

USE INSTRUCTIONS FOR CHARGING: NITROGEN GAS SPRINGS, OPEN-SYSTEMS AND MANIFOLDS

This device enables you to charge our gas springs and – using a control panel – open-systems and manifolds. We recommend you follow carefully and properly the use instructions hereafter stated in order to ensure maximum safety. Charging must be performed by trained personnel.

ATTENTION: do not charge gas springs that show signs of damage on any of their components (knocks, seizures, etc.).

CHARGING: provide a bottle of nitrogen gas. Make sure that the piston rods of the gas springs are fully extended (uncompressed), then proceed as follows, depending on the devices used (see pictures):

1. CUC01: turn off taps **A** and **B**. AP01: turn off tap **N**. APM: turn off tap **N** and all taps **O**.
2. CUC01: screw, onto **C**, the charging adapter (**D** for gas springs, **E** for panels AP01 and APM). No adapter is needed for gas springs with charging port **M** = M8.
3. Screw the gas spring onto the CUC01 charging unit. AP01 and APM: connect the CUC01 unit to the charging valve **F**.
4. Screw the fitting **E** onto the nitrogen gas bottle. The provided fitting is in accordance with the Italian standard for nitrogen gas bottles: because of the many different national standards, the user should get himself the proper fitting in case of different bottle connections.
5. Connect the fitting **E** to the hose of the CUC01 charging unit using the quick coupling **H**.
6. Turn on the tap of the nitrogen gas bottle slowly.
7. Turn on very slowly tap **A** on the CUC01 charging unit and check pressure increase on manometer **I**. When charging gas springs, never keep any body parts in front of the piston rod.
8. Charging of gas springs and single control panel AP01: turn off tap **A** as soon as the required pressure is reached. Charging of modular control panel APM: turn on very slowly tap **O** on the module to be charged and turn it off as soon as the required pressure is reached; when more than one module is to be charged, repeat these operations for each module, one at a time; finally, turn off tap **A** and then turn on tap **N**.
9. Turn off the tap of the nitrogen gas bottle.
10. Turn on tap **B** quickly, in order to release residual pressurized nitrogen gas from the CUC01 charging unit.
11. After all nitrogen gas is released, disconnect the gas spring or the control panel (AP01 or APM) from the CUC01 charging unit.
12. Turn on tap **A** on the CUC01 charging unit in order to release residual pressurized nitrogen gas from the hose connected to the nitrogen gas bottle. After all nitrogen gas is released, it is possible to disconnect the nitrogen gas bottle.

DISCHARGING: to discharge nitrogen gas, proceed as follows (see pictures):

GAS SPRINGS: screw the proper discharging device **L** into the charging port **M** until you hear nitrogen gas starts being released. Wait until nitrogen gas is released completely.

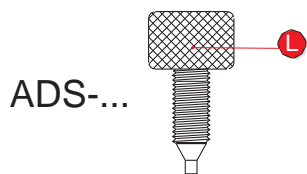
CONTROL PANELS: for the single control panel AP01, turn on tap **N** until you hear nitrogen gas starts being released. Wait until nitrogen gas is released completely. For the modular control panel APM, turn on tap **N** completely, then turn on tap **O** on the module to be discharged until you hear nitrogen gas starts being released. Wait until nitrogen gas is released completely.

IMPORTANT: gas pressure has to be gauged with gas spring at room temperature (20°C), since pressure increases of about 0,34% for each degree centigrade at constant volume. For example, a gas spring charged at a pressure of 150 bar at room temperature (20°C) will reach a pressure of about 168 bar if gauged at 55°C.

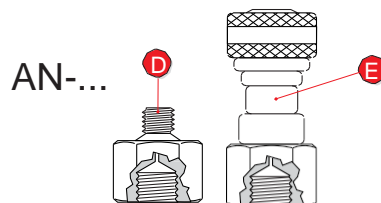
ATTENTION: RESPECT THE NITROGEN GAS SPRINGS USE INSTRUCTIONS AND THE MAXIMUM CHARGING PRESSURE OF THE DIFFERENT MODELS, AS INDICATED IN OUR CATALOGUE (download it from our website www.bordignon.com).

IMPORTANT: the maximum charging pressure of the CHT, CSMHT and CRAL nitrogen gas springs is defined for each specific application according to the use conditions declared on the dedicated technical form, and it is indicated on the gas spring's label.

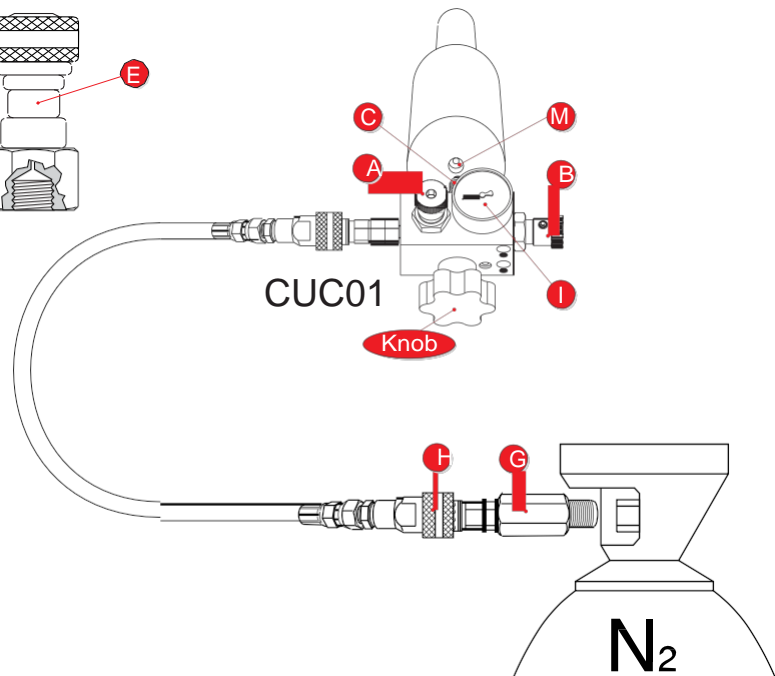
Discharging devices:



Charging adapters:



Charging unit:



Control panels:

