Installation manual for NSCA smoke curtains

1. General guidelines

Keep this manual for future reference

Please read and follow the instructions carefully as they pertain to important details of the curtain installation. It is also advisable to follow a maintenance schedule for the product so that the curtain will function properly for many years.

NOTE

Installation requirements:

- Level floor, ceiling
- Plastered walls and ceilings
- Curtain installation site and work area cleaned and free of unnecessary objects

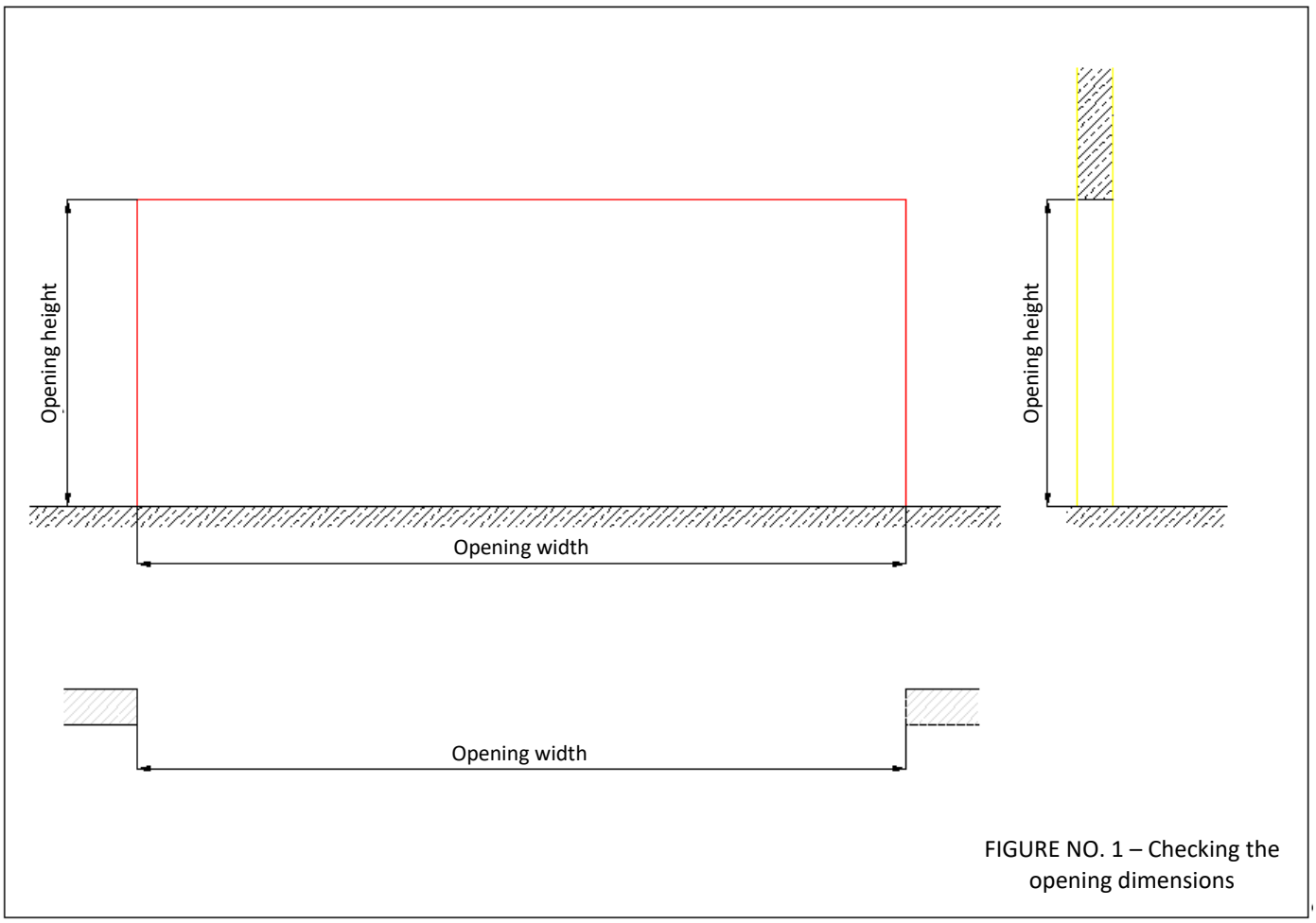


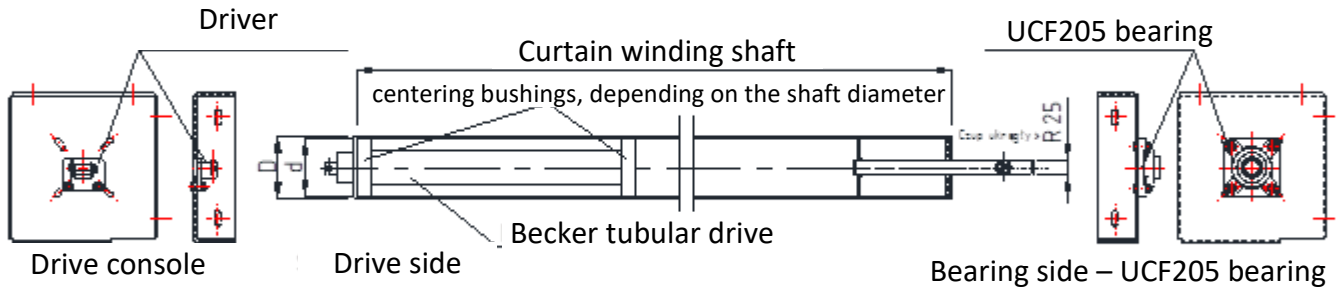
FIGURE NO. 1 – Checking the opening dimensions

2. Dimensional inspection

Before starting installation, verify that the dimensions of the opening in which the curtain will be installed match. Also check that the installation surfaces are smooth. Ensure that the consoles are properly level. This point is very important for the proper functioning of the curtain.

3. Installation of the shaft

Mount the shaft on the consoles, bearing in mind the motor side and electrical connections. On the other side, bearings at the end of the shaft. Check that the shaft is level and centered relative to the opening.

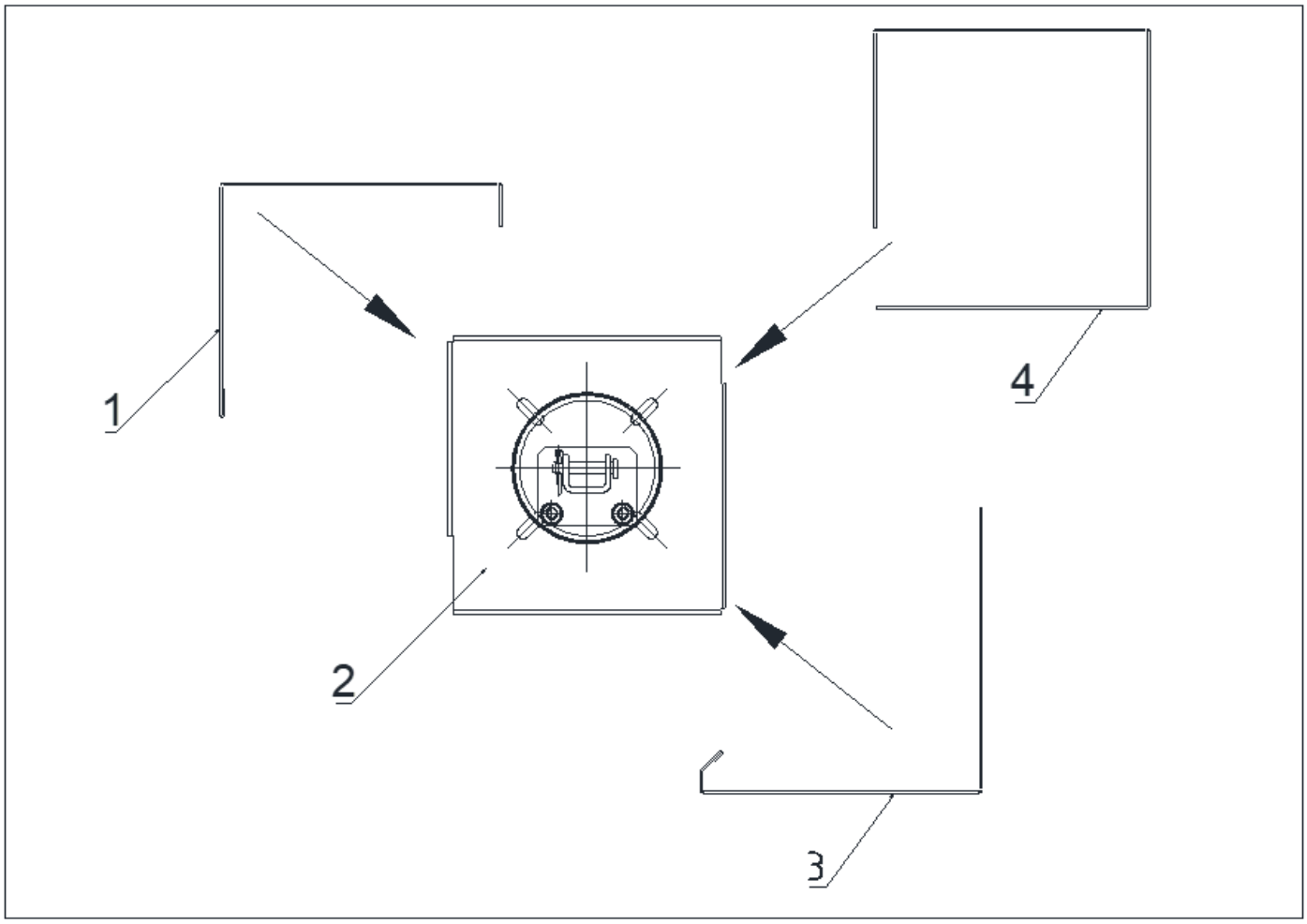


4. Installing the shaft cover.

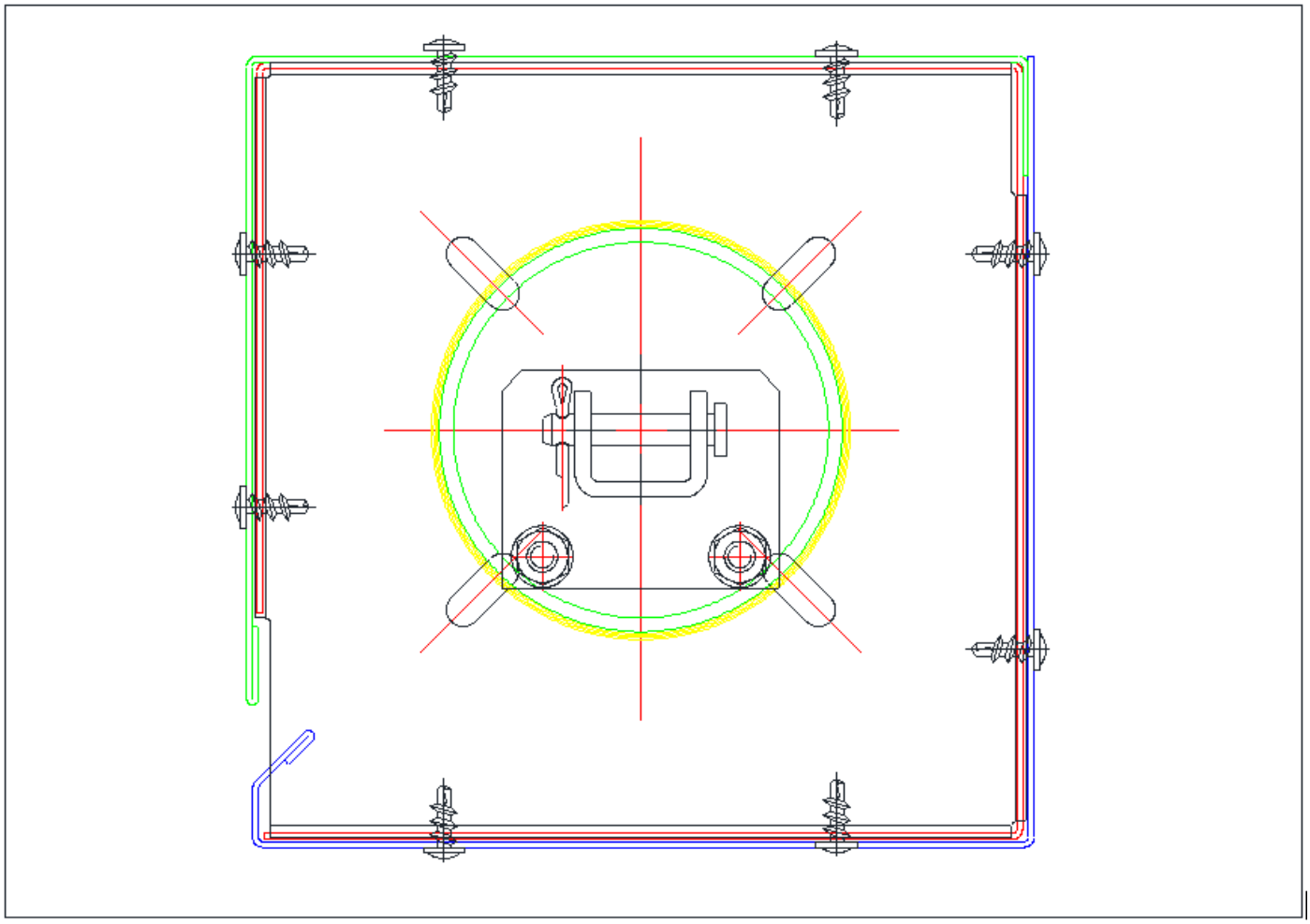
ASSEMBLY ON THE FLOOR IS RECOMMENDED

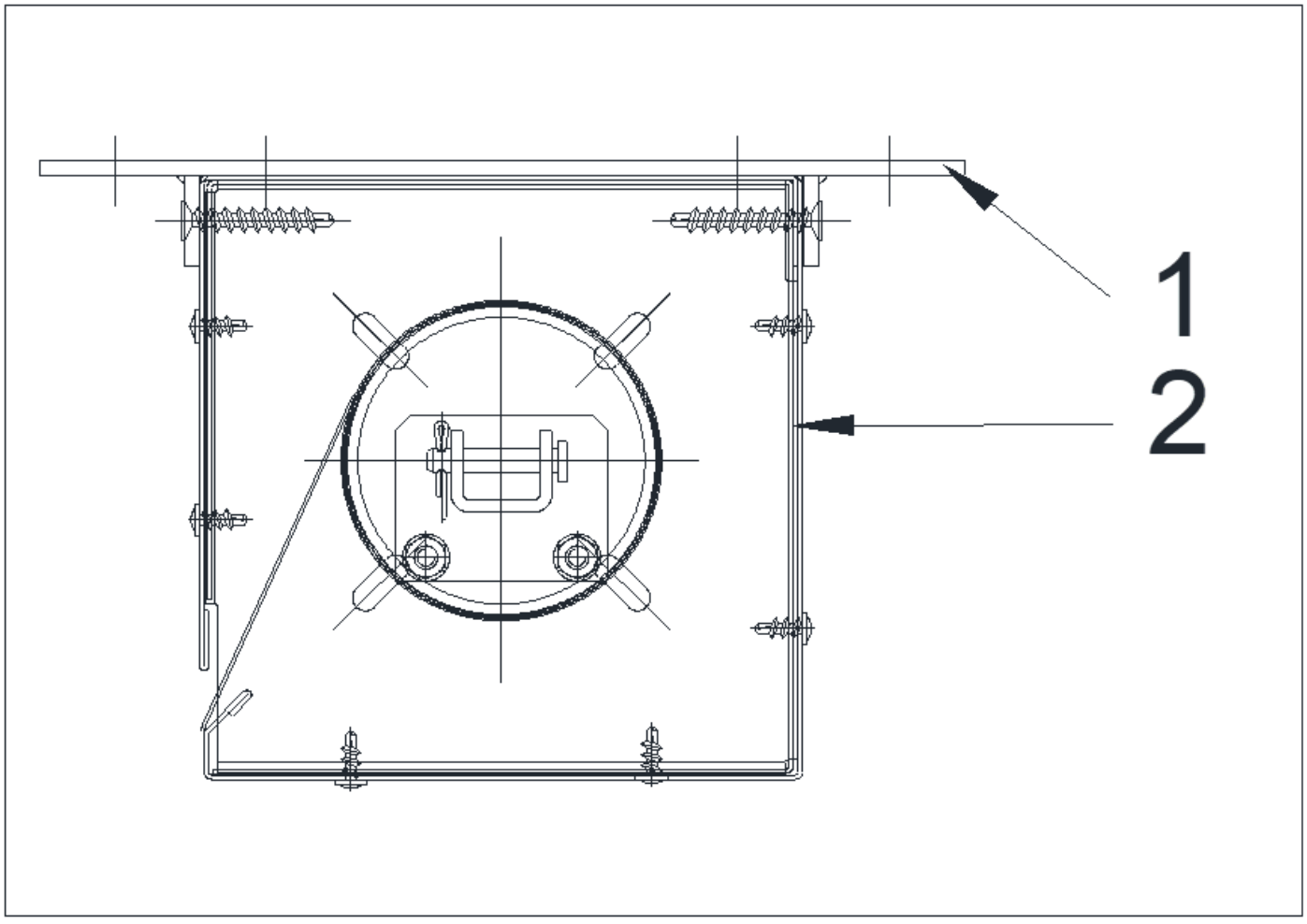
Screw all parts of the housing together (according to the figure below).

After assembling the entire housing, it should be lifted, for example, with a forklift then the structure should be attached to the ceiling.



1 – upper part of the housing,
2 – curtain console,
3 – lower part of the housing,
4 – housing connector,



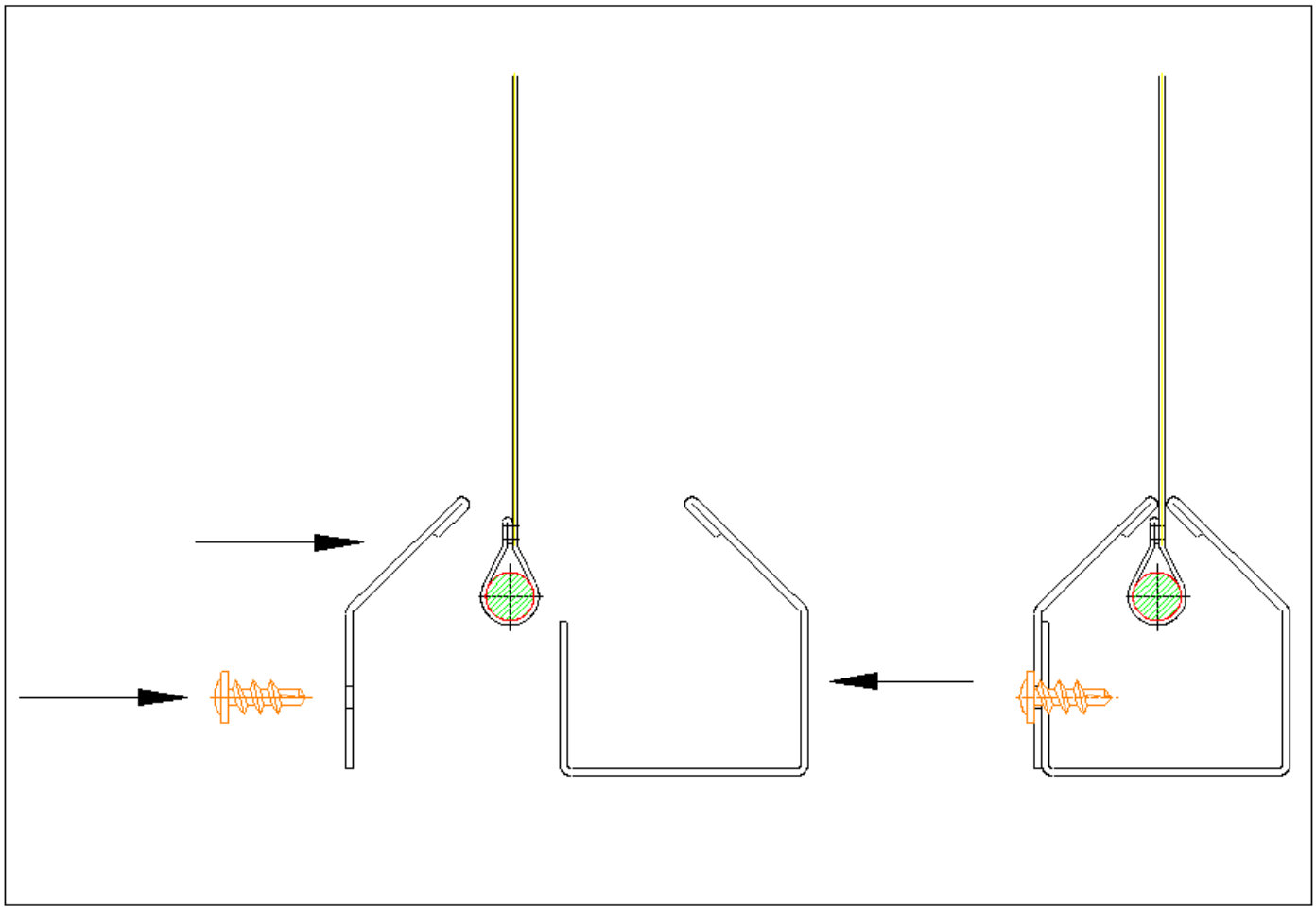

1
2

Smoke curtain prepared for suspension:

1 – systemic suspension of the curtain,

2 – curtain housing.

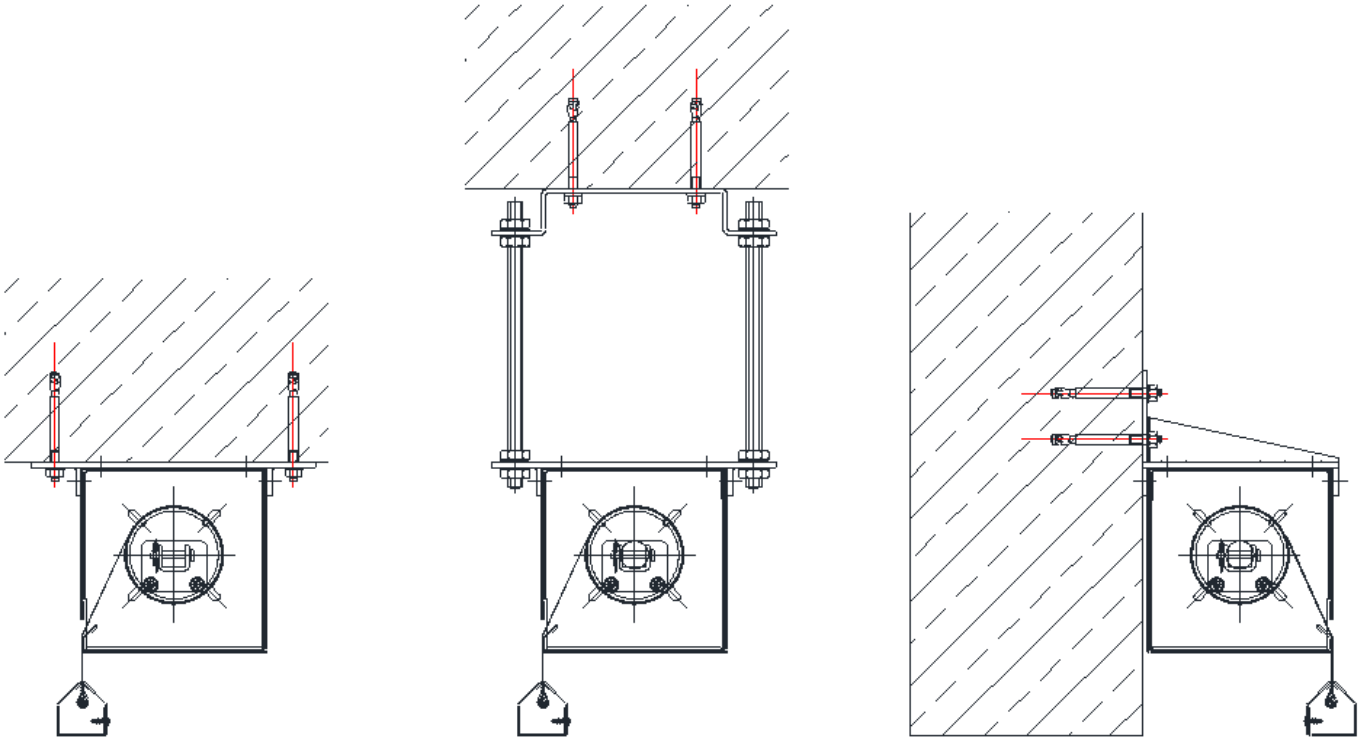
5. Installation of the bottom strip



6. Installation of the curtain to the ceiling or lintel.

NOTE: when installing the side consoles, check the fastening of these pieces as they will support the entire weight of the curtain with bolts attached to a surface made of concrete or steel.

Fasten the consoles to the wall or ceiling with a set of bolts and studs delivered with the curtain to prevent movement and vibration.



A – ceiling installation,

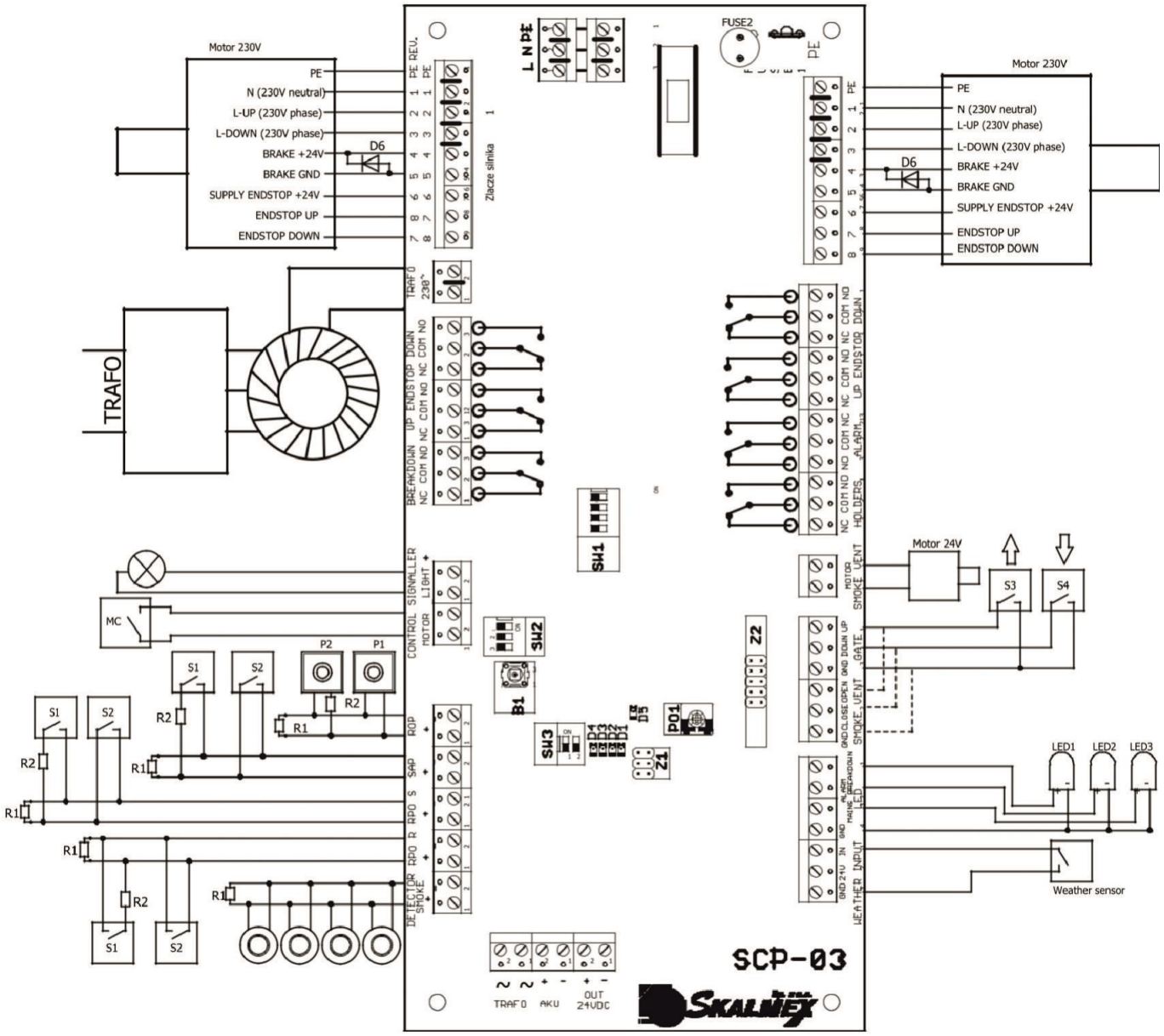
B – ceiling installation with suspension,

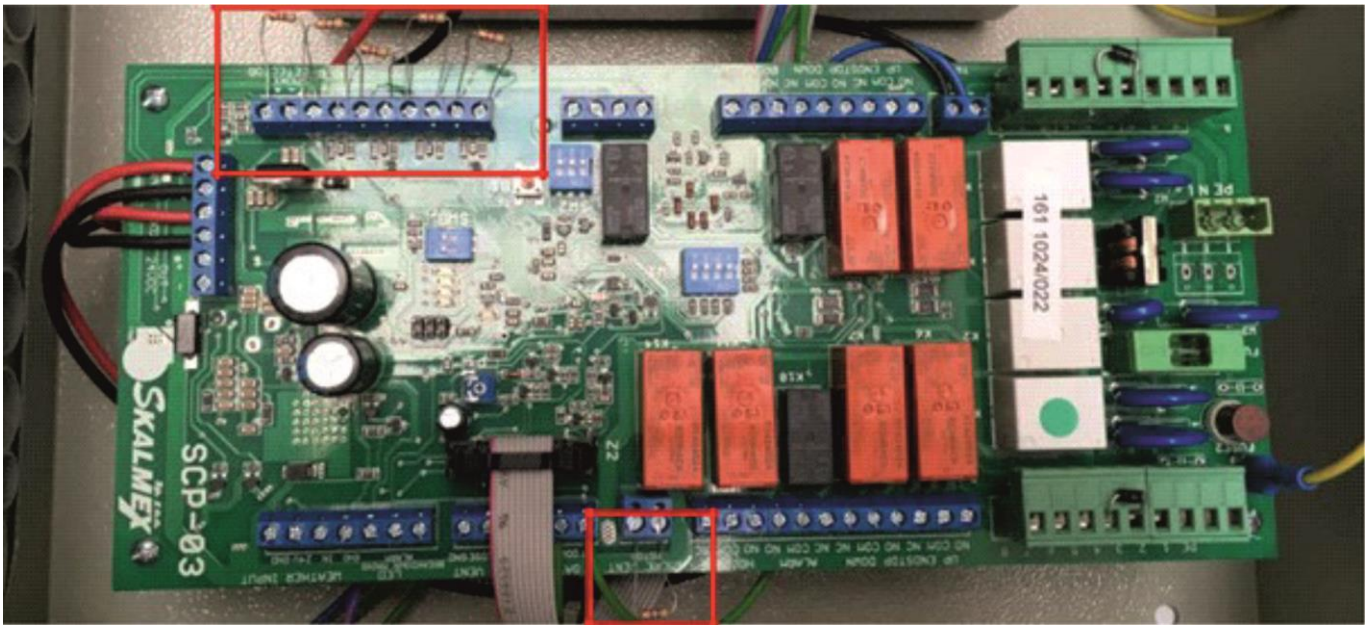
C – lintel installation.

7. Electrical connection

STEP BY STEP CONNECTION INSTRUCTION - SCP-03 CONTROL PANEL WITH ACCESSORIES

- Open the front panel
- Batteries are disconnected and protected by a plastic cover
- The panel comes with 4.7k Ohm and 1k Ohm resistors in separate plastic bags
- Connect the 4.7k Ohm resistors as shown in the following figure
- Connect the engine

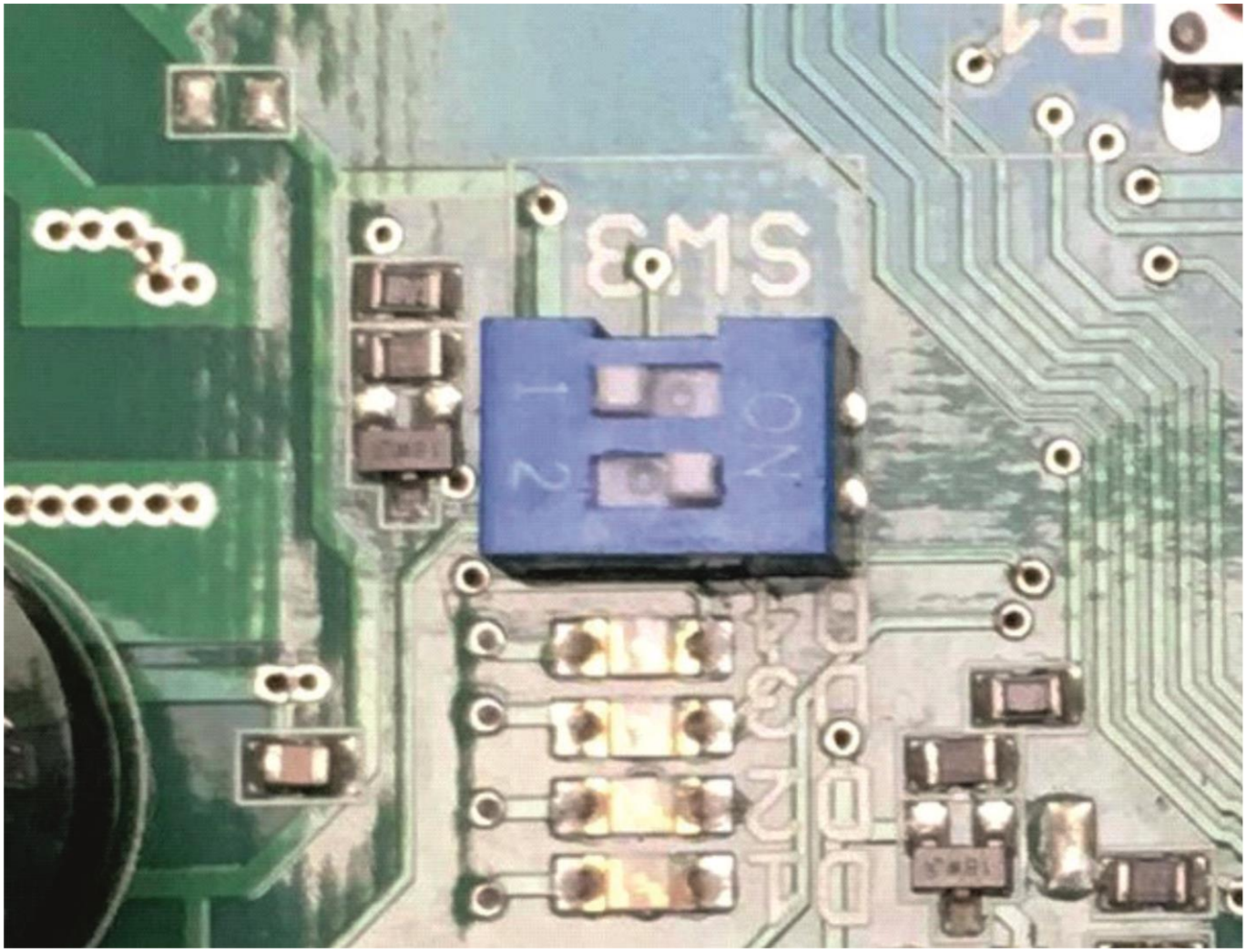




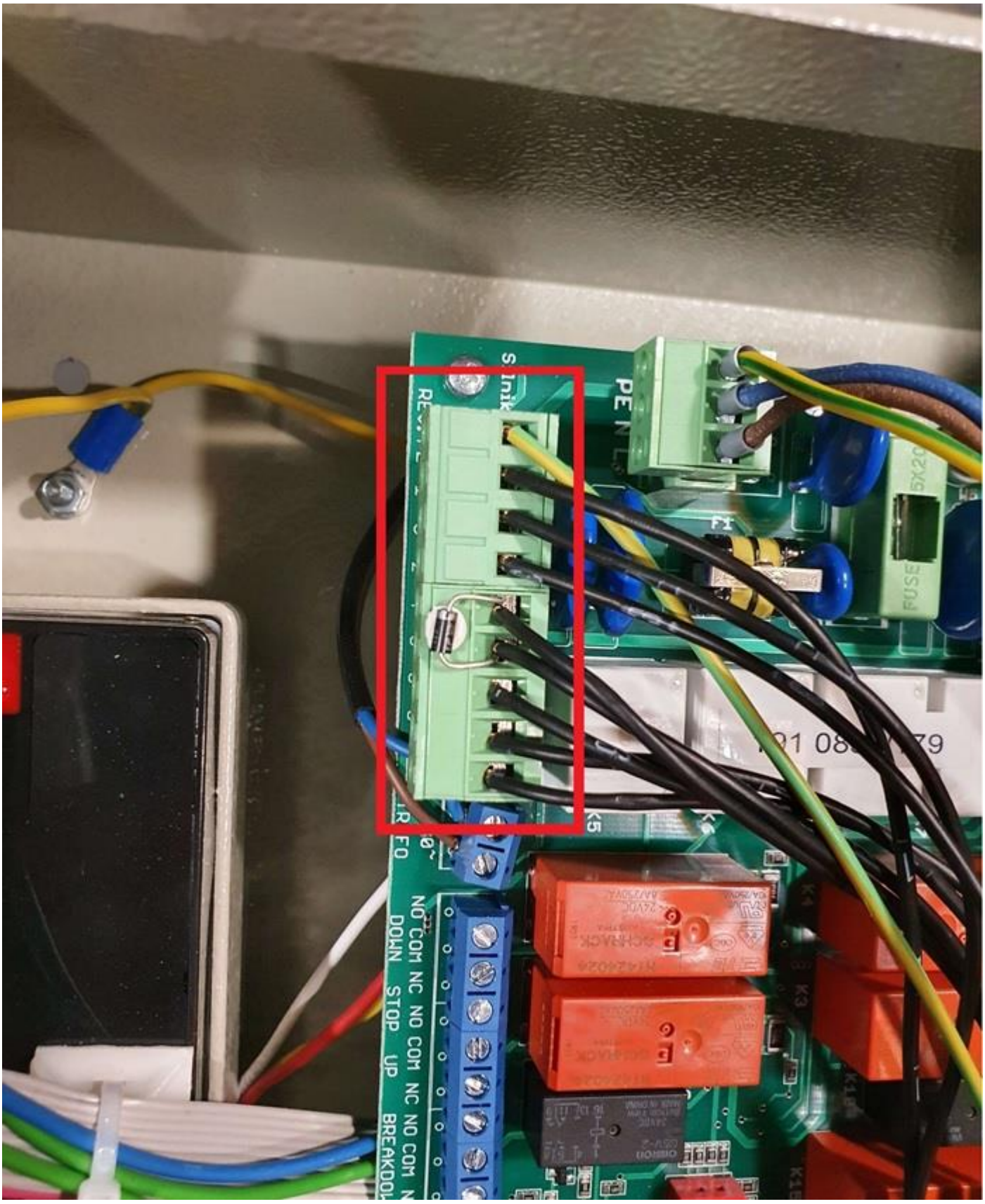
5 resistors to be connected: ROP, SAP, PRO, RPO, SMOKE SENSORS

1 resistor to be connected: SMOKE EXTRACTION (important!)

- Change SW3 switch positions (figure)

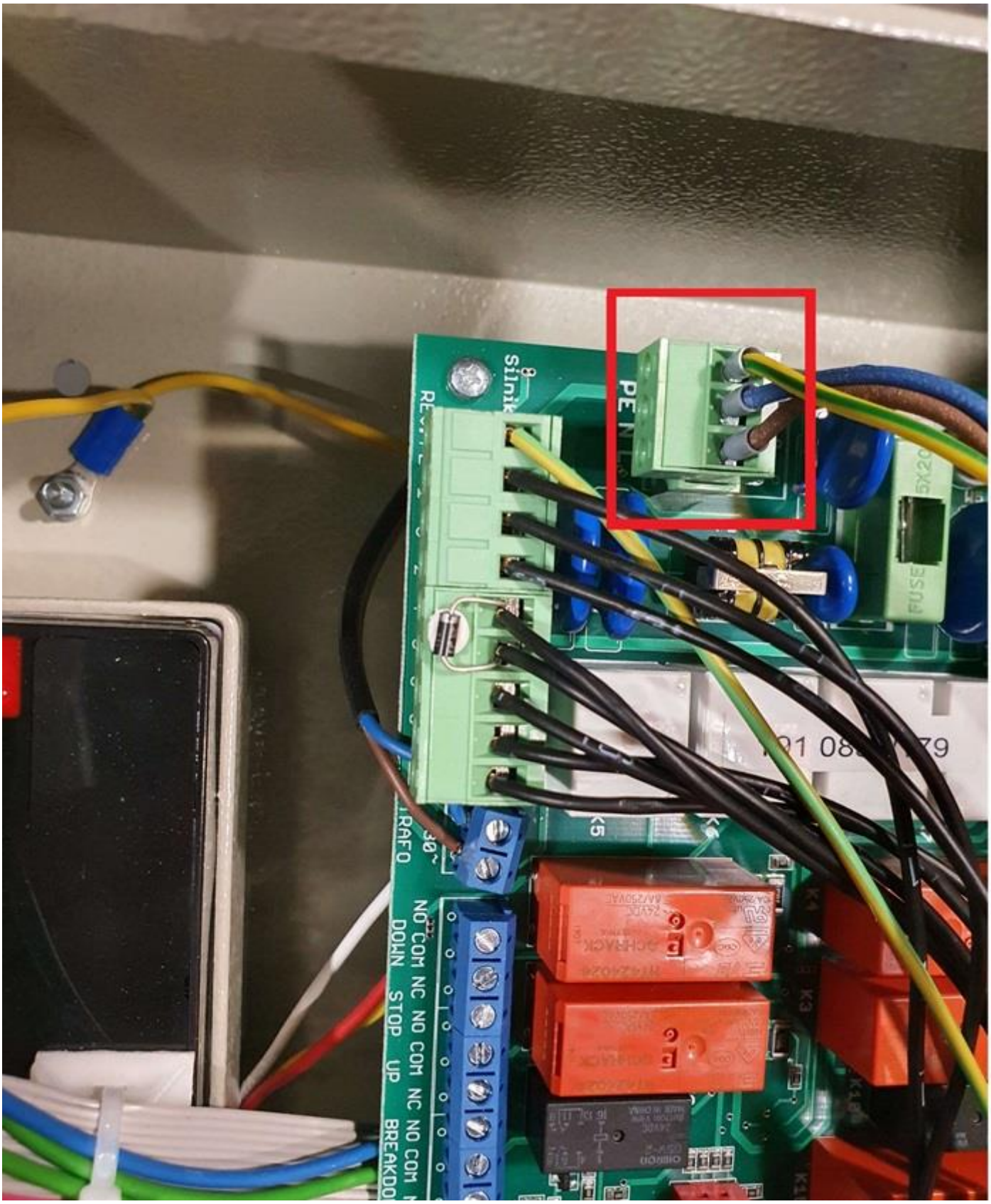


- Connect the multi-core motor control cable to the selected channel. Connect the wires according to the wire numbering of the cable and what is described on the board. If the motor does not work properly (the OPEN button closes the curtain), swap the following cables: “2” and “3” (motor winding directional cables) and “7” and “8” (return signal cables from motor limit switches).

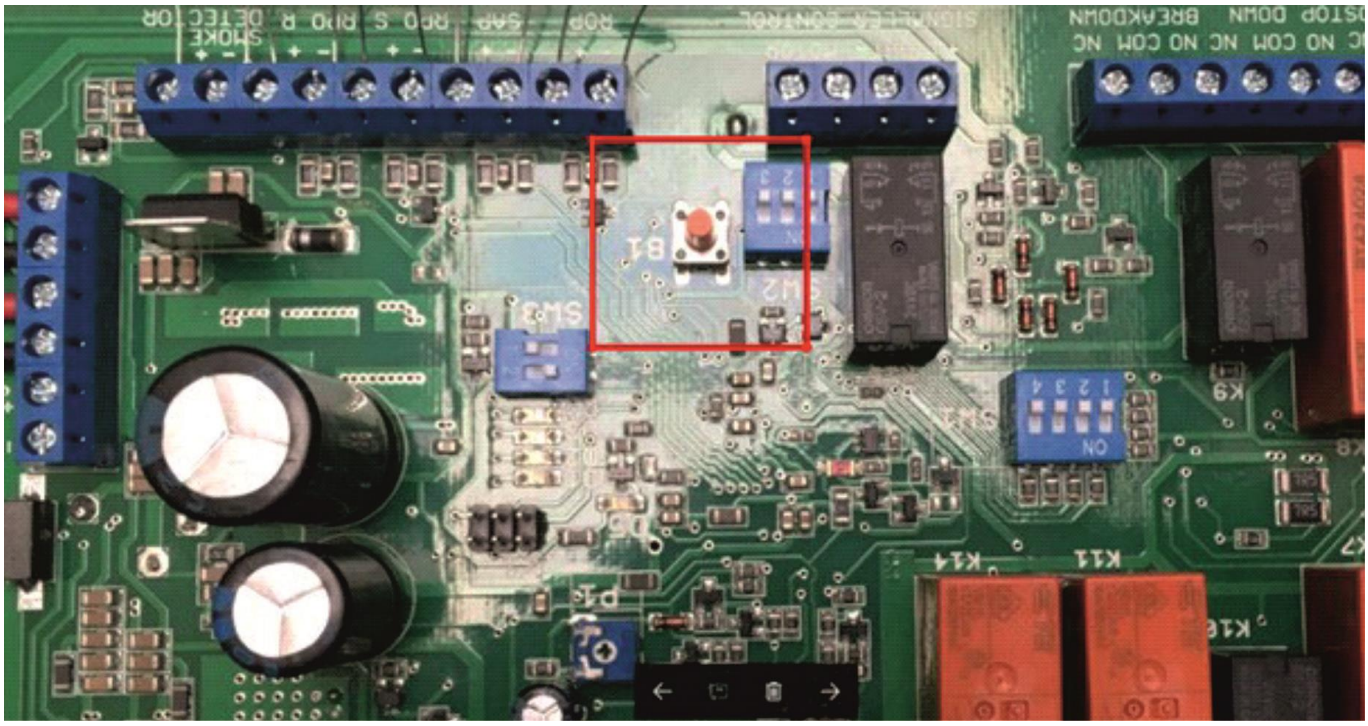


The diodes must remain connected

- Connect the main power supply (from the mains) as shown in the figure below

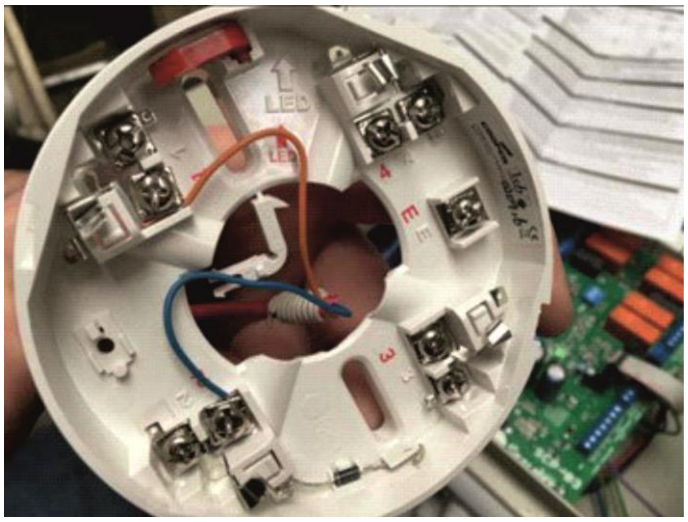


- Shortly after the mains power and batteries are connected, the panel may indicate errors. If only one motor is connected, the control panel will indicate that the other motor is missing, in which case it will be necessary to perform a reset according to the instructions below. The figure below shows the RESET button.

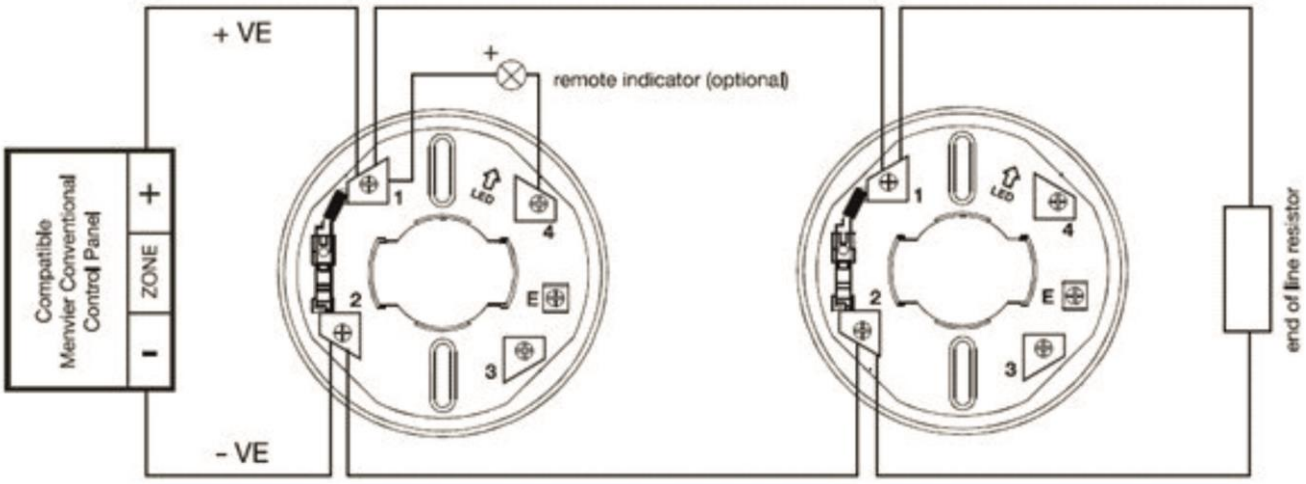


- Press and hold the B1 button during subsequent operations
- Disconnect the batteries
- Disconnect the main power supply
- Reconnect the batteries
- Reconnect the main power supply
- Wait until LEDs D1, D2, D3, D4 flash simultaneously and go out
- Release the B1 button
- After a while the control unit should start to work (flashing green LED D5), D1-D4 are switched off

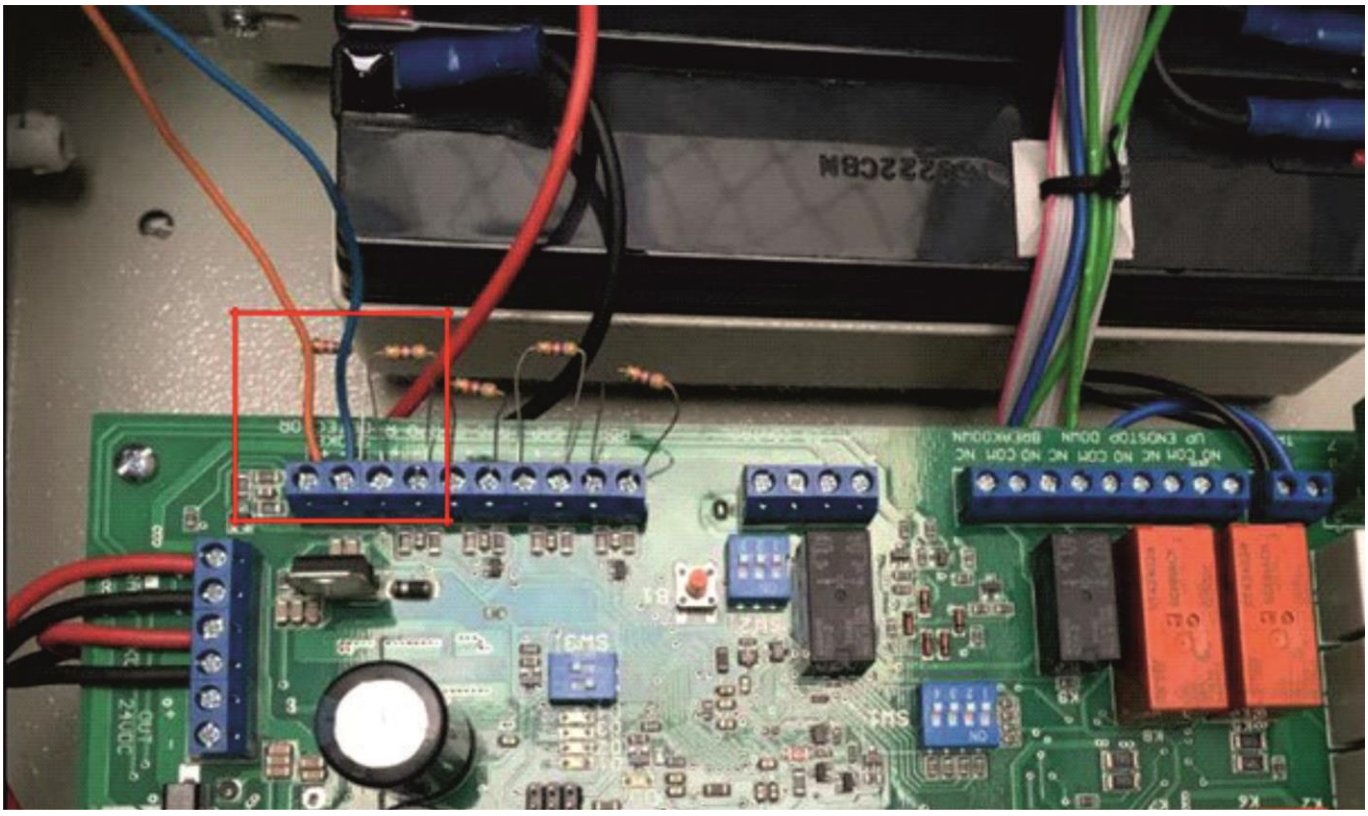
- Check that the front panel LEDs are off and do not indicate any errors. If errors occur, repeat the startup process again
- Have smoke detectors ready



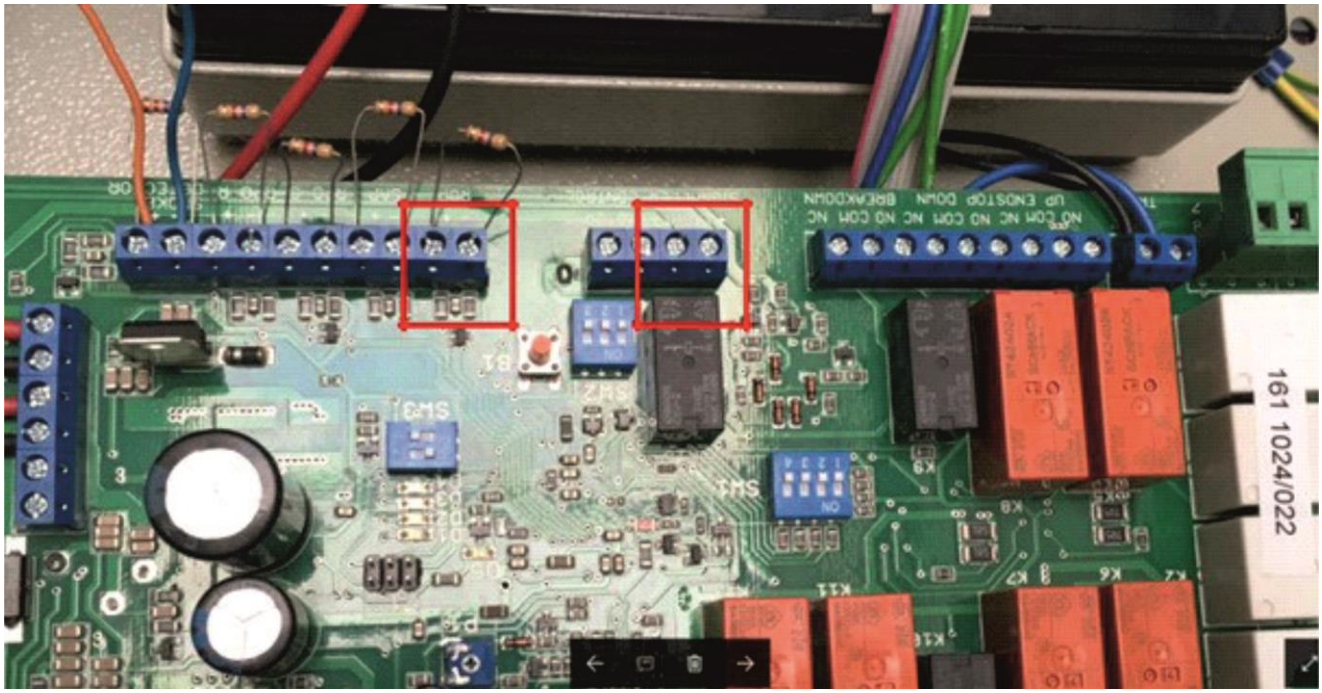
Smoke detectors must be wired in a row as shown in the figure included in the box with the unit.



- The first smoke detectors in a row must be connected to the “SMOKE DETECTOR” pins. The 4.7k Ohm resistor must remain connected. Keep in mind the correct polarity (+ with +, - with -).



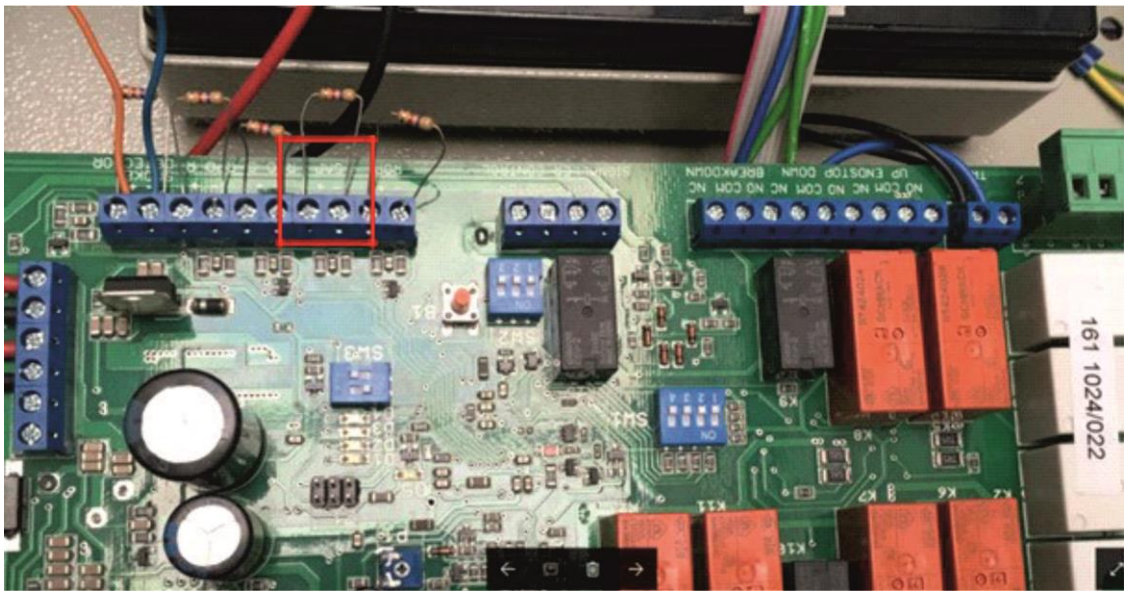
- Connect other devices
  - Siren/signal to “LIGHT SIGNALER”
  - Emergency release button for “ROP”



- Hold B1 button for 2 seconds to reset the software
- Correct connection: Green LED D5 should flash, LEDs D1-D4 are off

STEP BY STEP CONNECTION INSTRUCTION - SCP-03 CONTROL PANEL CONNECTED TO BMS (GENERAL BUILDING MANAGEMENT SYSTEM)

- follow steps 1-9 from the previous section
- BMS cable must be connected to the SAP contact
- perform steps 12-13 as in the previous section



8. Limit switch adjustment

Set the upper and lower limit switches at this stage.

For tubular motor curtains, the best access to the ends is when the curtain apron is extended. It is recommended to set the lower limit switch first, extending it a few cm from the unrolled apron, free hanging at ground level.

Once the lower position is established, it is recommended to establish the upper limit switch and raise the apron until it stops at the limit switch. When raising the curtain, watch to see if the apron rises too high. If the upper limit switch is misaligned, lower the curtain and reposition the switch, then raise the apron again. This operation should be repeated until the correct limit position is reached.

ATTENTION!

When setting the limit switches, but also during normal use of a curtain equipped with a fire tubular motor, avoid excessive raising and lowering of the curtain. If the curtain is operated continuously for more than 4 minutes, the thermal switch may overheat, causing the brake to disengage and the curtain to close. You will not be able to lift again until the brake has cooled down, which can take 20-30 minutes.

9. Additional internal schematics of the BECKER engine below