



AEROMOTIVE
Part # 18452 Gen 2 Stealth Tank
81-88 Cutlass, 2 Door
INSTALLATION INSTRUCTIONS

This product is not legal for sale or use on emission-controlled vehicles except when used as a direct replacement part matching OEM specification.

WARNING!



Always be aware of flammable situations. Drilling and grinding can be potential ignition sources. Extinguish all open flames, prohibit smoking and eliminate all sources of ignition in the area of the vehicle and workspace before proceeding with the installation. Ensure you are working in a well ventilated area with an approved fire extinguisher nearby.

WARNING!



etc.

Installation of this product requires modification to a fuel tank/ the fuel system, failure to satisfy all safety considerations will result in fire, explosion, injury and/or loss of life to yourself and/or others. All fuel system components **MUST** be located as far from heat sources as possible, like exhaust, engine block,

WARNING!



Mechanical and hydraulic lifting devices can tip over or lower accidentally due to incorrect maneuvering or technical errors. A falling object can cause injury and/or loss of life to yourself and/or others. When working under the vehicle, always use stands, and ensure that the ground or floor is stable and level. Never crawl under a vehicle which is only supported by a jack.

WARNING!



The fuel system is under pressure. Do not open the fuel system until the pressure has been relieved. Refer to the appropriate vehicle service manual for the procedure and precautions for relieving the fuel system pressure.

CAUTION!



When installing this product always wear safety glasses and other appropriate safety apparel. A drilling operation will cause flying metal chips. Flying metal chips can cause eye injury.

CAUTION:



Installation of this product requires detailed knowledge of automotive systems and repair procedures. We recommend that this installation be carried out by a qualified automotive technician. Careless installation of this product can result in damage to the product, injury or loss of life to yourself and/or others.

Compatible Fuels:

Pump Gas / Race Gas
E85 / Ethanol

The enclosed Aeromotive fuel tank/pump assembly utilizes an outlet cap terminating with one AN-6 Male Flare fitting for the supply, and one AN-6 Male Flare fitting for the return. Use of a bypass regulator with return line is required.

Carbureted or EFI Application

- AN-06 (3/8") fuel lines should be used on supply and return lines.

Tank vent connections, when available, are typically stock-style and should be connected to the stock tank vent provisions in the car from the factory. In some cases the tank vent is via the cap only and a vented cap must be used. If an auxiliary tank vent connection is provided and the stock vent connections / components are not available in the car, an appropriately sized rubber fuel line is required and should be connected to the tank vent hose barb and secured with a hose clamp. The vent hose should then be routed with the opposite end mounted higher than the tank filler cap, using a tip-over vent valve, or routed from the highest point back down to a point 1" below the bottom of the fuel tank and secured to ensure it cannot move.

The fuel pump used in this tank is the Aeromotive Stealth 340 (part # 11541).
340 Stealth Fuel Pump Specifications:

Fuel pump flow:	340 LPH @ 40 psi and 13.5V
Current Draw:	13 amps @ 40 psi and 13.5V
Continuous operating psi range:	3psi to 65 psi with carb or EFI bypass regulator
Continuous current draw range:	10-15 amps at pressures from 3psi to 65 psi
Pump internal By-Pass / Max Pressure:	105 psi maximum, dead-head pressure

To ensure proper pump function and fuel pump service life, we strongly recommend the following:

- **Use of correct fuel line size as stated above.**
- **Installation of 10 micron post-filter between tank and regulator. (i.e. P/N 12301 or 12347).**
- **Fuel pump wiring should be 10 gauge wire and triggered with a relay rated at a minimum of 20 amps or more (Aeromotive fuel pump wiring kit 16307).**
- **A high flow, return style regulator must be used (EFI – p/n 13109, 13138 or p/n 13303. Carb – p/n 13220).**
- **EFI Pressure Regulator Note: OEM or aftermarket style “Corvette” filter/regulator combos are NOT recommended, having proven unable to handle the included high flow pump, resulting in premature fuel pump failure.**
- **Carb Pressure Regulator Note: Single stage bypass regulators for carbureted engines are NOT recommended. AN-06 return line and return connections on this tank will not allow pressure to be adjusted below 10-PSI. A dual stage bypass/dead-head style regulator (p/n 13220) is required.**

Failure to follow the above recommendations may result in fuel leakage, bursting of the fuel lines, poor vehicle performance and/or decreased fuel pump life! Improper installation will void all warranties for this product!

Tank sending unit used in your new Aeromotive Stealth tank is 0-90 Ohm reading.
Tank Capacity: 18gal

CAUTION:



Aeromotive Components, including the Stealth Fuel Tanks with the patented Foam and Bladder Baffle assembly, have been thoroughly tested for use in common pump gas, non-oxygenated racing gas, ethanol including E85 from corn, and petroleum based (not-bio) diesel fuel. Alcohol Methanol Fuel is not compatible with any Gen II Stealth Tank and may not be used. Blending fuels and/or additives, including cleaners, stabilizers or octane boosters, cannot be tested and could result in damage to Phantom system components or other components in the fuel system. These failures cannot be anticipated and may not be covered under warranty. Contact the Aeromotive Tech Department with any questions on blending of fuels and/or use of additives.

Complete System Diagrams for various EFI and Carb applications recommended for the Gen II Stealth Tanks can be found on our website at: <https://aeromotiveinc.com/stealthdiagrams/>

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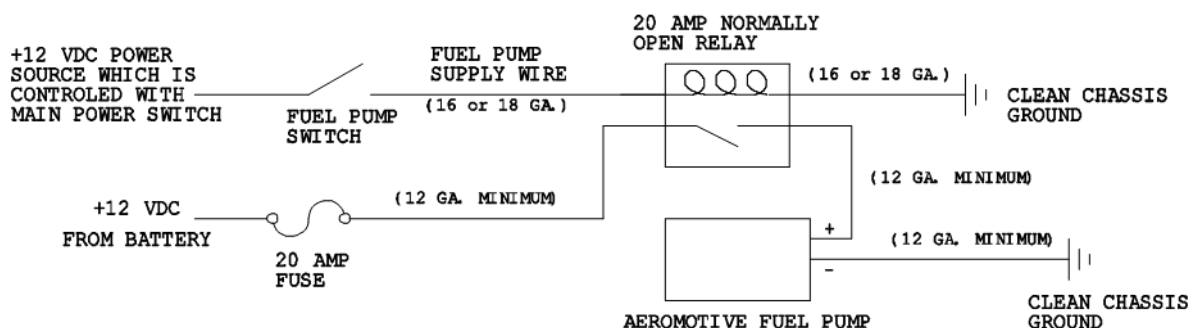
The following steps are typical of most installations:

1. Once the engine has been allowed to cool, disconnect the negative battery cable and relieve the fuel system pressure.
2. Raise the vehicle and support it with jack stands.
3. Referring to the appropriate vehicle service manual for instructions, drain, disconnect any electrical and fuel component connections and remove the OEM fuel tank.
4. Install the new Aeromotive fuel tank in the vehicle and make all the appropriate connections. For electrical wiring refer to **Figure 2-1**. Ensure the included ground wire (zip tied to the tank corner) is securely connected to the hole in the fuel tank flange and routed from there and then connected to a clean chassis ground. This is required to ensure the fuel level sending unit functions correctly.
5. Mount the appropriate, high flow EFI or Carbureted bypass pressure regulator, as near the engine as possible, and mount it such that the feed and return lines avoid the headers and exhaust system.
6. Mount a high flow fuel filter between the fuel pump outlet and the bypass pressure regulator in a location that is easy to get to in order allow a trouble-free filter inspection and service once per year. Aeromotive recommends p/n 12347 for AN-06 line and EFI engines on gas, p/n 12345 for E85 and p/n 12348 for carb applications on either fuel.
7. With careful consideration for maximum clearance to exhaust system and suspension components, plan a safe route and secure the appropriately sized AN-6 (3/8") feed and return lines.

Note: Be sure to route all fuel lines clear of any moving suspension or drivetrain components, and any exhaust components! Protect fuel lines from abrasion and road obstructions or debris.

8. Connect electrical power (12 VDC) power and ground to the pump. Aeromotive wiring kit P/N 16307 is recommended. Make sure you use stranded, insulated, 12-gauge or larger copper wire, with matching crimp-type connectors for all connections. **CAUTION: The pump must not be connected directly to the battery except through a proper 30-40 amp relay and 20-amp breaker or fuse.**
9. Double check to ensure the tank shell is properly grounded and the fuel level sending unit functions properly, checking the connection from tank flange to chassis ground using the included ground wire.
10. Connect the Aeromotive fuel pump wiring as shown in the following diagram:

Note: Route all electrical wires clear of any moving suspension or drivetrain components and any exhaust components! Protect wires from abrasion and road obstructions or debris.



CAUTION: While performing the following steps, if any fuel leaks are detected, immediately turn the fuel pump OFF, remove any spilled fuel and repair the leak(s) before proceeding!

11. Turn the fuel pump ON without starting the engine, allow the pump to run for several seconds and check the fuel pressure. If no pressure, turn the fuel pump OFF, wait one minute, then turn the fuel pump ON and recheck the pressure. Repeat this fuel pump OFF and ON procedure until the fuel pressure gauge registers pressure or you detect a fuel leak. If necessary, loosen the fuel line fitting at the pressure regulator to bleed off excessive air in the system. Tighten any fuel line fittings which were loosened and ensure that any spilled fuel is cleaned up and removed from the vicinity of the vehicle. If no pressure is registered on the gauge after running the pump for several seconds and you have found no leaks, check all fuel and electrical connections to determine the cause.
12. Once the fuel pressure gauge registers pressure, start the engine. The gauge on the fuel pressure regulator should register between 3 and 12 psi for carb and 35-60 for EFI. Now adjust the fuel pressure regulator to the desired setting. Test drive the vehicle to ensure proper operation and re-check the fuel system for leaks. If any leaks are found, immediately discontinue use of the vehicle and repair the leak(s) before further use!

Contact Us

Aeromotive Product Warranty, Policy and Procedure: Retail

All Aeromotive products sold are warranted free from defects in materials and workmanship for a period of one year from the original date of purchase. No warranty claim will be valid without authentic, dated proof of purchase.

This warranty is to the original retail purchaser and none other and is available directly from Aeromotive and not through any point of distribution or purchase.

If a defect is suspected, the retail purchaser must contact Aeromotive directly to discuss the problem, possible solutions and obtain a Return Goods Authorization (RGA), if deemed necessary by the company. All returns must be shipped freight pre-paid to the company and with valid RGA before they will be processed.

Aeromotive will examine any product returned with proper authorization to determine if the failure resulted from a defect or from abuse, improper installation, misapplication or alteration. Aeromotive will then, at its sole discretion return, repair or replace the product.

Complete Warranty Information is available at: <https://aeromotiveinc.com/product-warranty/>

RGA NUMBER REQUIRED FOR ALL RETURNS TO AEROMOTIVE.

To obtain an RGA number, please call (913) 647-7300 and ask for the Returns and Repairs department or complete the online form under the "Rebuilds" section at www.aeromotiveinc.com.

- **Shipping & Returns**
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General Inquiries and Tech Line: (913) 647-7300

General Email: info@aeromotiveinc.com

Tech Email: tech@aeromotiveinc.com

The Aeromotive Tech Lines are open Monday through Friday from 9:30AM to 5:00PM Central Standard Time.

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WARNING: This product can expose you to chemicals, including chromium, which is known to the State of California to cause cancer or birth defects or other reproductive harm. For more information, visit: www.p65Warnings.ca.gov

AEROMOTIVE, INC. LIMITED WARRANTY

This Aeromotive Product, with proof of purchase dated on or after January 1, 2003, is warranted to be free from defects in materials and workmanship for a period of one year from the original date of purchase. No warranty claim will be valid without authentic, dated proof of purchase.

This warranty is to the original retail purchaser and none other and is available directly from Aeromotive and not through any point of distribution or purchase.

If a defect is suspected, the retail purchaser must contact Aeromotive directly to discuss the problem, possible solutions and obtain a Return Goods Authorization (RGA), if deemed necessary by the company. Please call 913-647-7300 and dial option 3 for the technical service dept. All returns must be shipped freight pre-paid to the company and with valid RGA before they will be processed.

Aeromotive will examine any product returned with the proper authorization to determine if the failure resulted from a defect or from abuse, improper installation, misapplication or alteration. Aeromotive will then, at it's sole discretion, return, repair or replace the product.

If any Aeromotive product is determined defective, buyer's exclusive remedy is limited in value to the sale price of the good. In no event shall Aeromotive be liable for incidental or consequential damages.

Aeromotive expressly retains the right to make changes and improvements in any product it manufactures and sells at any time. These changes and improvements may be made without notice at any time and without any obligation to change the catalogs or printed materials.

Aeromotive expressly retains the right to discontinue at any time and without notice any Aeromotive product that it manufactures or sells.

This warranty is limited and expressly limits any implied warranty to one year from the date of the original retail purchase on all Aeromotive products.

No person, party or corporate entity other than Aeromotive shall have the right to: determine whether or not this Limited Warranty is applicable to any Aeromotive product, authorize any action whatsoever under the terms and conditions of this Limited Warranty, assume any obligation or liability of any nature whatsoever on behalf of Aeromotive under the terms and conditions of this Limited Warranty.

This Limited Warranty covers only the product itself and not the cost of installation or removal.

This Limited Warranty is in lieu of and expressly excludes any and all other warranties, expressed or implied. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.