removing the bezel and the two mounting screws
- Remove, discard or cap off the 16ga white ground wire from the Use/Store switch.
- Remove both 16ga Purple wires with spade terminals from the Use/Store switch
- Remove the momentary rocker switch from the mounting plate.
- Replace with a SPST 12v rocker switch.
- Install both 16ga Purple wires with spade terminals on the new Use/Store switch.
- Reinstall mount switch with Use/Store bezel.

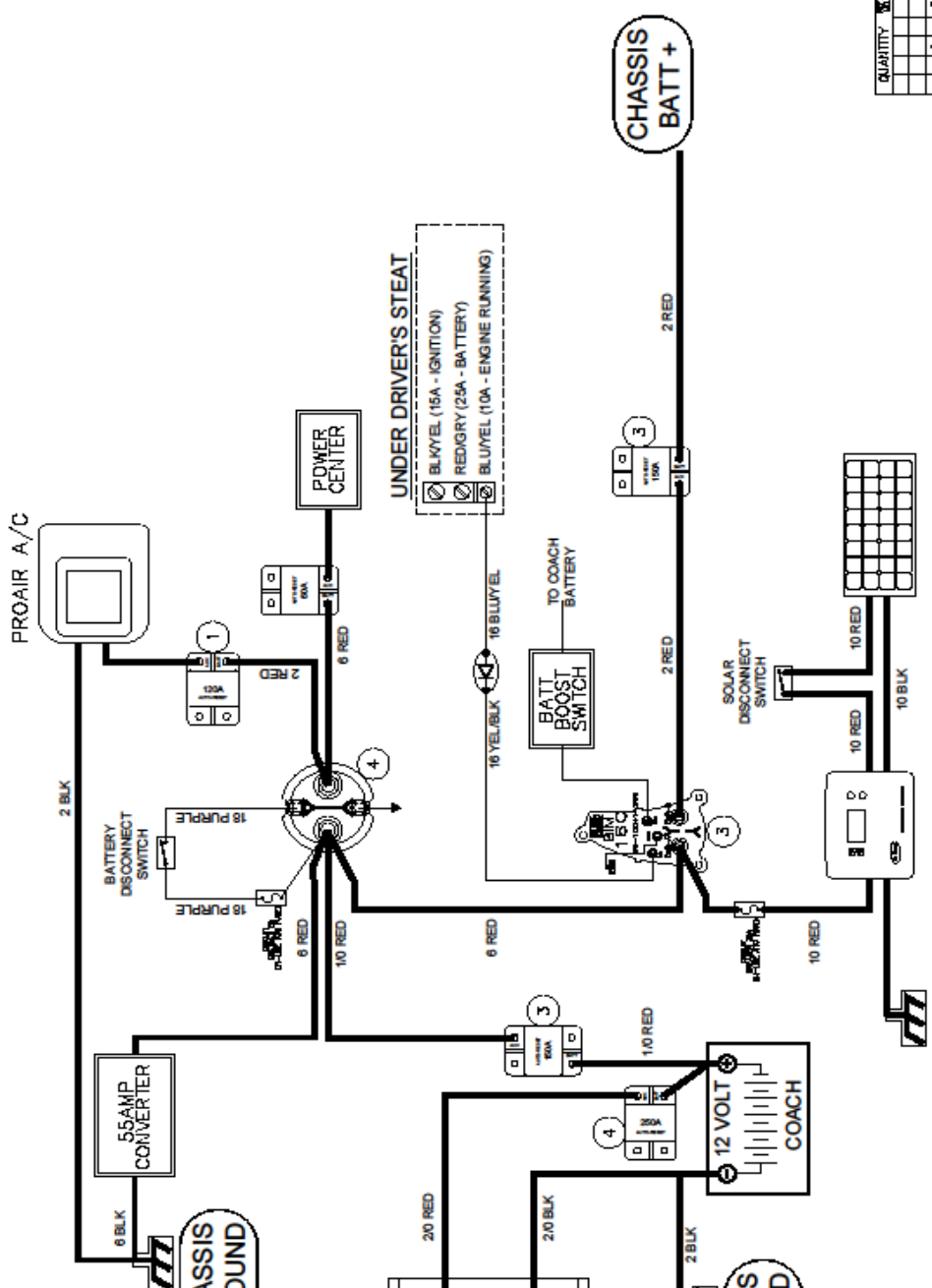
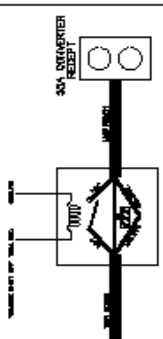
#### 4) Reinstall battery power, reverse Step 1.

#### 5) Verify Battery Disconnect operation.

- Plug in shore power to properly test AGM/Generator coaches with 12V Air conditioner.
  - o The goal is to verify the auxiliary 55amp converter is connected properly by running the 12v air conditioner and disconnecting power. If battery power remains ON even after the switch is in STORE, the 55amp converter is installed incorrectly. See wiring schematic to correct.
  - o Shore power is not necessary to test Li3 Lithium or conventional air conditioners.
- Press the switch into the Use or ON position
- Listen for audible solenoid “clunk”
- Verify 12V loads are operable:
  - o Multiplex system, lights etc
  - o 12V air conditioner (keep A/C running during Disconnect)
- Disconnect the battery by setting Use/Store switch to STORE.
- Listen for audible solenoid “clunk”
- Verify 12V loads are disabled:
  - o Multiplex system, lights etc
  - o 12V air conditioner
  - o Tank heat pads (option)
- Verify Truma control panel still displays time on LCD screen.



**55A CONVERTER CONTROL CIRCUIT**



REV	CHANGE DESCRIPTION	BY	DATE

QUANTITY	PART NO	PART DESCRIPTION
1	5	BATTERY DISCONNECT SWITCH
1	5	BATTERY ISOLATION MANAGER 160A
1	4	BREAKER 12V 250A AUTO RESET
1	3	BREAKER 12V 150A AUTO RESET
1	2	BREAKER 12V 100A AUTO RESET
1	1	BREAKER 12V 60A AUTO RESET
1	1	BATTERY
1	1	CHASSIS BATT +

WARNING: DANGER OF ELECTRICAL SHOCK, BURNS, OR DEATH BEFORE ATTEMPTING ANY REPAIR, SERVICE, OR MAINTENANCE WORK. ALWAYS REMOVE ALL POWER SOURCES, POWER CAN BE PRESENT FROM SERVO POWER, GENERATOR, INVERTER, OR BATTERY. ALL POWER SOURCES MUST BE DE-ENERGIZED AND SECURED BEFORE PERFORMING ANY SERVICE.

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1	1	CHASSIS BATT +

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