

## USER MANUAL

**Reminder:** Our gas springs can replace original parts from other brands in many cases. However, you can sometimes feel a difference between the original gas spring and ours. Mostly because each producer has its own production characteristics. Each gas spring reference is designed for a specific vehicle model.



### **OBSERVE THE FOLLOWING PRECAUTIONS**

- The gas springs must be installed with the rod facing down when the hatchback or hood is closed.
- Do not lubricate or grease the gas spring rod.
- Used gas springs must be neutralized before recycling (see the next page).
- **End fittings should be screwed in to the stop without overtightening.**
- **If you have any doubts about installation or recycling, contact us by email at [info@verinauto.eu](mailto:info@verinauto.eu)**
- This product is strictly for adults and **not suitable for individuals under 18 years old.**

## INSTALLING THE GAS SPRINGS

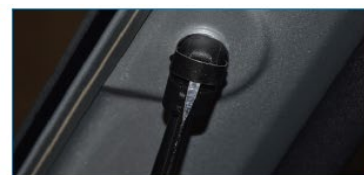
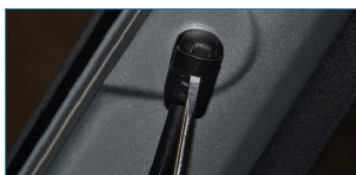
**Preliminary Note:** In most cases, it is not possible to compress the gas spring by hand due to its force. It is essential to remove the two old gas springs before installing the new ones.

**Do not force when clipping the sockets onto the ball end (risk of thread breakage on the gas spring).**

- Remove the new gas springs from their packaging and align the ball socket openings so that the socket housings are oriented in the same direction (always turn clockwise and do not unscrew the gas spring socket as loosening a socket may break the gas spring thread).
- Get assistance from someone to hold the hatchback or hood in the open position (note: without gas springs, a hatchback or hood can be very heavy! Do not be surprised by the weight).
- **For a metal ball socket, it's equipped with a locking pin that must be removed before installation and replaced after reinstallation** of the gas spring on the hatchback ball end (see images below).
- Sometimes, you will need to reposition the locking pin into its groove inside the socket (using a small flathead screwdriver). You can also use a small hammer/mallet to tap the socket after positioning it on the ball end (do not hit too hard).



- **For a plastic ball socket**, it has a metal ring that automatically locks the socket onto the ball end. Slightly lift the ring with a screwdriver to facilitate the installation or removal of the ball socket from the vehicle's ball end.



In some cases, our ball sockets may differ slightly from the original sockets but remain adaptable.

Carefully check the installation of the socket on the ball end; it must be fully clipped in and **SHOULD NOT** come off once it is on the ball end.

## **SAFETY PROTOCOL FOR GAS SPRINGS**

Gas springs contain nitrogen and oil under pressure. This pressure can reach 160 bars when rod is out, and 250 bars when rod is inside.

### **PRECAUTIONS**

- Do not expose the gas spring to shock, vibration, electric or magnetic fields.
- Do not expose gas springs to temperatures exceeding 80°C.
- Keep the piston rod free of dirt, spatter, paint, adhesives, solvents, or corrosive materials.
- Do not damage the tube of the gas spring (cuts, abrasion, blows) which could reduce the strength from the tube or an internal component.
- Do not remove the gas spring from the application as long as the rod is engaged in the tube, without first neutralizing it (unless it is completely open, rod out).
- Check that the gas spring is not subject to lateral forces.
- Let a clearance of 0.5 to 1mm between the gas spring end fittings and the mounting pin of the application, in order to allow the end fittings rotate on their pins when in operation.
- Compression gas springs must be mounted with the rod downwards at a minimum angle of 15°.

### **NEUTRALIZATION**

To neutralize a gas spring, it is necessary to release the pressure contained in its body.

This operation is necessary before scrapping it or before extracting it when the rod is blocked into the body, please proceed in the following way: (wear safety glasses).

- Block the application if the gas spring is still in position.
- Lightly clamp the gas spring in a vice if it has been removed from the application.
- Use a hand hacksaw for metal to gently saw the body of the gas spring in an area between 20mm and 30mm from the bottom of the tube (opposite side of the spring rod).
- Cover the saw blade with a duster to prevent any projection of metal or oil.
- When you hear the gas coming out (hissing sound) stop the operation and wait for the gas to be completely evacuated from the body.
- The degassing will be completed when the rod can be moved without constraint by hand. If this is not the case, make a second cut at the front of the tube (40mm from the front, or less for short strokes).
- Dispose of the gas spring in a suitable container (the components are mainly metallic). The nitrogen used in gas springs is inert and environmentally safe. The internal oil should be emptied into an oil change container (we use mineral oil).



BM gas springs cannot be disposed of in the household waste. All materials used to manufacture the gas spring can be recycled. Please go to a specialised recycling center. The oil inside the tube must be drained. Please refer to the "neutralization procedure".

## **1. CONTACT US – CUSTOMER SERVICE**

Postal address : **BM**

**1 rue de la gravière  
67116 REICHSTETT**

Mail : **info@verinauto.eu**

Website : **www.verinauto.eu**