



Lava ET-81 Wi-Fi Enabled Colour Screen Thermostat Instruction Manual

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Lava ET-81 Wi-Fi Enabled Colour Screen Thermostat



Product Information

The ET-81 is a smart Timerstat designed to control electric underfloor heating systems and minimize energy usage. It operates on a supply voltage of 85-265V with a frequency of 50/60Hz. The maximum switching current is 15A/3.3KW, and its standby power consumption is less than 1W. The Timerstat is rated IP21, indicating its level of protection against solid objects and water ingress.

Display Symbols:

- Clock
- Period
- Temperature
- Return
- Confirm
- Power
- **Day:** ON/OFF
- Up
- Down

Product Usage Instructions

On/Off:

To turn the Timerstat on or off, press the POWER button.

Temporarily Override Temperature:

In 'on' mode, press the UP or DOWN button to change the current period temperature setting. Press the CONFIRM button to save the new setting and return to the normal screen. Note that when the frost protection mode is active, the Timerstat will maintain the frost protection temperature even in 'off' mode. The Timerstat will revert to the normal programmed settings at the start of the next time period.

Set the Time:

In 'on' mode, press the CLOCK button to display the time. Press it again to enter day set. Use the UP or DOWN button to set the day, then press CONFIRM. Enter hour set by pressing UP or DOWN, followed by CONFIRM. Enter minute set by pressing UP or DOWN, followed by CONFIRM. Press CLOCK again to revert to the normal screen.

Key-lock:

To prevent unauthorized access, you can set a key-lock on the Timerstat. In 'on' mode, press and hold the CLOCK button for 3 seconds to lock the Timerstat. Repeat the same action to cancel the key-lock.

Holiday Mode:

In holiday mode, the Timerstat will maintain the frost protection temperature until the holiday period ends. In 'on' mode, press the CLOCK button to enter setting. Use the UP or DOWN button to select 'holiday', then press CONFIRM. Enter the number of holiday days using the UP or DOWN button, then press CONFIRM to save and return to the normal screen. The display will show the remaining holiday days in 'HOLIDAY LEFT'. Double press the CLOCK button to cancel holiday mode.

Hold Mode:

The Timerstat can maintain a 'hold temperature' until hold mode is switched off. In 'on' mode, press the CLOCK button to enter setting. Use the UP or DOWN button to select 'hold', then press CONFIRM. Set hold to ON using the UP or DOWN button, then press CONFIRM to save and return to the normal screen. While in hold mode, 'HOLD' will be displayed. Double press the CLOCK button to cancel hold mode.

Timer Setting:

Each day of the week has 4 time periods, and you can assign a temperature to each period. In 'on' mode, press the CLOCK button to enter setting. Use the UP or DOWN button to select 'edit', then press CONFIRM. Note that weekdays are set as a group, while Saturday and Sunday are set individually. Press the CLOCK button to enter period selection. Use the UP or DOWN button to select the period you want to set. Press CONFIRM to enter start time set. Use the UP or DOWN button to select the start time hour, then press CONFIRM. Use the UP or DOWN button to select the start time minute, then press CONFIRM. Press the CLOCK button to enter temperature set. Use the UP or DOWN button to select the temperature, then press CONFIRM. Press the CLOCK button to enter hold temperature set. Use the UP or DOWN button to set the hold temperature, then press CONFIRM. Press CLOCK to confirm and return to the normal screen. While in hold mode, 'HOLD' will be displayed. Double press the CLOCK button to cancel hold mode.

Note:

The Timerstat allows you to set different time periods for Leave, Return, and Sleep. Repeat the previous steps for each time period, and press the CLOCK button to go back to day selection.

The ET-81 is a smart Timerstat used to control your electric underfloor heating system to minimise energy use.

Technical Specification

- **Supply voltage:** 85-265V 50/60Hz
- **Maximum switching current:** 15A/3.3KW
- **Standby power:** < 1W IP21

Display Symbols



Functions and User Operation

• On/Off

Press POWER to turn on/off

Note: When frost protection mode is active, the timerstat will maintain the frost protection temperature when in 'off' mode.

• Temporarily Override Temperature

- In 'on' mode, press \triangle or ∇ to change the current period temperature setting. Press \bigcirc to confirm and go back to the normal screen.
- The timerstat will revert to the normal programmed settings at the start of the next time period.

• Set the Time

- In 'on' mode, press \bigcirc and time will be displayed.
- Press \bigcirc again to enter day set.
- Press \triangle or ∇ to set day.
- Press \bigcirc to confirm and enter hour set.
- Press \triangle or ∇ to set hour.
- Press \bigcirc to confirm and enter minute set.
- Press \triangle or ∇ to set minute.
- Press \bigcirc to confirm, then press \bigcirc again to revert to normal screen.

• Key-lock

- Setting key-lock can prevent children and others from switching timerstat parameters.
- In 'on' mode, press \hookrightarrow for 3 seconds to lock the timerstat and again for 3 seconds to cancel.

• Holiday mode

- In holiday mode, the ET-81 will maintain the frost protection temperature until the holiday period ends.
- In 'on' mode, press \bigcirc to enter setting.
- Press \triangle or ∇ to select holiday.

- Press ○ to enter holiday days set.
- Press △ or ▽ to set the number of holiday days.
- Press ○ to confirm and return to the normal screen.
- **Note:** In holiday mode 'HOLIDAY LEFT' days remaining will show on the display. Double press ○ to cancel holiday mode.

• Hold mode

- The ET-81 will maintain the 'hold temperature' until hold is switched off. In 'on' mode, press ○ to enter setting.
- Press △ or ▽ to select hold.
- Press ○ to enter hold.
- Press △ or ▽ to set hold to ON.
- Press ○ to enter hold temperature set.
- Press △ or ▽ to set hold temperature.
- Press ○ to confirm and return to the normal screen.
- **Note:** Whilst in hold mode, 'HOLD' will show on the display. Double press ○ to cancel hold mode.

• Timer setting

Each day of the week has 4 time periods, you should allot a temperature to each time period. Set the temperature above room ambient temperature and the heating will come on until the desired temperature is reached, or, set the temperature low and the heating will not come on during that time period. The default settings are shown in the table below.

- In 'on' mode, press ○ to enter setting.
- Press △ or ▽ to select edit.
- Press ○ to enter day selection.
- Press △ or ▽ to select the day to be set.
- **Note:** Weekdays are set as a group, Saturday & Sunday individually.
- Press ○ to enter period selection.
- Press △ or ▽ to select the period to be set.
- Press ○ to enter start time set.
- Press △ or ▽ to select the start time hour.
- Press ○ to enter minute set.
- Press △ or ▽ to select the start time minute.
- Press ○ to enter temperature set.
- Press △ or ▽ to select the temperature.
- Press ○ to confirm which will also take you back to period selection. Repeat the previous steps for Leave, Return and Sleep.
- When all four time periods have been set, press ↶ which will take you back to day selection. Repeat previous steps for Saturday and Sunday. Press ○ twice to return to normal screen or allow to time out at any time and your settings will be saved.

Default period settings for time and temperature

Week	Wake	Leave	Return	Sleep	
Mon – Fri	07:00 22°C	08:30 19°C	17:00 22°C	22:00 19°C	
Sat / Sun	08:00 22°C	08:30 22°C	17:00 22°C	22:00 19°C	

Note: Do not try to remove time periods or the timerstat may be damaged

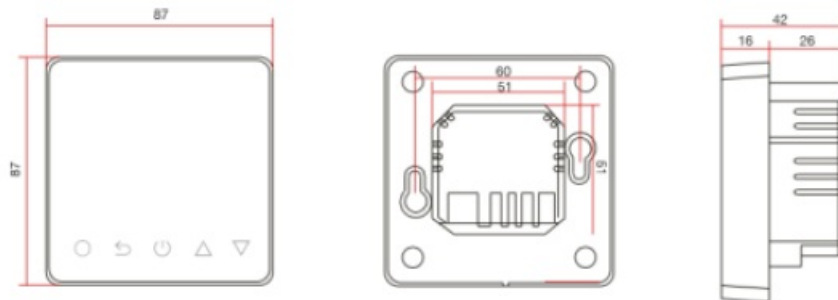
Troubleshooting Fault Codes

- **E1** = Built-in sensor short-circuit or disconnected.
- **E2** = Floor sensor damaged/disconnected/clamped on to insulation or incorrect floor sensor installed.

Note:






The floor sensor resistance should be in the range of 10K Ohms – please check.

Dimensions



Advanced Settings

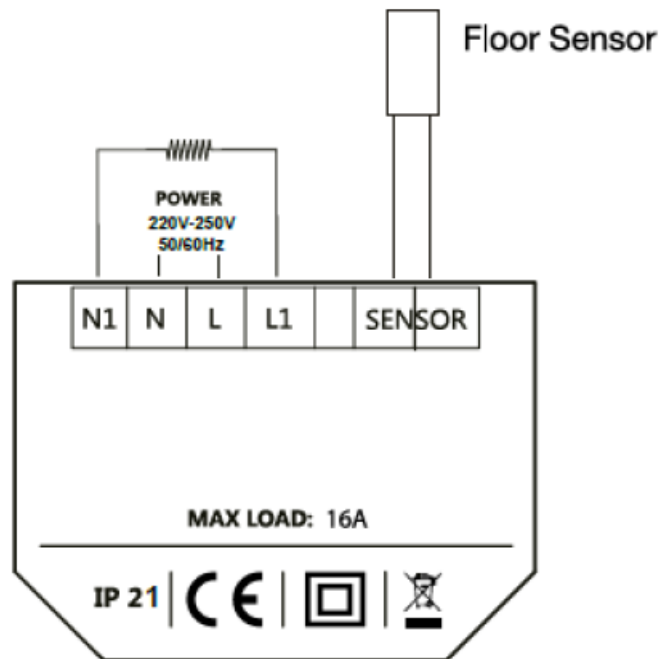
Note: These are normally set by the installer.

- In 'on' mode, press  to enter setting.
- Press  or  to select setup.
- Press  to enter advanced setting.
- Each parameter can be accessed by pressing  and then adjust the values as required.

No	Name	Default	Ranges
1	Temp calibration – Floor sensor	0°C	-5°C to +5°C
	– Room sensor	0°C	-5°C to +5°C
2	Frost protection	ON 5°C	OFF/ON
	Frost protection temperature		-5°C to +15°C
3	Sensor selection	Floor Sensor	Room air sensor/Floor sensor/Both sensors
4	Floor temperature limit	30°C	20°C to 50°C
5	Temperature unit	°C	°C/°F
6	Output delay	0S	0S/30S/60S/90S
7	Temperature tolerance	1°C	0.5°C/1°C/2°C/3°C
8	Brightness	80%	0% – 100%
9	Energy use power rating 3500W	0W	0W – 3500W
10	Schedule	5+1+1	7/5+1+1
11	Adaptive Function	OFF	OFF/ON
12	Factory Reset	Back	Yes/Back

Press ☐ twice to return to normal screen or allow to time out at any time and your settings will be saved.

Wiring Instructions



Notes On Advanced Settings

1. **Temp calibration:** Calibrate the temp detected by room sensor or floor sensor.
2. **Anti-frozen function:** This option allows you to prevent your room freezing in really cold weather.
3. **Sensor select:**
Room sensor: Run by room sensor. **Floor sensor:** Run by floor sensor. **Both sensors:** Run by room sensor with floor temp limit.
4. **Floor temp limit:** Always use floor sensor for underfloor heating.
5. **Temp unit:** °C and °F can be selected.
6. **Output delay:** This option help you avoid inadvertent operation on heating.
7. **Temp tolerance:** The value is 1°C. The thermostat starts to heat when the actual temp is 1°C lower than set temp and stops heating when the actual temp is 1°C higher than set temp.
8. **Brightness:** This option allows you to change the brightness of the display.
9. **Energy use:** N/A.
10. **Schedule:** Select a weekly schedule to edit. There are 2 options:
 - **7:** each day from Mon to Sun can be set individually. 5+1+1: 5 days from Mon to Fri have the same events, Sat and Sun can be set individually.
11. **Adaptive function:** After several days of installation and use, Adaptive function ensures that the required temp has already been reached when the next event begins. Only switch on when regular heating pattern is established.
12. **Reset:** Yes – All parameters are restored to default values.

Installation Instructions

This Timerstat should only be wired by a 'Part P' qualified Electrician as required by IEE regulations. The power supply must be on an RCD protected circuit and connected via a correctly fused switched fused spur isolator. Guarantee is void if these provisions are not followed.


Before connecting, please test the resistance of the heating cable/s against the values shown in the relevant

installation manual to make sure the cable hasn't been damaged. Also test between live/earth and neutral/earth for a zero reading. Check the floor probe resistance is in the range of 10K Ohms The ET-81 timerstat should be mounted using an 86x86x35mm deep wall box. Loosen the silver fixing screw on the bottom of the timerstat and separate the front from the back.

Wire the timerstat back section as the above diagram. A maximum of 2 heating cables will go into the wire connectors. More than this should be connected into a junction box with a single correctly sized wire to the timerstat. Main's earth and heating cable earth should be connected behind the timerstat using a block connector. Don't forget to connect the floor probe (not polarised) otherwise the timerstat will not work properly. Reassemble the front to the back and ensure the pins are located in the socket on the back otherwise it will not work and tighten up the silver screw.



Documents / Resources

	<p>Lava ET-81 Wi-Fi Enabled Colour Screen Thermostat [pdf] Instruction Manual</p> <p>ET-81 Wi-Fi Enabled Colour Screen Thermostat, ET-81, Wi-Fi Enabled Colour Screen Thermostat, Enabled Colour Screen Thermostat, Colour Screen Thermostat, Screen Thermostat</p>
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