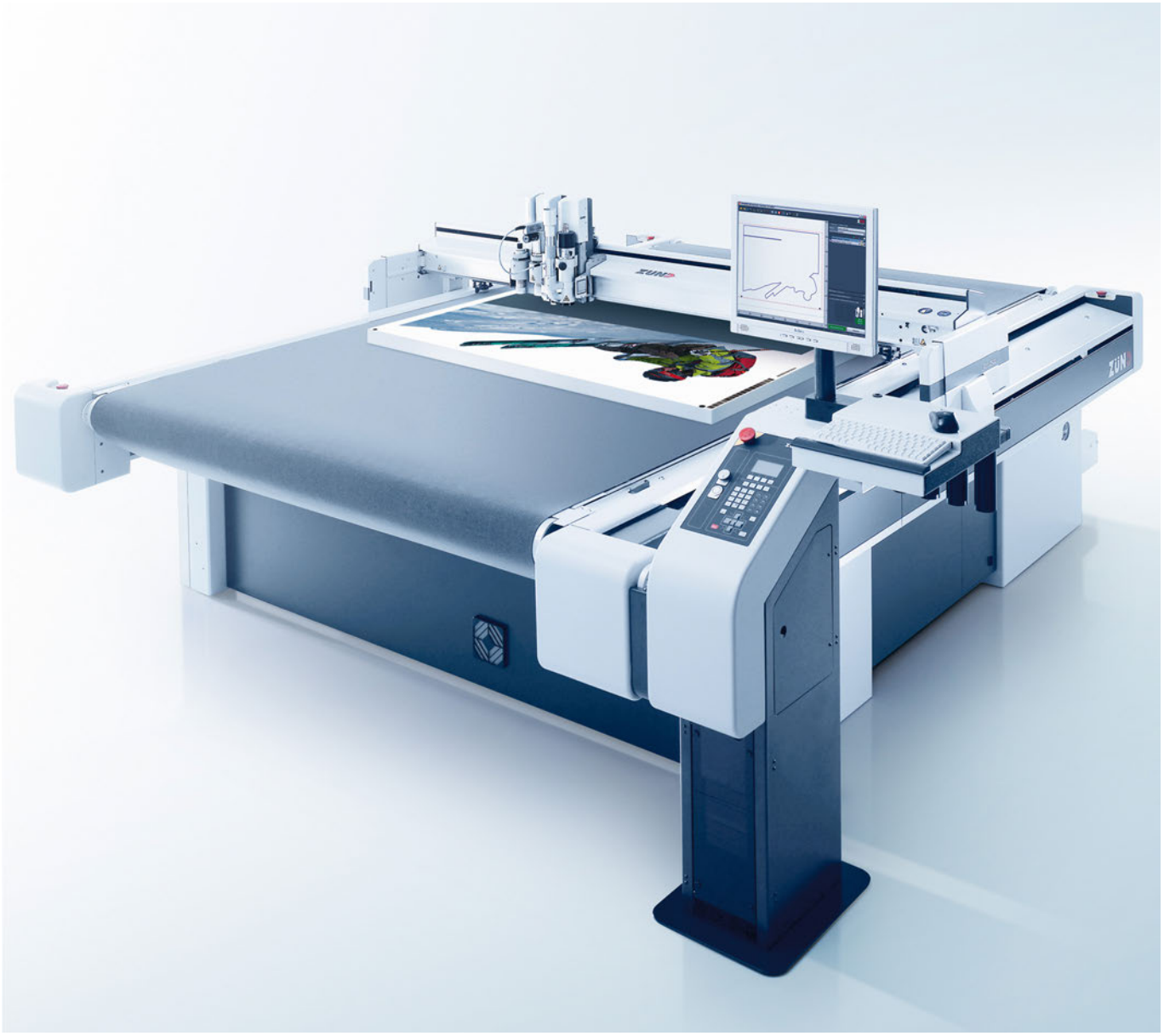
Mounting Instructions
G3 with carbon dust protection



ZÜND
swiss cutting systems

Keep it in a safe place for future use!

Original operating manual

Software/Firmware version: 1.66
Creation date: 01-2017

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1 Introduction

1.1 Intended use

The mounting instructions are for use by the assembly personnel at the service centers and Zünd sales points.

1.2 Scope

This manual describes the commissioning of a G3 with carbon fiber protection. In addition, it describes how to retrofit a G3 to a G3 with carbon fiber protection.

1.3 Personnel requirements

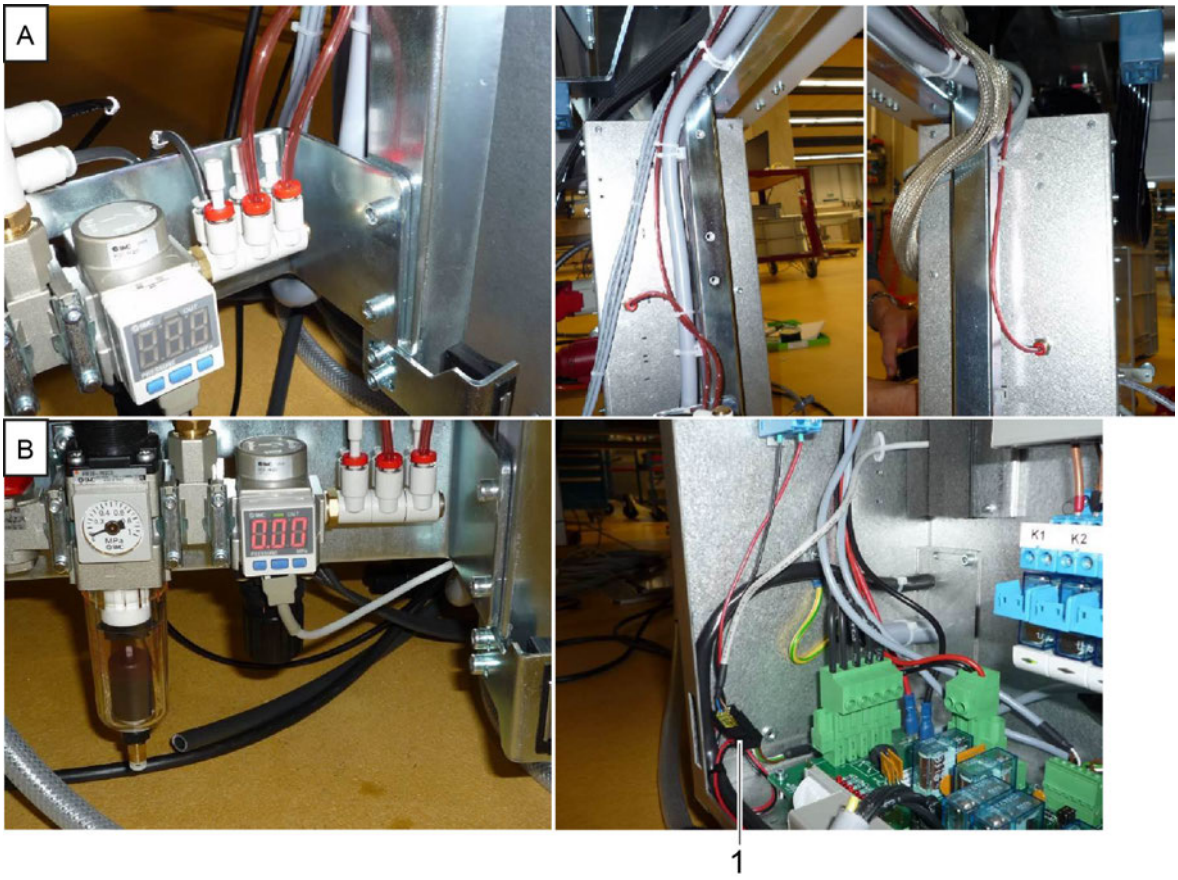
Note:
Assembly may only be carried out by authorised specialists (with a Zünd training certificate) or Zünd personnel.

1.4 Safety

Before starting conversion/retrofitting work, completely disconnect the cutter from the energy sources.

2 Commissioning of a G3 with carbon fiber protection.

2.1 Connecting the maintenance unit



1 3M socket

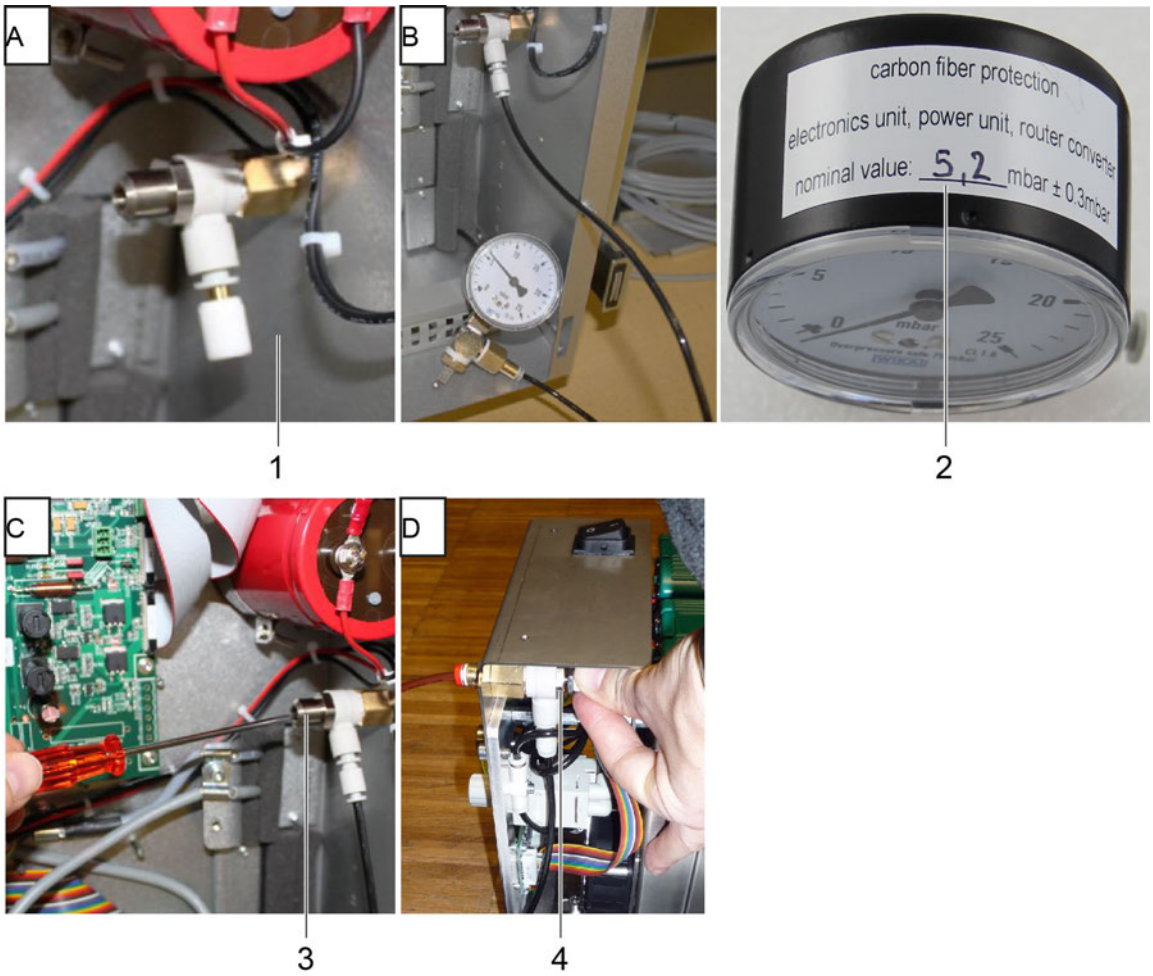
A Connect the red pneumatic hoses to the maintenance unit and to the pressure connectors of the power unit and electronics box.

B Plug the pressure regulator cable and the 3M socket cable into the power box.

C Turn on the cutter at the main switch. The buzzer sounds. It is switched off as soon as the pressure is set correctly.

D Set the pressure regulator to 0.45 MPa.

2.2 Adjust throttle valves



1	Silencer
2	Pressure setting on manometer
3	Setscrew
4	Lock nut

A Unplug the silencer from the throttle valve.

B Plug in the pressure gauge and check the pressure to be set.

C Electronics unit/power box: set the correct pressure using a flat head screwdriver to turn the setscrew. The correct pressure value is shown on the manometer and on the box.

D Routing converter: set correct pressure by turning the setscrew. Secure the setscrew using the lock nut. The correct pressure setting is shown on the manometer and on the box.

E Unplug the pressure gauge.

F Insert the silencer.

2.3 Check

A Check the electronics box and the power unit:

- Large openings are sealed.
- When inserting the cables, the foam rubber closes up the remaining openings.

B Checking the pressure on the maintenance unit (0.45 MPa)

C Testing the buzzer:

- When switching off the compressed air, a warning signal sounds and the color of the digital indicator on the maintenance unit changes to red.
- When switching on the compressed air, the warning signal stops and the color of the digital indicator on the maintenance unit changes back to green.

2.4 Additional control

A Attach the adhesive film to the operating unit.

B Cover unused connection on the ICC camera / laser pointer with a covering cap.

C Cover the unused module slots with a slot guard.

D Cover the unused interfaces on the electronics unit and on the frequency converter with caps.

E Check inserted modules to see if the cover plate has been inserted instead of the filter.

F Check if the openings on the auxiliary drive box are sealed.

Commissioning of a G3 with carbon fiber protection.

3 Retrofitting a G3 with carbon fiber protection

The following points are adjusted during the retrofit.

- The electronics unit and the power unit are sealed and rebuilt so that an overpressure can build up during operation.
- The maintenance unit is replaced by a special maintenance unit with compressed air monitoring.

Note:

Danger of short circuit.

Carbon fibers could get into the electronics during the conversion.

- Clean the cutter carefully.
- Clear the room air and the room of carbon fibers.

3.1 Convert power box

3.1.1 Preparation work

As the risk exists

Note:

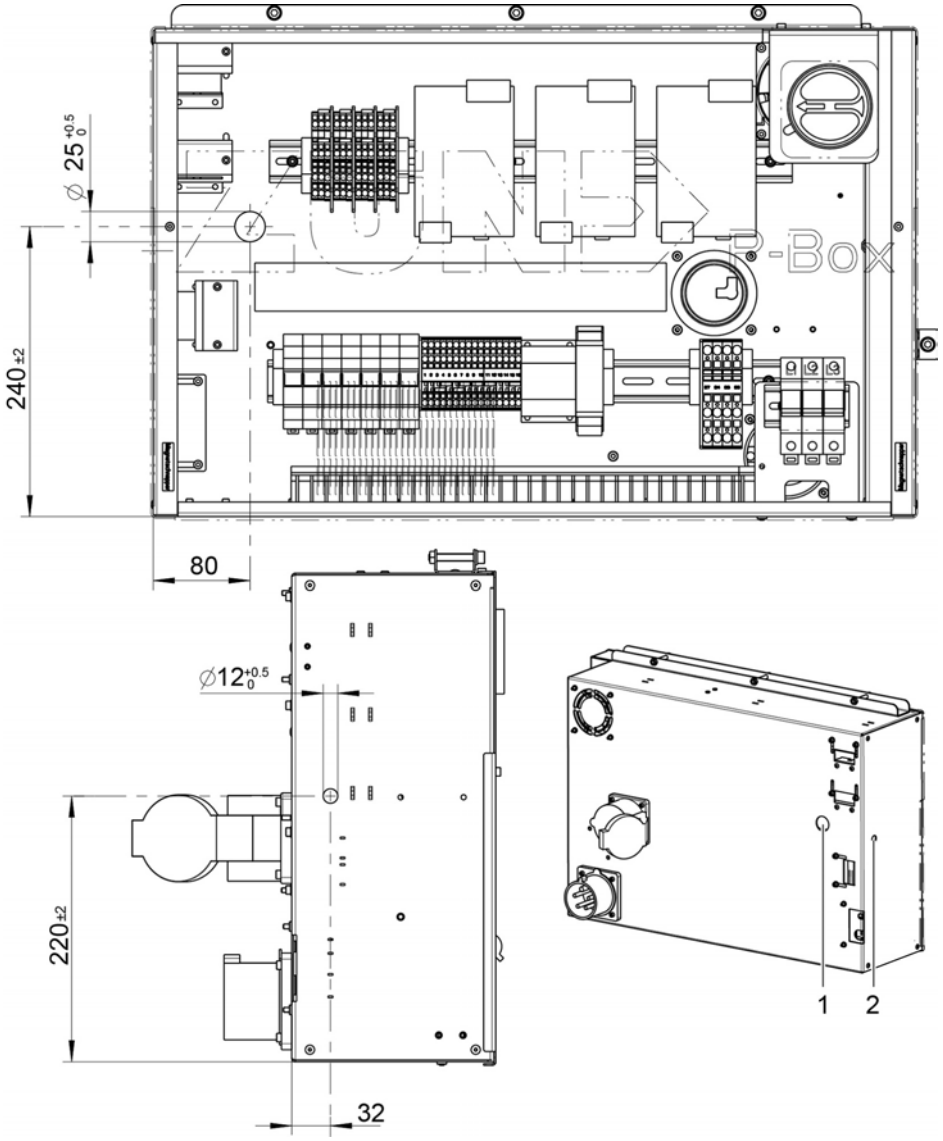
Danger of short circuit.

Carbon fibers could get into the electronics during the conversion.

- Clean the cutter carefully.

- Clear the room air and the room of carbon fibers.

3.1.2 Drilling the holes

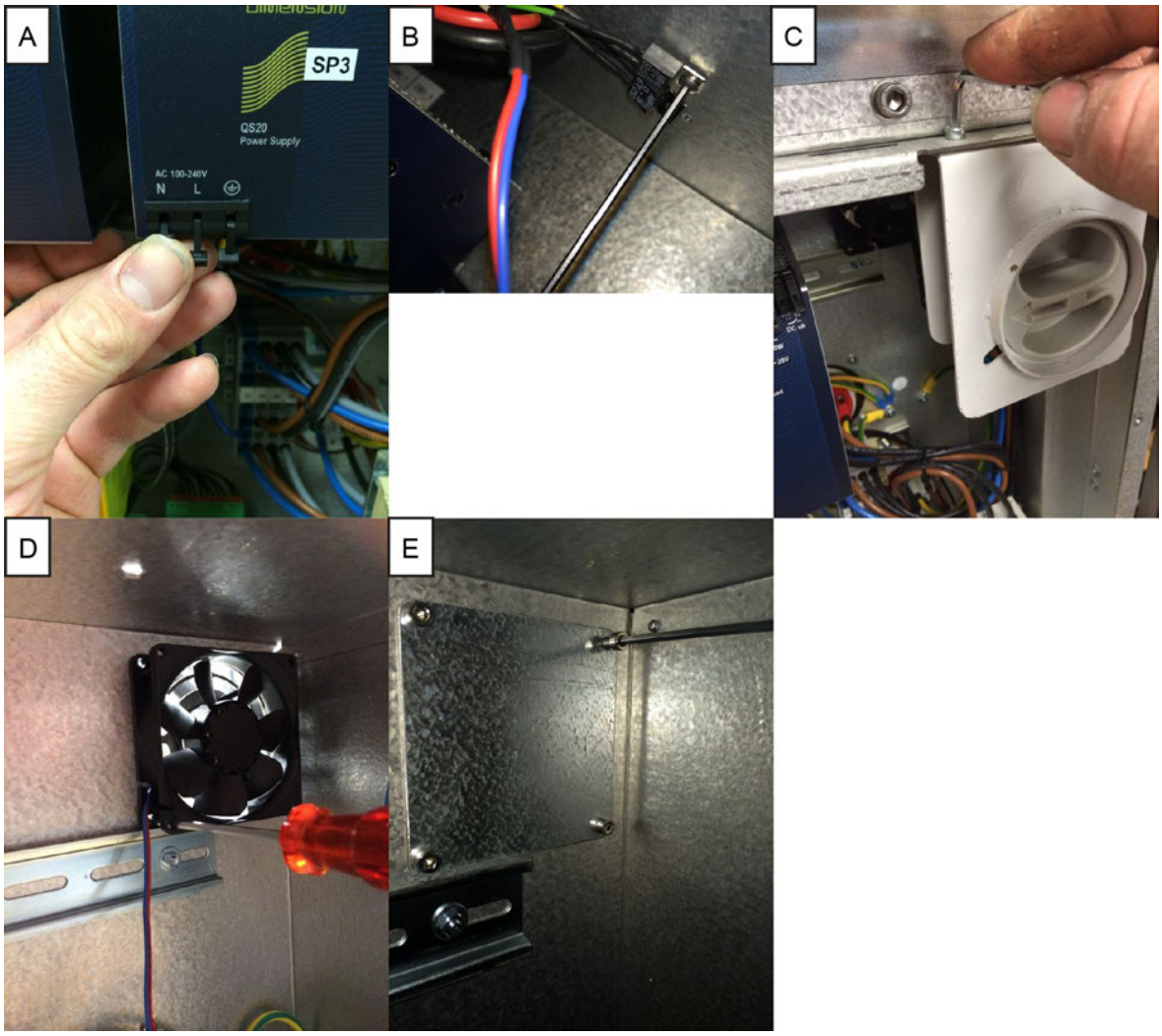


1 Hole for the buzzer

2 Hole for the compressed air connection

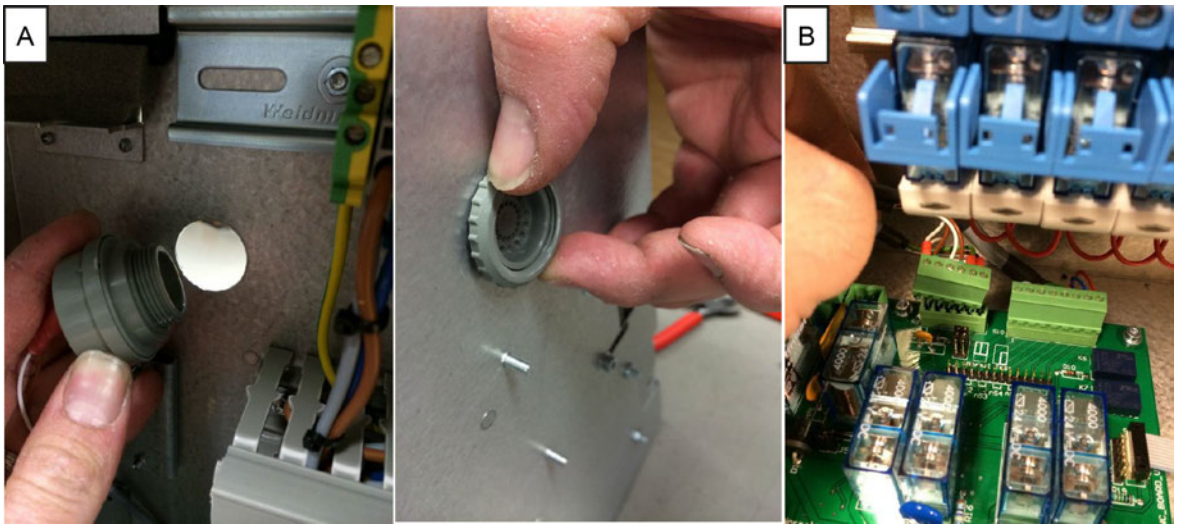
Drill the holes for the buzzer and compressed air connection.

3.1.3 Disassemble the fan



A Dismantle the power supplies SP2 and SP3.
B Dismantle the temperature sensor.
C Unscrew the main switch and tilt it downards.
D Disassemble the fan.
E Close the fan opening with the cover. Use the screws from the fan.

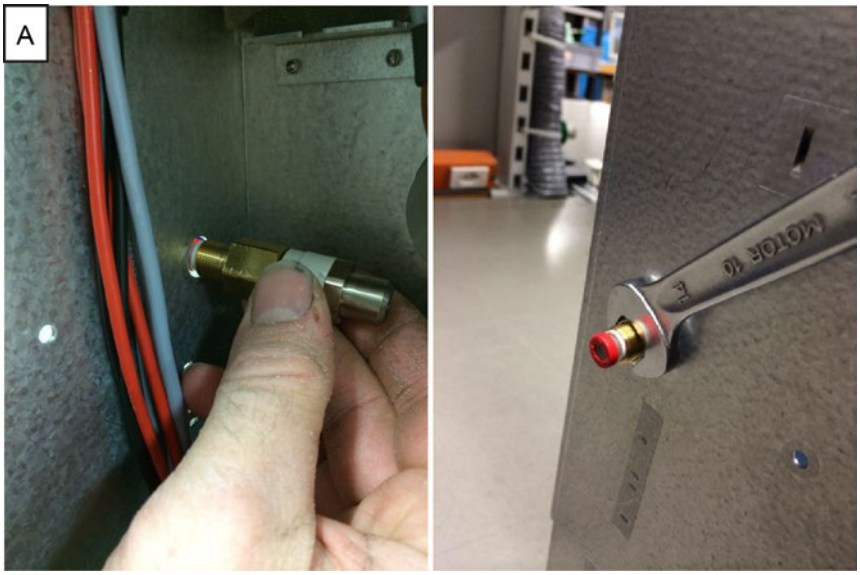
3.1.4 Install the buzzer



A Insert the buzzer through the hole provided and tighten it by hand.

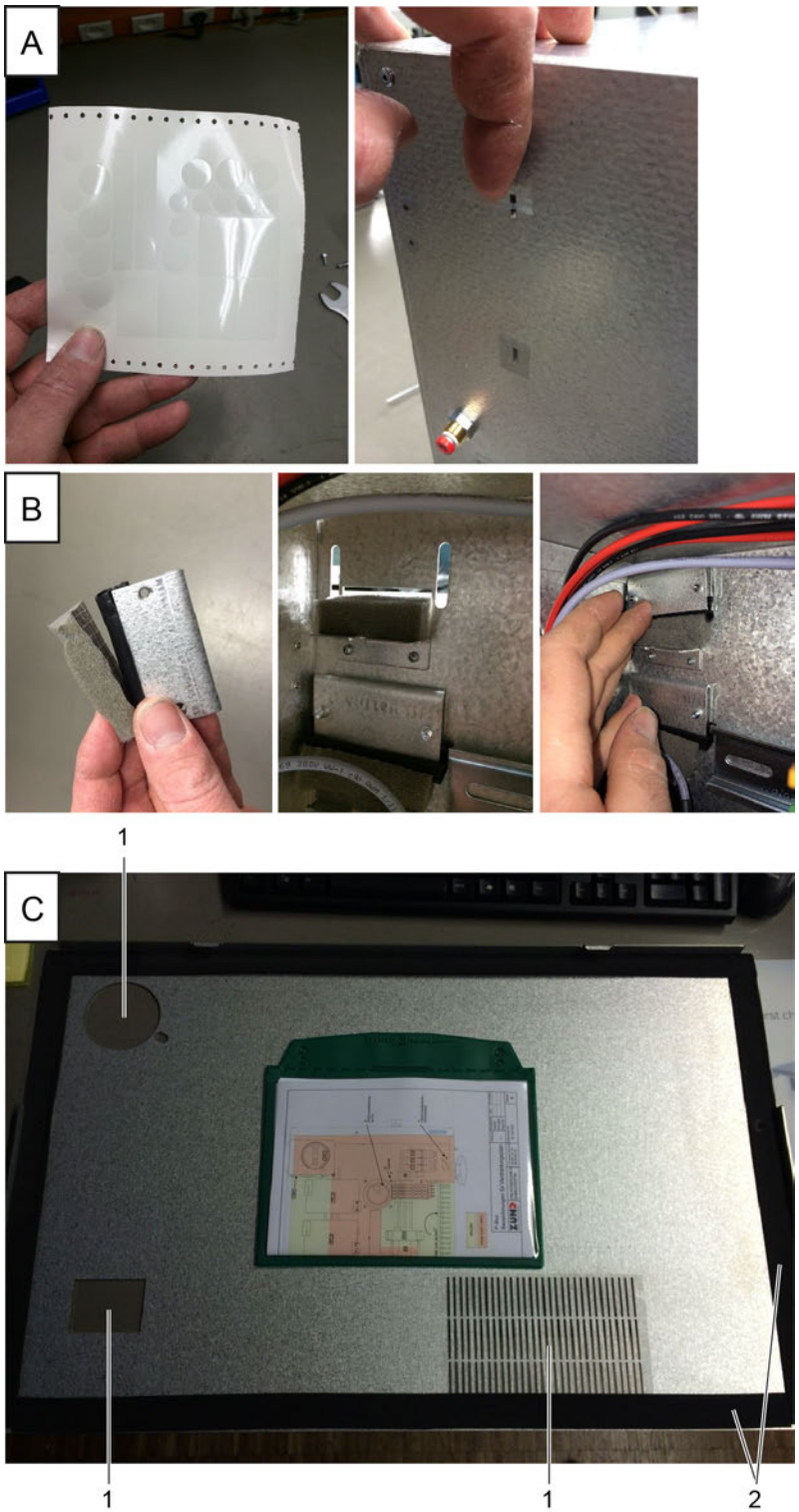
B Plug the buzzer cable into ACS_SYS_FUNC_BOARD S9.

3.1.5 Installing the throttle valve



Insert the throttle valve through the provided hole and tighten it by hand.

3.1.6 Seal power box



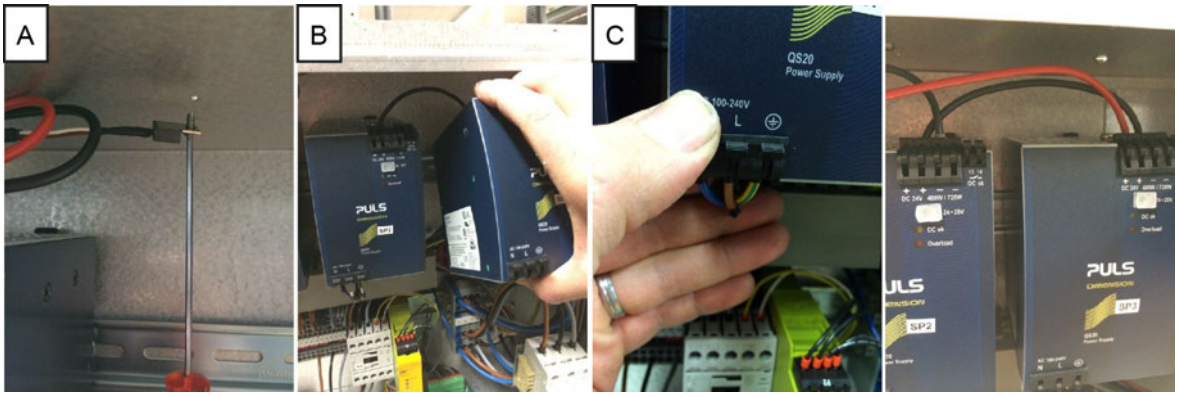
1	Vinyl
2	Foam rubber

A Seal the mounting holes with vinyl.

B Seal the cable bushings with foam rubber.

C Seal the power box cover with vinyl and foam rubber.

3.1.7 Assemble the power unit



A Install the temperature sensor with the available screws.

B Install the power supplies. Insert the power supply from above in the top-hat rail and tilt it downwards until you hear the latch sound. Keep a clearance of about one centimeter between the power supplies.

C Cable up the power supplies.

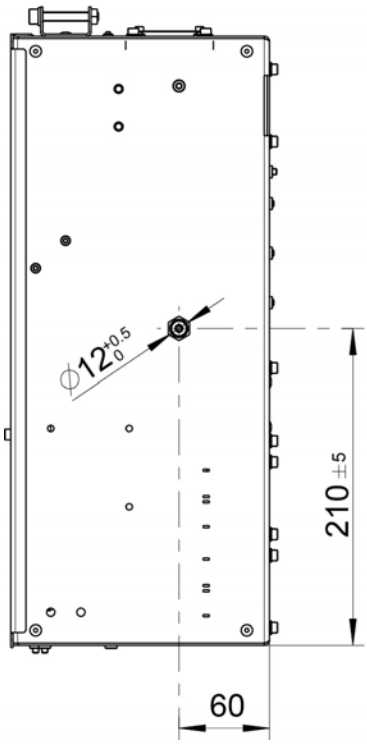
L	Brown
N	Blue
PE	Yellow/green

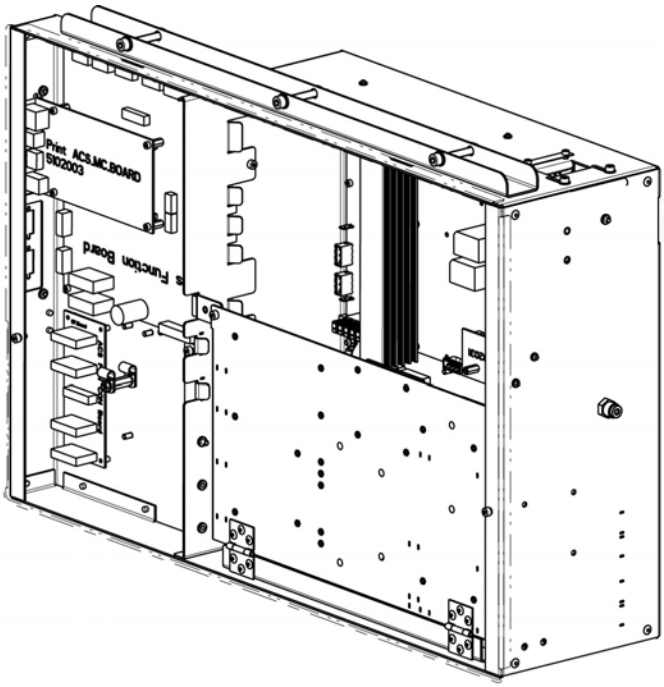
D Install the main switch.

E Install the cover on the power unit.

3.2 Convert electronics unit

3.2.1 Drilling the holes



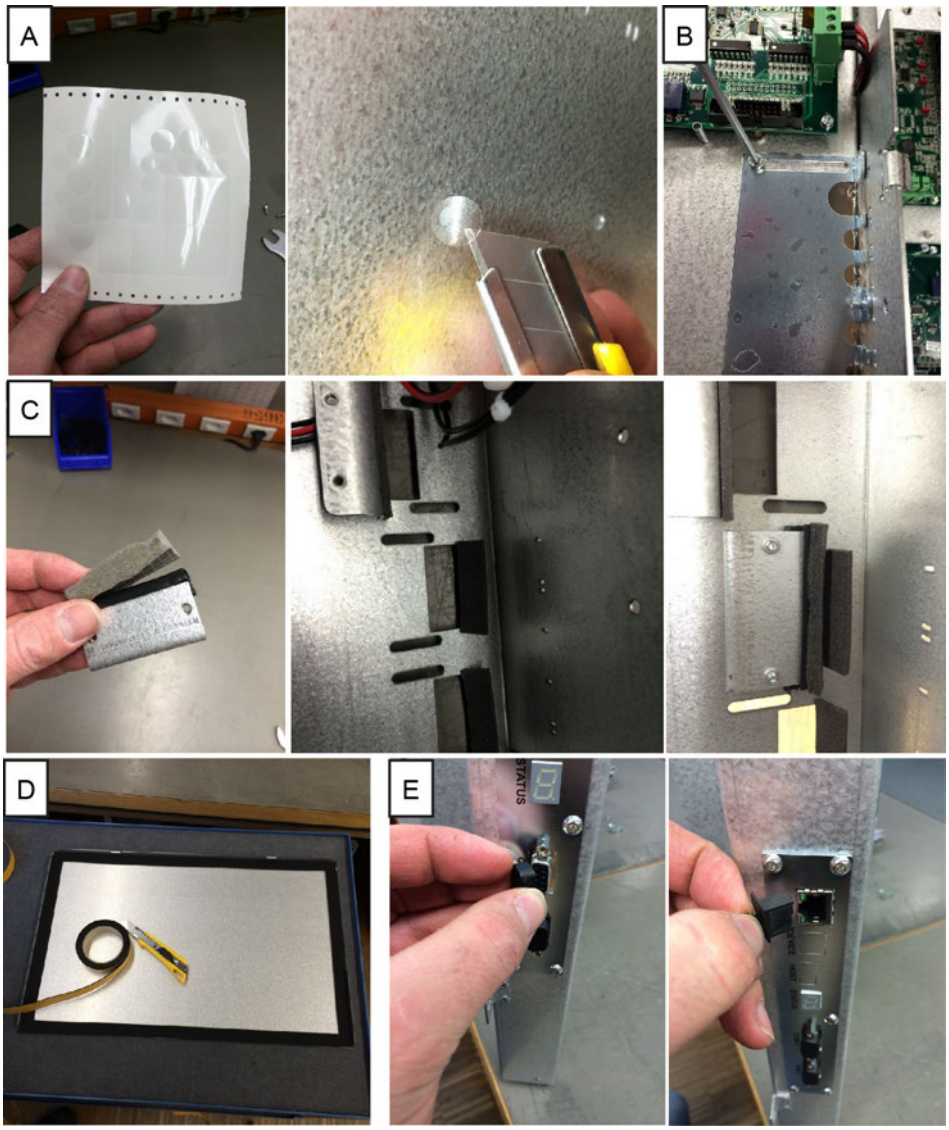


Drill the holes for the compressed air connection.

3.2.2 Installing the throttle valve

Insert the throttle valve through the provided hole and tighten it by hand.

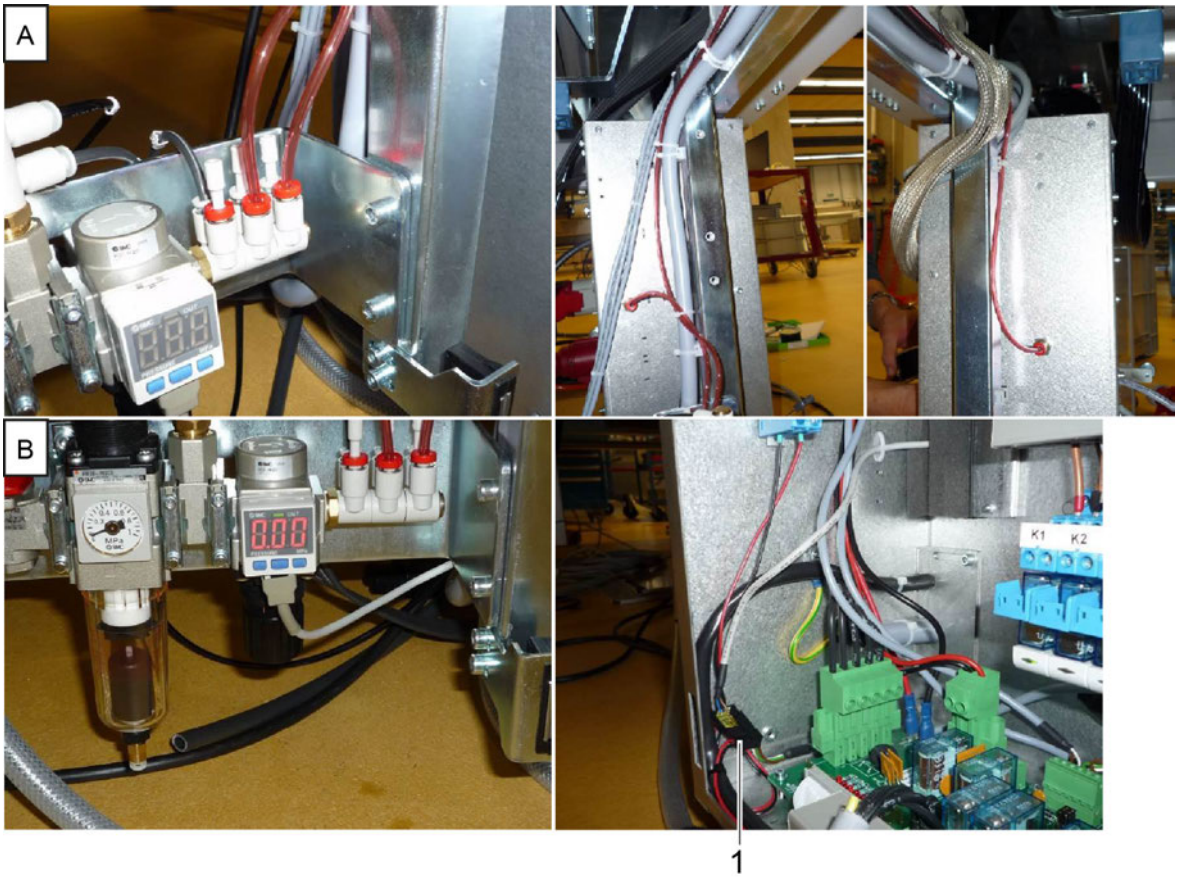
3.2.3 Seal electronics unit



A Seal the mounting holes with vinyl.
B Seal the multi-cable bushing with vinyl.
C Seal the cable bushings with foam rubber.
D Seal the electronics unit cover with foam rubber.
E Seal the D-Sub plug and RJ45 bushing with caps.

3.3 Maintenance unit

3.3.1 Connecting the maintenance unit



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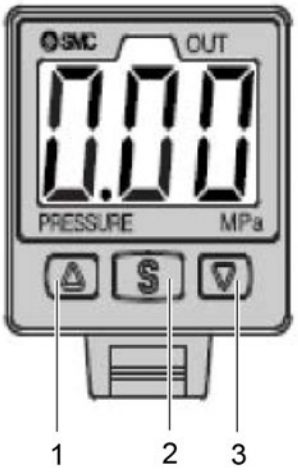
D Set the pressure regulator to 0.45 MPa.

3.3.2 Configure pressure regulator

3.3.2.1 Controls



1	**Up arrow**
2	Press**s**
3	**Press down arrow**

3.3.2.2 Disable keys if necessary

A Press**s**and hold for 5 secs.
LoCis displayed.

B Press an arrow key once.
UnLis displayed.

3.3.2.3 Call up settings

Press**s**key and hold for 2 secs.

Results
Suis displayed.

3.3.2.3.1 Turn display

Perform only if the display is upside down. If this is the case, the function of both arrow keys is switched!

A Press**s**press as many times until**diS**is displayed.
B Press an arrow key.
C Press**s**key to quit the menu

3.3.2.3.2 Set display color

A Press**s**key as many times until**CoL**is displayed.
The display alternates between**CoL**and**SoG**.

B **Press down arrow**1x.

Results
Soris displayed.

3.3.2.3.3 Set output type

A Press **s** key as many times until **oUt** is displayed (4x).
Display switches between **oUt** and **no.**

B Press an arrow key 1x.

Results
nC is displayed.

3.3.2.4 Close settings

Press **s** key and hold for 2 secs.

Results
The current pressure is displayed.

3.3.2.5 Check switching point:

A In key output menu **s** 1 x briefly
Display switches between **P _** and set switching point:

B Check if switching point = 0.40. If not, adjust with the arrow keys.
C Press **s** key briefly

Results
The current pressure is displayed.

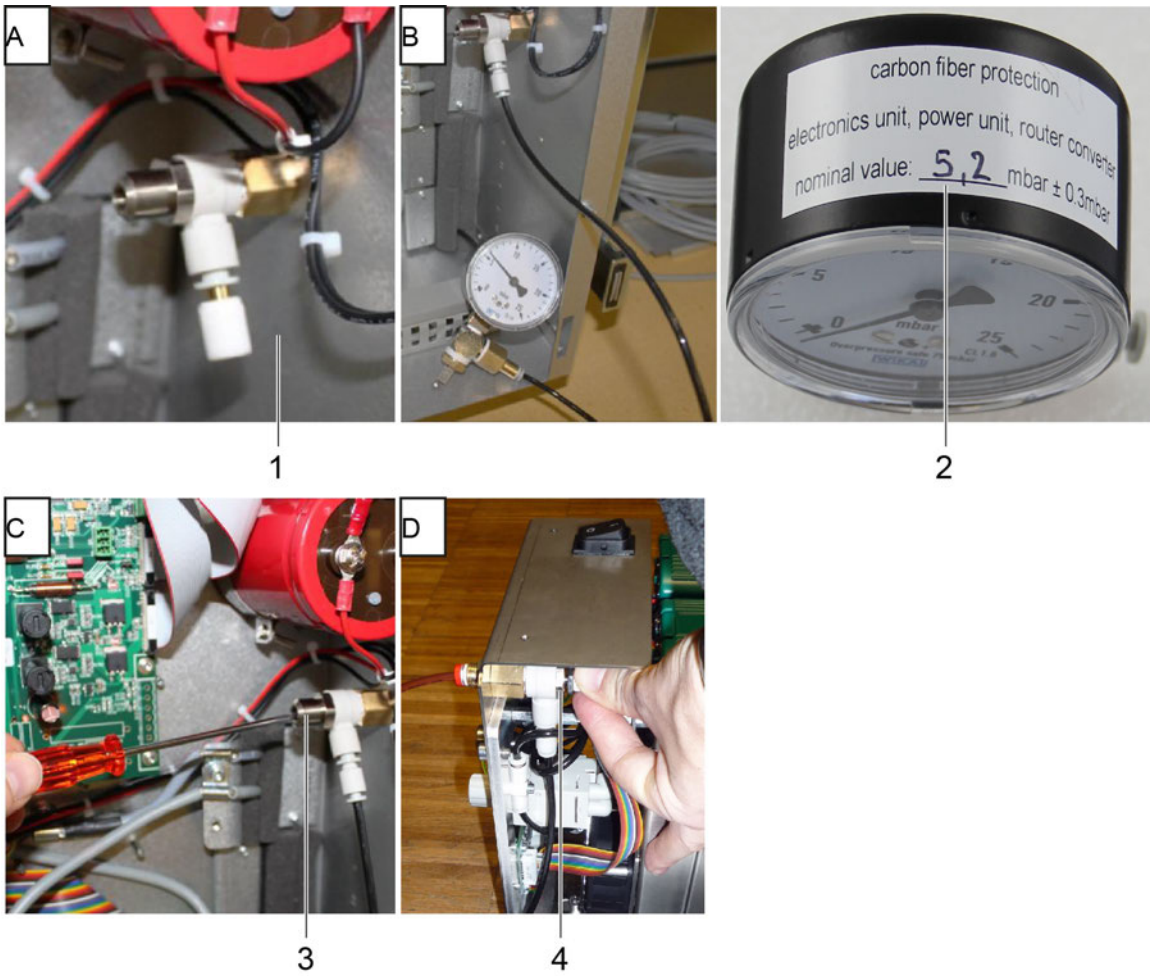
3.3.2.6 Lock keys

A Press **s** and hold for 5 secs.
UnL is displayed.

B Press an arrow key 1x.
LoC is displayed.

C Press **s** key briefly.
D Press any key to test.
If the key are disabled, **LoC** is displayed and then the current pressure again.

3.4 Adjust throttle valves



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