



## Slingshot Evo Management Kit

### INSTALLATION AND USERS GUIDE



Air suspension should only be installed by a professional experienced in air suspension installation, improper installation may result in property damage, personal injury or death. Should additional support from manufacturer be necessary you or the person who is doing the installation must know how to properly use this product. Always support vehicle on properly rated jack stands, do not go under a vehicle supported by a jack. Please read through the entire installation guide before beginning, provided instructions are not a substitute for experience.



## **IN THE BOX**

- Digital LCD gauge w/ power & ground harness
- 2 electric momentary switches
- VERA 4 valve air distribution block
  - 1/4" NPT – 1/4" PTC 90° elbow fitting (air supply line)
  - 1/4" NPT brass plug
  - 1/4" NPT – 1/4" PTC straight fitting, x2 (for airlines to front/rear bags)
- 3 electronic pressure sending units w/individual harnesses
- Seamless aluminum tank
- VIAIR 444c chrome compressor w/ air intake baffle and filter
- 40amp 4 pole relay w/ pigtail
- 15 ft 8-gauge power cable w/ 40 AMP fuse
- 150 on – 175 off, compressor pressure switch
- 1/4"-1/8" NPT reducer (for tank electronic pressure sending unit)
- 1/4" NPT – 1/4" PTC 90° elbow fitting
- 1/4" NPT drain valve
- 1/4" PTC T-fittings
- 1/4" air line
- Power distribution block (reduces supply power gauge for smaller wires ie. Relay)
- RF Module w/ Key fob

## **PRESSURE SENSOR INSTALLATION / AIR LINE ROUTING**

- TANK SENDING UNIT– Using the supplied 1/4"NPT -1/8" NPT reducer, install the sending unit in 1/4" port located on the tank
- REAR AIR STRUT SENDING UNIT – FACING THE BLOCK (ie. Reading 'DISTRIBUTION' on the block), install the pressure sending unit on the RIGHT rear side of the block labeled 'SENSORS'. Also install air line for the REAR on the RIGHT side of the block.
- FRONT AIR STRUT SENDING UNIT – FACING THE BLOCK (ie. Reading 'DISTRIBUTION' on the block), install the pressure sending unit on the LEFT rear side of the block labeled 'SENSORS'. Also install air line for the FRONT on the LEFT side of the block.

**CAUTION- WHEN CUTTING OR TRIMMING AIR LINE, ONLY USE A HOSE CUTTER, RAZOR BLADE, OR SHARP KNIFE. A SHARP SQUARE CLEAN CUT IS REQUIRED TO ENSURE A LEAK FREE AIR SYSTEM. YOU CANNOT USE WIRE CUTTERS OR SCISSORS, AS THESE TOOLS FLATTEN/CRIMP THE AIR LINE AND WILL CAUSE A LEAK IN THE FITTING.**





## TANK/COMPRESSOR/DISTRIBUTION BLOCK INSTALLATION

- Remove lower battery cover and disconnect positive and negative cables.
- Using a hole saw bit, cut a 2" hole in the front corner of the driver storage compartment. This is required to route the distribution block plug, air lines, power/ground cables, etc.



- Remove the bolts for the lower driver side trim panel and the plastic clip under the drivers left arm guard located between the integrated roll cage and the body. Pull the lower side panel back, but there is no need to remove it completely, just enough to allow access to the side of the inner storage compartment so-as the bolts for the air tank mounting base can be installed.
- The ideal location for the compressor is against the back of the storage box, on the left side (when looking into the compartment). This will allow easy access to the mounting bolts/nuts and will be hidden under the back trim panel when installed. Installing the compressor first is recommended. Install the baffle/filter housing on the compressor and hold the compressor against the back, mark the holes and drill using appropriate size bit. Install the bolts from the outside in, this will allow the bolts to be flush and the rear panel to will install without issue. We also recommend using a blue formulation of thread lock on the threads to reduce the chance they will vibrate loose.





- Install the bands and orient the tank so the mounting bases are directly opposite of the side ports on the tank. Position the tank in the compartment on the RIGHT and as forward to the opening as possible, allowing room for access to the drain plug. Mark the holes and drill where necessary. 2 bolts will be visible from the outside; however we have included black oxide button head bolts to retain an OE type look from the outside. Install the tank using those 4 bolts with blue thread lock on them.



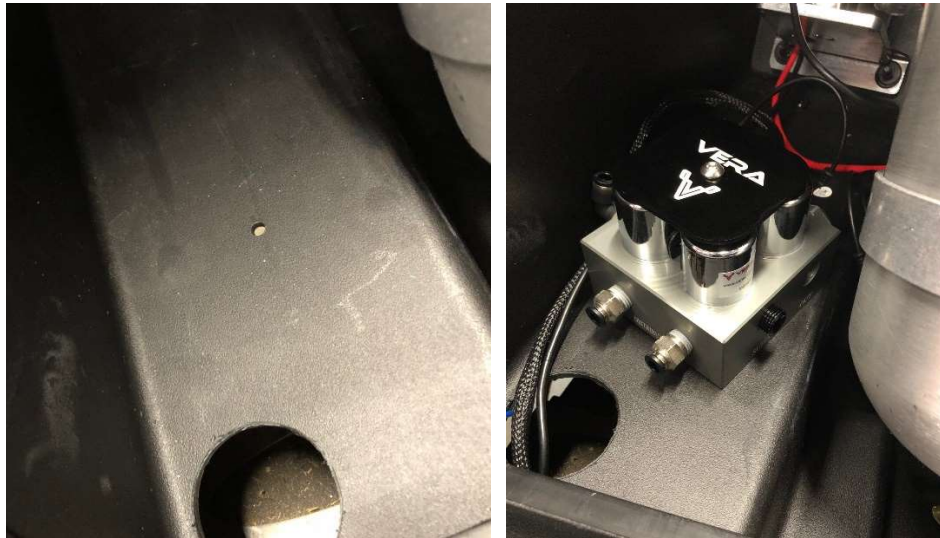
- Install drain plug and the 90° elbow in the end ports of the tank (this needs to be done before mounting in the compartment for ease of installation). We recommend Loctite 545 or equivalent. We do NOT recommend tape products. Once the tank mounting bases are installed, it is recommended to loosen the bands and move the tank upward in order to allow enough room to reinstall the lone OE bolt located inside the compartment that holds the lower side panel on. Reposition tank and tighten the bands.
- Install the pressure sending unit w/ reducer, compressor on/off switch in the face ports.



- Install compressor lead into tank.
- Install 1/4" NPT elbow into air distribution block in SUPPLY port. Install 1/4" NPT plug in opposite side of air block SUPPLY port. Exhaust ports will remain open to the atmosphere. Install two 1/4" NPT PTC

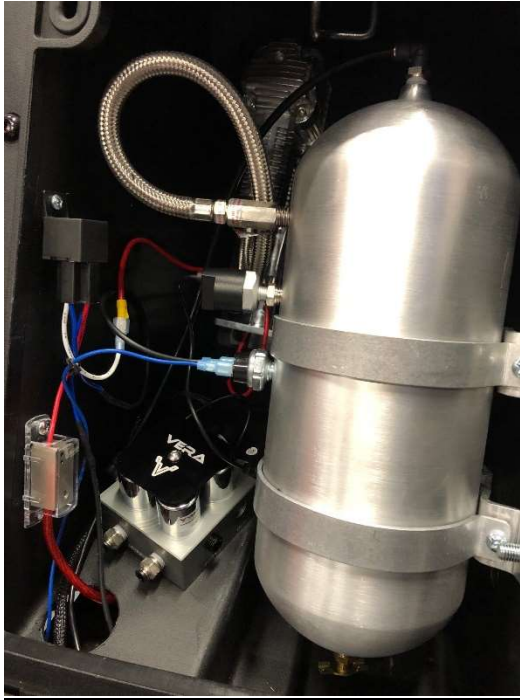


straight fittings into block on DISTRIBUTION side. Install the two pressure sending units on SENSOR side. Arrange block in desired position (air lines facing toward the hole make easy line routing and avoid crimps) and drill a hole for the mounting bottom bolt in the bottom. We recommend using blue thread lock to prevent the bolt from backing out of the bottom of the block. Run the air line from the tank to the block.



- Remove 40 AMP fuse from power wire and install ring terminal on the positive side of the battery. Run power wire through hole and cut to desired length in order to install into power distribution block. See diagram for wiring setup. Do **NOT** reinstall the main fuse until **ALL** wiring has been completed.
- Run air lines as necessary. NOTE: Keep air lines away from any moving parts or heat sources. The rear air line will go directly to the bag, the front will 'tee' off to each bag.
- Install gauge panel as desired and run the wires to the distribution block. Make note of plug positions if disconnecting them from the momentary switches is necessary. Route wires for tank/distribution block pressure sending units to back of gauge. Connect harness to distribution block, ensuring the connection is tight. Do not forget to ground the black cable with the ring terminal on the main harness to the battery.
- Connect power and ground from the RF module (small black box), do not modify coiled wire coming out of RF box, this is the antenna for the key fob. Double sided tape on the back of the RF box allows for easy mounting in the compartment.
- Reinstall 40 AMP fuse and turn the system on. Vehicle should be running anytime the compressor is being used, if not it will drain the small battery quickly!
- Check for leaks! You can use a soapy water solution, 1 part dish soap, 4 parts water in a spray bottle.
- Reinstall all panels and OE bolts
- **IMPORTANT! If you are installing Truhart Air Struts with this management, be sure to inflate the bags to at least 100 psi BEFORE putting the weight of the vehicle on them.**





### **LCD SCREEN BUTTON INSTRUCTIONS**

- LEFT SIDE OF SCREEN : Scrolls through menu options (↑↓)
- RIGHT SIDE OF SCREEN: Changes parameters within menu options

#### **MENU OPTIONS:**

1. Font Color: Select font color for display (system will not allow font and background color to be the same)
2. Background Color: 7 colors options for background
3. Background Color Contrast: Adjustable brightness range from 1-10
4. Button Sound: ON/OFF
5. Low voltage Warning: Voltage drops below 11.0v display will change to RED

*Below warnings are all user adjustable*

6. Tank Low pressure warning: default 80 psi
7. Tank High pressure warning: default 130 psi (we recommend this be set to 190 psi)
8. Front Left LOW pressure warning: default 30 psi
9. Front Left HIGH pressure warning: default 120 psi
10. Front Right LOW pressure warning: default 30 psi
11. Front Right HIGH pressure warning: default 120 psi
12. Rear Left LOW pressure warning: default 30 psi
13. Rear Left HIGH pressure warning: default 120 psi
14. Rear Right LOW pressure warning: default 30 psi
15. Rear Right HIGH pressure warning: default 120 psi
16. Reset Factory Default: Hold either button on right when in this menu to reset to factory defaults



\*After 6 seconds without pressing a button, gauge will default back to main screen

\*Holding down both LEFT buttons will return to the main screen

### **LCD GAUGE / SWITCH WIRING**

- RED – POWER, Connect to 12V power source when ignition is turned on (ie. ACC), minimum of 15 AMP required.
- BLACK – GROUND, Connect to GOOD chassis ground
  - Harness for tank pressure sending unit plugs in the ‘TANK’ port on the back of the LCD gauge
  - Harness for FRONT pressure sending unit can plug into either ‘FL’ or ‘FR’ ports
  - Harness for REAR pressure sending unit can plug into either ‘RR’ or ‘RL’

### **VERY IMPORTANT SETTING!!**

User will need to set un-used ‘F\_’ and ‘R\_’ low pressure warning on above menu settings to 0 psi to eliminate warning buzz.

- When powering up without sensors connected, gauge will beep for 5 seconds
- No sensor or faulty sensor will display as “-----” on the screen (2 will read this way).
- Gauge will flash if limits are not set properly or system has improper air pressure

### **REMOTE CONTROL BOX WIRING**

- RED – POWER, Connect to CONSTANT 12V power source (ie. The power distribution block). This will allow for the remote system to actuate the valves even when the ignition is turned off. The RF box draws very little power
- BLACK – GROUND, Connect to GOOD chassis ground or the battery

**NOTE!** The stiff black wire curled on the small black remote box is the antenna for the remote. DO NOT GROUND/CUT/MODIFY.

### **REMOTE BUTTON FUNCTIONS:**

1. FRONT UP
2. REAR UP
3. FRONT DOWN
4. REAR DOWN

In the event the remote is not working please check to see if the red LED indicator is illuminated when a button is pressed. If not, the battery needs replaced. If it does illuminate and nothing happens, please open the small remote box and press the tiny round button to establish remote to box communications.

ALL VERA SYSTEMS ARE HAND ASSEMBLED AND FULLY TESTED IN THE USA PRIOR TO SHIPPING.  
If you have issues with parts/systems not working, check your wiring!

### **TIPS:**

- We recommend using a Loctite 545 (or equivalent) sealant on all NPT fittings.





- A tool designed for hose cutting will ensure minimal leaks at PTC junctions, DO NOT USE DYKES OR SCISSORS! Dual blade cigar cutters work well too!
- If the vehicle sits for a long time and the tank drains out the air, there is a possibility the valves in the distribution block will remain in the open position as there is no air in the tank to seal them shut. This will be evident as air will escape from the 'EXHAUST' ports of the distribution block when the compressor starts. To resolve, evacuate all air from the system, including bags. A firm blow to the top of the distribution block will dislodge the pistons from their magnetized housing. Turn the system to allow for it to fill. If this issue is happening overnight, there are leaks in the system and they need to be addressed.





