



# 2018+ Jeep Wrangler JL/JLU & Gladiator JT ARB Twin Compressor Underseat Mounting Bracket Kit Part Number 10163

How to install the 10163 ARB twin compressor underseat bracket on a Jeep Wrangler JL/JLU or Gladiator JT.

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## INTRODUCTION

This guide will walk through the correct installation procedure for the Grimm OffRoad Jeep Wrangler JL/JLU & Gladiator JT ARB Twin Compressor Underseat Mounting Bracket Kit. When the ARB Twin Compressor is in use, it is always recommended to leave the engine running.

## Consumer Warning

All Grimm OffRoad products must be installed by a competent and qualified individual in accordance with the installation instructions intended for the product. Incorrectly installed products will void any warranties and may result in damage to the product or damage to the vehicle it was installed on. Read any provided instructions or guides and watch any available videos before attempting installation. If there are any questions, please contact Grimm OffRoad before starting installation.

Many products require the vehicle be properly raised and supported off the ground. The installer is responsible for confirming that this may be done in a safe manner and the correct equipment is available to perform the installation. Grimm OffRoad installation instructions assume the installer is able to properly and safely lift the vehicle.

Vehicles that have been modified will not perform the same as a stock vehicle. It is incumbent upon the owner of the vehicle to be aware of the differences the modifications will make to the driving characteristics of the vehicle. These may include (but are not limited to): changes in handling, braking, rollover angle, incompatibilities with the factory anti-lock braking systems, stability control systems, or traction control systems.

## Supporting Parts

This Grimm OffRoad product is designed to be used in conjunction with an ARB Twin Compressor (Specifically the CKMTA12 ). It is important to review and familiarize yourself with the instructions provided with the compressor before beginning installation.

We recommend also pairing with ARB's 171302 Pump Up Kit which includes the required air hose coupling and fill up hose. Alternatively, ARB's 0740112 air hose coupling or similar can be used.



## TOOLS:

- 4mm Hex Bit (1)
- 8mm Nutdriver bit (1)
- 8MM Socket/Wrench (1)
- 10mm Socket/Wrench (1)
- 12mm Socket/Wrench (1)
- 10mm Open End Wrench (1)
- 9/16" Open End Wrench (1)
- 15/16" Open End Wrench (1)
- 1" Open End Wrench (1)
- E12 TORX Socket (1)
- Torque Wrench (1)
- Diagonal Cutters (1)
- Box Cutter (1)
- Pipe Thread Sealant or Teflon Tape (1)
- Wire Crimper (1)
- Drill (1)
- 3/16" Drill Bit (1)
- Tape Measure (1)



## PARTS:

- Compressor Main Mounting Bracket (1)
- Left Side Mounting Bracket (1)
- Right Side Mounting Bracket (1)
- Switch and Bulkhead Mounting Bracket Assembly (1)
- JIC4 Fitting (90 degree) (1)
- JIC4 Fitting (Straight) (1)
- Control Harness (1)
- High Pressure Stainless Steel Air Line (1)
- M6x1.0 20mm Carriage Bolt (8)
- 1/4" Flat Washer (8)
- M6x1.0 Nylock Nut (8)
- M5.5 Steel Hex Head Self Tapping Screw (1)
- M5x0.8 16mm Hex Drive Button Cap Screw (1)
- M5x0.8 External Tooth Lock Washer K-Lock Nut (1)
- Zip Tie (4)
- ARB Twin Air Compressor Part CKMTA12 (Required) (1)
- Ring Terminal, 6ga, M8 Stud Size (Required) (3)



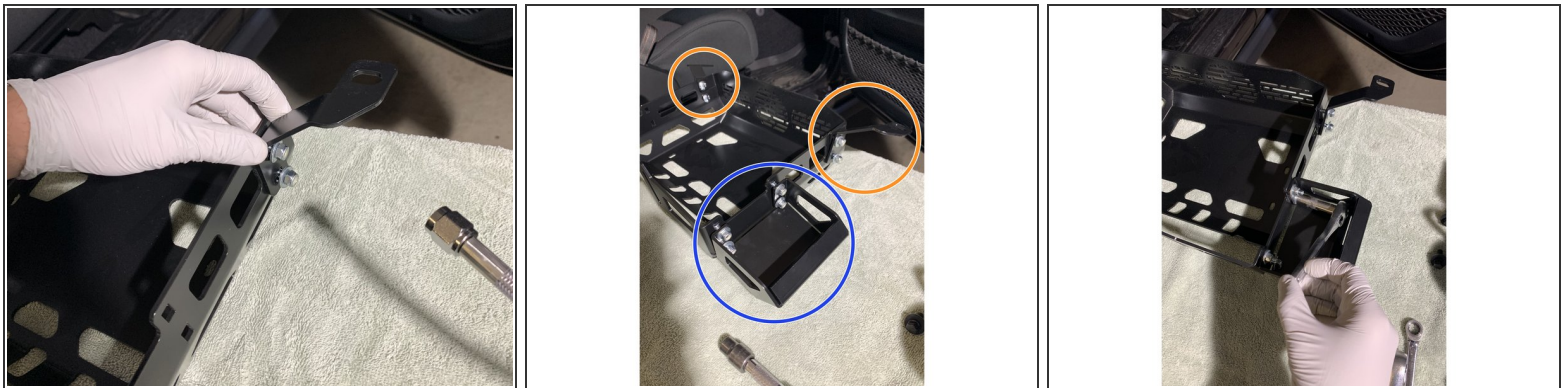
## Step 1 — Included Parts



**⚠ Verify that all parts shown in the pictures are present.**

- i** Three 6 gauge M8 stud size ring terminals are required to connect the ARB Twin Compressor to the vehicle's battery.

## Step 2 — Assemble Main Compressor Bracket



- Start with the main compressor bracket and install the left and right side mounting brackets as shown with two M6x1.0 20mm carriage bolts and a 1/4" washer under a nylock nut.
- i** Depending on if the compressor will be mounted under the driver seat (left) or passenger seat (right), will determine which side to install the switch and bulkhead mounting bracket. We are installing under the passenger seat (right).
- Install the switch and bulkhead mounting bracket using four of the M6x1.0 20mm carriage bolts and a 1/4" washer under a nylock nut.
- i** Use a 10mm socket/wrench to torque all the hardware to 7 lb-ft [9 Nm]

### Step 3 — Orient Compressor Manifold



- ① To optimize air line route, loosen manifold cap with 10mm box end wrench and rotate housing 15deg. Once adjusted, tighten manifold cap to approximately 7 lb-ft (9 Nm)

### Step 4 — Mount Compressor



- With the mounting holes of the ARB Twin compressor facing up, set the Grimm OffRoad Bracket onto the Compressor oriented as shown.
- Secure the compressor onto the Grimm Offroad Bracket using the ARB supplied 6mm hardware with a 10mm socket/wrench.

- ① Torque mounting hardware to 7 lb-ft [9 Nm].

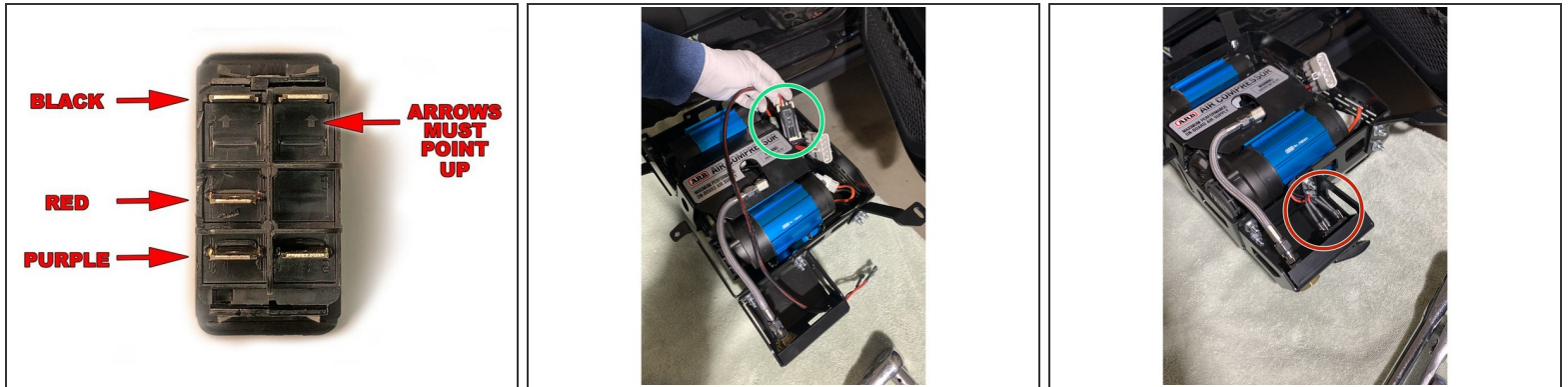


## Step 5 — Install Pressure Hose and Fittings



- Install the 1/4" NPT x JIC4 90° fitting into the ARB compressor manifold cap using a 9/16" open end wrench. Make sure to use thread sealant on the NPT thread and orient the fitting as shown.
- ⓘ Note that NPT fittings are tapered fittings and must not be overtightened. If you can't get the fittings to point the correct direction, it is recommended to remove, use a couple additional wraps of Teflon tape, then reinstall.
- Install one end of the included Stainless Steel Pressure Hose on to the NPT fitting on the compressor.
- ⓘ The Stainless Steel Pressure Hose uses flared fittings and thread sealant is not required.
- Install the straight 1/4" NPT x JIC4 fitting into the back of the bulkhead fitting using a 9/16" socket/wrench. Use thread sealant on the NPT threads.
- ⓘ Note that NPT fittings are tapered fittings and must not be overtightened.
- ⓘ Note that a 1" open end wrench can be used on the opposite side to prevent the bulkhead fitting from spinning while installing the NPT fitting.
- Attach the Stainless Steel Pressure Hose to the installed NPT fitting on the switch and bulkhead mounting bracket.

## Step 6 — Install Switch Wire Harness and Switch



**⚠ Be absolutely sure that you hook up this switch correctly according to the diagram in the first image. If wired incorrectly, you can short power directly to ground and damage the wiring in the compressor itself. ARB will not warranty your compressor if this happens.**

- Connect the Grimm OffRoad supplied wire harness to the plug on the ARB compressor and route the harness as shown to the switch location.
- Plug the wires from the Grimm OffRoad supplied switch wire harness into the back of the ARB compressor switch. The BLACK wire goes to the top terminal, the RED wire goes to the center terminal and the PURPLE wire goes to the lower terminal.
- Push the switch into the bracket until you hear it snap into place.

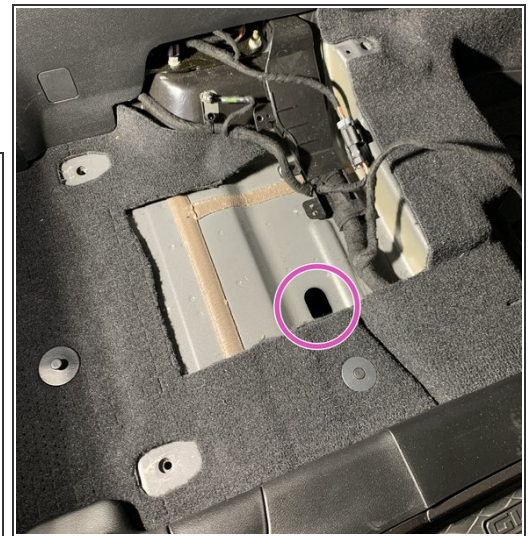


## Step 7 — (Optional) Mount ARB Manifold



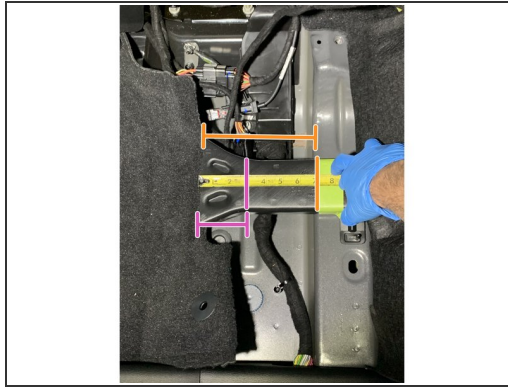
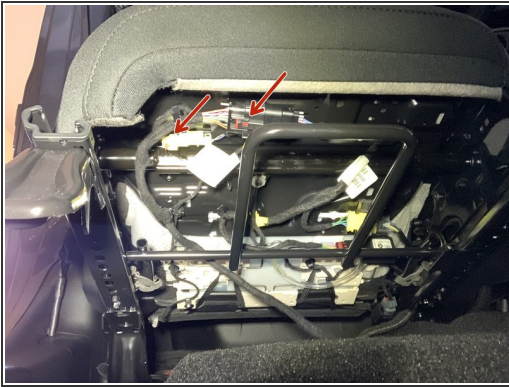
- If you will be installing the ARB Manifold for air lockers or other accessories, it can be mounted at this time.
- The air hose coupling can be installed into the bulkhead fitting at this time. We recommend using ARB's 0740112 Air Hose Coupling which is included in their 171302 Pump Up Kit.

## Step 8 — Remove Passenger Seat



- Remove the 4 bolts securing the seat with an E12 Torx socket.
- Locate the grommet in the floor and remove. This is where the ARB power harness will eventually be routed.

## Step 9 — Modify Floor For Installation



- Release red tab and remove both seat wiring harnesses from seat. Remove seat from vehicle.
  - If installing an ARB Manifold, carefully cut the under seat air duct 7" back to clear the compressor mount assembly.
  - If installing only the air compressor mount, carefully cut the under seat air duct 3" back to clear the compressor mount assembly.
  - Using a box cutter, cut and remove sections of the carpet where the compressor will be mounted. Doing so will allow proper airflow and clearance for the compressor and air line.
- ⓘ Use image diagram for proper carpet cutting dimensions.
- ⚠ Use caution when cutting around wire harness under carpet.

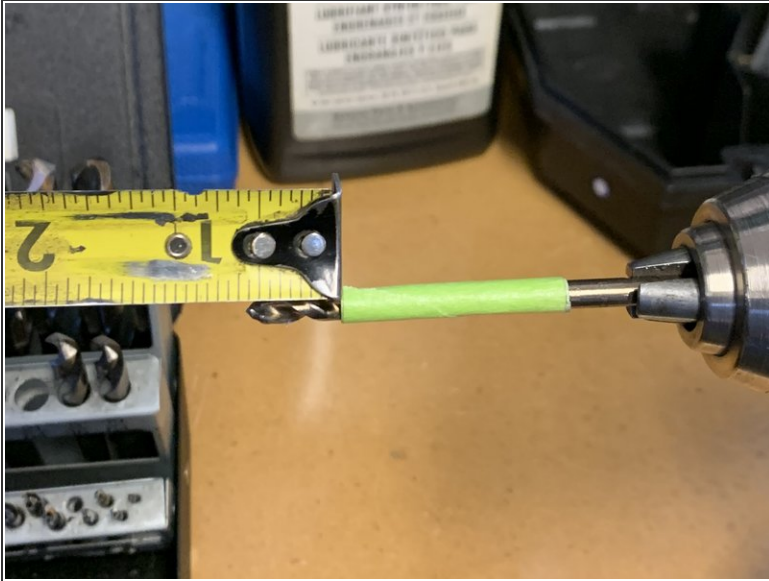
## Step 10 — Install Compressor Bracket Assembly



- Install the Compressor Bracket Assembly into the vehicle using the rear seat mount bolts with an E12 Torx socket. Tighten snugly, but don't torque yet as they will need to be removed again before reinstalling the seat.
- The left and right side mounting brackets may need to be loosened and retightened for everything to properly line up.



## Step 11 — Drill Mounting Hole



- Mark a 3/16" drill bit to a depth of about 9/16" to prevent from drilling too deep.

**⚠ DO NOT drill too deep!!! The fuel tank is positioned directly below the drilling surface.**

- Drill a hole through the forward mounting tab closest to the door, making sure not to hit anything under the floor of the vehicle.

## Step 12 — Route ARB Power Harness



- i** Before finishing the compressor bracket install, we need to get the ARB Power Harness to the compressor.
- Remove the bolts holding the compressor bracket and remove it from the vehicle.
  - Route the ARB Power Harness up from under the floor as shown. (Shield removed for clarity in second image)

## Step 13 — Connect Power Harness



- Connect the ARB Power Harness to the compressor bracket assembly and place back in the vehicle.

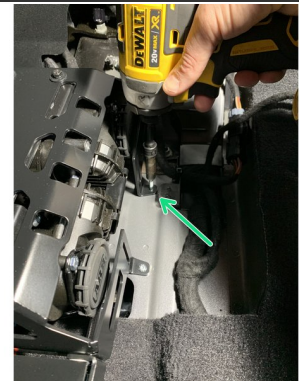


## Step 14 — Reinstall Grommet



- To seal the hole in the floor from the grommet removed earlier, cut a hole in the grommet for the wires to pass through and reinstall.

## Step 15 — Secure Front of Compressor Bracket Assembly



- With the hole drilled earlier, insert the M5x.8 button head screw and secure with the external tooth lock nut.
- ⓘ Torque with a 4mm hex bit to 40 in-lbs [4.5 Nm].
- Attach the other forward mounting hole with the M5.5 self tapping screw and an 8mm nutdriver.
- ⚠ **DO NOT over-torque self tapping screw to prevent thread damage.**



## Step 16 — Reinstall Seat



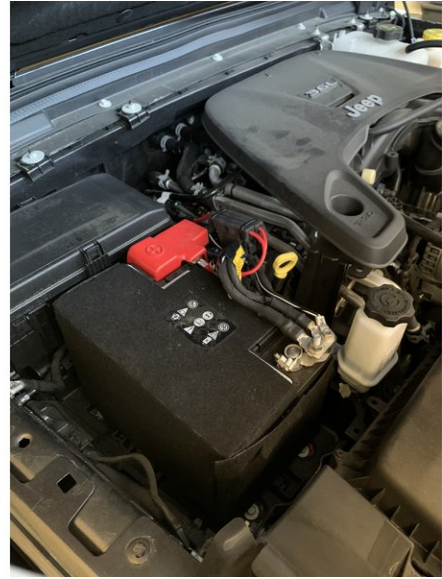
- i Make sure to first reconnect the seat wiring plugs and re-engage the red tabs.
- Reinstall the seat and install the rear seat bolts through the seat bracket and the compressor bracket mounting holes with an E12 Torx socket.
- i Torque mounting hardware to 37 lb-ft [50 Nm].

## Step 17 — Route and Secure ARB Power Harness



- Secure the ARB power harness under the vehicle .
- ⓘ It is helpful to attach to existing wiring with zip ties as you are routing it into the engine compartment and to the battery. Make sure it is well secured and will not get pinched or damaged.

## Step 18 — Connect Compressor to Battery



- To finish the install, connect the ARB compressor harness power leads directly to the battery according to the ARB Twin Compressor Installation Guide.
- ⓘ Three 6 gauge M8 stud size ring terminals are needed to connect the ARB Twin Compressor Harness to the battery terminal ends. M8 ring terminal ends are required and do not come with the ARB compressor harness.
- Use zip ties as needed to secure the power harness.



## Step 19 — Test the System



- Toggle the compressor switch to the on position. The compressor should turn on for a short period of time then turn off.

**⚠ The fan on the ARB Twin Compressor will continue to run until the switch is turned off.**

Installation is complete!

With any modified vehicle, or any vehicle used offroad, it is a good idea to check bolt torques periodically and visually inspect components regularly.