

Water Underfloor Heating System

harmeni

Harmoni has over 30 years' experience in the heating industry and during that time we have built a reputation for providing quality products, combined with exeptional customer service and sound technical advice.

The Harmoni range offers energy efficient, intuitive and well-designed practical heating solutions with cutting-edge technology at the heart of every product.

Our Pro range of heaters and thermostats has built-in Wi-Fi and can be controlled directly from a smart device wherever you are, at any time. Our objective is to reduce your energy consumption, lower your carbon footprint and increase the comfort of your property



Whatever your requirements, we have a solution to fit your needs.

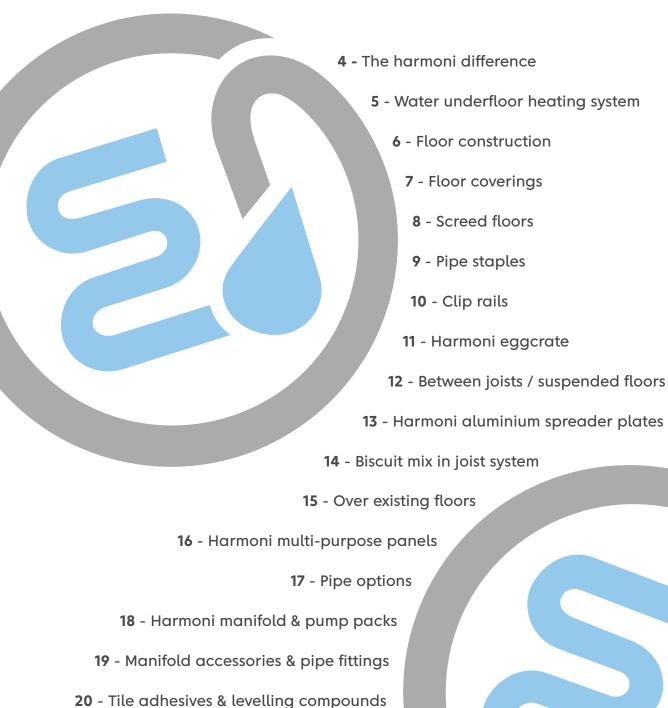
Call **01473 559088** for more information

Visit the Harmoni website:





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Outstanding customer service

Harmoni's reputation has been built on exceptional customer service. We offer costeffective solutions

together with expert advice and support, including free design and heat loss calculation services.

Quality products

All Harmoni products are designed and manufactured to our own demanding specifications. And with generous warranties, you'll enjoy a reliable, long lasting solution.

Sound technical service

Our technical team understand the intricacies of wet underfloor heating and will help you make informed decisions based on their wealth of knowledge and experience.

Free design service

We offer a free bespoke design service to help you choose the best heating solution for your home and guide you through the process.

Clean efficient energy

Harmoni heating products are clean and carbon neutral at the point of use, which helps to lower your carbon footprint.

Energy optimisation

Using the latest technology, Harmoni products manage their energy efficiency so you'll save on your heating bills.



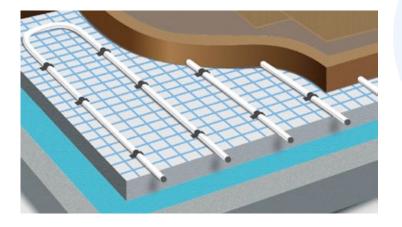
Water Underfloor Heating System

Water Underfloor Heating is a series of pipes laid in the floor to create a large heat emitter.

Water underfloor heating pipes are connected to a pump and manifold, which is then connected to a heat source – such as a boiler or heat pump.

There are various installation methods used when installing water underfloor heating, depending on your project requirements. These range from in-screed systems for new builds and extensions, spreader plates for joisted floor applications of retro fit systems for renovations or refurbishments.

Due to the large areas being covered with pipe work these systems can run at a lower temperature, making them more economical to run than radiators and an ideal solution for heat pumps.



Single Zone System

Single zone water systems are used on projects when only a single thermostat is required. These systems are available in both standard output (for well insulated new builds), or high output where there may be greater heat loss due to multiple external walls or large areas of glass.



16mm



Multi-room System

Multi-zone systems are designed for use across the whole property when requiring multiple areas to be controlled independently.

Designed for high heat output, these systems are ideal for new build or home renovations, giving you an optimal output to warm your home.



Pipe 16mm



Low-Profile System

Low-profile systems have been developed for retro fitting applications. Supplied with Harmoni Multi-Purpose Panels, this system will keep floor build up to a minimum whilst also providing insulation.

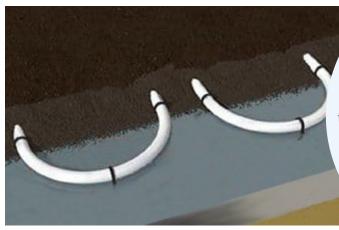


Pipe 16mm/12mm



Floor Construction

Underfloor heating can be installed in a variety of different constructions. These floor constructions comprise of screed, suspended and existing floors.



In Screed Systems

Screed systems rely on thermal conductivity to transfer heat from the pipes within the screed to the finished floor level. The makeup of a screed system consists of slab or over site base, PIR Insulation and edge insulation around the perimeter of all walls to allow for expansion and contraction from the floor to the walls.

Existing Floor Systems

Harmoni overlay systems make it possible to install a water underfloor heating system to an existing floor. These systems are supplied with Harmoni multi-purpose panels for ease of install and minimum height build up.



In Joist Systems

Suspended underfloor heating systems regularly use heat diffusion plates to dissipate the heat evenly.

Insulation is fitted between the joists with the aluminium spreader plates laid on top of the joists and securely pinned. The underfloor heating pipe work is then installed in the plates according to the floor plan layout provided.

Floor Coverings

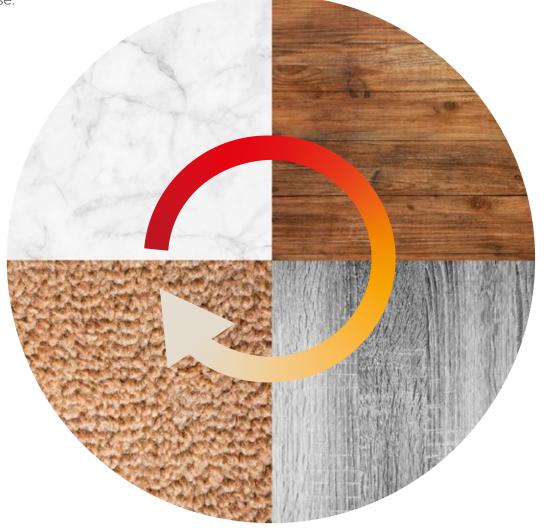
Most floor coverings are suitable for use with underfloor heating systems. Below is a general overview of each floor covering.

Tiled Floor

Tiled flooring offers the least resistance to heat transfer which makes these coverings the ideal partner for underfloor heating. When fitting these products, a flexible adhesive must be used to allow for expansion and contraction. This restricts the possibility of the finished floor from cracking or coming loose.

Wood / Laminate Floor

Wood / laminate floors work well with underfloor heating. Most underfloor heating should not exceed 27°C (floor temperature) when wood flooring is laid due to the moisture content in the wood.



Carpets

Carpet and underlay provides the highest heat resistance. You should make sure the underlay is suitable for use with underfloor heating. We advise checking with the flooring manufacturer to ensure the chosen carpet is suitable.

Vinyl Floor

Vinyl flooring offers a low heat resistance and most vinyl and plastic flooring is suitable for use with underfloor heating. However, we advise checking with the flooring manufacturer to ensure the chosen vinyl is suitable.

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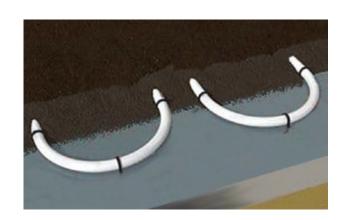
Screed Floors

If you're planning a new build or extension, then an in-screed system is the best solution, from both an installer and homeowner perspective.

This installation method needs advanced planning in your project but is very simple and quick to install.

Which in screed sysetem to choose?

There are 3 seperate in screed underfloor heating systems to choose from. The following information is useful to help identify the most appropriate system for your project. More information about each product is available in the following pages.



There are 3 systems to choose from:





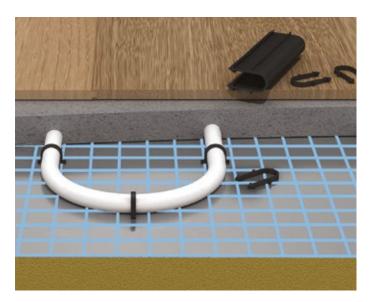


Installation	Push in staple	Sticky backed	Floating / overlapping
Suitable project types	New build and extensions. Typically ground floor level	New build and extensions. Typically ground floor level	New build and extensions. Typically ground floor level
Suitable floor coverings	All floor covering (Floor prep required)	All floor covering (Floor prep required)	All floor covering (Floor prep required)
Ideal for rooms with the following shapes	All room types suitable	All room types suitable	All room types suitable
Ready-made pipe spacing	No	Yes	Yes
Additional levelling compound required	Not required	Not required	Not required
Suitable screed types	Traditional and liquid screed	Traditional and liquid screed	Traditional and liquid screed
Available in low profile	No due to install in Screed Installation	No due to install in Screed Installation	No due to install in Screed Installation
Pipe options	16mm	16mm	16mm
Floor height elevations (Min Req)	No increase of floor heights	No increase of floor heights	No increase of floor heights
Lay floors directly onto underfloor heating	Yes, floor screed prep is required	Yes, floor screed prep is required	Yes, floor screed prep is required

Pipe Staples

Quick and easy install for all shapes of rooms, the ideal solution for fitting pipes to your PIR insulation.

Pipe staples are used when installing pipe within a screed. Available in 40mm and 60mm diameters making them suitable for insulation as low as 50mm. These staples are suitable for use in a staple track gun or by pushing in by hand.



Pipework Layout Suitability



Serpentine



Counterflow



Spiral

Pipe Staples							
QF	Part No.	Description	List				
12584	PIPEFIXINGCLIP40MM	Pipe Fixing Clips 40mm (Pack of 300)	£19.99				
12585	PIPEFIXINGCLIP60MM	Pipe Fixing Clips 60mm (Pack of 300)	£19.99				
Apply for a trade account today for extra benefits							



Installer Benefits

Cost effective installation

Reduced install time when staple gun used



Homeowner Benefits

Suitable for any floor covering

No floor height build ups



Floor Heat Output

Tile



Wood



Vinyl



Carpet



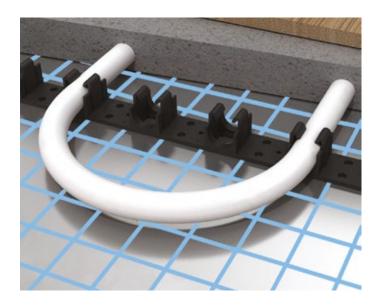


Compatible Pipe Sizes

Clip Rails

The perfect solution for even pipe spacings across your floors and a suitable option for thin insulations being covered with screed.

Clip rail tracks are ideal when installing water underfloor heating within a screed or over concrete floors. The clip track is mounted to the subfloor using the self-adhesive backing.



Pipework Layout Suitability



Serpentine



Counterflow



Installer Benefits

Adhesive backing aids quick installation

Cost effective installation



Homeowner Benefits

Suitable for any floor covering

No floor height build ups



Tila



Wood



Vinyl Carpet







Compatible Pipe Sizes

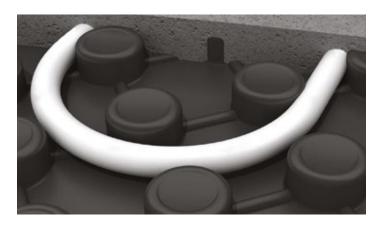
Cliprails							
QF	Part No.	Description	List				
12635	CLIPRAIL Clip Rail Track 1m Length						
Apply for a trade account today for extra benefits							

Harmoni EggCrate

Harmoni EggCrate utilises the screed or concrete to transfer heat from the pipes to the finished floor level above. This provide warm and even ambient temperatures within the living space.

The best floor coverings to use with underfloor heating are hard surfaces such as stone or tiles. These floor coverings offer the least resistance, transferring heat more effectively than with a carpet finish.

For floor coverings such as carpet the system design must factor in the extra heat output needed; this loss in output needs to be negated by increasing the flow temperature.



Pipework Layout Suitability



Serpentine



Counterflow



Spiral



Provides ready-made pipe securing and spacings

Can be used with traditional & liquid screeds



Homeowner Benefits

Can be used with traditional & liquid screeds

No floor height build up



Floor Heat Output

Tile



Wood



Vinyl



Carpet





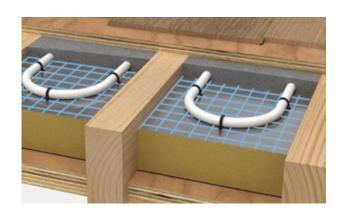
Compatible Pipe Sizes

Eggo	Eggcrates							
QF	Part No.	Part No. Description						
15165	PROCRATE	ProWarm ProCrate Egg Crate 1450mm x 850mm	£14.16					
Apply for a trade account today for extra benefits								

Between Joists / Suspended Floors

Underfloor Heating is not for the ground floor only. With lightweight and cost effective first floor & second floor systems, Harmoni has you covered throughout the whole house.

If you're considering installing underfloor heating between joists / suspended floors there are 2 options available, Aluminium Spreader Plates or Biscuit Mix System.



There are 2 systems to choose from:





Installation	Lightweight and minimal disruption	Great heat output & distribution
Suitable project types	Timber subfloors	Timber subfloors typically ground floor applications
Suitable floor coverings	All floor covering (Floor prep required)	All floor covering (Floor prep required)
Ideal for rooms with the following shapes	All room types suitable	All room types suitable
Ready-made pipe spacing	Yes	No
Additional levelling compound required	Not required	Not required
Suitable screed types	No screeds required	8:1 sand and cement
Available in low profile	No, due to in joist Installation	No, due to in joist Installation
Pipe options	16mm	16mm
Floor height elevations (Min Req)	No increase of floor heights	No increase of floor heights
Lay floors directly onto underfloor heating	Yes, floor prep is required	Yes, floor screed prep is required
Suitable Joist Spacings	400mm centres only	Irregular spaced joists

Harmoni Aluminium **Spreader Plates**

Harmoni Aluminium Spreader Plates are installed between timber joists or battens spaced at 400mm intervals.

At only 2mm thick, the plates are designed to be in direct contact with the floor above to ensure maximum and even heat dissipation (bespoke plates can be ordered upon request).

Plates are designed for use with 16mm pipework and are supplied with 2 groove (@200mm centres) or 3 groove (@133mm centres).

Plate dimensions: 390mm × 1000mm × 2mm



Pipework Layout Suitability



Serpentine



Suitable for 200mm & 133mm spacings

Lightweight and durable



Homeowner Benefits

Rapid Heat response Quick install time



Floor Heat Output

Tile

Vinyl Wood

Carpet





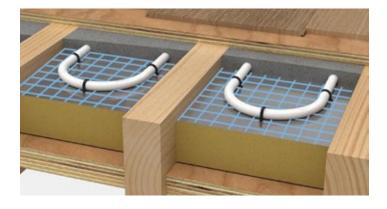
Compatible Pipe Sizes

Spre	Price							
QF	Part No.	rt No. Description						
12623	SPREADERPLATE	Aluminium Spreader Plate 390mm x 1000mm with 200mm Centres	£10.81					
12629	SPREADER133MMCENTRES	Aluminium Spreader Plate 390mm x 1000mm with 133mm Centres	£10.81					
	Apply for a trade account today for extra benefits							

Biscuit Mix in **Joist System**

The biscuit mix installation is specifically designed for use within a joisted floor construction.

Install directly between joists with screed layer finishing flush the top of the joist. Pipe work is fixed directly to PIR type insulation with pipe staples allowing design flexibility. The pipe work is encased within 25-30mm sand and cement biscuit mix (8:1 Ratio) layer ensuring a very even heat distribution across the floor area. A key benefit of the Biscuit screed layer is that it offers a high heat conductivity and heat retention.



Pipework Layout Suitability



Serpentine



Installer Benefits

High heat output Suitable for 150mm/200mm spacings



Homeowner Benefits

No floor height build up Suitable for any floor covering High heat output and retention



Tile

Vinyl Wood

Carpet





Compatible Pipe Sizes

Over Existing Floors

If you're approaching a major renovation our existing floor systems make it possible to install water underfloor heating over your existing floor.

Harmoni offer a range of panels which cause minimal increase to the floor height and outstanding heat output.





Multi-Purpose Panels



There are 2 systems to choose from:

Installation	Floating or Adhered	Sticky backed
Suitable project types	Renovations, first floors and new builds	Renovations, first floors and new builds
Suitable floor coverings	All floor covering (Floor prep required)	All floor covering (Floor prep required)
Ideal for rooms with the following shapes	All room types suitable	All room types suitable
Ready-made pipe spacing	Yes	Yes
Additional levelling compound required	No tiles (Yes for sensitive floors)	Yes for all floor finishes
Available in low profile	16mm & 20mm	Standard
Pipe options	12mm & 16mm	12mm
Floor height elevations (Min Req)	16mm / 20mm	16mm
Lay floors directly onto underfloor heating	Yes, directly to panels	No, must be levelled first

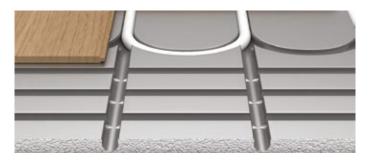
Harmoni Multi-Purpose Panels

Harmoni multi-purpose panels are the perfect solution for a retrofit underfloor heating installation.

Harmoni multi-purpose panels are designed to be used in floating floor and tiled floor applications such as porcelain / ceramic tiles, meaning this board is the most versatile, robust, and easy to install system on the market.

The 400kPa grade polystyrene is the strongest on the market. It offers unbeatable heat output and is very easy to work with. The aluminium, bonded to the EPS, is ultra-strong and heat resistant and thus come with a lifetime guarantee!

Tiles can be fixed directly to the panel. This mean no additional levelling compounds or fixing required.



Pipework Layout Suitability



Serpentine





Easy to install

Insulated panel to reduce backloss of heat

Tile directly to



Homeowner Benefits

Cost effective retro-fit solution
Suitable for any floor covering
No build up of floor height



Floor Heat Output

Tile



Wood Vinyl



Carpet





Compatible Pipe Sizes

12mm,16mm

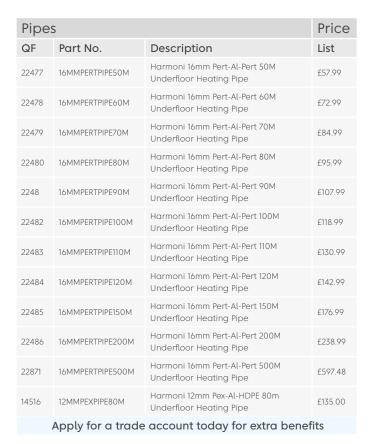
Pipe Options

PE-RT/AL/PE-RT is a high quality, flexible five-layer composite pipe that combines the advantages of synthetic materials with those of aluminium.

It's this combination of materials that means the pipe provides a wide range of benefits, such as excellent flexibility, corrosion resistance, impermeability to oxygen and light, and low thermal expansion.









Installer Benefits

Easy to install

Outstanding heat output

Aluminium core



Homeowner Benefits

Durable and hardwearing
50 year warranty



Pipe Sizes

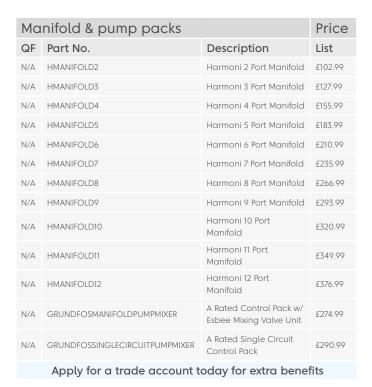
12mm, 16mm

Harmoni Manifold & Pump Packs

Harmoni highly engineered stainless steel manifolds are the ideal solution for any water system install.

As standard, the 1" inlets allow optimal flow to all pipe circuits. Paired with Grundfos pumps and Esbe mixing valves, which allow existing water to be blended with the in-coming flow, creating a pertfect running temperature.







Installer Benefits

Stainless steel Manifold

Grundfos UPM3 pump with Esbe
mixing valve



Homeowner Benefits

Easy to maintain

10 year warranty

Manifold Accessories & Pipe Fittings

We only use highly engineered compression fittings (not push-fit) for the most secure connection from pipe to manifold.

With an extensive range of fitting options, you are covered for any pipework, valves or couplings.

This provides the option to build your manifold to suit your requirements.



Mar	Manifold Accessories & Pipe Fittings						
QF	Part No.	Description	List				
N/A	BALLVALVEPAIRTEMPGAUGE	1" x 1 Ball Valve (Pair) with Temperature Gauge	£41.99				
N/A	AUTOAIRVENTS	Fill / Drain Valve (Pair) with Auto Air Vent & Pressure gauge	£36.99				
12599	MALEIRON16MM	16mm X 1/2" Male Iron Pump Connectors	£4.99				
18778	MALEIRON12M	12mm X 1/2" Male Iron Pump Connectors	£4.99				
12595	EUROCONE16MM	16mm Eurocone Connector	£5.99				
12594	EUROCONE15MM	15mm Eurocone Connector	£5.99				
12593	EUROCONE12MM	12mm Eurocone Connector	£5.99				
12596	1615COUPLING	16mm x 15mm Pex Pipe Coupling	£9.99				
12597	1616COUPLING	16mm x 16mm Pex Pipe Coupling	£9.99				
22891	1212COUPLING	12mm x 12mm Pex Pipe Coupling	£9.99				
12601	BLANKINGCAP	Manifold Blanking Cap	£2.99				
	Apply for a trade ac	count today for extra bene	fits				



Installer Benefits

Compression fittings (not push-fit)

Sold seperately from manifold to allow custom build



Homeowner Benefits

3 year guarantee Stainless steel



Pipe Sizes

12mm, 15mm, 16mm

Tile Adhesives & Levelling Compounds

Choosing the correct tile adhesive, levelling compound and primer is critical for a successful flooring installation.

An essential part of any underfloor heating project, they ensure proper bonding, a level surface and enhanced durability. The specific type of adhesive, leveller and primer required depends on the type of flooring material and subfloor conditions, so it is imperative to follow the manufacturer's recommendations for the best results.





Installer Benefits

Rapid and extended set options

Tried and tested with all
harmoni boards

S1 & S2 classification adhesive

Single & 2 part levelers



Homeowner Benefits

Approved and tested with Harmoni products

Approved by Tile
Association

Adhe	sives									
QF	Part No.	Description	List							
9101	RSFGRE	Ultra-Tile ProRapid RS Rapid Set Flexible Tile Adhesive (Grey)	£16.30							
9107	PSFGRE	Ultra-Tile ProFlex S1 SP Rapid Set Flexible Tile Adhesive (Grey)	£23.13							
9108	PSFWHI	Ultra-Tile ProFlex S1 SP Rapid Set Flexible Tile Adhesive (White)	£24.65							
9106	UPSGRE	Ultra-Tile ProFlex S1 SP+ES Standard Set Flexible Tile Adhesive (Grey)	£22.38							
9105	UPSWHI	Ultra-Tile ProFlex S1 SP+ES Standard Set Flexible Tile Adhesive (White)	£13.88							
9104	PS2GRE	Ultra-Tile ProFlex S2 Flexible Fibre Reinforced Tile Adhesive (Grey)	£44.99							
Apply for a trade account today for extra benefits										

Thermostats & Controls

We offer a range of beautifully designed thermostats and quality wiring centres to control your heating system.

Harmoni Touch Thermostat

The Harmoni Touch smart thermostat range works with both electric and water underfloor heating systems. It's designed to keep the room at a comfortable temperature with minimal energy use.

Harmoni Pro Thermostat

Available in black and white finishes, the Harmoni Pro series is a stylish thermostat that will complement any room setting. It's used to control either electrical or water underfloor heating systems, ensuring a comfortable heat is maintained with minimal energy use.

Features include:

- Adaptive function (thermostat learns the heating to switche on to reach the desired temperature at a designated time)
- Available in black and white finishes
- Touchscreen display
- Energy-saving schedule
- Quick access button to features
- Open window detection
- Built-in WiFi

Features include:

- Holiday mode
- Floor temperature limitation
- Double temperature control
- Available in black and white
- Touchscreen display
- Energy-saving schedule
- Quick access button to features
- Open-window detection
- Built-in Wi-Fi



Thermostats & Controls

Harm	oni Thermostats		Price
QF	Part No.	Description	List
22429	PRO-W-3	Harmoni Pro-White Wi-Fi Thermostat- 3Amp	£99.95
22431	PRO-B-3	Harmoni Pro-Black Wi-Fi Thermostat- 3Amp	£99.95
Wiring	g Centres		Price
14726	UH4WIRINGCENTRE v2	Heatmiser UH4 4 Zone Wiring Centre v2	£57.83
14728	UH8 v2	Heatmiser UH8 8 Zone Wiring Centre v2	£69.00
14725	UH8-RF v2	Heatmiser UH8-RF Wiring Centre v2	£116.92
14727	UH8-N	Heatmiser UH8-N 8 Zone 12V Wiring Centre	£116.92
14729	RF-Switch v2	Heatmiser RF-Switch Wireless receiver v2	£37.50
Acuat	ors & Valves		Price
13289	MT4-230-N	Honeywell Small Linear Thermoelectric Actuator with Indicator	£23.74
19138	TA230	Heatmiser TA230 Underfloor Heating Actuator	£13.92
18342	088H3142	Danfoss TWA-K NC/S 230V Thermal Actuator	£16.56
18343	088H3140	Danfoss TWA-K NC/S 24V Thermal Actuator	£16.56
12622	ZONE250305	Reliance 22mm 2 Port Motorised Valve	£56.66
18352	087N6609	Danfoss HP22 087N6609 Shoe Type Zone Valve	£48.20
Heatr	niser (230V)		Price
12689	DS1	Heatmiser DS1 Manual Dial Thermostat	£20.21
12692	DS1-L v2	Heatmiser DS1-L Central Heating Thermostat	£24.79
14708	neoStat - White	Heatmiser neoStat v2 Programmable Thermostat - White	£65.38
14709	neoStat - Black	Heatmiser neoStat v2 Programmable Thermostat - Black	£65.38
14710	neoStat - Silver	Heatmiser neoStat v2 Programmable Thermostat - Silver	£65.38
22625	neoStat WiFi - White	Heatmiser neoStat WiFi - WiFi Thermostat - Glacier White	£88.79
22626	neoStat WiFi - White	Heatmiser neoStat WiFi - WiFi Thermostat - Carbon	£88.79
22492	SLIMLINEV4	Heatmiser Slimline Thermostat v4	£49.46
14714	TOUCH-v2	Heatmiser Touch Thermostat v2	£49.46
18364	Touch Carbon	Heatmiser Touch Thermostat - Carbon Black	£58.00
(Wirel	ess RF)		Price
22772	neoAir v3 Whit	Heatmiser neoAir v3 Wireless Smart Thermostat - White	£65.38
22773	neoAir v3 Black	Heatmiser neoAir v3 Wireless Smart Thermostat - Black	£65.38
22774	neoAir v3 Silver	Heatmiser neoAir v3 Wireless Smart Thermostat - Silver	£65.38
22764	SLIMLINE-RF v3	Heatmiser Slimline Wireless RF Thermostat v3	£48.25
(12V)			Price
14738	neoStat 12v v2 White	Heatmiser neoStat 12v v2 - Programmable Thermostat White	£65.38
14736	neoStat 12v v2 Black	Heatmiser neoStat 12v v2 - Programmable Thermostat Black	£65.38
14737	neoStat 12v v2 Silver	Heatmiser neoStat 12v v2 - Programmable Thermostat Silver	£65.38
Acces	sories		Price
14711	neoHub G2	Heatmiser neoHub Neo System Gateway G2	£135.59
18533	neoPlug	Heatmiser neoPlug - Smart Plug	£38.17
14712	HEATMISERPROBE	Heatmiser Floor Probe v2	£5.79
13527	Thimble Sensor	Heatmiser Thimble Air Sensor	£13.42
12693	EN030	Heatmiser Empty Sensor Enclosure	£5.79
18401	Wireless Air Sensor	Heatmiser Wireless Air Sensor	£13.42
22617	neoAir Stand	Heatmiser neoAir Stand	£9.33
		Apply for a trade account today for extra benefits	

Harmoni App

Free mobile control app for Wi-Fi enabled Harmoni products

The app allows the user advanced control of Harmoni Wi-Fi enabled thermostats from any smart device. Adjust temperatures and easily program all the advanced functions from anywhere, at any time. Also view statistics, check and manage consumption.





The Harmoni App works with the following Products

Harmoni Touch

Harmoni Pro



Screen descriptions

Easy pairing tutorial

Simple guide explains the process of pairing the radiators with a smartphone using the Wi-Fi network.



Main screen

See the status of the zones and the temperatures established in each one.



Energy use consumption statistics

View and control the hours of use and the power consumption of your Harmoni heating system.



Temperature control

The temperature of the products is controlled from an intuitive and easy-to-operate screen.





FREE Design Service

Please complete and send to sales@harmoniheating.co.uk

Country: Email: Phone:																	••		
Project Data Project name:				· 🗆	••														
Please use ti	his spac	e to ske	tch out y	our floo	r arec	or s	end :	you	plaı	ns to	sale	s@hc	ırmoı	nihed	ting.	co.ul	K *		

See all harmoni products in our harmoni brochure:



01473 559088

sales@harmoniheating.co.uk



Edison House Edison Close, Ransomes Europark Ipswich, Suffolk IP3 9GU United Kingdom

^{*}PLEASE MARK WHERE THE MANIFOLD WILL BE POSITIONED