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# THERMAL FAN CONTROLLER CHM36

## User's manual

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## AUTOTERM CHM36

AUTOTERM CHM36 is a programmable thermal fan controller with heating/cooling functions. It can be used for controlling heaters, A/C compressors, fans and solenoid valves.

The controller has four power outputs of 12 or 24V, to which external controlled devices can be connected directly or via relay. Power is supplied to all four outputs at the same time, allowing up to four relays to be connected.

The controller can operate in either heating or cooling mode. It allows to adjust the start-up and switch-off temperatures for controlling external devices, start delay and correction of the temperature sensor readings.

This thermal fan controller is an excellent addition to the AUTOTERM BALTICA-S heating system for automatic room heating.



The CHM36 can be powered by any 12V/24V DC power supply.

The CHM36 controller must be mounted indoors where humidity level doesn't exceed 65%.

For mounting CHM36 controller, make an 76x34 mm opening and drill two  $\varnothing 3$ mm holes as shown in Figure 1. Insert the controller in the opening and fasten the front panel with the self-tapping screws form the kit.

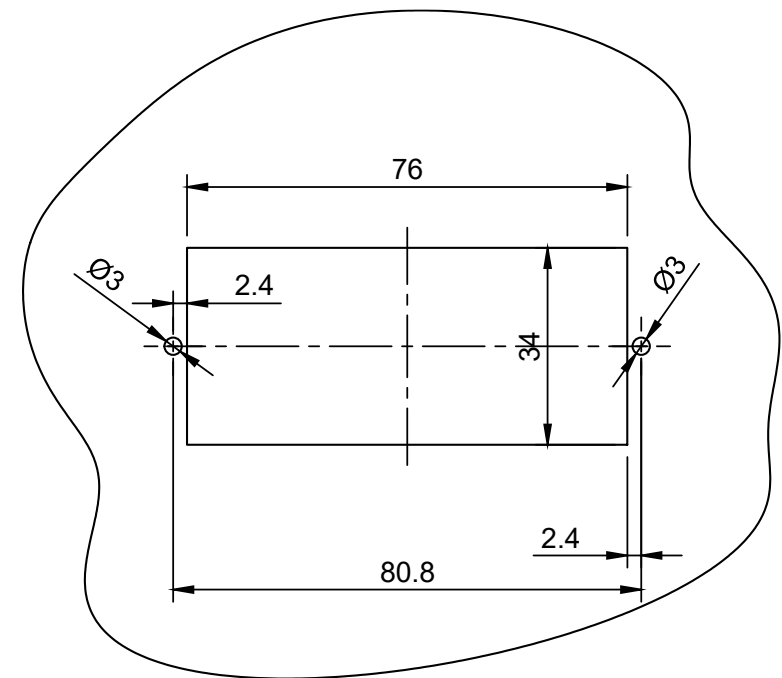


Figure 1 – Mounting of CHM36 thermal fan controller

For connecting CHM36 controller see electrical connection diagrams Figure 2 and Figure 3. For connection with FC9 controller within the BALTICA-S system see Figure 4.

The CHM36 controller comes with four wire extenders (50mm). There is a 3-pin connector (FC1) at the controller end and 4-pin connector at the other. The 4-pin connector allows to directly connect the fans of the CHX heater matrices.



To extend the wires or to connect other devices, cut the 4-pin connector and connect the wires according to the connection diagrams.

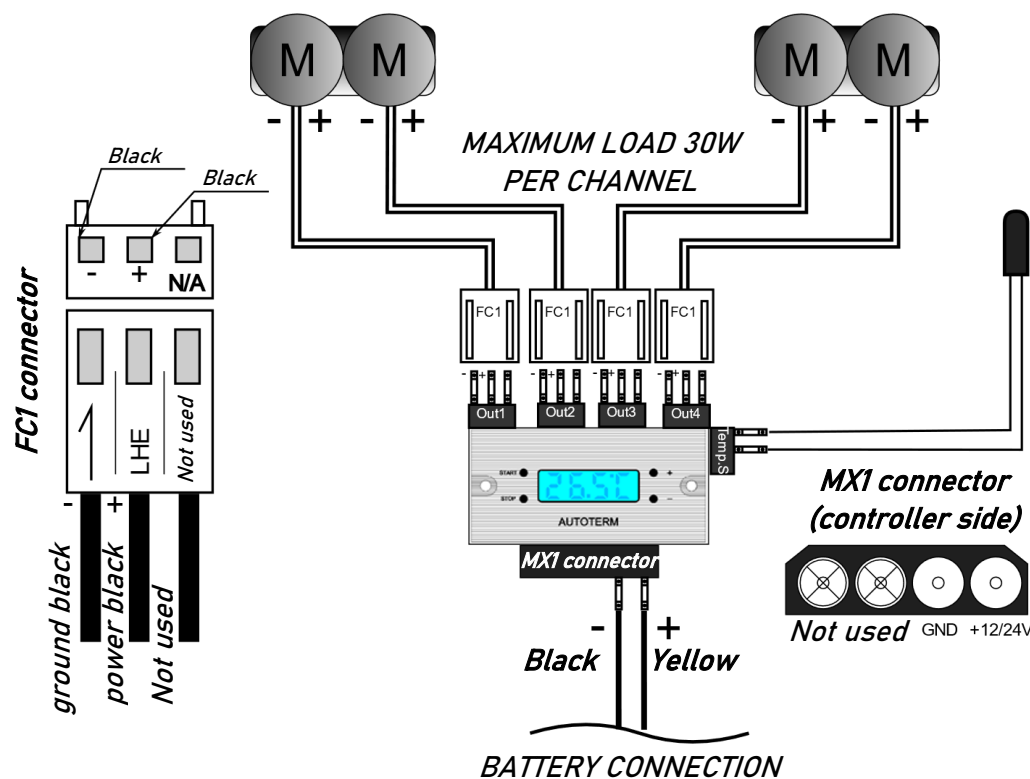


Figure 2 – Direct connection of CHM36 controller

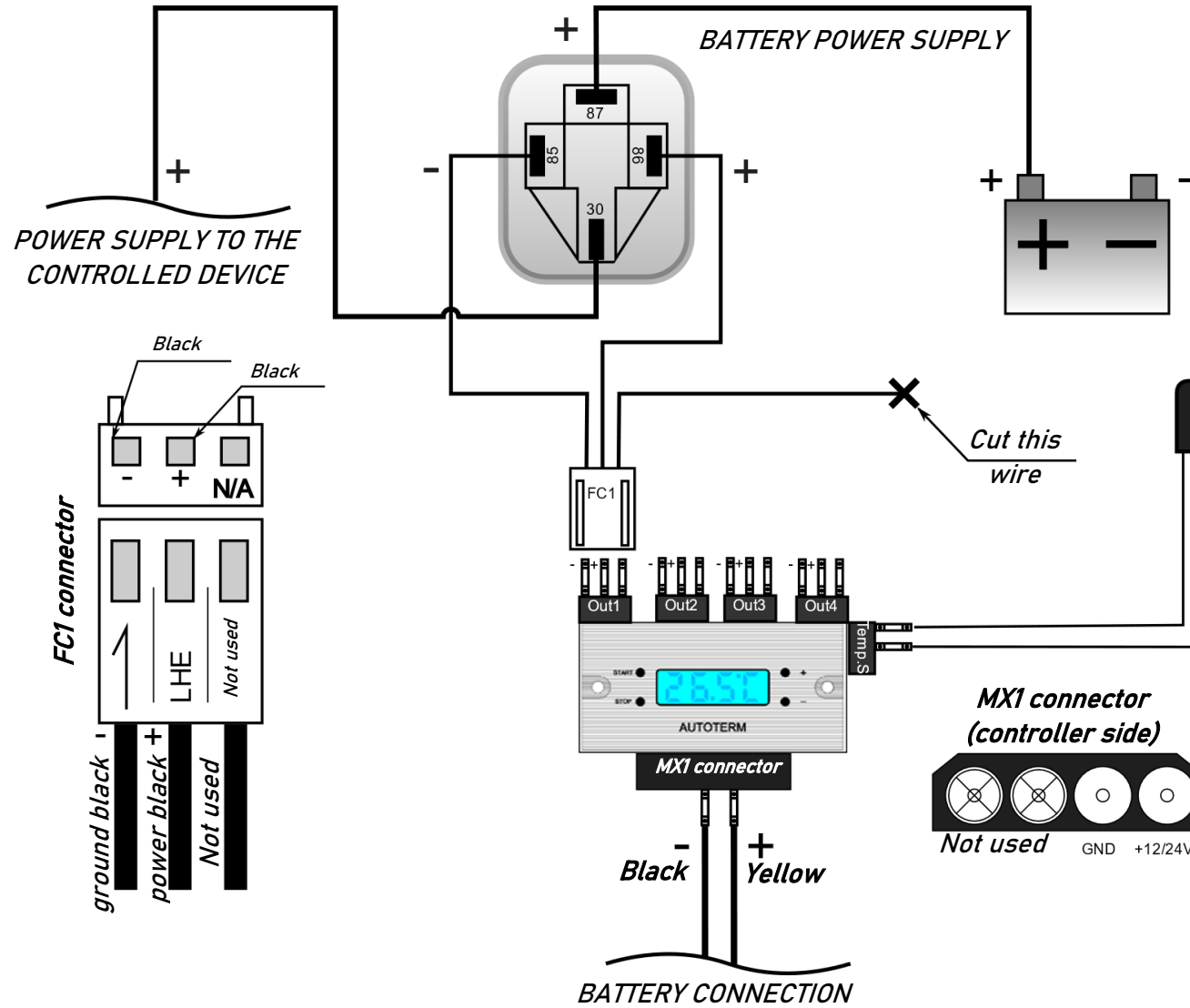


Figure 3 – Connection of CHM36 controller as an external device controller

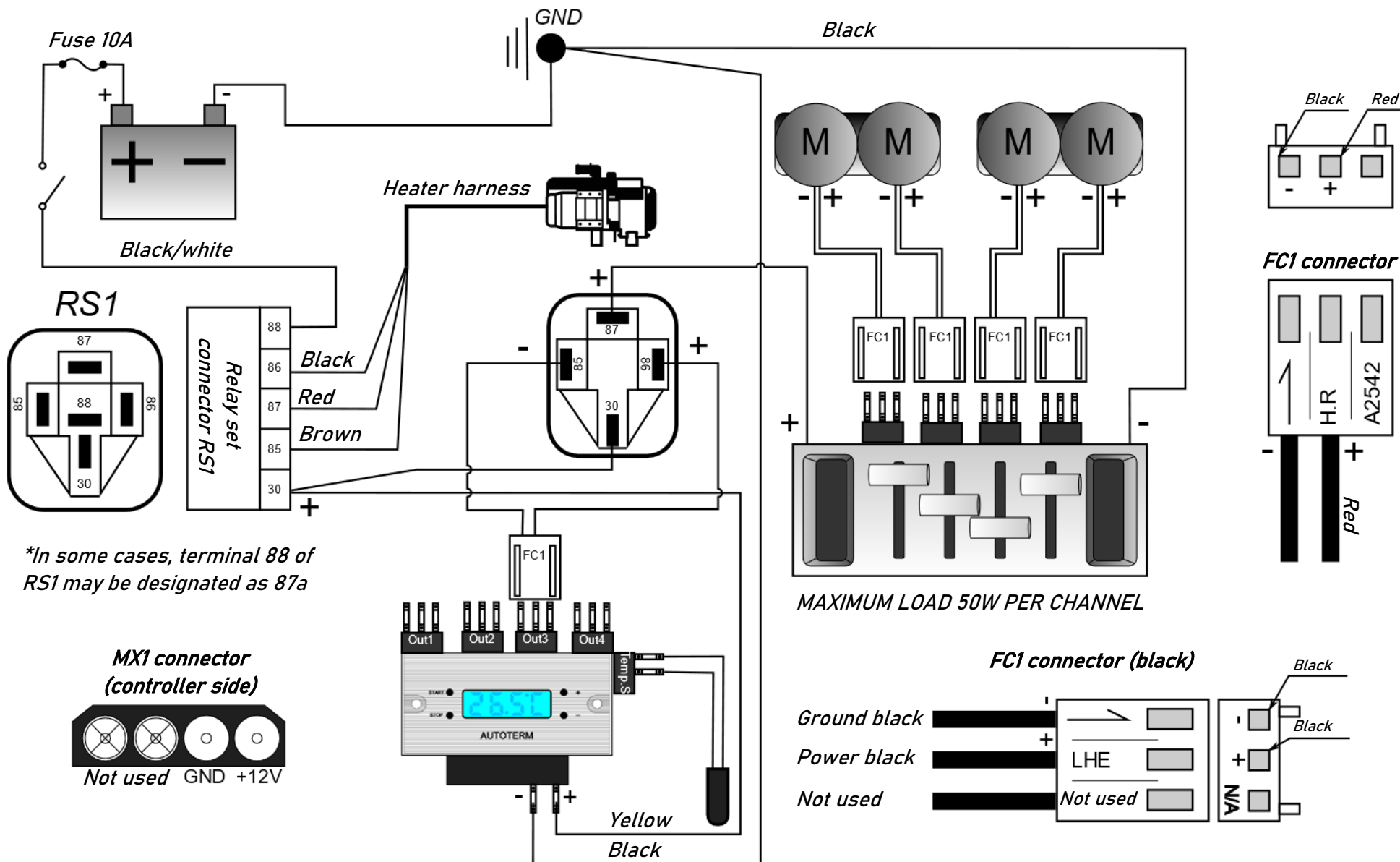


Figure 4 – CHM36 thermal controller connection with FC9 controller within BALTICA-S

## Programming the CHM36

The CHM36 is controlled by four buttons:

- START: for entering menu (long press 3 seconds) and selection;
- STOP: for turning off the controller (long press 3 seconds) and exiting the menu;
- + : to increase value / navigation up;
- : to decrease value / navigation down.

The CHM36 has six programming options:

No	Description	Value	Factory setting	Recommendations when using with BALTICA-S
P0	Temperature unit	C / F	C	-
P1	Cooling / Heating mode	C / H	C	<b>H</b> for heating
P2	Upper temperature limit	99 °C	45 °C	Desired temperature at which the CHX fans shuts off
P3	Lower temperature limit	0.9 °C	25 °C	Desired temperature at which the CHX fans turns on again
P4	Temperature correction	± 10 °C	0	Temperature correction required to adjust the temperature sensor to the real room temperature, when the sensor is placed in the location with low air circulation
P5	Fan start time delay	0 – 10 min	0	It's recommended to set at least 2-minute delay to avoid false start of the fans due to room temperature fluctuations

Programming instructions:

For entering menu long press **START** for 3 seconds, for navigation use + / - buttons, then follow the table below:

No	Instructions		
P0	Select <b>P0</b> then press <b>START</b>	Select <b>C</b> for Celsius, <b>F</b> for Fahrenheit	Press <b>STOP</b> to exit.
P1	Select <b>P1</b> then press <b>START</b>	Select <b>C</b> for Cooling, <b>H</b> for Heating	Press <b>STOP</b> to exit.
P2	Select <b>P2</b> then press <b>START</b>	Set desired upper temperature by pressing	Press <b>STOP</b> to exit.
P3	Select <b>P3</b> then press <b>START</b>	Set desired lower temperature by pressing	Press <b>STOP</b> to exit.
P4	Select <b>P4</b> then press <b>START</b>	Set the temperature correction value	Press <b>STOP</b> to exit.
P5	Select <b>P5</b> then press <b>START</b>	Set the desired time delay	Press <b>STOP</b> to exit.



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