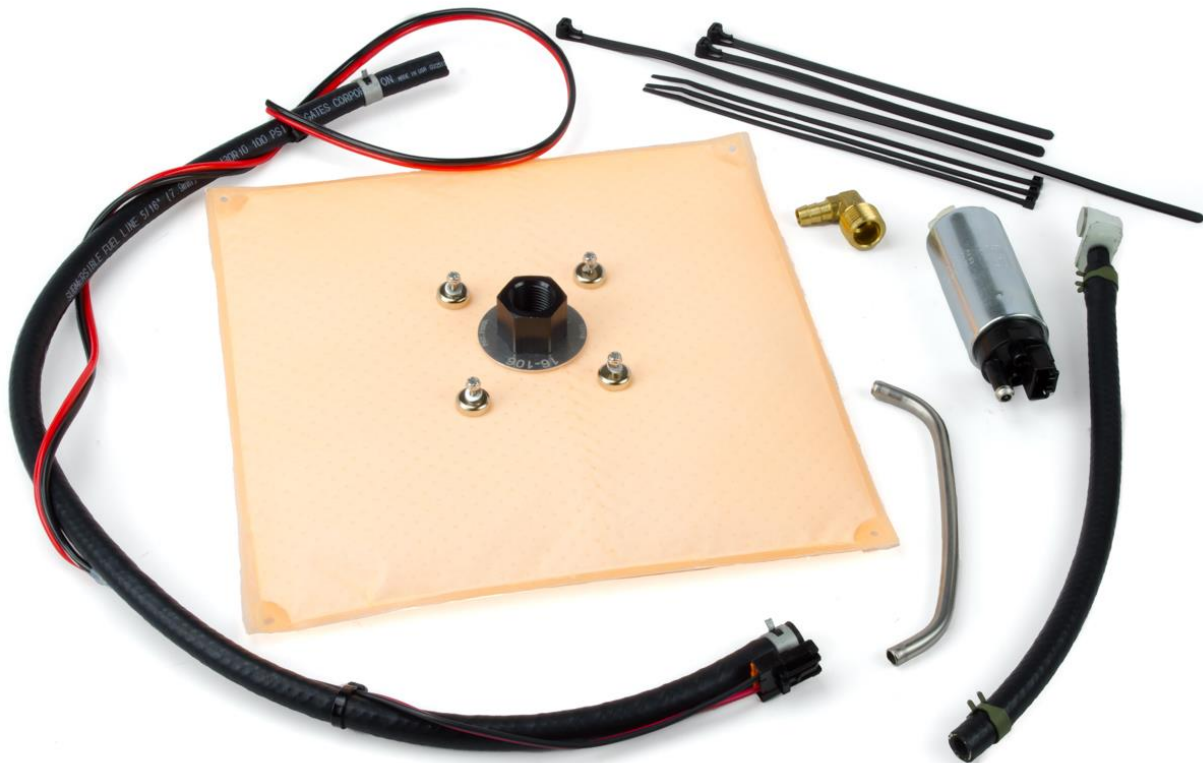




350Z/370Z Fuel Anti-Starvation Kit Installation Manual



PROLOGUE:

Study these instructions completely and thoroughly before proceeding to assemble. Installation can be completed using common tools and automotive procedures. The installer must have a thorough knowledge of automotive systems operation. If unfamiliar with any of the concepts outlined in this instruction, we recommend the installation be completed by a qualified professional.

WARNING! Extreme caution should be taken when performing ANY maintenance or performance upgrades to your vehicle. Please observe and abide by any Warning or Caution labels placed on the various components and tools used when servicing your vehicle. If you have any questions regarding the installation or the various components included with the Z1 Motorsports Fuel Anti-Starvation Kit, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

Parts Included:

Item	Description	Quantity
1	11 x 11" Hydramat	1
2	Magnetic Mounting Set for Hydramat	1
3	1/2" NPT to 3/8" NPT Brass Reducer Bushing	1
4	3/8" NPT to 5/16" Barb Brass Elbow Fitting	1
5	5/16" Fuel Injection Hose, Inches	12*
6	Hose Clamp, 5/16"	4
7	Fuel Pump with Insulator & Retainer Clip	1
8	Fuel Pump Fitting	1
9	Fuel Pump Harness*	1
10	5/16" Fuel Injection Hose, Inches	40*
11	Nylon Zip Tie, 14"	5
12	Custom-bent 5/16" Stainless Steel Tubing	1
13	Electrical Butt Connector, 10-12 AWG, Yellow	2
14	Reusable Tie Strap, 8"	2
15	Reusable tie Strap, 14"	1

***NOTE:** Hose and Harness are approximate in length and are cut-to-fit.

Tools Required:

- Flat-head Screwdriver
- 1-1/8" Wrench (or Crescent Wrench)
- 7/8" Wrench
- 1/2" Wrench
- Ratchet
- Ratchet Extension
- 8mm Socket
- 1/4" Socket
- Diagonal Pliers
- Electrical Wire Stripper
- Slip-joint Pliers
- Duct Tape

Safety Requirements:

- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Always use properly rated jack stands when working under your vehicle.
- Always turn the ignition to the OFF position and disconnect the NEGATIVE battery terminal.
- Always keep limbs and parts away from moving drivetrain parts.
- Only operate drivetrain in safe space and well ventilated areas.
- Assure that less than 1/4 of a tank of gasoline is in vehicle.
- Wear disposable gloves to protect hands from direct contact with gasoline.

***BEFORE YOU BEGIN!**

Remove contents from the Z1 Motorsports Fuel Anti-Starvation Kit and verify that ALL necessary hardware is present.

Preparation:

1. Mount Magnet to each corner of Hydramat (as shown). Torque to 7-10 in-lbs.
2. Thread 1/2" NPT to 3/8" NPT Brass Reducer Bushing into Hydramat threads. Torque to 25-30 ft.-lbs.
Note: Do not use PTFE pipe tape or sealant paste. Loose particles will be drawn into the fuel pump and will fail!
3. Thread 3/8" NPT to 5/16" Barb Brass Elbow Fitting into threads of Reducer Bushing. Torque to 25-30 ft.-lbs.
Note: Do not use PTFE pipe tape or sealant paste. Loose particles will be drawn into the fuel pump and will fail!
4. Slide 12" long Fuel Injection Hose over barb of 5/16" Brass Elbow Fitting (as shown). Secure with Hose Clamp.
5. Slide Hose Clamp over opposite end of 12" long Fuel Injection Hose.



6. Slide Insulating Sleeve over Fuel Pump.
7. Slide 40" long Fuel Injection Hose onto output of Fuel Pump. Secure with Hose Clamp.
8. Attach Fuel Pump Harness onto Fuel Pump. Loosely wrap Harness around 40" long Fuel Injection Hose. Secure Harness to Hose with Nylon Zip Tie at each end (as shown). Trim and dispose of excess Zip Tie material.
9. Strip Ends of Fuel Pump Electrical Harness of insulation.
10. Attach Fuel Pump Fitting to input of Fuel Pump. Secure Fitting by pressing Retainer Clip over plastic stud on Fuel Pump.

Use the following picture for reference:



Installation:

1. Assure the car's engine is turned off and place transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply Parking Brake.
2. Remove OEM Fuel Pump Assembly and OEM Fuel Level Sending Unit. Set aside.

Note: Please refer to Nissan 370Z Factory Service Manual (FSM) for Fuel Pump removal procedure.

Note: Removal of Driver and Passenger seats is recommended.

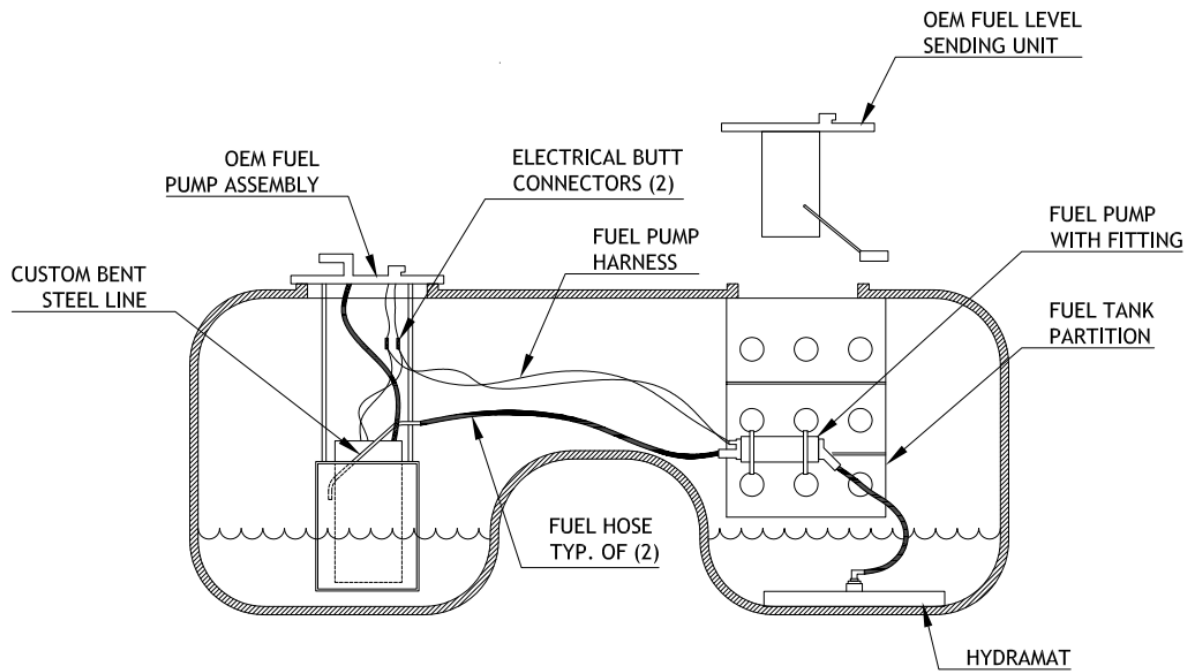
3. Carefully shape Hydramat Assembly into a cup and insert through opening of OEM Fuel Level Sending Unit. Lay Hydramat Assembly along bottom of Fuel Tank.

Note: Edges of Fuel Tank openings are sharp. Wear protective garments to prevent cuts/scratches to skin. Use Duct Tape along edges of Fuel Tank opening to assure that Hydramat does not become damaged during installation.

4. Locate Anti-Starve Fuel Pump Assembly. Insert Assembly through opening of OEM Fuel Level Sending Unit. Orient Fuel Injection Hose and Electrical Harness toward opposite end of Fuel Tank and out of OEM Fuel Pump opening.
5. Locate (3) Reusable Tie Straps. Route Straps through holes of Partition inside Fuel Tank and mount Fuel Pump at the lowest point on Partition (as shown).
6. Slide open end of 12" long Fuel Injection Hose over Fuel Pump Fitting. Secure with Hose Clamp.

Note: Orient Hydramat so that 12" long Fuel Injection Hose does not become pinched or interfere with operation of OEM Fuel Level Sending Unit.

Use the following diagram for reference:



Use the following picture for reference:



7. Locate OEM Fuel Pump Assembly. Cut (2) electrical wires which connect OEM Fuel Pump to Bulkhead at their mid-point. Strip each wire end of insulation (4 in total).

Note: OEM wires on the 350Z are Black and Red.
OEM wires on the 370Z are Blue and Red.

8. Twist together electrical wire leads at bottom end of OEM Fuel Pump with leads of Anti-Starve Fuel Pump Harness.

350Z:
BLACK to BLACK
BLUE to RED

370Z:
BLACK to BLACK
RED to RED

9. Slide end of Electrical Butt Connector over twisted wire leads and crimp with pliers.

Note: Assure that wires are not loose after crimping Electrical Butt Connector. Failure of to secure these crimps will result in faulty Fuel Pump Operation.

10. Locate electrical wire leads at Bulkhead of OEM Fuel Pump Electrical Harness. Insert leads into opposite end of Electrical Butt Connector and crimp with pliers.

Note: Assure that wires are not loose after crimping Electrical Butt Connector. Failure of to secure these crimps will result in faulty Fuel Pump Operation.

11. Locate Custom Bent Steel Tube. Slide open end of 40" long Fuel Injection Hose onto Custom Bent Steel Tube. Secure with Hose Clamp.

12. Orient Tube into 'bucket' of OEM Fuel Pump. Secure Tube to Pump with Zip Tie Trim Zip Tie and dispose of excess.

Note: Configuration of 350Z and 370Z Fuel Pump is different. Mount Tube to OEM Fuel Pump as shown below.

350Z:



370Z:



13. Carefully maneuver OEM Fuel Pump Assembly through Fuel Pump opening and reinstall into Fuel Tank.
14. Reconnect Harness Connector at top of OEM Fuel Pump Assembly.
15. Through opening of OEM Fuel Level Sending Unit, assure that all components inside Fuel Tank are secured.
16. Start Vehicle. Inspect for operation of Fuel Anti-Starvation Assembly.
17. Reinstall OEM Fuel Level Sending Unit.

Note: Assure that Anti-Starvation Kit components to not interfere with operation of OEM Fuel Level Sending Unit.

18. Please refer to Nissan 370Z Factory Service Manual (FSM) for completion of Fuel Pump installation procedure.
19. Reinstall Driver and Passenger Seats (if applicable).
20. Perform a final test drive of the vehicle.

End

Additional Technical Support:

Contact Z1 Motorsports at info@z1motorsports.com
Or call 770 838 7777 between 9am and 6pm ET