



INSTALLATION AND USER MANUAL

VELOCI-RAPTOR™ VELO-230

100% Bolt-On

150 PSI Train Horn System

P/N VELO-230

Thank you for purchasing a Kleinn Air Horns Veloci-Raptor™ Train Horn System. Veloci-Raptor™ Train Horn Systems are the only 100% bolt-on train horn and onboard air systems for 2009-2014 Ford F-150 and SVT Raptor trucks on the market today. Please check the contents of your system to ensure that you have received all components needed for installation.



Location of Air System (Passenger Side)



Location of Air Horns (Under Bed Floor – Model 730 shown)

VELOCI-RAPTOR™ 230 Primary Components:

Qty. 1 Veloci-Raptor™ Air System Bracket

Qty. 1 Veloci-Raptor™ Air Horn Bracket

Qty. 1 P/N 6351RT 3.0 Gallon Air Tank with Mounting Hardware

Qty. 1 P/N 6350RC or P/N 6354RC 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 1/4" NPT Male Coupler & 1/4" NPT Female Stud)

Qty. 1 6850 wiring kit with relay

Qty. 1 10 gauge fuse holder

Qty. 1 30 Amp fuse

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 51414 Compression Fitting

Qty. 1 P/N 53814 Reducer

Qty. 1 P/N 25014-1 Air Line

Qty. 1 P/N JUICE -1 Kleinn Air Horn Juice™ 2ml vial

Qty. 1 P/N 320 push button

Included Hardware:

Qty. 3 3/4" x 5" bolts

Qty. 6 3/4" washers

Qty. 3 3/4" locking washers

Qty. 3 3/4" nuts

Qty. 1 Extruded U-Nut

Qty. 1 10mm bolt

Qty. 4 5/16" nylon-lined hex nuts (packed in air tank box)

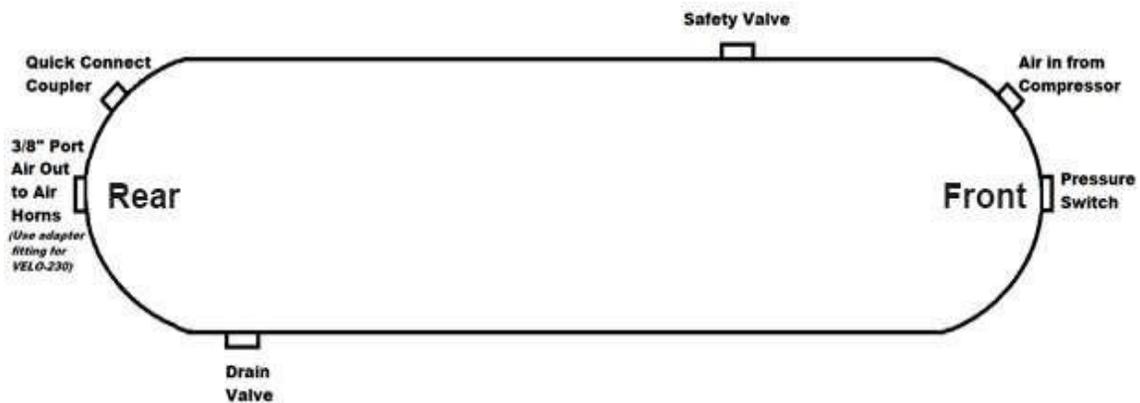
Qty. 4 5/16" washers (packed in air tank box)

Veloci-Raptor™ 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 2009-2014 Ford F-150 & SVT Raptor truck. To prepare the bracket:

1. Attach the compressor to the Air System Bracket. The compressor should be mounted with the cylinder head facing towards the front of the vehicle. Use the hardware supplied in the compressor box. The bolts should be installed with the heads coming up through the bottom of the bracket so that excess thread is above the bracket.
 2. \Once the compressor is 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 three large holes in the bracket will align with existing holes in the frame. Once the bracket is properly positioned, use the three black 3/4" bolts to secure it. Your hardware packet includes washers for both the nut side and the bolt side, as well as a lock washer for the nut side.
 3. 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.
 4. Before mounting the air tank, pre-install the fittings EXACTLY as shown in the diagram below. Note that the end of the tank that has the larger 3/8" port should be towards the rear of the truck.
- 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.

VELO-230 AIR TANK PLUMBING:



1. After all fittings have been installed, position the tank on the bracket studs and use the supplied 5/16" washers and nylon-lined nuts to secure the air tank to the bracket. (See image C)
2. Attach the 1/4" air line to the compression fitting at the rear of the tank, then route the 1/4" air line AND the purple wire from the wiring harness over the top of the frame rail and towards the rear center of the truck bed for use later in the installation. Be sure to route the air line clear of any moving parts and the exhaust.
3. Connect the leader hose with check valve from the compressor to the port on the front of the air tank shown in the diagram above. Apply Kleinn Air Horn Juice™ to the threads, gently tighten until its snug, and then give an additional 1/4 turn. DO NOT OVER-TIGHTEN THE CHECK VALVE.

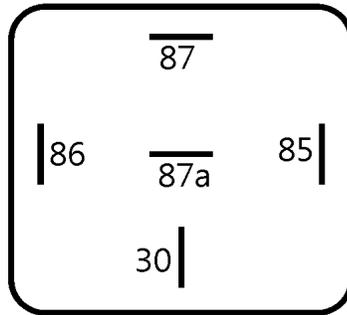
Pin 30 – connect to the 10-gauge red wire attaches to the positive battery post (with inline fuse holder)

Pin 85 – connect to one side of the pressure switch (it does not matter which wire) *

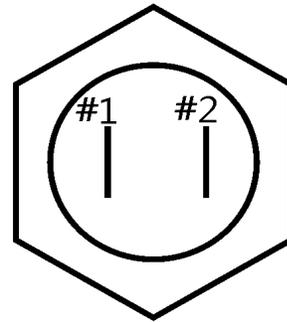
Pin 86 – to ground

Pin 87 – connect to red 12v+ compressor wire

Relay



Pressure Switch



Legend:

Relay #87.....	Compressor +12v power wire
Relay #86.....	Ground
Relay #30.....	Battery (fused)
Relay #85.....	Pressure switch Post #1
Relay #87a.....	Not used
Pressure Switch Post #2.....	Switched (on/off with key) +12v

The remaining wire from the pressure switch will be connected to a 12v+switched ignition source inside the vehicle. Use the Yellow wire to extend this wire inside the cab and connect to a switched 12v+ wire.

1. Disconnect ground cable from vehicle's battery.
2. Ground the compressor black wire.
3. Your wiring kit includes red, yellow, purple and black wires that will need to be run the length of the vehicle.
4. Run the red 10 Gauge wire from the battery area to the passenger side frame rail, where the compressor will be mounted on the bracket. (*this will be connected to the relay pin #30*)
5. Run the yellow wire from the tank (passenger side), To the interior of the vehicle for a later connection to a fused 12v+ ignition source.
6. Run the yellow wire to the relay, connect to pin# 85
7. Run the black and purple wires to the back from the area of the ignition switch harness (under the steering column). The black wire will terminate at the air horns, the purple wire will run all the way back to the compressor/tank.

Be sure to keep your wiring away from heat sources such as the exhaust!



Image C - Air Tank Location on Frame

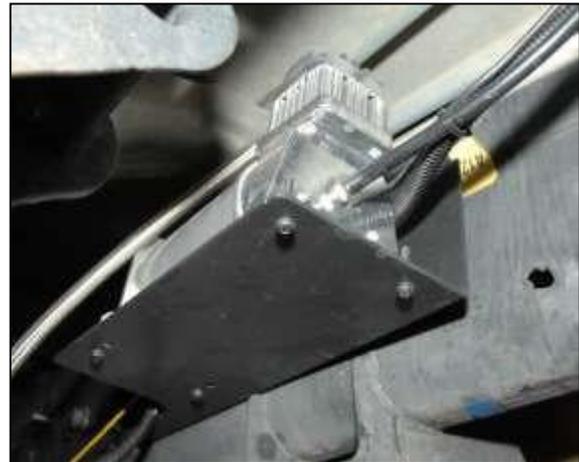
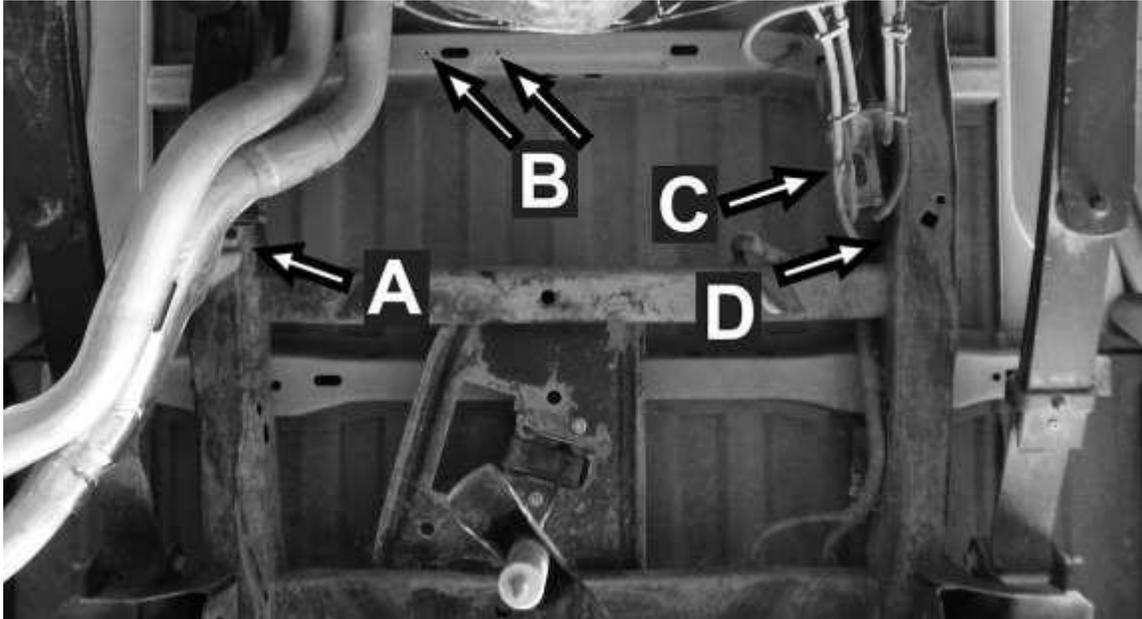


Image D - Compressor Location on Bracket with remote intake air line installed

The Air Horn Mounting Bracket: Installed under the bed of the truck.



- A. Passenger side Air Horn Mounting Bracket attachment point (shared with exhaust hanger bolt)*
- B. Air Horn Support mounting points (VELO 730 only)*
- C. Brake line bracket*
- D. Factory frame holes for U-Nut installation*

1. Temporarily remove the spare tire for access to the underside of the bed floor. The spare tire will be put back into place after the horn installation.
2. Remove the two 13mm bolts for the heat shield between the spare tire and the exhaust and set aside for reinstallation. Remove the two 10mm bolts for the rear exhaust hanger and slide the rubber mount off of the hanger. Set the hanger aside for reinstallation. *(See Image E)*
3. Remove the 10mm bolt holding the brake line bracket on the inside of the driver's side of the frame rail so it can be maneuvered out of the way while installing the air horn bracket *(See Image F)*. There is a wiring harness running along the frame by the brake line bracket. Separate the harness retaining clip from the frame – it will be re-installed into the Air Horn Mounting Bracket. *(See Image G)*
4. Insert the U-nut provided with the kit into the existing frame hole that is behind and slightly to the rear of the brake line bracket, directly across from the inner frame exhaust hanger bolt referenced in step #2 above. Slide the nut into the square opening and position it so that the thread is in the adjacent round opening. *(See Image H)*



Image E – Exhaust Hanger



Image F – Brake Line Bracket



Image G – Separate wiring harness from frame



Image H – Install U-Nut here

5. Maneuver the bracket into position by first carefully shifting around the exhaust hanger and then the brake lines. This is a tight fit, and careful maneuvering is needed to avoid damaging or scratching things. Make sure the factory wiring harness shown in Image G is below the bracket. The driver's side stabilizing tab must be inserted into the frame opening before you maneuver the passenger side into place. For best results, the passenger side of the bracket should be slip upwards from the bottom of the frame rail after the driver's side is in place. Use a large screwdriver to pry the bracket upward into position. When the bracket is in the correct position, the stabilizing tabs will lock into place. Go to <http://www.kleinn.com/videos.htm> to see the bracket being installed.
6. Bolt the 230 horn to the underside of the Horn Mounting Bracket with the bolts facing upwards, nuts and washers on top of bracket. Note that the backs of the trumpets should be facing the lip on the rear edge of the top of the Horn Mounting Bracket. (See Image I)



Image I – Horn Mounting Bracket Orientation



Image J– Horn Mounting Bracket stabilizing tab

7. Tighten the supplied 10mm bolt through the Air Horn Mounting Bracket on the driver's side into the extruded U-nut.
8. On the passenger side, re-position the exhaust hanger so that its mounting hole is aligned over the hole on the Air Horn Mounting Bracket. Re-use the original inner frame bolt that held the exhaust hanger to now

secure both the exhaust hanger and the bracket. Re-install the remaining exhaust hanger bolt in its original location and tighten.

9. Re-attach the brake line bracket in the original location, using the original bolt.
10. Re-attach the factory harness on the driver's side by inserting the original fastener into the hole on the side of the Air Horn Mounting Bracket.
11. Route the air line to the compression fitting on the inlet of the solenoid valve – making sure that it is not near the exhaust or any moving parts. Attach the air line to the compression fitting on the solenoid.
12. Use zip ties to secure the loom holding the purple wire to the air line from where it exits the air tank, all the way back to the air horn.

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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