

COMBI PURE CONTROL

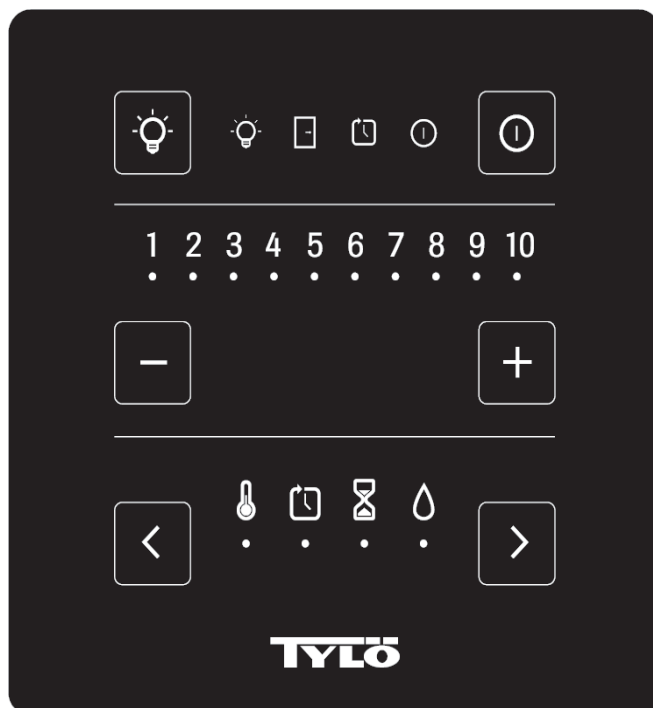


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SaunaFin

TYLÖ[®]
for the senses

Installation instructions

The control panel can be installed inside or outside the sauna/steam room. If installing it inside, install no higher than 90 cm (3') above the floor .

The unit can be mounted on the wall using the bracket or directly on wall using double-sided adhesive supplied. If using the bracket, mount the control on the bracket using adhesive.

Installation without bracket (Typical)

Cut a 30mm (1-3/16") hole through the wall big enough for control panel connector.

Attach the double-sided adhesive to the control panel. Before attaching the panel to the wall, connect it to the heater to check that everything works. Remove the protective backing from the adhesive.

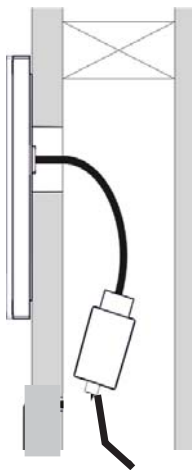
Silicone sealant can be applied in the groove on the back of the panel as an extra seal against moisture. Connect the panel wire, run wire through the hole in the wall and press the control panel firmly against the wall.

Installation with bracket

Use the bracket as a template to mark up screw holes on the wall. Tighten the screws a little until the bracket is loosely secured.

Remove the bracket from the wall. Use adhesive to mount the control panel on the bracket. Remember to position the switch according to the picture (

Installation without bracket (Typical)



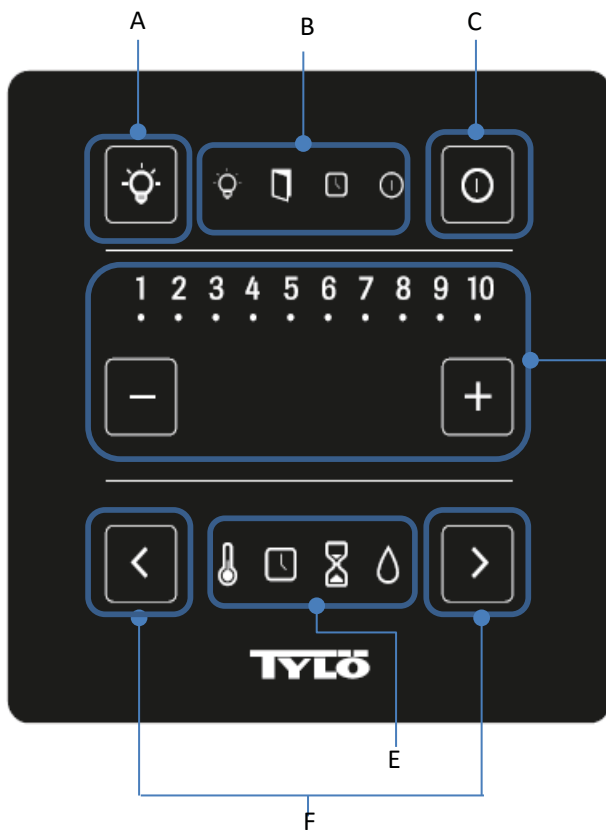
Installed without bracket Control stuck directly to wall. Control cable in stud cavity

Installation with bracket



Installed using bracket Generally only used if control wire must be surface mounted; i.e solid log style outdoor sauna

User Guide



- A. Light - Switches light on/off (if connected when sauna installed)
- B. Indicators for light, door contact, delayed start and to show that the heater is working or error code.
- C. Start, stop and error indication
- D. Enter values.
- E. Function selection for temperature, delayed start, operating time and humidity (if connected to Combi heater).
- F. Function selection buttons.

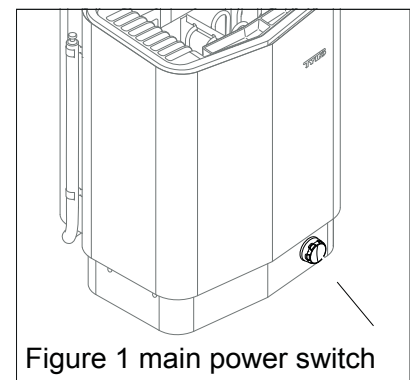


Figure 1 main power switch

First start

Set heater switch to ON (see Fig. 1). The indicator diodes (B) will flash a few times. This indicates that the control panel is connecting to the heater.

When contact is made, the diodes will cease flashing and diodes 1-7(D) corresponding to the program no. selected will flash 4 times to show setting. This will also occur after any disconnection of power. Pure's default setting is to regulate a heater to max. 90°C (194°F) and max. operating time of 1 hour. Maximum temperature and operating time can be adjusted.

Program	Max. temperature	Max. operating time	Product
4	90 °C	1 h	Sauna, Combi
5	90 °C	24 h	Sauna, Combi

If using Pure Control with Combi Heater

Note: At start up if the water tank is empty, there will be 3 short beeps followed by a red flashing "water droplet" on the control..

Prioritised Function (Do you want more heat or more steam?)

The Combi heater prioritises heat or steam depending on the settings. If temperature is set to 6 or above, heat is prioritised, meaning the sauna will heat before steam production begins. If temperature is set to 5 or below, humidity is prioritised. Steam production will commence immediately.

Tip: For maximum temperature, set temp. to 10 and humidity to 0.

Tip: For max. humidity, set temperature to 1 and humidity to 10.



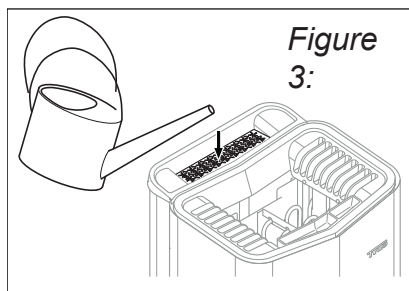
Setting humidity level (Combi)

Use the function selection buttons < and > (F) to select humidity symbol. Use the - and + buttons (D) to then select humidity levels 0-10. Select 0 (off) by pressing < when humidity is set to 1. Each diode on the scale indicates the length of time for which the element in the water tank will operate.

Both humidity and temperature can be changed during operation. While the sauna is heating up, the amount of steam produced depends on the temperature level that is set. Humidity is prioritised with temperature settings 1-5 and temperature is prioritised for settings 6-10. When humidity is prioritised, steam is produced according to the setting; when temperature is prioritised, humidity only runs once the set temperature is reached.

	Humidity settings									
	Humidity is prioritised					Temperature is prioritised				
	1	2	3	4	5	6	7	8	9	10
Tank on (min.:sec.)	01:45	02:00	02:17	02:33	02:47	03:05	03:20	03:35	03:50	Continuous
Tank off (min.:sec.)	02:23	02:08	01:51	01:35	01:21	01:03	00:48	00:33	00:18	No break

Filling the water reservoir:
Before starting the heater, fill the water reservoir by carefully pouring tap water through the herb grille (fig. 3)



To prevent build up of lime-scale and higher salt/mineral levels, empty the reservoir after each use. If this is not done and water is added each time you take a sauna, foam build-up could occur which can prevent water level sensor from detecting a low water level. This could damage or destroy the steam heating element..

Check Steam tank periodically with a flashlight to check for build of scale or lime. Use Tylo descaler solution as required to clean the tank

1. Low water level in reservoir is shown by flashing water drop
2. When activating main heater switch or when starting Pure control: If water reservoir is low, three beeps will sound and water drop symbol will flash.
3. When the water level reaches the minimum operational level, the water drop symbol will be unlit. The steam element in the water reservoir can be started.
4. When the water level is adequate, the water drop symbol is unlit. When the water level in the tank is full, a continuous audio signal will sound for approximately 2 seconds.

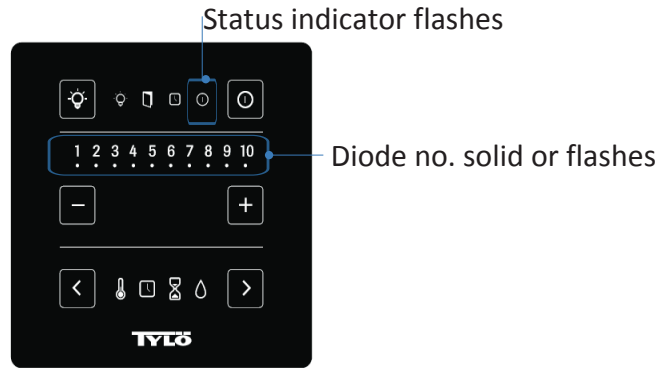


Connecting door contact function - Door contact not used in USA or Canada

Using an external switch

An external switch for starting/stopping can be connected. See heater installation manual

Error Indication



Check error code list in full manual. Consult with a qualified service technician.

Error message

If an error should occur on the heater or other equipment (control panel, temperature sensor etc.) an error message will be shown using LED indicators. The indicator LEDs will flash whilst one LED on the 1-10 scale is continuously lit or flashes. If it lights continuousl , it refers to error message 1-10 and if it flashes, it refers to error messages 1-20.

Error messages (– indicates not relevant to this application):

1. Temperature sensor not connected or faulty
2. –
3. Heater circuit board overheated
4. The level electrodes in the tank are short-circuited (Combi)
5. –
6. Contact between heater and control panel lost
7. Contact with temperature/humidity sensor lost
8. –
9. Communication with timer lost
10. Current to timer disrupted
11. –
12. The level electrodes are not working. Mid. failure. (Combi)
13. Humidity sensor faulty
14. Temp. sensor faulty
15. Communication problem with heater
16. Temperature cut-out activated and must be reset
17. –
18. –
- 19.
- 20.

For certain errors, disconnecting current to the heater for a brief period and then reconnecting can be tried. This mostly concerns problems that have occurred with communication between units connected.

In the event of error number 3, the heater will be automatically switched off. When the temperature has dropped approx. 20°C, the sauna heater can be restarted. Always investigate why the heater overheated. It can be the result of insufficient ventilation or that the heater needs crumbled stone remove

Contact your dealer for other errors or if an error cannot be corrected according to the above. Check the heater's type plate and note the type, serial number, year of manufacture and make a note of any error code on the control panel before contacting Tylö Customer Support.

Information!

Contact the dealer during the guarantee period in the event of faults.
See the instructions for the control panel for details of faults not covered in this user guide.

Table 1: Troubleshooting the sauna heater

Symptom	Possible cause	Remedy
First time use. Heater does not operate	<ol style="list-style-type: none"> 1. Breaker off 2. U-shape copper connectors not installed. 3. Sensor or control cable plugged into wrong jack 	<ol style="list-style-type: none"> 1. Turn on Breaker 2. Have electrician confirm proper installation (fig.19) . 3. Have electrician confirm proper installation (fig.19) .
Heater is on but does not create steam.	<ol style="list-style-type: none"> 1. Water level incorrect. Below minimum water level for safety sensor? 2. Humidity settings not programmed as intended 3. Water reservoir temperature cut-out activated? 4. Heater element in reservoir faulty? 5. If the sauna structure has deficient ventilation in conjunction with dry sauna and high sauna temperature (operating with no water in reservoir), the temperature cut-out can activate because of higher radiating temperature in the heater. 	<ol style="list-style-type: none"> 1. Fill up reservoir. 2. Confirm control setting-review control manual. (For max. steam, set humidity to "10 & temp. to "1") 3. Reset temperature cut-out. For more information, see the section on temperature cut-out on figure 9 page 15 in full manual. If the steam function does not work after reset, there is a risk of the reservoir being damaged. 4. An authorized electrician is required to find the fault. 5. Check for possible deficient ventilation.
Heater element in heater stone compartment does not warm up.	<ol style="list-style-type: none"> 1. Temperature settings not programmed as intended 2. Water reservoir in operation? Only two of the three heater elements in the stone compartment can operate at the same time as the tank, otherwise excessive current is drawn from the electricity supply. This is not a fault outside normal operation. 3. Some of the heater fuses on the main switchboard can have tripped out? 4. Resistor coil in the heater element faulty? 5. Internal heater PCB fault? 	<ol style="list-style-type: none"> 1. Confirm control setting-review control manual. (For max. temp, set humidity to "0" & temp. to "10") 2. See the instructions supplied with the control panel. 3. Check and replace/reset the fuses in the main switchboard. 4. An authorised electrician is required to find the fault. 5. An authorised electrician is required to find the fault.
Lights in the sauna do not come on when switched on at the control panel.	<ol style="list-style-type: none"> 1. Light was not connected to the heter. (Requires a separate 120 volt supply to heater) 2. Internal heater PCB fault? 	<ol style="list-style-type: none"> 1. Verify with authorized electrician who performed installation of heater/lighting. 2. An authorized electrician is required to find the fault.
Heater does not work, control panel does not light up.	<ol style="list-style-type: none"> 1. The main power switch is off? 2. Circuit breaker tripped on main electrical panel. 3. Loose contact in cabling between heater and control panel? 4. Modular jack is not properly installed at heater PCB circuit board. The specific 12VDC output on one of the PCB's RS485 modular jack to the control panel is faulty due to short-circuit? 5. Transformer on PCB in heater faulty? 6. Control panel faulty? 	<ol style="list-style-type: none"> 1. Turn heater main power switch. 2. Check and replace/reset the fuses in the main switchboard. 3. Switch off heater main power switch and connect each/paired cable to the control panel. Switch on heater main power switch again. If this does not help, an authorized electrician is required to find the fault. 4. Requires an authorized electrician to find the fault, faulty 12VDC output is indicated by LED out next to the RS485 output. Note: if the fault is in the RJ10 cable to the control panel, do not click into a working vacant RS485 outlet to avoid causing a fault in that outlet. RJ10 cable must be replaced/contacts fitted in the event of a fault. 5. An authorized electrician is required to find the fault. 6. An authorized electrician is required to find the fault.
The fuses or circuit breaker in the building breaker panel trips as soon as the heater is turned on.	<ol style="list-style-type: none"> 1. There is a short-circuit at the heater GND. Can be due to a faulty heater element? 2. Lighting connected to and controlled via the heater faulty? 3. The heater has not been used for a long period, causing an insulation fault in the heater element? 4. Heater has had too much water poured on it? 5. Other internal heater fault? 6. GFCI breaker tripped 	<ol style="list-style-type: none"> 1,2,3,4,5. Do not use the heater, switch off at main heater main switchboard trip and disconnect heater fuses on the main switchboard. An authorized electrician is required to find the fault. 6. Saunas should not have GFCI breaker. Have electrician replace with standard breaker
Water reservoir temperature cut-out activated	<ol style="list-style-type: none"> 1. Dry boiling, incorrect minimum water level. 2. Foam in the water reservoir. 	<ol style="list-style-type: none"> 1. Drain and clean water reservoir. 2. Clean level electrodes.
Heater does not work, control panel does not light up	<ol style="list-style-type: none"> 1. Temperature cut-out activated. 2. Change, rearrange stones, clean stone compartment. Possible deficient ventilation. 	<ol style="list-style-type: none"> 1. Reset High limit switch.(See page 5 in full manual) 2. Possible deficient ventilation. Improper ventilation can cause high limit to trip.(See page 5 in full manual)
Heater works but do not reach set temperature.	<ol style="list-style-type: none"> 1. Incorrect placement of sensor. 2. Incorrect ventilation. 3. Incorrect heater. 	<ol style="list-style-type: none"> 1. Confirm sensor is placed as per instructions.(fig.3) 2. Check ventilation. 3. Check that heaters size is according to recommendation for the sauna volume.