

ET-81 PROGRAMMABLE TIMERSTAT INSTRUCTIONS

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 Δ or ∇ to change the current period temperature setting.
Press \circ 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 and time will be displayed.
Press again to enter day set.

Press or to set hour.
Press to confirm and enter minute set.
Press or to set minute. Press to confirm, then

Press or to set day.
Press to confirm and enter hour set.

press again to revert to normal screen.

Key-lock

Setting key-lock can prevent children and others from switching timerstat parameters.

In 'on' mode, press 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 to enter setting.

Press 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

In 'on' mode, press to enter setting.

Press or to select edit.

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.

the temperature low and the heating will not come on during that time period. The default settings are shown in the table below.

Press to enter day selection.

Press or to select the day to be set.

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

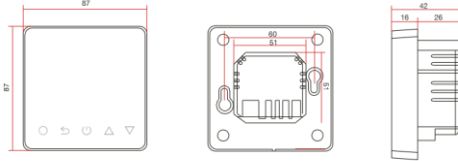
Note: Do not try to remove time periods or the timerstat may be damaged

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.

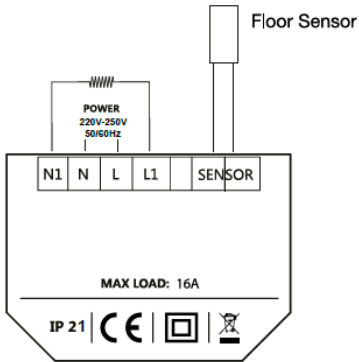
- In 'on' mode, press to enter setting.
 Press or to select setup.
 Press to enter advanced setting.

Each parameter can be accessed by pressing and then adjust the values as required.

No	Name	Default	Ranges
1	Temp calibration - Floor sensor - Room sensor	0°C 0°C	-5°C to +5°C -5°C to +5°C
2	Frost protection Frost protection temperature	ON 5°C	OFF/ON -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 rating3500W	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 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.

