LINSOL

Underfloor heating

Installation Guide

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LINSOL.COM.AU

Underfloor Heating Installation Guide

Contents

Important Information

Please read this manual carefully before any installation work is undertaken with LINSOL's heating systems. This manual contains installation procedures for our matting systems. Failure to follow these instructions correctly may result in damage or incorrect operation of underfloor heating system.

LINSOL are here to help if you are unsure at any stage of installation. Our friendly team are on hand to answer any queries you may have with our heating systems. Please contact our Technical Helpline on 1300 LINSOL.

Installation of any Heating Mat must be in conjunction with an approved thermostat and safety controls as required by the installation standards AS/NZS 3000.

The following instructions must be read carefully prior to installation.

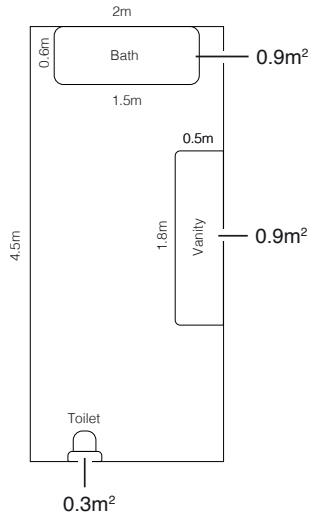
Choosing a Size

With some time and planning you can safely select which size system you require for your project. If you follow these simple measurement steps coupled with the wattage information above you can select you're the exact system for your needs.

1. 1. Measure your room – length x width. This gives you your total floor area; Please note this is not your heated floor area
2. Measure all fitted fixtures and fittings if applicable. This will be deducted from your total floor area
3. Now deduct 5-10% from your walkable or heated area and round down to your nearest size available from the chosen wattage output table found on page 3.

Example: Typical Bathroom Measurement

We have a standard bathroom which measures total area of 9.0sqm total area, we have a bath, toilet and sink unit which total 2.1sqm.



0.9 +
0.9 +
0.3
2.1m²

Calculation 9.0 – 2.1 = 6.9sqm
6.9 – 10% = 6.21sqm

In this calculation, round down to the 6sqm matting system.

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Never and Always

Never

- **NEVER** turn the electrical undertile heating mat on while it is coiled.
- **NEVER** cut the heating wire. The cold leads may be shortened or lengthened.
- **NEVER** connect the heating conductors directly to the power supply, and NEVER shorten the heating conductors.
- **NEVER** splice one mat heating wire to another one to extend the mat. Multiple mats must be connected in parallel in a junction box or in a control unit.
- **NEVER** cross or fold the heating conductors.
- **NEVER** bend the heating cables to a radius less than 30mm.
- **NEVER** let the impact on the junction joints exceed a exceed tensile load of 120N.
- **NEVER** fold the joints and ensure they are completely covered by screed or tile adhesive.
- **NEVER** install the heating cable over an expansion joint. This is not permissible.
- **NEVER** install the mats through or behind insulation material.
- **NEVER** install the mats under cabinets, built-in cupboards or in small closets. Excessive heat will build up in these small spaces, and the fasteners (nails, screws, etc.) used in the installation can damage the mat.
- **NEVER** use the same mat for the heating of premises with different floor constructions.
- **NEVER** operate the undertile heating system before the tile adhesive or screed is fully cured.
- **NEVER** install the electrical undertile heating mat in walls or ceilings.

Always

- **ALWAYS** install the electrical undertile heating mat strictly with an all pole disconnection (e.g. relay, power contactor) with a contact opening of minimum 3mm.
- **ALWAYS** connect the braided shield to the PE ground conductor.
- **ALWAYS** install the wall box for bathrooms or damp locations outside the protected zone 2 current IEE regulations.
- **ALWAYS** ensure electrical work is carried out by qualified persons in accordance with local building and electrical regulations.
- **ALWAYS** firmly connect the electrical undertile heating mat, using a wall box to a 230 V AC power supply. (3x1,5mm2)
- **ALWAYS** operate the electrical undertile heating mat with a ground-fault-circuit-breaker (30mA).
- **ALWAYS** embed the heating wire and joints completely with mortar.
- **ALWAYS** record the mat resistance readings before, and after the installation.
- **ALWAYS** verify if the existing thermal insulation of the floor complies with the current technical standard to avoid high energy consumption.
- **ALWAYS** use materials which are suitable for undertile heating systems. If in doubt check with the manufacturers.
- **ALWAYS** install the complete power lead (cold lead) inside a conduit.
- **ALWAYS** ensure correct positioning of the mat system before removing protective film layer and adhearing to the floor surface. We guarantee our products against defective materials and workmanship. Products that have not been installed by competent persons or in accordance with the installation instructions, misuse, non-compliance with operating instructions and servicing are not subject to warranty repairs, replacement or return. The minimum installation temperature should be +5°C.
- **ALWAYS** install the floor temperature sensor cable inside a seperate conduit DIN EN 61386-1.The total electrical current for heating mats connected in parallel must not exceed the current rating for the thermostat. (see the type plate of the thermostat). The maximum nominal category temperature of the electrical undertile heating mat is 80°C. This device is not intended for use by children or persons with physical, sensory or mental disabilities. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
- **ALWAYS** ensure children are supervised to ensure they do not play with the appliance

Technical Specification

200 W/m2 Technical Specification

SIZE (M2)	LENGTH	WIDTH	WATTAGE	AMPS	RESISTANCE RANGE
1.0	2.0 m	0.5 m	200 W	0.8	259-317 Ω
1.5	3.0 m	0.5 m	300 W	1.2	173-211 Ω
2.0	4.0 m	0.5 m	400 W	1.7	130-158 Ω
2.5	5.0 m	0.5 m	500 W	2.1	103-126 Ω
3.0	6.0 m	0.5 m	600 W	2.5	86-106 Ω
3.5	7. 0m	0.5 m	700W	2.9	82.2-95 Ω
4.0	8.0 m	0.5 m	800 W	3.3	65-79 Ω
4.5	9.0 m	0.5 m	900 W	3.8	56-66 Ω
5.0	10.0 m	0.5 m	1000 W	4.2	52-63 Ω
6.0	12.0 m	0.5 m	1200 W	5	43-53 Ω
7.0	14.0 m	0.5 m	1400 W	5.8	37-45 Ω
8.0	16.0 m	0.5 m	1600 W	6.7	32-40 Ω
9.0	18.0 m	0.5 m	1800 W	7.5	29-35 Ω
10.0	20.0 m	0.5 m	2000 W	8.3	26-32 Ω
11.0	22.0 m	0.5 m	2200 W	9.2	23-29 Ω
12.0	24.0 m	0.5 m	2400 W	10.0	22-26 Ω
14.0	28.0 m	0.5 m	2800 W	11.6	19-20.6 Ω
16.0	32.0 m	0.5 m	3200 W	13.3	18-20 Ω

Technical Data

General Construction:	Dual Conductor wire, steel armour braid Specification can change without notice.
Voltage:	240 Vac – 50Hz
Maximum Load:	18W/m
Approvals:	CE Marked, VDE and SEMKO approved system
Wire Thickness:	2.5mm to 3.3mm depending on Ohm values
Cable Flexibility:	Minimum allowable cable radius is 35mm
Power range:	200W to 3200W
Thermal Conductor:	2 x twisted wire insulated with Teflon
Outer Insulation:	Fluropolymer
IP Rating:	P67

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Testing your Heater Mat

You will need an ohmeter or multi-meter that can measure resistance to successfully test your mat.

Test 1 - Insulation Resistance

1. Set your meter to read the highest resistance setting. Our highest setting is 2000k Ohms (kΩ).
2. With the two detecting wires seperated, the meter is now showing infinite resistance.
3. Connect one of your detecting wires to the main conducting wires (the blue and brown ones) and the other to the green/yellow cable. If needed, the blue and brown cables can be twisted together.
4. The meter should show the same infinite reading you had in step 2. If the meter is different your heater may be damaged.

Test 2 - Conductor Resistance

1. Using the resistance chart supplied in this guide, pick a resistance range on your meter that best matches your heater mat. If you aren't sure, pick the lowest range and keep increasing until your meter reads a reasonable value accurate to one decimal place (eg 3.47Ω is better than 0.03kΩ).
2. Connect one of your detector wires to the blue cable and the other to the brown wires as shown.
3. The meter should read the same as your mat +/- 10%. If the value is outside of this range, you should contact our office for advice.

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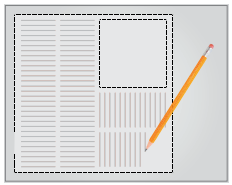
Installation Instructions

All underfloor heating must be installed in conjunction with an Australian Standards approved thermostat controller. LINSOL offers 2 options, found later in this guide.



1. Heating Mat Planning and Placement

Draw the layout of the undertile heating mat and mark heat free zones such as fixtures and fittings.

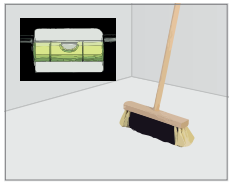
The distance of the undertile heating mat and any conductive parts of the building must be at a minimum of 30 mm .e.g. water pipes.

2. Subfloor and Thermostat installation preparation

Chisel out channels in the wall and floor to accommodate the power supply wires, the cold mat leads and temperature sensor in the wall and floor.

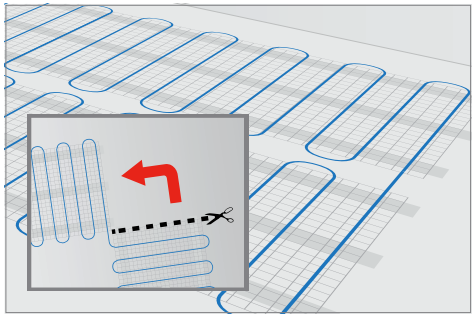
Attention: Cold leads and sensor cables have to be installed in separate conduit.

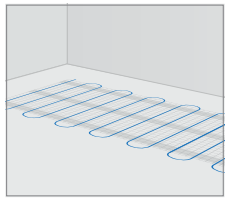
In order to install the thermostat a standard electrical wall box in the chosen location, a 230 V AC power supply and a groundfault-circuit-breaker (30 mA) must be provided.



3. Floor Preparation

The floor should be even, secure, flex-free and with an appropriate load bearing capacity. The surface must be dry, clean, and free of grease, dust and other construction debris. If the subfloor is uneven it must be levelled using a suitable levelling material before laying the heating mat. This will prevent cavities below the heating conductor





4. Installing the mat system

Note. If installing a under tile water proof membrane or insulation this must be completed before commencing this stage.

Before commencing installation of the mat check for electrical continuity and insulation resistance.

Fix the undertile heating mat to the subfloor using the adhesive side of the mat in accordance with your layout and the minimum safety distance.

Roll the mat out until you reach the end of your first run or an obstruction; adjust the mat to the heating area layout by cutting and turning the fibre mesh see images above.

Attention: **Do not cut or damage the heating cable!** After achieving the intended layout, press the electrical undertile heating mat firmly to the subfloor, the mesh is self-adhesive and will stick to the subfloor, the use of a priming agent prior to installation will increase the bond further if required. The fibre mesh must be laid completely flat without any wrinkles. Never install the heating cable over an expansion joint or gaps in the floor surface.

A minimum safety distance of 30mm must be maintained between heating wires and other conductive surfaces in the building e.g. Water pipes.

To avoid mechanical damage of the heating mat during installation, wear soft soled shoes or cover the mat with plywood boards or other soft material. Be careful not to drop sharp objects on the heating cable.

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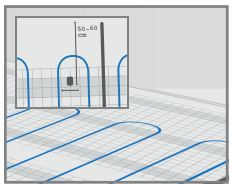
Installation Instructions

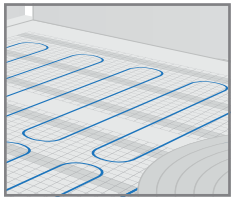


5. Floor Temperature Sensor installation

The conduit containing the temperature sensor must be located at the same level as the heating cable between two heating wires, as shown. (Important! Cold leads and sensor cable must be installed in separate conduit).

Feed the cold lead to the electrical wall box. Be careful not to cross or touch one of the heating conductors. Ensure a minimum distance of 20 mm between the temperature sensor and the heating wire is maintained. Position the sensor approx.50-60cm in from wall as seen in image above.

After the mat placement is completed, measure and record the mat resistance and insulation readings. Retain the recorded resistance and insulation readings in the box provided on back page for future reference and warranty registration.



6. Tile Adhesive or Screed Laying

Be careful not to damage the heating wire insulation with the trowel during the laying of the tile adhesive or screed. The heating wires must be completely covered by screed or tile adhesive seen in image above. Care must be taken to avoid air pockets in the screed or tile adhesive adjacent to the heating cable.

Notched trowels are not recommended. Other floor coverings, e.g. PVC or carpet, require the heating mat to be covered with 5-10mm of latex/ adhesive. The heat transition coefficient of the levelling material is not permitted to exceed RI =0,15(mK)/W and the minimum temperature resistance must be 50°C. Check with the manufacturer for suitability.

After laying the tiles, measure and record the mat resistance and insulation. Retain the recorded readings to validate the warranty. After the tile adhesive is cured, grout the tiles with appropriate grout material. Tiling expansion joints must be provided where necessary and finished with suitable flexible grout. Check suitability of the grout with the water proof membrane supplier, if applicable.

ATTENTION

Before you start the installation, please read this manual in full carefully!

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Screamer Monitor Operating Instructions

The heating elements are tough, but they could be damaged on the jobsite. We recommend the screamer to monitor your mats during every installation step. The screamer will immediately warn you in the event of damage. If the alarm sounds, stop work and check operation step in the installation manual.

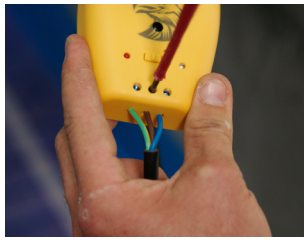
Preparation

1. Switch the unit to “ON”. The alarm should sound and the red light should flash when there are no connections to a mat. If these things do not occur, open the back cover, inspect the battery connections or replace the 9V battery. See Figure 1.

2. During normal use, the white light indicates that the screamer is monitoring the mat for damage. Should the white light go out, open the back cover, replace the 9V battery before continuing work. See Figure 1.

Figure 1.

Figure 2.



Operation

Make sure the mats and/or cables to be monitored are not connected to a power source.

Connect the system leads at the beginning of the project to detect faults. See Figure 2. The screamer is designed to monitor the mats individually, to alert the installer of matting disruption during installation.

For a single mat or cable

1. Strip the insulation around the tip of the cold cable and separate the sheath ground wire. Insert each lead wire of the cold cable into the corresponding socket and screw down terminal.

2. Set the switch to the “ON” position.

3. A white light indicates the screamer is operating.

4. Hang or place the screamer where it can be seen and heard during heating product installation.

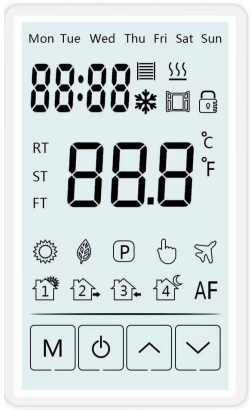
5. A red light and alarm indicate lead wires have come loose from terminals or damage has occurred to the heating product.

Alarm Instructions

“X” indicates alarm

LEADS	SHORT CIRCUIT	OPEN CIRCUIT
L1, L2	N/A	X
G, L1	X	N/A
G, L2	X	N/A
G & L1+L2	X	N/A

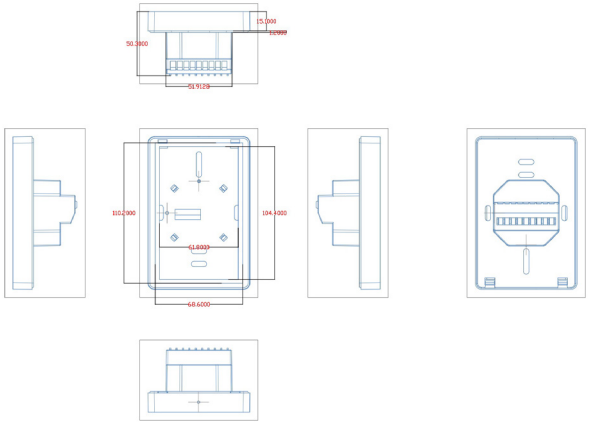
Eco Dual Thermostat



Technical Data

Supply voltage	230/240V 50/60Hz
Maximum load	16A (20A combined)
UFH relay	16A (3600W)
Appliance relay	5A (1125W)
Temperature range	5 ~ 35°C
Ambient	0 ~ 50°C
Compatible sensors*	6.8kΩ, 10kΩ, 12kΩ, 15kΩ, 33kΩ
Accuracy	±0.5°C
IP rating	IP30
Width	119.5mm
Height	79.5mm
Depth	50mm (32mm in wall)

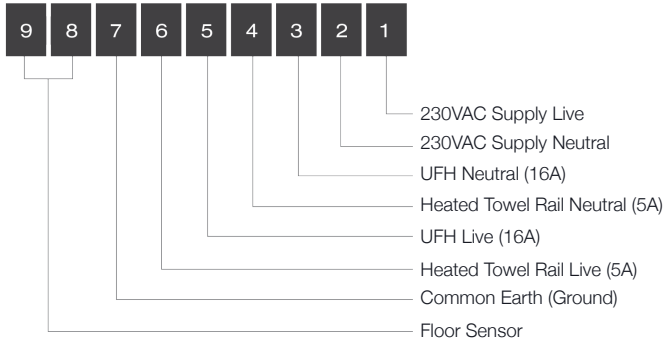
Line Drawings



Wiring diagram

Connect Dual Control Thermostat to the Underfloor Heating (UFH) cold tail, Heated Towel Rail (or another additional appliance), power supply and floor temperature sensor.

The floor temperature sensor is not polarity sensitive.



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Eco Dual Thermostat

Operation

1. UFH ON/OFF: Press ⏻ key to turn on, press again to turn off.
2. Appliance Controls ON/OFF: Hold ⏻ key for 3 seconds to turn on, hold for 3 seconds again to turn off. You can switch the appliance on for 1 hour, 2 hour or 4 hours in advanced settings.
3. Lock: On the main screen, hold ^ key for 3 seconds to lock, hold for 3 seconds again to unlock.
4. Mode: On the main screen, press **M** key to choose mode, Program-Manual-Holiday mode.

Temporary mode: At program mode, press ^ or v to set the temperature. The thermostat will enter temporary mode. The thermostat will operate under set temperature until the next heating period.

Holiday mode: At holiday mode press ^ or v to set temperature. No confirmation is needed, thermostat will operate under set-temperature according to days set in advanced setting F4. Default 10°, Max 20°.

Compatibility

The ECO Dual Control Thermostat (ECO-DT-BWS-WHT) is compatible with almost all electric Underfloor Heating (UFH) systems available. The ECO Dual Control Thermostat can replace your existing underfloor heating thermostat and is compatible with many of the most popular thermostat brands' floor sensor probes including those rated at:

- Ther 10Ω @ 25°C (Default Sensor)
- Tep 6.8Ω @ 25°C
- Ens 10Ω @ 25°C
- OJ 12Ω @25°C
- Devi 15Ω @25°C
- Eber 33Ω @25°C

Replacing an existing Thermostat? Contact the manufacturer's technical department and ask for the rating of the floor sensor at 25°C.

Eco Dual Thermostat

Setting

Press ⏻ to turn off thermostat, press **M** to go to F1. Use ^ and v to select F1, F2, F3 or F4.

Item	Setting	Function
F1	Date & Time Setting	Modify the Date & Time
F2	Program	Modify Time and temperate of 4 program periods.
F3	Read Operation Time	Read the working time per day, month & year.
F4	Advanced Setting	Modify advanced settings.

F1: Date & Time Settings

Select F1, press **M** to enter, press ^ or v to set day, hour, minutes, press **M** to confirm. Once set, press **M** to leave or the thermostat will automatically return to main screen after 5 seconds.

F2: Program

Select F2, press **M** to enter, press ^ or v to select day and program period, press **M** to enter, use ^ or v to set time and temperature, use to exit or the thermostat will automatically return to main screen after 5 seconds.

Standard Program

Day	1	2	3	4
Mon-Fri	WAKE 06:00 21°C	LEAVE 08:30 18°C	BACK 17:00 21°C	SLEEP 23:00 18°C
Sat-Sun	WAKE 06:00 21°C	LEAVE 08:30 18°C	BACK 17:00 21°C	SLEEP 23:00 18°C

F3: View Operating Time

Select F3, press **M** to enter, press ^ or v to see the operation time per day, month, year.

Eg: 10:17 03 means thermostat will operate in total for 3 days, 10 hours and 17 minutes. Press **M** to leave.

F4: Advanced Setting

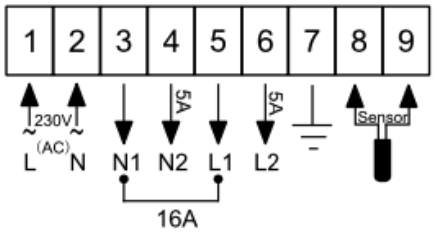
Note: Advanced setting menu should be modified by installer or qualified persons.

Select F4, press **M** to enter, Use **M** to select item, use ^ or v to modify value. Press ⏻ to exit.

Eco Dual Thermostat

Item	Default Value	Setting Range
01: Sensor Selection	01	01: Built-in & floor limit 02: Built-in sensor 03: Floor sensor
02: Room Temperature Calibration	0°C	-5°C~5°C
03: Floor Temperature Calibration	0°C	-5°C~5°C
04: Floor Limit	35°C	5°C~60°C
05: Schedule	5-1-1	5-1-1/7
06: Adaptive Start	OFF	ON/OFF
07: Adaptive Start Time	20mins	0-40mins
08: Open window	OFF	ON/OFF
09: Sensor Type	10K	6.8K/10K/12K15K/33K
10: Anti-freeze Function	OFF	ON/OFF
11: Holiday Time	1day	1-99days
12: Temp Deviation	1°C	0.5°C,1°C,2°C,3°C
13: Display Precision	0.5°C	0.5°C,0.1°C
14: Operation Step	0.5°C	0.5°C,0.1°C,1°C
15: Reset	No	No/Yes
16: Display When Thermostat OFF	02	01: ShowOFF 02: ShowTemperature 03: Nothing
17: Temperature Unit	°C	°C/°F
18: Rail Control Time	1h	1h,2h,4h

Wiring Diagram



1. Live – 230V Supply
2. Neutral – 230V Supply
3. Neutral – Underfloor Heating
4. Neutral – Secondary Relay (for towel rail or demister)
5. Live – Underfloor Heating
6. Live – Secondary Relay (for towel rail or demister)
7. Earth – Common
8. Floor Sensor (not polarity sensitive)
9. Floor Sensor (not polarity sensitive)

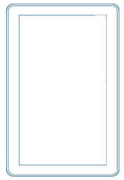
Sensor Failure

Error	Display	Cause
Error 1	Er1	Built-In sensor short-circuited or disconnected.
Error 2	Er2	External sensor short-circuited or disconnected.

When Er1/Er2 error, the thermostat must be checked until the error is eliminated.

Mounting Steps

1.



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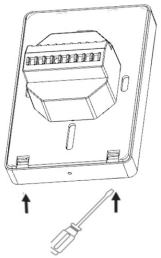
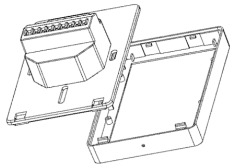


3.



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Eco Dual Thermostat

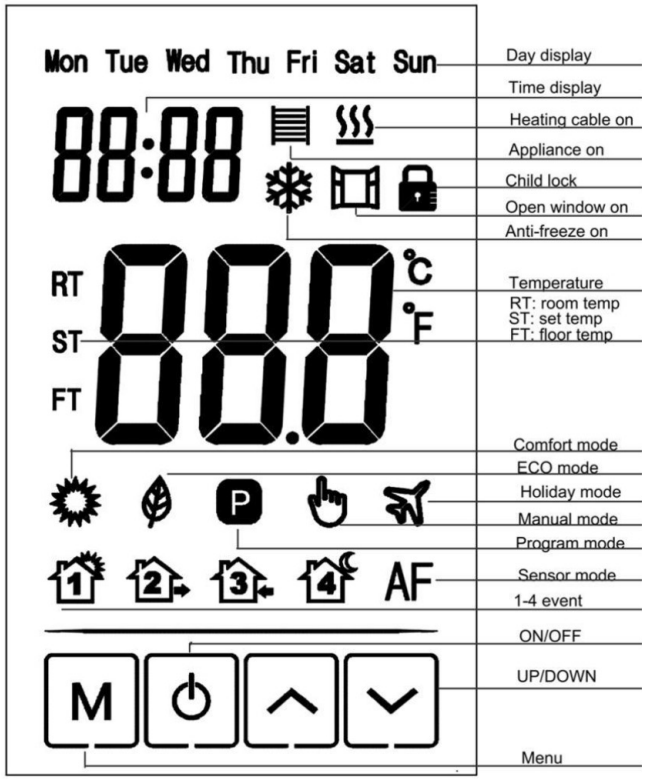
The ECO Dual Control Thermostat (ECO-DT-BWS-WHT) is a modern designed flush-mounting thermostat, equipped with a large stylish screen. It can control your underfloor heating system, plus an additional compatible appliance allowing you to control both appliances from the one thermostat.

Carefully read this manual and ensure your thermostat is installed by a qualified electrician.

Parameter

Voltage	120V/230V
Power consumption	1W
UFH relay	Max 16A
Appliance relay	Max 5A
Setting range	5-60°
Protective range	IP20
Material	Anti-flammable P C / ABS
Compatible sensors	6.8kΩ, 10kΩ, 12kΩ, 15kΩ, 33kΩ (@ 25°C)
Application	Built-in sensor, floor sensor

Symbols Display



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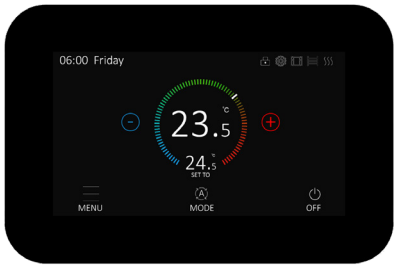
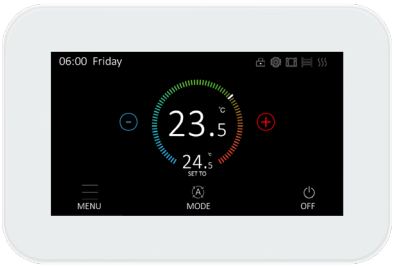
Konnect Dual Thermostat

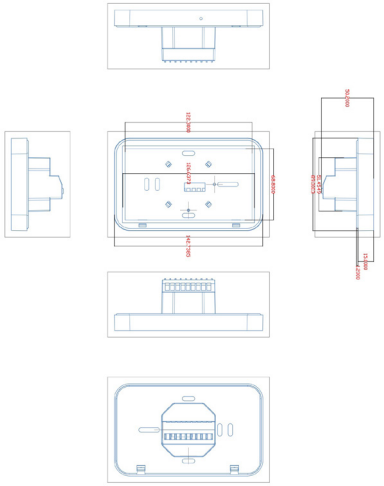


Black



White

Line Drawings



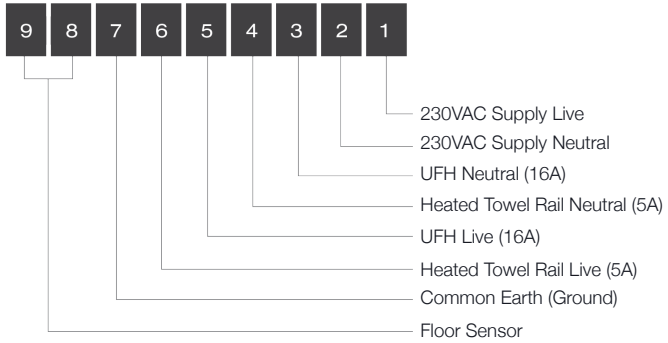
Technical Data

Supply voltage	230/240V 50/60Hz
Maximum load	16A (20A combined)
UFH relay	16A (3600W)
Appliance relay	5A (1125W)
Temperature range	5 ~ 35°C
Ambient	0 ~ 50°C
Compatible sensors*	6.8kΩ, 10kΩ, 12kΩ, 15kΩ, 33kΩ
Accuracy	±0.5°C
IP rating	IP30
Width	142.5mm
Height	88.5mm
Depth	50mm (32mm in wall)

Wiring diagram

Connect Dual Control Thermostat to the Underfloor Heating (UFH) cold tail, Heated Towel Rail (or another additional appliance), power supply and floor temperature sensor.

The floor temperature sensor is not polarity sensitive.



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Konnect Dual Thermostat

The Konnect Dual Thermostat (KON-DT-CLS-BLK & KON-DT-CLS-WHT) is a modern designed Thermostat, equipped with a large stylish coloured touch screen. It can control your underfloor heating system, plus an additional compatible appliance allowing you to control both appliances from the one thermostat.

Under the advice of professional technicians, different parameters can be set in accordance with the different conditions of the room in which the thermostat is located. This will provide the most comfortable experience and the best energy consumption.

Technical Data

Supply voltage	120/130V ~ 50/60Hz
UFH relay	Max. 16A (Resistive Load)
Appliance relay	Max. 5A (Resistive Load)
Floor sensor type	10Ω (default), 6.8Ω, 12Ω, 15Ω, 33Ω @ 25°C
Ambient temperature	0-45°C
Room temperature	5-60°C
Floor temperature	5-60°C
Floor temperature limit	5-60°C
On/Off differential	±0.5°C
Storage temperature	-10°C to 50°C
IP class	IP30
Depth	50mm (32mm in wall)

Icons

Auto mode	Manual mode	Holiday model
Menu	On/Off	Heat
Towel rail heat	Key lock	Frost protectior
Open window	Wake	Leave
Return	Sleep	

Er1	Internal Sensor Failure
Er2	External Floor Sensor Failure

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Konnect Dual Thermostat

Operation

1. Setting Temperature

In Auto Mode, setting temperature is only valid in the current event.

In Manual Mode, setting temperature is always valid.

In Holiday Mode, setting range is 5-20°C

1. Press +/- to enter ‘Setting Temperature’ on home screen.
2. Press +/- to select the required temperature.

2. Operating Mode

Auto Mode: Select Auto if you want the temperature to be controlled automatically via Program. The setting temperature is only valid in the current event.

Manual Mode: Select Manual to cancel the programmed event schedule and to set the required temperature manually. The setting temperature is always valid.

1. Press [Mode Icon] to enter ‘MODE’ on home screen.
2. Press [Manual Icon] to Enter ‘Setting Temperature’.
3. Press +/- to select the required temperature.

Holiday Mode: Select Holiday to save energy when you are away on Vacation. The setting temperature range is 5-20°C. You should set the return date. Until the return date, the thermostat runs by the set temperature. When the holiday ends, the thermostat will run in Auto Mode.

1. Press [Mode Icon] to enter ‘MODE’ on Home Screen.
2. Press [Holiday Icon], then press +/- to select the required temperature.
3. Select the Return date in Item 11 of Advanced Settings.

3. Time

Press [Menu Icon], enter ‘Time’ to set the current real time and day of the week by ^ or v.

4. Child Lock

The child lock prevents children and others from, tampering with the thermostat and changing any of its settings.

1. Press [Menu Icon], enter ‘Key Lock’ to lock.
2. Press [Menu Icon], enter ‘Key Lock’ to unlock.

4. Appliance Controls

Press [Menu Icon], enter ‘Towel Rack’ to turn on or off. Select the working time in the item 18 of advanced setting.

Konnect Dual Thermostat

6. Program

In Auto Mode, the thermostat allows you to control the temperature automatically according to a weekly schedule. On the schedule screen: If you work from Monday to Friday or from Monday to Saturday, you can choose **5+1+1**. If the Working hours are irregular every day, you can choose **7** (Select 5+1+1/7 in item 5 of Advanced Settings).

Choosing 5+1+1: The parameters are the same from Monday to Friday, suitable for people whose working hours are from Monday-Friday or Monday-Saturday.

Choosing 7: The parameters of each day can be set individually.

1. Press [Menu Icon] to enter 'Edit Setting'.
2. Press ^ & v to select the start & temperature.

Program Default Parameters

Day				
Mon-Fri	WAKE 06:00 21°C	LEAVE 08:30 18°C	BACK 17:00 21°C	SLEEP 23:00 18°C
Sat-Sun	WAKE 06:00 21°C	LEAVE 08:30 18°C	BACK 17:00 21°C	SLEEP 23:00 18°C

8. Advanced Settings

In additions to the above common functions, the thermostat also provides several settings for more occasions. Please note: These settings need to be set by professional technicians to avoid damage caused by abnormal settings.

1. Press [Menu Icon], enter 'Advanced Settings'
2. Tap ^ or v and select the options.

Item	Default Value	Setting Range
01: Sensor Selection	All	All/Room/Floor
02: Room Temperature Calibration	0°C	-5°C ~ 5°C
03: Floor Temperature Calibration	0°C	-5°C ~ 5°C
04: Floor Limit	35°C	5°C ~ 60°C
05: Schedule	5-1-1	5-1-1/7
06: Adaptive Start	Off	On/Off
07: Adaptive Start Time	20mins	0-40mins
08: Open Window	Off	On/Off
09: Sensor Type	10K	6.8k, 10k, 12k 15k, 33k
10: Anti-Freeze Function	Off	On/Off
11: Holiday Time	1 Day	1-99 Days
12: Temp Deviation	1°C	0.5°C, 0.1°C, 2°C, 3°C
13: Display Precision	0.5°C	0.5°C, 0.1°C
14: Operation Step	0.5°C	0.5°C, 0.1°C, 1°C
15: Display when Thermostat OFF	Show OFF	Show OFF/Show Temperature/Nothing
16: Temperature Unit	°C	°C/°F
17. Power On Mode	Keep	Keep/On/Off
18: Rail Control Time	1h	1h/2h/4h
19: Brightness	100%	30% ~ 100%
20: Factory Reset	No	No/Yes

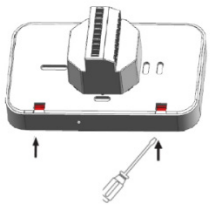
Konnect Dual Thermostat

Mounting Instructions

IMPORTANT: The floor sensor enables a more accurate temperature control. It's recommended in all floor heating applications and mandatory under wooden floors to reduce the risk of over-heating.

The thermostat should be mounted on the wall approx. 1.5m above the floor in such a way as to allow free air circulation around it. Draughts and direct sunlight or other heat sources must be avoided.

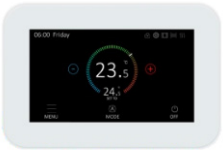
1.



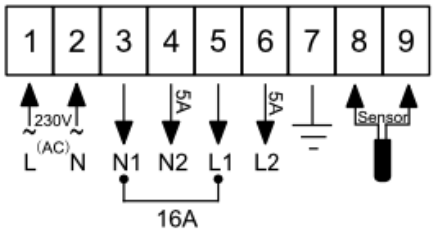
2.

3.

4.



Wiring Diagram



1. Live – 230V Supply
2. Neutral – 230V Supply
3. Neutral – Underfloor Heating
4. Neutral – Secondary Relay (for towel rail or demister)
5. Live – Underfloor Heating
6. Live – Secondary Relay (for towel rail or demister)
7. Earth – Common
8. Floor Sensor (not polarity sensitive)
9. Floor Sensor (not polarity sensitive)

Sensor Failure

Error	Display	Cause
Error 1	Er1	Built-In sensor short-circuited or disconnected.
Error 2	Er2	External sensor short-circuited or disconnected.

When Er1/Er2 error, the thermostat must be checked until the error is eliminated.

Compatibility

The Konnect Dual Control Thermostat is compatible with almost all electric Under Floor Heating (UFH) systems. The Konnect Dual Control Thermostat can replace your existing Underfloor Heating thermostat and is compatible with many of the most popular Thermostat brands' floor sensor probes including those rated at

- Ther 10Ω @ 25°C (Default Sensor)
- Tep 6.8Ω @ 25°C
- Ens 10Ω @ 25°C
- OJ 12Ω @25°C
- Devi 15Ω @25°C
- Eber 33Ω @25°C

Replacing an existing Thermostat? Contact the manufacturer's technical department and ask for the rating of the floor sensor at 25°C.

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Details of Installation Form

Please complete and keep safe for your records

LINSOL Head Office

Phone
1300 LINSOL

Email
service@linsol.com.au

Details of Installation

Electrician Name _____ Signature _____

Company Name _____

Company Address _____

Date

Rooms with heating installed _____

Total Wattage of System _____

Please list the product code and test results of each element after installation (compare to installation guide for rated resistance).

PRODUCT CODE	RESISTANCE RATING	INSULATION TEST PAST

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