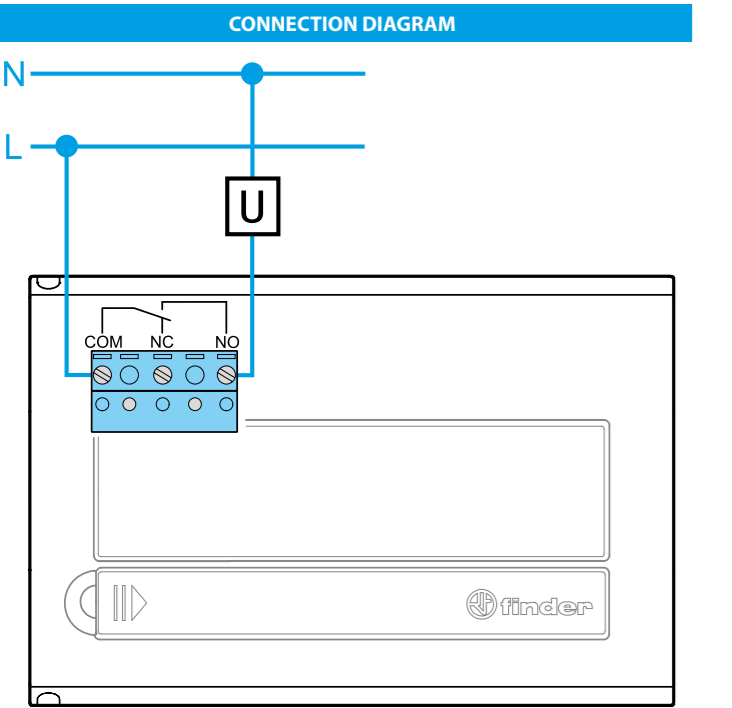


**TECHNICAL CHARACTERISTICS**

Power: **2 x 1.5 V AAA alkaline batteries**  
Settable temperature range - WINTER: **(+5...+37)°C**  
Settable temperature range - SUMMER: **(+5...+37)°C**  
Settable temperature range - FROST PROTECTION: **(+2...+8)°C**  
Temperature differential  $\Delta T$ : **(0.1...0.9)°C**  
Calibration: **Yes**  
Resolution: **0.1°C**  
Tolerance: **+/-0.5°C**  
Display: **Touch screen**  
Daylight saving time: **User selectable automatic time adjustment function**  
Programmable thermostat lock: **Yes, with PIN code**  
Output: **5 A 250 V AC SPDT relay (potential free contact)**  
Installation: **Wall mounted**  
Protection rating: **IP20**



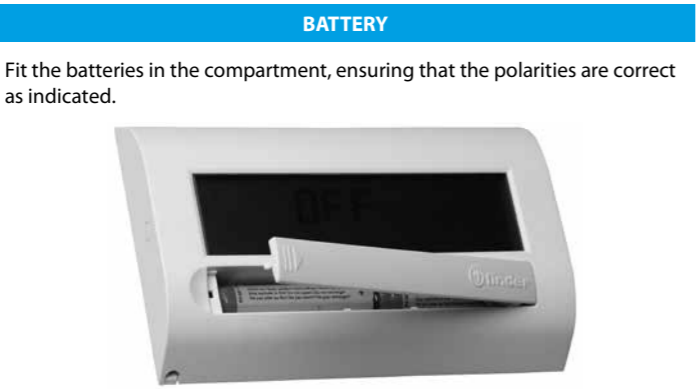
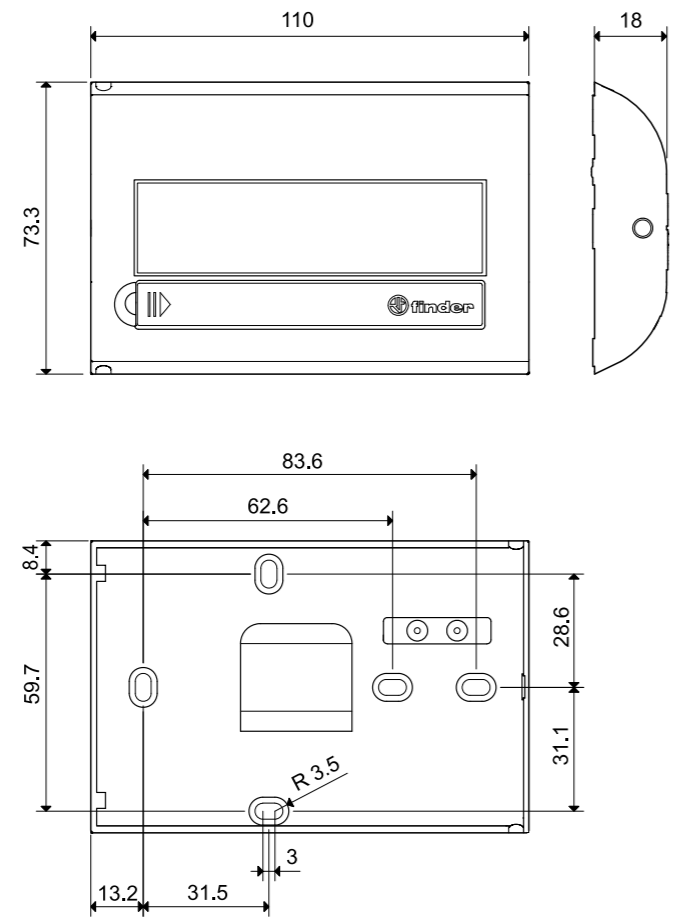
**INSTALLATION**

**SAFETY INSTRUCTIONS**  
Electrical equipment must only be installed and assembled by expert personnel. Before connecting the programmable thermostat, ensure that all associated utilities (pumps, valves, boiler etc.) are not connected to the supply and that the load is within the ratings marked on the thermostat.

**LOCATION**  
Install the programmable thermostat approximately 1.5 m above the floor, and away from sources of heat (radiators, sunlight, cookers) and from doors and windows.

**CLEANING**  
Clean with a damp cloth only.

**IMPORTANT**  
Do not overtighten the screws when installing, as this may warp the base and compromise the functions of the touch screen.

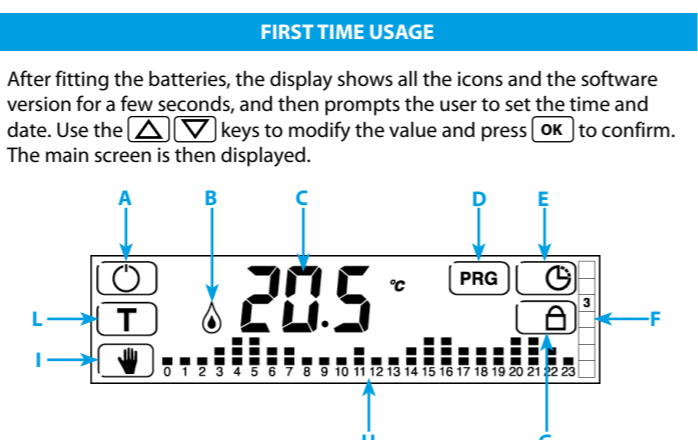


**IMPORTANT**

- Fitting the batteries with the wrong polarity may damage the programmable thermostat
- If battery charge drops below the minimum permissible level, the programmable thermostat switches to OFF state and the relay contact opens
- Remove the batteries if the programmable thermostat is not used for a prolonged period of time

The programmable thermostat has the following three different low battery warning modes:

- Low battery icon displayed **STEADY**: the functionality of the programmable thermostat will soon be compromised
- Low battery icon **FLASHING**: programmable thermostat requires imminent battery replacement
- Messages **bAtt**/**BFF** flashing in alternation, programmable thermostat switches to OFF state and the relay contact opens



**NOTE**  
Touch the centre of the display to view the time

**DESCRIPTION OF KEYS**

- Programmable thermostat ON/OFF
- Setting the 3 temperature levels
- Activate MANUAL mode. Press and hold for 3 sec. to programme MANUAL TIMER MODE (vacation)
- Access programming menu  
Press and hold for 3 seconds to activate PARTY FUNCTION
- Press and hold to activate or deactivate display lock
- Set time and date
- Press and hold for 3 seconds to access the advanced menu
- Increase
- Decrease
- Confirm
- Go back to previous setting  
Press and hold for 3 seconds to exit function
- Go back to previous setting. Press and hold for 3 seconds to exit advanced menu

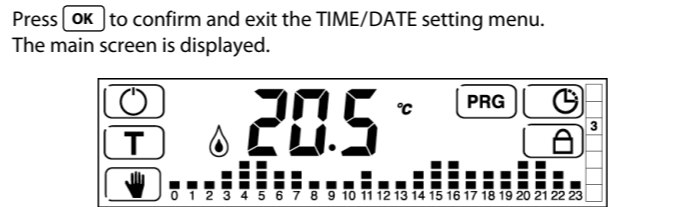
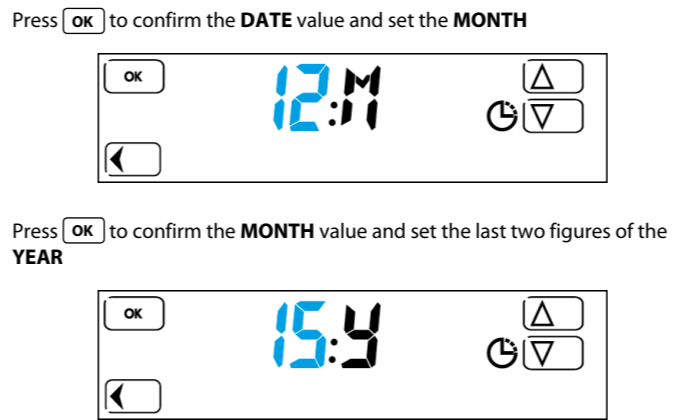
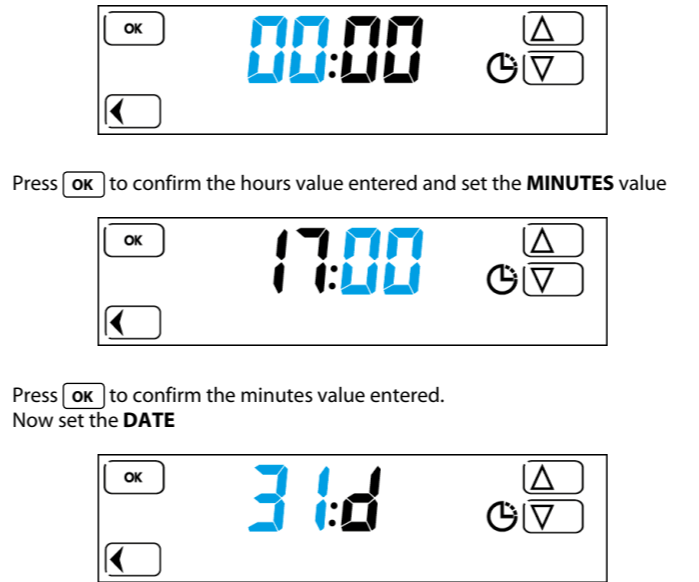
**DESCRIPTION OF SYMBOLS**

- Indicates if TIME and DATE setting mode is active or if current time is displayed
- Heating ON (in WINTER mode)
- Air conditioning ON (in SUMMER mode)
- Frost protection mode active
- Low batteries
- Unit of measurement (degrees celsius)
- Temperature differential
- Locked display or thermostat
- 24 hour time / temperature profile
- Days of week
- Days of week selected

**SET TIME AND DATE**

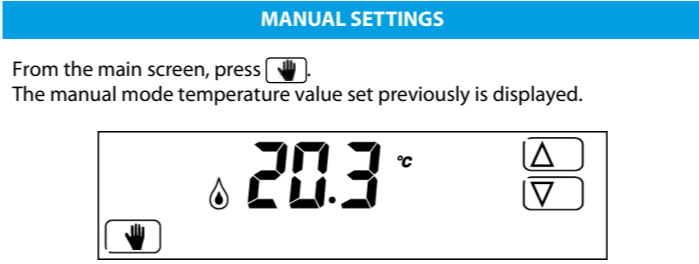
Press to set the time and date.  
The following values are shown in the order indicated:  
**HOURS/MINUTES/DATE/MONTH/YEAR**  
Use the or keys to modify the flashing values.  
Press to confirm and move to the next screen.  
Press to go back or exit the menu.

**EXAMPLE**  
Press .  
The **HOURS** value flashes.  
Use the or buttons to set the correct hours value.



**NOTES**

- Once the date is set, the correct number for the day of the week is set automatically according to an internal calendar
- Press to go back to the previous step
- Press and hold for more than 3 seconds to return to the main screen and save all values confirmed previously by pressing



To modify the setting, press to increase or to decrease the value.  
Press to exit this mode.

**NOTE**  
The current temperature reading is displayed if there is no user input for 3 seconds.

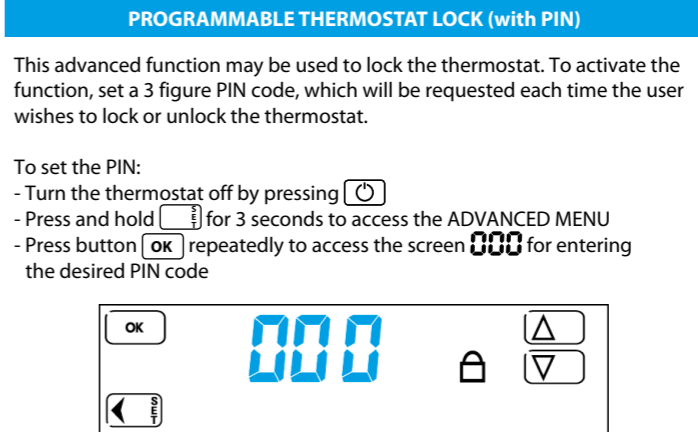
**DISPLAY LOCK**

This function locks the display to prevent accidental changes to the settings caused by unintentionally touching the screen.  
Press and hold the button to activate the function.

The icon appears on the display

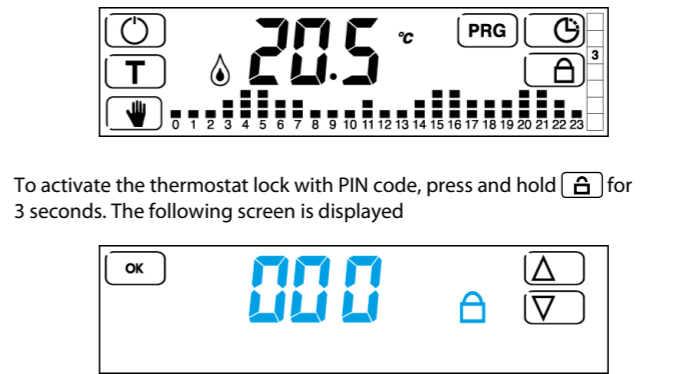
Press and hold for 3 seconds to deactivate the function

**NOTE**  
The PIN set in the advanced LOCK menu must be **000** for the DISPLAY LOCK function to be available



Use the and keys to set the desired PIN code number, then press to confirm. After setting the PIN, exit the advanced menu by pressing repeatedly or by pressing and holding .

When the thermostat is switched on again, the main screen is displayed.



To activate the thermostat lock with PIN code, press and hold for 3 seconds. The following screen is displayed



To unlock the thermostat, press and hold for 3 seconds. The value **000** is displayed.  
Enter the PIN number and press to confirm.

**IMPORTANT**  
After three failed unlock attempts, no further PIN entry attempts may be made for 20 seconds.  
The message **Err** is displayed.



**NOTE**  
The display lock remains active even if the batteries of the thermostat are removed and refitted.  
Enter the **emergency unlock code 513** if you have forgotten the PIN.  
After unlocking the unit with the emergency unlock code 513, it is strongly recommended to access the advanced menu and check and/or modify the user-defined PIN set previously.

**SET TEMPERATURE**

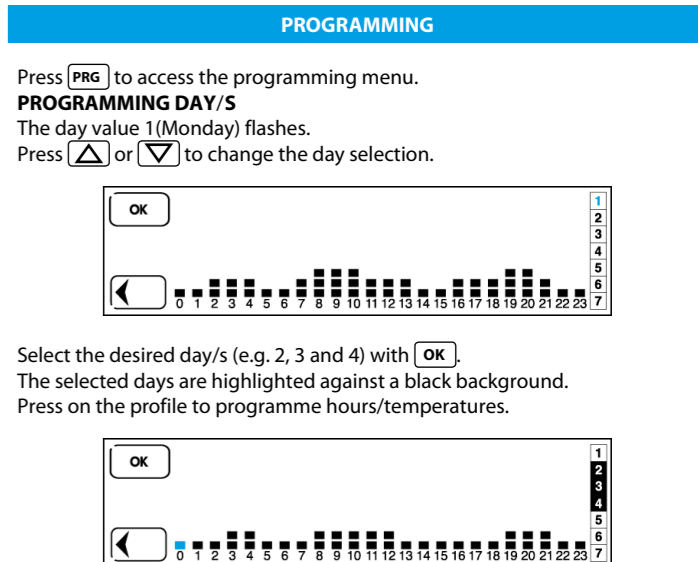
Used to set the three 3 temperature levels (**LOW-NIGHT-COMFORT**).  
Press .  
The first level value flashes. Set the desired **LOW** temperature value using and .

Press .  
The second level value flashes. Set the desired **NIGHT** temperature value using and .

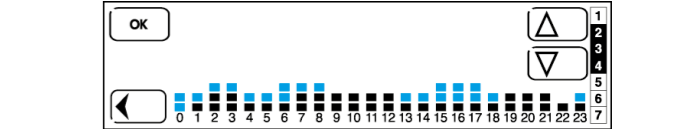
Press .  
The third level value flashes. Set the desired **COMFORT** temperature value using and .

Press to return to the main screen.

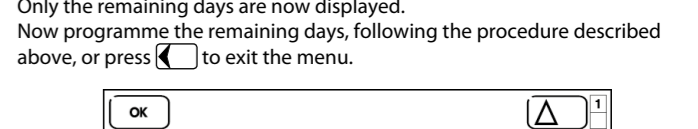
**NOTE**  
The temperature level sequence is reversed for SUMMER mode. i.e. The third level represents the lowest temperature.



Select the desired day/s (e.g. 2, 3 and 4) with .  
The selected days are highlighted against a black background.  
Press on the profile to programme hours/temperatures.



**PROGRAMMING INDIVIDUAL HOURLY SETPOINT TEMPERATURES FOR 24 HOUR PERIOD**  
The HOUR bar 0 flashes on the hours/temperature graph.  
Use and to select the temperature level.  
Press to confirm and move to the next hour.  
Repeat the same procedure for each hour.



**NOTE** Press to go back to the previous setting.  
Press and hold the button for 3 seconds to exit programming mode and save all settings confirmed previously by pressing .

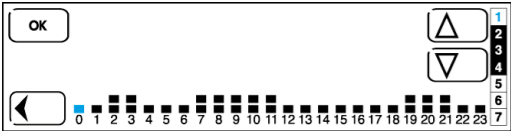
Only the remaining days are now displayed.  
Now programme the remaining days, following the procedure described above, or press to exit the menu.

The main screen is displayed.

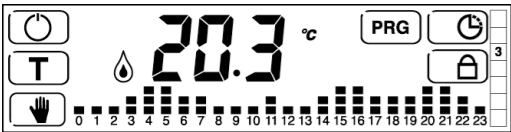
**NOTE**  
- Press and hold for 3 sec. at any time to exit programming mode and return to the main screen.  
All parameters confirmed previously by pressing are saved.  
- To review the settings programmed for a specific day, press in the main menu and scroll between 1 and 7 with the arrow keys.  
Selecting a day displays the respective profile programmed

**COPY FUNCTION**

Press **PRG** to access the programming menu.  
Day 1 (Monday) flashes. Press **Δ** or **▽** to change the selection.  
For example, to copy the programme settings for day 2 into days 3 and 4,  
select the days by pressing **OK**, selecting the day you want to copy (in this  
case 2) first.  
The selected days are highlighted against a black background.  
Now press the time/temperature profile.  
The first hour bar in the profile flashes.



Now press and hold **☐** for 3 seconds.



**TIMED MANUAL MODE (vacation)**

This function may be used to maintain a temperature value for a period of  
time set by the user.  
Once the set period of time has elapsed, the unit returns to the main screen.

From the main screen,



press and hold **☐** for 3 seconds.



Use the **Δ** and **▽** keys to set the hour value of the time at which the  
function will end.  
Press **OK** to confirm, then set the minute value with the same procedure.  
Now follow the same procedure to set

the date



the month



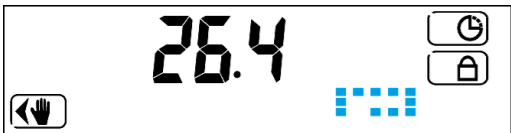
and the year



After pressing **OK** to confirm, use the **Δ** and **▽** buttons to set the  
desired temperature.



After setting the temperature and pressing OK to confirm.  
The thermostat starts operating in timed manual mode, and a cycling  
animated graphic is shown on the right hand side of the display to indicate  
that the function is active



**NOTE**

The display shows the measured temperature, not the set temperature,  
when this function is active. To view or modify the set time, press **☐**.  
Then press **OK** repeatedly to reach the screen with the value you want  
to modify.  
Use the **Δ** and **▽** buttons to modify, then press **OK** to confirm and  
exit the menu.  
Press **☐** to deactivate the function while it is still active.  
The main screen is displayed

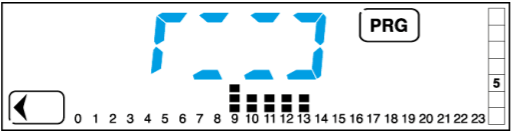
**PARTY FUNCTION**

This function may be used to temporarily modify the set temperatures.  
From the main screen, press and hold **PRG** for 3 seconds



The display shows the profile for the current day, with the current hour bar  
flashing (hour bar 8 in this example).  
Use **Δ** and **▽** to modify the temperature.  
Press **OK** to confirm and move sequentially onto the next bar to the right,  
to set the other hours in the day, or press **☐** to go back to the previous  
value.

After modifying as desired, simply press no other keys to activate the  
programme.  
The function starts after a few moments, with a cycling animated graphic  
shown on the display to indicate that the function is active.



Only the modified hour bars are displayed while the function is active.

**NOTE**

The modification is only effective for up to 24 hours, after which the original  
programme is restored.  
The main screen is displayed again once the function ends.  
Press **☐** at any time to exit the function. To view or modify the profile,  
simply press **PRG** and repeat the modification procedure described  
previously.

**FROST PROTECTION FUNCTION**

The frost protection function is active when the thermostat is set to WINTER  
mode and is off.  
This function protects the system against damage caused by very low  
temperatures.  
When the set temperature threshold is reached, the function is activated  
and the icons **☐** and **☐** appear on the display.



Press the ON key **☐** at any time to turn the thermostat on and display the  
main screen.

**ADVANCED MENU**

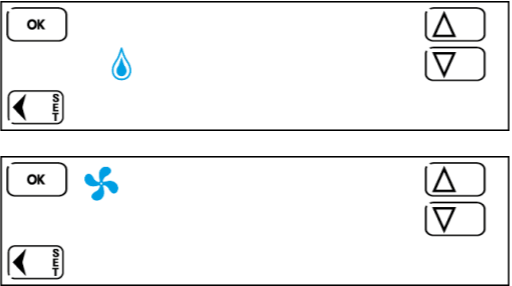
The advanced menu may be used to personalise the setup of the thermostat.

- 1 - SUMMER – WINTER MODE
- 2 - FROST PROTECTION FUNCTION
- 3 - TEMPERATURE DIFFERENTIAL
- 4 - PUMP ANTI-SEIZE FUNCTION
- 5 - DAYLIGHT SAVING SETTINGS
- 6 - PROGRAMMABLE THERMOSTAT LOCK (with PIN)
- 7 - RESET

To enter the advanced menu, press **☐** from the main screen and switch  
off the thermostat.  
Press and hold **☐** for 3 seconds.

**1 - SUMMER – WINTER MODE**

One of the following screens is displayed



The icon **☐** indicates winter mode (heating), while the icon **☐** indicates  
summer mode (cooling). Use the **Δ** and **▽** keys to set the desired  
mode. Press **OK** to confirm and go to the next menu.  
To exit the menu, press **☐** or press **OK** repeatedly until the OFF screen is  
displayed.

**2 - FROST PROTECTION FUNCTION**

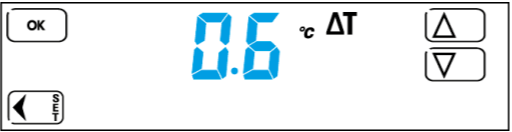
After setting Summer or Winter mode, press **OK** to view the frost protection  
function screen.  
Set the desired temperature within a range from 2°C to 8°C with the **Δ**  
and **▽** keys.  
Press **OK** to confirm and go to the next menu.



Press **☐** to go back to the previous menu, or exit the advanced menu by  
pressing and holding **☐** for 3 seconds or pressing **OK** repeatedly until  
the OFF screen is displayed.

**3 - TEMPERATURE DIFFERENTIAL**

After confirming the desired frost protection temperature with **OK** the  
following screen is displayed.

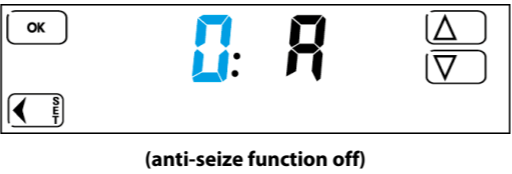


The temperature differential setting is used to set the thermostat correctly  
for the type of system to be controlled.  
Set the temperature differential within a range from 0.1°C to 0.9°C with the  
**Δ** and **▽** keys.  
Press **OK** to confirm and go to the next menu.

Press **☐** to go back to the previous menu, or exit the advanced menu by  
pressing and holding **☐** for 3 seconds or pressing **OK** repeatedly until  
the OFF screen is displayed.

**4 - PUMP ANTI-SEIZE FUNCTION**

After programming the temperature differential, press **OK** to display the  
following screen



The pump anti-seize function makes the thermostat function as an on-off  
timer.  
With a value between 1 and 99 HOURS set for the function, the programmable  
thermostat closes the relay contact for a period of 30 seconds at each time  
interval set.  
Example:



If a value of 48 (48 hours = 2 days) is set with the **Δ** and **▽** keys and  
confirmed by pressing **OK**, the thermostat closes the relay contact for  
30 seconds once every 2 days.  
When the function is enabled in the menu, the timer starts from the last  
time the relay contact was switched off.  
Press **☐** to go back to the previous menu, or exit the advanced menu by  
pressing and holding **☐** for 3 seconds or pressing **OK** repeatedly until  
the OFF screen is displayed.

**5 - DAYLIGHT SAVING SETTINGS**

This function configures the thermostat to:  
- change the clock for daylight saving time automatically (dat1)  
- not change the clock for daylight saving time automatically (dat0)  
- set day "1", for example, as Monday or Sunday (dat2)

The following screen is displayed:



By pressing **OK** to confirm, the thermostat changes the clock for daylight  
saving time automatically.  
Set this value to **Δ** (zero) with the **▽** and **☐** keys to disable automatic  
clock adjustment for daylight saving time and change the clock manually.



Set the value to 2 with the **Δ** and **▽** keys to enter the day of the week  
manually with the TIME and DATE keys.



Press **OK** to confirm and go to the next menu.  
Then exit the advanced menu and modify the day 1 setting as follows:  
press and hold **☐** for 3 seconds (the OFF screen is displayed).  
Press **☐** to turn the thermostat on.  
Press **☐** to view the hours and minutes and then the week bar.



Use the **Δ** and **▽** keys to select the correct day.  
For example:  
If the current day is Wednesday and you want to set Sunday as day 1 (start  
of week), select 4 on the display and press **OK** to confirm.

**NOTE**

Only one of the three settings may be configured. If this parameter is set to  
1 or 0, the first day of the week is set as Monday by default.  
If the parameter is set to 2, the first day of the week may be selected but the  
clock will not be adjusted automatically for daylight saving time.

**6 - LOCK FUNCTION (with PIN)**

This menu option may be used to enable a LOCK function protected by  
a numerical access code to prevent tampering.  
From the advanced menu, press **OK** repeatedly to view the following  
screen:



To set the display lock only, set 000 as the PIN with the **Δ** and **▽** keys.  
To set the PIN-protected thermostat lock function (to prevent tampering),  
set a PIN number between 001 and 999.  
After enabling the lock function, from the main screen, press and hold **☐**  
for 3 seconds to lock the display, or press and hold **☐** for 3 seconds,  
enter the PIN set previously, then press **OK** to confirm to activate the  
anti-tampering lock.  
Perform the same procedure to unlock.

**NOTE**

Enter the **emergency unlock code 513** if you have forgotten the PIN.  
After unlocking the unit with the emergency unlock code 513, it is strongly  
recommended to access the advanced menu and check and/or modify the  
user-defined PIN set previously.

**7 - RESET**

Used to restore all the original factory settings.



Use the **Δ** and **▽** keys to set **RES**.



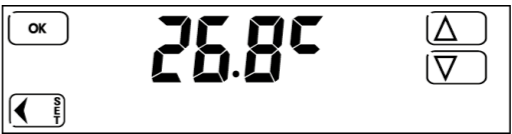
Press **OK** to confirm. The thermostat switches off completely and then  
restarts, displaying the software version and then the main screen.  
The unit has now been reset and all factory settings have been restored.

**NOTE**

Resetting does not cancel the time and date.

**CALIBRATION**

The thermostat is calibrated in the factory.  
Should it be necessary to modify the temperature value measured and shown  
on the display, proceed as follows.  
From the main screen, press and hold the OFF button for 4 seconds.  
The screen **RL** is displayed, followed by



Use the **Δ** and **▽** keys to set the desired value, then press **OK** to  
confirm the modification and exit calibration mode.  
If no other keys are pressed, the unit exits the menu automatically after  
a few seconds and returns to the main screen.  
To restore the factory settings, access the advanced menu and reset the  
thermostat.