

For Residential and Commercial Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

SunTouch® WarmWire®

120 and 240 Voltages

SunTouch WarmWire is a series resistance heating cable assembly installed over plywood, tile backerboard, or concrete slab (according to ANSI or TCNA guidelines), and then embedded in 3/8" or greater self-leveling or polymer-modified thin-set mortar. WarmWire is approved for installation in shower applications.

Specifications

Supply Voltage	120V, 1-phase 240V, 1-phase
Amp Draw	120V: 1 amp per 10 sf. 240V: 1 amp per 20 sf.
Wire Spacing	2" o.c. 2-1/2" o.c. 3" 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	1/2"

Application Parameters ✓			
Watt Density		2" oc	15 W/sf
		2-1/2" oc	12 W/sf
		3" oc	10 W/sf
Minimum Polymer-modified Thinset		3/8"	
Allowable Substrate		Cement backer board over wood subfloor	
		Polymer-modified setting bed over wood subfloor	
		Polymer-modified setting bed over concrete slab	
		Thin slab/self-leveling concrete over wood subfloor	
		Thin slab/self-leveling concrete over concrete slab	
Allowable Floor Coverings		Tile/Stone	
		Carpet	
		Hardwood	

* Most anti-fracture membranes are approved for use with WarmWire. Contact manufacturer for details on specific products.

⚠ 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.



WarmWire 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.
- Clean the subfloor.
- Secure sections of the CableStrap to the floor.
- Weave the heating cable across the floor area, fastening it to the strap. Distance between heating cables may be varied on-site to fit requirements and should average 2", 2.5", or 3" on-center.
- Install the floor sensor in accordance with installation manual.
- Install floor coverings as detailed in installation manual.



UL Listed for U.S. under UL Standard 1673 and Canada under CAN/CSA C22.2 No. 130-03.
Listing file number E185866.

ATTENTION: Never cut the heating cable or damage it in any way. Use only the attachment methods as described in the Installation Manuals for SunTouch Mats, WarmWire, UnderFloor, ProMelt or SlabHeat as other methods may damage the heating element.

 **SunTouch**
Electric Floor Heating & Snow Melting

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.

SunTouch WarmWire Application Examples



WarmWire over wood frame floor with backer board



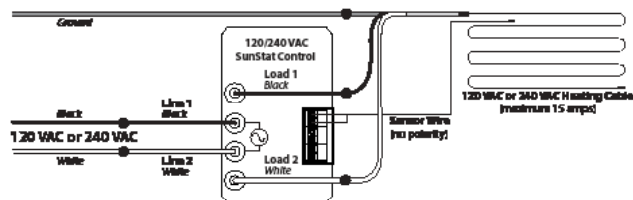
WarmWire over wood frame floor with double plywood



WarmWire over concrete slab.

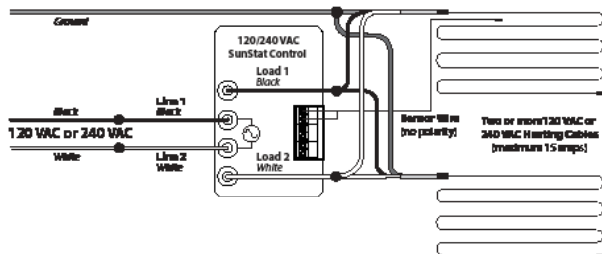
Electrical Wiring Diagram for Single Cable with SunStat Control (120/240VAC)

Dedicated 120 or 240VAC, 20-amp (maximum) circuit (maximum 15 amp load through SunStat control).



Electrical Wiring Diagram for Multiple Cable with SunStat Control (120/240VAC)

Dedicated 120 or 240VAC, 20-amp (maximum) circuit (maximum 15 amp load through SunStat control).



SunTouch WarmWire Sizes

120 VAC WarmWire Spools

✓ Application Parameters						
	Order No.	Total sq.ft. at 2" o.c. 15 W/q.ft.	Total sq.ft. at 2.5" o.c. 12 W/q.ft.	Total sq.ft. at 3" o.c. 10 W/q.ft.	Wire Length (feet)	Amp Draw
	81004574	8	10	12	47	1.0
	81004575	12	15	18	71	1.5
	81004576	16	20	24	94	2.0
	81004577	20	25	30	118	2.5
	81004578	24	30	36	141	3.0
	81004579	18	35	42	165	3.5
	81004580	32	40	48	188	4.0
	81004581	36	45	54	212	4.5
	81004582	40	50	60	235	5.0
	81004583	48	60	72	282	6.0
	81004584	56	70	84	329	7.0
	81004585	64	80	96	376	8.0
	81004586	72	90	108	423	9.0
	81004587	80	100	120	470	10.0

240 VAC WarmWire Spools

✓ Application Parameters						
	Order No.	Total sq.ft. at 2" o.c. 15 W/q.ft.	Total sq.ft. at 2.5" o.c. 12 W/q.ft.	Total sq.ft. at 3" o.c. 10 W/q.ft.	Wire Length (feet)	Amp Draw
	81004588	16	20	24	94	1.0
	81004589	24	30	36	142	1.5
	81004590	32	40	48	188	2.0
	81004591	40	50	60	236	2.5
	81004592	48	60	72	282	3.0
	81004593	56	70	84	330	3.5
	81004594	64	80	96	376	4.0
	81004595	72	90	108	424	4.5
	81004596	80	100	120	470	5.0
	81004597	96	120	144	564	6.0
	81004598	112	140	168	658	7.0
	81004599	128	160	192	752	8.0
	81004601	144	180	216	846	9.0
	81004602	160	200	240	940	10.0