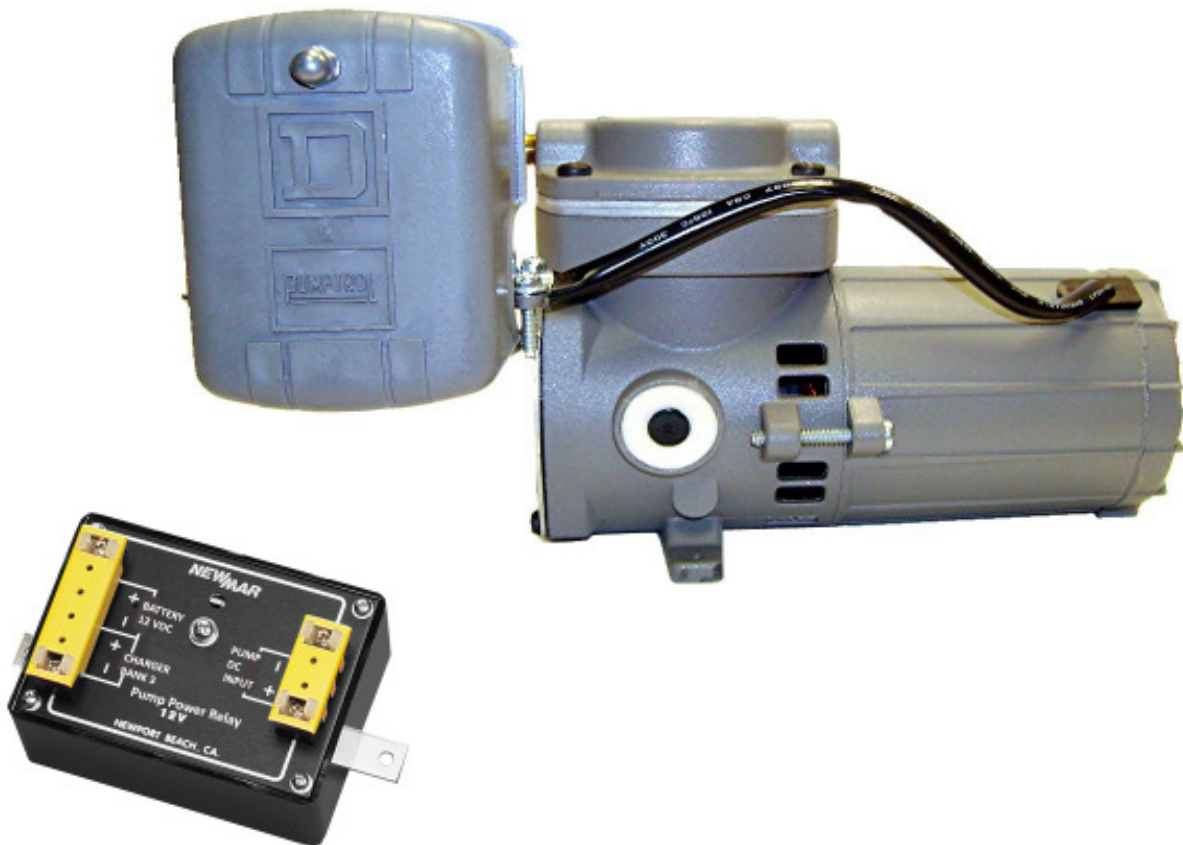


INSTALLATION & OPERATION MANUAL

Model: ACP-12 AUTO COMPRESSOR PUMP SYSTEM

12 VDC



NEWMAR
DC Power Dashboard - Emergency & Specialty Vehicles
www.newmarEVpower.com

Manual Part # M-ACP12
Revised 10/27/08 KK

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INTRODUCTION

The Auto Compressor Pump system is a compact 12 VDC electric motor operated single cylinder air compressor designed specifically for installation on vehicles with air brakes. The ACP is designed for use with the Newmar PT series Chargers and Power Pump Relay, which activates the pump only when the charger has AC power. This prevents the battery from discharging on a truck that is not connected to shore power.

When idle for long periods, even a slight air leak can cause the vehicle's air brake supply to loose pressure and cause brake lockup. The ACP automatically maintains pressure to prevent this from happening.

The Auto Compressor motor is directly coupled to the compressor system eliminating all belts and pulleys assuring long life and very reliable operation. A heavy duty pressure switch will start the compressor when the system pressure drops below approximately 75 PSI and stops the compressor when it reaches approximately 95 PSI. The start up and shut off pressure has a fixed 18-20 PSI differential. You can adjust the low cut-in limit and the high cut-out limit will auto adjust to a corresponding level according to the PSI differential feature. Adjusting the low cut in limit is done by adjusting the pressure switch on the compressor pump (see page 5 for adjustment location).

Please read and follow the installation instructions carefully. The Auto Compressor requires no routine maintenance and a careful installation will assure years of trouble free operation.



*** * CAUTION * ***

CONDENSATION OR WATER MUST NOT BE ALLOWED TO ENTER OR ACCUMULATE IN THE OUTPUT OF THE AUTO COMPRESSOR PUMP.

ROUTE THE AIR PRESSURE OUTPUT LINE DOWNWARD FROM THE PUMP TO PERMIT MOISTURE TO DRAIN AWAY.

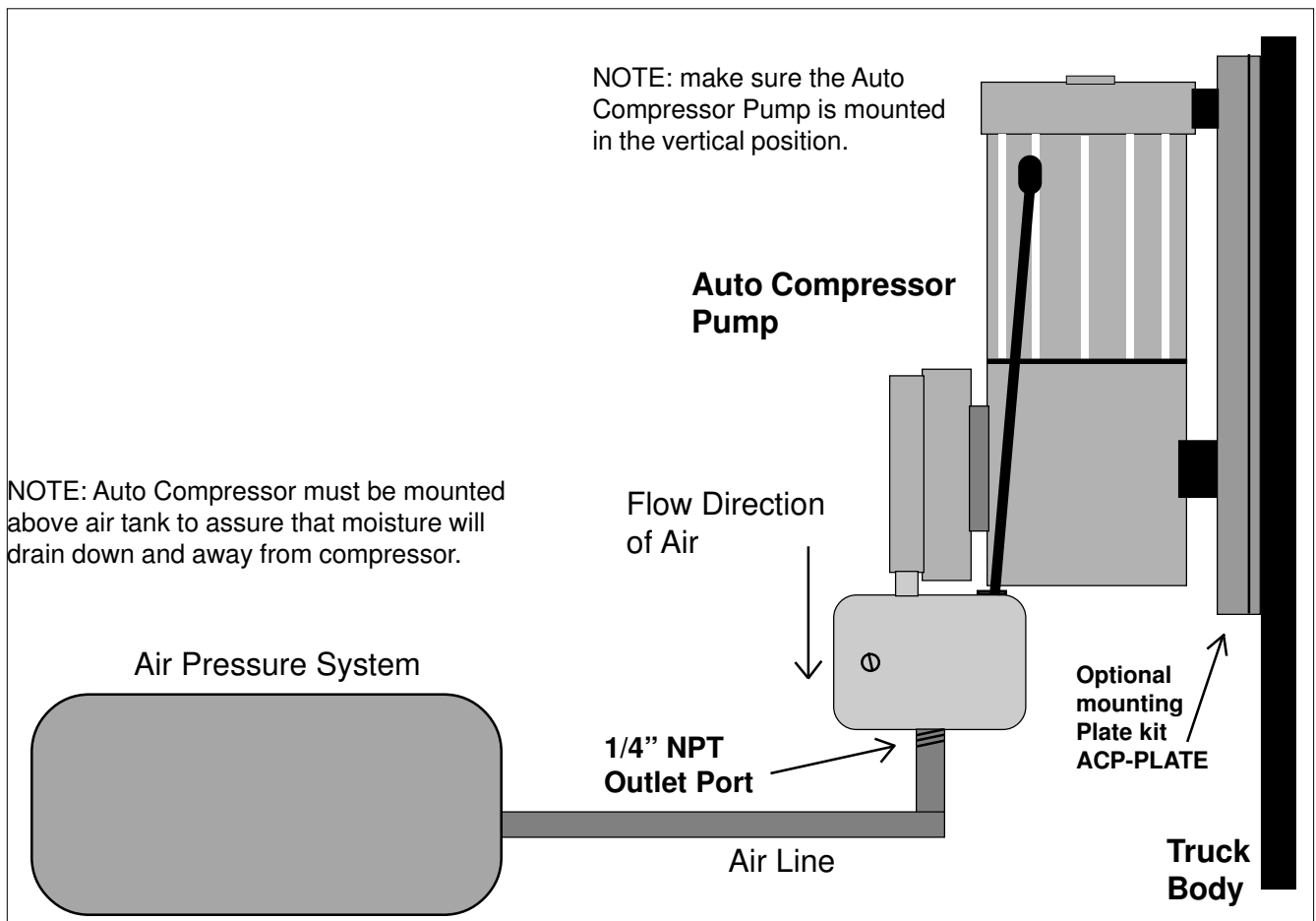
ANY WATER IN THE PUMP OUTLET WILL INDUCE FAILURE.

WATER DAMAGE WILL VOID THE WARRANTY.



VEHICLE INSTALLATION

1. Mount all components in a suitable location, preferably high above the air system.
CAUTION Do not mount in engine compartment or near any source of heat or dirt. The system may be connected to any point in the vehicle's air system.
2. Mount Auto Compressor Pump in a vertical position as shown below (see drill template on page 6). An optional Mounting Plate (model # ACP-PLATE) is available to reduce and vibration and noise from the Air Compressor Pump and to simplify pump mounting.
3. **CAUTION** - no condensate or water must be allowed to enter or accumulate in the output of the Air Compressor. Route the output pressure line downward from the compressor to permit moisture to drain away. **WATER IN THE PUMP OUTLET WILL CAUSE PUMP TO FAIL.**
4. All connections for air lines are 1/4" NPT. Use teflon tape or equivalent on all connections to insure no air leakage.
5. The recommended installation of the Air Compressor system is shown below.
6. Mount the Auto Compressor. Connect a suitable piece of flexible tubing from the outlet port of the compressor to the vehicle's air tank. (Tubing and connectors are not supplied)



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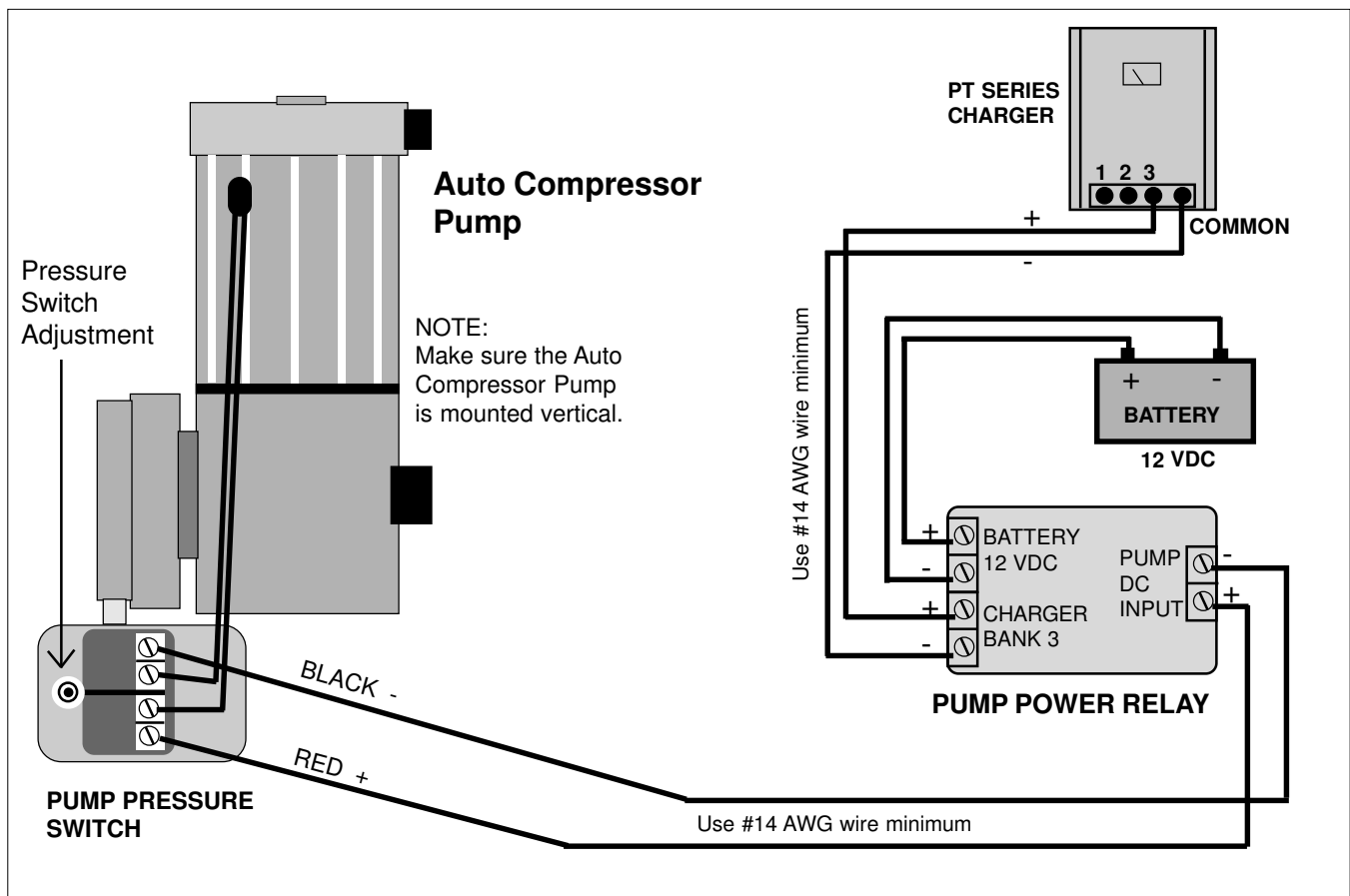
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VEHICLE WIRING INSTALLATION

1. Wire the included PUMP POWER RELAY to the battery. It is recommended that you include a 15 amp SLO-BLO type fuse the battery (not included). **USE #14 AWG WIRE MINIMUM.** The Pump Power Relay will only allow the pump to run when the battery charger has an AC power source.
2. Remove the grey cover of the Pressure Switch on the Air Compressor Pump. Wire the Pump pressure switch to the PUMP POWER RELAY.
3. Reinstall the grey cover of the Air Compressor Switch.
4. Wire the PUMP POWER RELAY "Charger Bank 3" marked terminals, to the Newmar PT series chargers terminals marked "Bank 3". The negative wire will connect to the charger's "common" terminal. **On the PT charger, do not connect any batteries to "Bank 3".**
5. The compressor is calibrated to cut-in (start up) at aprox. 75 PSI and cut-out (turn off) at 95 PSI.
6. An optional switch can be installed on the battery input side. (use a 20 amp rated switch)

COMPRESSOR OUTPUT IS 100 PSI MAXIMUM. DO NOT EXCEED 100 PSI OR YOU WILL VOID THE WARRANTY

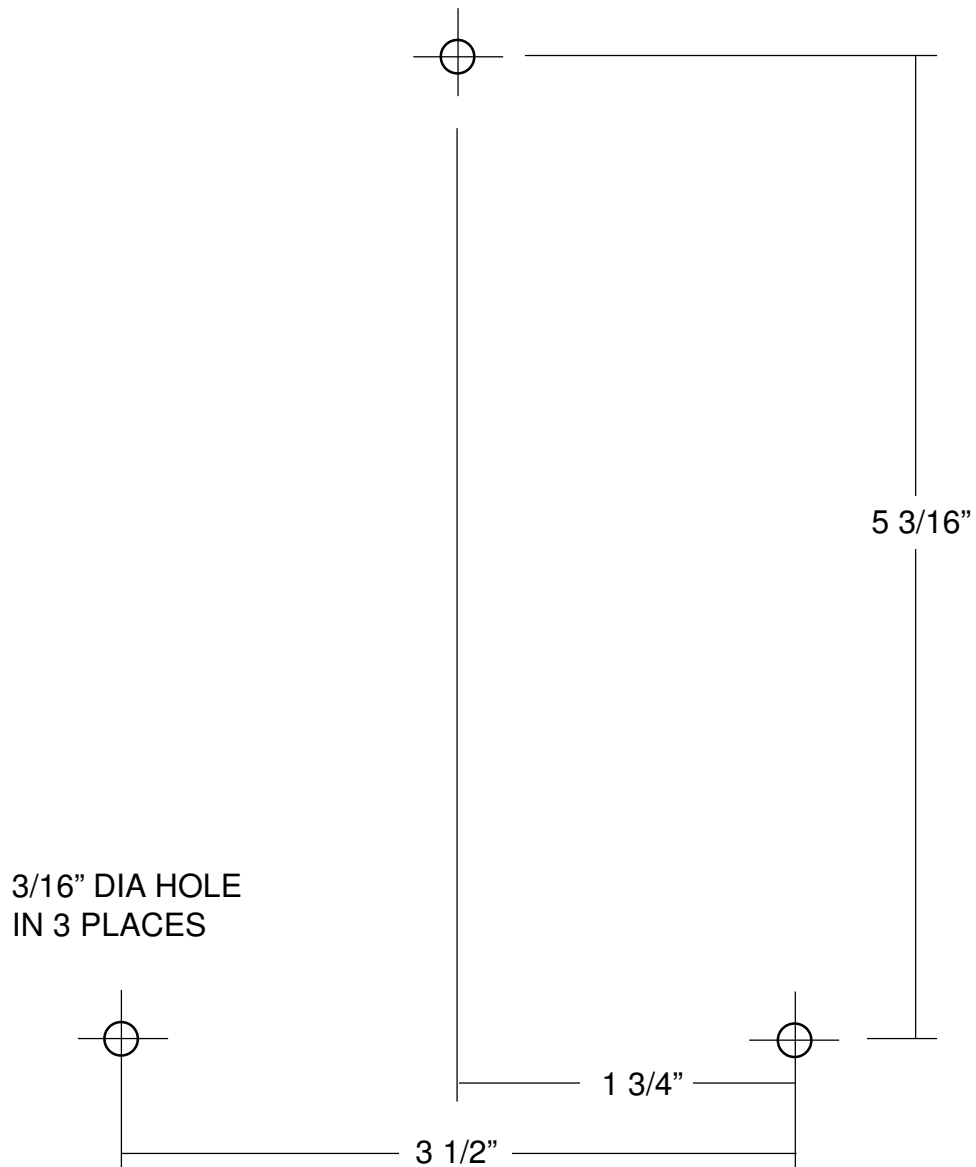


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TEMPLATE AIR COMPRESSOR PUMP



NOTE:

- Drill 3/16" DIA hole in 3 places.
- Use (3) # 8-32 sized screws (not supplied) for mounting the air compressor to a mounted surface or mounting plate.



SPECIFICATIONS FOR AUTO AIR COMPRESSOR

Input: 12 Volts D.C. @ 14 Amps (at pump start-up)
12 Volts D.C. @ 11 Amps (pump running)

Weight: 6 lbs

Dimensions: 10" L x 6 1/2" H x 6 1/2" W

Motor Horsepower: 1/10 HP

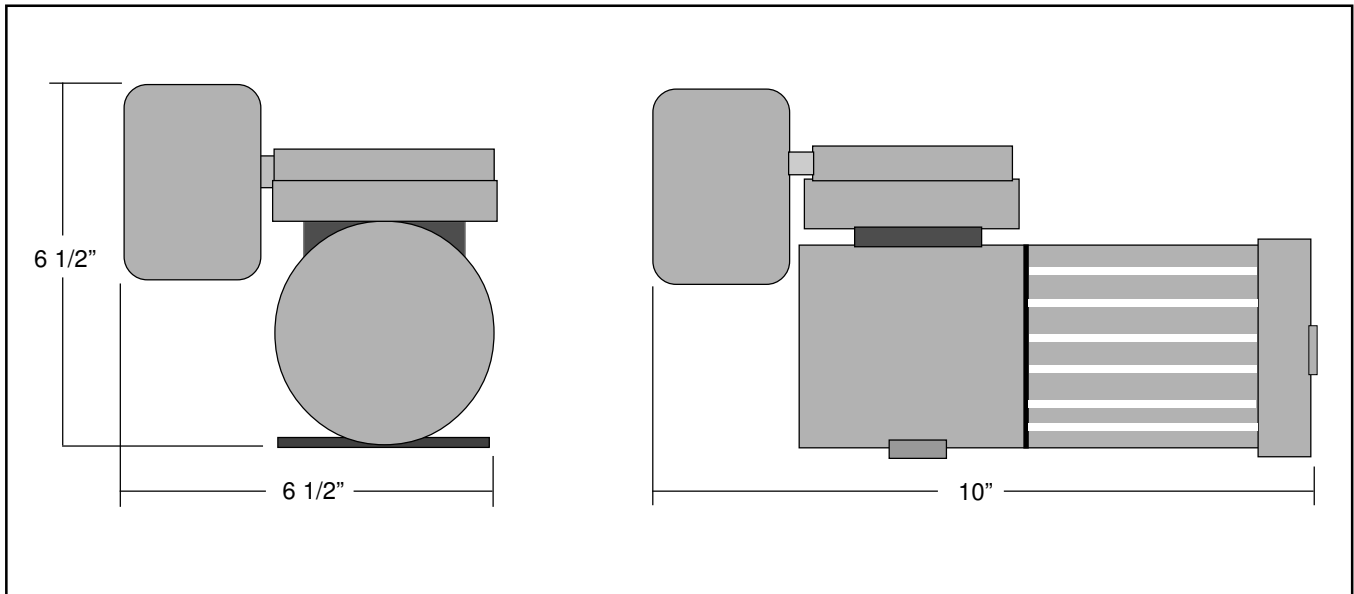
Motor Type: Permanent Magnet

Compressor Output: 0.30 SCFM @ 80 PSI (100 PSI MAXIMUM)
0.35 SCFM @ 60 PSI

Pressure Switch: Cut-in / Default factory set point is 75 PSI (+/- 5 PSI)
Cut-out / Default Factory set point is 95 PSI (+/- 5 PSI)
(18-20 PSI differential fixed from Hi to Low)
PUMP MAX OUTPUT IS 100 PSI

Switch Differential: 18 - 20 PSI Nominal

Outlet Connection: 1/4 NPT, Female



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AUTO COMPRESSOR PUMP SYSTEM

The following items are included with the Auto Compressor Pump Assembly:

- Auto Compressor Pump
- Pump Power Relay

OPTIONAL ACCESSORIES

Model # ACP-PLATE Mounting Plate for easy mounting of Auto Compressor Pump.

WARRANTY

Newmar warrants the model ACP-12 to be free from defects in material and workmanship for one year from the date of purchase. Liability is limited to repairing or replacing at our factory, without charge, any material or defects which become apparent in normal use within 1 year from the date the equipment was shipped.

PRODUCT REGISTRATION

If you wish to register your product with us and provide comments or questions, please log onto www.newmarpower.com/product_registration.html or for immediate response to your questions or comments, please call tech service at 1-800-241-3897 or E-mail: techservice@newmarpower.com.

