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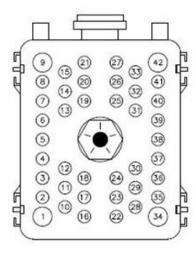
## WSG850 Body Side Harness Installation Instructions F8JL-14324-AC or 42 Pin Kit 5080030

Please read through the complete instructions before starting the installation.

The chart on the last page can be used for future reference. It is not necessarily needed for installation.

When connecting two wires, it is recommended that you solder the wires together and cover the splice using heat shrink tubing with hot melt wax.

- 1. Disconnect the battery.
- 2. The positions on the 42-pin connector of the harness are numbered. The instructions listed below refer to Pin #'s. Pin 1 refers to the wire in position 1 of the 42-pin connector; Pin 2 refers to the wire in position 2 of the 42 pin connector and so on. Then continue to hookup each wire as needed. Make sure to follow the instructions listed for each pin.



**Pin 1 (required) -** Connect to +12V switched ignition source. This pin must have 12 volts when the key is on. Remove voltage to shut off engine.

**Pin 2 (optional)** - Connect to an auxiliary tachometer; two pulses per rev

**Pin 3** – (**optional**) – Connect to ground via a switch. With the key on and engine off, switch this line to ground to flash out codes via the MIL (malfunction indicator lamp).

**Pin 4 (optional) -** You may insert a wire that will connect through a brake switch to ground to give the GCP a brake switch input. ECU calibration must be setup for this.

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Pin 5 (required if running on gasoline) - Connect to the fuel pump positive lead.

**Pin 6 (required on mobile equipment/optional on stationary emergency equipment) -** Connect to the malfunction indicator lamp (MIL). The other side of the MIL needs to be connected to +12 volts. If using an LED see Note 1 on page 4.

**Pin 7 (optional)** – Fuel select; if dual fuel is ordered, typically gasoline = open/gnd, LPG or CNG = 12 volts. If single fuel is ordered, leave pin open. If unsure consult your distributor or EDI for setup in the ECU program.

Pin 10 (optional) - Auxiliary analog PUD1, 12 volt input, i.e. safety switch input

Pin 12 (optional) – FPP2 You may insert a wire to be used for secondary variable speed control input. 0-5 volt signal.

**Pin 14 (optional) – FPP1** Connect to the gray / white wire of the drive by wire harness PN F8JL-12B476-AA. Solder the connection and cover with sealable heat shrink. Used with the foot pedal or the variable speed hand controller. 0-5 volt signal.

**Pin 15 (required)** - Connect to the start position of the ignition switch. This wire needs +12 volts when the engine is in crank mode.

Pin 18 (required if running on gasoline) – Connect to the fuel pump negative lead

**Pin 23** – (**optional**) – You may insert a wire to connect to governor speed select switch 2 (GVS2). The other side of GVS2 needs to be connected to +12V. Solder the connection and cover with sealable heat shrink. Used for tap up / down or discrete speed control.

**Pin 24 (optional)** – Connect to governor speed select switch 1 (GVS1). The other side of GVS1 needs to be connected to +12V. Solder the connection and cover with sealable heat shrink. Used for tap up / down or discrete speed control.

**Pin 25 (optional)** – Connect to idle validation switch (IVS) on the drive by wire harness. The other side of the IVS switch needs to be connected to ground. Solder the connection and cover with sealable heat shrink. Used with the foot pedal.

**Pin 27** – You may insert a wire to connect to an auxiliary relay or light. This wire will be grounded by the GCP when certain customer defined conditions are met.

**Pin 28** – CAN + port using SAE Standard J1939.

**Pin 29** – CAN - port using SAE Standard J1939.

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**Pin 31 (optional)** – 5 volt reference. Connect to brown / white wire on the drive by wire harness PN F8JL-12B476-AA. Solder the connection and cover with sealable heat shrink. Used with the foot pedal or the variable speed hand controller

Pin 32 – (optional) -- Auxiliary analog PD1, 12 volt input, i.e. safety switch input

**Pin 33 (optional)** – Analog return. Connect to gray / red wire on the drive by wire harness PN F8JL-12B476-AA. Solder the connection and cover with sealable heat shrink. Used with the foot pedal or the variable speed hand controller.

Pin 37 – (optional) – Auxiliary analog PUD2, 12 volt input, i.e. safety switch input

**Pin 39** – (**optional**) – You may insert a wire to connect to an auxiliary relay or light. This wire will be grounded by the GCP when certain customer defined conditions are met.

## **Engine Harness**

When running on Propane or Natural gas and using a CAN device, unplug the CAN termination resistor located on the engine harness near the electronic pressure regulator. Ensure that the added CAN device is properly terminated. If no other CAN device is on the network, keep the jumper plugged in. Below is a picture of the jumper for reference.





| Pin # | Description                  |
|-------|------------------------------|
| 1     | +12 V switched               |
| 2     | Tachometer output            |
| 3     | MIL Trigger (Gnd Input)      |
| 4     | Brake input                  |
| 5     | To fuel pump positive        |
| 6     | To MIL                       |
| 7     | Fuel select                  |
| 8     | Not used                     |
| 9     | Not used                     |
| 10    | Aux. Analog PUD1             |
| 11    | Not used                     |
| 12    | FPP2                         |
| 13    | Not used                     |
| 14    | FPP1                         |
| 15    | To start switch "S" terminal |
| 16    | Not Used                     |
| 17    | Not used                     |
| 18    | To fuel pump negative        |
| 19    | Not used                     |
| 20    | Not used                     |
| 21    | Not Used                     |
| 22    | Not used                     |
| 23    | GVS 2                        |
| 24    | GVS 1                        |
| 25    | IVS                          |
| 26    | Not used                     |
| 27    | Aux. Out 2                   |
| 28    | CAN +                        |
| 29    | CAN -                        |
| 30    | Not used                     |
| 31    | +5v ref                      |
| 32    | Aux. Analog PD1              |
| 33    | Analog return                |
| 34    | Not used                     |
| 35    | Not Used                     |
| 36    | Not Used                     |
| 37    | Aux PUD2 Input               |
| 38    | Not used                     |
| 39    | Aux. Out 1                   |
| 40    | Not used                     |
| 41    | Not used                     |
| 42    | Not used                     |

**Note 1:** If using an LED light on any of the aux outputs or the MIL. It is recommended to install a 600 ohm resistor across the negative and positive leads of the LED. Otherwise the LED may be dimly lit when not on.