Nov. 18, 2006 OUTBACK INVERTER W/ GENERATOR REQUIRING HIGHER CURRENT RELAYS



The GSCM wiring connections for Kubota generator (GL6500S), are based on the electrical diagram found in the owners manual, the GSCM should be wired in parallel with the Combination Switch (Glow/Off/On/ Start). The combination switch should be left in the Off position for the generator to be started by the GSCM and the Outback Inverter. The above diagram shows the combination switch, it's connections, and wire colors. The GSCM's Glow plug contact, Crank contact and Ignition contacts are wired to B+ and separate higher amperage rated relays. This is done because of two these circuits draw more than maximum 10 amps of current the GSCM's relays are rated for. If you are not sure how much current each of these circuits draw, check the generators owners manual for the fuse size that feeds these circuits, use a 10 Amp fuse in-line with each of the GSCM's relay contacts. If any of the fuses blow replace the fuse with a higher current rated relay and wire as shown above. This will protect the GSCM's internal circuit board and relay contacts. The GSCM's shutdown relay is OPTIONAL. It's contacts would be wired in parallel with the Stop Switch.

When the Outback Inverter calls for the generator to run it passes a start signal to the GSCM (terminals 5&6), the GSCM then begins it's starting sequence by energizing K1, then 5 seconds later energizes K2 (crank) relay. The generator begins cranking, as it is cranking it begins producing an AC signal. The GSCM monitors the AC output (terminals 13 & 14) and when the AC Hz exceeds the crank disengage threshold the K2 (crank) 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 data sheet for description of routine) K3 is de-energized and K4 is energized grounding the generator's Ignition coil as if the stop switch had been pushed causing the generator to shutdown. A user supplied 10 Amp fuse should be installed in the B+ (30) supply that feeds K1, K2, & K3 relays to protect against damage to GSCM's Relays if the current draw is greater than 10 Amps.

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