



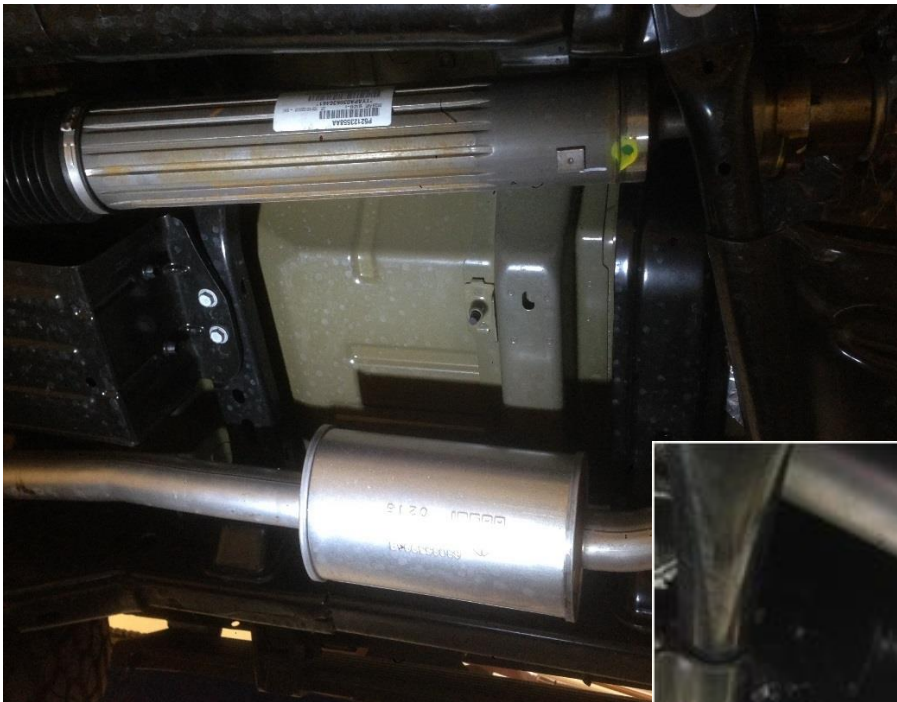
INSTALLATION AND USER MANUAL

P/N JK-OBA

**100% Bolt-On
On-Board Air system**

Thank you for purchasing a Kleinn Air Horns JK_OBA on board air system. Kleinn Train Horn Systems are the only 100% bolt-on train horn and onboard air systems for 2007-2016 Jeep JK 4-door on the market today.

The main compressor and tank bracket will mount approximately under the driver seat, it will be in the space just in front of the charcoal canister, and be positioned between the driveshaft and exhaust.



The JK-OBA will install in this location



Installed JK-OBA

JK-OBA Primary Components:

- Qty. 1** JK-OBA main System Bracket (1 main bracket, 1 skid plate)
- Qty. 1** JK-OBA main bracket cross member clamp
- Qty. 2** JK-OBA tank straps
- Qty. 1** P/N 6353RT 2.8 Gallon Air Tank
- Qty. 1** P/N 6450RC Compressor with Mounting Hardware and Remote Mount Air Intake Filter
- Qty. 1** P/N INF-1 Tire Inflation Kit: 25' Coil Hose with Quick Connect Couplers
(with ¼" NPT Male Coupler & ¼" NPT Female Stud)
- Qty. 1** Inflator gun
- Qty. 1** JK-OBA Wiring Harness kit with Relay
- Qty. 2** 12' ¼ split loom
- Qty. 1** 1 foot 3/8 split loom

Included Fittings:

- Qty. 1** P/N 52835 Drain Fitting
- Qty. 1** P/N 52175 Safety Valve
- Qty. 1** P/N 51414L compression fitting
- Qty. 1** P/N 2151 Pressure Switch
- Qty. 4** P/N 50040 Compression Fitting
- Qty. 1** P/N JUICE -1 Kleinn Air Horn Juice™ 2ml vial

Included Hardware:

- Qty. 2** 7/16 x 1 ¼ inch bolts
- Qty. 2** 7/16 flat washers
- Qty. 2** 7/16 split lock washers
- Qty. 8** 3/8 x 1 inch bolts
- Qty. 4** 3/8 hex nuts
- Qty.10** 3/8 flat washers
- Qty.10** 3/8 split lock washers
- Qty. 1** 10-24 x 1 inch bolt
- Qty. 1** 10-24 hex nut
- Qty. 1** 10-24 flat washer
- Qty. 4** 5/16 x 1 inch bolts
- Qty. 4** 5/16 star washers

The kit can be installed in 8 stages, with each stage containing multiple steps :

- Stage 1: mounting the quick connect coupler
- Stage 2: wiring prep
- Stage 3: component prepping (tank and compressor)
- Stage 4: bracket installation
- Stage 5: Relay wiring
- Stage 6: Component installation
- Stage 7: Final wiring
- Stage 8: system check

Mounting the quick connect coupler

Included in the kit is a bracket (KL1302) for mounting the quick connect coupler. The mounting point for this is open to the consumer. It should be mounted in a location that is accessible, but also tucked away enough so that nothing can hit or damage the coupler. The bracket provided can be used or the coupler can be mounted directly through a surface that is sturdy and of similar thickness (such as the bumper). Once the coupler is mounted, the airline should be connected and that airline routed to the area that the main bracket will mount for later connection.

Wiring prep

Open the hood and locate the battery on the passenger side, close to the firewall. Identify the positive battery terminal (or positive battery lug on fuse box). Cut the fuse loop in half to create 2 ends. One end will have a yellow ring terminal crimped on and the other will have a yellow butt connector that will be used to connect to the 10-gauge red wire. The ring terminal can be connected to the positive terminal. The wire can be covered using the supplied ¼ inch split loom. Once the wire is loomed, it can be run across the top of the firewall towards the driver side of the Jeep. This wire will be routed down the firewall, far to the driver side, and down the frame rail to the main bracket location. The fuse should be left out, until the final system check stage.



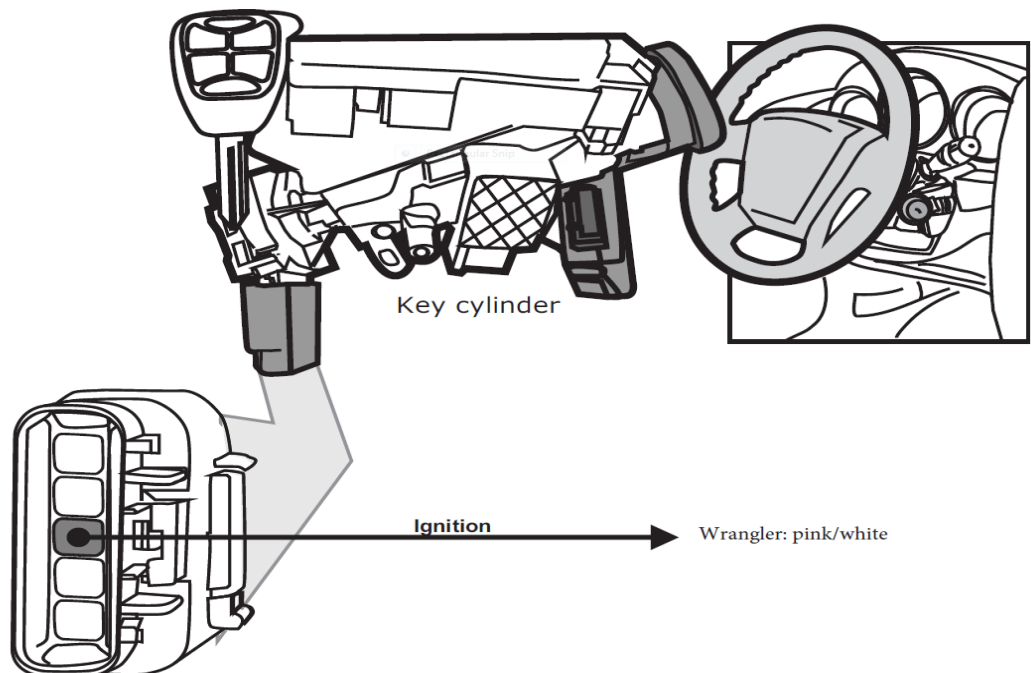
The loomed wires can be run down the driver side firewall, and down the frame rail.

With the red 10-gauge power wire run down the driver side firewall, run the yellow 18-gauge wire into the interior of the Jeep. This yellow wire will be the ignition source for the pressure switch and relay. There is a factory grommet on the floor board that can be used as the entry point to the interior.

Route the wire up the driver side kick panel and behind the knee bolster panel for connection to the ignition harness plug. Remove the center section of the knee bolster, below the steering column by carefully pulling first at the top to release the clips. Then pivot the panel out slightly and then pull gently upward to release it from the bottom clips. Once the wiring connections have been made, loom the wire as it exits the vehicle through the grommet.



The yellow wire can be connected to the ignition switch plug of the Jeep, using the supplied T-tap connector. Wiring info is provided for reference, please check using a multi-meter to verify wire polarity and function.



Route the loomed 10-gauge main power wire and the loomed yellow primary wire down the driver side frame rail

Just after the wires exit the wheel well area, there is a hole in the frame rail where the wires can enter and be run inside the frame to protect them. After running the wires through the frame they will exit the frame just below the rear door and will cross over the top of the frame to the main bracket housing location. Use the supplied cable ties to secure the wires as they are routed through the Jeep. The 3/8 loom can be used to "double up" the covering on the wires at points that they enter or exit the frame, or any point that friction could be an issue to the wire.

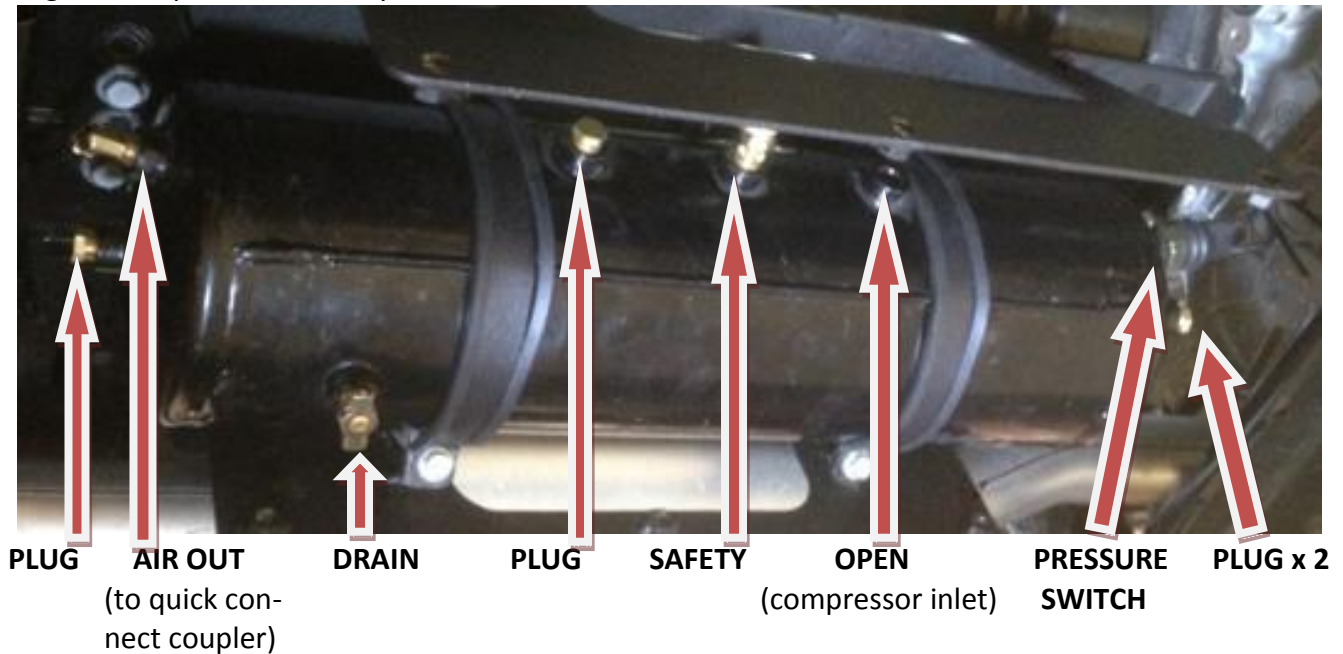


Wires as they exit the frame, just under rear door

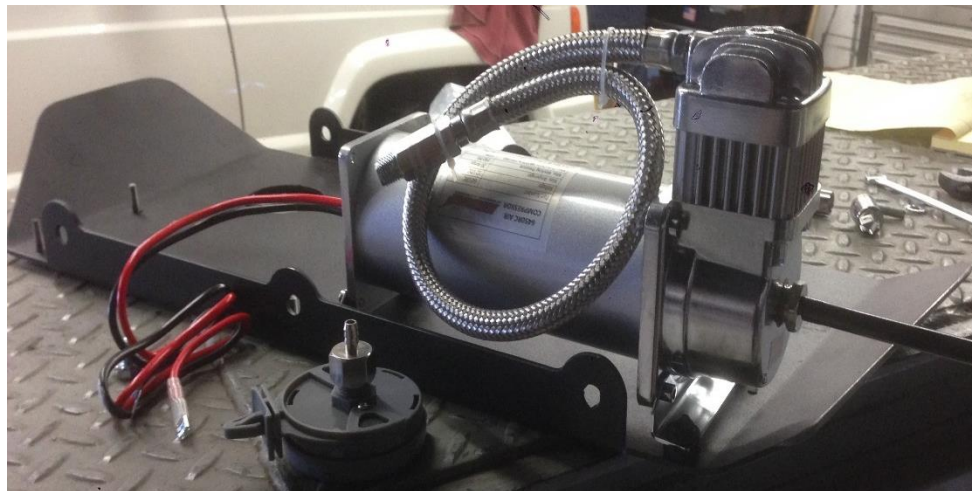
Component Prep

6353RT Tank:

The tank must be positioned so that in its final mounting place the drain port is located on the bottom, this port will also be oriented towards the rear of the kit when installed. Use the supplied Kleinn Air Horn Juice thread sealant to install the fittings, and later the leader hose into the tank. This tank will have three ports on the front endcap, and 2 on the rear endcap. There will be 3 ports on the body, that will be used for the safety (center port) and the compressor inlet (either outside body port). The fittings should all be installed before the tank is mounted. The pressure switch can be mounted on the endcap towards the front (one wire can be extended, and routed towards the relay), with a compression fitting for the airline on either endcap (depending on your quick connect coupler location). Additional ports will be plugged or can be used for other accessories. The drain will be the single offset port on the body.



The compressor can be mounted to the skid plate on either set of studs. The compressor must be positioned with the head either to the front or to the rear of the vehicle.



The body of the compressor must be oriented to the center of the skid plate, as it will sit just below the 3 side ports.



The compressor will use all the included hardware, except the bolts. The studs on the skid plate will replace the need for the bolts. The flat washers, lock washers and nuts can be used to secure the compressor.

Once the compressor is secured to the skid plate, you can install the remote air intake filter and airline. It will be routed after the compressor has been installed. Once these parts have been assembled, the skid plate can be set aside for later installation.



The 2 wire ends on the compressor will be used as they are. The black wire will use the ring terminal to connect to a paint free metal surface along with the relay ground. The red wire will be plugged into pin# 87 of the supplied relay.

Bracket Installation

The main bracket will be mounted using the charcoal canister bolts (2 x 9/16th) and 1 frame clamp, plus 2 through bolts that will bolt through separate factory cross members.

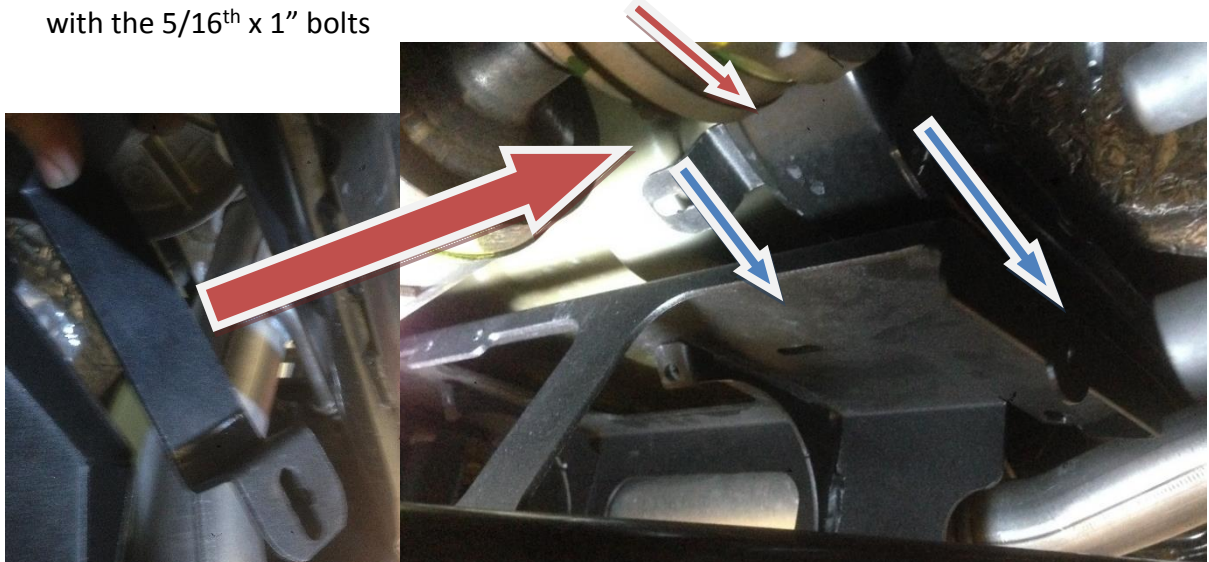
1. Remove the (2) 9/16th bolts from the charcoal canister and set aside for later re-installation



2. Position bracket by sliding the bracket under the factory charcoal canister housing bracket

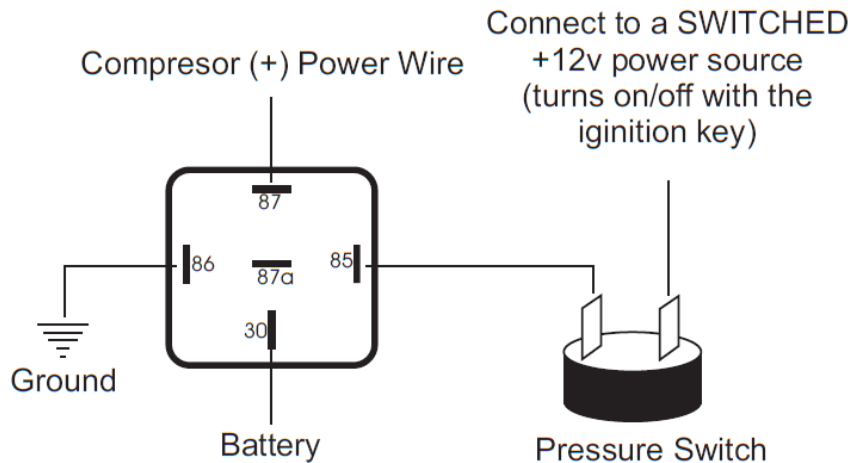


3. Re install the (2) 9/16th bolts though both the main bracket and the factory charcoal canister bracket.
4. With a flat washer on the 2"-5/16 bolt, run it upward through the bracket and the factory cross-member. Use a flat and lock washer on top, and secure with included bolt. Repeat for both front and rear cross-member mount.
5. The cross-member clamp bracket will bolt through the main bracket on the top and side. The bracket will be inserted over the factory cross-member and secured to the main bracket with the 5/16th x 1" bolts



With the bracket in position end fully tightened, the wires and airline can be run over the top of the Jeep frame and JK-OBA bracket and into the interior area of the bracket. The relay can be wired and mounted onto the bracket in either of the provisional holes. The loomed yellow wire coming from the ignition can be connected to the pressure switch (either wire). The remaining wire from the pressure switch will need to be extended and run towards the relay for connection. The relay will be wired as follows:

Pin #30 connect to the supplied 10-gauge red power wire, using one of the large Yellow female crimp connectors
Pin #85 connect the 18 gauge black, about 18 inches in length, and will then connect to go to a chassis ground, using the small blue ring terminal and self tapping screw. (This will be common with the compressor ground).
Pin #86 connect using the supplied Yellow wire coming from one of the legs on the Pressure switch. The wire from the relay to the pressure switch will be about 18 inches long. (The loomed yellow wire from the ignition plug is connected to the remaining wire of the pressure switch).
Pin # 87 connect to the compressor's Red power wire, the compressor wire will already have the correct connector to attach to the relay. (This will be finalized once the skid-plate/compressor is mounted to the bracket.)



Once these connections are made these wires can be covered using the supplied split loom. The relay can be mounted to the bracket as shown.

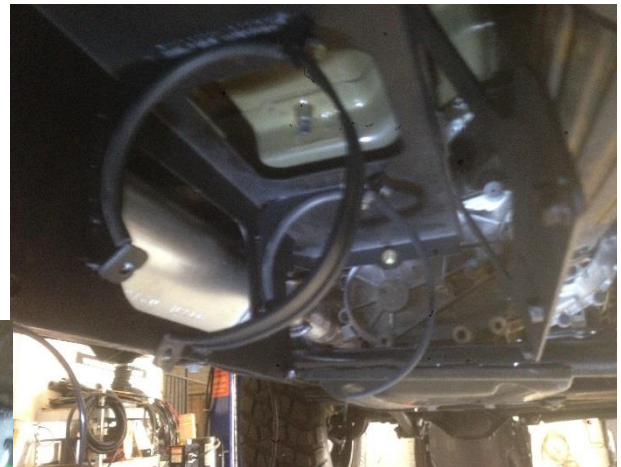


Component Installation

With the bracket firmly mounted and the wiring completed, the bracket and tanks straps can be prepped before mounting the tank. The round edge trim molding will be placed on the 2 semi-circle tank mounting cradles. Each piece is longer than needed, trim as necessary.

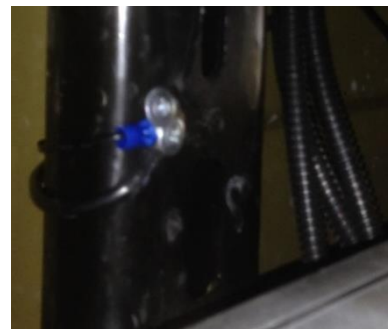


The tank straps will have square edge trim molding for each side of each strap. Each piece is longer than needed - trim as necessary. With the trimmed pieces on the bracket and straps, the straps can be bolted loosely to the top nuts. Each strap will use 2 bolts, with a star washer for each - one bolt at the top and one bolt at the bottom. The top of both straps can be tightened about $\frac{3}{4}$ of the length of the bolt. With both straps loosely bolted, the tank can be connected to the airline from the quick connect coupler. Once the air connection is made the tank can be positioned onto the bracket. Shift the straps away gently from each side to seat the tank. Space the 3 side ports equally between the straps with the ports oriented horizontally and facing the drive shaft - this will also correctly position the drain port facing down and to the rear.



With the compressor in place, the wiring and airline can be brought over the frame rail and into the interior of the JK-OBA main bracket. The pressure switch can be wired and connected to the relay. The wiring can be cleaned up and tied away,. The final connections will be the compressor to the relay, and then the ground connections for both the relay and compressor.

With the compressor mounted to the skid plate, the plate can be bolted to the main bracket using the (6) 3/8-1" bolts. Start all 6 before fully tightening. Once the plate is secured you can apply Juice thread sealant to the check valve. The leader hose will need to be tucked between the compressor and tank after installation. Place your hand into the opening and thread the check valve in by hand as tight as possible. Then use a wrench to turn the check valve only ¼ - ½ turn to seat fully. The wires for the compressor can each be loomed and the red 12v+ wire plugged into the relay. Run the ground wire out the hole in the top of the JK-OBA main bracket, along with the ground wire for the relay, and attach to a paint free metal surface. The air intake filter must be run to a clean and dry location.



A QUICK TEASER OF OPTIONAL ACCESSORIES:



Ensure that all bolts are tightened, and that all the wires are secured and away from any moving parts or extreme heat generating parts. The system can be tested by turning the key to the ignition position. The compressor will kick on and begin to fill the tank (make sure the drain is closed). The vehicle should be started to ensure proper voltage to the compressor as it fills. Once the tank is at its operating pressure, the pressure switch will automatically turn the compressor. The system can be checked for leaks and performance.



Compressor Operation

Always operate the compressor at or below its MAXIMUM PRESSURE RATING. Operation exceeding maximum pressure will damage the air compressor.

1. Your air compressor is equipped with an automatic thermal overload protection circuit, designed to protect the air compressor from overheating and causing permanent damage. The automatic thermal overload protector will automatically reset after about 30 minutes.
2. To prevent discharge of your vehicle's battery and for best performance, keep the vehicle's engine running while using the air compressor.

System Maintenance & Repairs

1. You should occasionally check electrical and fitting connections if the system runs continuously or turns on unexpectedly. You may have leaks or poor electrical connections.
2. Periodically drain moisture from the air tank using the drain cock installed at the bottom of the tank. Failure to do so will result in decreased tank life.
3. Periodically check all hardware and tighten as needed.
4. Clean and/or replace the air compressor air filter element periodically. Replacement frequency depends on the operating frequency and conditions of the operating environment.
5. Never lubricate or add any liquids to this oil-less air compressor.

KLEINN MANUFACTURER LIMITED DEFECT WARRANTY:

Kleinn Automotive Air Horns warrants this product to the end-user, when properly installed and under normal conditions of use, to be free from defects in workmanship and materials for a period of one year from the provided date of purchase, to the original purchaser of the product. This warranty does not cover abuse, operation in a manner inconsistent with the product's design, or damage resulting from exposure to the elements. If the defect is considered "under warranty", Kleinn will, at its option, repair or replace the product free of charge to the original purchaser. Kleinn is not liable for any installation charges, loss or damage of any kind incurred in the replacement or repair of any warranted product.



4045 N Highway Dr.
Tucson, AZ 85705
Phone: (520) 579-1531
Fax: (520) 579-1528
Email: info@kleinn.com