

For Residential and Commercial Applications

Job Name _____

Job Location _____

Engineer _____

Approval _____

Contractor _____

Approval _____

Contractor's P.O. No. _____

Representative _____

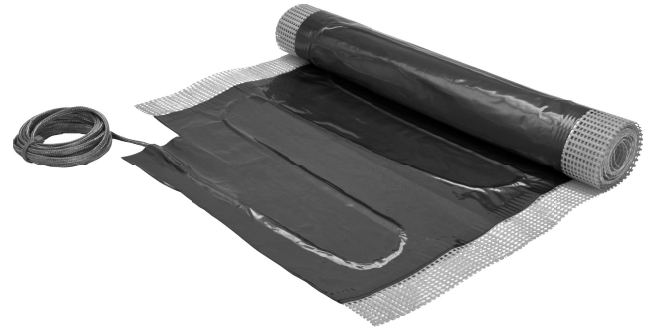
Watts Radiant UnderFloor™

120 and 240 Voltages

Watts Radiant UnderFloor is a series resistance heating cable assembled into a foil "radiator" surface. It is installed indoors under a wood subfloor between the joists in residential and light commercial applications. Floor coverings above may be any type, with a maximum of R-11 total insulation for all layers.

Specifications

Supply Voltage	120 VAC, 1-phase 240 VAC, 1-phase
Amp Draw	120 VAC: 1 amp per 10 sf. 240 VAC: 1 amp per 20 sf.
Maximum Circuit Load	20 amps (15 amps with SunStat Control)
Wire Spacing	2-3/4" (70 mm) o.c.
Maximum Allowable Temperature	194°F (90°C) Continuously
EMF	Less than 1 milligauss
Heating Elements	Oxygen-free copper or nickel-copper
Insulation	ETFE Fluoropolymer
Ground Braid	Stainless Steel
Minimum Allowable Bend Radius	1" (25 mm)



Watts Radiant UnderFloor is available in various lengths with voltage options of 120 or 240 VAC.

Installation Parameters

- Measure and certify the correct wire resistance (ohms) value for the heating cables, record these readings in the chart provided in the installation manual.
- Use of manufacturer's alarm meter (LoudMouth™ meter) is recommended during installation.
- Verify that the area below the subfloor is clear and clean of sharp objects such as nails from above, and is ready to receive work.
- Install the floor sensor in accordance with installation manual.
- Completely unroll the mat to make sure it fits between joists and obstructions.
- Use finish staples to secure the mesh edging to the joists, 2" (51 mm) below the subfloor.

Application Parameters			
Watt Density	✓	2-3/4" (70 mm) o.c.	10 W/sf
Allowable Floor Coverings		Tile/Stone	
		Carpet	
		Hardwood	

⚠ CAUTION

This Engineering Sheet is not intended to provide full installation instructions and safety information. In order to avoid property damage or injury, please refer to the complete installation manual and product safety information provided with the product.



UL Listed for U.S. under UL Standard 1693 and Canada under CAN/CSA C22.2 No. 130.2-93.
Listing file number E185866.

⚠ WARNING

Never cut the heating cable or damage it in any way. Do not install UnderFloor mats in mortar or cement, or install them in the same control zone as HeatWeave mats or WarmWire cables. These products have different heat output, and are manufactured for different applications. Use only the attachment methods as described in the Installation Manual to fasten the UnderFloor as other methods may damage the heating cable.

Watts Radiant product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Radiant Technical Service. Watts Radiant reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts Radiant products previously or subsequently sold.

WattsRadiant™
Floor Heating & Snow Melting

120 VAC UnderFloor

✓	Mat Sizes		
Order No.	Mat Sizes (W x L)	Amp Draw	
81008825	4' x 16"	0.4	
81008826	6' x 16"	0.7	
81008827	8' x 16"	0.9	
81008828	9'-6" x 16"	1.1	
81008829	12' x 16"	1.3	
81008830	14' x 16"	1.6	
81008831	16' x 16"	1.8	
81008832	18' x 16"	2.0	
81008833	19'-6" x 16"	2.2	
81008814	5'-6" x 12"	0.5	
81008815	8' x 12"	0.7	
81008816	10'-6" x 12"	0.9	
81008817	13' x 12"	1.1	
81008819	16' x 12"	1.3	

Watts Radiant UnderFloor Application Example



Watts Radiant UnderFloor

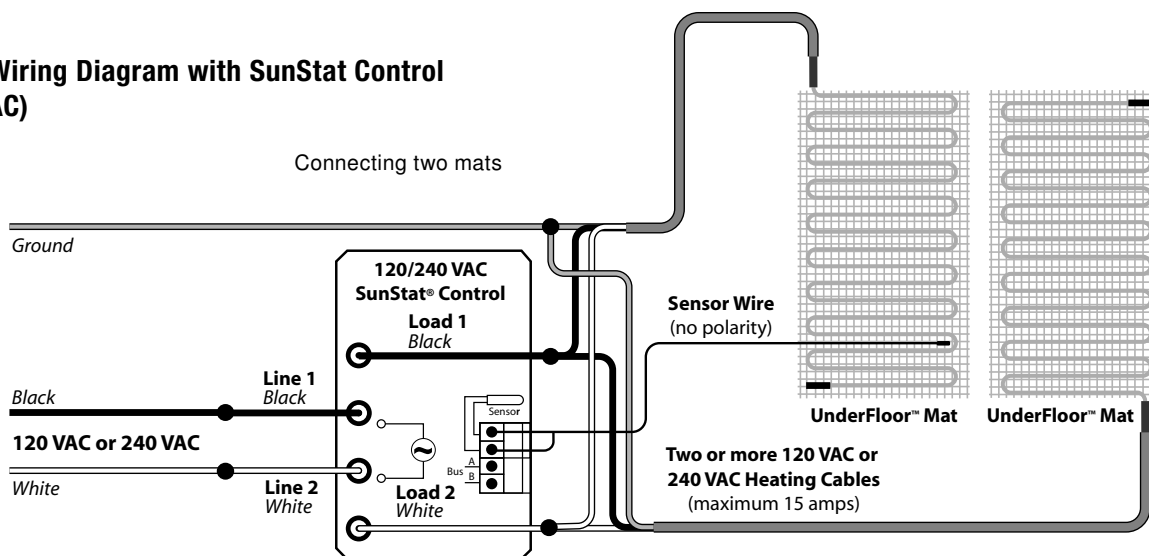


Watts Radiant UnderFloor - multiple joist bays

240 VAC UnderFloor

✓	Mat Sizes		
Order No.	Mat Sizes (W x L)	Amp Draw	
81008834	8' x 16"	0.4	
81008835	12' x 16"	0.7	
81008836	16' x 16"	0.9	
81008837	19'-6" x 16"	1.1	
81008821	10'-6" x 12"	0.4	
81008822	16' x 12"	0.7	

Typical Electrical Wiring Diagram with SunStat Control (120 VAC or 240 VAC)



⚠ CAUTION

Make sure 120 VAC is supplied to 120 VAC mats and 240 VAC is supplied to 240 VAC mats. Otherwise, dangerous overheating and possible fire hazard can result.

WattsRadiant™

A Watts Water Technologies Company

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