cosytoes®
underfloor heating

Mirage Timerstat Instruction Manual

Introduction

The Mirage is a smart Timerstat used to control your electric underfloor heating system. It will keep your floor at a comfortable temperature whilst minimising energy use.

Main Functions	**Technical Specification**
Time display	Supply voltage: 85-265V 50/60Hz
Holiday function	Maximum switching current: 15A
Off time frost protection	Standby power: < 1W
Floor high temperature protection	IP rating: IP21
Sensor selection	Wire diameter ≤2.5mm²
Key-lock	Suitable for up to 22sqm of Cosytoes
Hold function	heating mat.

Display panel (shown on device):

MON RETURN 17:20h
FLOOR TEMP 24.0°C
EDIT HOLIDAY HOLD SETUP

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.

Temporary Override Temperature
In 'on' mode, press △ or ▽ to change the current period temperature setting. The new set temperature will flash for 30 seconds. 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 the clock symbol will flash.
Press ○ again to enter day set.
Press △ or ▽ to set day.
Press ○ to confirm and enter hour set.
Press △ or ▽ to set hour.
Press ○ to confirm and enter minute set.
Press △ or ▽ to set minute.
Press ↺ to confirm, then press ↺ again to revert to normal screen. Or leave to timeout.

Key-lock
Setting key-lock can prevent children and others from switching timerstat parameters.
In 'on' mode, press ↺ for 5 seconds to lock the timerstat and again for 5 seconds to cancel.

Holiday mode
In holiday mode, the Mirage 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. Set the holiday days to 'o' to cancel holiday mode. Then press POWER twice to return to normal screen.

Hold mode
The Mirage 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. To turn off hold mode, re enter hold as above and set ON to OFF

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 and move on to the next time period.

When all four time periods have been set the next day will then be available to set.

Press POWER 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: (Please Note: do not try to remove time periods or the timerstat may be damaged)
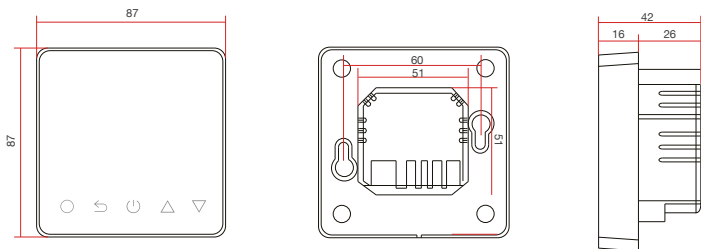
Troubleshooting

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.
Please call 0113 2577 588 for replacement floor sensor.

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	Room temp calibration	0°C	-5°C to +5°C
2	Floor temp calibration	0°C	-5°C to +5°C
3	Frost Protection	ON	OFF/ON
4	Frost Protection	5°C	-5°C to +15°C
5	Sensor selection	01	00: Built-in sensor 01: Floor sensor 02: Both sensors Note: Set to 01 for underfloor heating in kitchens and bathrooms.
6	Floor temperature limit (both sensors)	30°C	20°C to 50°C
7	Temperature unit	°C	00: °C 01: °F

No	Name	Default	Ranges
8	Output delay	00	00: 0s 01: 30s 02: 60s 03: 90s
9	Differential temp setting	1°C	00: 0.5°C 01: 1°C 02: 2°C 03: 3°C
10	Reverse output	OFF	OFF/ON
11	Program Options	5+1+1	00: 7 Day Individually 01: 5 Day Together + Sat +Sun
12	Adaptive Function	ON	00: OFF 01: ON
13	Factory Reset	NO	00: No (Don't reset) 01: Yes (Reset)

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

Notes

Room sensor temperature calibration: Calibrate the temperature detected by room sensor.
Floor sensor temperature calibration: Calibrate the temperature detected by floor sensor.
Frost protection: If the frost protection function is selected, the screen will display "✳" when the thermostat is OFF. It will keep the room and floor at a low temperature in order to protect pets and plants and prevent water pipes in the room from freezing.
Sensor selection: The room sensor is used to control the room temperature. The floor sensor is used to control the floor temperature. By using both of them, you can not only control the room temperature but also avoid high floor temperature.
Floor temperature limitation: When you choose both sensors, you can set the maximum floor temperature value, system will stop heating if the floor temperature exceeds this value.

Temperature unit: °F and °C can be selected.

Output delay: The time period between heating on and off due to temperature change.

Differential Temperature Setting: The deviation is 1°.

This means If you set a temperature value, the heating temperature will be 1° lower than the set temperature. The system will stop heating when the temperature is 1° higher than the set temperature.

Reverse output : This function works with a cooling system. When the temperature is higher than set temperature, the thermostat will switch o the cooling system and vice versa.

Programming Options : there are two Modes for you to choose, 5+1+1, (5 days together +Sat +Sun) and 7 days (where each day can be programmed individually).

Adaptive function : There is a new ECO DESIGN directive for timerstats. The timerstat will calculate the temperature differential between time periods for 3 days. Then it will pre-heat or cool down accordingly so your floor is at the required temperature at the start of the next time period.
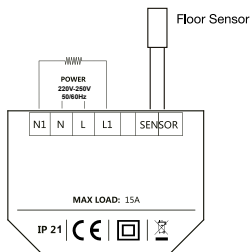
Factory Reset: All setting parameters are restored to default values.

Wiring 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.**
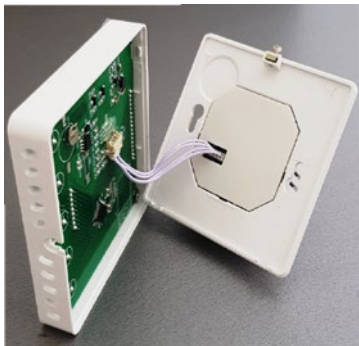Before connecting, please test the resistance of the heating cable/s against the values shown in the relevent installation manual to make sure

the cable hasn't been damaged. Also test between live/earth and neutral/earth for a zero reading. The wiring terminals will only take a maximum of 2 wires - more than this should be connected via a junction box. Mains earth and heating cable earth should be connected behind the timerstat using a block connector. Please contact 0113 2577 588 for advice if required.

Installation Instructions

*Note: The Mirage timerstat should be mounted
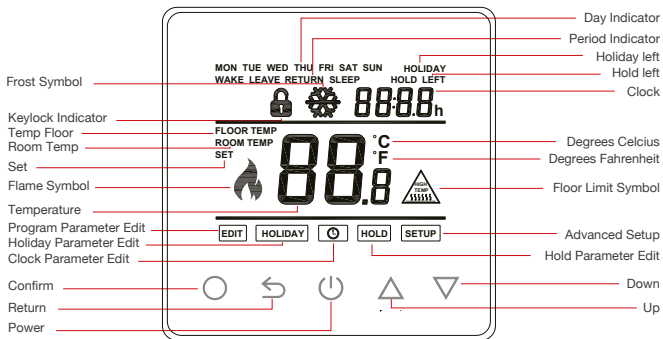using a 86x86x35mm deep wall box.*

1. We recommend that the timerstat is not opened until the wiring has been connected as shown in the wiring diagram above.

2. Loosen fixing screw on the base of the timerstat and separate the front from the back. There is no need to disconnect the connection lead. Fix the back section to the backbox with the screws provided.

The connection lead can be disconnected on the screen circuit board if required by carefully removing the plug from the socket.

3. Reassemble the front to the back by locating the lugs at the top and pushing in the bottom - and tighten the fixing screw.

Display Symbols

Day Indicator
Period Indicator
Holiday left
Hold left
Clock
Degrees Celcius
Degrees Fahrenheit
Floor Limit Symbol
Advanced Setup
Hold Parameter Edit
Down
Up

Frost Symbol
Keylock Indicator
Temp Floor
Room Temp
Set
Flame Symbol
Temperature
Program Parameter Edit
Holiday Parameter Edit
Clock Parameter Edit
Confirm
Return
Power

MON TUE WED THU FRI SAT SUN
WAKE LEAVE RETURN SLEEP
HOLIDAY
HOLD LEFT

FLOOR TEMP
ROOM TEMP
SET
°C
°F

EDIT   HOLIDAY   ⏱   HOLD   SETUP

About Cosytoes® Underfloor Heating

Cosytoes® is a British company and all our products are manufactured to the highest standards for quality and safety.

Key Features
1. Control units will make your floors warm just when you need it.
2. Our systems keep energy costs to a minimum.
3. When heating a modern home, TradeMat+ uses approximately 1p/hour, per square metre.
4. Our products are simple to install, extremely tough, resilient and truly exceptional quality.

Help and Assistance:

Should you need any assistance, please contact us on 0113 2577 588, or email cs@cosytoes.co

Sales Tel: 0113 2577 588 | Fax: 0113 236 2300
Address: Bramley House, Bath Lane, Bramley, Leeds, LS13 3BB.