



## Dual Compressor on 2.0 Gallon Air Tank

- 30001 – 150 PSI, Dual 400C (2007-2011 Jeep JK Crossmember Bracket)
- 30005 – 200 PSI, Dual 380C (2007-2011 Jeep JK Crossmember Bracket)
- 30016 – 150 PSI, Dual 400C Universal (Crossmember Bracket not included)
- 30018 – 200 PSI, Dual 380C Universal (Crossmember Bracket not included)



### **IMPORTANT:**

It is 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**

**USER MANUAL**



## 2on2 Bolt-On Platform

### IMPORTANT SAFETY INSTRUCTIONS

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#### **CAUTION - To reduce risk of electrical shock or electrocution:**

- 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 or area where it can fall or be pulled into water or other liquids.
- Use this compressor with 12-volt DC systems only.
- Never leave product unattended during use.

#### **WARNING - To prevent injury:**

- Never allow children to operate this compressor. Close supervision is necessary when this compressor is being used near children.
- This compressor will become very hot during and immediately after use. Do not touch any part of this compressor with bare hands other than the ON/OFF switch during and immediately after use.
- Do not use this product near flames or explosive materials or where aerosol products are being used.
- Do not operate this product where oxygen is being administered.
- 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 needed 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.
- Wear safety glasses or goggles when operating this product.
- Use only in well ventilated areas.

### INSTALLATION

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Please read and follow the Installation Instruction carefully to avoid injury or damage to the compressor or your vehicle. Before installation, plan your install and add fittings before the tank is bolted down.

#### **Guidelines for Selecting Mounting Location:**

The selection of a proper mounting location for your 2on2 Platform will help ensure a long and trouble free service life. Please pay close attention to the following guidelines:

#### **FOR 2007-2011 JK APPLICATIONS - P/NS 30001 & 30005:**

To simplify installation, it is recommended that the air box and intake tubing be removed during installation.

1. Using the provided crossmember bracket, secure to the JK crossmember using the provided U-bolts, washers and locking nuts. Set all brackets in place and only snug hardware initially.
2. After the final positioning is located, that allows proper clearance, torque locking nuts to approximately 25-30 ft lbs torque each, (distributed evenly) to ensure solid mounting for the 2on2 Platform.
3. The compressor is moisture & splash resistant, but NOT WATERPROOF. Do not mount 2on2 in locations where the unit is likely to become submerged in water.

#### **INSTALL PROCESS:**

1. Bracket
2. 2on2 Kit
3. Torque All Hardware

#### **FOR UNIVERSAL APPLICATIONS - P/NS 30016 & 30018:**

1. Select a FLAT, UPRIGHT AND SECURE location where the 2on2 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.
3. The compressor is moisture & splash resistant, but NOT WATERPROOF. Do not mount 2on2 in locations where the unit is likely to become submerged in water.

## 2on2 Bolt-On Platform

### MOUNTING AND WIRING

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1. Disconnect ground cable from vehicle's battery.
2. Route the included wiring harness to the battery area. Secure harness as needed to prevent movement.
3. Install included 80-amp relay (see electrical system schematic).
4. Install fittings as desired for setup into billet manifold and install in desired location. A bracket is included to allow easier mounting of the billet-manifold. Be sure to use thread sealant for all fittings and plugs for any unused ports.
5. Route air line from air tank to manifold and make connections between air lines and fittings as required. Tighten fittings securely using a wrench (thread sealant required).
6. Connect ground wire to a clean ground, (preferably chassis ground) and secure properly.
7. Connect positive (Red) lead wire from your wiring harness to the positive terminal of your vehicle battery.
8. Check to ensure that the fuse is installed for proper operation.
9. Plug the Delphi connectors on the wiring harness into the Delphi connectors coming from the compressors.
10. Once the kit is properly installed, connect and test compressor system by running the compressor for a short time to build up pressure in your air tank.
11. Once air pressure reaches preset cut out pressure of your pressure switch (145 Max PSI or 200 Max PSI depending on your kit), the compressor will shut off automatically.
12. 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. Tighten and/or remove and re-seal any fitting or air line connections as needed.

### 2ON2 BOLT-ON PLATFORM KIT COMPONENTS:

#### Pre-installed on Two Gallon 5-Port Air Tank:

- Qty. 2: 400C or 380C air compressors
- Qty. 2: 1/4" Stainless braided leader hoses
- Qty. 2: 1/4" JIC fittings on leader hoses
- Qty. 1: 1/4" NPT swivel to 1/4" NPT swivel T-fitting (remote mount filter)
- Qty. 1: 1/4" NPT Drain cock
- Qty. 1: Sealed pressure switch (P/Ns 30001 & 30016: 110 PSI ON, 145 PSI OFF)
- Qty. 1: Sealed pressure switch (P/Ns 30005 & 30018: 165 PSI ON, 200 PSI OFF)
- Qty. 2: Loomed compressor wires terminated with Delphi connectors
- Qty. 1: Pre-wired Delphi connector on pressure switch wiring
- Qty. 1: 1/4" NPT Safety valve
- Qty. 4: 1/4" Hex plugs

#### Included Kit of Parts:

- Qty. 1: Toggle switch
- Qty. 1: Electrical terminal pack
- Qty. 1: Fuse holder
- Qty. 1: 60-amp fuse & fuse holder
- Qty. 1: 80-amp relay
- Qty. 2: 1/4" BSP adapters for air lockers
- Qty. 1: T-fitting 1/4" NPT F x 1/4" NPT F x 1/4" NPT M
- Qty. 1: 1/8" to 1/4" NPT adapter (pressure switch)
- Qty. 1: Wiring harness with dual Delphi connectors
- Qty. 2: Delphi connector plug kits
- Qty. 1: Billet 1/4" NPT x 6-port manifold
- Qty. 1: Manifold mounting bracket
- Qty. 1: Air filter housing with installed element
- Qty. 2: Replacement air filter elements
- Qty. 1: Dash panel air pressure gauge (0-160 PSI illuminated)
- Qty. 1: Air pressure regulator (0-200 PSI)
- Qty. 1: 15 ft. DOT air line

#### JK Model Specific 2on2 Kits Only:

- Qty. 1: Engine bay crossmember bracket
- Qty. 4: U-bolts
- Qty. 8: Washers
- Qty. 8: Locking nuts

## 2on2 Bolt-On Platform

### OPERATING INSTRUCTIONS

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1. **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 Section of this manual for details. Operation exceeding maximum pressure ratings and or duty cycle will result in damage to air compressor.
3. Your air compressors are equipped with an AUTOMATIC THERMAL OVERLOAD PROTECTOR. This feature is designed to protect the air compressor from overheating causing permanent damage to your air compressor. The thermal overload protector will automatically cut off 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 air compressor. Turn power switch to the air compressor to the OFF position. The automatic thermal overload protector will automatically reset when internal temperature of the air compressor drops below safe levels. After allowing air compressor to cool off for about 30 minutes, you can safely resume use of the air compressor by turning on the air compressor.
5. To prevent discharge of your vehicle's battery, we strongly recommend that you keep the vehicle's engine running while using the air compressor. Compressor performance is enhanced when operating compressor with vehicle's engine running.
6. **IMPORTANT:** ONLY OPERATE THE AIR COMPRESSOR IN WELL-VENTILATED AREAS.

### AIR TANK PRECAUTIONS

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#### INSTALL PROCESS:

1. Bracket
2. 2on2 Kit
3. Torque All Hardware

#### IMPORTANT:

1. The 2on2 air tank is rated for either 150 or 200 PSI maximum working pressure, depending on model number of the kit you have purchased. Over pressure operation result in death or serious injury.
2. Tank is not to be used as a breathing device.
3. Always wear ANSI approved safety glasses when operating air tank.
4. Bleed pressure from tank before servicing or adding attachments.  
DRAIN TANK OFTEN TO REMOVE CONDENSATE. FAILURE TO DRAIN TANK REGULARLY WILL ALLOW TANK TO RUST INTERNALLY.
5. To remove any accumulated condensation inside the tank, bleed pressure from tank until pressure is approximately 5 PSI to 20 PSI.
6. Drain water from tank by opening the drain cock valve.
7. If drain cock is plugged, release all air pressure from tank, remove drain valve and clean or replace, then reinstall.
8. After condensate has been drained, close the drain cock.

**IMPORTANT:** Observe air tank Date of Manufacture (stamped on tank leg). Replace air tank 5 years from date air tank was first used, or use the date of manufacture as reference. Your adherence to air tank draining guidelines will determine replacement date of your air tank. RUSTED TANKS CAN FAIL CAUSING EXPLOSIONS OR FATAL INJURIES. Discard tank immediately if tank is rusted internally.

**NOTE:** When using a safety pressure relief valve, point the safety pressure relief valve away from your body. Use the pull ring on the safety relief valve; open the relief valve to vent any pressure inside the tank before attempting to service tank.

## 2on2 Bolt-On Platform

### SPECIFICATIONS

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#### 150 PSI 2ON2 PLATFORM PART NUMBERS:

- 30001 (2007-2011 JK)
- 30016 (Universal)

Motor Voltage:	12 Volts
Max. Current Consumption:	60 Amps
Recommended Fuse:	60 Amps
Motor Type:	Perm. Magnetic
Horse Power:	1/4
Max. Working Pressure:	150 PSI
Max. Duty Cycle (@72°F & 100 PSI):	33%
Max. Restart Pressure:	200 PSI
Max. Ambient Temperature:	158°F
Min. Ambient Temperature:	-40°F
Auto. Reset Thermal Protection:	Yes

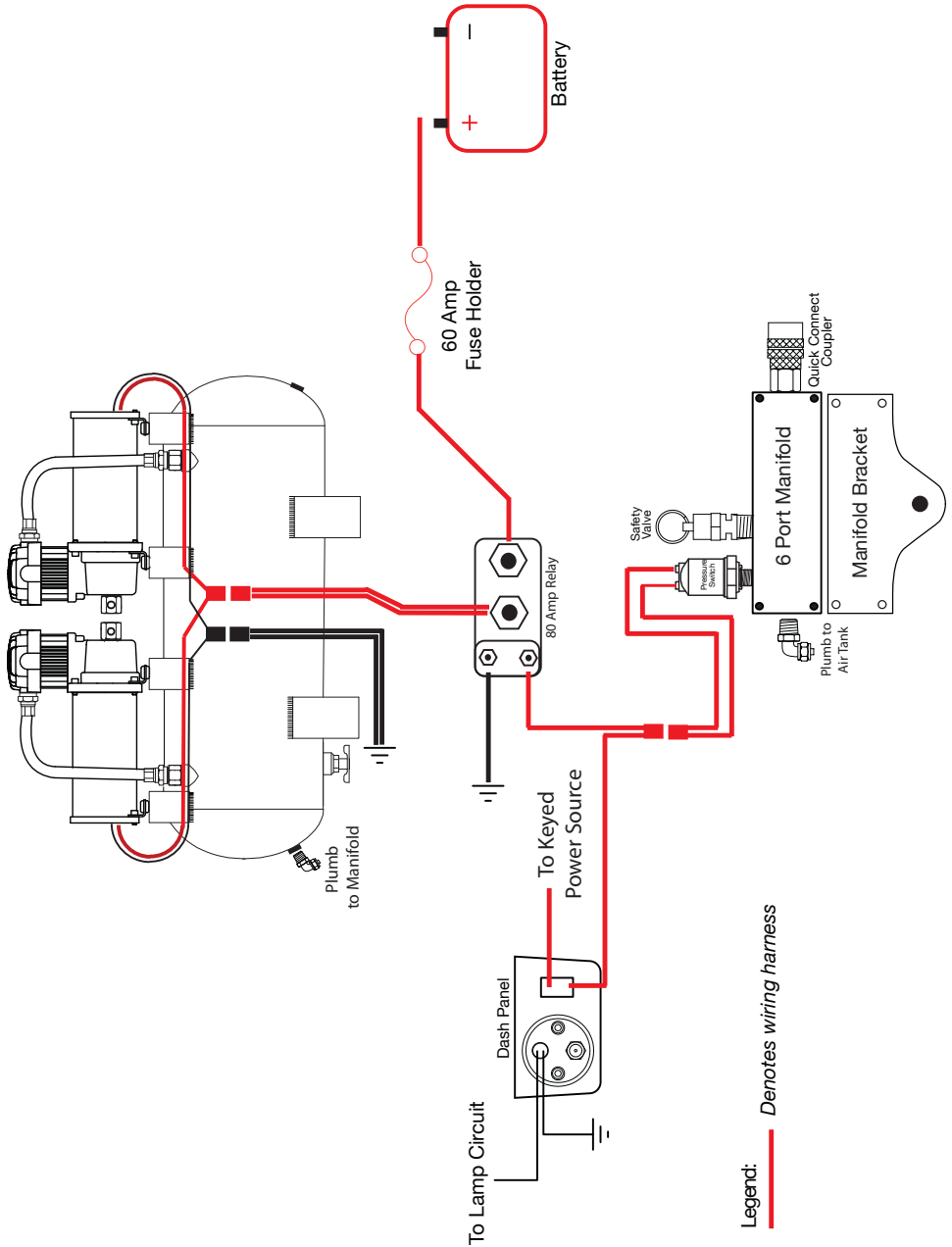
#### 200 PSI 2ON2 PLATFORM PART NUMBERS:

- 30005 (2007-2011 JK)
- 30018 (Universal)

Motor Voltage:	12 Volts
Max. Current Consumption:	44 Amps
Recommended Fuse:	60 Amps
Motor Type:	Perm. Magnetic
Horse Power:	1/4
Max. Working Pressure:	200 PSI
Max. Duty Cycle (@72°F & 100 PSI):	100%
Max. Duty Cycle (@72°F & 200 PSI):	55%
Max. Restart Pressure:	200 PSI
Max. Ambient Temperature:	158°F
Min. Ambient Temperature:	-40°F
Auto. Reset Thermal Protection:	Yes

# 2on2 Bolt-On Platform

## 2on2 LAYOUT SCHEMATIC:



## 2on2 Bolt-On Platform

### TROUBLESHOOTING GUIDE:

PROBLEM:	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Tank pressure drops when compressor(s) shut off	<ol style="list-style-type: none"> <li>1. Loose drain cock</li> <li>2. Check valve leaking</li> <li>3. Loose connections</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten drain cock</li> <li>2. Replace check valve or compressor(s)</li> <li>3. Check all connections with soap and water solution and tighten</li> </ol>
Compressor runs continuously and air flow lower than normal	<ol style="list-style-type: none"> <li>1. Excessive air usage</li> <li>2. Loose connections</li> <li>3. Worn piston ring or inlet valve.</li> <li>4. Clogged air filter element</li> </ol>	<ol style="list-style-type: none"> <li>1. Decrease air usage</li> <li>2. Check all connections with soap and water solution and tighten.</li> <li>3. Replace compressor</li> <li>4. Replace air filter element</li> </ol>
Compressor runs continuously causing safety valve (if equipped) to open	<ol style="list-style-type: none"> <li>1. Faulty pressure switch</li> <li>2. Defective safety valve</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace pressure switch</li> <li>2. Replace safety valve</li> </ol>
Excessive moisture in discharge	<ol style="list-style-type: none"> <li>1. Excessive water in air tank</li> <li>2. High humidity</li> </ol>	<ol style="list-style-type: none"> <li>1. Drain tank, tilt tank to drain. Drain tank more frequently</li> <li>2. Move compressor to area with less humidity, or use water separator</li> </ol>
Compressor will not run	<ol style="list-style-type: none"> <li>1. No power, or power switch in OFF position</li> <li>2. Blown fuse</li> <li>3. Motor overheats</li> <li>4. Faulty pressure switch (if hooked up to a pressure switch).</li> </ol>	<ol style="list-style-type: none"> <li>1. Make sure compressor switch is ON</li> <li>2. Disconnect compressor(s) from power source, replace fuse. (Refer to Specifications section for correct fuse amperage)</li> <li>3. Let compressors cool off for about 30 minutes to allow thermal overload switch to reset.</li> <li>4. Replace pressure switch</li> </ol>
Thermal overload protector cuts out repeatedly	<ol style="list-style-type: none"> <li>1. Lack of proper ventilation or ambient temperature is too high</li> <li>2. Compressor valves failed</li> </ol>	<ol style="list-style-type: none"> <li>1. Move compressor to well ventilated area, or area with lower ambient temperature</li> <li>2. Replace compressor</li> </ol>
Excessive knocking or rattling	<ol style="list-style-type: none"> <li>1. Loose mounting bolts</li> <li>2. Worn bearing on eccentric or motor shaft</li> <li>3. Cylinder or piston ring is worn</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten bolts</li> <li>2. Replace bearing or piston assembly</li> <li>3. Replace piston or compressor</li> </ol>

**CAUTION: NEVER DISASSEMBLE COMPRESSOR WHILE COMPRESSOR IS PRESSURIZED.**

## 2on2 Bolt-On Platform

### ABOUT COMPRESSOR DUTY CYCLE:

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Duty cycle refers to the amount of time a compressor can be operated in a given time period at 100 PSI, and a standard ambient temperature of 72° F. It is commonly expressed in percentage format: Compressor on time ÷ (on time + off time) = Duty Cycle %.

#### ONE-HOUR DUTY CYCLE

(100 PSI @ 72°F)

9%  
10%  
15%  
20%  
25%  
30%  
33%  
50%  
100%

#### MINUTES ON / MINUTES OFF

5 Min. On / 55 Min. Off  
6 Min. On / 54 Min. Off  
9 Min. On / 51 Min. Off  
12 Min. On / 48 Min. Off  
15 Min. On / 45 Min. Off  
18 Min. On / 42 Min. Off  
20 Min. On / 40 Min. Off  
30 Min. On / 30 Min. Off  
1 Hour Run Time

**NOTE:** All compressors, regardless of rated duty cycle, require sufficient rest time in between cycles to allow for partial or complete heat dissipation. Heat dissipation rates may vary depending on ambient temperatures and operating conditions.

#### ABOUT RATED WORKING PRESSURE:

To ensure trouble free service life of your compressor, always operate compressor within rated working pressure of the compressor. Never use a pressure switch with a higher cut-off pressure than compressor's rated working pressure.

#### WIRE GAUGE GUIDE 12-VOLT:

Amp Draw	Length of wire from battery to compressor (in feet)			
	5	10	15	20
5	16	16	16	14
10	16	14	12	10
15	16	12	10	10
20	14	10	10	8
25	14	10	8	6
30	12	10	8	6
40	12	8	6	6
50	10	6	6	4
60	10	6	4	4

#### WIRE GAUGE GUIDE 24-VOLT:

Amp Draw	Length of wire from battery to compressor (in feet)			
	5	10	15	20
5	16	16	16	16
10	16	16	16	14
15	16	16	14	12
20	16	14	12	10
25	16	12	12	10
30	16	12	10	10
40	14	10	10	8
50	14	10	8	6
60	12	10	8	6



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