



40 Huntingwood Drive Huntingwood NSW 2148

Phone: (02) 8825 1999 Website: [www.aeroflowperformance.com](http://www.aeroflowperformance.com)

# INSTALLATION MANUAL

## UP32 VACUUM PUMP

### WARNING!

BEFORE PROCEEDING WITH INSTALLATION PLEASE READ INSTRUCTIONS CAREFULLY. THIS PRODUCT REQUIRES DETAILED KNOWLEDGE OF AUTOMOTIVE SYSTEMS. WE RECOMMEND THAT THIS INSTALLATION BE CARRIED OUT BY A QUALIFIED AUTOMOTIVE TECHNICIAN.

#### INTRODUCTION

Congratulations on your purchase of Aeroflow Performance vacuum pump. Aeroflow Performance products cannot and will not be responsible for any damage, or other conditions resulting from misapplication of the parts described herein. However, it is our intention to provide the best possible products for our customer, products that perform properly and satisfy your expectations. Should you have any questions? Please call technical support at +61 2 8825 1900 and have the product part number on hand when calling.

The braking system is one of the most important systems in any vehicle. To ensure that constant brake power is accessible at all times, the use of a vacuum pump is often necessary. Most vehicle brake boosters use a vacuum that is generated by the naturally aspirated engine. The UP32 universal vacuum pump by Aeroflow Performance can be triggered on demand to support the brake booster. Especially when the engine does not supply sufficient vacuum under certain operating conditions, the UP32 supplies the vacuum to ensure brake booster operation.

The compact design is a direct bolt on replacement fitment for Holden Commodore VE-VF models but can also be used in any universal application. If being used in a universal application this vacuum pump must be triggered by an external source. This can be via an aftermarket ecu, vacuum pressure switch or a simple fuse/relay trigger operation. All these triggers are sold separately.

#### Technical Data

- Operating temperature range is from -40 °C to 120 °C
- Voltage range 10 V to 16 V
- Noise level  $\leq$  65dB
- Current working Amp Draw is 6.2
- Maximum vacuum level is 86 % (below ambient pressure level)
- Pressure build-up time to
  - 1) -50Kpa  $\leq$  2 seconds
  - 2) -70Kpa  $\leq$  4 seconds
  - 3) -80Kpa  $\leq$  6 seconds
- Weight is 1.7 kg

*For more information or technical enquires*

*Contact: Aeroflow Performance on*

*Phone: (02) 8825 1979 Website: [www.aeroflowperformance.com](http://www.aeroflowperformance.com)*

## MOUNTING

When using this UP32 brake vacuum pump in a Holden Commodore VE-VF models only. It is a direct replacement to the factory GM unit that is located on the front of the engine. Simply disconnect the battery with the vehicle off. Disconnect the factory PVC quick connect factory plastic hose from the unit as well as the electrical connector. Unbolt the two mounting bolts and pull the old unit out. Reverse this order to reinstall the new UP32 vacuum pump.

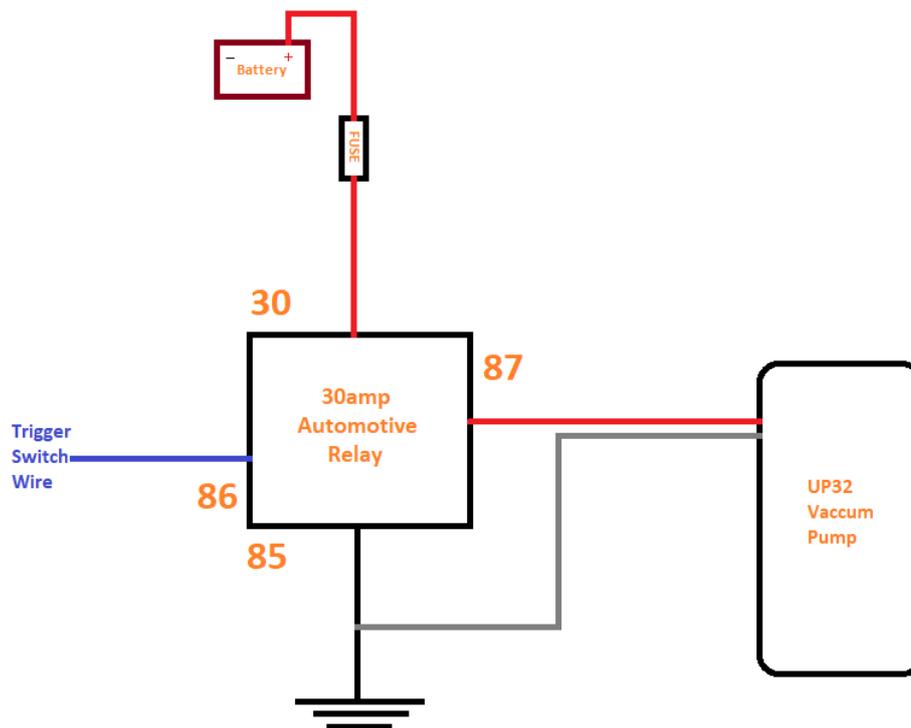
When using the Aeroflow Performance UP32 vacuum pump in a universal application it is recommended to be mounted anywhere in the engine bay, front end of the vehicle or under the dash. We recommend it be mounted as close to the brake booster to ensure maximum vacuum efficiency. The unit can be mounted in any direction both vertically and horizontally. Mounting tabs are located on the unit for your convenience, although you may wish to make your own to suit your application. **NOTE:** we recommend to always use the rubber mounts provided with this unit to ensure no damage is done to the unit from vibration during operation. Ensure to mount and plumb up this unit away from moving components or extreme heat sources to avoid any damages or accidents. If necessary, use heat sleeves or fabricate a heat shield to protect hoses, sensors and unit from heat sources.

## PLUMBING

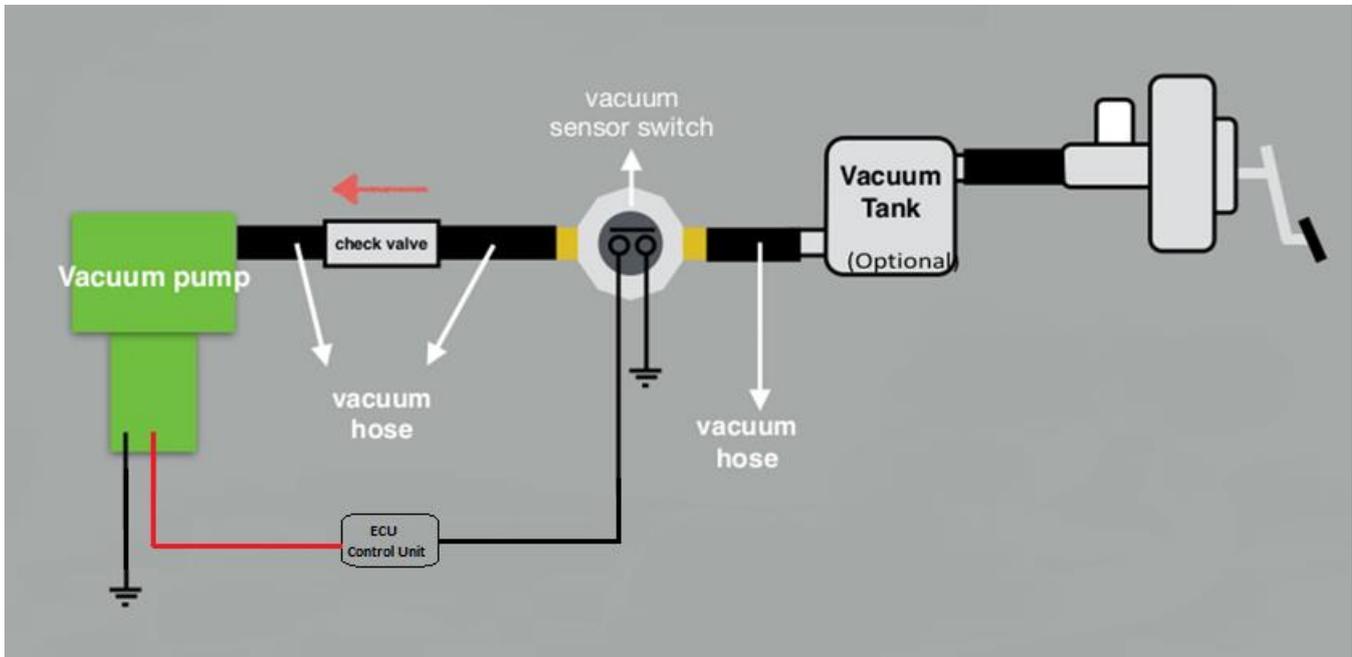
Once the unit is mounted it is time to plumb up the system. If you are using this in a universal application it must be triggered by an external source. This can be via an aftermarket ECU, vacuum pressure switch or a simple fuse/relay trigger operation. All these triggers are sold separately. The barb on the UP32 vacuum pump is designed to suit a 3/8" (9.52mm) push on EFI fitting or a rubber hose with the same I.D. Ensure to install a check valve into the system making sure the flow is the correct way being a one-way check valve it will allow flow one way but not another. From the check valve the hose should be routed to the vacuum pressure sensor which is sold separately. From the vacuum pressure sensor you have two options to plumb the hose too: you can opt to purchase separately a vacuum reservoir tank ( AF77-1018 ) which holds a supply of vacuum that can be used when needed or you can simply go straight from the sensor to the brake booster of the vehicle.

## WIRING

Bring a direct fit for a Holden Commodore the plug is designed to be a direct plug and play. If you wish to use this universally, we recommend to purchase a two-plug wiring plug separately and rewire this unit. The unit itself will have a **RED** wire and a **GREY** wire. The **Red** wire is the power wire and the **Grey** wire is the ground wire. Below is a basic wiring diagram with a relay setup.



Once the unit has been mounted, plumbed up and wired in correctly. Reconnect the battery and test the function of the unit on vehicle before test driving the vehicle. If the pump keeps cycling this could mean a possible vacuum leak. If this occurs remove the intake hose from the unit and place finger over the port and hold it there. The unit should turn off by itself which will indicate a leak in the hose or brake booster.



\*All Measurements in Millimeters

