

# AUTO PUMP 12V

## 12 VOLT DC AIR COMPRESSOR SYSTEM



**MODEL # : 091-9-12V**

**INPUT: 10-15 Volts DC, 11 Amps**  
**OUTPUT: 100 PSI Max**

File: IM\_091-9-12v\_revC1.indd  
Rev: C1  
Revised By: PSS/JRN  
Date: 08-16-2017

1 YEAR WARRANTY

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## **INTRODUCTION**

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The Auto-Pump Air Compressor system is a compact electric motor operated single cylinder air compressor designed specifically for installation on vehicles with air brakes. During long idle periods of the vehicle when even the slightest seepage can cause an air brake system pressure to drop below the brake lockup pressure, the Auto Pump automatically starts to maintain the pressure.

The Auto Pump motor is directly coupled to the compressor section eliminating all belts and pulleys assuring long life and reliable operation. A heavy duty pressure switch is adjusted to start the compressor when the system pressure drops below 75 psi and stops the compressor when 95 psi is attained. The start up pressure is field adjustable - the pressure differential between start up and stopping is fixed. Please read and follow the installation instructions carefully. The Auto Pump requires no routine maintenance. A careful installation will assure years of trouble free operation.

## **CAUTION**

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**NO CONDENSATE OR  
WATER MUST BE ALLOWED TO ENTER OR  
ACCUMULATE IN THE OUTPUT  
OF THE AUTO PUMP.  
ROUTE OUTPUT PRESSURE  
LINE DOWNWARD FROM  
AUTO PUMP TO PERMIT  
MOISTURE TO DRAIN AWAY.**

**WATER IN THE PUMP  
OUTLET WILL INDUCE**

**FAILURE!**

**WATER DAMAGE WILL  
VOID WARRANTY**

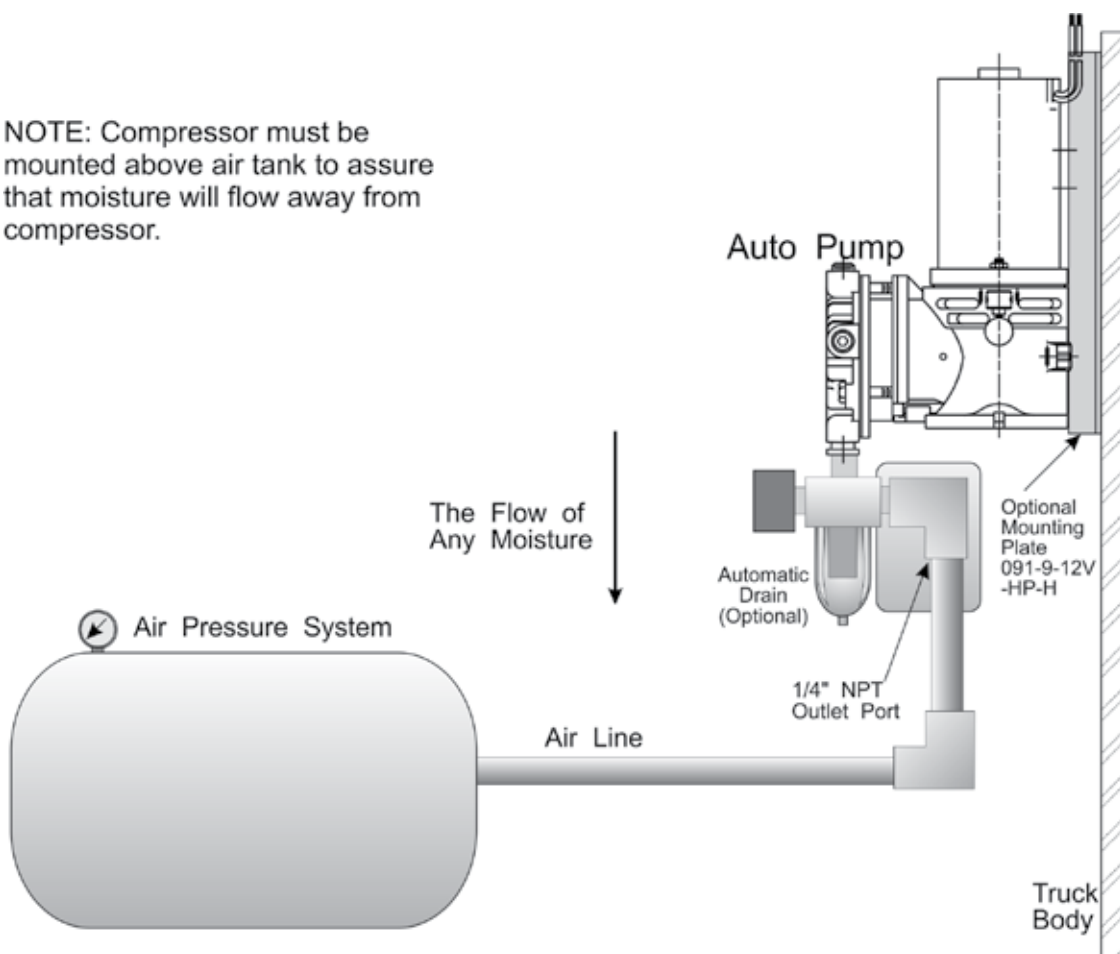
# INSTALLATION INSTRUCTIONS

## I. VEHICLE TUBING OF THE AUTO PUMP 12V

1. Mount all components in a suitable location, preferably in a high area above the air system. 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 the air compressor in a vertical position as shown or horizontal.
3. **CAUTION:** No condensate or water must be allowed to enter or accumulate in the output of the Auto Pump. Route output pressure line downward from Auto Pump to permit moisture to drain away. **Water in the pump outlet will induce failure and Void the Warranty.**
4. All connection for air lines are 1/4" NPT. Use Teflon tape, or equivalent on all connections to insure no leakage of air.
5. The recommended installation of the Auto Pump air compressor system is shown below.
6. Mount the air compressor. Connect a suitable piece of flexible tubing from the outlet port of compressor to the air tank. (Tubing and connectors are not supplied).
7. An optional Mounting Plate 091-9H-12V-HP-H, is available to reduce any vibration and noise from Auto Pump and to simplify pump mounting.

## II. VEHICLE TUBING DIAGRAM

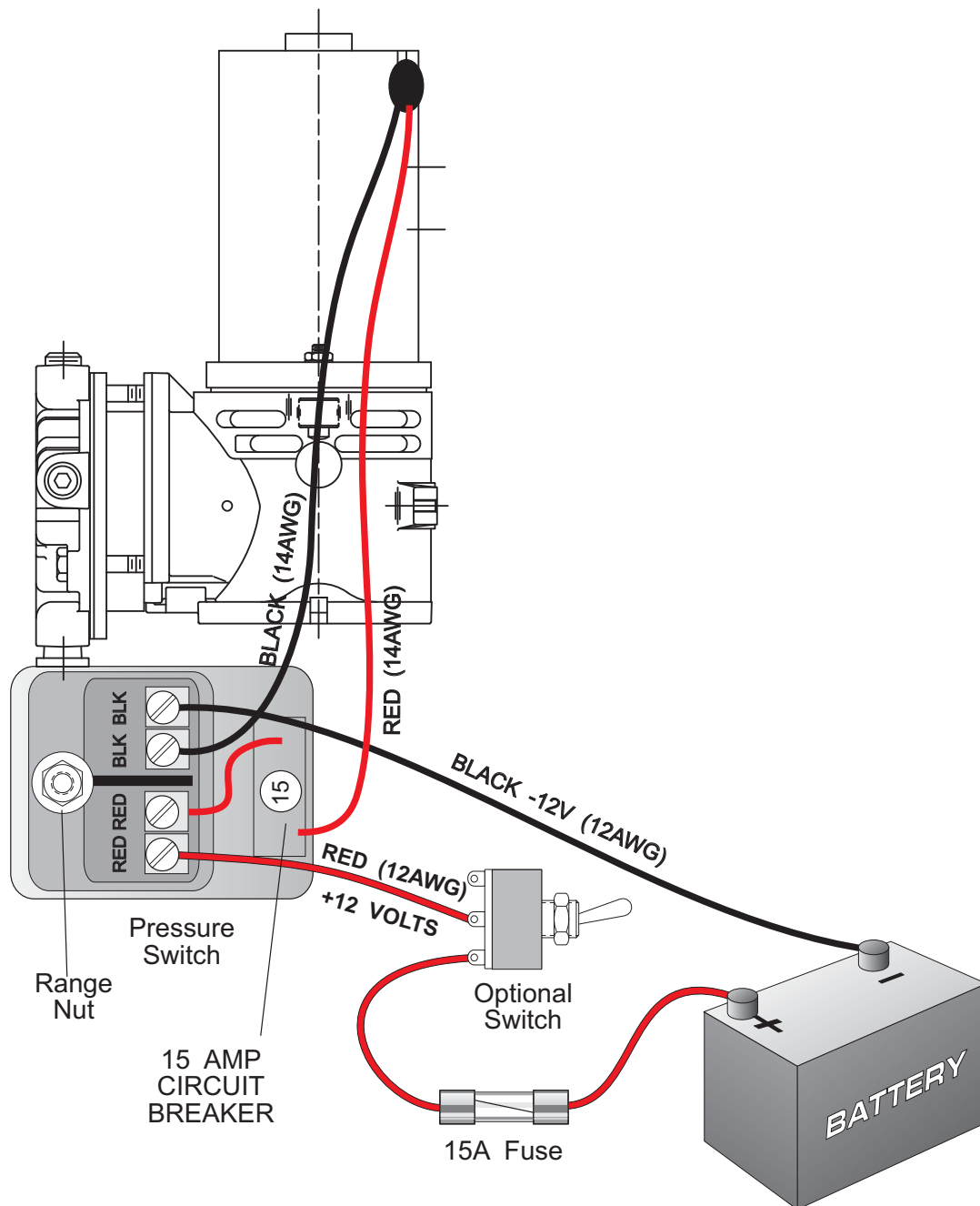
NOTE: Compressor must be mounted above air tank to assure that moisture will flow away from compressor.



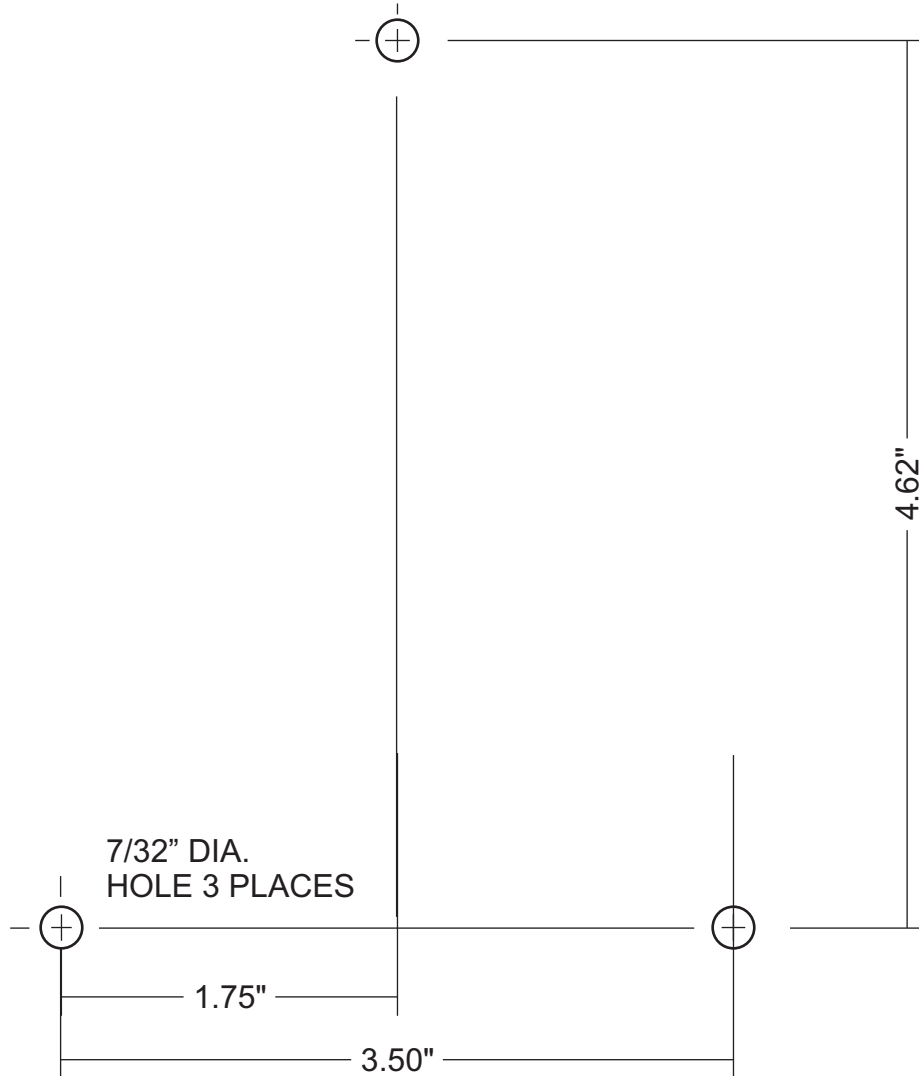
### III. VEHICLE WIRING OF THE AUTO PUMP 12V

1. Remove cover of the Pressure Switch on the Auto Pump.
2. Wire the pressure switch to the battery and a good chassis ground, use #12 AWG WIRE MINIMUM. **CAUTION:** Observe Correct polarity connections red wire to the positive of the battery.
3. Reinstall cover of Pressure Switch.
4. The compressor is calibrated to cut-in at 75 PSI and cut-out at 95 PSI. For higher cut-in and cut-out, turn the range nut clockwise. To lower cut-in, turn range nut counterclockwise. Do not exceed 100 PSI.
5. The 091-9-12V Auto Pump can be wired to a positive or negative system vehicle.
6. Install 15 Amp (SLO-BLO) fuse, see diagram below.
7. Optional 20 Amp Rated Switch can be installed, see vehicle wiring diagram.

### IV. VEHICLE WIRING DIAGRAM



## V. HOLE TEMPLATE



Note: Verify measurements before using as a template.  
Must set print settings to "Actual Size".

# SPECIFICATIONS

**Input Voltage:** 10 - 15 Volts DC

**Input Current:** 11 Amperes Max

**Compressor Output:** .30 SCFM @ 80 PSI, .35 SCFM @ 60 PSI, 0.80 CFM @ OPEN FLOW

**Temperature Range:** 0C to 43C (meets NFPA1901 2016 4.14.3)

**Motor Horsepower:** .10 HP

**Motor Type:** Permanent Magnet

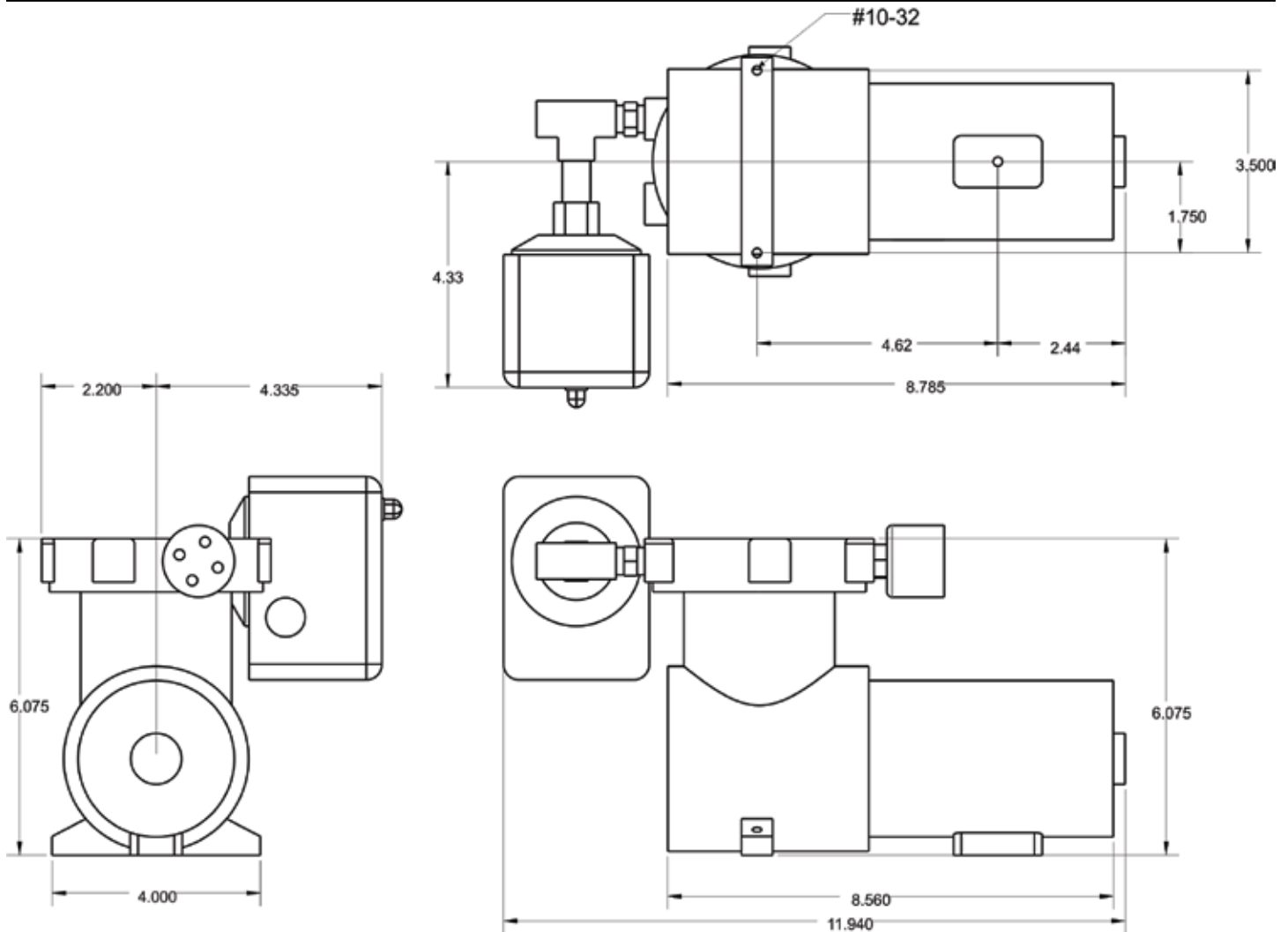
**Pressure Switch:** Set to 75 PSI Cut-in, 95 PSI Cut-out (+/- 5 PSI)

**Switch Differential:** 18 PSI Nominal

**Outlet Connection:** 1/4 NPT, Female

**Weight:** 10 pounds

# OUTLINE DRAWING



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# OPTIONAL ACCESSORIES

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## I. AUTO DRAIN, MODEL #: 091-9-131

- Automatically purges water separator bowl every time compressor cycles via a 12V solenoid



## II. AUTO PUMP TESTER, MODEL #: 091-205

- 150 PSI Max
- Used to test Auto Pump Operation
- Used to test Auto Pump valve leakage
- Used to test and adjust Auto Pump pressure switch



## III. AUTO PUMP TIMER, MODEL #: 091-150

- Reduces Auto Pump heating
- Limits duty cycle of Auto Pump to 1 hour running and 1 hour "OFF"
- Extends life of Auto Pump 12V



## IV. MOUNTING PLATE, MODEL #: 091-9-12V-HP-H

- Provides a soft mount for the Auto Pump 12V
- Reduces vibration and simplifies installation



# INSTALLATION RECORD

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DATE INSTALLED \_\_\_\_\_

INSTALLED BY \_\_\_\_\_

VEHICLE IDENTIFICATION \_\_\_\_\_

VEHICLE OWNER \_\_\_\_\_

# WARRANTY POLICY

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All products of Kussmaul Electronics are warranted to be free of defects of material or workmanship. 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. Equipment is to be returned, shipping charges prepaid and will be returned, after repair, shipping charges paid.

Kussmaul Electronics shall have no liability for damages of any kind to associated equipment arising from the installation and/or use of the Kussmaul Electronics products. The purchaser, by the acceptance of the equipment, assumes all liability for any damages which may result from its installation, use or misuse, by the purchaser, his or its employees or others.



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