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## 1. INTRODUCTORY INFORMATION

The airiRIDE-System.pl suspensions are not approved or certified to be used on public roads. They are built specifically for exhibition cars. Anyone who uses them on regular streets, does it on their own responsibility. We have been building air-suspensions since 2011 and have a long history of working with sports suspensions (www.mapettuning.com).

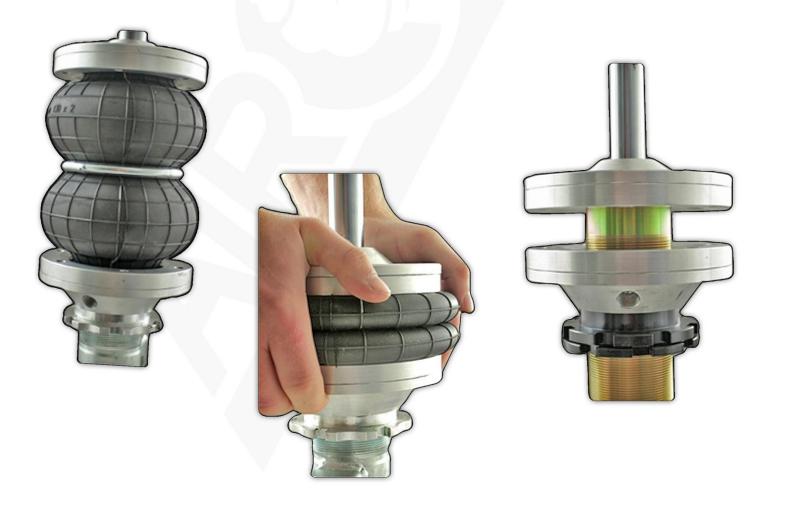
## 2. INSTALLATION OF BAGS

#### CAUTION! This step should be skipped, if you have purchased a set including shock absorbers!

To install the Bag Brackets, screw them on the thread and seal them. You can seal the Airspring Brackets using e.g. adhesive for threaded joints, teflon, silicone, glass adhesive and other sealing compounds. Sealing of threads with larger thread size is more difficult, therefore it is recommended to use silicone-density adhesives for coarse threads with the pitch over 2mm.

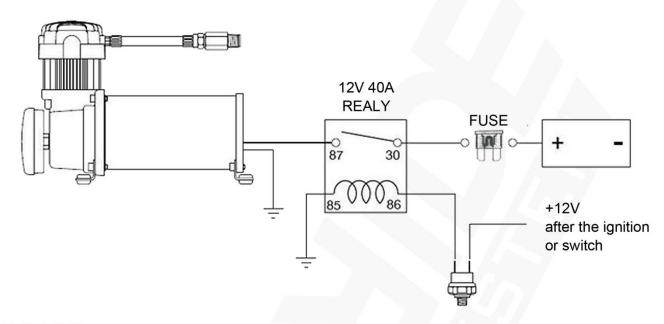
An important element is the placement of the bottom bracket on the shock absorber. To utilize the travel of the absorber optimally, the fitting should be threaded low enough so that when the top bracket is pressed with hands, it touches the shock absorber casing inside the air bag (fig. 2) (fig. 3 shows what it should look like without the air bag). However, it is important to remember about the dimensions of rims and tires. When positioning the fittings, remember to first check whether they fit behind the wheel and, if necessary, correct their placement. If you want to adjust how low the car sits (when it sits too low and, for example, the wheel scrapes the wheel arch), we recommend placing a polyurethane bumper inside or above the top bracket, to reduce the down-travel of the suspension.

CAUTION! You have to fit the bag bracket to your car top bearing perfectly! Sometimes it is necessary to cut something or put some washers or slim spacers to work properly!



## 3. COMPRESSOR INSTALLATION AND USE

#### Relay, pressure sensor and compressor installation diagram:



#### **Initial REMARKS:**

- 1. Do not try to repair or modify the compressors.
- 2. Do not use the product where it can be flooded with water or other liquids.
- 3. The compressor should only be used in 12V installations.
- 4. The products should never be left unsupervised when in use.
- 5. Never allow children to use the compressor.
- 6. The compressor heats up considerably during and directly after use. Do not touch any of its elements with bare hands during and directly after use.
- 7. Never use the product close to fire or explosive materials.
- 8. Never use the device in places where oxygen is supplied.
- 9. Do not pump anything other than atmospheric air with the device.
- 10. Do not direct the air nozzle at another person.
- 11. The compressor is equipped with an automatic temperature off switch. Always disconnect the device from the power source when the switch is activated.
- 12. Use only in well ventilated spaces.

## Please, read and follow the installation manual to avoid bodily harm, as well as compressor or vehicle damage.

#### Installation instructions:

Choosing the right spot for the air compressor will help provide long and seamless service life of the compressor.

- 1. Select flat surface in a secure spot where the compressor can be installed.
- 2. To maximize the performance of the air compressor, it is best to place it close to the battery.
- 3. Select an installation place as far from heat sources as possible.
- 4. Never install the compressor in places where it is likely to come into contact with water.
- 5. Make sure that the air filter inlet is located in a dry place.
- 6. Seal the connection well. Large amount of Teflon tape is not recommended.

#### **INSTALLATION:**

- 1. Disconnect the ground cable from the vehicle battery.
- 2. Temporarily place the air compressor in the spot where it will be installed.
- 3. Connect the ground wire to the battery (-) or appropriate grounding point.
- 4. Installation of the air compressor is done using 4 screws in designated places.
- 5. Install the provided air filter.
- 6. The compressor is equipped with steel-braided hoses, with 380C / 444C -1/4" or 485C 3/8" NPT threading at the ends. Do not remove the hose from the compressor.
- 7. The compressor hose has an integrated backflow preventer. It should not be removed!
- 8. Connect + cable to the compressor, from the relay to the pressure switch.

- 9. Insert an appropriate power fuse onto the + cable from the battery. Place the fuse as close to the power source as possible.
- 10. Before connecting to the power source, double check all connections.
- 11. Connect and test the system by starting the compressor for a short time and check the pressure increase in the air tank.
- 12. Once the air pressure reaches the value set by the pressure switch, the compressor should shut down. Check all of the air connections, e.g. with water and soap solution.

#### NOTICE

- 1. Always use the compressor at or below its maximum pressure level.
- 2. If, at any given moment during its operation, the compressor shuts down automatically, do not try to restart
- it. You can continue to safely use the compressor after leaving it for around 30 minutes to cool off.
- 5. To avoid discharging the car battery, it is recommended to keep the engine running while using the compressor. The performance of the compressor is then increased.

**CAUTION!** Make sure the compressor does not heat up drastically. Frequent cooling of the compressor is recommended. If it reaches the temperature of 100 degrees Celsius, it can overheat and shut down!

#### **MAINTENANCE AND REPAIRS**

- 1. Periodically check all electric connections. Clean and tighten if necessary.
- 2. Periodically check all fixing screws. Tighten if necessary.
- 3. Periodically change the air filter. The frequency of changes depends how frequently the device is used and the working environment.
- Regularly clean the motor cylinder to remove dust and dirt.
- 5. The air compressor is equipped with motor lubrication system. Never lubricate the compressor.

## 4. VALVE DESCRIPTION (NOT FOR BASIC KIT)

Below, we present an example 5/3-way valve used in our sets.

#### There are two options:

- each wheel separately 4 valves
- each axle separately 2 valves

Example Technical specification:

12V controlled model

Type 5/3

Connections 1/4"

Max. working pressure 11bars

Working temperature from -5 to 80 degrees Celsius

Compact valve with airbags emptying and filling function

With pneumatic systems, it is obligatory to use dryers (watertraps) - air pre-conditioning systems - which will allow you to keep the pneumatic system clean and avoid tank corrosion, or damaging the components of the suspension and the control elements of the system. This is a necessary prerequisite of the warranty! It is recommended to install "control" dewatering valves in the tank.





At the bottom of the valve, connect the fitting only to the middle socket.

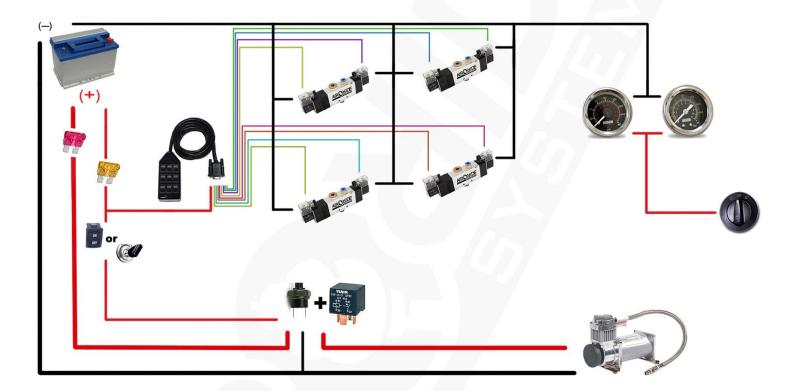
CAUTION! Only connect the control wires of the 2 parallel pins to the coil, the 3rd pin should stay disconnected!

# 5. CIRCUIT DIAGRAM (NOT for BASIC KIT)

#### **IMPORTANT!**

We present an example installation diagram. When using a front/rear set, ignore 2 valves from the diagram. CAUTION! Standard 1,5" manometers are NOT illuminated.

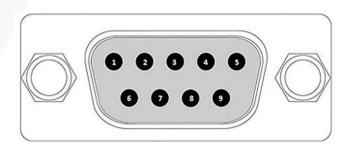
CAUTION! To connect the compressor, use at least 6 mm2 diameter wire and a fuse 30-40A To connect the remote control, use a 0.25-0.5 mm square diameter wire and a fuse around 7.5A



## **6. WIRED REMOTE CONTROL PINS**

#### List by plug pins:

- 1. right side rear lowering
- 2. left side rear lifting
- 3. right side front lowering
- 4. left side rear lowering
- 5. right side rear lifting
- 6. right side front lifting
- 7. left side front lifting
- 8. left side front lowering
- 9. power control with plus 12V



#### **IMPORTANT!**

In the case of a set with 2 valves (Front/Rear), choose one of the pins for each axle (Left or Righ), e.g. 1 or 4; 2 or 5 – or alternatively connect both together.

In VIP 4-way kits if you also want to connect a WIRELESS remote control, it is recommended to use directional led that will not allow the current to flow in the direction of the wireless remote control panel.

# 7. CONNECTING THE WIRELESS REMOTE CONTROL (NOT included in BASIC and Best Price kits)

DESCRIPTION OF CONNECTING THE SYSTEM (FRONT/REAR) WIRELESS CONTROL DRIVER - 4 CHANNEL

#### I. Jumper:

1. To ensure the correct functioning of the control system, set the panel to "momentary" mode.

To do this, completely disconnect the jumper connecting the pins in the panel

#### II. Connecting 12V power supply:

- 1. Through a fuse, connect the battery plus to the cube marked +12V.
- 2. Connect the minus to the GND (-) port.

#### III. Connecting the power source to the control valves:

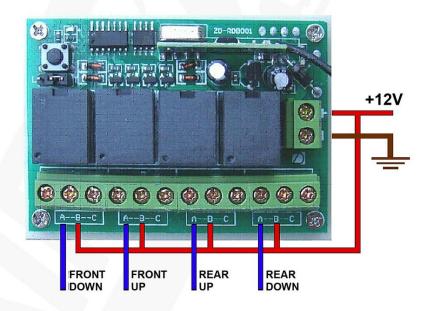
- 1. Through a fuse, connect the battery plus (+12V) to all 4 cubes marked: port B
- 2. Connect the output plus, controlled by remote for each valve:

1st port A - > for controlling front axle valve - lowering;

2nd port A − > for controlling front axle valve - lifting;

**3rd port A** − > for controlling rear axle valve - lifting;

4th port A - > for controlling rear axle valve - lowering.



#### IV. Coding the driver remote control:

Push the black microjoint on the driver plate, and when the red LED lights up, push four buttons on the remote control in succession. (you should hear relays clicking each time)

The driver was coded successfully. If the driver is inserted to the system as an additional control, it should be secured with rectifier diodes to secure the system.

#### **CAUTION!**

In VIP kits connect the WIRELESS remote control to the valves using rectifying diodes 1A that will not allow the current to flow in the direction of the remote control panel!

## 8. AIRRIDE SCHEME

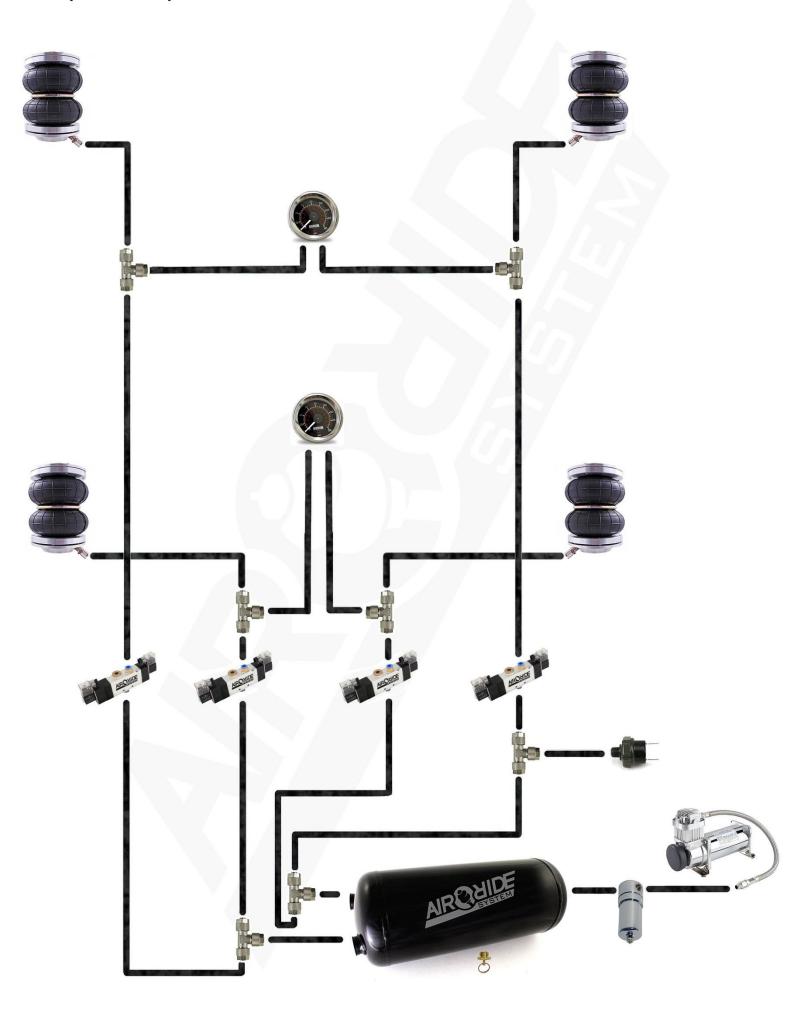
### **BASIC:**



# FRONT / REAR (2 valves):



VIP - 4-way (4 valves):



## AFTER INSTALLING KIT IN YOUR CAR SEND US PHOTOS, WE WILL ADD THEM TO OUR WEBSITE OR SOCIAL MEDIA

## office@airride-system.pl

## **THANKS**





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