

## **Must read and do before the first run! !**

Unscrew the closing screw of the cover of the booster cover and after opening the cover remove the foam filling, take out the plastic bag with accessories and take out the high-pressure hose outside of the box.

The supplied instructions with ring binding are intended for the basic variant of the booster, intended for filling bottles using a standard workshop compressor. This annex to the manual is used to familiarize yourself with the additional bottle-to-bottle filling functions. In case of any misunderstanding or problem with the regulator, always contact the manufacturer.

Also, check the position of the nut on the regulator and its line relative to the position of the line on the regulator body (see figure). The two lines should face each other. If the lines do not point towards each other by more than 1/4 turn, turn the nut clockwise (screwing in) so that they point against each other. If this cannot be done, change the direction of rotation until they point towards each other (a key must be used). If they are shifted by less than 1/4 turn, turn the nut, in any direction so that the lines are facing each other. **Never make more turns counterclockwise !!**



The outlet pressure from the regulator is very important and in case of exceeding the maximum allowed outlet pressure, the silicone hose will rupture, which serves as a burst-fuse and protects the booster from damage due to excessive pressure. **Never replace this hose with another hose, there is a risk of damage to the booster and injury to the operators !!**

If the silicone hose breaks, attach the spare silicone hose, screw in (clockwise) the regulator nut as far as it will go. Start the compressor and then gradually unscrew the nut (counterclockwise) after 1/10 of a turn until the booster starts. Then mark a new line.

**Higher pressure from the regulator does not increase efficiency, but on the contrary, reduces it and at the same time endangers the booster parts and the operator with high operating pressure!**

### **Warning!!**

**Never start the booster without opening the filled bottle valve (target bottle) - if the filled bottle valve is closed, the pressure created in the booster in just one stroke will cause the entire system to be overpressurized and the manometer and other parts of the booster get damaged!**

**Before filling, first, check that the switch-off lever of the manometer hand is set to the required pressure at which you intend to fill the bottle or PCP rifle!**

**Focus fully on the task and monitor the outlet pressure. Do not exceed the maximum pressure of the filled bottle or PCP rifle or the outlet pressure maximum of 300 bar (4500 PSI)!**

**You are working with a very high outlet pressure, which can reach up to 500 bar, which is a pressure that can cause the pressure bottle to rupture and cause injury or death to the operator and other people in the area. Always be present and check the current pressure when operating the B2B booster.**

## **Basic information**

The new version of the compressor booster under the name Hybrid brings, in addition to the classic filling of cylinders or PCP rifles using a workshop compressor, similar to the basic compressor booster, also the possibility to fill a cylinder or PCP rifle from another cylinder with lower pressure similarly to the B2B version but this variant cannot work in classic compressor mode. The hybrid, therefore, brings a function from both devices and allows a quick change between these functions.

The B2B mode is especially suitable if you have one large bottle and fill a smaller one, or if you are away from home, for example at a shooting range, and you want to refill the PCP rifle's air cartridge to the maximum allowable pressure. You can fill them up to 3 times more than your standard bottle normally allows without using this multiplier. The B2B mode uses the pressure from one (source) bottle, which it uses to multiply compressed air into the cylinder of the multiplier and at the same time uses part of the air to drive the multiplier. The multiplied pressure is then transferred to the second cylinder or PCP tank. In B2B mode, the multiplier can be driven by pressure from a source cylinder or the multiplier can be driven by standard compressed air from a workshop compressor (5.5-10 bar), for example from a conventional workshop low-pressure compressor.

## Overview of individual modes of the Hybrid compressor booster

(Below you will find a detailed description for each individual operating mode)

### 1.1 Basic configuration - filling the bottle with air using a workshop compressor:

In the basic configuration, the booster works classically for filling bottles or PCP rifles with the help of a workshop low-pressure compressor, that the booster pressurizes the filled bottle or PCP rifle after connecting to the drive air from the compressor (5.5 - 10 bar).

### 1.2 Filling from a bottle, driven by a workshop low-pressure compressor

The drive air is still supplied from the workshop low-pressure compressor (5.5 - 10 bar), but instead of multiplying the low pressure from the workshop compressor, high-pressure air from the source cylinder (50-300 bar) is used as the pressure source for multiplication. This version is suitable for maximum use of the pressure medium in the source bottle, where smaller bottles or PCP rifles can be filled from a given bottle to a higher pressure than that found in the source bottle. Furthermore, the contents of cylinders with rare inert gases, eg Helium, Argon, Nitrogen, can be used as efficiently as possible. **Never use non-inert gases that are flammable or explosive, such as oxygen, hydrogen, etc.!!**

### 1.3 Filling from a bottle, drive of the booster also from the bottle

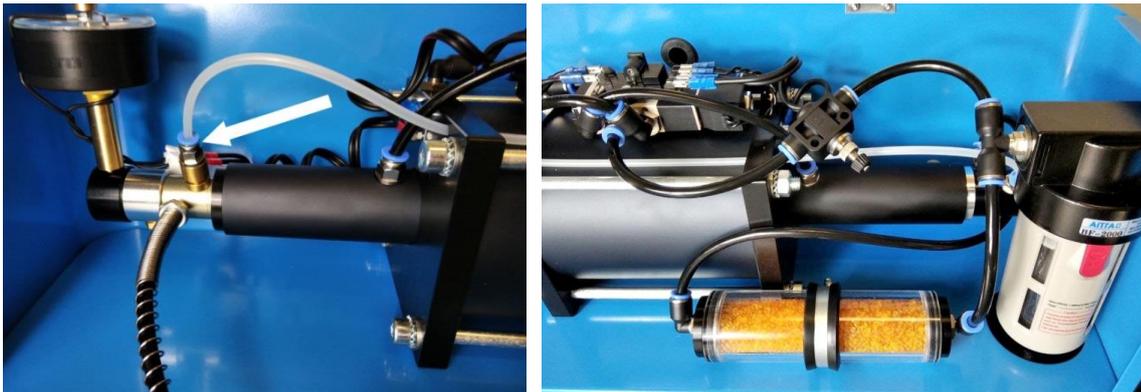
This version is ideal for filling away from home, eg at a shooting range. For this configuration, it is necessary to use a regulator that regulates the pressure for the drive to approx. 5.5 bar. Filling and drive air is provided by one source bottle, and it is possible to use, for example, a power bank to power the booster control circuit.

**(We recommend watching the instructional video from our website first, where everything can be clearly seen)**

## 1 Filling configuration

### 1.1 Filling from a bottle, driven by a workshop low-pressure compressor

The air from the workshop compressor is connected from the side of the cover from where it flows into the water separator. There is a T-hub on it, from where one branch leads to a cylinder with silica gel balls. The second to the throttle valve, from where it continues to drive the compressor. To the left of the large cylinder, a white hose leads upwards from the quick coupling, through which the medium-pressure air is led from the other side of the multiplier.



#### 1.1.1 Start the filling:

1. Before starting, the required pressure is set on the manometer.
2. Attach the filled bottle to the hose leading out.
3. Open the filling bottle valve!
4. Insert the power cable through the metal cover from behind. Connect a round end to round socket on the booster and the plug to a power socket.
5. Connect the drive air from the workshop compressor to the quick coupling from the side of the sheet metal cover.
6. The compressor booster starts.

### 1.1.2 End the filling:

1. Disconnect the drive air from the side of the cover.
2. Close the filled bottle.
3. Bleed the filling hose.
4. Disconnect the bottle.
5. Disconnect the cable from the power plug.

## 1.2 Filling from a bottle, driven by a workshop low-pressure compressor

In contrast to the basic configuration, the white thin hose is disconnected from the quick coupling at the top left after depressurizing the outlet hose. This is done by pressing the blue ring on the top of the quick coupler downwards and at the same time pulling out the white thin tube. Subsequently, the whole quick coupling is unscrewed from the brass roller by fingers and the black male quick coupling is screwed in its place firmly by fingers, see. picture:



A source bottle hose is connected to this coupling, the pressure which will be multiplied goes into the booster and is filled into a target bottle or airgun connected to the outlet hose.

Next, a hose leading to the silica gel ball cylinder is disconnected from the T-junction on the water separator on the right side of the box. And the empty opening is sealed with the plastic stopper provided in the packaging.



### 1.2.1 Start the filling:

1. Before starting, the required pressure must be set on the manometer.
2. Attach the filled bottle to the hose leading out.
3. Close the vent screw and **open the inlet valve of the filled bottle!**
4. Insert the power cable through the metal cover from behind. Connect a round end to round socket on the booster and the plug to a power socket.
5. Attach the source bottle to the black male quick coupler (located instead of the white tubing).
6. Open the source bottle valve.
7. Connect the drive air from the workshop compressor to the quick coupling from the side of the sheet metal cover.
8. The compressor booster starts.

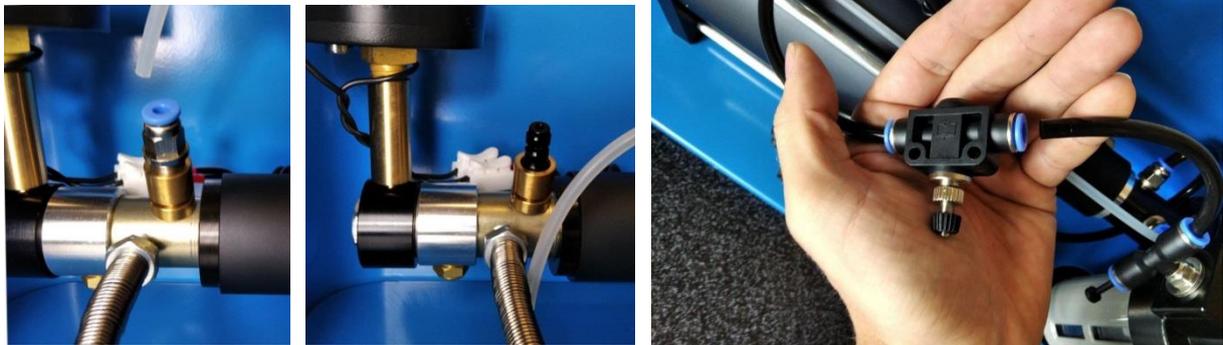
### 1.2.2 End the filling:

1. Disconnect the drive air from the side of the cover.
2. Close the source bottle and bleed air from hose.
3. Close the filled bottle and bleed air from hose.
4. Disconnect the source bottle.
5. Disconnect the filled bottle.
6. Disconnect the cable from the power plug.

### 1.3 Filling from a bottle, drive of the booster also from the bottle

In contrast to the basic configuration, the white thin hose is disconnected from the quick coupling at the top left after depressurizing the outlet hose. This is done by pressing the blue ring on the top of the quick coupler downwards and at the same time pulling out the white thin tube. Subsequently, the whole quick coupling is unscrewed from the brass roller by fingers and the black male quick coupling is screwed in its place firmly by fingers, see. picture:

Next, disconnect the throttle valve from the hose leading from the watter separator on the right side of the box.



Take the pressure regulator, the 6 mm white silicone tube is connected to the throttle valve, the blue ring is pushed in and then the white tube is inserted as far as it will go. The female quick coupling on the regulator is connected to the black male coupling, which we screwed into the brass cylinder as described above in place of the pneumatic quick coupling, which held a white thin hose.



#### 1.3.1 Start the filling:

1. Před spuštěním se na manometru nastaví požadovaný tlak.
2. Before starting, the required pressure must be set on the manometer.
3. Attach the filled bottle to the hose leading out.
4. Close the vent screw and **open the inlet valve of the filled bottle!**
5. Insert the power cable through the metal cover from behind. Connect a round end to round socket on the booster and the plug to a power socket. Or use the included USB cable and connect it to USB 5V power source, which starts powering the circuit.
6. Connect the source bottle to the black male quick coupling on the regulator.
7. Close the vent screw and open the inlet valve of the source bottle!
8. The compressor booster starts.

### 1.3.2 End the filling:

1. Uzav e se ventil zdrojové lahve a od vzdu- ní hadice.
2. Close the source bottle and bleed air from hose.
3. Close the filled bottle (this step does not apply when filing an airgun) and bleed air from hose.
4. Disconnect the source bottle.
5. Disconnect the filled bottle.
6. Disconnect the cable from the power plug.

## 2 Configuration of various valve controls

### 2.1 Power supply from the socket

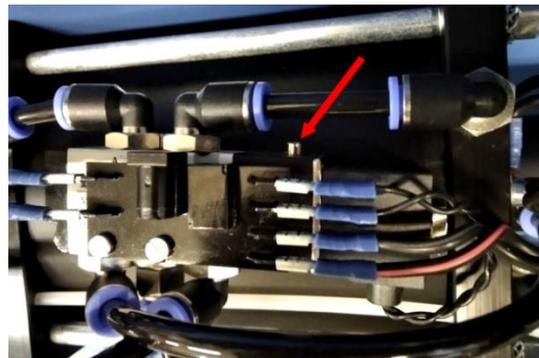
Lead the cable with the AC plug through the hole in the back of the cover, plug it into the round socket on the control circuit and plug the AC plug into the socket.

### 2.2 Portable 5V power supply from USB, power bank, phone with adapter

Connect the enclosed USB cable to the round socket on the control circuit with a round end and connect the USB terminal to any USB port (for example a power bank). Not all USB outputs can provide sufficient required current.

### 2.3 Manual control

Without a power source, the device is controlled by a silver button on the back of the valve - see photo below. For optimal operation, it is necessary to watch the end-switches on the sides of the large cylinder. When the button is pressed, the air is transferred to one side of the cylinder and moved to the extreme position, which is reflected in the movement of the end-switch. As soon as the switch moves, release the button and the piston moves back, where it moves the end-switch again, then press the button again and repeat the procedure after reaching the required pressure, which you monitor on the pressure gauge of the booster and at the same time on the pressure gauge of the filled bottle or rifle.



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When filling, first check that the stop lever of the manometer is moved to a higher outlet pressure than the one you intend to fill the bottle or rifle at! Otherwise, the gauge hand sticks to the stop lever and you will not see a further increase in outlet pressure, which may lead to overpressure of the container.

Before filling, first, check that the switch-off lever of the manometer hand is set to the required pressure at which you intend to fill the bottle or PCP rifle!

Focus fully on the task and monitor the outlet pressure. Do not exceed the maximum pressure of the filled bottle or PCP rifle or the outlet pressure maximum of 300 bar (4500 PSI)!

You are working with a very high outlet pressure, which can reach up to 500 bar, which is a pressure that can cause the pressure bottle to rupture and cause injury or death to the operator and other people in the area.

## **Warning!**

Never start the booster without opening the filled bottle valve (target bottle) - if the filled bottle valve is closed, the pressure created in the booster in just one stroke will cause the entire system to be overpressurized and the manometer and other parts of the booster get damaged!

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