Engine Distributors Inc. 400 University Court
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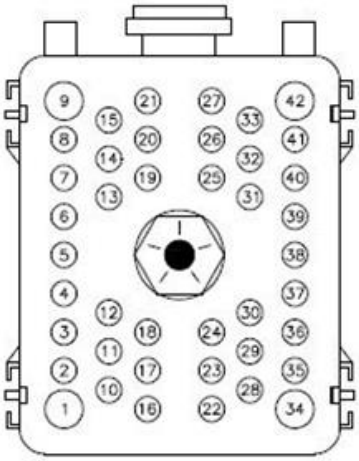
WSG1068 *Body Side Harness* Installation Instructions
F8JL-14324-AC or 42 Pin Kit 5080030

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. Proceed 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.

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.

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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 four.

Pin 7 (required) – 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 GCP program.

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

Pin 14 ((optional) - 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. See page five note 2 if wire length from panel to engine exceeds 10 feet.

Pin 16 (optional) – Auxiliary PWM 4

Pin 18 – Fuel pump negative

Pin 21 – Auxiliary PWM 5

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 26 (optional) –Connect to oil pressure light. This wire comes from the oil pressure switch. This wire comes from the oil pressure switch. It is closed (grounded) with oil pressure and open when there isn't oil pressure.

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Pin 28 – CAN + port using SAE Standard J1939.

Pin 29 – CAN - port using SAE Standard J1939.

Pin 31 (optional) – 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 footpedal or the variable speed hand controller

Pin 33 (optional) – 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 footpedal or the variable speed hand controller.

Pin 35 – **(optional) -** Roadspeed +

Pin 36 – **(optional) -** Roadspeed -

Pin 37 – **(optional) –** Auxiliary analog PUD2

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. Calibration update typically required unless specified when ordered.

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.

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F8JL-14324-AC & F8JL-14324-BA	SH 4/5/06
42 pin engine to frame harness (6.8L)	
GCP Engine to Frame Harness Pinout (Harness Part # F8JL-14324-AC or BA)	
Pin #	**Wire Color**	**Description**
1	Red/Light Green	+12 V switched
2	Tan/Yellow	Tachometer output
3	Pink / Light Blue	RS232 Rx / Self Test Input
4	Not populated	Brake input
5	Pink/Black	To fuel pump positive
6	Pink/Light Green	To MIL
7	Y / Bk or BR / W	Fuel select
8	Yellow	Not used
9	Yellow	Not used
10	Not populated	Aux. Analog PUD1
11	Tan / Orange	RS232 Tx
12	Not populated	FPP2
13	Red/Light Blue	Not used
14	Light Blue/Black	FPP1
15	Dark Blue	To start switch "S" terminal
16	Red/White	Aux. PWM 4
17	Not populated	Not used
18	White / Purple	To fuel pump negative
19	Not populated	Autocrank start
20	Not populated	Not used
21	Not populated	Aux. PWM 5
22	Purple	Not used
23	Not populated	GVS 2
24	Tan/Light Blue	GVS 1
25	Black/Yellow	IVS
26	Dark Green/White	Oil pressure
27	Not populated	Aux. Out 2
28	Not populated	CAN +
29	Not populated	CAN -
30	Not populated	Not used
31	Brown/White	+5v ref
32	Not populated	Aux. Analog PD1
33	Gray/Red	Analog return
34	Black/White	Not used
35	Not populated	Roadspeed +
36	Not populated	Roadspeed -
37	Dark Green / Orange	Analog aux. PUD2

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.

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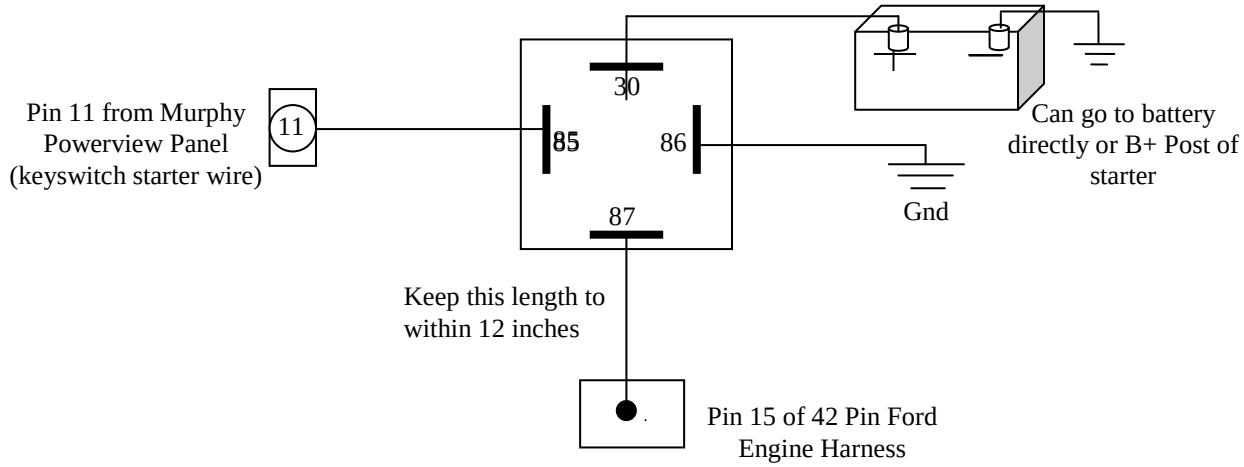
Note 2: Extension Harnesses

- If your harness is going to extend beyond 6 feet in length it is prudent to add in a starter relay. This will cut down on the voltage drop from the keyswitch to the starter solenoid and prevent starter failures in the long run.

  Below is the diagram to wire a starter relay with a Murphy Powerview Panel. At least 16 gauge wire is recommended.
  ***Note Pin 11 from the Murphy Powerview Panel is the same as the starter signal on a keyswitch*



- If you are using a CAN device and the CAN wires are located in the extension harness, be sure to twist the CAN + and CAN - wires together for the length of the harness. At least 10 turns per foot.