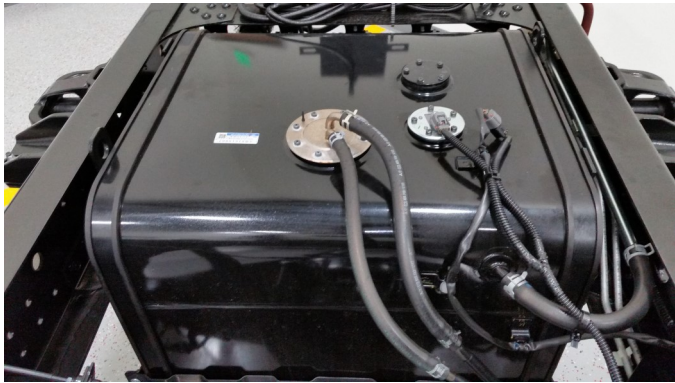


Transfer Flow Fuel Transfer Pump System Operation Strategy - Hino 195

The purpose and function of the Transfer Flow fuel transfer system is to ensure that the main fuel tank maintains an adequate and balanced fuel load by transferring fuel from the auxiliary fuel tank. Fuel transfer is accomplished using a logic-controlled electric fuel pump.



Main Fuel Tank



Auxiliary Fuel Tank

The system strategy is as follows:

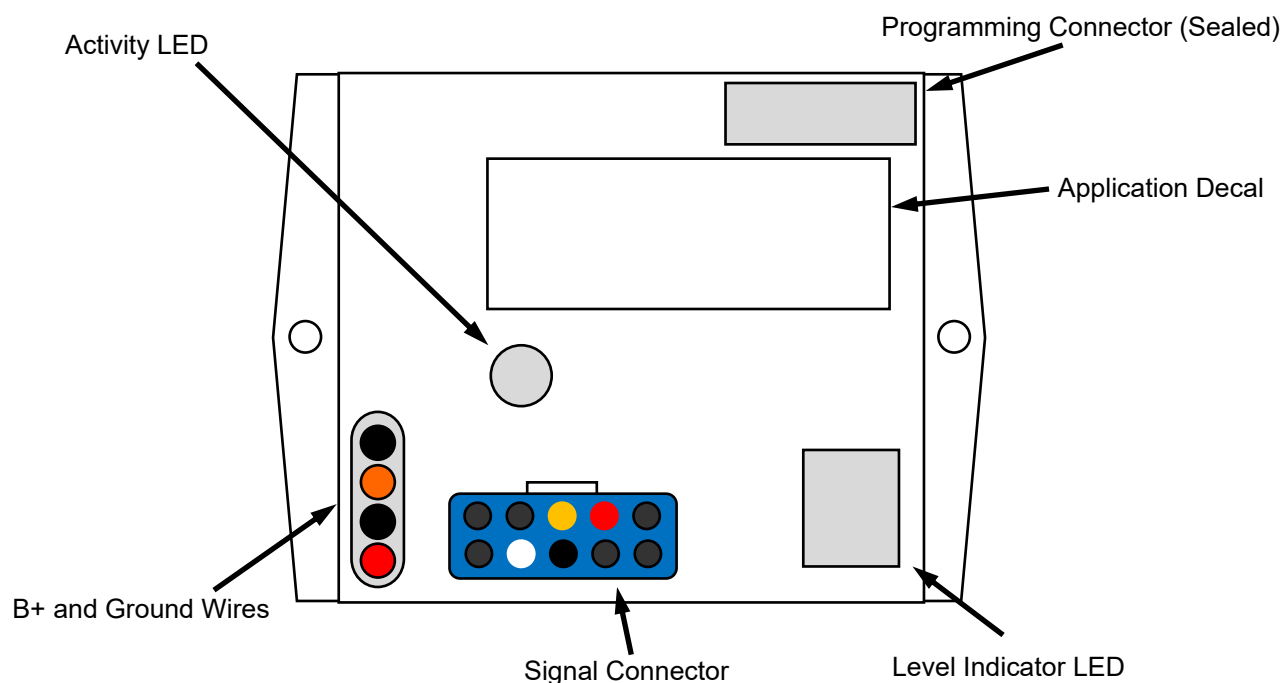
Main Tank Fuel Load	Resistance Value (Ω)	Signal Voltage (VDC)	Fuel Transfer Command
100 %	$20\Omega \pm 1.5\Omega$	$1.6V \pm 0.5V$	OFF
75%	$27\Omega \pm 1.5\Omega$	$2.3V \pm 0.5V$	OFF
50%	$34\Omega \pm 1.5\Omega$	$2.9V \pm 0.5V$	ON
45%	$38\Omega \pm 1.5\Omega$	$3.1V \pm 0.5V$	ON
25%	$57\Omega \pm 1.5\Omega$	$4.4V \pm 0.5V$	OFF
0%	$65\Omega \pm 1.5\Omega$	$6.1V \pm 0.5V$	OFF

The fuel transfer system is initialized and begins the process of transferring fuel when the indicated fuel level in the main fuel tank is below 1/2, and continues to cycle until the level in the main fuel tank reaches 3/4.

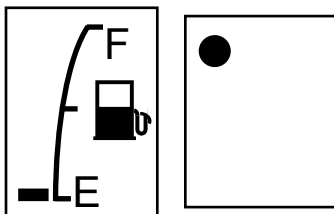
The system will not operate if the fuel level in the main fuel tank is below 3/8. If the fuel level drops below 1/4, this is an indication that the auxiliary tank is empty and must be refilled.

The fuel transfer system status and main fuel tank level may be inspected by monitoring the following items at the fuel transfer control module:

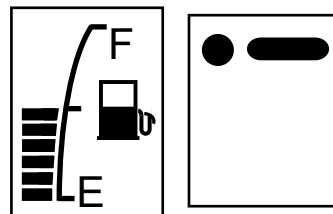
- 1.) Activity LED - Green: Indicates initialization, self-test, and when the system is actively monitoring the fuel level in the main fuel tank.
- 2.) Activity LED - Red: Indicates that the system is active and that a fuel transfer event is currently in process.
- 3.) Activity LED - Orange: Indicates that the fuel transfer pump is disconnected or an open circuit exists.
- 4.) Fuel Level Indicator LED - The approximate fuel level in the main fuel tank is indicated by a combination of one dot and a variable number of bars (see below)



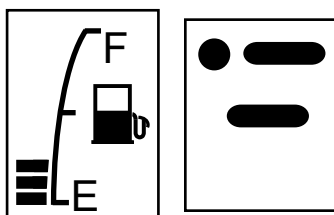
One dot indicates that the fuel level in the main fuel tank is between 0 and $\frac{3}{8}$.



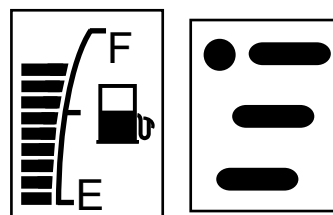
One dot and one bar indicates that the fuel level in the main fuel tank is between $\frac{3}{8}$ and $\frac{1}{2}$.



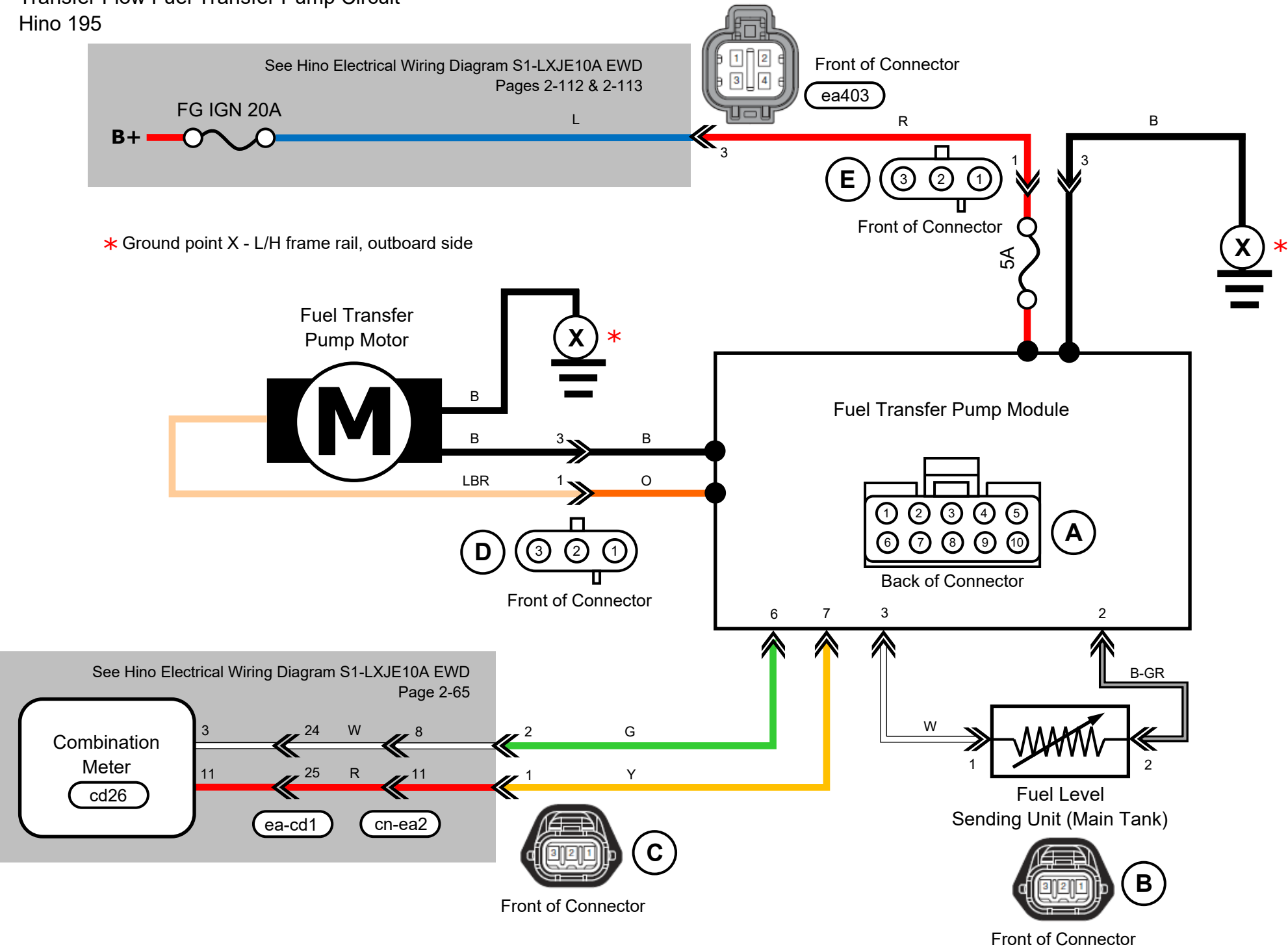
One dot and two bars indicates that the fuel level in the main fuel tank is between $\frac{1}{2}$ and $\frac{3}{4}$.



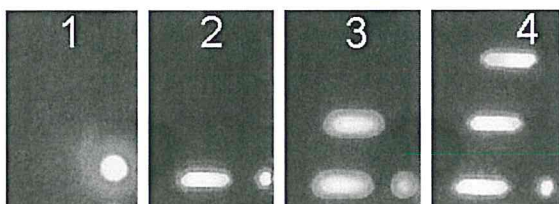
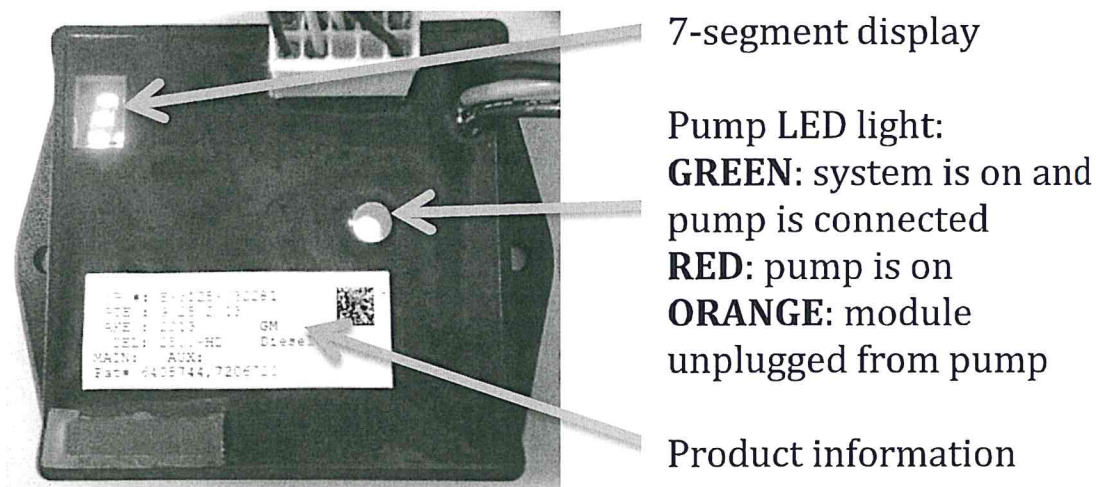
One dot and three bars indicates that the fuel level in the main fuel tank is $\frac{3}{4}$ or more.



Transfer Flow Fuel Transfer Pump Circuit
Hino 195



MaxFlo-TFI™ Module Function



The 7-segment display:

1. Empty to 3/8
2. 3/8 to 1/2
3. 1/2 to 3/4
4. 3/4 to full

MaxFlo-TFI™ Computer Module Start Up Process:

Time after starting vehicle	7-Segment Display	Module LED	Description
0-16 Seconds	M-A-X-F-L-O DATE SERIAL #	GREEN	One by one the display reads out MaxFlo, the date, then serial #
16-18 Seconds	BLANK	Flashes RED 3 times	Pump pulses simultaneously with the Red LED
18-46 Seconds	BLANK with RED DOT at 29 SEC	GREEN	Program cycles
47+ Seconds	FUEL LEVEL/RED DOT	GREEN	Reads fuel level