

Warmup®

Electric Wall Heating Panel

Installation Manual

IMPORTANT: Read this manual before installation.
Incorrect installation could damage the heater and
invalidate your warranty.



SAFETY Net™
INSTALLATION
GUARANTEE

CE

Technical Help line: 0845 345 2288

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Items Required

A Warmup® Thermostat with temperature sensor

NOTE: Only Warmup® Thermostats should be used

30mA Residual Current Device (RCD), required as part of all installations

Digital Multi-meter and Insulation resistance tester (required for testing the heating panels)

Electrical trunking/conduit for housing the power leads

Electrical housing, back boxes and junction boxes
(Back box for the thermostat must be at least 35mm deep)

Tile Backer Boards (The heating panels must be installed onto a cementitious, non flammable surface, such as a tile backer board.

Gloves to protect your hands from the fibreglass mesh

Scissors to cut the mesh when modifying the panels.

Staples and staples gun - for fixing the panel to the wall.

Product Description

Warmup Electric Wall Heating Panel for Professional Installation ONLY.

The Warmup Electric Wall Heating Panel is a flexible sheet heating element which complies with The Electrical Safety Regulations 1994. This product is designed for installation behind tiles or natural stone, within walls, to provide radiant heat either for small areas of a wall or for whole room heating.

Note: For whole room heating it is advised that a heat loss calculation is carried out to determine that the size and overall wattage of the heating system is adequate.

This product must be installed by a professional in strict accordance with the manual and "signed off" by a qualified and certified electrician to ensure that it complies with The Electrical Safety Regulations 1994. ALL documentation and information specified and requested within the manual must be recorded and provided to the "end user".

This product must be used in conjunction with the materials specified within the manual and be controlled by a thermostat with limiting sensor in accordance with EN 60364-4-42. The system MUST be supplied by a 30mA RCD.

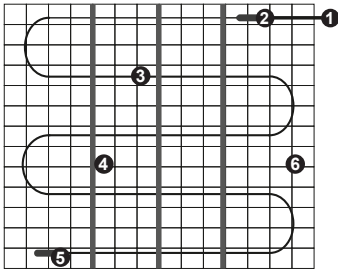
The heating wire has been pre-spaced to ensure that spacing be kept constant to ensure that wattage density across the whole panel is uniform. The wire should not be removed from the mesh.

The product is designed for a single wall and should not be extended across multiple walls or to floor or ceiling surfaces. The heating wire should be placed on a single flat surface and must not be bent or creased across the wall surface. It is essential that ALL wall areas that are heated OR not heated must be marked on a diagrammatic plan. No fixings or insulative materials should be applied to walls in heated areas. The heating systems must NOT be placed over water pipes or other electrical systems. The heating system must not be placed near to or against flammable materials.

Failure to comply with the instruction manual may result in the product not being in compliance with the relevant safety standards, being deemed unsafe, and will result in the product warranty and guarantees being invalidated.

Technical Information

Heater Information



1. 3 meter cold lead
2. Cold lead joint
3. Dual core heating element
4. Double sided tape
5. End termination joint
6. Fibreglass mesh

Product Specification

Rated Voltage	230VAC
Outer Diameter	2 mm (approx)
Minimum Bending Radius	25mm
Conductor	Dual Core
Conductor Shield	Earth Braid
Resistance Tolerance	-5% / +5%
Cold Lead	1x 3m with braided earth screen.
Min Installation Temperature	5°C
Wire Spacing	80mm - 150W Panel 50mm - 200w panel
IP rating	IPX7
Wattage per m²	150w or 200w

150W Wall Panel

Model	Area (m ²)	Size (m)	Watts	Amps
WHP1	1.0m ²	2mx0.5m	150	0.65
WHP1.5	1.5m ²	3mx0.5m	225	0.98
WHP2.0	2.0m ²	4mx0.5m	300	1.3
WHP3.0	3.0m ²	6mx0.5m	450	1.96
WHP4.0	4.0m ²	8mx0.5m	600	2.61
WHP5.0	5.0m ²	10mx0.5m	750	3.26
WHP6.0	6.0m ²	12mx0.5m	900	3.91
WHP7.0	7.0m ²	14mx0.5m	1050	4.57
WHP8.0	8.0m ²	16mx0.5m	1200	5.22
WHP9.0	9.0m ²	18mx0.5m	1350	5.87
WHP10.0	10.0m ²	20mx0.5m	1500	6.52
WHP11.0	11.0m ²	22mx0.5m	1650	7.17
WHP15.0	15.0m ²	30mx0.5m	2250	9.78

200W Wall Panel

Model	Area (m ²)	Size (m)	Watts	Amps
2WHP0.5	0.5m ²	1mx0.5m	100	0.44
2WHP1.0	1.0m ²	2mx0.5m	200	0.87
2WHP1.5	1.5m ²	3mx0.5m	300	1.30
2WHP2.0	2.0m ²	4mx0.5m	400	1.74
2WHP3.0	3.0m ²	6mx0.5m	600	2.61
2WHP4.0	4.0m ²	8mx0.5m	800	3.48
2WHP5.0	5.0m ²	10mx0.5m	1000	4.35
2WHP6.0	6.0m ²	12mx0.5m	1200	5.22
2WHP7.0	7.0m ²	14mx0.5m	1400	6.09
2WHP8.0	8.0m ²	16mx0.5m	1600	6.96
2WHP9.0	9.0m ²	18mx0.5m	1800	7.83
2WHP10.0	10.0m ²	20mx0.5m	2000	8.70

Electrical Information

All electrical work must be carried out by a certified electrician. All work must confirm to current IEE wiring regulations - BS 7671:2008. A certified electrician must sign off the final installation.

Installing an RCD

The electrician **must** install a dedicated 30mA RCD. A combination “double pole fused switch/spur must incorporated in order to isolate the system.

Ensure that all earth connections from the heating panel are connected to the protective conductor of the supply circuit.

Electrical accessories needed

- Electrical Back Box - A 35mm back box may be used for the all Warmup thermostats.
- Junction Box - If installing more than two heaters a junction box will be required.
- Conduit or plastic trunking- The wiring to the thermostat should be chased into the wall protected by conduit or plastic trunking.

Connecting the thermostat

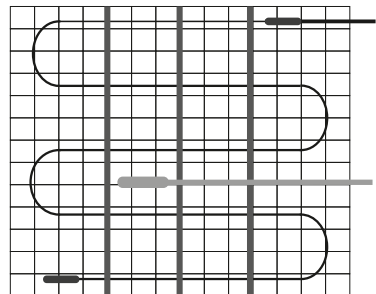
The Warmup wall panels must be controlled via a thermostat using an external temperature sensor at all times to ensure that the maximum temperature of 40°C is not exceeded. The thermostat must be connected to the mains electrical supply via a double pole isolator fused spur or RCD that has a contact separation in all poles providing full disconnection under over-voltage category III conditions .The thermostat is IP20 rated and must be located outside of Zone 2 in wet areas.

If floor heating is also installed the system **must** be controlled via a separate thermostat and temperature sensor.

Temperature Sensor Location

The thermostat must always be operated using the 3m external temperature sensor supplied with the Warmup Thermostat. The sensor must be placed centre of two of the heating element runs of the heating panel.

The sensor must not cross over or touch any of the heating wires. When connecting to the thermostat ensure that the wire is installed in a separate conduit to the heating panel cold lead to avoid any electrical interference.

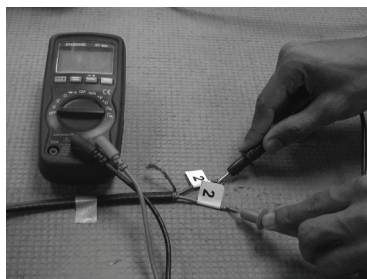


Test the wall heating panel(s)

You must test the heater before, during and after installation to ensure that the panels have not been damaged during the installation.

Using a multi-meter test the resistance of each individual heating panel. Set the multi-meter at 200 ohms setting for larger panels and a 2k ohms setting for the smaller mats. Test across the Live and Neutral. At 20°C between live and Neutral the heater should read

Size	Resistance	
	150W	200W
0.5m ²	n/a	523
1.0m ²	352.7	264.5
1.5m ²	235.1	176.3
2.0m ²	176.3	132.3
3.0m ²	117.6	88.2
4.0m ²	88.17	66.1
5.0m ²	70.53	52.9
6.0m ²	58.78	44.1
7.0m ²	50.38	37.8
8.0m ²	44.08	33.1
9.0m ²	39.19	29.4
10.0m ²	35.27	26.5
11.0m ²	32.06	n/a
15.0m ²	23.51	n/a



Check resistance using multi-meter

A +/- 5% Ohm reading tolerance is allowed under manufacturing guidelines.

An insulation resistance test must also be carried out on the heating panel. Carry out the test across the conductors and Earth at 1000V.

Record the ohms reading and the insulation resistance test results on the control card included in this instruction manual.

If the heater fails the insulation resistance test, the ohms reading is open circuit or above/below the allowed tolerance **DO NOT TILE** contact the technical helpline on 0845 345 2288.

All test results must be recorded on the control card at the back of the manual.

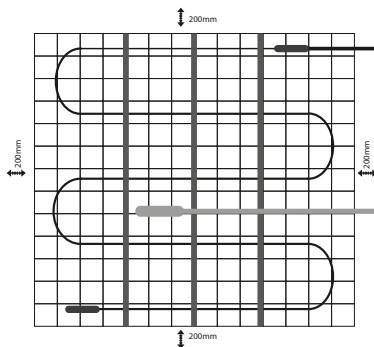
NOTE: DO NOT WIRE THE HEATING ELEMENT TO THE MAINS WHILE THE HEATING PANEL IS STILL ROLLED UP.

Planning the installation

Location of the heating panels

When installing the Warmup wall heating panel it is important that the installation is design and installed carefully to avoid any harmful influence between the heating system and other electrical and non electrical installations.

When installing the heating element near other electrical installations it is important to that the heating element does not affect the electrical installation such as reducing the current carrying capacity of cables from other circuits due to the high ambient temperature caused by the heating system. In order to avoid this leave a perimeter of 200mm around the edge of the wall.



In order to prevent the heating element from causing high temperatures to adjacent materials always ensure that the heating panel is at least 10mm from ignitable structures.

Heat Free Zones

When designing the areas to be covered it is important that heat free zones are allocated for areas where drilling or fixings may occur.

Thermal Blocking

Do not fix items to the wall over the heated areas that may block the heat . Fittings may only be installed into the non heated areas.

Draw a plan

In order for your installation to run as smoothly as possible and to ensure that the location of the heating panels can clearly be identified at a later date, a plan showing exact locations with measurements MUST be drawn.

This MUST be kept along with the heater information, test records, operating guides and any other relevant documentation required, at or near the consumer unit.

Important Installation Points

ALWAYS plan the installation and complete the relevant documentation provided in this instruction manual. It is important that this is placed near or at the consumer unit so that the end user has all the information needed for the Wall Panel Heating system.

ALWAYS ensure that all electrical work, testing and diagrams of the installation have been signed off by a certified electrician .

ALWAYS test the heating panel before, during and after the final installation. This is very important during the tiling stage and after any fixings have been made to the wall.

ALWAYS take care during installation not to damage the heating wire.

ALWAYS installed the heating panel at least 50mm from conductive parts of the building.

ALWAYS ensure that a heat loss calculation have been carried out and all heating requirements have been met if the system is to be used as a primary source of heat.

ALWAYS advise other trades of the location of the heating panels before the commence any work to avoid damage to the heating panel. They should be made aware of all the heated and unheated zones. Placing temporary warning labels within the heated areas will reduce the risk of damage.

ALWAYS leave a perimeter of 200mm around the edge wall. This will reduce the risk of the heating panel sitting above other electrical circuits located behind the wall.

ALWAYS fix the heating panels to cementitious non flammable materials or to a board fit for purpose such as a Tile backer board with a euroclass "E" rating.

DO NOT cut or shorten the Wall Heating panel at any time.

DO NOT allow the heating panel to cross expansion joints of the building or structure.

DO NOT alter the spacing of the mat at anytime.

DO NOT allow the wall heating panels to exceed a maximum of 40°C. This is achieved by installing a Warmup Thermostats with temperature sensor.

DO NOT connect the heaters in series, the heating panels must be connected in parallel.

DO NOT allow the heating element wire to touch or cross at any point.

DO NOT install this product behind any other material other than ceramic or natural stone tiles.

DO NOT extend heating panels beyond one wall surface, always use separate panels for each wall.

DO NOT leave any of the wire exposed. The heating panel must be completely embedded in flexible tile adhesive, including the cold lead and end termination joints. Failure to follow this instruction can cause the heating element to overheat.

DO NOT cover the heating panel manufactured joints with tape, you may if necessary tab tape the joint to hold it in place before embedding in flexible tile adhesive.

DO NOT cover the wall heating panel until it has been inspected ,and thoughtly tested by a certified electrician. All measurements and results **must** be logged on the control card found at the end of this instruction manual.

DO NOT switch on the heating panel until all adhesive and grouts have been allowed to dry as per the manufactures instructions.

DO NOT attempt to carry out any DIY repairs on this product, if you damage the heater during installation contact Warmup Technical Support on 0845 345 2288.

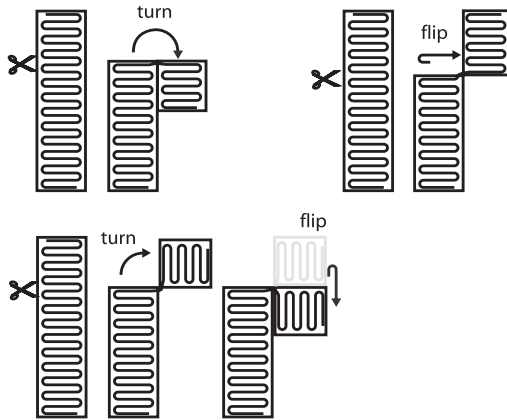
Getting Started

Wall preparation

When tiling a wall it is important that you ensure that the design, construction and preparation of the surface is carried out correctly.

The Warmup heating panel must be installed onto a material suitable for use with the heating system. A 6mm tile backer board with a fire rating Euro class E or higher may be used. Ensure when boards are used that they are fixed to the wall as per the manufacturer's instruction.

Modifying the Heating panels



Important protective measures

Sufficient Protective measures must be used to ensure that both the cold lead and connection joint are protected.

The cold lead and joint must:

1. Be at least 50mm from the surface with the joint fully encased within a flexible adhesive, or
2. Be provided with mechanical protection sufficient to prevent penetration by nails, screws and the like, or
3. Be installed either horizontally within 150mm of the top of the wall or partition or vertically within 150mm of the angle formed by two walls, or run horizontally or vertically to an accessory or consumer unit.
4. Be covered by a suitable conductive covering for example a grid with a spacing of not more than 3mm, this should be provided as an exposed conductive part and connected to the protective conductor of the electrical installation.

Note: The heating panels must always be protected by a 30mA RCD.

Wall Heater installation

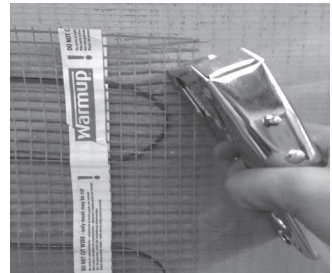
Using a permanent marker, mark out the areas on the wall surface where the heated zones will be. ONLY install the wall heating panel in these marked zones.

Mark the positions and planned route of the power lead cables as well as the temperature sensor.

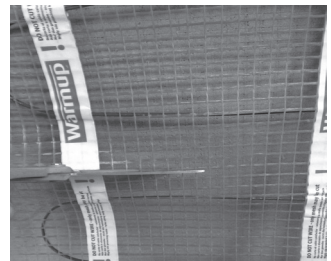
Test the heating panel using the method described on page 6

Start by installing the panel in the location closest to the thermostat. You will need to staple the mesh to the wall to hold the heating panel in place.

Always take care not to damage the heating cable when stapling the mesh to the wall. Never staple the heating element wire as this may result in damage.



Roll out the heating panel along the wall following the planned route of the zones to be heated. If the panel needs to be cut and turned, before you reach the point where the panel will be turned, remove the film from the tape and fix the first section of the panel to the wall.

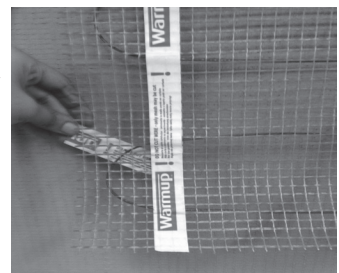


N.B DO NOT cut the wire.

Additional staples may be used to help hold the panel flat. Continue installing the heating panel using this method.

DO NOT let the heating element cross or touch at any time.

Depending on the requirements of the tiler, it may be necessary to chisel out or "chase" short channels in the wall surface to minimise the increased height presented by the power cable, the end joint and the floor probe.



Fit the power supply cable into the channels and secure with fixing tape or suitable cable clips.

NOTE: Do **NOT** cover the joints with tape as air pockets will cause the heater to fail. Ensure that all joints are completed embedded in adhesive.

Wall Heater installation continued

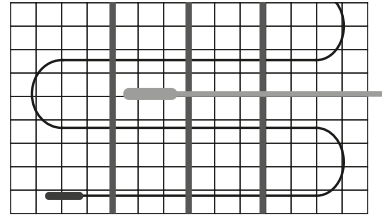
If you find that once the heating panel has been installed you have excess heating panel, contact Warmup immediately on 0845 345 2288.

Do **NOT** cut the heating element to fit a zone or leave any of the heating panel exposed behind units or fixtures.

If you are installing multiple heating panels they should be connected in parallel via a junction box.

Install the temperature sensor supplied with the Warmup thermostat.

Fit the temperature sensor wire at least 300mm into the heated area. The sensor tip should be centred between two of the heating element runs.



Do **NOT** allow the sensor to touch or cross any of the heating element at any time.

The sensor tip must **NOT** be covered with tape as this may result in an incorrect temperature reading.

If necessary the sensor may be extended up to 50 metres to the thermostat location. The sensor must be run in a separate conduit -it must be separated from other cabling.

Before tiling test the heater and temperature sensor. Use a 20k -200k ohms setting when testing the sensor.

At room temperature you should get a reading between 8-12K ohms.

Tiling over the Wall Heater

Suitable wall Coverings

The Warmup heating panels are designed to be installed behind ceramic or natural stone tiles.

Adhesive and Grout

The tile adhesive and grout must include an additive for flexibility and be suitable for use with underfloor heating. Refer to the adhesive manufacturer's instructions for usage. 2 part flexible adhesive is best.

Tiling Over the Heating Panel

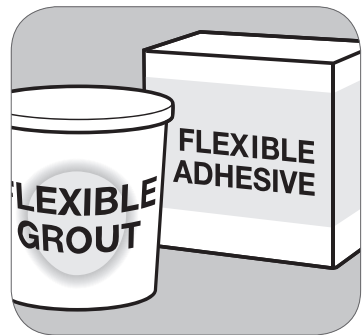
In order to make tiling over the heating panels easier the wall heating panel should be tiled over using a Two-Step Method:

1. Completely cover the heating panel with a 10mm layer of flexible adhesive and allow this level to dry.
2. Apply another layer of flexible adhesive and tile as normal.

It is important that each tile is solidly bedded in adhesive, with no air gaps or voids beneath. Do not allow the trowel to make contact with the heating wire while applying the adhesive.

If a tile has been positioned incorrectly, take great care not to damage the heating wire when lifting. Remember that tiles must not be lifted once the adhesive is dry, as this may damage the heating wire.

It is important to test the resistance of the heating panel regularly during the tiling process. If at any time you damage the cable stop tiling immediately and contact the Warmup Technical helpline on 0845 345 2288 for further assistance.



Installation and System Documentation

It is important that the following information is recorded on the control card within the manual:

- Location Diagrams
- Distribution of heating circuits and rated power
- Heater type
- Dimensions
- Max operating temp
- Manufacturer
- No of heating units installed
- The area of heating panel(s)
- Rated power - wattage
- Surface power density (Total wattage @230Vac)
- Position / depth of heating units
- Position of junction boxes
- Conductor shields
- Rated voltage
- Rated resistance cold (ohms)
- Rated current of overcurrent protection device (fuse)
- Rated residual current of RCD
- Insulation resistance – and test voltage used
- The leakage capacitance
- Information about materials surrounding wire – if other materials other than those specified in this manual are to be used you must consult the manufacture.

This instruction manual contains pages that MUST be completed and fixed at or near the consumer unit.

Information regarding the product can be found on the technical and product specification sections on page 4 and on the product label on the panel.

Ensure that those operating the system are provided with all the correct information and instructions on how to use the heating panels safely.

Control Card



WALL HEATING PANEL CONTROL CARD

CAUTION

Wall heating panel installed. Risk of electric shock electrical wiring and heating panels contained within the wall. DO NOT penetrate with nails, screws or similar devices. Do NOT restrict the thermal emission of the heated wall.

WALL HEATING PANEL LOCATION	
TOTAL WATTAGE of all heating panels within this location	

Important information

Ensure that the Warmup Wall Heating Panels are protected by a 30mA RCD at all times. The RCD should be tested every 3 months to ensure correct operation. Do not allow the heating panel to exceed a maximum of 40°C at any time ensure that the heaters are connected to a Warmup thermostat with an external temperature sensor.

Model	Location	Resistance		Insulation Resistance	
		Before	After	Pass / Fail	Voltage used

This form must be completed as part of the Warmup guarantee. Ensure that all values recorded are correct as per the installation manual. This control card along must be kept with all plans etc at the consumer unit for future reference.

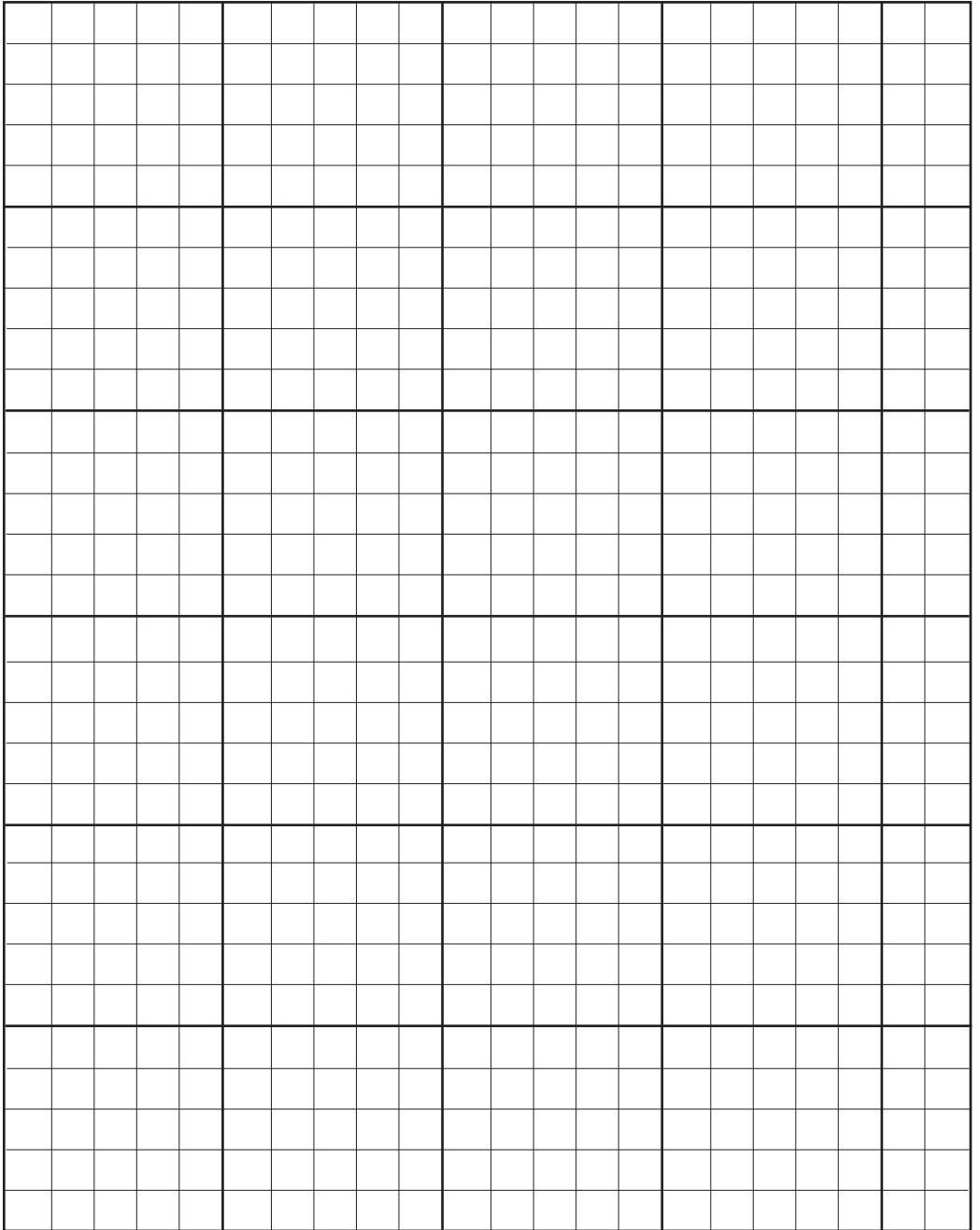
Date _____ Signed _____ Print Name _____

Company Name _____ Address _____

Important System information

Warmup Wall Heating System Information					
Wall Heating System Voltage		IP Rating		Wattage/m ²	
Depth of heating panel into the wall		Heating element conductor shield		Rated current of over current protective device	
Rated Residual Current of RCD		Leakage Current			
Notes					

Wall Plan



User Information

End User Checklist

Please check that you have the following documents.

1. Layout Plans
2. Electrical Test Sheets
3. Thermostat Instructions

If you have not received any of the above documents contact your installer who will be able to provide the relevant information.

User Information

You may want to test that the heaters are working correctly prior to programming the thermostat fully. This can be done by setting the thermostat into a manual mode and allowing the appropriate time for the wall to heat up.

Always allow 7-10 days for tile adhesive/ grout to dry fully before switching the wall heaters on.

Thermal blocking

This can occur when heat produced is trapped and cannot escape from the surface of the wall. Do not install behind fixtures that will be permanently attached to the wall that could block the heat.

Energy saving

A few tips to save energy

- Use the thermostat in a program mode to ensure that the heaters are only on when needed.
- DO not set the thermostat temperature too high. 28°C is more than adequate for most installations. The maximum temperature allowed is 40°C.
- Ensure that the thermostat is programmed to be off at times when the heaters will not be needed.

If you require further assistance contact Warmup Technical on 0845 345 2288.

Warranty



Terms and conditions apply

THE LIFETIME ELEMENT OF THIS GUARANTEE DOES NOT EXTEND TO THERMOSTATS WHICH ARE COVERED BY SEPARATE GUARANTEES. THIS GUARANTEE DOES NOT AFFECT YOUR STATUTORY RIGHTS.

Warmup® Wall Panel Heater is guaranteed by WARMUP PLC ("Warmup") to be free from defects in materials and workmanship under normal use and maintenance, and is guaranteed to remain so subject to the limitations and conditions described below.

The Wall Panel Heater is guaranteed for the lifetime of the wall covering under which it is fitted, except as provided below (and your attention is drawn to the exclusions listed and the end of this guarantee).

The 10 Year guarantees applies:

1. Only if the unit is registered with Warmup within 30 days after purchase. Registration can be completed online at www.warmup.co.uk. In the event of a claim, proof of purchase is required, so keep your invoice and receipt - such invoice and receipt should state the exact model that has been purchased; and
2. Only if the heater has been earthed and protected by a 30mA Residual Current Device (RCD) at all times.

Thermostats are guaranteed for a period of 3 YEARS from the date of purchase, except as provided below.

Neither guarantee continues if the wall covering over the heater(s) is damaged, lifted, replaced, repaired or covered with subsequent layers.

This guarantee period begins on the date of purchase. Registration is confirmed only when confirmation is sent by Warmup PLC.

During the period of guarantee Warmup will arrange for the heater to be repaired or (at its discretion) have parts replaced free of charge. The cost of repair or replacement is your only remedy under this remedy under this guarantee which does not affect your statutory rights. Such costs does extend to any cost other than direct costs of repair or replacement by Warmup and does not extend to costs of relaying or repairing any Wall covering or Wall.

If the heater fails due to damage caused during installation or tiling, this guarantee does not apply. It is therefore important to check that the heater is working (as specified in the installation manual) prior to tiling.

WARMUP PLC SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO EXTRA UTILITY EXPENSES OR DAMAGE TO PROPERTY.

WARMUP PLC is not responsible for:

Damage or repairs required as a consequence of faulty installation or application.

Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Warmup PLC.

Use of components or accessories not compatible with this unit.

Normal maintenance as described in the installation and operating manual, such as cleaning the thermostat.

Parts not supplied or designated by Warmup.

Damage or repairs required as a result of any improper use, maintenance, operation or servicing.

Failure to start due to interruption and / or inadequate electrical service.

Any damage caused by frozen or broken water pipes in the event of equipment failure.

Changes in the appearance of the product that does not affect its performance.

SAFETY Net™
INSTALLATION
GUARANTEE
Safety Net Installation Guidelines:

Purchase a Warmup Heating panel, and follow all recommended installation procedures in the installation manual. Failure to follow the instructions will invalidate the guarantee.

If you make a mistake and damage the new heater before tiling, return the damaged heater, to Warmup within 30 days along with your original dated sales receipt. WARMUP WILL REPLACE ANY PRE-TILED HEATER (MAXIMUM 1 HEATER) WITH ANOTHER HEATER OF THE SAME MAKE AND MODEL -FREE.

PLEASE NOTE:

Heaters repaired by a Warmup agent carry a 5 year warranty. Under no circumstances are Warmup responsible for the repair or replacement of any tiles which may be removed or damaged in order to affect the repair.

The SafetyNet™ Installation Guarantee does not cover any other type of damage, misuse or improper installation due to improper installation due to improper adhesive or wall conditions. Limit one free replacement heater per customer or installer.

Damage to the heater that occurs after tiling such as removing a damaged tile once it has set, is not covered by the SafetyNet™ Installation Guarantee.

✉ Warmup Plc
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www.warmup.co.uk



Scan and visit our website