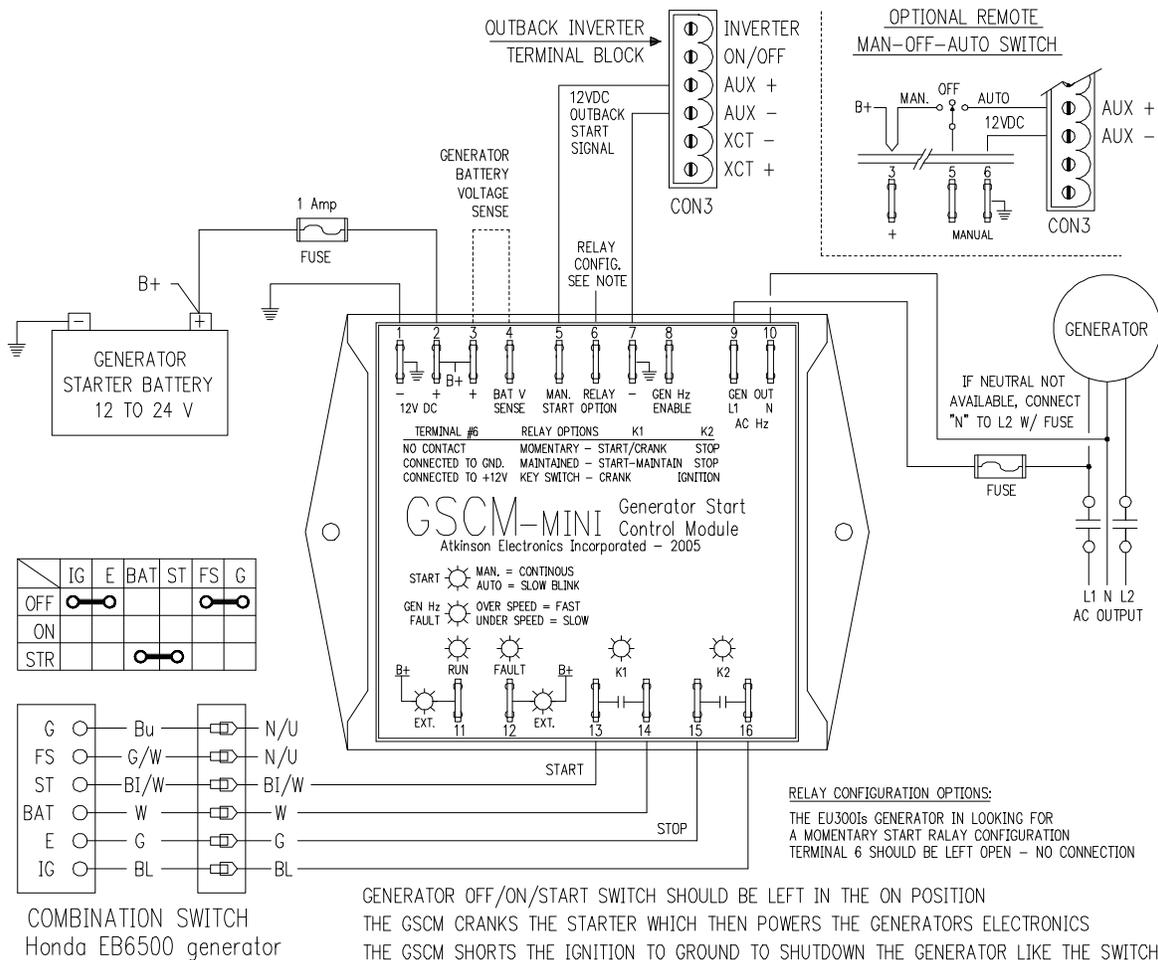


# OUTBACK INVERTER W/ HONDA EB6500 GENERATOR WIRING DIAGRAM

EAB #4m  
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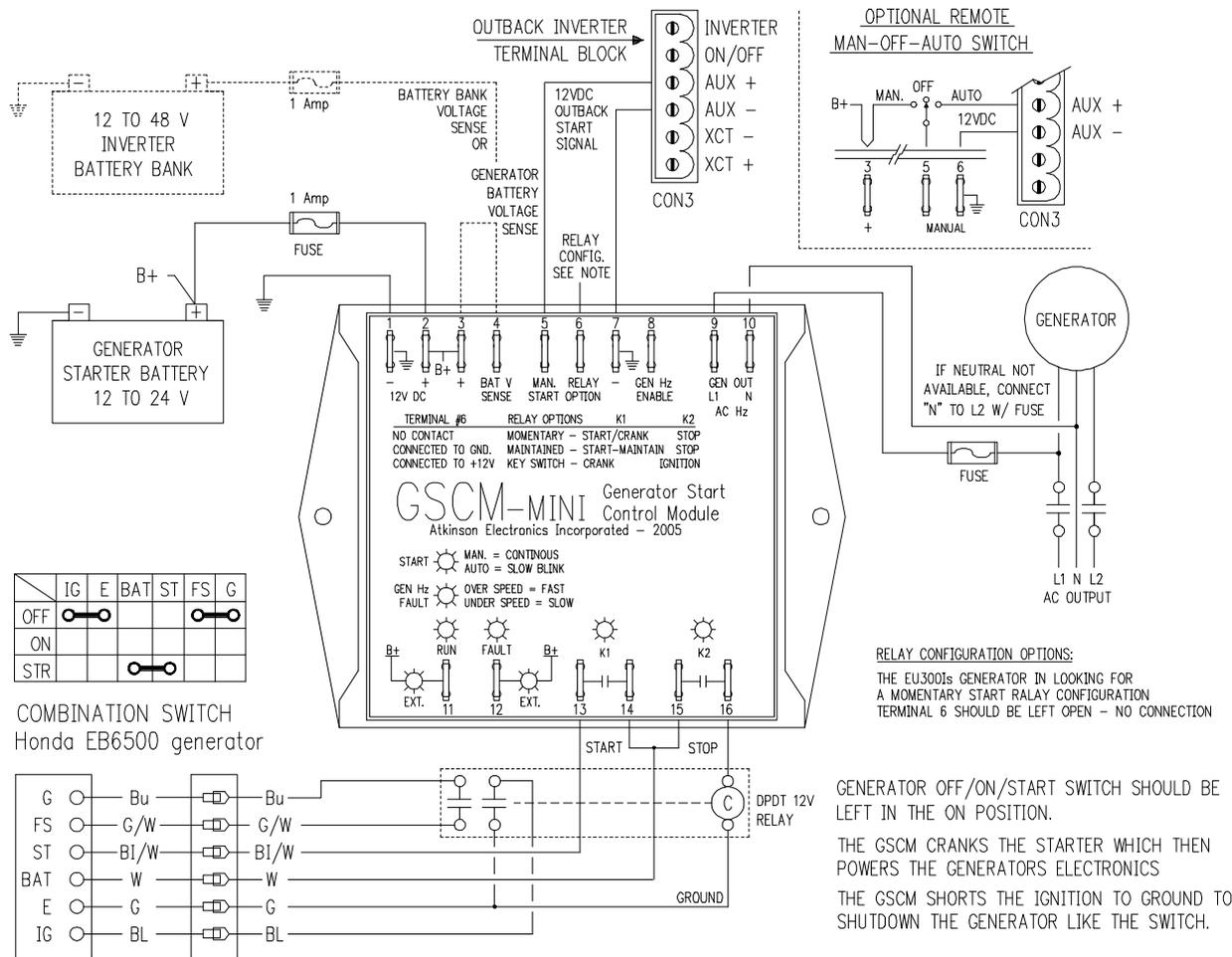


The GSCM-mini wiring connections for Honda's EB 6500 portable generator. Based on the electrical diagram found in the owners manual, the GSCM-mini should be configured for momentary start (terminal 6 has no connection) and should be wired in parallel with the Combination Switch (Off/On/ Start) . The combination switch should be left in the ON position for the generator to be started by the GSCM-mini and the Outback Inverter. The above diagram shows the combination switch, it's connects made in the three positions, it's connector and wire colors. The GSCM-mini's K1 (start) relay contact is wired to the ST (Black/White) and BAT (White) wires. The GSCM-mini's K2 (shutdown) relay contact is wired to E (Green) and IG (Black) wires. When the Outback Inverter calls for the generator to run it passes a start signal to the GSCM (terminals 5&7), the GSCM-mini then begins it's starting sequence by energizing K1 for 20 seconds . The generator begins cranking, as it is cranking it powers its own electronics (ignition, auto throttle circuit) and begins producing an AC signal. The GSCM monitors the AC output and when the AC Hz exceeds the crank disengage threshold the K1 (start) relay is de-energized. When the Outback tells the GSCM to shutdown the generator by removing it's 12V signal, the GSCM begins it's shutdown routine (see GSCM-mini data sheet for description of routine) K2 is energized grounding the generator's Ignition coil as if the combination switch had been turned off causing the generator to shutdown. If generator has problems shutting down, a 12VDC DPDT shutdown relay may needed to ground both the Ignition and the Fuel Cut Solenoid, see wiring diagram on next page.

## Engineering Application Bulletin

Atkinson Electronics, Inc.  
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**OUTBACK INVERTER W/ HONDA EB6500 GENERATOR WIRING DIAGRAM**



The GSCM-mini's wiring connections for Honda's EB 6500 portable generator with a 12VDC DPDT shutdown relay. Based on the electrical diagram found in the owners manual, the GSCM-mini should be configured for momentary start (terminal 6 has no connection) and should be wired in parallel with the Combination Switch (Off/On/ Start). The combination switch should be left in the ON position for the generator to be started by the GSCM-mini and the Outback Inverter. The above diagram shows the combination switch, its connects made in the three positions, its connector and wire colors. The GSCM-mini's K1 (start) relay contact is wired to the ST (Black/White) and BAT (White) wires. The GSCM-mini's K2 (stop) relay contact 15 is wired to Bat (White) and 16 to a DPDT shutdown relay coil and back to ground E (Green) wires. The Relay's first set of normally open contacts are connected to G (Blue) and FS (G/W). The second set of contacts connect to E (Green) and IG (Black) wires. When the Outback Inverter calls for the generator to run it passes a start signal to the GSCM-mini (terminals 5&7), the GSCM then begins its starting sequence by energizing K1 for 20 seconds. The generator begins cranking, as it is cranking it powers its own electronics (ignition, auto throttle circuit) and begins producing an AC signal. The GSCM monitors the AC output and when the AC Hz exceeds the crank dis-engage threshold frequency the K1 (start) relay is de-energized. When the Outback tells the GSCM-mini to shutdown the generator by removing its 12V signal, the GSCM begins its shutdown routine (see GSCM-mini data sheet for description of routine) K2 is energized, energizing the external DPDT shutdown relay, grounding the generator's Ignition coil and turning on the Fuel cutoff solenoid valve, as if the combination switch had been turned off causing the generator to shutdown.