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Mini Control

User's manual



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Introduction

Dear Customer!

Thank you for choosing the **AUTOTERM Mini Control** panel! Mini Control is a simplified control panel with limited functionality and setting options. It is compatible with all AUTOTERM heaters: Air 2D, Air 4D, Air 9D, Flow 5D and Flow 14D. The Mini Control provides only the essential heating functions needed for basic operation of the heater.



Some older versions of AIR heaters (manufactured before 2017) may not support certain functions.

For questions regarding compatibility with older products, please contact your local dealer or an AUTOTERM service center.



Before operating the AUTOTERM Mini Control, read this operating manual and the AUTOTERM heater's operating manual.



Disregarding these instructions can void the product warranty, cause damage to the product and/or property, and pose a risk to health.

For other languages of this manual, please see www.autoterm.com/manuals.

SAFETY INSTRUCTIONS



Risk to health and/or product damage

- The AUTOTERM Mini Control may only be used for the purposes specified in this operation manual.
- Use this product only with AUTOTERM brand heaters. AUTOTERM is not responsible for any damage or loss caused by using Mini Control with other products or for unintended purposes.



Risk of fire and explosion

- When installing Mini Control, the heater must be fully shut down. Ensure that the heater is disconnected from the power supply before installation and do not remove it from power before the shutdown is complete. Note: the shutdown process may take up to 10 minutes.
- Do not use or install the Mini Control or AUTOTERM heaters in locations where flammable vapors, gases, dust, or explosive substances may accumulate or be stored.



Risk of fire and explosion

- Do not connect or disconnect any wiring of the heater while it is connected to the power supply or operating.
- Do not connect the heater to the power circuit of the vessel when there is no battery.

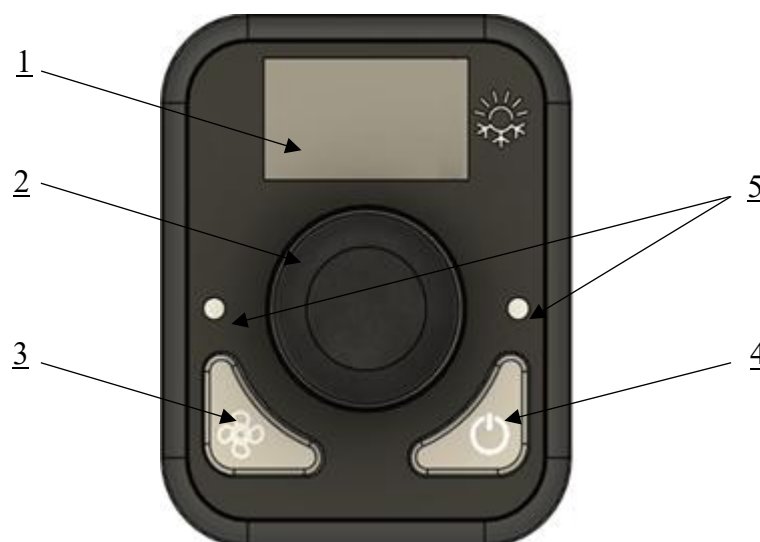
LIABILITY



The manufacturer is not liable for any damage resulting from installation or repairs performed by uncertified personnel, or use of third-party parts and accessories without the manufacturer's approval.

In case of any problems, we strongly recommend contacting certified service centers. The contact information and locations of certified service centers can be found on our website www.autoterm.com/partners.

1. GENERAL INFORMATION



- | | | |
|------------------|--|-------------------|
| 1. DISPLAY | 3. VENTILATION BUTTON (AIR)
AUXILIARY BUTTON (FLOW) | 5. LED INDICATORS |
| 2. POTENTIOMETER | 4. ON/OFF | |

1.1. DISPLAY

Air heaters

Depending on the set mode, the display shows the:

- set power (Fig.1) or
- temperature level (Fig.2) (*).

**Only if external temperature sensor is connected.*



As soon as an external temperature sensor is connected, the heater automatically switches to temperature mode.

Any button or potentiometer adjustment displays the set parameters; afterward, the display enters sleep mode (turns off) after 15 seconds.

Flow heaters

The display shows the actual coolant temperature (Fig.2), followed by the remaining operating time (Fig.3). The display then enters sleep mode after 15 seconds.



Fig.1 Set power display



Fig.2 Temperature display

1.2. POTENTIOMETER

Air heaters

The potentiometer adjusts the:

- power setting for heating or ventilation on a scale from 1 to 10 or
- target temperature setting (*).

Operating time for Air heaters is infinite.

**Only if external temperature sensor is connected.*

Flow heaters

The potentiometer adjusts the heater operating time. It can be set from 30 minutes to 8 hours. After the time is set, the display shows the remaining operating time of the heater (Fig.3).



Fig.3 Flow heater operating time

1.3. VENTILATION / AUXILIARY BUTTON

1.3.1. Air heaters

The button activates the:

- ventilation mode or
- heating with ventilation function (*).

To activate the heating with ventilation function, first turn on the heating (ON/OFF button), then press the ventilation/auxiliary button.

When ventilation mode is active, the left LED lights up. When heating with ventilation function is active, both LEDs light up.

**Only if external temperature sensor is connected.*

1.3.2. Flow heaters (Flow 5D and Flow 14D v2 (**))

The button activates the auxiliary mode. The heater starts together with the engine by sensing actuator charge as the indication for heater start. When the mode is active, the left LED lights up.

***This only applies to Flow 14D heaters (MO-5260 and MO-5255, serial numbers starting with 6834, 6858, or newer), also known as Flow 14D v2.*

1.4. ON/OFF BUTTON

The button switches the heater ON or OFF.

Air heaters operate continuously when switched on, while Flow heaters operate for a set time between 30 minutes and 8 hours.

1.5. LED INDICATORSS

LEDs indicate the current operating mode.

Air heaters

- **Left LED:**
 - Indicates ventilation mode ON.
- **Right LED:**
 - Indicates power mode ON.
 - Indicates temperature mode ON (*).
- **Both LEDs (*):**
 - Indicate heating with ventilation function. To start this mode, first turn on heating using the ON/OFF button, then press the ventilation/auxiliary button.

** Only if external temperature sensor is connected.*

Flow heaters

- **Left LED:**
 - Indicates auxiliary mode is ON.
- **Right LED**
 - Indicates heating mode ON.

2. OPERATING MODES

2.1. Air heaters

Ventilation mode - by pressing the ventilation/auxiliary button, the heater starts in ventilation mode, and the left LED lights up. Power can be adjusted from level 1 to 10, and the operating time is infinite.

Power mode - by pressing the ON/OFF button, the heater starts in power mode, and the right LED lights up. Power can be adjusted from level 1 to 10, and the operating time is infinite.

Temperature mode (*) - by pressing the ON/OFF button, the heater starts in temperature mode, and the right LED lights up. The heater maintains the set temperature by reducing heating power. When the temperature rises above the setpoint, combustion switches off and the heater enters standby mode until the temperature drops back to the setpoint. **Note:** For the Air 9D heater, when the temperature set point is reached, the heater continues operating at low power.

Heating with ventilation function (*) - by pressing the ventilation/auxiliary button after the heating has been turned on with ON/OFF button, the heating with ventilation function starts and both LEDs light up. The heater runs until the temperature reaches 1°C above the setpoint, then it shuts off and switches to ventilation mode. It resumes heating once the temperature drops 2°C below the setpoint. **Note:** For the Air 9D heater, the heater runs until the temperature reaches 5°C above the setpoint. It then shuts off, switches to ventilation mode, and resumes heating once the temperature drops 5°C below the setpoint.

** Only if external temperature sensor is connected.*



To start the heater in any heating mode, ventilation must be OFF!

2.2. Flow heaters

Auxiliary mode - by pressing the ventilation/auxiliary button, the heater starts in auxiliary mode, and the left LED lights up. The heater starts together with the engine by sensing actuator charge as the indication for heater start.

Heating mode - by pressing the ON/OFF button, the heater starts in heating mode, and the right LED lights up. The operating time can be set from 30 minutes to 8 hours.

The heater settings remain at factory defaults. To change these settings, use Comfort Control panel or the AUTOTERM Diagnostic tool. The factory default settings are as follows:

- **Coolant temperature:** 80°C
- **Air blower initiation:** ON/45°C
- **Alarm input:** ON
- **Coolant pump:** ON in Standby mode
- **Coolant pump:** OFF when the engine is on (auxiliary coolant pump)

This applies to all Flow 5D heaters and the new Flow 14D heaters (MO-5260 and MO-5255, serial numbers starting with 6834, 6858, or newer), also known as Flow 14D v2 (***).

**** Please take note that all previous generations of AUTOTERM FLOW 14D heaters do not have the option to adjust the following settings:*

- **Coolant temperature:** 80°C
- **Air blower initiation:** ON/40°C
- **Alarm input:** ON
- **Coolant pump:** ON in Standby mode

3. MOUNTING AND CONNECTION

The Mini Control panel can be mounted using screws.

Gently remove the back panel using a thin flat screwdriver by prying it from the middle of one side. Then attach the back panel to the desired surface with screws and then snap the Mini Control to the mounted back panel.

3.1. Mounting

The mounting surface must be flat; any curvature may affect the quality of the control panel installation.

1. Select the correct location for mounting.
2. Drill an 8 mm hole for the control panel cable.
3. Disconnect the cable from the control panel, then push it through the 8 mm hole from the opposite side of the mounting surface.
4. Mount the cable as shown in Fig.4.
5. Align and attach the mounting bracket using the two screws provided in the installation kit. Position the bracket so that the cable hole is covered.
6. Connect the plug to the control panel.
7. Check cable alignment and make sure there is no tension on the connection socket.

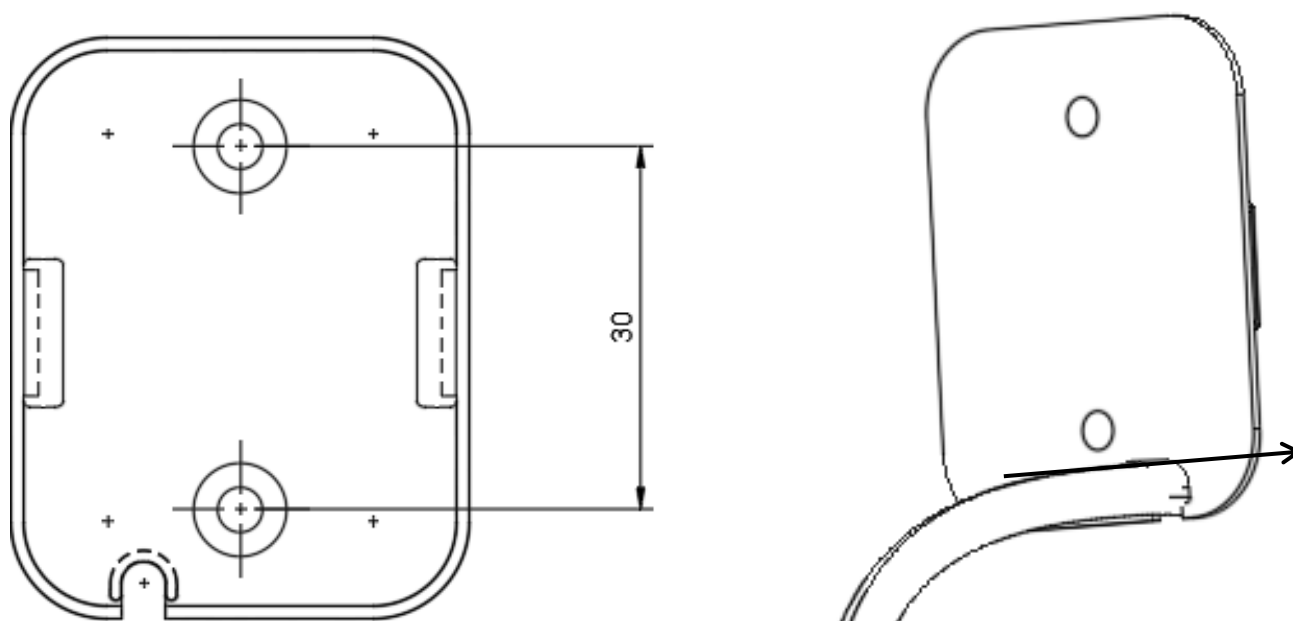


Fig.4. Cabel Mounting



To extend the control panel wiring, use only the designated original AUTOTERM extension cables!

3.2. Connection

When connected to the power supply, the control panel turns on automatically. Upon startup, the LED indicators light up and the AUTOTERM logo appears on the display.

The connection process can take up to 20 seconds. If the connection is successful, the message “*Connected!*” appears (see Fig.5). After the panel is connected, it displays for 5 seconds:

- Control panel software number (s/w).

If the connection fails, the message “*No connection!*” appears (see Fig.5).

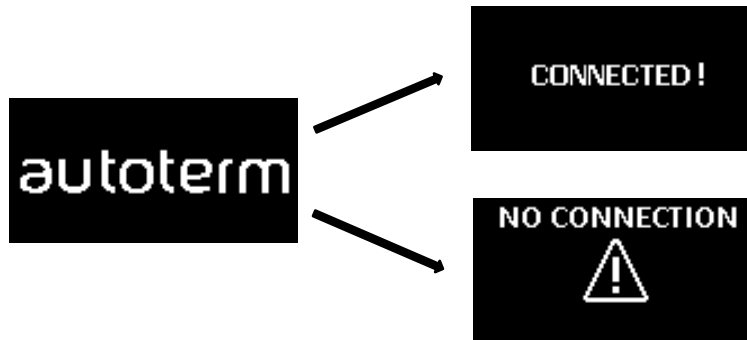
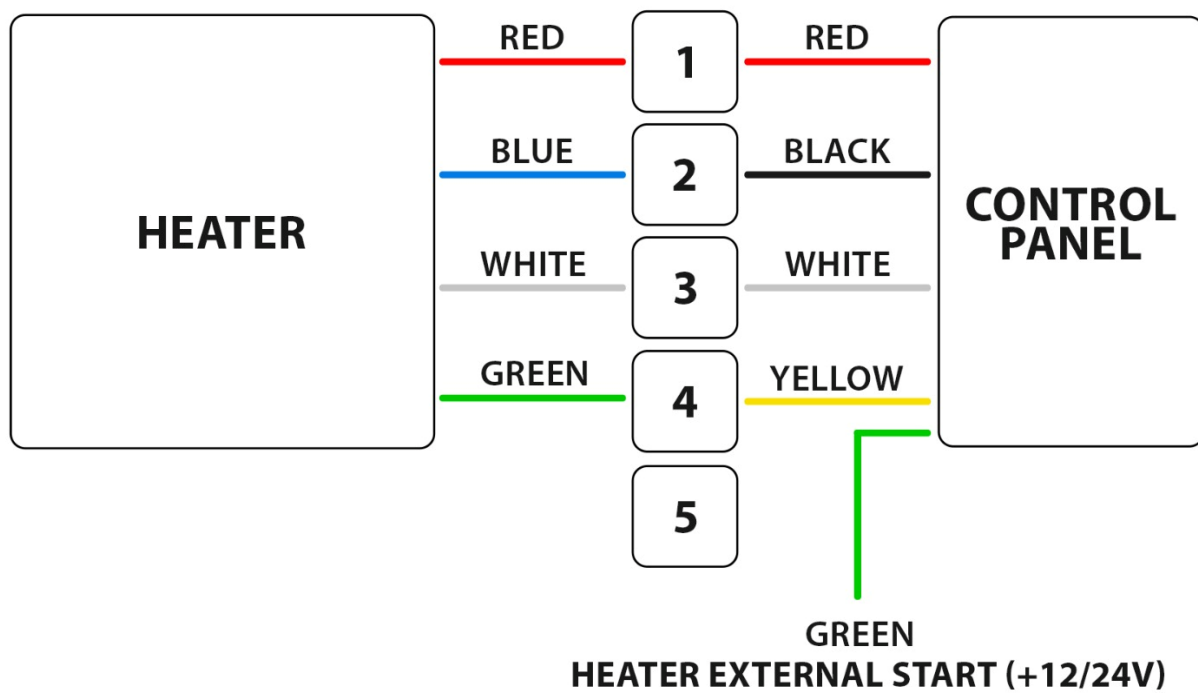


Fig.5. Displayed messages

4. ELECTRICAL WIRING DIAGRAM



- 1) Positive
- 2) Negative
- 3) Rx
- 4) Tx
- 5) External start (Heater starts with control panel settings)

5. ERRORS AND MAINTENANCE

In case of an error, LED indicators blink red once every 5 seconds, and an error message is displayed depending on the fault and the heater connected.



Full descriptions of the fault codes can be found in the respective heater manual or on our homepage in the troubleshooting section: www.autoterm.com/support/troubleshooting.



Maintenance and repair of the heater should only be performed by personnel trained and certified by AUTOTERM.

ERROR MESSAGE	FAULT CODE BY HEATER		
	AIR HEATERS	FLOW 5 / Flow 14D v2	FLOW 14D
Air Ducting or Outlet!	1; 2	-	
Service!	4; 5; 6; 9; 10; 13; 16; 27; 28		
	7; 11; 29; 32; 34; 36; 37	3; 24; 25; 26	3
Overvoltage!	12		
Undervoltage!	15		
Low voltage!	35	-	
Fuel pump!	17	17; 22	17
No connection!	20; 30	20; 30; 50	20
Overheating!	31	1	1; 2
Heater Locked!	33	37	-
Check fuel system!	8; 78	29; 78	
Coolant pump / circuit!	-	14	

REMINDER!



To ensure reliable operation of the heater, it must be started once every 30 days at maximum heating power for 30 minutes, including the warm seasons when the heater is not in use. This action is necessary to remove viscous film sediments from the moving parts of the fuel pump. Failure to do so may result in premature heater failure.

6. WARRANTY TERMS

Warranty Period

The AUTOTERM Mini Control panel is covered by a 24-month (2-year) warranty starting from the date of purchase. The warranty applies exclusively to defects in manufacturing, materials, or workmanship that affect the proper operation of the device under normal and intended use.

Warranty Coverage

During the warranty period, AUTOTERM or an authorized AUTOTERM representative will, at their discretion:

- repair the Mini Control panel, or
- replace the unit with a new or refurbished equivalent.

Any replacement device or repaired component is covered under the original warranty for the remaining period.

Warranty Exclusions

The warranty does not apply to damage resulting from:

- Incorrect installation, improper electrical connections, or use with non-compatible equipment;
- Exposure to moisture, liquids, condensation, chemicals, or corrosive environments;
- Mechanical damage, impact damage, cracked housing, or broken connectors;
- Modifications, disassembly, or any attempt to repair the device by unauthorized personnel;
- Power surges, reversed polarity, short circuits, or misuse;
- Operation outside the environmental and technical specifications stated in this manual.

Warranty Conditions

To qualify for warranty service:

- The Mini Control must be used strictly in accordance with AUTOTERM installation and operating instructions;
- Valid proof of purchase, indicating the date and seller, must be presented;
- The device must not have been altered, tampered with, or exposed to prohibited conditions.

Limitation of Liability

AUTOTERM's responsibility under this warranty is strictly limited to repair or replacement of the Mini Control panel.

The warranty does not cover:

- Any indirect, incidental, or consequential damages resulting from device failure.

