



LIVELLA
UNDERFLOOR HEATING



Programmable Thermostat

Deluxe LCD colour touch screen thermostat with appliance manager

New thinking in underfloor heating

- ✔ Colour Touchscreen
- ✔ Dual Control
- ✔ Weekday & Weekend Schedule
- ✔ Easy to use programming.
- ✔ Vertical and Horizontal Mounting



LIVELLA
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The LU – AP5000

Livella's AP5000 colour touch screen thermostat integrates programmable & manual functions, air & floor sensing capabilities as well as a world-first appliance manager. The AP5000 allows for the independent scheduling of your floor heating system and an additional appliance. At time of fitting you can select between vertical or horizontal mounting. The user friendly interface and 4.3" LCD colour touch screen display makes programming simple.

Save On Running Costs

By managing an additional appliance, such as a heated towel rail, you can save up to \$165 dollars a year in running costs. That is typically more than enough to offset your bathroom floor heating operating costs leaving you with a floor heating system that pays for itself in ongoing energy savings.

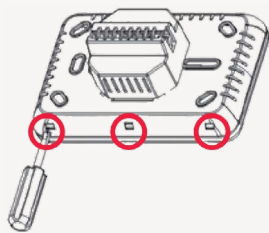
Replacing Your Existing Thermostats

With these smarts, flexibility and easy programming it is of no surprise homeowners are replacing their existing thermostats with Livella's AP5000. Select from three of the most common floor sensor resistances and start making the most of your floor heating system in the most energy efficient way.

Fitting instructions

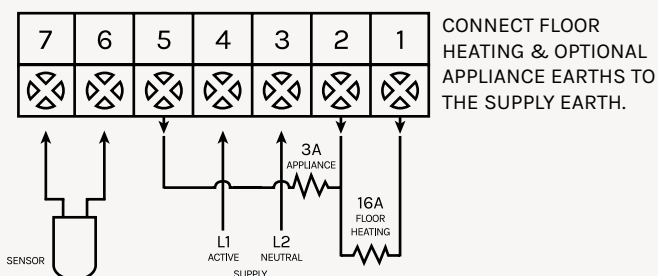
MOUNTING

Detach the face-plate from the wall-plate using a flat head screw driver to apply pressure to the three fixing clips as shown in the image below.

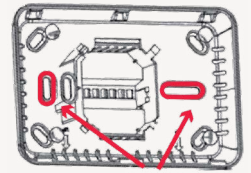


WIRING

Follow the Wiring Diagram to connect the floor heating cold leads, optional appliance power leads, remote temperature sensor and electrical supply to the appropriate terminals.



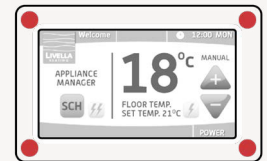
At this stage you may choose to fix the AP5000 for vertical or horizontal mounting. If you select vertical then ensure the wider side of the frame is located on the left hand side and if you select horizontal then ensure the wider side of the frame is located on the bottom side. Use the supplied machine screws to attach the wall-plate to the wall. **DO NOT OVER TIGHTEN.**



FIXING HOLES

NOTE: REMOVE THE PLASTIC STRIP UNDER THE BATTERY BEFORE REATTACHING THE FACE-PLATE TO THE WALL-PLATE.

Reattach the face-plate to the wall-plate by pressing lightly on all four corners of the face-plate. Ensure the three fixing clips are properly positioned.

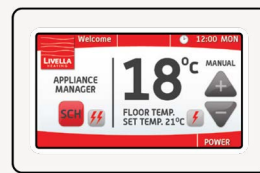


Screen display orientation



VERTICLE OR HORIZONTAL

To select between vertical and horizontal screen display options, press **Menu** and the **Screen Orientation icon**. This will switch the thermostat between:



PLEASE CONFIRM TO MAKE CHANGE.



Programming

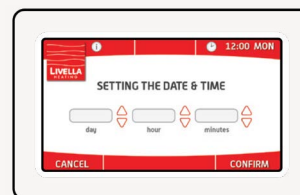


SETTING THE TIME AND DATE

To edit the current day and time - select **Menu** and then the Set **Day & time icon**.



Use the arrows to adjust the **day** and time value to the left of the arrows. Once the day and time values have been updated select **Confirm**.



NOTE: REMOVE THE PLASTIC STRIP UNDER THE BATTERY BEFORE REATTACHING THE FACE-PLATE TO THE WALL-PLATE.

Setting the operating schedules



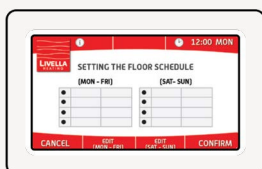
SETTING THE FLOOR HEATING SCHEDULE

To edit the heating schedule - select Menu and then **Set Floor Schedule icon**. Displayed on the screen will be both the **(MON-FRI)** and **(SAT-SUN)** schedules.

SETTING THE FLOOR HEATING SCHEDULE (DEFAULT SETTINGS)					
		MON - FRI		SAT - SUN	
		TIME	TEMP	TIME	TEMP
MORNING	1 ON	06:00AM	26°	06:00AM	26°
	2 OFF	08:00AM	17°	08:00AM	17°
AFTERNOON	3 ON	06:00PM	26°	06:00PM	26°
	4 OFF	10:00PM	17°	10:00PM	17°

NOTE: THE (MON-FRI) AND (SAT-SUN) SCHEDULES EACH HAVE FOUR PROGRAMS WHICH CAN BE CONSIDERED AS FOUR OPPORTUNITIES TO CHANGE THE TEMPERATURE. FOR EACH PROGRAM YOU MUST SET A TIME AND A TEMPERATURE.

To start editing either the **(MON-FRI)** or **(SAT-SUN)** schedule select the corresponding **Edit Schedule Button**. Program 1 (morning On time) will be displayed on the screen.



Use the **arrows** to change the time and temperature values to the left of the arrow sets.

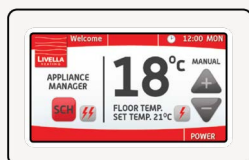


Once the desired values are displayed, **select Confirm**. Repeat this process for Programs 2 (morning Off time), 3 (afternoon On time) and 4 (afternoon Off time). Once program 4 has been set, then **select Confirm**. If programs overlap in time your settings will not be saved. For example, if program 1 is set to a time later than program 2. Once both schedules have been updated select confirm to return to the normal operating screen.

Floor Heating Setting Manual Operation

FLOOR HEATING MANUAL OVERRIDE

To operate your floor heating system in manual mode select the Mode button on the home screen. The Mode button will allow you to toggle through manual on, off and scheduled modes. The arrows will appear to the right of the set temperature when in manual mode. Adjust the manual temperature using these arrows. Leave the desired temperature displayed on the screen.



NOTE: TO DEACTIVATE MANUAL MODE SIMPLY SELECT THE MODE BUTTON ON THE HOME SCREEN AGAIN.

Setting the appliance manager schedule

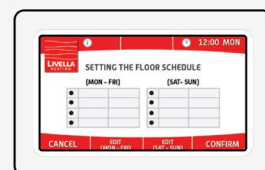


SETTING THE APPLIANCE SCHEDULE

To edit the appliance schedule - select Menu and then the **Set Appliance Schedule icon**. Displayed on the screen will be both the **(MON-FRI)** and **(SAT-SUN)** schedules.

SETTING THE SCHEDULE (DEFAULT SETTINGS)			
		MON - FRI	SAT - SUN
		TIME	TIME
MORNING	1 ON	06:00AM	06:00AM
	2 OFF	08:00AM	08:00AM
AFTERNOON	3 ON	06:00PM	06:00PM
	4 OFF	10:00PM	10:00PM

To start editing either the **(MON-FRI)** or **(SAT-SUN)** schedule select the corresponding **Edit Schedule Button**. Program 1 (morning On time) will be displayed on the screen.



Use the arrows to change the time and temperature values to the left of the arrow sets.



Once the desired values are displayed, select **Confirm**. Repeat this process for Programs 2 (morning Off time), 3 (afternoon On time) and 4 (afternoon Off time). Once program 4 has been set, then select **Confirm**. If programs overlap in time your settings will not be saved. For example, if program 1 is set to a time later than program 2. Once both schedules have been updated select confirm to return to the normal operating screen.

Appliance Manual Operation

FLOOR HEATING MANUAL OVERRIDE

To operate the appliance (ex. heated towel rail) in manual mode, toggle between the **on**, **off** and **scheduled** modes on the home screen.



NOTE: WHEN DEACTIVATED THE APPLIANCE WILL OPERATE ACCORDING TO THE PROGRAMED SCHEDULE.

Setting the parameters

ADJUSTING THE PARAMETER VALUES

NOTE: ONLY MAKE MODIFICATION TO THESE PARAMETERS IF IT IS ESSENTIAL. NOTE: TO EXIT AT ANY TIME WITHOUT SAVING CHANGES PRESS CANCEL.



ACCESSING PARAMETERS

Turn the thermostat off by pressing and holding Power for 3 seconds. After turning the thermostat off, select and hold the icon for 2 seconds. The following parameter will be displayed:

1. TEMPERATURE CALIBRATION: -80°C ~ 80°C

TEMP. CALIB. ◀ 0.0 ▶

Use the arrows to the left and right hand side of the value to recalibrate. Contact service support should you believe this is required.

2. SENSOR MODE: AIR / FLOOR

SENSOR ◀ AIR ▶

Use the arrows to the left and right hand side of the value to adjust between AIR and FLOOR sensing modes.

3. MINIMUM TEMPERATURE 5°C ~ 10°C

MIN. TEMP. ◀ 5.0 ▶

Use the arrows to the left and right hand side of the value to adjust the minimum temperature value.

Minimum Temperature: Functions only when thermostat is turned OFF and is measured by the floor temperature sensor. When the floor temperature is below set temperature, then the floor heating will run.

4. MAXIMUM TEMPERATURE 5°C ~ 35°C

TEMP. ◀ 35.0 ▶

Use the arrows to the left and right hand side of the value to adjust the maximum temperature value.

Maximum Temperature: Protects temperature sensitive floor coverings. When floor temperature reaches the set maximum temperature, the system turns off automatically.

5. TEMPERATURE DUTY CYCLE: 1°C ~ 5°C

TEMP ◀ 3.0 ▶

Use the arrows to the left and right hand side of the value to adjust the duty cycle.

6. BACKLIGHT TIMER: 3S~180S

BACKLIT ◀ 25.0 ▶

Use the arrows to the left and right hand side of the value to adjust the back light timer.

7. RESET << OR >>

RESET ◀ NO ▶

Press either arrows to reset the thermostat back to factory default settings.

8. PROBE RESISTENCE

PROBE RESISTENCE ◀ NO ▶

Press either arrows to scroll through 5k, 10k(default) and 15k probe resistance options.

Alternative face skins

Select from the black, white or brushed stainless steel skin options. Simply peel off the adhesive layer off the back of the chosen skin and apply to the face of the thermostat as you would a transfer. Ensure that the wide side of the skin is aligned to the wide side of the thermostat. Hold in place for 10 seconds and release.

Technical Information

ELECTRICAL & STANDARDS INFORMATION

VOLTAGE 230 - 240 V	STANDARDS IEC 60730-2	TEMP RANGE 5°C - 35°C	IP RATING 30
FLOOR SENSOR Resistance Default to 25°C 5, 10, 15 Kohm		ORIENTATION Vertical / Horizontal	