



1000 Yarnell Place
Oxnard CA 93033

GRANATELLI MOTOR SPORTS 12V ELECTRIC VACUUM PUMP KIT
PART #410100 – Bare / #410101B – Black / #410102C – Chrome
PATENT PENDING



Congratulations purchasing of your Granatelli Motor Sports 12v Electric Vacuum Pump Kit!

Bill of Materials:

- (1) Rotary Vein Style Pump with Enlarged Diaphragm.
Either Electroplated Gun Metal Dark Grey, Black or Chrome ABS Plastic Housing or Bare (w/ No Outer Shell).
- (1) 5-foot length of 3/8" High Grade Vacuum Hose
- (1) Wiring Harness Kit with Fuse for Plug and Play Installation.
- (1) Mounting Hardware Kit with Hose Clamps and Rubber Isolation Bushings Pre-Installed.

Important Information:

Carefully read these instructions before installing your Granatelli Motor Sports 12v Electric Vacuum Pump Kit System. If you are not qualified or experienced at performing this type of installation, it is highly recommended that you have the Granatelli Motor Sports 12v Electric Vacuum Pump Kit System installed by a qualified automotive mechanic or brake expert to insure proper function on any standard power braking system. These instructions contain warnings that must be observed otherwise your vehicle could be rendered unsafe for street use. Safety Standards should be checked after installation and before driving to insure your braking system is functioning correctly. Never install this product in a high heat area such as near engine parts, exhaust manifolds or headers. It needs proper ventilation to guarantee it has good airflow through the canister and or pump mechanism. It is not recommended that you use this pump for crankcase ventilation or evacuation as it may be illegal for emissions.

Unique Features and Benefits of Your Granatelli Motor Sports 12v Electric Vacuum Pump Kit

Rotary Vein Style Pump with Enlarged Diaphragm Guarantees to be Super Quiet, Reliable and Increase the Speed of Recovery Once Activated. This maintains a Consistent 17" to 23" Hg Vacuum.

Electroplated Gun Metal Dark Grey, Black or Chrome ABS Plastic Housing Gives Your System a Professional Look While Maintaining Proper Airflow Around the Pump.

Included Vacuum Hose is Top Grade Synthetic Reinforced 3/8" Tubing with .170 Wall Thickness.

Wiring Harness is EMI/RFI Protected with Fuse for Perfect Plug and Play Installation and No Other Noise Interference.

Simple Mounting Bracket Design Isolates Vibration While Maintaining a Common Mounting Hole Configuration To Allow Your System to Replace Similar Designs That May Have Failed or are Too Loud.

Fully Isolated Motor Assembly is Whisper Quiet.

20th Century MAVP, Manifold Absolute Vacuum/Pressure Sensor Eliminates Old School Vacuum Switch and Relay Design

Installation Instructions and Notes for 12v Electric Vacuum Pump Kit

The Granatelli Motor Sports 12v Electric Vacuum Pump is not designed to be connected to your engine vacuum system. It will not function properly and could cause engine damage.

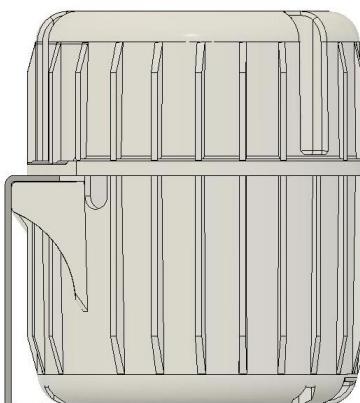
1. **Mounting the main Rotary Vein Pump.** Locate an appropriate mounting location clear of obstructions. If mounting farther than 5 feet from the source requiring vacuum, such as your brake booster, extra vacuum hose will be required.
2. Predicated on the weight of your pump, it should be mounted to a solid structure like a frame rail. This also helps to eliminate harmonics and helps to muffle sound.
3. Using the supplied mounting template or the steel mounting bracket from the canister, mark the mounting holes that will be drilled for a sturdy installation. Your Granatelli Motor Sports 12v Electric Vacuum Pump included the proper mounting bolts, nuts and washers as well as self-Tapping screws. **Note: Self tapping screws are not as robust as drilling through the mounting location and capturing your device with nuts on the back side. We understand sometimes you cannot get to the back side of your mounting area.**
4. Before installing your pump, ensure you fit the rubber isolation bushings between the hard surface and the pump, captured by your supplied hardware.
5. Once your main mounting bracket is firmly attached, reinstall the main cylinder to the bracket and tighten all the bolts.
6. Assuming this system is being properly used as a brake vacuum source, run the supplied vacuum hose from the pump to the brake booster port. Take special precaution to keep the hose away from direct heat sources like the headers or exhaust pipes. Hose clamps are supplied and should be used on both ends to guarantee no vacuum leaks.
7. Using the supplied fused wiring harness, connect the males/female pigtail to the pump and “string” the other end to your planned switched 12v power source. Whenever possible, your 12v power source should be ignition hot. If you go direct to your battery the pump will constantly try to maintain 17" to 23" Hg vacuum and ultimately kill the battery. Another option is to add an on/off kill switch that can be accessed when you are not driving. (not supplied in kit).
8. Once you have figured out the location of your wires, disconnect the male/female pigtail for the time being.
9. Installing your Ground Source First. The Black wire must be connected to a solid clean chassis ground or directly to the (-) negative terminal of your battery. Insure there is no rust or corrosion to either connection. AGAIN: A solid connection for both the (+) and (-) terminal is imperative for proper function and safety.
10. Connect the RED **Fused** wire to a 12volt **Switched** Power Source. Simply put, this 12v source should not have power when the engine is not running or the ignition key is not on. Make sure you have chosen a power source that can support the 10 amps this device requires to operate at.
11. Now it's time to check your connections. Reconnect the male/female pigtail at your Granatelli Motor Sports 12v Electric Vacuum Pump. With the key on (or your on/off kill switch in the on position, the pump should start. Once your system begins to evacuated (pulls a vacuum) it should automatically turn off once it reaches 20" to 23" Hg. If your pump continues to run, check for vacuum leaks.
12. To test your brake system, once the pump turns off (while the power is still on) pump your brake pedal. After pumping the pedal once or twice, you should hear the pump turn back on to maintain the desired 20" to 23" Hg.

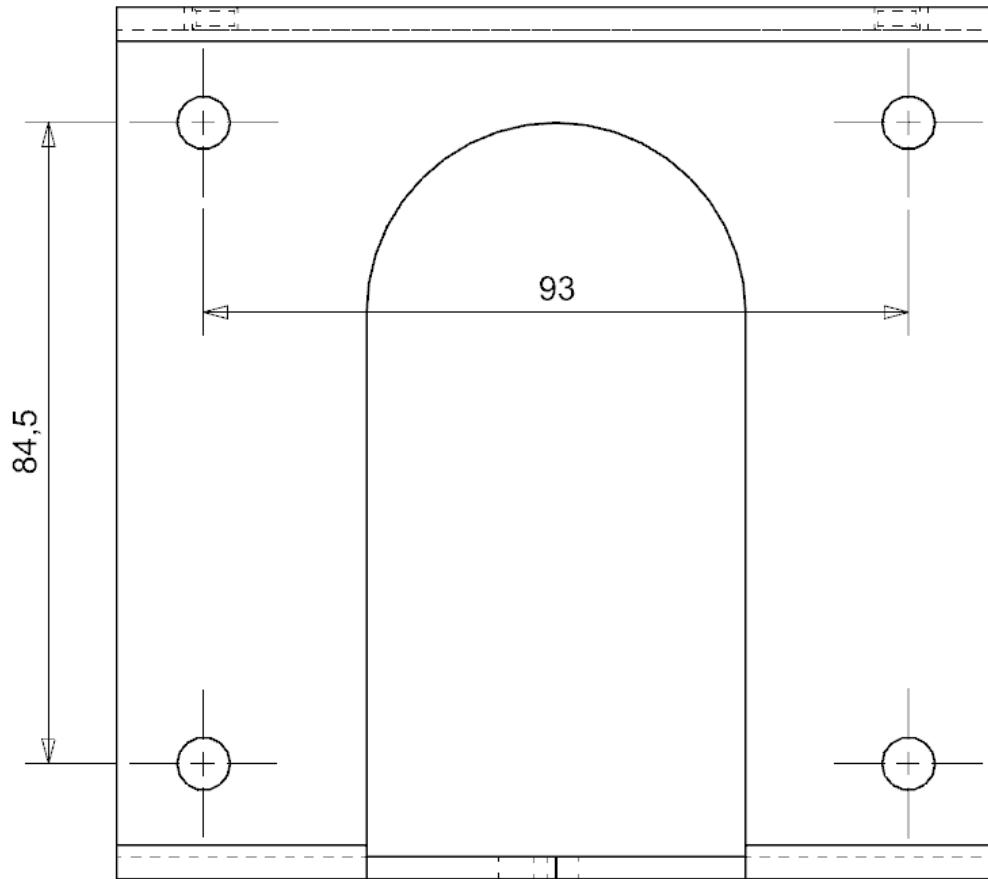
YOU SHOULD BE ALL SET!

Trouble Shooting Section

1. If your pump will not activate, Check the supplied fuse is in operating condition
2. If your pump will not activate, confirm a good (-) ground source and or (+) 12v power source with the aid of a test light or multi-meter.
3. If your pump will not activate, unplug your male/female pigtail and make sure you have the (-) ground and (+) source at the port.

1. If the pump will not turn off, Confirm no leaks from the pump to the vacuum assist brake booster.
2. If the pump will not turn off, make sure your (+) 12v power source is off with the switched 12v source off.
3. If the pump will not turn off, remove the hose from Granatelli Motor Sports 12v Electric Vacuum Pump and directly plug the suction port of the pump. If it is still running, call for tech help.





Also Available Bare – Part # 410100