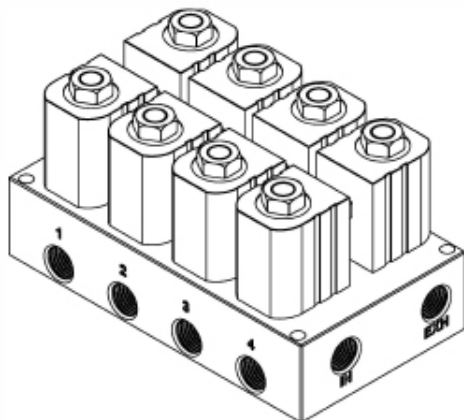


**HKIAIR**  
SUSPENSION

Product specially developed for air suspension, its function is to control the passage of air from the air tank to the air bags or release air from the air bags (*raising and lowering the vehicle*). With the 1/4 valve manifold is possible to control 4 air bags independently, as the valve manifold has 8 valves (*4 valves to go UP and 4 valves to go DOWN*). It is extremely important that the pneumatic system is independent, this way you will have the standard characteristics of the vehicle maintained as the original suspension, bringing more stability and safety for you.

## Pneumatic Installation

The 1/4 valve manifold has all ports with the size of 1/4 NPT, with two air inlets (IN), two air outlets (EXH), 4 air bag outlets and 4 air pressure gauges/sensors outlets.



**IN Ports:** Air supply from air tank. *(we always recommend the use of a water trap between air tank and valve manifold)*

**EXH Ports:** Exhaust, air outlet from the air bags when lowering the vehicle.

**Front and Rear Ports:** These ports will serve to send air to the air bags and pressure gauges/pressure sensors.

*The pressure is always shared between the front and rear ports of the same number, so the installation of the pneumatic line of the air bags and pressure gauges can be made according to the need of your installation.*

The 1/4 valve manifold can be installed at any angle, internally or externally, without any limitation.

## Electrical Installation

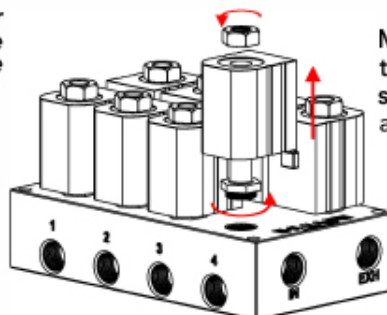
There are only positive and negative wires on the valve manifold, but you have to make sure you are correctly following the manufacturer's electrical wiring diagram of the air suspension control you will be using in your system.

**IMPORTANT:** The 1/4 valve manifold was specially developed to work with 12v electrical systems, adapting it to any other system with voltages lower or higher than this may compromise the product's operation and void the warranty.

## Maintenance

Maintenance of the 1/4 valve manifold will only be necessary if an air leak is identified at the exhaust ports (**EXH**) when there is no action by the controller. Another maintenance need for the 1/4 valve manifold will be if the valve ever stops opening to release the air flow (whether to raise the car or lower the car).

In both cases, first make sure the vehicle is safe for such maintenance, exhaust the air from the entire system (*air tank and air bags*) and disassemble the valve that has malfunctioned.



Make the internal cleaning of the valve with the aid of a de-seize and assemble the set again.

Do not use excessive force when reassembling!

It is important to understand the difference between independent pneumatic system and independent electrical system.

**Independent Pneumatic System:** Pair of valves for each bag. *(Each air bag has its independent pressure)*

**Independent Electrical System:** Single air bag actuation by suspension control.

**ENSURE** that the vehicle is supported on trestles or that there is nothing under it before disassembling the valve block, as in doing so, the air bags will lose pressure.  
Do not assemble the valve manifold directly onto the vehicle chassis, provide isolation between the manifold and the chassis. Then ground it properly.





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