

# VEI Systems Installation Instructions

## V1-ASP-Mx – Air Suspension Pressure Monitor

Please read these instructions completely before beginning installation to ensure that you have the tools and skills necessary for installation and operation of this instrument. If you are not sure that you can perform the installation safely, then consult a qualified installer. Further instructions available at [www.VEISystems.com/technical.html](http://www.VEISystems.com/technical.html).

### FEATURES

This air suspension pressure monitor is configurable for use with any one of a few different sensors that would best suit your air suspension system, needs, and budget. Adjustable alarms will warn you of under- or over-pressure conditions.

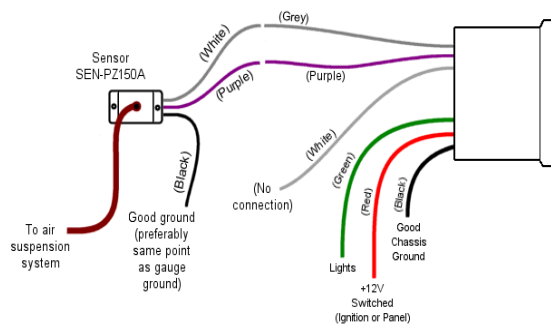
### MOUNTING

Install the unit through the front of the mounting hole in the dash pod or panel. If you are making a custom dash panel, you will need to drill a 2-1/16" hole. Slide the clamp onto the 2 studs on the back of the instrument. Secure with the 2 thumb-nuts. Use a small drop of threadlocker or nail polish on the thumb-nuts to prevent them from loosening under vibration.

### SENSOR MOUNTING:

Depending on the sensor you have selected for use with this gauge follow the appropriate section below:

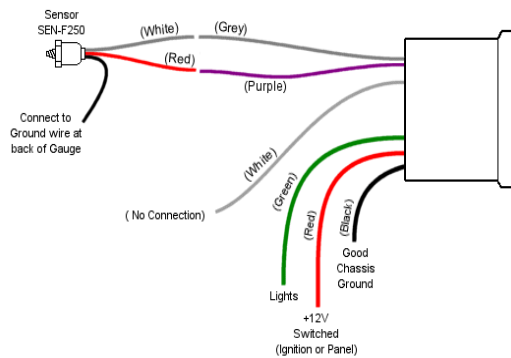
**SEN-PZ150A:** Mount the sensor on flat surface using double-sided tape or two screws. Do not mount on any surface that will get very hot. Connect to the air source you want to measure using the 1/8" I.D. Hose or air-line. Be careful to push straight down into the barbed fitting and not twist or bend as this could break the nipple on the sensor. If you have to remove the hose for any reason first carefully cut the line near the barb using a sharp knife or blade so only the stub is left near the nipple. Then slice the hose longitudinally with a sharp knife or blade and carefully peel it off of the nipple to avoid breaking the nipple.



**SEN-PZ150A Wiring:** The wires should be connected as below using crimp-on butt-splice connectors, or soldered and sealed with heat-shrink tubing. Before connecting any wires, you should either disconnect the battery power, or carefully connect the wires in the order shown. If not, you may damage the instrument. Use an existing fuse in the fuse panel, or an external fuse to supply power to the instrument. The V1 series instruments use an average of 105mA of current, and a maximum of about 175mA, so ensure the fuse is sized appropriately. For a typical 6- or 7-gauge setup, a single 5 Amp fuse is good.

- BLACK -- connect to a solid chassis ground under the dashboard, or directly to the battery. You may need to expose the metal connection point under the dash by scraping or lightly sanding it. A ring terminal and a screw should work well in most cases.
- RED -- connect this to a source of **switched** +12V power. This will usually be found at or near the ignition switch, and will usually have a relay wired through the ignition switch. An alternate source of this is a switched power line from a nearby light or accessory (radio, etc). If you are unsure that the wire can supply the power required for the instrument, then use an external relay.
- GREEN -- connect this wire to the positive line (+12V) from the headlight switch. When this line receives a positive voltage, the gauge will use the "park-lights" brightness setting. Alternatively, if setting up a racing-mode display, this can be connected to a separate mode switch (12V or 0V signal).
- WHITE -- connect this wire to top stud on the pressure sender.

**SEN-F250:** This sensor has 1/4"-18 threads. Mount the sensor directly to the tank or valve block assembly using appropriate NPT adapter(s). Alternatively, you can use an NPT-to-barbed hose adapters and connect it to the air system with the air-line. In this latter case, mount the sensor using a P-clamp. If you need teflon tape, use it only on the rear threads to prevent any tape breaking off and getting into the air-stream.



**SEN-F250 Wiring:** The wires should be connected as below using crimp-on butt-splice connectors, or soldered and sealed with heat-shrink tubing. Before connecting any wires, you should either disconnect the battery power, or carefully connect the wires in the order shown. If not, you may damage the instrument. Use an existing fuse in the fuse panel, or an external fuse to supply power to the instrument. The V1 series instruments use an average of 105mA of current, and a maximum of about 175mA, so ensure the fuse is sized appropriately. For a typical 6- or 7-gauge setup, a single 5 Amp fuse is good.

- BLACK (on gauge) -- connect to a solid chassis ground under the dashboard, or directly to the battery. You may need to expose the metal connection point under the dash by scraping or lightly sanding it. A ring terminal and a screw should work well in most cases.
- RED -- connect this to a source of switched +12V power. This will usually be found at or near the ignition switch, and will usually have a relay wired through the ignition switch. An alternate source of this is a switched power line from a nearby light or accessory (radio, etc). If you are unsure that the wire can supply the power required for the instrument, then use an external relay.
- GREEN -- connect this wire to the positive line (+12V) from the headlight switch. When this line receives a positive voltage, the gauge will use the “park-lights” brightness setting. Alternatively, if setting up a racing-mode display, this can be connected to a separate mode switch (12V or 0V signal).
- WHITE -- connect this wire to white wire on the air-pressure sender.
- PURPLE – connect this wire to the red wire on the air-pressure sender.
- BLACK on sender – connect this wire together with the black (ground) wire at the back of the gauge. Both of these wires together would then be connected to a good chassis ground.

## OPERATION

Press and hold the button for a few seconds to change the mode. Press and release quickly (tap the button) to change the setting in any mode. Modes are as follows:

MODE	DISPLAY	SETTINGS
Normal	(Pressure)	Tap button to silence the alarm if it trips.
Set low-pressure alarm	L . 20	Sets the low-pressure alarm threshold in PSI.
Set high-pressure alarm	H . 70	Sets the high-pressure alarm threshold in PSI.
Brightness regular (day)	Br . 9	Last digit shows regular brightness level from 1 to 9.
Brightness park-lights on (night)	BP . 1	Last digit shows brightness level with lights on from 1 to 9.
Select sensor	S.P1	Select P1 for SEN-PZ150A, or P2 for SEN-F250.

It is important to inform the gauge which sensor will be used, otherwise displayed values will be incorrect. Use the last mode to do this.

## WARRANTY & LIABILITY

Neither VEI Systems, nor its dealers or agents shall be liable in any way, for any damage, loss, injury or other claims, resulting from the installation or use of this product. By purchasing or installing this product, you assume all liability of any kind connected with the use and/or application of this product. If you are unsure that you can safely install and use this product, consult a qualified installer or mechanic. The warranty on this product covers only the product itself for a period of 1 year from the date of purchase, and it will be at our discretion to repair or replace the affected parts. No user serviceable parts inside. Warranty void if product enclosure opened.