

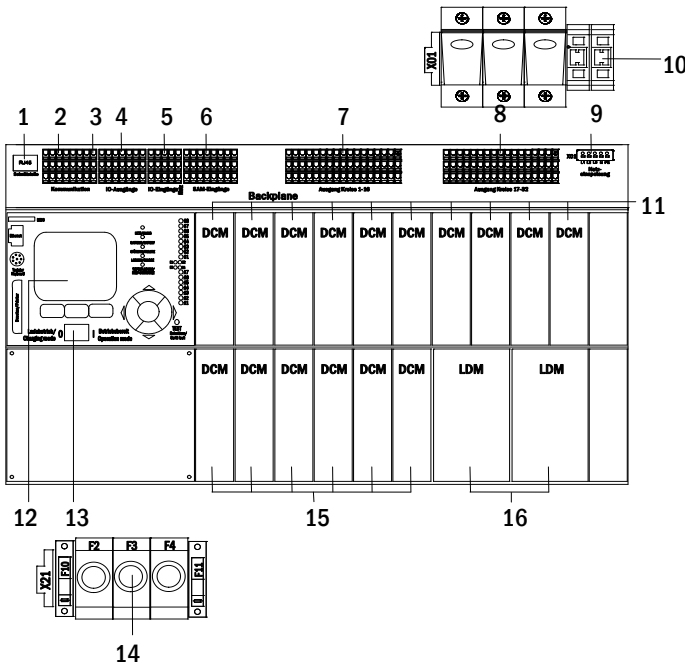
Brief Instruction Commissioning

midiControl *plus*

This reference describes the necessary steps for connecting and commissioning your midiControl *plus* system. The system manual answers frequently asked questions and provides support with troubleshooting.

1 Commissioning

For commissioning the system please open the front cover of the housing and disconnect the PE earth connection on the inside of the front cover. Fig. 1 shows a diagram of the opened system.



- 1 ethernet interface
- 2 communication
- 3 quiescent current loop
- 4 IOM-outputs
- 5 IOM-inputs
- 6 SAM-inputs
- 7 electric circuits 1-16
- 8 electric circuits 17-32
- 9 internal mains connection
- 10 mains supply fuse switch disconnecter F1
- 11 direct current modules (DCM)
- 12 LC-display
- 13 operation mode switch
- 14 battery connection and fuses F2, F3, F4
- 15 direct current modules (DCM)
- 16 charger modules (LDM)

Figure 1: View of the opened midiControl *plus* system

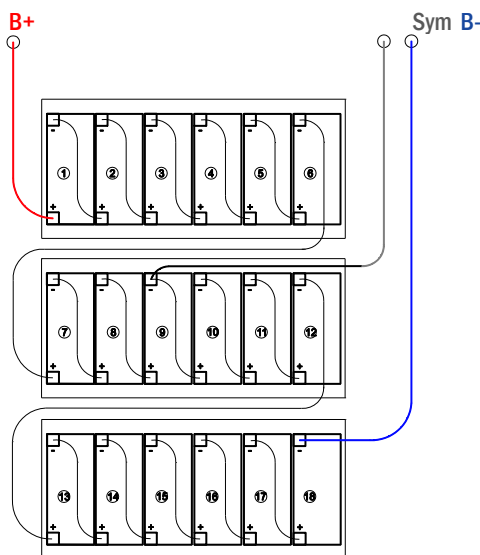


Figure 2a: Wiring of the batteries (top view) with OGiV 12170 L

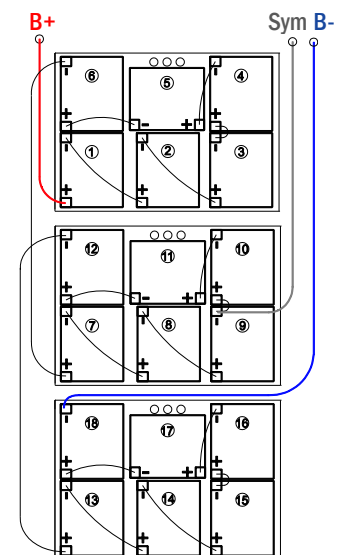


Figure 2b: Wiring of the batteries (top view) with OGiV 12260 L and bigger

Now follow these instructions (the numbers in brackets refer to fig. 1):

1. Mounting and wiring of the batteries. Make sure that the battery fuses F2/F3/F4 have been removed. Mount the batteries (18 pieces 12V each), connect them in series (see fig. 2a and b) and connect the cables coming from the battery terminal (14) (observe correct polarity: **red** = B+/positive pole, **blue** = B-/negative pole, grey = symmetry). Incorrect polarity is acoustically indicated by a beep. The symmetry cable (grey) has to be connected to one of the ends of the connection cable between battery no. 9 (negative pole) and battery no. 10 (positive pole).

2. Connect the de-energised mains cable to the fuse switch disconnecter F1. Make sure that the mains cable is de-energised and connect it to the fuse switch disconnecter F1 (10). **Caution:** The mains cable gets energised only in step 7.

3. Open fuse switch disconnecter and operation mode switch to charging operation. Open the fuse switch disconnecter (10) and switch the operation mode switch (13) to charging mode (position "0").

4. Connection of the electric circuits. Connect the installed and checked lighting circuits to the circuit terminals (7 and 8). **Note:** The circuits to be connected have to be checked for installation errors such as short circuit and earth fault prior to connection.

5. Insertion of the battery fuses F2/F3/F4. Please screw in the battery fuses (14).

6. Connection to power supply. Energise the mains cable and check the correct configuration of the mains terminals by conducting the measurements listed below. In case of a connection error abort the commissioning:

voltage between L1 (F1) and N
voltage between L2 (F1) and N
voltage between L3 (F1) and N
voltage between L1 (F1) and PE
voltage between L2 (F1) and PE
voltage between L3 (F1) and PE

These voltages should be between 220 V and 240 V (supplied mains voltage).
If they are not, there must be a connection error.

voltage between PE and N

This voltage should be zero. If it is not, there must be a connection error.

7. Close fuse switch disconnecter F1. Please close the fuse switch disconnecter (10).

8. System boot-up. After switching on (indicated by a beep) the system starts booting. This can take a few minutes. **Caution:** Wait for the end of the booting process and do not, by any means, switch off the system! The LC-display (12) should show the following during or after the booting process:

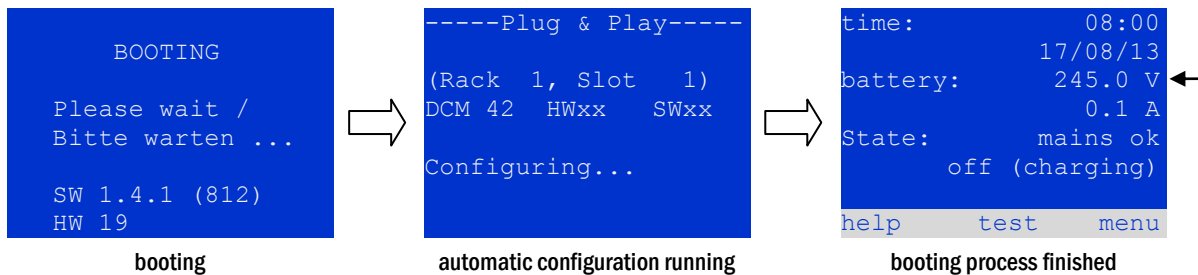


Figure 3: Booting process (left, centre) and status (right)

9. Checking the battery voltage. Check the battery voltage by means of the status information in the LC-display (12). It should be between 192V and 250V (fig. 3, right picture, arrow).

10. Checking the direct current modules (DCM). Check the LEDs of the DCM-modules (15) and the LDM-charger module (16). Steady green light or blinking of the LEDs indicates correct functioning. Red light/blinking indicates an error (e.g. insulation fault). In this case abort commissioning. For further information see the manual.

11. Set operation mode switch to "ready to operate". Turn the operation mode switch (13) to "ready to operate" (position "1"). This activates the electric circuits.



Caution: Make sure that nobody works on the electric circuits before switching the system on as circuits in maintained lighting mode get energised when activated. If there are still circuits that are worked on, remove the respective fuses before switching on the system.

12. Check voltage on circuit terminals. Check the voltage on all circuit terminals (7 and 8). The measured voltage on each circuit in maintained lighting mode should correspond to the AC mains voltage.

13. Open quiescent current loop. Open the quiescent current loop (3) (for exact pin assignment see connection diagram).

14. Check voltage on circuit terminals again. Check voltage on all circuit terminals again (7 and 8). The measured voltage on each circuit should correspond to the alternating mains voltage.

15. Close quiescent current loop. Close quiescent current loop (3) (for exact pin assignment see connection diagram). The system keeps running and remains in modified non-maintained lighting mode for ca. 1 minute, before each circuit returns to its programmed operation mode. Now the installation process is completed and the system is ready to operate.