





### **INSTALLATION GUIDE:**

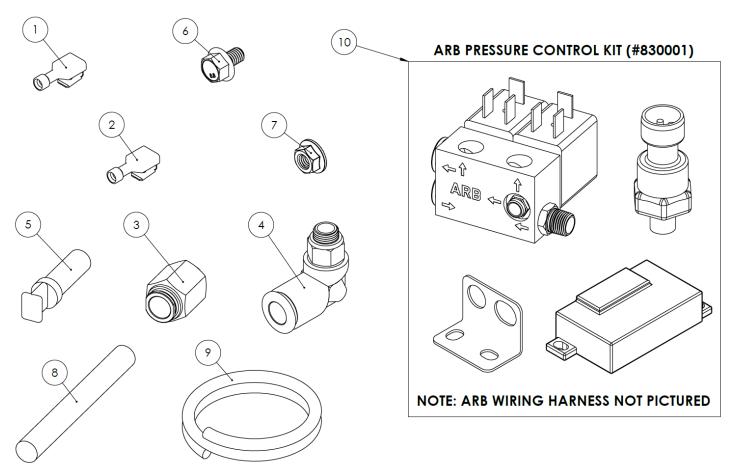
### KRAKEN PRESSURE CONTROL UPGRADE KIT

2018+ JEEP WRANGLER (JL/JLU) / 2020+ JEEP GLADIATOR (JT)



# KIT CONTENTS





ITEM #	QTY	DESCRIPTION
1	1	Female Piggyback Crimp Terminal, 22-18AWG, Red
2	1	Female Piggyback Crimp Terminal, 16AWG, Blue
3	2	Straight Adapter, 3/8" OD Tube to 1/8" BSPP Male
4	1	Right Angle Adapter, 3/8" Tube to 1/8" BSPP Male
5	1	Removable 3/8" OD End Plug, Red
6	2	M6x12mm, Flange Head Bolt
7	2	M6 Flange Lock Nut
8	2	9" Length, 3/8" OD Tube, Black
9	1	24" Length, 3/8" OD Tube, Black
10	1	ARB Pressure Control Kit



## INSTALL VIDEO



Please note that the EPIC Kraken Pressure Control Upgrade (PCU) kit is not a stand-alone tire inflation product. This kit is as an optional upgrade designed specifically for our EPIC Kraken Tire Inflation System, enabling precise digital tire pressure control and other smart automation features.

While we've taken much care and attention in creating this installation guide, we also recommend that you watch our comprehensive installation video. Our video demonstrates the complete installation of the base Kraken Tire Inflation System including the hardware provided in this kit. Please see the QR link below for our video installation guide.



JL/JT KRAKEN PRESSURE CONTROL UPGRADE KIT INSTALLATION VIDEO (YOUTUBE)

**AUTOMATICALLY RELEASE THE KRAKEN!** 



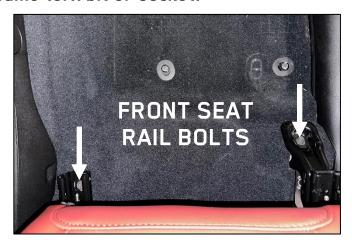
### INSTALL NOTES



## FOR EXISTING KRAKEN SYSTEM INSTALLATIONS ONLY

If you are installing this kit into an existing Kraken system installation, please disconnect the air compressor power harness and remove the entire Air Compressor Mounting Plate Assembly from the vehicle for ease of modification to several of the existing components.

Using a T50 torx bit (Wrangler JL) or E12 external torx socket (Gladiator JT), remove the two frontmost front passenger seat rail bolts first. Slide the seat bottom all the way forward, then remove the two rear seat rail bolts with the same torx bit or socket.







The entire seat assembly should now easily tilt into the rear of the cabin and rest on the rear seat as shown. It may be necessary to disconnect the retaining clips holding the seat wiring harness to the bottom of the seat frame.

Disconnect the 5Pin connector on the air compressor power harness to detach and remove the assembly from the vehicle.

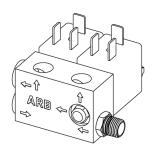
With the Kraken air compressor assembly remove from the vehicle, please continue through the assembly instructions found within this guide.



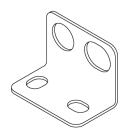


#### ARB PRESSURE CONTROL KIT PREP

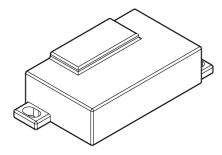
Locate the box for the ARB Pressure Control Kit included in the Kraken PCU kit. Remove all included components from their packaging and set aside for assembly.



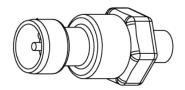
Pressure Regulator Valve Assembly



Mounting L-Bracket

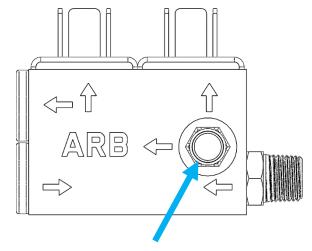


Pressure Control Module (PCM)



Pressure Sensor

It is very common for the ARB Pressure Regulator Valve assembly to ship with a loose exhaust port fitting. This fitting must be tightened until snug using an 8mm socket.



Exhaust Port Fitting (8mm socket)





#### PRESSURE REGULATOR ASSEMBLY

The pre-installed male pipe fitting and left-side output port cap will need to be removed from the ARB Pressure Regulator Valve assembly to make room for the new push-to-connect fittings included in our kit. Use a 12mm socket or wrench to remove the male pipe fitting, and 3mm hex bit or allen key to remove the output port cap.

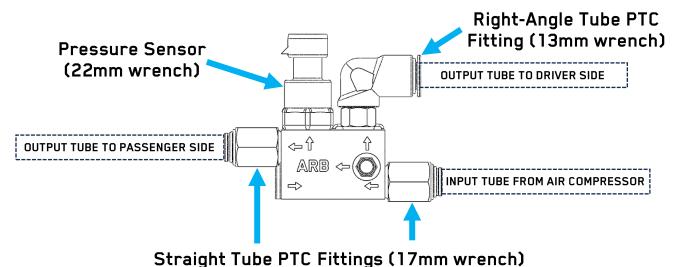
Remove Left
Output Port Cap
(3mm hex bit)

Remove Male Pipe
Fitting (12mm)

Begin by installing the ARB Pressure Sensor in the output port directly above the ARB logo, using a 22mm wrench as shown in the diagram below.

Using a 17mm wrench, install one of the included straight push-to-connect (PTC) fittings into the left side output port, and one the other fitting into lower right input port as shown below. The right-angle fitting can then be installed in the upper right output port directly above the exhaust port, using a 13mm wrench.

No thread sealant is necessary on these fittings, as they each have an o-ring seal to prevent air leaks - tighten all fittings until snug.

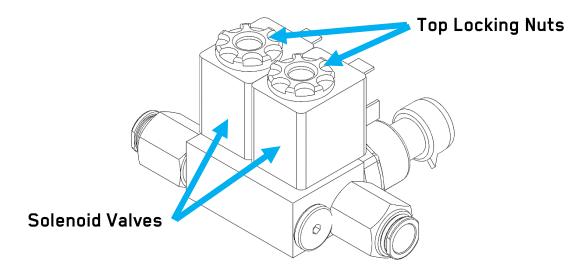




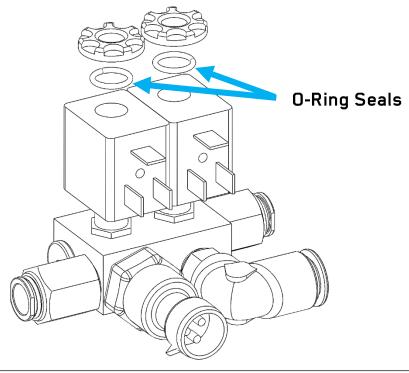


#### PRESSURE REGULATOR ASSEMBLY

Unscrew the two top locking nuts that hold the solenoid valve bodies onto the pressure regulator manifold. These nuts are soft plastic and can be difficult to grip, as such, you may need to use a set of pliers to loosen them.



Carefully remove the o-ring seals from the threaded post, then remove the solenoid valves and set all parts aside somewhere safe for reassembly later. Take note on the orientation of the solenoid valves during removal for reassembly in the same direction.

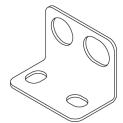






#### PRESSURE REGULATOR MOUNTING

Locate the metal L-Bracket included in the ARB Pressure Control System box, along with the two M6x12 Flange Bolts and two M6 Flange Nuts provided in the PCU kit.



Mounting L-Bracket

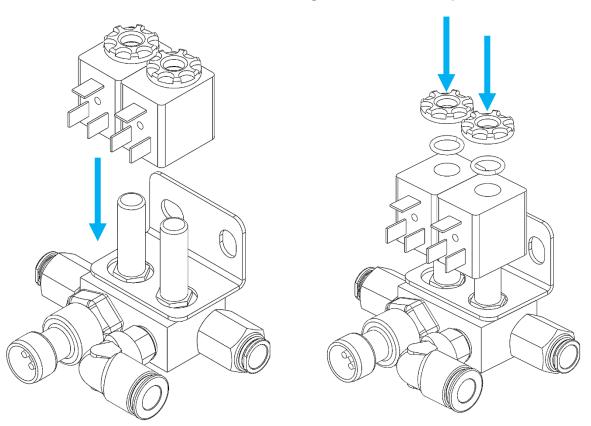


M6x12mm Flange Bolts x2



M6 Flange Nuts x2

Install the L-Bracket on to the Pressure Regulator Valve as shown below, with the foot of the L-Bracket facing away from the exhaust fitting. Re-install the solenoid bodies, o-ring seals, and tighten the top locking nuts over top of the L-Bracket to secure it to the Pressure Regulator Assembly.



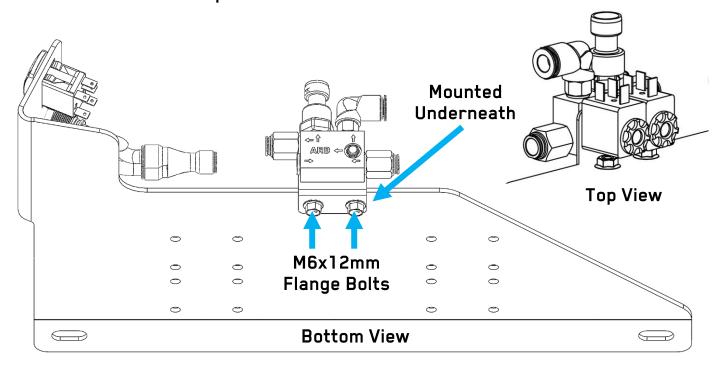
The Pressure Regulator is now ready for installation on to the Under Seat Compressor Mounting Plate.





#### PRESSURE REGULATOR MOUNTING

Using the provided M6x12mm Flange Bolts and M6 Flange Nuts, install the Pressure Regulator Assembly on to the front lip on the Under Seat Compressor Mounting Plate, with the bolts going up from the bottom and L-Bracket mounted to the bottom of the compressor mount as shown below.



Start the M6 mounting hardware and finger tighten for now, as they will need to be removed in the next step.

If your existing Kraken Compressor Mounting Plate does not have pre-drilled provisions for mounting of the Pressure Regulator Assembly, do not worry. The Pressure Regulator Assembly can be installed as "floating" without physically bolting the bracket in place on the Compressor Mounting Plate without issue. In this installation type, the Pressure Regulator Assembly will float over the mounting plate with a slight angle towards the front of the vehicle when installed.

Trimming of the plastic HVAC duct located under the passenger seat will be required with the floating installation option. Please see page #12 for more information on how and where to trim.

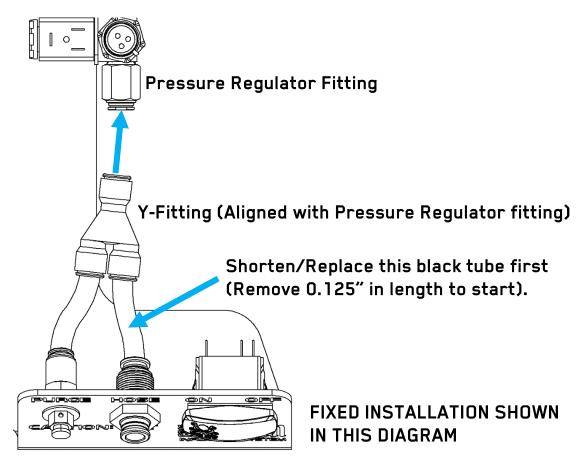




#### PRESSURE REGULATOR INSTALLATION

We take great pride in assembling and testing every Kraken plate assembly in house, however, the tubing lengths and overall position of the Y-Fitting that connects to the Control Panel can vary from batch to batch. For this reason, we have provided two 9" lengths of black tubing to be used to create new tubing sections as necessary to adjust the position of the Y-Fitting to align with the fitting installed on the Pressure Regulator.

Remove the pre-installed Y-Fitting from the Under Seat Compressor Mounting Plate and set aside for reinstallation after the following adjustments.



Shorten and/or replace the two pre-installed black tubing pieces that enter the Y-Fitting to rotate the Y-Fitting outlet to point towards the Pressure Regulator in its given location (either fixed or floating), as shown above.

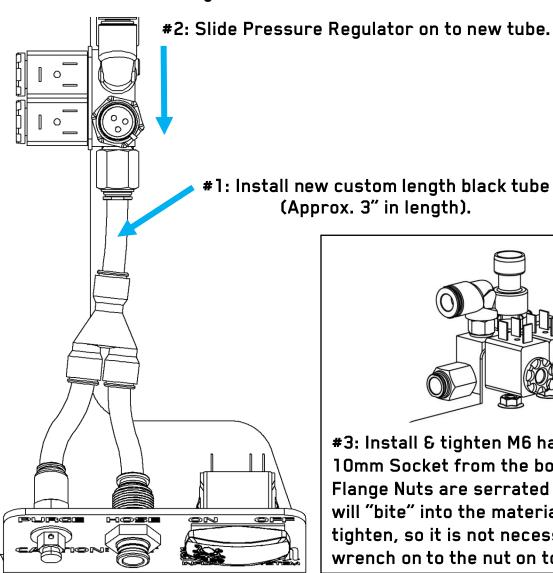
A sharp utility knife or handheld tubing cutter works great to make a flush and clean cut on the tubing, required for an optimal seal on the tubing.



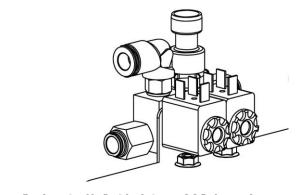


#### PRESSURE REGULATOR INSTALLATION

An additional section of custom-cut tubing is required to connect the Y-Fitting to the Pressure Regulator, sized according for your installation. Remove the Pressure Regulator from the Compressor Mounting Plate to allow for the installation of this tubing in a fixed installation, as shown below.



#1: Install new custom length black tube (Approx. 3" in length).



#3: Install & tighten M6 hardware using a 10mm Socket from the bottom. The M6 Flange Nuts are serrated meaning that they will "bite" into the material as they begin to tighten, so it is not necessary to fit a wrench on to the nut on top.

3" in length is a good starting point for this last piece of tubing, adding or subtracting to this length as necessary to align and install the M6 Flange hardware through the holes in the Pressure Regulator Mounting bracket. It may take a few attempts to find the perfect tubing length, where the tubing has fully seated in each fitting with a solid "click" sound, indicating that it will not leak.





### PRESSURE REGULATOR INSTALLATION (PERTAINS TO FLOATING INSTALLATIONS ONLY)

The floating installation option for existing Kraken installations will require you to trim 2" off of the plastic HVAC duct that sits under the passenger seat to create additional clearance for the Pressure Regulator Assembly. Using a sharp utility knife, carefully trim the plastic duct down to length.



Place the carpet back into position over the duct to verify how it fits. The HVAC duct should protrude through the carpet ever so slightly – adjust as necessary.

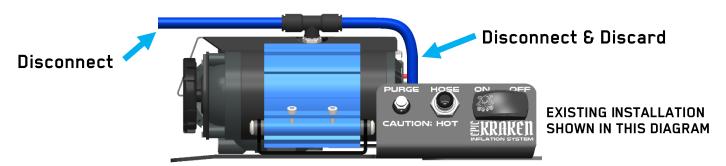
Ignore this step if you are performing a new fixed installation and continue working through the remaining steps in this guide.





#### PLUMBING TO AIR COMPRESSOR

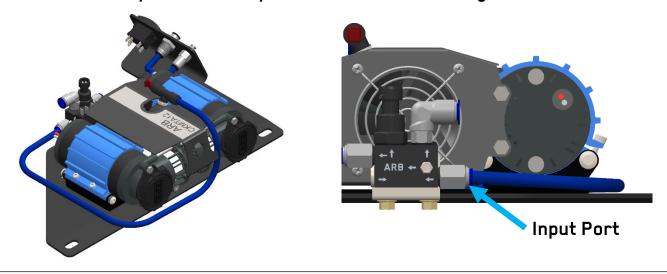
On existing installations, disconnect both pieces of tubing from the tee-fitting installed on the top of the ARB Twin Air Compressor. Discard of the shorter tubing piece that connects the top of the compressor to the control panel.



Install the included 3/8" Red End Plug into the front side of the tee-fitting. The End Plug should face towards the front of the vehicle as shown below.



Connect the provided 24" length of black tubing into the back side of the teefitting, neatly wrapping the remaining length of tubing clockwise down and around the compressor into the Input Port fitting on the Pressure Regulator as shown below. It may be necessary to trim this tube for a tight fit.





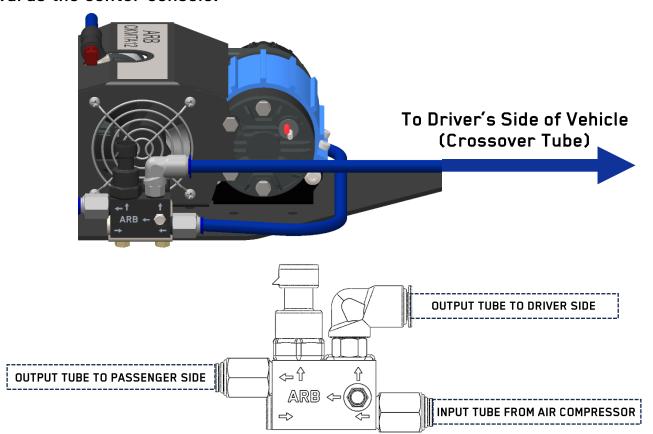


#### PLUMBING WITHIN THE VEHICLE

For existing installations, you will already have a long black crossover tube running underneath the center console to the Kraken Driver Side Air Bulkhead Bracket, which we will trim and reuse.

If you are performing a new installation, please locate and route the 60" length of black tubing provided in the base Kraken Tire Inflation System kit underneath the center console to the Driver's side. Please also install the Kraken Driver Side Air Bulkhead Bracket and connect the crossover tube on the driver's side before proceeding.

The crossover tube will connect the Kraken Driver Side Air Bulkhead Bracket into the right-angle PTC fitting installed on the top of the Pressure Regulator to complete the air circuit. The crossover tube will then need to be trimmed to fit directly into this fitting, without an excessive amount of extra length pushing towards the center console.



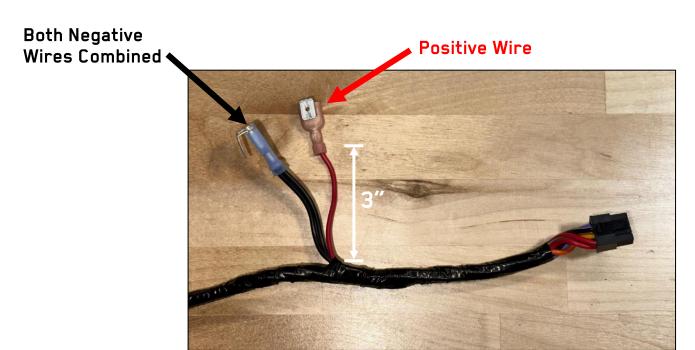
AIR CIRCUIT REFERENCE GUIDE



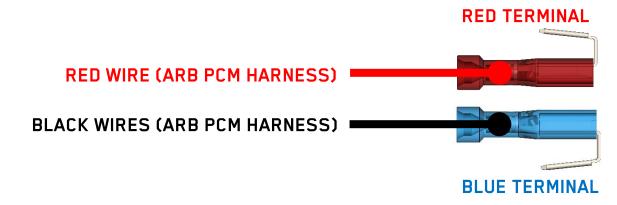


#### ARB PRESSURE CONTROL KIT WIRING

Locate the ARB Pressure Control Module Wiring Harness and the included piggyback crimp terminals. Trim the loose positive and negative power wires on the ARB wiring harness down to approx. 3" in exposed (non-taped) length. Using wire strippers, strip the red and black wires approx. 0.25". Twist the two black wires together to combine into one, as shown below.



Insert and crimp the positive wire from the ARB wiring harness into the smaller red piggyback crimp terminal. Insert and crimp the combined negative wires into the larger blue piggyback crimp terminal. We recommend that you wrap these exposed wires in electrical tape for extra protection and cleanliness.

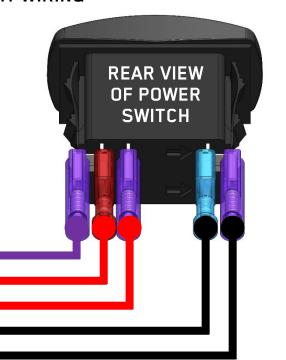






#### ARB PRESSURE CONTROL KIT WIRING

Disconnect any existing power switch harness from the backside of the Kraken power switch. Install the ARB PCM Harness piggyback terminals on to the appropriate tabs on the back of the power switch, followed by reconnecting the existing power switch harness on to the new piggyback terminal tabs as shown below.



PURPLE WIRE (LOAD)

RED WIRE (ARB PCM HARNESS)

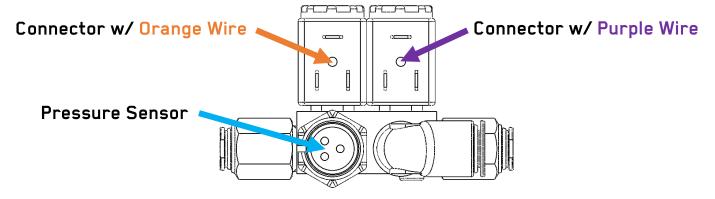
RED or ORANGE WIRE (SUPPLY - 2A FUSED) |
BLACK WIRE (ARB PCM HARNESS) |

BLACK WIRE (GND)

Power Switch Wiring Diagram w/ Pressure Control Upgrade

Failure to connect these properly may result in damage to the air compressor, ARB Pressure Control Module, and/or electrical systems in the vehicle.

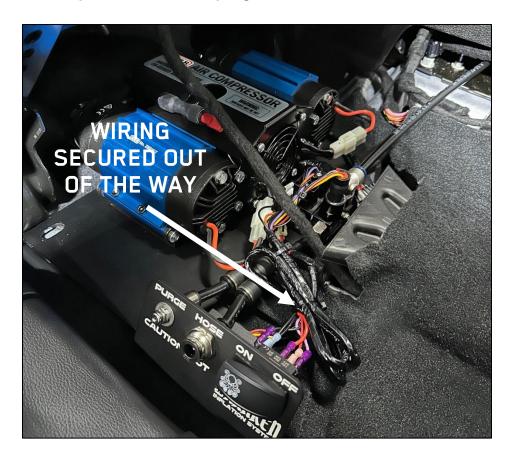
Plug the two T-shaped connectors from ARB Pressure Control Module Wiring Harness into the solenoid valves on the Pressure Regulator Valve assembly. The connector with the purple wire must be connected to the deflate solenoid valve located inline with the exhaust fitting. These connectors have a screw to securely attach them to the solenoid valve. Use a 2.5mm allen key to tighten these screws until snug.





#### ARB PRESSURE CONTROL KIT ELECTRICAL ROUTING

Plug in the 8Pin connector on the ARB Pressure Control Harness to the ARB Pressure Control Module (PCM). Secure the module and wiring harness flat against the carpet using the supplied cable ties as shown below. The PCM can slot underneath the power switch, up against the Control Panel as shown below.



Now is the optimal time to test that the entire Kraken Pressure Control System is functioning correctly and is free from any air leaks.

Ensure that the Kraken power switch is in the OFF position prior to re-installing both 40A fuses into the air compressor wiring harness under the hood – install both 40A fuses.

At this time, you must connect all four tires to the Kraken system for leak testing and preferred tire pressure configuration.





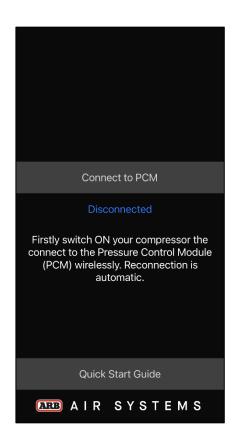
#### ARB PRESSURE CONTROL APP SETUP

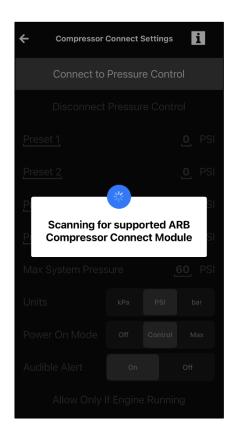
Please Note: If you have not already, we highly suggest that you watch our installation video which explains in depth how to install and use the ARB Compressor Connect application on your phone (<u>Link to YouTube Video</u>).

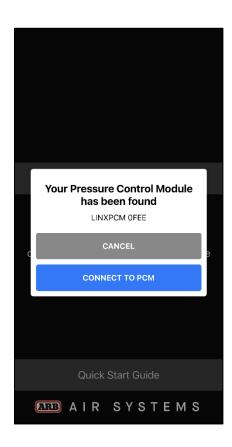
With your smartphone in hand, search for "ARB Compressor Connect" in the Apple App Store (<u>Link to iOS App</u>) or Google Play Store (<u>Link to Android App</u>) to find and install the ARB Compressor Connect app.

To connect to the ARB PCM, the Kraken power switch must be in the ON position. The compressor should not cycle on, and you should hear the cooling fan running.

Upon opening the ARB Compressor Connect app, it will automatically begin searching for your PCM via Bluetooth. Once the PCM has been found, select "CONNECT TO PCM". The PCM will automatically reconnect to the app in the future.











#### ARB PRESSURE CONTROL APP SETUP



On the settings page, it is it is very important that the default Power On Mode is set to "Control", as this will retain your desired tire pressure setting in memory for each subsequent use of the system without the need to choose the target pressure on your smartphone each time you need to air up your tires.

Please select "PSI" as your tire pressure unit of measurement and set the Max System Pressure to 60PSI.

If you would like to have an audible alert on your phone when your desired tire pressure is reached, select this option to "On".

We highly recommend that you select the "Allow Only If Engine Running" option, as the ARB Twin Air Compressor performs significantly better with the higher voltage output by the vehicle's alternator when the engine is running.

There is no need to recalibrate the pressure sensor at time of install, as the system will have been calibrated by ARB at the factory.

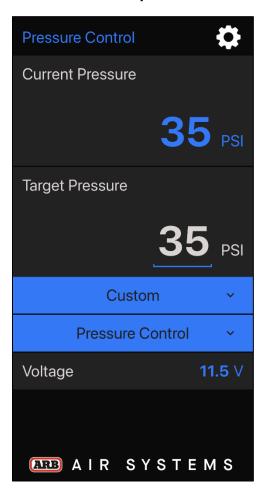
The Pressure Control app also allows you to create several different tire pressure presets that can be quickly accessed from the main screen of the app for quick target pressure adjustments, which can be tailored for different situations and terrain. For example, you may want a Highway preset with pressure of 35PSI for optimal fuel economy, as well as a City/Town preset of only 30PSI to make the ride quality more comfortable over those nasty potholes.





#### ARB PRESSURE CONTROL APP SETUP

On the main screen of the app, you will see the current pressure of the system, battery voltage, along with the ability to set your desired tire pressure target. With all four tires connected, set the target pressure to your desired street tire pressure (generally 28-35PSI), select the Pressure Control Mode dropdown list above the voltage display, and select "Pressure Control". The system should roar to life and automatically inflate or deflate all four tires to your desired target pressure. The air compressor will periodically cycle on and off until your exact target pressure is reached - this is normal operation of the system. The air compressor will shut off and stay off once the desired pressure is reached. If the compressor continues to cycle on and off once the desired pressure has been reached, there is an air leak somewhere in the system that will need to be located and addressed for proper function of the pressure control system.



To turn off the entire system, simply press the Kraken power switch into the OFF position – that's how simple this system is!





#### ARB PRESSURE CONTROL SYSTEM WRAP-UP

With the ARB Pressure Control System up and running and no air leaks present, along with the ARB Pressure Control Module and associated wiring secured, it is time to re-install the passenger seat.

The passenger seat can be lowered back into position. Please reconnect any seat wiring harness connectors and clips removed earlier. Align the rear seat mounting holes with the slotted holes in the compressor mounting plate. Start the two rear factory seat rail bolts by hand, but do not tighten yet. Slide the seat to the rear-most position to access the front seat mounting holes. Start the two front factory seat rail bolts by hand. Now tighten all four factory seat rail bolts and torque to 35ft/lbs (factory spec). Pay careful attention to ensure that the ARB wiring harness does not interfere with the sliding seat rail mechanism or any of the connections attached to the bottom of the seat frame.

### **INSTALL COMPLETE**

We knew that you could do it!

Please reach out to us for support if you have any questions or concerns with the installation or operation of your new Kraken Tire Inflation System.

We would also love to hear your feedback on the installation process, as this information is incredibly valuable to our team as we strive to continue improving the overall user experience and operation of the system.

# PLEASE CONNECT WITH OUR TEAM VIA EMAIL OR PHONE FOR SUPPORT:

INFO@EPIC-4WD.COM

OR +1-604-888-2961