

# Model VELO15-230 Bolt-on Air Horn & Compressor Kit for 2015-2019 F-150 Does not fit F-150 Raptor

\*NOTE: SuperCrew 6.5' bed installation requires one hole drilled in frame.

# **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** 

# □ Model VELO15-230

#### **Components:**

- 1 1.5 gallon, 5-port air tank
- 1 Model 6350RC compressor
- 1 Model 230 train horn
- 1 Installation wiring & connector kit
- 1 Compressor installation hardware (Package #1 inside compressor box)
- 1 VELO mounting hardware (Package #2)
- 1 Compressor & Tank Mounting Bracket
- 1 Horn Mounting Bracket
- 2 Horn Support Brackets
- 1 12' length air tubing

#### **PARTS PACKAGES**

Package #1 - Compressor Installation Hardware

Qty 4 13/64" Nuts, bolts, washers & locking washers (Compressor mounting hardware)







Qty 1 Remote Mount Air Filter Assembly



Qty 1 Remote mount air filter fitting for air filter connection



Qty 1 Replacement air filters



Qty 1 Leader Hose Bracket Clip



Qty 1 Air line for remote mounting air filter



#### Package #2 – VELO Kit bracket and tank hardware

Qty 1 5" bolts

Qty 6 Nyloc nuts

Qty 3 Rear mount plates

Qty 4 Nuts, bolts, and washers – (Air tank mounting hardware)

Image Is Representative Only

# <u>Compressor/Tank – General Information</u>

CAUTION - To reduce risk of electrical shock or electrocution:

- Do not disassemble the compressor. Do not attempt repairs or modifications. Refer to qualified service agencies for all service and repairs.
- Do not use this product in an area where it can fall or be pulled into water or liquids.
- Do not reach for this product if it has fallen into liquid.
- Use this compressor with 12-volt DC systems only.
- This product should never be left unattended during use.

#### **IMPORTANT:**

- Tank is rated for 150 PSI maximum working pressure.
- Tank is not to be used as a breathing device.
- Bleed pressure from tank before servicing or adding attachments.
- Use only attachments or tools rated for 150 PSI working pressure or less.
- Apply sealant or Teflon tape to threads of fittings prior to assembly and tighten each part with a wrench.
- Do not over tighten, since brass threads can be stripped.
- Always release air from tank before servicing.
- To remove accumulated condensation inside the tank, disconnect power from the compressor and release the pressurized air by sounding the horns. Drain any moisture by opening the drain valve at the bottom of the tank. Once the water is drained, retighten.

#### **CAUTION:**

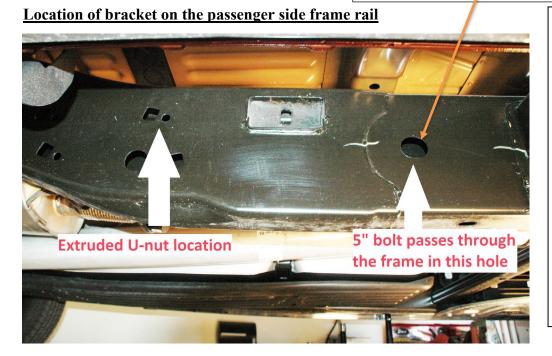
DO NOT PRESSURIZE YOUR TANK UNTIL YOU HAVE INSTALLED ALL NECESSARY PORT FITTINGS AND ACCESSORIES.

FAILURE TO DRAIN TANK AND REMOVE CONDENSATION WILL CAUSE TANK TO RUST PREMATURELY.RUSTED TANKS CAN FAIL CAUSING EXPLOSIONS OR FATAL INJURIES. DISCARD TANK IMMEDIATELY IF IT IS RUSTED.

# **Compressor/Tank Bracket Installation**

Included in your kit is a vehicle-specific mounting bracket for the compressor and air tank. The bracket wraps around the passenger side frame rail, and will be attached using supplied hardware. There are 3 mounting locations. The bracket will have a 10mm bolt on the outside of the frame, which will use the included U-nut. A 5.5 inch bolt that passes through the frame, securing the bracket from both sides, and one ½" bolt that attaches the bracket through a factory cross member. For SuperCrew models with a 6.5' bed, the hole on the outside of the frame for the 5" bolt does not line up.

Drill this hole for SuperCrew models with a 6.5' bed. (Directions below)



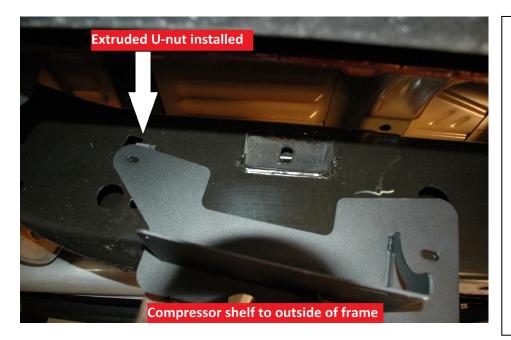
The compressor and tank bracket will be mounted with the compressor shelf to the outside of the frame. The tank studs on the main bracket will be on the inside of the frame rail. The bracket mounts in 3 locations.

# Installing the U-nut onto the frame



The Extruded U-nut will be installed by sliding it through the square hole, so that the threaded nut will be positioned behind the circular opening.

# **Installing the bracket onto the frame rail**



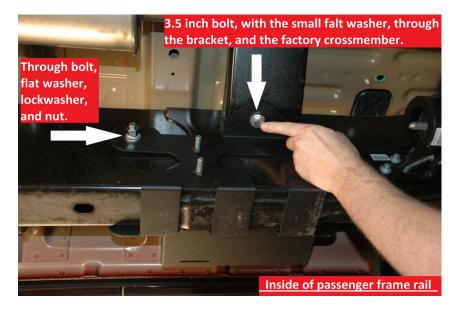
After the U-nut has been installed the bracket can be positioned. Use the supplied black 10mm bolt to secure the rear of the bracket, do not fully tighten until the bracket is in its final position.

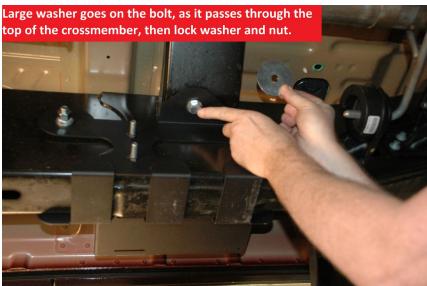
For SuperCrew models with a 6.5' bed, temporarily insert this bolt through the other side of the bracket to hold in place.



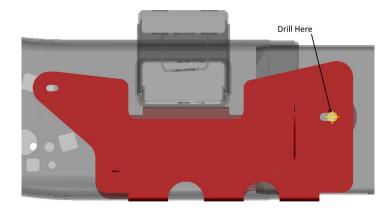
The 5.5 inch bolt will have a flat washer for each side. Lift the bracket so that the bolt. with one flat washer, can pass through the frame, use the supplied flat washer, lock washer, and bolt on the inside of the frame rail.

For SuperCrew models with a 6.5' bed, attach the bracket to the crossmember and temporarily insert the 5" bolt through this side of the bracket to hold in place.





For SuperCrew models with a 6.5' bed, drill 1/2" hole through the outside wall of the frame, as close to the front of the slot as possible. Then, install 5.5" bolt as shown above.

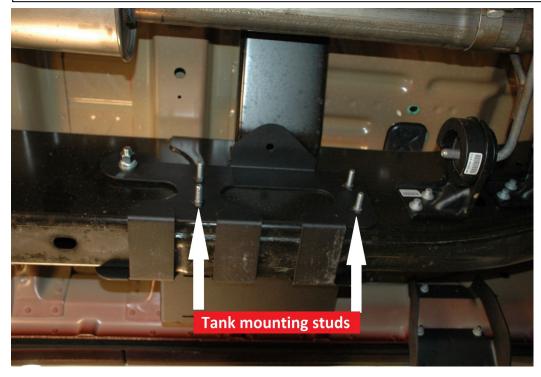




Once the bracket is securely in its final mounting position, the compressor can be mounted to the shelf. The compressor should be mounted as shown. facing forward, this will allow for easy routing of the stainless steel braided leader hose over the frame, and ultimately plumbed into the tank. The ground for the compressor can be attached to a paint free metal surface of the vehicle, and the red 12v+ wire can be wired to the relay (pin 87)

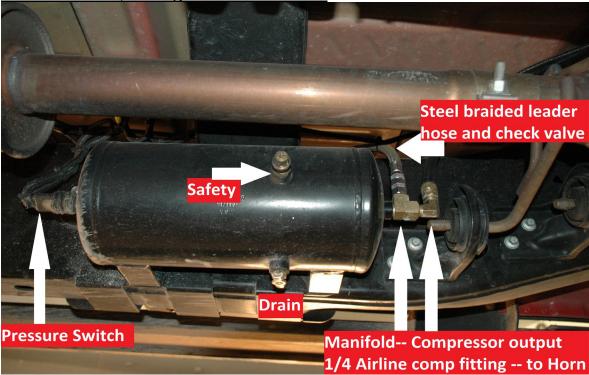
#### **Tank preparation**

The tank can be prepped, as in all the fittings and airlines installed, prior to mounting it to the bracket. The picture below will show the locations of the fittings on the tank, in relation to the bracket. The fittings fit best in this configuration. Use the supplied Juice thread sealant to install the fittings as shown. The manifold will have an open port, that will later have the steel braided leader hose output inserted. The 90° compression fitting should be installed on the end of the manifold fitting, facing upward will allow for the easiest routing back to the horn. Once a location has been decided for the quick disconnect coupler, the 2<sup>nd</sup> 90° compression fitting can be installed into the bung between the compressor legs, it should be tightened as to have the fitting point towards the mounting location for easiest airline routing.



Before installing the tank onto the bracket, secure the airline to the compression fitting. Once the fittings are installed the tank can be mounted to the bracket. The tank will be secured to the bracket studs, with a flat washer, lock washer, and nut for each of the 4 studs.

Tank mounted, Fittings location on tank.



The quick disconnect coupler can be mounted anywhere you choose. This location is under the hood, just behind and beside the passenger headlight

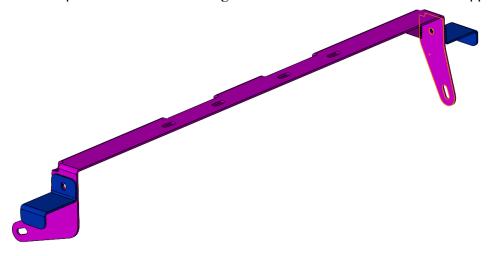


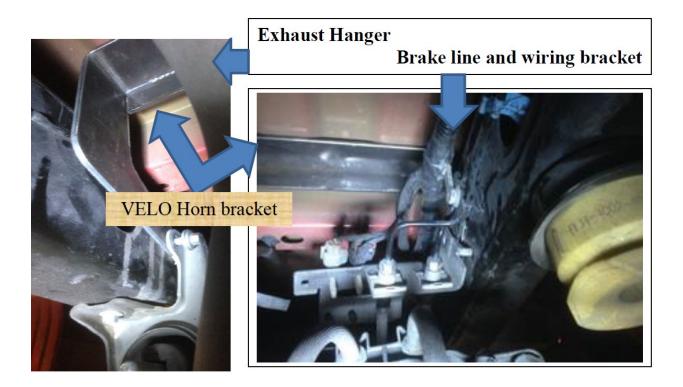
The airline to feed the quick connect coupler, will be installed on the port between the mounting legs, it should be positioned to have the airline running in the direction of the location you will mount the quick connect coupler. Install the airline, and tighten the compression fitting, before mounting the tank to the bracket. The coupler can be mounted using the supplied bracket, or custom mounted, such as through the bumper.

#### **Horn and Horn Bracket Installation:**

The horn bracket should be prepped before installing it onto the vehicle. The horn bracket will be mounted just in front of the spare tire, under the truck bed. It will attach to the inside of the frame rail on both sides. It will use factory mounting hardware. The passenger side mount will be common with the exhaust hanger (easiest if both bolts are removed, the horn bracket shares the inner bolt), and the driver side will be common with the brake line and wiring bracket. All of these referenced bolts are 10mm. Once removed set aside for later re-installation.

The horn support brackets (in blue) may be installed at this point or after the horn bracket (pink) is in its final position. The below image shows the orientation of the horn support bracket.







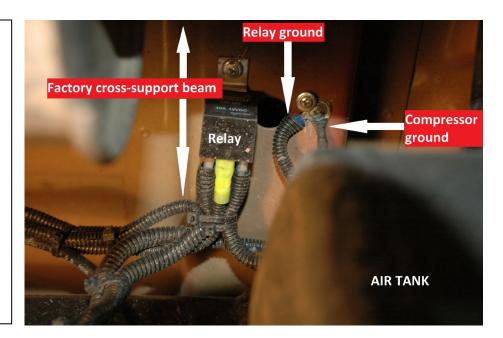
https://www.youtube.com/watch?v=Jq\_RO6oQXi8

The 230 horn can be mounted to the bracket; it will have the horns face away from the bend across the back of the bracket. The horns will be "hanging" from the bracket once installed. With the horns securely mounted to the VELO horn bracket, unscrew all 3 trumpets from the bases (they are tight, but will unscrew) Once the horn is attached to the bracket, it can be maneuvered and fit to the truck.

The horn bracket will be fed through from the driver side, up over the rear differential diagonally, it will need to go over the top of the exhaust, and then rest as far down as possible, to allow the other side to be lifted and turned into position. The driver side will be turned and positioned to have the bracket rest behind the brake line and wiring bracket. Once in the general position the passenger side can be raised and aligned with the hole for the exhaust hanger. The 10mm bolts can be started in each of the 3 holes, then fully tightened, having the horn bracket adjusted to sit in its final mounting positon. The solenoid can be wired to the purple wire, and also grounded to a paint free meatal surface. The airline can be attached to the compression fitting on the side of the solenoid. Once the wiring and airline installation have been completed, the trumpets can be re attached to the horn base. Make sure to fully tighten the horns when reinstalling.



Once the compressor is mounted the system can be partially wired. The relay for the pressure switch and compressor can be wired and mounted to a factory cross support, that is located directly above where the tank will mount.



Use the relay included in your wiring package to connect the pressure switch and compressor.

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) \*

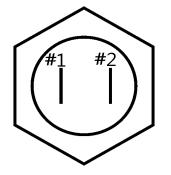
Pin 86 – to ground

**Pin 87** – connect to red 12v+ compressor wire

# Relay

# 87 86 85 30

# **Pressure Switch**



#### <u>Legend:</u>

Relay #87	. Compressor +12v power wire
Relay #86	. Ground
Relay #30	
Relay #85	
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.

#### **Pre-wiring**

- 1. Disconnect ground cable from vehicle's battery.
- 2. Ground the compressor black wire. The nut that secures the emergency brake cable support just forward and above the rear differential is a good grounding point.
- 3. Your wiring kit includes red, yellow, purple and black wires that will need to be run the length of the vehicle. Run the red and yellow wires from the battery area (passenger side), across the engine compartment, and back to the compressor/tank.
- 4. 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!

# **COMPRESSOR OPERATING INSTRUCTIONS**

**IMPORTANT:** The compressor has a maximum working pressure of 150 PSI and is capable of 100% duty cycle. It is designed for use with air horns, air bags and other accessories that utilize the compressed air stored in the tank. Always operate the compressor at or below the MAXIMUM PRESSURE RATING of the compressor. Operation exceeding maximum pressure ratings and or duty cycle will result in damage to air compressor.

- 1. Your 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 off power to your air compressor should the internal operating temperature of the air compressor rise above safe levels during excessive use.
- 2. Should your air compressor automatically shut off while in use; do not attempt to restart the 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 level. 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.
- 3. To prevent discharge of your vehicle's battery and to provide peak performance, we strongly recommend that you keep the vehicle's engine running while using the air compressor.
- 4. ONLY OPERATE THE AIR COMPRESSOR IN WELL-VENTILATED AREAS.

#### Compressor Maintenance & Repairs

- 1. Periodically check all electrical and fitting 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, you should replace air filter element more often.
- 4. Regularly clean dust and dirt from compressor.
- 5. Your air compressor is equipped with permanently lubricated, maintenance free motor. Never lubricate compressor.
- 6. 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. Leader hose and fittings will become very HOT during and after use.

### □ Kleinn Model VELO15-230

#### **LIMITED WARRANTY**

Kleinn Automotive Air Horns warrants this product, 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 provided date of purchase. To receive a replacement or for repairs, return the complete unit to retailer from whom it was purchased along with proof of purchase.

Returns should be made within the time period and conditions of the retailer's policy for exchanges. If you are unable to contact your dealer, contact Kleinn directly for repairs or replacement at our option.



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