

INSTALLATION AND USER MANUAL

100% Bolt-On 150 PSI Train Horn System For 2011-2015 Ford F-250 & F-350 Super Duty

> P/N SDKIT-230 P/N SDKIT-234

Thank you for purchasing a Kleinn Air Horns Super Duty Train Horn System. Kleinn Train Horn Systems are the only 100% bolt-on train horn and onboard air systems for 2011-2015 Ford F-250/F-350 trucks on the market today.



Location of Air System Installed (Passenger Side)



730 Horns Shown

SDKIT 230/234 Primary Components:

- Qty. 1 SD Air System Bracket
- Qty. 1 SD Air Horn Bracket
- Qty. 1 SD Nut plate with handle
- Qty. 1 P/N 6350RT 3.0 Gallon Air Tank with Mounting Hardware
- Qty. 1 P/N 6350RC/6450RC Compressor with Mounting Hardware and Remote Mount Air Intake Filter
- Qty. 1 P/N 230 Air Horn with Solenoid Valve, Fittings and 1/4" Air Line
- **Qty. 1** P/N INF-1 Tire Inflation Kit: 30' Coil Hose with Quick Connect Couplers (with ¼" NPT Male Coupler & ¼" NPT Female Stud)
- **Qty. 1** SD Wiring Harness kit with Relay

Included Fittings:

- Qty. 1 P/N 52835 Drain Fitting
- Qty. 1 P/N 52175 Safety Valve
- Qty. 1 P/N 2145 Pressure Switch
- Qty. 1 P/N 51412 Compression Fitting
- **Qty. 1** P/N 50050 ½ inch plug
- Qty. 1 P/N 51414NPTL 90 degree fitting (used with Pressure Switch)
- Qty. 1 P/N JUICE -1 Kleinn Air Horn Juice™ 2ml vial
- Qty. 1 P/N 320 push button
- **Qty. 1** P/N 25014-1

Included Hardware:

- **Qty. 2** 7/16' x 1-1/4" inch bolts
- Qty. 2 7/16" flat washers
- Qty. 2 7/16" split lock washers
- Qty. 2 ½" x 1" inch bolts
- Qty. 2 1/2" hex nuts
- Qty. 4 1/2 "flat washers
- Qty. 2 ½" split lock washers
- **Qty. 2** 5/16" x 1" inch bolts
- **Qty. 2** 5/16" hex nuts
- Qty. 4 5/16" flat washers
- Qty.2 5/16" split lock washers

Tank Hardware- 4 each of the following: 5/16 nuts, washers, split lock washers

Preparing the relay:

The supplied relay should be pre-wired so that it can be installed onto the air system bracket using one of the bolts, for the rear leg of the compressor.

<u>Pin #30</u> will use the supplied 12 gauge red power wire, using one of the large Yellow female crimp connectors. <u>Pin #87</u> will be connected to the compressor's Red power wire, using one of the large Yellow female crimp connectors. (This will be finalized once the compressor and the relay are mounted to the bracket.)

<u>Pin #85</u> will use the 18 gauge black, about 12-18 inches in length, and will connect to go to a chassis ground, using the small blue ring terminal and self tapping screw. (This can be common with the compressor ground).

<u>Pin #86</u> will use 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 and can be trimmed and the flag connector crimped on when the tank and pressure switch are in place. The remaining yellow wire is connected to the remaining leg of the pressure switch, and will then run to the inside of the vehicle to be connected to a fused, 12v switched power source.

Once these connections are made the wires can be covered using the supplied split loom.

SD™ 230 Horn Bracket Prep

The SD horn bracket can be installed onto the horn, and the horn prepped, before bolting the assembly to the vehicle; as well the solenoid can be wired. This is the best time to have the air line installed onto the solenoid. Pre-Installing these parts will allow for the easiest mounting into the vehicle.

- 1. The solenoid can be wired, sing the supplied connectors. For the solenoid wiring, one wire will go to ground and the other will be run to the button for activation. It does not matter which wire is positive or negative.
- 2. The airline can be installed onto the compression fitting that is coming out of the solenoid.
- 3. Attach the SD horn bracket to the horn bar; the bracket will be positioned over the smallest trumpet.

SD™ Horn Bracket Install

- 1. Loosen the spare tire, just slightly, to allow for easier positioning of the horn and bracket.
- 2. The horn bracket can be installed onto the vehicle using the supplied hardware. The retaining clip holding the factory loomed wire will need to be removed and this hole will be used for the horn bracket. The two holes will be the top of the bracket and align and will be secured with $5/16^{th}$ bolts. The horn bracket will have a new hole for this retaining clip to be installed once the bracket is in place. The larger hole at the bottom of the bracket will be secured with a $\frac{1}{2}$ inch bolt.



- 3. The black ground wire from the solenoid can be trimmed to length, and the small blue ring terminal crimped on, it can then be attached to a paint free surface, with the supplied self tapping screw.
- 4. The purple wire will be the positive trigger wire for the solenoid and will be run to the interior of the vehicle. This wires can be paired with the air line can be routed down the passenger side frame rail and to the area that the air system bracket will be mounted.
- 5. The air line will be trimmed to the back port with the ½ inch compression fitting. The purple wire will run past the bracket and into the interior of the vehicle and connect to the button.

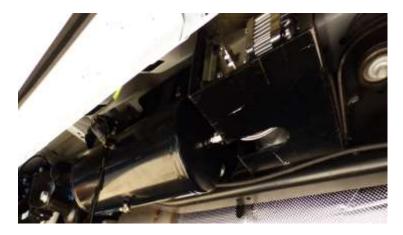
SD™ Air System Bracket and Compressor Installation:

The Air System Bracket is used to mount the air tank and air compressor to the outside passenger side frame rail of your 2011-2015 Ford F-250/F-350 Diesel truck.

To prepare the bracket:

1. Attach the compressor to the Air System Bracket, using the hardware supplied in the compressor box. The compressor should be mounted to the bracket with the cylinder head facing towards the outside of the vehicle. One of the rear leg compressor bolts should be installed with the relay tab secured using the bolt. The wires for the compressor can be connected to the relay (Red wire to pin # 87) and the ground wire paired with the ground wire for the relay. Once the bracket is in place, the relay and compressor ground wires can both be connected to a paint free metal surface.





2. Once the compressor and relay are mounted, secure the Air System Bracket to the outside of the frame rail underneath the passenger side of the cab, with the compressor towards the front of the truck. The bolt to the rear of the bracket can be installed loosely, while the

- bracket is positioned and the 2 bolts are secured to the nut plate, as it is held inside of the frame. It is highly recommended that a 2nd person assist in the positioning of the bracket to start the bolt to the nut plate. Once aligned all 3 mounting points can be fully tightened.
- 3. The wires for the horn activation (purple) and the ignition wire for the pressure switch (yellow) can be run into the interior of the vehicle, the purple will connect to the button, for activation, and the yellow to a fused 12 volt ignition source.

SD-2 30 AIR TANK PLUMBING:

Before mounting the air tank, pre-install the fittings EXACTLY as in the description below.

- Apply Kleinn Air Horn Juice™ sealant to the threads of fittings.
 Tighten one-half turn past snug with a wrench.
- Never over-tighten fittings. Brass threads can be stripped or broken in steel ports.

The ends of the tank each have a ½ inch bung, in the rear of the tank, it will have the air line out to the horn, and the front will have a plug. The ¼ NPT bungs at the rear of the tank will be for the quick connect coupler, and the ¼ NPT at the front end of the tank will be the inlet for the compressor. The bung between the mounting feet will have the safety valve (which will protrude slightly through the hole in the bracket). The bung opposite the mounting feet will be the bottom once mounted to the bracket, and will have the drain fitting installed. The remaining port on the side will use the 90 degree adaptor and accept the pressure switch.

- 1. After all fittings have been installed, position the tank on the bracket studs and use the supplied 5/16" washers, lock washer, and nuts to secure the air tank to the bracket.
- 2. Connect the leader hose with check valve from the compressor to the port on the front of the air tank. The leader hose will fit through the gap in the bracket and connect to the ¼ NPT port on the end of the tank. Apply Kleinn Air Horn Juice™ to the threads, gently tighten until its snug, and then give an additional ¼ turn. DO NOT OVER-TIGHTEN THE CHECK VALVE.
- 3. Press one blue flag connector from the wiring harness onto each post of your pressure switch. With the connections made, slide the pressure switch rubber boot over pressure switch terminal end to seal the pressure switch.
- 4. Using the hardware and fittings supplied in the compressor box, attach the remote air intake line to the front of the compressor. Route the intake air line AND the red power wire from the wiring harness together up over the wheel well into the engine compartment. A good location for mounting the remote air intake filter is on the passenger side firewall close to the hood hinge. The red power wire should continue to run along and over the fender well towards the battery for connection later.

Wiring

- 1. Your system comes with an easy-to-install wiring harness, designed to be installed behind the compressor with wires running forward and with the long purple wire running towards the rear of the vehicle. Do not cut wires to length until you are 100% sure of the length required for connections.
- 2. Locate the red power wire that was previously run to the battery area. Install supplied fuse holder on the end of this power wire by cutting the loop in the fuse holder and connecting a Ring terminal to one end. The ring terminal will be connected to the positive terminal of the battery. Install the 30-amp fuse provided after all other electrical connections are made.
- 3. Route the yellow and purple paired wires from the wiring harness through the grommet in the cab floor.
- 4. Connect the yellow wire to a 12-volt, switched (turns on/off with key) power source.

- 5. Find a suitable location for the pushbutton and drill a 3/4" hole. Run the purple wire from behind and through the hole along with the supplied section of 18 gauge red wire. Slide the pushbutton retaining nut over both wires, then connect the purple to one terminal of the pushbutton and the red to the other terminal. Install the pushbutton into the hole and tighten the nut.
- 6. Route the 18 gauge red wire to a fused power source and connect.
- 7. Insert the 30-amp fuse into the fuse holder at the battery, start engine and test the compressor system by running the compressor to build up pressure in the air tank.
- **8.** Once air pressure reaches the 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 sprayed directly onto fittings. If a leak is found: remove, re-seal and reinstall fittings as needed.

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.



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