

## - HARDMOUNT AIR COMPRESSOR

Model NO: V360



# USER MANUAL

It's essential that you and any other operator of this product read and understand the contents of this manual before installing and using this product.

SAVE THIS MANUAL FOR FUTURE REFERENCE

#### IMPORTANT SAFETY INSTRUCTION

#### CAUTION- To reduce risk of electrical shock:

- -Do not disassemble. Do not attempt repairs or modifications. Refer to qualified service agencies for all service and repairs.
- -Do not use this product in the area where it can fall or be pulled into water or other liquids.
- -Don't reach for this product if it has fallen into liquid.
- -Use this compressor with marked voltage in the manual.

#### WARNING - To prevent injury:

- -Never allow children to operate this compressor. Close supervision is necessary when this compressor is being near children.
- -This compressor will become very HOT during and immediately after use.
- -Do not touch any part of this compressor with bare hands during and immediately after use.
- -Do not use this product near flames or explosive materials or when aerosol products are being use.
- -Do not pump anything other than atmospheric air.
- -Never use this product while sleepy or drowsy.
- -Do not use any tools or attachments without first determining maximum air pressure for that tool or attachment.
- -Never point any air nozzle or air sprayer toward another person or any part of the body.
- -This air compressor is equipped with an Automatic Reset Thermal Protector, and can automatically restart after the thermal protector resets. Always cut off power source when thermal protector becomes activated.
- -Use only in well ventilated areas.

## INSTALLATION

Please read and follow the installation instructions carefully to avoid injury or damage to the compressor and your vehicle.

Each of our air compressor and parts have been carefully produced and packaged. Before you begin installation, please familiarize yourself with Installation Parts List(Fig.1) of this manual. Guidelines for Selecting Mounting Location:

- 1. Select a Flat, UPRIGHT AND SECURE location where the compressor can be mounted.
- 2. To maximize air compressor performance, locate compressor as close to the battery as possible so that length of positive lead wire required is at a minimum.
- Choose mounting location that is as cool as possible and AWAY FROM HEAT SOURCES. The cooler the ambient temperature, the less chance the compressor will overheat.
- 4. This compressor is moisture & dust resistant, but NOT DIRT OR WATERPROOF. Do not mount compressor in locations where the unit is likely to come in contact with the elements.
- 5. For compressor with remote filter mounting, select compressor's mounting location where air line can be routed from compressor air inlet to remote inlet air filter. Make sure that the remote inlet air filter is located in a dry location, away from the elements.
- 6. You will also want to select a compressor mounting location where the leader hose bracket can be mounted to leader hose.
- 7. If it is a must to mount the air compressor further away from the battery, such as inside your vehicle or in the bed of your pickup, use a positive lead wire less than 1.3mmfor remote installation.
- 8. Do not mount compressor near areas where flammable liquids are stored.
- 9. Use thread sealant for proper fitting installation. Teflon tape is not recommended.

#### MOUNTING AND WIRING

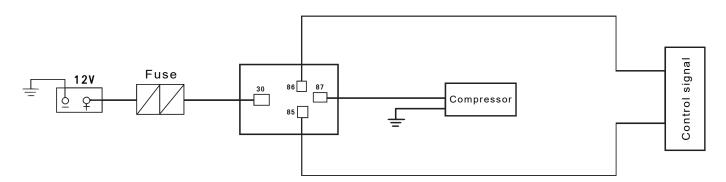
- 1. Disconnect ground cable from vehicle's battery.
- 2. Temporarily position the air compressor in the location where it will be mounted.
- 3. Route ground wire to the negative post of the battery or to an appropriate grounding point and cut ground wire to length as needed.
- 4. Mount air compressor with the four sets of bolts and nuts provided. (See Fig. 2 for Mounting Instructions) Use of thread sealant recommended.
- 5. NOTE: For remote inlet air filter installation, refer to instructions

- included in the Remote Inlet Air Filter Pack.
- 6. This air compressor may be equipped with a heavy duty heat resistant leader hose. This leader hose is designed to prolong the life of your air line. Do not remove this leader hose from air compressor.
- 7. IMPORTANT: Please note, the leader hose that may be equipped with your compressor may also have a built-in inline check valve. Do not remove inline check valve from leader hose.
- 8. Select a proper location to mount leader hose with hose bracket provided. Avoid locations where leader hose may become tangled with wires and other hoses.
- 9. To mount hose bracket, drill hole with 12mm drill bit and push self-anchoring hose bracket pin into hole. Route leader hose through hose bracket and secure hose by pressing bracket clamp into locked position. (Fig. 3)
- 10. Connect compressor's positive lead wire to the 87 feet of relay.
- 11. Make sure that your compressor setup is properly fused. For appropriate fuse size, refer to amp draw of compressor in the specifications section of this manual.
- 12. Always locate fuse as close as possible to power source.
- 13. Before connecting to power source, re-check to make sure that all connections are made properly.
- 14. Connect and test compressor system by running the compressor for a short time to build up pressure in your air tank.
- 15. Once air pressure reaches preset cut out pressure of your pressure switch, the compressor will shut off. Inspect all air line connections for leaks with soap and water solution. If a leak is detected, the air line may not be cut squarely or pushed all the way in .Repair the connection of air leakage as required.

Inlet Air Filter with Filter Foam (1pcs)

## **OPERATING INSTRUCTION**

- IMPORTANT: Always operate the compressor at or below the MAXIMUM PRESSURE RATING of the compressor. Please refer to Application & Specifications Sections of this manual for details.
- 2. Always observe the MAXIMUM DUTY CYCLE of the air compressor. Refer to Compressor Applications and Specifications Sections of this manual for details. Operation exceeding maximum pressure ratings and/or duty cycle will result in damage to the air compressor.
- 3. The air compressor is equipped with an AUTOMATIC THERMAL OVERLOAD PROTECTOR. This feature is designed to protect the air compressor from overheating and causing permanent damage to your air compressor. The thermal overload protector will automatically cut power to your air compressor should the internal operating temperature of the air compressor rise above safe levels during excessive use.
- 4. Should at any time during use, your air compressor automatically shuts off; do not attempt to restart it. Turn off power and allow unit to cool for about 30 minutes. This will allow the Thermal Overload Protector to reset so you can safely resume use of the air compressor.
- To prevent discharge of your vehicle's battery, and enhance performance, keep the vehicle's engine running while using the compressor.
- 6. Only operate compressor in well ventilated areas.
- The use of a relay is strongly recommended for installation of this compressor, but not included.
   (40-amp relay value or higher per compressor recommended.)



## MAINTENANCE & REPAIRS

- Periodically check all electrical and fittings connections.
   Clean and tighten as needed.
- 2. Periodically check all mounting screws. Tighten as needed.
- 3. Replace Air Filter Element periodically. Replacement frequency depends on operating frequency and operating environment. For frequent use in dusty environment, we recommend that you replace air filter element at least once a month.
- 4. Regularly clean dust and dirt from compressor cooling fins and motor housing.
- 5. Your air compressor is equipped with a permanently lubricated, maintenance-free motor. Never try to lubricate the compressor.
- 6. All repairs should be performed by Manufacturer or Manufacturer's Authorized Service Agencies only.

#### **CAUTION:**

Never touch the air compressor or fittings connected to the air compressor, with bare hands during or immediately after use. The leader hose and fittings connected to leader hose will become very HOT during and after use. If necessary, wear heat resistant gloves to handle fittings, air line, and leader hose.

## **SPECIFICATIONS:**

#### **V360 Air Compressor** (310360)

Rated Voltage: DC-12V Max. Working Current: 21A

Motor Type: Permanent Magnetic

Max. Working Pressure: 200psi (14kg/cm²) Duty Cycle 23°C & 100psi/7.0kg/cm²: 100%

Max. Ambient Temperature: 80°C Min. Ambient Temperature: -40°C Auto Reset Thermal Protection: Yes Dimensions: 307 x 112 x 170 mm

Net Weight: 3.75kg

#### **V360D Air Compressor** (330360)

Rated Voltage: DC-12V Max. Working Current: 21A

Motor Type: Permanent Magnetic

Max. Working Pressure: 200psi (14kg/cm²) Duty Cycle 23°C & 100psi/7.0kg/cm²: 100%

Max. Ambient Temperature: 80°C Min. Ambient Temperature: -40°C Auto Reset Thermal Protection: Yes Dimensions: 307 x 112 x 194 mm

Net Weight: 4.80kg

## COMPRESSOR APPLICATION GUIDE

#### ABOUT COMPRESSOR DUTY CYCLE:

Duty cycle refers to the amount of time a compressor can be operated in a given time period at 100PSI, and a standard ambient temperature of 23°C.

It is commonly expressed in percentage format: Compressor on time + off time )= Duty cycle %.

For example, a compressor with 25% rated duty cycle, refers to the following working condition it can work in as below: 100PSI working pressure, working temperature of 23°C, 10 minutes on and 30 minutes off 10 minutes on (10 minutes ON + 30 minutes OFF) = 10 minutes + 40 minutes = 25% duty cycle.

#### **DUTY-CYCLE REFERENCE TABLE**

Duty cycle (Working pressure 100PSI, ambient temperature 23°C)	ON / OFF
15%	6 MIN ON / 34MIN OFF
20%	8 MIN ON / 32MIN OFF
25%	10 MIN ON / 30MIN OFF
30%	13 MIN ON / 30MIN OFF
33%	15 MIN ON / 30MIN OFF
100%	Continuous Working

(MINUTES)

#### **ABOUT RATED WORKIGN PRESSURE:**

To ensure trouble free service life of your compressor, always operate compressor within rated working pressure of the compressor.

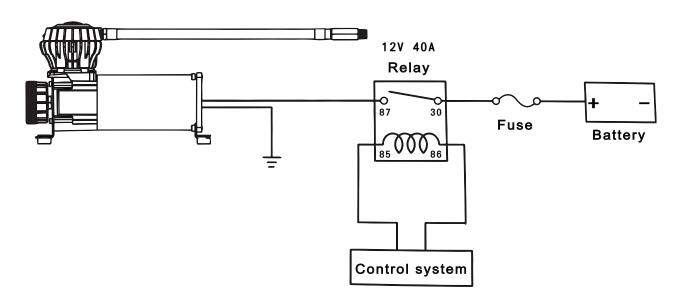
#### **TROUBLESHOOTING GUIDE:**

PROBLEM:	POSSIBLE CAUSE(S)	CORRECTIVE ACTION	
Tank pressure drops when compressor(s) shut off	Loose drain cock     Check valve leaking     Loose connections	<ol> <li>Tighten drain cock</li> <li>Replace check valve or compressor</li> <li>Check all connections with soap and water solution and tighten</li> </ol>	
Compressor runs continuously and air flow lower than normal	Excessive air usage     Loose connections     Worn piston ring or inlet valve.     Clogged air filter element	<ol> <li>Decrease air usage</li> <li>Check all connections with soap and water solution and tighten.</li> <li>Replace compressor</li> <li>Replace air filter element</li> </ol>	
Compressor runs continuously causing safety valve (if equipped) to open	Faulty pressure switch     Defective safety valve	Replace pressure switch     Replace safety valve	
Excessive moisture in discharge	Excessive water in air tank     High humidity	<ol> <li>Drain tank, tilt tank         to drain. Drain tank         more frequently</li> <li>Move compressor to         area with less humidity,         or use air line filter</li> </ol>	
Compressor will not run	1. No power, or power switch in OFF position 2. Blown fuse 3. Motor overheats 4. Faulty pressure switch (if hooked up to a pressure switch).	1. Make sure compressor switch is ON 2. Disconnect compressor from power source, replace fuse. (Refer to Specifications section for correct fuse amperage) 3. Let compressor cool off for about 30 minutes to allow thermal overload switch to reset. 4. Replace pressure switch	
Thermal overload protector cuts out repeatedly	Lack of proper ventilation or ambient temperature is too high     Compressor valves failed	Move compressor to well ventilated area, or area with lower ambient temperature     Replace compressor	
Excessive knocking or rattling	Loose mounting bolts     Worn bearing on     eccentric or motor shaft     Cylinder or piston ring     is worn	<ol> <li>Tighten bolts</li> <li>Replace bearing or piston assembly</li> <li>Replace piston or compressor</li> </ol>	

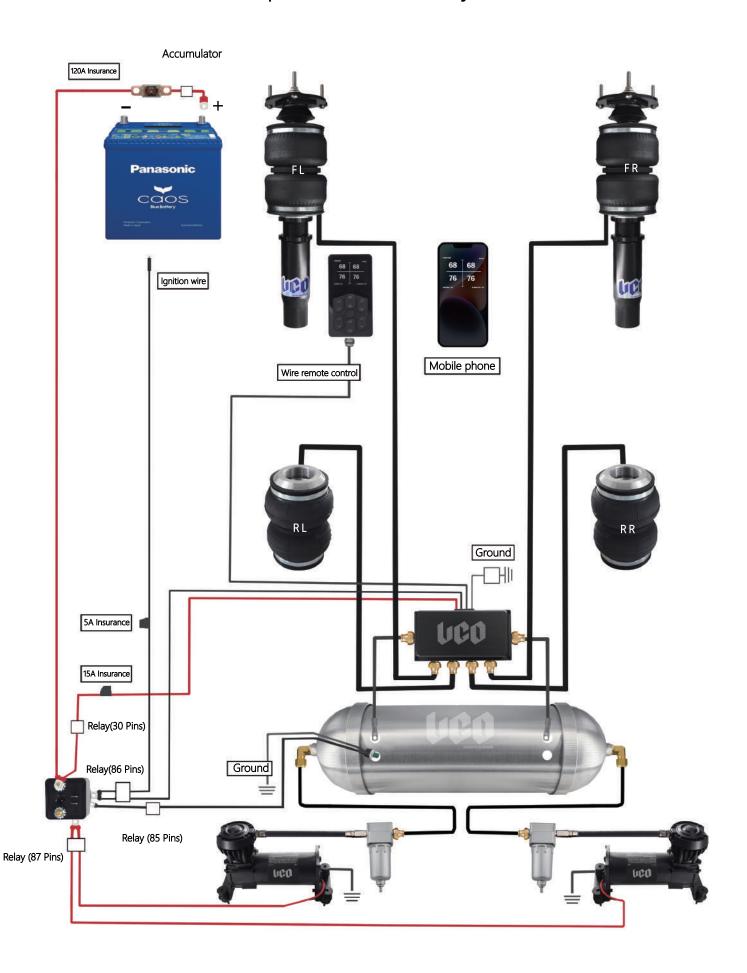
## **WIRE GUAGE GUIDE 12-VOLT**

Amp Draw	Length of wire from battery to cpmpressor					
	25. 4	38. 1	50.8	63.5	76. 2	
10	2mm²	3.15mm²	5mm²	5mm²	5mm²	
15	3.15mm²	5mm²	5mm²	8mm²	8mm²	
20	5mm²	5mm²	8mm²	12.5mm²	12.5mm²	
25	5mm²	8mm²	12.5mm²	12.5mm²	12.5mm²	
30	5mm²	8mm²	12.5mm²	12.5mm²	20mm²	
40	8mm²	12.5mm²	12.5mm²	20mm²	20mm²	
50	12.5mm²	12.5mm²	20mm²	20mm²	31.5mm²	
60	12.5mm²	20mm²	20mm²	31.5mm²	31.5mm²	

## Wiring Diagram:



## 【Air Suspension Assembly Instructions 】







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