

Freedom Fill Troubleshoot

The purpose of this guide is to give a brief guide to the common troubleshooting steps we come across. While this will not cover every problem that may occur, it will cover the most common problems.

Suggestion: Make sure you have followed all the steps properly in the instruction. Make sure you are using only the parts supplied to you that came with the Freedom Fill Installation Kit. The fuel system may or may-not work with substituted parts.

Pump Will Not Shut Off

- Does the light on the switch turn on for approximately 5 seconds and shut off?
 - **NO:** (Light stays on always) Go to #1
 - **YES:** Go to #2

- 1. Check the negative wire of the pump to ensure it is connected only to the black wire coming from the Freedom Fill Computer module, not to chassis ground.
 - Pump grounded to frame:
 - Yes: *Pump should not be grounded to frame, (-) wire to Black wire of computer harness.*
 - No: *Inspect harness plug of the computer module and ensure no wires have been pulled loose. If the harness is bad, replace harness. If the harness is correct, replace computer module.*

- 2. Make sure you are on the correct factory sending unit with a good connection with the blue wire from the Freedom Fill Auxiliary System wiring harness.
 - ***Purple-04-14 GM/Chevrolet***
 - ***Blue w/ Purple Strip 2015+ Gm/Chevrolet***
 - ***Yellow with purple stripe-2008-current Ford***
 - ***Yellow with white stripe 88 to 07 Ford front tank***
 - ***Blue with black stripe 03 to 05 Dodge***
 - ***Blue with white stripe-98-02 & 06-Current Dodge***
 - ***(See owner's manual due to variations of truck wiring).***
 - YES: Go to #4
 - NO: Attach Freedom Fill Blue Wire onto correct sending unit wire

- 3. Check the voltage on the blue wire at the computer module. Ensure you are getting the correct reading of voltage in comparison to the level of the factory tank. If you do not know what the voltage should read, please call us at [800-773-3047](tel:800-773-3047) with the voltage reading and the level of the factory tank.

Approximate Voltages

	DODGE		FORD		GM		
	98-09, 11	DODGE 10 08 +	ALT 88-99	12	04-11	98-03	
EMPTY	6.50	-	5.00	0.60	2.40	2.40	1.00
1/4	5.00	-	3.50	1.00	2.10	2.25	1.65
1/2	4.00	1.63	2.50	1.65	1.80	2.00	2.00
3/4	2.50	-	1.50	2.25	1.40	1.65	2.25
7/8	1.83	0.83	1.13	2.55	1.17	1.36	2.32
FULL	1.00	-	0.75	2.75	1.10	1.00	2.40

Voltage correct?

- **YES:** Go to #4
 - **NO:** Check the connection at the blue wire and the sending unit wire
4. Certain year models of trucks have different programs for the Computer module. Make sure you have the correct box to the truck. If you are not sure, please call us [800-773-3047](tel:800-773-3047) with your computer module serial number.

Pump Will Not Turn On

1. Make sure the switch for the Freedom Fill System is on the "ON" position.
 - Does the light on the switch turn on?
 - **YES:** Go to #3
 - **NO:** Go to #2
2. Check to ensure you have a proper 12 volt ignition power source on the brown wire to the computer module and to the positive wire at the fuel pump.
 - Power source good?
 - **YES:** Go to #3
 - **NO:** Replace *RED* wire to a 12V Ignition power source. See Freedom Fill Auxiliary Systems Instructions.
3. Check the Chassis ground or green wire at the Freedom Fill Computer module.
4. Make sure you are on the correct factory sending unit with a good connection with the blue wire from the Freedom Fill Auxiliary System wiring harness.
 - *Purple-04-14 GM/Chevrolet*
 - *Blue w/ Purple Strip 2015+ Gm/Chevrolet*
 - *Yellow with purple stripe-2008-current Ford*
 - *Yellow with white stripe 88 to 07 Ford front tank*
 - *Blue with black stripe 03 to 05 Dodge*
 - *Blue with white stripe-98-02 & 06-Current Dodge)*
 - *(See owner's manual due to variations of truck wiring).*

5. Check the voltage on the blue wire at the computer module. Ensure you are getting the correct reading of voltage in comparison to the level of the factory tank. If you do not know what the voltage should read, please call us at [800-773-3047](tel:800-773-3047) with the voltage reading and the level of the factory tank.

Approximate Voltages

1.63

	DODGE		FORD		GM		
	98-09, 11	DODGE 10 08 +	ALT 88-99	12	04-11	98-03	
EMPTY	6.50	-	5.00	0.60	2.40	2.40	1.00
1/4	5.00	-	3.50	1.00	2.10	2.25	1.65
1/2	4.00	1.63	2.50	1.65	1.80	2.00	2.00
3/4	2.50	-	1.50	2.25	1.40	1.65	2.25
7/8	1.83	0.83	1.13	2.55	1.17	1.36	2.32
FULL	1.00	-	0.75	2.75	1.10	1.00	2.40

Voltage Correct?

- **YES:** Go to #6
 - **NO:** Check Blue Wire connection to Factory Sending Unit Wire.
6. Ensure all connections are good to the pump.
 7. **(Testing Purpose Only)** Take the negative wire from the pump and put to chassis ground.
 - *Note: Do not leave the negative wire connected to Chassis Ground. The Negative must be connected to the black wire in the Freedom Fill Computer Harness.*
 - B. If the pump still does not turn on, then the pump may need to be replaced
 - C. If the pump does turn on
 - Do a continuity test on the white & black wire to the pump to ensure there is not break in the wire.
 - Replace the computer module.
 8. Certain year models of trucks have different programs for the Computer module. Make sure you have the correct box to the truck. If you are not sure, please call us [800-773-3047](tel:800-773-3047) with your computer module serial number.

Pump Turns On, But No Fuel is Being Transferred

Note: Ensure there is fuel in the auxiliary fuel tank.

1. Check to make sure the fuel pump is connected to the 3/8" supply line of the sending unit.
2. Check the fuel flow is correct. (Auxiliary Tank to the "IN" port of the Pump. The "OUT" port to the Factory Tank).

3. Make sure the white wire from the Freedom Fill Switch is to the (+) “Positive” side of the pump. Make sure the black wire is to the (-) “Negative” Side of the Pump.
4. Make sure no hoses have a sharp bend or kink in the line.
5. Remove the sending unit from the auxiliary tank. Remove the Diesel Fuel Strainer from the pick-up tube. With a vacuum gauge (which can be purchased from any automotive supply chain), check to ensure the auxiliary tank sending unit can hold a vacuum. If it cannot hold a vacuum, replace the auxiliary tank sending unit.

Auxiliary Fuel Gauge is Reading Past Empty

1. Check all connections from auxiliary tank to the auxiliary fuel gauge.
2. Check all Chassis grounds are good
3. Make sure the yellow wire is to the center post of the auxiliary tank sending unit and it is not touching ground.
4. Remove the auxiliary tank sending unit. Using a Voltmeter, turn dial to OHMS. The Auxiliary tank sending unit should read approx (+/- 5%) 240 ohms at empty – 33 ohms at full.
 - A. If the auxiliary tank sending unit is good—replace the auxiliary fuel gauge
 - B. If the auxiliary tank sending unit is bad—replace the resistor float of the sending unit.

Note: When checking Ohm value, move the float arm up and down slowly. If there are dead spots in the resistor card, the sending unit need to be replaced.

Pump Turns On/Off Intermittently

Note: This could be caused by the sloshing of fuel inside the factory fuel tank. There is not a way to control fuel sloshing in the Factory Fuel Tank. If you feel that is not the problem, please follow the steps provided below.

1. Check **all** connections & grounds
2. Check to ensure you have a good 12 Volt IGNITION power source
3. Check that none of the pins in the Freedom Fill Computer Harness has been pushed out of place
4. Make sure you have the proper computer module for your truck. If you are not sure, please call us at [800-773-3047](tel:800-773-3047) with the computer module serial number.
5. If all previous steps check OK, replace the computer module.

Freedom Fill System Does not Transfer Fuel as Described

Note: Due to the slight variations of each truck and with all components, there can be a plus or minus 5% variation in the Freedom Fill System. Some vehicles will have the pump turn on just above or just below a half a tank. Some vehicles will have the pump shut off at just below or just above three-quarters of a tank. There is no way to have every truck turn on or off exactly the

*same. If there is a **major** difference when the fuel is being transfer from the auxiliary tank to the factory tank,*

1. Follow all steps in the instructions to ensure proper installations.
2. Ensure the blue wire is connected properly to the correct factory sending unit wire.
3. Check you have the correct computer module to your truck.
4. Replace computer module.

If you are experiencing a problem that is not addressed in the steps above or the troubleshooting steps could not resolve, please call ATTA at [1-800-773-3047](tel:1-800-773-3047).