

Radiant Heating and WaterPEX Plumbing Systems

2008 Canadian Product Catalogue









OnixTM Radiant Tubing



HeatWeave® Electric Floor Warming

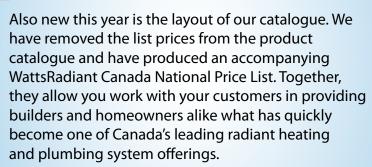
Welcome to WattsRadiant

We invite you to grow your radiant and plumbing business with WattsRadiant. You'll see an abundance of radiant equipment in this one catalogue. And with a few exceptions, we ship everything within three days.



ThermalPro[™] Boiler Station

We hope you'll linger over the mechanical panel section, particularly the HydroNex panels. We're adding more mechanical packages to help you install good looking, pre-tested, and engineered solutions. New for this year are panels for condensing boilers, snow melting, and geothermal systems.





Stainless Steel Manifold



Snowmelting

All of us at WattsRadiant are so grateful for the support you continue to provide us. We trust that the many new products offered throughout this catalogue, along with our industry leading products like our Dumser stainless steel manifold and our HeatWeave electric floor warming, will further assist you in growing your own radiant heating and plumbing business.



HeatWeave® Electric Floor Warming



SubRay® Subfloor Radiant System



HydroNex® Mechanical Panel



2008 WattsRadiant National Product Catalogue

Table of Contents

1 RadiantPEX	7 Electric Radiant
RadiantPEX Tubing1-2	HeatWeave Mats
RadiantPEX Connection Types 1-3	WarmWire
RadiantPEX Fittings	HeatWeave and WarmWire Accessories 7-4, 7-5
2 Onix	8 Hydronic Control Panels
Onix Tubing2-1	Hydronex Panels
Onix Fittings	HydroControl Panels8-5
3 Manifolds	9 Tools and Fasteners
Stainless Steel Manifolds	Clip Tie Tool and Accessories9-1
Stainless Steel Manifold Accessories3-2 to 3-5	FoamBoard Stapler and Staples9-2
Copper Manifolds3-6 to 3-8	Pneumatic Staple Guns9-3
Copper Manifold Accessories	Miscellaneous Fasteners
	Bend Supports9-5
	Cutting Tools9-5
4 Controls	Crimp Tools9-6
	Pipe Uncoilers9-7
Thermostats4-1	Onix Pliers9-7
Zone Control4-2 to 4-4	Infrared Meter9-7
Snow Melt Controls	
5 Hydronic Accessories	10 WaterPEX Potable Systems
Isotherm Mixing Module5-1	WaterPEX Tubing White
FlowGuards 5-2	WaterPEX Tubing Blue and Red 10-2
Mixing Valves 5-2	PEX Crimp Fittings and Accessories 10-3 to 10 to 6
Pressure Bypass Valves	
Heat Emission Plates	
6 SubRay Radiant System	
SubRay Components6-2, 6-3	

RadiantPEX

RadiantPEX Tubing and Fittings





1 RadiantPEXTM Barrier Cross-linked Polyethylene Tubing

Description

RadiantPex is a cross-linked polyethylene tubing manufactured with an EVOH DIN standard oxygen barrier that limits oxygen diffusion through the pipe walls to less than 0.10g/m³/day at 104°F water temperature. All sizes are manufactured to ASTM-876 and ASTM-877 standards and to SDR-9 dimension. Our RadiantPEX is CSA and NSF approved for use in potable water systems.



	Number	Number	Quantity
3/8" RadiantPEX Pipe w	vith Oxygen Barrier		
3/8" x 600'	81000850	PB032061-600	Coil

Order

Model

Package



1/2" RadiantPEX Pipe with Oxygen Barrier				
1/2" x 20'	81010944	PB032081-20	25/Lengths	
1/2" x 250'	81010945	PB032081-250	Coil	
1/2" x 300'	81003406	PB032081-300	Coil	
1/2" x 500'	81009710	PB032081-500	Coil	
1/2" x 600'	81001682	PB032081-600	Coil	
1/2" x 1000'	81001681	PB032081-1000	Coil	

5/8" RadiantPEX Pipe with Oxygen Barrier				
5/8" x 400'	81010946	PB032101-400	Coil	
5/8" x 600'	81001684	PB032101-600	Coil	
5/8" x 1000'	81010947	PB032101-1000	Coil	

3/4" RadiantPEX Pipe with Oxygen Barrier				
3/4" x 20'	81006643	PB032121-20	10/Lengths	
3/4" x 100'	81001685	PB032121-100	Coil	
3/4" x 250'	81006644	PB032121-250	Coil	
3/4" x 500'	81001687	PB032121-500	Coil	
3/4" x 1000'	81006645	PB032121-1000	Coil	

1" RadiantPEX Pipe with Oxygen Barrier				
1" x 20'	81006646	PB032161-20	5/Lengths	
1" x 100'	81004923	PB032161-100	Coil	
1" x 300'	81006647	PB032161-300	Coil	
1" x 500'	81006648	PB032161-500	Coil	



Watts Radiant offers three types of fittings for use with our PEX radiant applications: CinchClampTM, Crimp Ring and Compression Fittings.



Cinch ClampTM

WattsRadiant CinchClampTM is designed to go where other fittings cannot, mainly in tight, hard to reach spaces. With a unique tab design, there is no need to get a tool around the entire fitting. Simply press, or *pinch*, the tab closed with the CinchToolTM and the connection is complete. The ratcheting CinchTool only releases when a proper assembly is complete, thereby eliminating all guess work and the need to gauge the connection. One CinchTool installs all sizes of the CinchClamp, 3/8", 1/2", 5/8", 3/4" and 1". Cinch Clamps are made of corrosion resistant stainless steel.



CrimpRingTM

WattsRadiant CrimpRingTM fittings are recommended for all heating and potable water projects. They feature an all-brass ribbed insert with a precision formed, ductile copper CrimpRing. When crimped, these connections form a fast and permanent seal between the PEX and the fitting. CrimpRing fittings are available in 3/8", 1/2", 5/8", 3/4" and 1". Watts Radiant offers three types of crimp tools, the RingMaster, the CrimpAll and the CrimpMaster. Each tool comes with a Go-No-Go gauge to ensure a permanent and professional crimp connection has been made. See *Tools and Fasteners* for more information on our complete line of CrimpRing tools.



T-20 Compression Fittings

Compression fittings are an advanced, brass fitting system that ensures a tight seal without the use of special connection tools. Each compression fitting comes with an O-ring creating a tight seal between the brass cone and the male threaded fitting. The fitting is made of three pieces; a brass nut, compression ring and a brass nose cone with barbed insert and an O-ring. Place the compression nut over the PEX pipe followed by the compression ring. Slide the barbed insert into the end of the PEX pipe and then slide the compression nut up over the assembly. The compression nut is then tightened over the male threaded fitting or manifold outlet. Compression fittings are available in 3/8", 1/2", 5/8", and 3/4."



RadiantPEX Fittings:



Description	Order	Model	Package
	Number	Number	Quantity



PEX T-20F Manifold Compression Fittings			
3/8" PEX Manifold Fittings	81006619-BP20 PX690001 2	0	
1/2" PEX Manifold Fittings	81006603-BP20 PX690002 2	0	
5/8" PEX Manifold Fittings	81006611-BP20 PX690003 2	0	
3/4" PEX Manifold Fittings	81006615-BP20 PX690004 2	0	





Brass PEX Compression Adapters			
1/2" Sweat Fitting x T-20M Adapter	81001506	PX690500	10
3/4" Sweat Fitting x T-20M Adapter	81001509	PX690750	10
3/4" T-20M Splice/Repair Coupling	81001494	PZ429475	10



Brass PEX Crimp Adapters			
5/8" PEX Crimp Coupling	81003428	PCC66X	10
1/2" Male Sweat x 5/8" PEX Crimp Adapter	81003424	PC660X	10
3/4" Male Sweat x 5/8" PEX Crimp Adapter	81003426	PC670X	10
5/8" PEX Crimp x 3/4" MIP Adapter	81003712	PCMC64X	10
5/8" PEX Crimp x 3/4" Male Sweat 90°	81004785	PCE64X	10
Elbow			



CinchClamp™ Our newest stainless steel clamp for PEX Pipe			
3/8" CinchClamp	81004881	PCCC2X	100
1/2" CinchClamp	81004884	PCCC3X	100
5/8" CinchClamp	81005114	PCCC6X	100
3/4" CinchClamp	81004887	PCCC4X	100
1" CinchClamp	81004890	PCCC5X	10

ONIX

Radiant Hose

Fittings

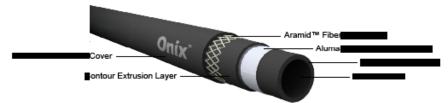
Accessories





2 Onix™ Radiant Hose

Onix with AlumaShield oxygen barrier weathers the extremes of any radiant heating or snow melting application, as well as high temperature baseboard systems. Onix's EPDM inner tube offers very high temperature resistance, while the Aramid reinforcing handles higher burst pressures up to 100psi @ 210°F. The EPDM cover offers abrasion, UV, and chemical resistance.





Description	Order Number	Model Number	Package Quantity
3/8" Onix Radiant Hose			
3/8" x 160'	81001558	086061-160	Coil
3/8" x 180'	81001559	086061-180	Coil
3/8" x 200'	81001560	086061-200	Coil
3/8" x 600'	81001565	086061-600	Spool



1/2" Onix Radiant Hose			
1/2" x 200'	81001579	086081-200	Coil
1/2" x 300'	81001584	086081-300	Coil
1/2" x 400'	81001587	086081-400	Spool
1/2" x 600'	81001590	086081-600	Spool
5/8" Onix Radiant Hose			
5/8" x 200'	81001603	086101-200	Coil
5/8" x 300'	81001605	086101-300	Spool
5/8" x 400'	81001609	086101-400	Spool
5/8" x 600'	81001616	086101-600	Spool



3/4" Onix Radiant Hose			
3/4" x 200'	81001629	086121-200	Coil
3/4" x 300'	81001631	086121-300	Spool
3/4" x 400'	81001634	086121-400	Spool
1" Onix Radiant Hose			
1" x 100'	81001642	086161X-100	Spool
1" x 150'	81001643	086161X-150	Spool
1" x 200'	81001644	086161X-200	Spool



Onix Fittings:



Description	Order Number	Model Number	Package Quantity
Onix T-20F Manifold Fitting			
3/8" Onix Manifold Fitting	81000678	689001	10
1/2" Onix Manifold Fitting	81000680	689002	10
5/8" Onix Manifold Fitting	81000682	689003	10
3/4" Onix Manifold Fitting	81003379	689004	10

Note: T-20F Manifold Fittings to be used with Onix SelfTite Clamp or TorqueTite to complete connection.



SelfTite [™] Clamps – A quality economical clamp				
3/8" SelfTite Clamp	81000522	663019	10	
1/2" SelfTite Clamp	81000525	663022	10	
5/8" SelfTite Clamp	81000528	663025	10	
3/4" SelfTite Clamp	81000532	663029	10	

Note: SelfTite™ Clamps must be installed using our Squeeze Tite™ Pliers.



TorqueTite [™] Clamps – Our best stai	nless steel clamp		
3/8" TorqueTite Clamp	81002912	6641117	10
1/2" TorqueTite Clamp	81002915	6641524	10
5/8" TorqueTite Clamp	81002918	6641928	10
3/4" TorqueTite Clamp	81002921	6642232	10
1' TorqueTite Clamp	81002924	6643244	10
Onix Barbed Adapters			
3/8" Onix Barb x 1/2" Sweat Ftg	81000658	684001	10
1/2" Onix Barb x 1/2" Sweat Ftg	81000662	685001	10
5/8" Onix Barb x 1/2" Sweat Ftg	81000666	686001	10
3/4" Onix Barb x 3/4" Sweat Ftg	81000670	687001	10
1" Onix Barb x 1" Sweat Ftg	81000674	688001	10



Onix Barbed 90° Elbows			
1/2" Onix Barb x 3/4" Cop Sweat Elbow	81000115	185074	10
5/8" Onix Barb x 3/4" Cop Sweat Elbow	81000119	185625	10
3/4" Onix Barb x 3/4" Cop Sweat Elbow	81000117	185075	10





Onix Fittings:



Description	Order Number	Model Number	Package Quantity
Onix Barbed Splices			
3/8" Onix Barbed Splice	81000610	677062	10
1/2" Onix Barbed Splice	81000614	677082	10
5/8" Onix Barbed Splice	81000617	677101	10
3/4" Onix Barbed Splice	81000620	677121	10
1" Onix Barbed Splice	81000622	677122	10



SelfTite[™] Clamp Repair Kit (includes 2 barbed splices and 4 clamps)				
3/8" SelfTite Clamp Repair Kit	81000507	660075	1	
1/2" SelfTite Clamp Repair Kit	81000509	660085	1	
5/8" SelfTite Clamp Repair Kit	81000511	660105	1	
3/4" SelfTite Clamp Repair Kit	81000513	660125	1	



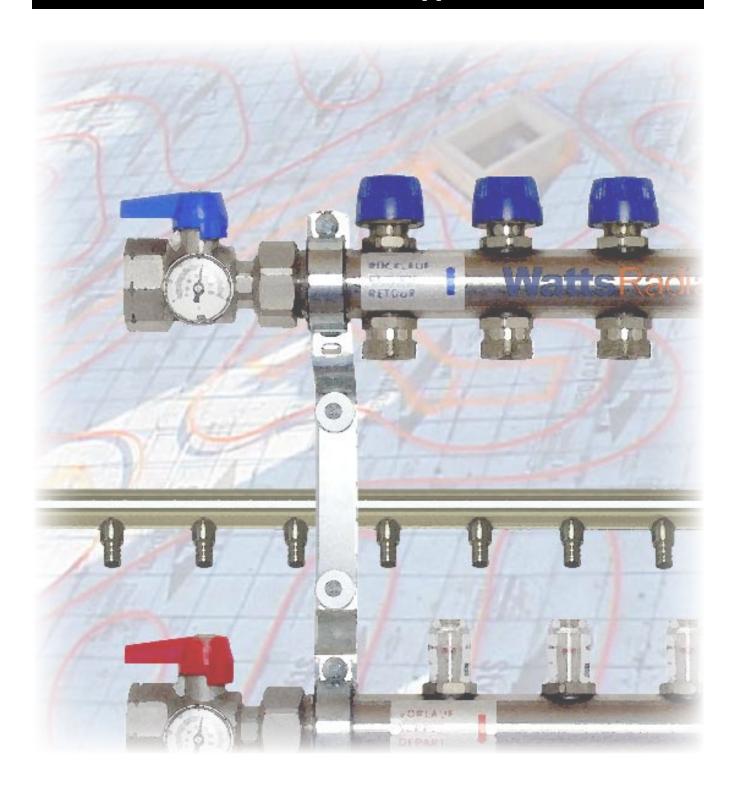
Onix Mini Ball Valves			
3/4" Mini Ball Valve for 3/4" Barbs	81000365	445341	1
3/8" Barb In-Line Mini Ball Valve	81000748	850020	1
1/2" Barb In-Line Mini Ball Valve	81000750	850022	1
5/8" Barb In-Line Mini Ball Valve	81000751	850023	1

Manifolds

Stainless Steel

Copper

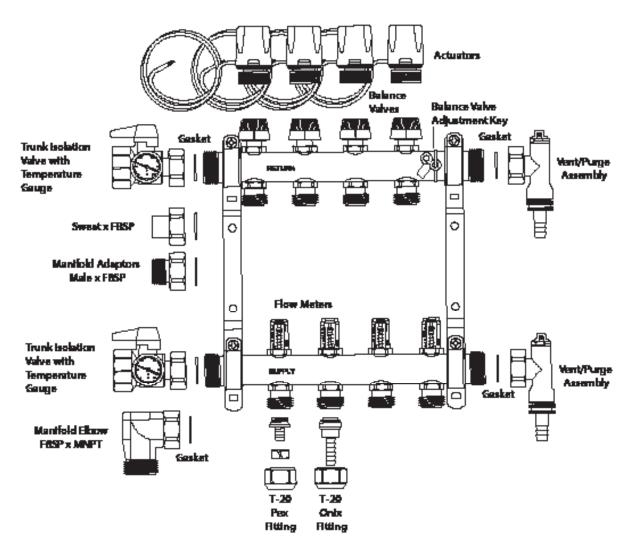
Accessories





3 WattsRadiant Stainless Steel Heating Manifolds

Truly, the best manifolds on the market! Once you see these Watts stainless steel manifolds, we know you'll want to use them on your next project. Made from heavy walled, DIN standard s/s tubing from Germany's finest steel mills. The tubing is carefully milled and machined by CNC machines, then robotically welded to meet exacting professional standards. WattsRadiant is proud to supply these premium quality stainless steel manifolds to our customers. Matching fittings and accessories are made of cast brass and heavily nickel plated to match the appearance of the manifolds. Manifolds are priced in pairs and are supplied mounted in the brackets with vibration absorbing clamps. The manifolds come standard with visual flow indicators on the supply manifold and a combination balancing/shut off valve on the return manifold which can be fitted with a 24Volt electric actuator for individual loop control. Manifold connection fittings are available for both our OnixTM Radiant Hose and our RadiantPEXTM tubing.



Fittings and accessories for Stainless Steel manifolds.



Watts Radiant Stainless Steel Heating Manifolds

Description	Order	Model	Package
Description	Number	Number	Quantity



1" S/S with 0-2 GPM Flow Mo	eter and Balance	Valve	
1" S/S Manifold with 2 Loops	81001981	D3803002SS	1
1" S/S Manifold with 3 Loops	81001982	D3803003SS	1
1" S/S Manifold with 4 Loops	81001983	D3803004SS	1
1" S/S Manifold with 5 Loops	81003398	D3803005SS	1
1" S/S Manifold with 6 Loops	81001984	D3803006SS	1
1" S/S Manifold with 7 Loops	81003682	D3803007SS	1
1" S/S Manifold with 8 Loops	81001985	D3803008SS	1
1" S/S Manifold with 9 Loops	81003687	D3803009SS	1
1" S/S Manifold with 10 Loops	81001986	D3803010SS	1
1" S/S Manifold with 11 Loops	81003688	D3803011SS	1
1" S/S Manifold with 12 Loops	81001987	D3803012SS	1



Hi-Flow S/S with 0-4 GPM Flo	w Meter and Ba	lance Valve	
HF S/S Manifold with 2 Loops	81009661	D3807602SS	1
HF S/S Manifold with 3 Loops	81009662	D3807603SS	1
HF S/S Manifold with 4 Loops	81005355	D3807604SS	1
HF S/S Manifold with 5 Loops	81005356	D3807605SS	1
HF S/S Manifold with 6 Loops	81005357	D3807606SS	1
HF S/S Manifold with 7 Loops	81009663	D3807607SS	1
HF S/S Manifold with 8 Loops	81005358	D3807608SS	1
HF S/S Manifold with 9 Loops	81009664	D3807609SS	1
HF S/S Manifold with 10 Loops	81005359	D3807610SS	1
HF S/S Manifold with 11 Loops	81009665	D3807611SS	1
HF S/S Manifold with 12 Loops	81005360	D3807612SS	1



Deluxe Manifold Assembly P	ackage		
1" S/S Package w/Trunk Isolation	81006651	DK1010	

1 set

Valve and Vent and Purge Assembly.

3-2 www.wattscanada.ca 1-800-268-4045



Stainless Steel Manifold Accessories



Description	Order Number	Model Number	Package Quantity
Economy Manifold Assembly Packa	ge		
1" S/S Package w/BSP to NPT Manifold Adapters and Vent and Purge assembly.	81006640	DK2010	1 set



Trunk Isolation Union Valve Set			
1" Trunk Isolation Valve Set	81003400	D4201720-N	1
1-1/2" Hi-Flow Trunk Isolation Valve Set	81009666	D3515900-N	1

Valve sets include 1 red handle and 1 blue handle nickel plated brass ball valve FBSP x FNPT and 2 temperature gauges.



Vent and Purge Assembly			
1" Vent And Purge Assembly Set	81006639	D3036120-N	1
Hi-Flow Vent And Purge Assembly Set	81005457	D3515940-N	1

This assembly allows for the purging of zones at the manifold location. It includes 3/8" manual air vent and a 1/2" hose fitting and valve for the supply and return. Nickel-plated brass.



Manifold End Cap			
1" BSP S/S Manifold End Cap	81001977	D063064-N	1
Hi-Flow BSP S/S Manifold End Cap	81005425	D3515910-N	1



BSP to NPT Manifold Adapter			
Pair 1" FBSP to NPT Adapter	81001990	D4201480-N	1
Pair 1-1/2" FBSP to NPT Adapter	81005368	D3515920N	1



Stainless Steel Manifold Accessories



Description	Order Number	Model Number	Package Quantity
FBSP to MBSP Manifold Elbow			
1" FBSP to NPT Nickel Plated Brass Elbow.	81005364	D3517020-N	1
Hi-Flow FBSP x MBSP Nickel Plated Brass Elbow	81005365	D3515925-N	1



1" BSP to Copper Sweat Manifold Adapter			
1" FBSP x 3/4" Sweat Adapter	81005366	D0504	1
1" FBSP x Sweat Adapter	81005367	D0505	1
1-1/2" FBSP x Sweat Adapter	81005480	D0708	1



1" Manifold Coupling			
Pair 1" Nickel Plated Coupling	81001988	D425400-N	1
Pair Hi-Flow Nickel Plated Coupling	81005426	D3230010-N	1



Circuit Isolation Plug			
Nickel-plated Brass Plug is used to plug unused manifold circuit outlets.	81001991	D4201700-N	1



Circuit Isolation Ball Valve			
3/4" BSP Union Isolation Ball Valve is used to positively shut of a circuit.	81001992	D4201710-N	1



Stainless Steel Add-A-Zone			
1" S/S Add-A-Zone with Supply and Return Module.	81002934	D3804000SS	1



Stainless Steel Manifold Accessories



Description	Order Number	Model Number	Package Quantity
24Volt Valve Actuator			
22C24NC2 2-Wire 24VAC, 2.5W Actuator	81006634	22C24NC2	1
22C24NC4 4-Wire 24VAC, 2.5W Actuator with end switch	81006606	22C24NC4	1

This valve actuator is an optional feature for mounting directly to the balancing manifold. The actuator has a view window to indicate valve position, open/close. The actuator provides on/off flow control for individual radiant circuits, or groups of circuits, to allow for zoning. Flow is balanced prior to installation of actuator by turning the adjustment valve under the cap with the key provided with the manifold. Actuator is 24VAC and is available with 2-wire and 4-wire with end switch.



Manifold Mounting Cabinets			
Manifold Cabinet for up to 3 loop manifold 16"W x 27"H x 4-1/2"D	81001525	PZ162704	1
Manifold Cabinet for up to 7 loop manifold 24"W x 27"H x 4-1/2"D	81003497	PZ242704	1
Manifold Cabinet for up to 12 loop manifold 40"W x 27"H x 4-1/2"D	81004517	PZ402704	1

WattsRadiant Manifold Cabinets are constructed of powder-coated sheet metal, providing increased resistance to corrosion and job-site abuse. All types of manifolds can be mounted in these boxes.



Stainless Steel Manifold Pressure Test Kit - with pressure gauge, snifter valve and 2 drain valves. Manifold can be tested with air or water.					
1" Manifold Pressure Test Kit	81001996	D665161	1		
Hi-Flow Manifold Pressure Test Kit	81005373	D665261	1		

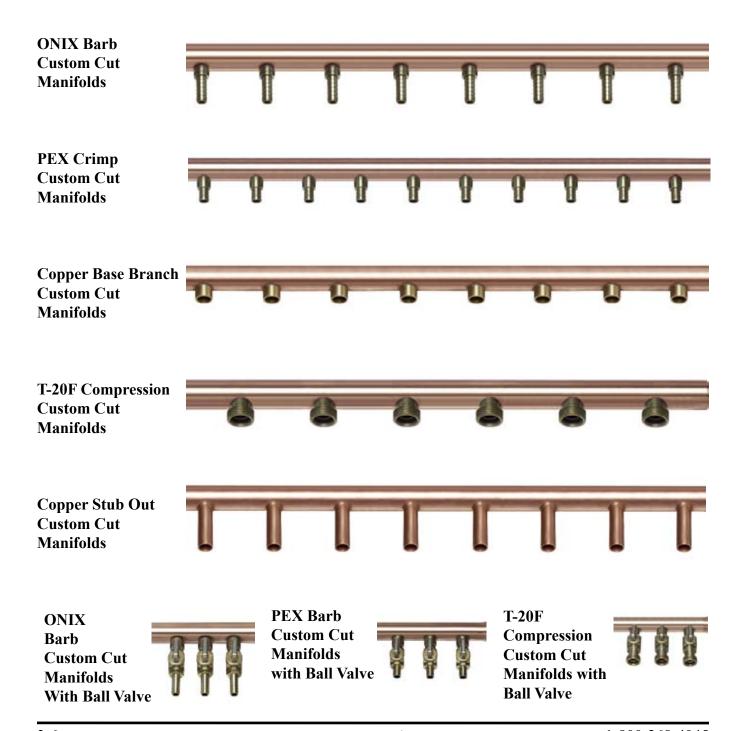


Dual Air Vent - optional dual air vent for MDV10-R	or use with s/s	manifolds	
3/8"Dual Air Vent	81010179	0205710	1



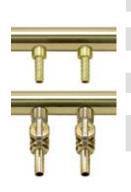
WattsRadiant Custom Cut Copper Heating Manifolds

Custom Cut Manifolds are designed for flexibility at the wholesale and installation level. They come in 4-foot long copper *sticks* to be cut to length in the field. You can stock just a few types and have everything you need. Custom Cuts are manufactured with various sizes of brass, Onix, Barbs, PEX Crimp and T-20 Compression outlet connections; no copper fittings are used. They are made with 1", 1-1/4" and 2" copper trunks. Larger diameter trunks can be special ordered as well as larger outlet connections. Fittings are spaced either 3" or 4" on centre. Onix, Crimp, and Compression styles are spaced at 3" on center; Copper Stub fittings are spaced at 3" or 4" on centre.

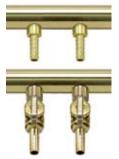




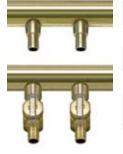
WattsRadiant Heating Custom Cut Copper Manifold



Description	Order Number	Model Number	Package Quantity
3/8" Onix Barb x 4 Foot Custom Cut Manifold			
1" x 3/8" x 16 Onix Barb Outlets Copper Manifold	81001937	204237	1
1" x 3/8" x 16 Onix Ball Valve Outlets Copper Manifold	81001940	204237BV	1
1-1/4" x 3/8" x 16 Onix Barb Outlets Copper Manifold	81002870	204337	1
1-1/4" x 3/8" x 16 Onix Ball Valve Outlets Copper Manifold	81002873	204337BV	1



1/2" Onix Barb x 4 Foot Custom Cut Manifold			
1" x 1/2" x 16 Onix Barb Outlets Copper Manifold	81001941	204250	1
1" x 1/2" x 16 Onix Ball Valve Outlets Copper Manifold	81001942	204250BV	1
1-1/4" x 1/2" x 16 Onix Barb Outlets Copper Manifold	81002874	204350	1
1-1/4" x 1/2" x 16 Onix Ball Valve Outlets Copper Manifold	81002875	204350BV	1



1/2" PEX Crimp x 4 Foot Custom Cut Manifold	1		
1" x 1/2" x 16 PEX Crimp Outlets Copper Manifold	81001007	PC204250	1
1" x 1/2" x 16 PEX Ball Valve Outlets Copper Manifold	81001009	PC204250BV	1
1-1/4" x 1/2" x 16 PEX Crimp Outlets Copper Manifold	81001010	PC204350	1
1-1/4" x 1/2" x 16 PEX Ball Valve Outlets Copper Manifold	81004636	PC204350BV	1



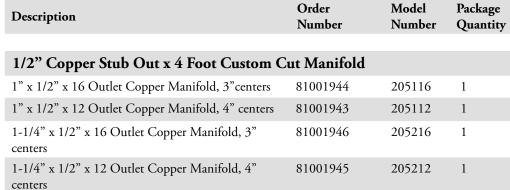
T-20 Compression x 4 Foot Custom Cut Manifold			
1" x T-20 x 16 Outlet Copper Manifold	81001481	PX204275	1
1" x T-20 Ball Valve x 16 Outlet Copper Manifold	81001483	PX204275BV	1



1/2" Copper x 4 Foot Base Branch Custom Cu	t Manifold			
1" x 1/2" x 16 Outlet Copper Manifold, 3"centers	81001947	205250	1	
1" x 1/2" x 12 Outlet Copper Manifold, 4" centers	81001950	205255	1	
1-1/4" x 1/2" x 16 Outlet Copper Manifold, 3"centers	81002884	205350	1	
1-1/4" x 1/2" x 12 Outlet Copper Manifold, 4"centers	81002887	205355	1	



WattsRadiant Heating Custom Cut Copper Manifold





3/4" Copper Stub Out x 4 Foot Custom C	Cut Manifold		
1-1/4" x 3/4" x 12 Outlet Copper Manifold, 3"centers	81001951	205412	1
1-1/2" x 3/4" x 12 Outlet Copper Manifold, 4" centers	81001953	205512	1
2" x 3/4" x 12 Outlet Copper Manifold, 3"centers	81001955	205612	1

NOTE: Other copper manifold configurations are available on request. Please check with our sales department for prices and availability for your particular requirements.



Copper Manifold Vent and Purge Valve	Assembly w/Manual A	Air Vent and	d Drain
1" Copper Vent & Purge	81003193	000102	1
1-1/4" Copper Vent & Purge	81003194	000103	1
1-1/2" Copper Vent & Purge	81003195	000104	1
2" Copper Vent & Purge	81003196	000105	1



drain valves. Manifold can be tested with air or water.					
1" Pressure Test Kit	81000550	665161	1		
1-1/4" Pressure Test Kit.	81000552	665201	1		
1-1/2" Pressure Test Kit	81000553	665241	1		
2" Pressure Test Kit	81000554	665321	1		



Manifold Mounting Brackets			
Universal Manifold Mounting Brackets. For 1" or 1-1/4" pipe.	81000558	666162	1
Universal Manifold Mounting Brackets. For 1-1/2" or 2" pipe.	81000559	666163	1

Controls

Thermostats Zone Controls Hydronic Controls













Description	Order Number	Model Number	Package Quantity
24Volt Electronic 4-Wire Thermostat			
P-2065 24V Thermostat w/setback switch	81006623	P-2065	1



Dual Temp 24Volt Electronic Thermostat 4-Wire					
Dual Temp 24V w/floor sensor	81006624	P-2069	1		
Dual Temp 24V w/floor sensor and blank	81006625	P-2073	1		
cover plate					

This thermostat is ideal for radiant heating systems as it senses both the air temperature and floor temperature with the additional sensor (included). It can be set to sense only the floor, or air or both temperatures. The DualTemp, combined with the floor sensor, maintains a user adjustable floor temperature unless the air temperature limit is reached. Without the floor sensor this unit operates like any standard thermostat. Thermostat has a manual setback switch and is compatible with our Master Setback Timer used with our Zone Control Modules.



Digital DualTemp 24Volt Electronic The	rmostats		
Digital DualTemp 2-wire, battery powered 24V Thermostat w/floor sensor	81005259	P-3158	1
Digital DualTemp 4-wire, 24V Thermostat w/floor sensor	81006632	P-2597	1

This electronic thermostat is ideal for radiant heating systems where the owner wishes a higher end electronic thermostat. The Digital 24-Volt-heating thermostat features a large LCD display and simple push button control of set point temperature. This digital, heating or cooling-only thermostat senses both air temperature and floor temperature when used with the floor sensor (included). It can be set to sense only the floor, the air or both temperatures. Features include: on/off temperature display in °C or °F, an air temperature range from 5° to 35°C (41° to 95°F) and floor temperature range from 10° to 40°C(50° to 104°F). It can control a 5-VA, 24-VAC actuator directly, or a pump though an external relay. The thermostat has a manual setback feature. The two wire model however is not compatible with our setback timer feature used with our Zone Control Modules. The 2-wire thermostat is powered by 2 batteries (AAA), so only two thermostat wires are needed.



Programmable Thermostats

Digital 24Volt Weekly Programmable Thermostat 81006633 P-1859

This thermostat allows for setback control of the heating system for energy savings. The thermostat features a large LCD display and simple push button programming for 7-Day program with on-screen display of schedule.





Description	Order Number	Model Number	Package Quantity
2-Wire Mechanical Thermostat			
P-2250 24V Contractor Thermostat	81006631	P-2250	1



24-Volt Master Zone Control Module	es for 24Volt	Actuators	
P-2086 4-Zone Master Control 24-Volt	81006628	P-2086-4	1
P-2082 6-Zone Master Control 24-Volt	81006626	P-2082-6	1

These Zone Controls simplify wiring, reduce problems and decrease installation time. The Master Valve Actuator Controls are intended to control WattsRadiant Electrothermal Actuators, or any 24-VAC actuator or valve that draws 5VA or less. The number of actuators controlled depends on the separate 24-Volt external transformer (not supplied) powering the system. An external 40-VA transformer can control 12 actuators maximum. Up to 18 actuators can be controlled by a 60-VA transformer. However the physical limitations of the control itself is four actuators per thermostat connection. Master controls are fused and include two end switches, each rated for 8A. Actuators are switched by triacs, for quiet, safe, reliable electronic operation. Mounting is either by DIN rail or surface mount to a wall. The Expansion Module Control can be added to the Master Control to increase the number of zones.



24-Volt Add-On Expansion Module Control					
P-2088 4-Zone Expansion Module	81006629	P-2088-4	1		
P-2086 6-Zone Expansion Module	81006627	P-2084-6	1		

The Add-On Expansion Module is added to the Master Control Module to increase the number of zones when required. Expansion Module Controls add extra zone capability to 4-zone or 6-zone Master Control Units. Like the Master Controls, they are intended to control Watts Radiant Electro-thermal Actuators, or any 24-VAC actuator that draws 5 VA or less. Up to two additional 4-zone or 6-zone Expansion Modules can be added to a Master Control. No field wiring is required between the Master and Expansion Modules. They simply plug into each other.



Description	Order	Model	Package
Description	Number	Number	Quantity



Master Setback Timer for Zone Control Modules

P-2101 2-Zone Set Back Timer

81006630

P-2101

1

An optional Master Thermostat Setback Timer is available for additional control of Watts Radiant non-programmable thermostats. It plugs into the end of either a Watts-Radiant Master or optional Expansion Module Zone Valve/Actuator Control. The Master Timer allows the user to initiate temperature "set-back" for selected zones using WattsRadiant non-programmable thermostats without having to manually set back each thermostat or install programmable thermostats in each zone. With one Timer, all selected zones are set back at the designated time(s). The setback is 2°C (3.6°F). The setback schedule is easily programmed, using one of the nine built-in programs or one program that a user can customize. The Timer also allows two different setback schedules - one schedule per zone. Zones may either be on an "A" schedule or a "B" schedule, allowing different setback schedules to be employed for different areas. The Timer either mounts to DIN rail or surface mounts to a wall.

Plug and Play Zone Valve/Actuator Controls



Master Valve/Actuator Control unit mated to 4-Zone and 6 Zone Expansion Modules with optional timer.



Zone Valve/Actuator assembly with outer covers removed to show the solid-state circuitry.





Description	Order	Model	Package
	Number	Number	Quantity

Slab Mounted Snow Melting Detector

HSC-5 Snowmelt Control

81000763

983046

1

This HSC-5 Snowmelting Slab Detector is pavement mounted and senses actual pavement conditions. Microprocessor control effectively eliminates ice bridging, eliminating the need for a separate temperature sensor. The HSC-5 starts snow/ice melting at temperatures below 38°F (3.3°C) when precipitation is present. When the moisture element has dried, the HSC-5 sensor continues to operate the systems for a fixed time of 6 hours. The HSC-5 provides a low-amperage output relay contact. The heavy-duty machined brass housing provides optimum protection and reliability in severe service while providing an attractive appearance. The removable top cover and plug-in electronic assembly permit repair without disturbing the pavement.

WattsRadiant Hydronic Snow Melt Controls



Description	Order Number	Model Number	Package Quantity		
Variable Speed Injection Snow Melt Control*					
662 Tekmar Snow Melt Control	81000125	300115	1		
#093 Snow/Ice Detector and Brass Socket	81000122	300109	1		

The 662 Variable Speed Injection Pump Snow Melt Control, when combined with the #093 snow/ice sensor and socket, provides automatic snow/ice detection and maintains a set temperature in a snow-melting slab. The 662 will operate a Floating Action Output, Variable Output, or Modulating Output (4-20 mA) to provide several protection and control features including maximum system ΔT , boiler minimum return water protection, and maximum supply water temperature. The 662 also provides viscosity compensation to decrease slab pick-up time. The 093 Snow/Ice Detector and Socket are used with snow melting control 662 to automatically detect snow and ice on driveways and walkways. The snow/ice detector socket must be installed directly in the slab.

^{*} Non-stock item available by special order only.

Hydronic Accessories

Isotherm Module Mixing Valves Flow Control





5 WattsRadiant Hydronic Accessories



Description	Order Number	Model Number	Package Quantity
Isotherm Control Module			
1" Isotherm Radiant Control Module c/w Circulator, Injection Mixing Valve, Hi-Limit Control and Temperature Gauge	81005361	D3803995	1

The Isotherm is a compact, pre-piped, pre-wired pump and mixing valve control designed to connect directly to a WattsRadiant 1" Stainless Steel manifold. The Isotherm is designed to speed up radiant installations by providing a complete compact piping and mixing system ready to go. The Isotherm can handle up to 50,000 Btu/H in a standard radiant heating system. Temperature range of the Isotherm Control Module is 110° to 140°F providing a wide range of control to accommodate many project applications from floor warming to floor heating. The mixing valve is easily adjustable and locks in position.

Isolation Ball Valve				
1" MBSP x 1 FBSP isolation ball valve set.	81006641	3126130	1	
THERMOMETERS for isolation valve set	81006635	6151005	1	



Order transitional fittings separately for transition to supply and return piping



WattsRadiant Hydronic Accessories



Description	Order Number	Model Number	Package Quantity
FlowGuard Metered Flow Control Valves			
1" Male Union 1.9 – 15L/Min (0.5– 4 gpm)	81001979	D3499375	1
1" FIP 5-50 L/min (1.3-13gpm)	81001980	D3499480	1

FlowGuards are a commercial quality, non-electric flow indicator and flow setter. Made of cast brass construction, these units give accurate flow indication. With the ability to set flow rate, the FlowGuard allow zone-by-zone balancing control for optimum performance. No special electronic instrumentation, tables or graphs are required to set and read flows.





3-Way Mixing Valves			
1" 1170-UT-M2 3-Way Valves (90 - 160°F) (3.3Cv)	206011	1170UT-M2	1
1" 1170-US-M2 3-Way Valves (90 - 160°F) (3.3Cv)	206014	1170US-M2	1
1-1/4" AllTemp [™] 3-Way Valves (100 - 200°F) (6.1Cv)	81000716	703200	1
1-1/2" AllTemp™ 3-Way Valves (100 - 200°F) (6.2Cv)	81000717	703240	1
2" AllTemp™ 3-Way Valves (100 - 200°F) (6.1Cv)	81000718	703320	1

These durable non-electric mixing valves can be used in primary/secondary and direct piping systems. These valves are not to be used for potable water applications, as they are not anti-scald valves.



Differential By-pass Valve			
3/4" Differential By-pass Valve	81005517	PZ4661C34	1
1" Differential By-Pass Valve	81005518	PZ4662C1	1

Noise can be present in a multiple-actuator manifold if only one or two actuators are open. The pump is sized for the total flow rate and highest pressure drop of all the circuits. With just one or two circuits calling for heat, the pump is oversized, possibly causing noise. The Pressure Differential By-pass Valve eliminates water velocity noise and water hammer. With this valve, high-pressure pumps cannot exceed actuator close-off pressure. Pump life increases because of minimal pressure surging as actuators open and close. There is always correct and constant flow regardless of the number of actuators open. The valve adjusts from 2.18 psi (5.0 feet water) to 11.6 psi (26.8 feet water) using a graduated knob. Water by-pass capacity is 0.6 gpm to 9 gpm. Maximum pressure is 145 psi, maximum temperature is 230°F. The knob is set and locked with a setscrew to prevent tampering.



WattsRadiant Hydronic Accessories



Description	Order	Model	Package
Description	Number	Number	Quantity

Pressure Differential By-pass Valve for 1" S/S Manifolds

Pressure Differential By-pass

81005345

D4402050

1

This pressure differential by-pass installs directly on the 1" stainless steel manifolds using the same quick, durable flat seal connections and supplied unions. This valve adjusts from 0.7psi (1.6FtHd) to 10.3psi (23.8Fthd) using a graduated knob. Water by-pass capacity is 1.2gpm to 9gpm (4.55l/m to 34.0l/m). The knob is set and locked with a setscrew to prevent tampering.



StickTemp

StickTemp

81000757

850100

1

These liquid crystal, Digital StickTemp thermometers are an inexpensive, quick way to take temperature readings at various locations in a system. Use one at each point a temperature reading is desired i.e. supply and return mains. Use for 3/4" or larger pipe. Peel off the backing paper and apply to any clean surface. Temperature range is from 100° to 200°F.



Aluminum PEX Plates

 $5\text{"}\ x\ 24\text{"}\ Aluminium\ Emission\ Plates\ for\ 1/2"}$

81000842

P700524-100 1/pack

PEX Tubing (package of 100)

Plates are the traditional way to install PEX in underfloor and sandwich applications. Each stamped aluminum plate measures 5" x 24". You'll need about four plates per 10' of PEX. Follow our Installation Guidelines very carefully when using these plates. See our LockDowns for an alternative fastener for underfloor PEX applications.



PEX C-Channel Heat Plates			
3/8"x 4Ft. C-Channel Heat Plates	81005319	P700350	20
3/8"x 8Ft. C-Channel Heat Plates	81004230	P700300	10
1/2"x 4Ft. C-Channel Heat Plates	81005318	P700250	20
1/2"x 8Ft. C-Channel Heat Plates	81004227	P700200	10

These plates are extruded aluminum and measure 3-1/2" wide by 4 and 8 ft. long. Tubing snaps into channel, making installation fast and easy. The channel's tight grip eliminates annoying ticks and clicks as the PEX expands and contracts.

SubRay

SubRay Components

Accessories





6 Anatomy of the SubRay Radiant System

Header Stick

Holds radiant tubing at each end of the room on 8" centres.

Sleeper

6" wide x 60" long and installed 2" apart. Sleepers support the finish floor.

Corner Sweep

Helps RadiantPEX make 90° bends.

Gripper

Used to hold RadiantPEX where it enters or exits the floor.

Reflective Tape

Reflects radiant energy to the floor.

Aluminium Conduction Layer

Unrolled and fastened directly over the SubRay sub floor. Evenly spreads the radiant heat.

C-Cover

Protects radiant tubing from nails, and supports tile backer board.

SubRay is a Great Alternative to a thin slab

SubRay is an easy way to install radiant floor heating on top of existing frame or slab floors. SubRay can be installed as a whole-house heating system, or used to heat a basement or room addition.

Compared to thin slab, SubRay is:

- **Thin** 5/8" or 3/4" thick.
- **Lightweight** less than 2lbs. per sq. ft.
- **Fast responding** twice as responsive as gypsum-based concrete.
- **An Easy Installation** No need to wait weeks for the slab to cure. No scheduling problems with separate subcontractors.
- **Moisture-Free** No hundreds of gallons of moisture to manage.

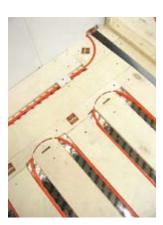
Compared to other thin slab alternatives, SubRay is:

- Clean No messy silicone needed.
- **Two Sizes** 15mm (5/8") for 3/8" RadiantPEX and 18mm (3/4") for 1/2" RadiantPEX or Onix.
- **Silent** Floating design. Will not pop or squeak like some aluminium plate systems.
- **Quality** Cabinet grade, Group 1 Baltic Birch. Meets specs of all wood flooring manufacturers.
- **Economical** Uses standard ASTM tubing and fittings.











SubRay Radiant Panel System

SubRay Model 862TM is a fast and practical hydronic radiant system that goes under almost any finished flooring. The SubRay system uses cabinet grade wood components and ASTM pipe sizes. The system is suitable for frame floors or concrete floors. Use in new construction, or remodelling projects. The system works with standard SDR9 3/8" PEX, 1/2" PEX, and 3/8" Onix pipe. The SubRay Radiant System is designed to securely hold the PEX pipe without the squeaking or popping associated with expansion of tubing. The SubRay System is available in 15mm components for 3/8" PEX and in 18mm for 1/2" PEX and 3/8" Onix. The components are built with 11 layer laminations, and CNC routered to precise dimensions to give you a perfect fit radiant sub floor. The components are manufactured of Group 1 density or better as required by the hardwood floor manufacturers to ensure proper fastener holding capabilities.

D. State	Order	Model	Package	
	Description	Number	Number	Quantity



Header Sticks			
862 Header Sticks, 15mm, 3"wide x 42" long with 3 bends.	81002023	862HS1542	10
862 Header Sticks, 18mm, 3"wide x 42" long with 3 bends.	81002026	862HS1842	10

Cabinet grade Baltic birch Header Sticks are used to hold loops of RadiantPEX or Onix pipe at opposite ends of the room. They are made in two thicknesses, 15mm for 3/8" PEX and 18mm for 1/2" PEX and 3/8" Onix. Each header stick is 42" long and contains three bends.



Sleepers			
862 Sleepers, 15mm 6"wide x 60" long	81002032	862S1560	10
862 Sleepers, 18mm 6"wide x 60" long	81002035	862S1860	10

Cabinet grade Baltic birch Sleepers are installed 2" apart to form the 2" wide radiant channels that hold the radiant tubing. They are made in two thicknesses, 15mm for 3/8" PEX and 18mm for 1/2" PEX and 3/8" Onix. Allow about 30 sleepers for each 100 square feet of floor.



Corner Sweeps			
862 Corner Sweeps, 15mm, 8" x 8"	81002011	862CS15	10
862 Corner Sweeps, 18mm, 8" x 8"	81002014	862CS18	10

Corner Sweeps are CNC routered pieces; they provide a nailing surface where the tubing turns a corner between the Header Sticks. Most rectangular rooms will need one or two sweeps per circuit.



SubRay Radiant Panel System



Description	Order Number	Model Number	Package Quantity
Aluminum Conduction Roll			
862 Aluminium Conduction Rolls, 16" wide x 50 Feet long	81002003	862AC1650	1

Install Aluminums Conduction Rolls above sleeper, **not below**. Locating aluminum above the pipe reduces thermal striping. Each strip should be spaced about a 1/2" apart, and installed perpendicular to the sleepers. Do not cover the header sticks with aluminum if your finished floor is nailed down. Use 1 roll for every 70 square feet of heated floor.



Grippers			
862 Grippers, 15mm	81002017	862G15	10
862 Grippers, 18mm	81002020	862G18	10

Grippers are used for holding RadiantPEX tubing. Holds down with one screw. They are not required for Onix tubing. Use two grippers for each PEX circuit, where it enters and leaves the floor.



2" Reflecting Tape

862 Reflecting Tape 2" 81002029 862RT2 1

The tube in the radiant channels emits infrared heat. The 2" Reflecting Tape sends this heat back to the floor above. Use a tape dispenser to speed up the installation. Use one roll for each 240 square feet of heated floor.



C-Covers		
862 C-Covers, 15mm, 2" x 4 feet	81002006	862CC1548 10
862 C-Covers, 18mm, 2" x 4 feet	81002008	862CC1848 10

C-covers are heavy steel covers that fit in the radiant channels. Typically used to protect lines that may run parallel to nailed strip flooring. Also under super thin tile floor to support cement boards. Protects the tubing against errant nails or other fasteners. See manual for more applications.

Electric Radiant

HeatWeave Mats WarmWire Accessories





HeatWeave® Tile Floor Warming Mat

HeatWeave™ mats warm tile and stone floors in bathrooms, master ensuites, kitchens, entries, and sunrooms of any size. HeatWeave tile warming products are manufactured to the strictest standards and register no measurable electromagnetic field (EMF). All new computers are shielded against EMF. Ask the same from your heating system. It has an armoured and grounded power lead with fully grounded electrical heating elements. The elements are reinforced with DuPont® Kevlar® and are insulated with Dupont® Tufzel® and jacketed with Hylar. Heat Weave has been tested to the American Standard Test Method; ASTM C627. This test was performed by the Tile Council of America and resulted in rating of Moderate Commercial for non-vehicular commercial and light industrial use.



	Description	Order Number	Model Number	Package Quantity
	HeatWeave, 12" wide, 120 VAC			
	12" x 10ft, 120V 10sqft. 1.0 amp.	81002196	12001012	1
	12" x 15ft, 120V 15sqft. 1.5 amp.	81002206	12001512	1
	12" x 20ft, 120V 20sqft. 2.0 amp.	81002215	12002012	1
	12" x 25ft, 120V 25sqft. 2.5 amp.	81002224	12002512	1
	12" x 30ft, 120V 30sqft. 3.0 amp.	81002230	12003012	1
١	12" x 35ft, 120V 35sqft. 3.5 amp.	81002238	12003512	1
	12" x 40ft, 120V 40sqft. 4.0 amp.	81002244	12004012	1
١	12" x 45ft, 120V 45sqft. 4.5 amp.	81002250	12004512	1
	12" x 50ft, 120V 50sqft. 5.0 amp.	81002252	12005012	1
	HeatWeave, 24" wide, 120 VAC			
	24" x 5ft, 120V 10sqft. 1.0 amp	81002183	12000524	1
	24" x 10ft, 120V 20sqft. 2.0 amp.	81002197	12001024	1
	24" x 15ft, 120V 30sqft. 3.0 amp.	81002208	12001524	1
	24" x 20ft, 120V 40sqft. 4.0 amp.	81002217	12002024	1
	24" x 25ft, 120V 50sqft. 5.0 amp.	81002226	12002524	1
	24" x 30ft, 120V 60sqft. 6.0 amp.	81002234	12003024	1
	24" x 35ft, 120V 70sqft. 7.0 amp.	81002240	12003524	1
	24" x 40ft, 120V 80sqft. 8.0 amp.	81002246	12004024	1
	HeatWeave, 36" wide, 120 VAC			
	36" x 5ft, 120V 15sqft. 1.5 amp.	81002184	12000536	1
	36" x 6.8ft, 120V 20sqft. 2.0 amp.	81002188	12000636	1
	36" x 8.4ft, 120V 25sqft. 2.5 amp.	81002194	12000836	1
	36" x 10ft, 120V 30sqft. 3.0 amp.	81002200	12001036	1
	36" x 15ft, 120V 45sqft. 4.5 amp.	81002209	12001536	1
	36" x 20ft, 120V 60sqft. 6.0 amp.	81002220	12002036	1





HeatWeave Tile Floor Warming Mat

Description	Order Number	Model Number	Package Quantity
HeatWeave, 12" wide, 240 VAC			
12" x 20ft, 240V 20sqft. 1.0 amp.	81002273	24002012	1
12" x 30ft, 240V 30sqft. 1.5 amp.	81002282	24003012	1
12" x 40ft, 240V 40sqft. 2.0 amp.	81002291	24004012	1
12" x 50ft, 240V 50sqft. 2.5 amp.	81002409	24005012	1



HeatWeave, 24" wide, 240 VAC					
24" x 10ft, 240V 10sqft. 1.0 amp.	81002265	24001024	1		
24" x 15ft, 240V 30sqft. 1.5 amp.	81002269	24001524	1		
24" x 20ft, 240V 40sqft. 2.0 amp.	81002274	24002024	1		
24" x 25ft, 240V 50sqft. 2.5 amp.	81002279	24002524	1		
24" x 30ft, 240V 60sqft. 3.0 amp.	81002284	24003024	1		
24" x 35ft, 240V 70sqft. 3.5 amp.	81002288	24003524	1		
24" x 40ft, 240V 80sqft. 4.0 amp.	81002293	24004024	1		
24" x 45ft, 240V 90sqft. 4.5 amp.	81002407	24004524	1		
24" x 50ft, 240V 100sqft. 5.0 amp.	81002410	24005024	1		
24" x 60ft, 240V 120sqft. 6.0 amp.	81002415	24006024	1		
24" x 70ft, 240V 140sqft. 7.0 amp.	81002419	24007024	1		
24" x 80ft, 240V 160sqft. 8.0 amp.	81002422	24008024	1		
HeatWeave, 36" wide, 240 VAC					
36" x 10ft, 240V 30sqft. 1.5 amp.	81002266	24001036	1		
36" x 13'4", 240V 40sqft. 2.0amp.	81002268	24001336	1		
36" x 16'8", 240V 50sqft. 2.5amp.	81002272	24001636	1		
36" x 20ft, 240V 60sqft. 3.0 amp.	81002277	24002036	1		
36" x 30ft, 240V 90sqft. 4.5 amp.	81002286	24003036	1		
36" x 40ft, 240V 120sqft. 6.0 amp.	81002406	24004036	1		

HeatWeave Underfloor Tile Floor Warming Mat



HeatWeave UnderFloor, 16" wide, 120 VAC					
16" x 8ft, 120V 11sqft. 1.0 amp.	81002191	12000816U	1		
16" x 12ft, 120V 16sqft. 1.5 amp.	81002203	12001216U	1		
16" x 17ft, 120V 23sqft. 2.1 amp.	81002213	12001716U	1		
16" x 21ft, 120V 25sqft. 2.7 amp.	81002223	12002116U	1		
16" x 26ft, 120V 30sqft. 3.1 amp.	81002229	12002616U	1		
16" x 30ft, 120V 35sqft. 3.6 amp.	81002233	12003016U	1		
16" x 34ft, 120V 40sqft. 4.1 amp.	81002237	12003416U	1		
16" x 38ft, 120V 45sqft. 4.7 amp.	81002243	12003816U	1		
16" x 43ft, 120V 50sqft. 5.1 amp.	81002249	12004316U	1		
16" x 51ft, 120V 68sqft. 6.3 amp.	81002255	12005116U	1		



Watts Radiant WarmWireTM

WarmWireTM is a simple, economical way to warm floors and provide years of lasting comfort. Warm all kinds of floor coverings: ceramic tile, stone woods, laminates, vinyl or carpet. WarmWireTM is true radiant floor heating. It feels like a gentle foot massage or a walk on a warm beach. Warm floors are also dry floors and that is important in your bathroom, kitchen or entry. You can heat most rooms with a WarmWireTM floor. WarmWire can have between 10 to 15 watts/sqft depending on spacing.



120VAC War	mWire Spools	3					
Total SqFt @ 2" o.c. 15W/sq.ft.	Total SqFt @ 2.5" o.c. 12W/sq.ft.	Total SqFt @ 3" o.c. 10W/sq.ft.	Wire Length (In Feet)	Amperage Draw	Order Number	Model Number	Package Quantity
8	10	12	47	1.0	81004574	120010WD	1
12	15	18	71	1.5	81004575	120015WD	1
16	20	24	94	2.0	81004576	120020WD	1
20	25	30	118	2.5	81004577	120025WD	1
24	30	36	141	3.0	81004578	120030WD	1
28	35	42	165	3.5	81004579	120035WD	1
32	40	48	188	4.0	81004580	120040WD	1
36	45	54	212	4.5	81004581	120045WD	1
40	50	60	235	5.0	81004582	120050WD	1
48	60	72	282	6.0	81004583	120060WD	1
56	70	84	329	7.0	81004584	120070WD	1
64	80	96	376	8.0	81004585	120080WD	1
72	90	108	423	9.0	81004586	120090WD	1
80	100	120	470	10.0	81004587	120100WD	1
00	100	120	4/0	10.0	01004)0/	120100 W D	1
	mWire Spools		1/0	10.0	01004)0/	120100 W.D	1
			Wire Length (In Feet)	Amperage Draw	Order Number	Model Number	Package Quantity
240VAC War Total SqFt @ 2" o.c.	Total SqFt @ 2.5" o.c.	Total SqFt @ 3" o.c.	Wire Length	Amperage	Order	Model	Package
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft.	Total SqFt @ 2.5" o.c. 12W/sq.ft.	Total SqFt @ 3" o.c. 10W/sq.ft.	Wire Length (In Feet)	Amperage Draw	Order Number	Model Number	Package Quantity
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft.	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20	Total SqFt @ 3" o.c. 10W/sq.ft.	Wire Length (In Feet)	Amperage Draw	Order Number 81004588	Model Number 120020WD	Package Quantity
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36	Wire Length (In Feet) 94 142	Amperage Draw 1.0 1.5	Order Number 81004588 81004589	Model Number 120020WD 120030WD	Package Quantity 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48	Wire Length (In Feet) 94 142 188	Amperage Draw 1.0 1.5 2.0	Order Number 81004588 81004589 81004590	Model Number 120020WD 120030WD 120040WD	Package Quantity 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60	Wire Length (In Feet) 94 142 188 236	Amperage Draw 1.0 1.5 2.0 2.5	Order Number 81004588 81004589 81004590 81004591	Model Number 120020WD 120030WD 120040WD 120050WD	Package Quantity 1 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40 48	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50 60	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60 72	Wire Length (In Feet) 94 142 188 236 282	Amperage Draw 1.0 1.5 2.0 2.5 3.0	Order Number 81004588 81004589 81004590 81004591 81004592	Model Number 120020WD 120030WD 120040WD 120050WD 120060WD	Package Quantity 1 1 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40 48 56	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50 60 70	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60 72 84	Wire Length (In Feet) 94 142 188 236 282 330	Amperage Draw 1.0 1.5 2.0 2.5 3.0 3.5	Order Number 81004588 81004589 81004590 81004591 81004592 81004593	Model Number 120020WD 120030WD 120040WD 120050WD 120060WD 120070WD	Package Quantity 1 1 1 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40 48 56	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50 60 70 80	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60 72 84 96	Wire Length (In Feet) 94 142 188 236 282 330 376	Amperage Draw 1.0 1.5 2.0 2.5 3.0 3.5 4.0	Order Number 81004588 81004589 81004590 81004591 81004592 81004593 81004594	Model Number 120020WD 120030WD 120040WD 120050WD 120060WD 120070WD 120080WD	Package Quantity 1 1 1 1 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40 48 56 64 72	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50 60 70 80	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60 72 84 96 108	Wire Length (In Feet) 94 142 188 236 282 330 376 424	Amperage Draw 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5	Order Number 81004588 81004589 81004590 81004591 81004592 81004593 81004594 81004595	Model Number 120020WD 120030WD 120040WD 120050WD 120060WD 120070WD 120080WD 120090WD	Package Quantity 1 1 1 1 1 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40 48 56 64 72	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50 60 70 80 90	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60 72 84 96 108	Wire Length (In Feet) 94 142 188 236 282 330 376 424 470	Amperage Draw 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0	Order Number 81004588 81004589 81004590 81004591 81004592 81004593 81004594 81004595 81004596	Model Number 120020WD 120030WD 120040WD 120050WD 120060WD 120070WD 120080WD 120090WD 120100WD	Package Quantity 1 1 1 1 1 1 1 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40 48 56 64 72 80 96	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50 60 70 80 90 100 120	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60 72 84 96 108 120 144	Wire Length (In Feet) 94 142 188 236 282 330 376 424 470 564	Amperage Draw 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6.0	Order Number 81004588 81004589 81004590 81004591 81004592 81004593 81004594 81004595 81004596 81004597	Model Number 120020WD 120030WD 120040WD 120050WD 120060WD 120070WD 120080WD 120090WD 120100WD 120120WD	Package Quantity 1 1 1 1 1 1 1 1 1 1
240VAC War Total SqFt @ 2" o.c. 15W/sq.ft. 16 24 32 40 48 56 64 72 80 96 112	Total SqFt @ 2.5" o.c. 12W/sq.ft. 20 30 40 50 60 70 80 90 100 120 140	Total SqFt @ 3" o.c. 10W/sq.ft. 24 36 48 60 72 84 96 108 120 144 168	Wire Length (In Feet) 94 142 188 236 282 330 376 424 470 564 658	Amperage Draw 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6.0 7.0	Order Number 81004588 81004589 81004590 81004591 81004592 81004593 81004594 81004595 81004596 81004597 81004598	Model Number 120020WD 120030WD 120040WD 120050WD 120060WD 120070WD 120080WD 120090WD 120100WD 120120WD 120140WD	Package Quantity 1 1 1 1 1 1 1 1 1 1 1 1



HeatWeave Accessories



Description	Order Number	Model Number	Package Quantity
HeatWeave Installation Kits			
HeatWeave Installation Kit	81002490	600410	1
Under Floor Installation Kit	81002492	600416	1

The HeatWeave Installation Kit has everything you need to make the installation easier. The kit includes an installation video, HeatWeave installation Manual, one 1" x 36" yard roll of double-sided tape to secure the mat to the sub floor, 10 NailTites to secure the cold leads and 30 wire clips.



HeatWeave Double-Sided Tape

Double-Sided Tape, 37yard roll 81000051 423275

The tape is used for holding down the HeatWeave mats to the sub floor. The roll of tape will cover at least 150 sq. ft. of mat.

WarmWire Accessories



WarmWire Hold Down Strap

WarmWire Strap 25' Roll



81005523 321300



HeatWeave/WarmWire FloorStat Control



HeatWeave/WarmWire FloorStat Co	ontrol		
Dual Voltage Non-Programmable FloorStat 120/240VAC	81009185	500675	1
Dual Voltage Programmable FloorStat 120/240VAC	81009179	500670	1
Extra FloorStat Sensor, 15ft Lead	81000048	500100	1
Power Base 120VAC	81004092	PB112120GA	1
Power Base 240VAC	81004093	PB112240GA	1



The HeatWeave/WarmWire FloorStat Control is easy to install and includes built-in fault protection with no need for a separate GFCI (in most code areas). The Programmable FloorStat has a large display with a built-in clock displaying time and day of week, a programmable temperature set-back on a timed schedule, programmable on/off control, programmable automatic and manual function, programmable comfort, economic, and vacation settings. Both controls come with 15 ft floor sensor lead.



HeatWeave and WarmWire Accessories and Controls



Description	Order Number	Model Number	Package Quantity
HeatWeave/WarmWire Repair Kits			
HeatWeave Repair Kit (1 Repair)	81002455	200300	1
WarmWire Repair Kit (1 Repair)	81004249	200301WDM	1



HeatWeave and WarmWire Accessories					
Extra Power Lead 120VAC	81000052	322722-120	1		
Extra Power Lead 240VAC	81000054	322722-240	1		

HeatWeave and Warm Wire come standard with 10 feet of power lead, but can be ordered with extra long leads. Mats can be special ordered with leads up to a maximum of 50 feet in length.



LoudMouth™ Monitor				
LoudMouth Monitor	81000049	423250	1	

Use the LoudMouth Monitor during the entire installation of your floor warming system to monitor the heating elements and give you the assurance of a quality installation. There are no buttons to push, no adjustments to make. The LoudMouth will sound an alarm if the heating elements are cut or damaged in any way allowing for easy repairs before the mat is tiled over.

Hydronic Control Panels Hydronic Panels









Watts Radiant's HydronexTM equipment line is based on the hydronic industry's 50 years of experience with primary/secondary piping. Hydronex panels allow system designers and installers the maximum degree of choice with a wide range of building-block panels. An entire system may be made of Hydronex panels, or a system may be a combination of one or more Hydronex panels and field-assembled parts. The primary P Panel circulates water through boilers, removes air, and provides essential service and monitoring capabilities. The secondary distribution D Panel circulates water to remote ZZone Panels, or other terminal units without pumping capabilities. The D Panels include straight zone pump (DDirect), zone pump with thermostatic mix valve (DMix), and zone pump with variable-speed injection mixing (DVIP). Z Panels distribute water to radiant circuits or other terminal units. Passive ZZone Panels do not have their own pumps, and are always used with D Panels. Active Z Panels include their own pumping capability, such as the ZPumpZone and the ZMixPumpZone Panels, and do not require the use of D Panels. The VIP Mechanical Room Panel is a stand-alone, weather-responsive, variable-injection-pump panel that is used for special situations. See our new Hydronex Catalogue to select your Hydronex Panels, or check out our web site at www.wattsradiant.com. Also check out our web site for our custom HydroControl Panels available on request.

Hydronex Panels are the new Modular Control Panel for all your Hydronic Heating Projects









P Panels

The PMan Panel manages the circulation through your boiler(s). Includes high-performance micro bubble air remover, Watts purge valve, a primary loop pump of your choice with a Watts isolation pump flange (IPF), service valves, and a 0–50 psi/60°–320°F gauge. The PAuto Panel includes the above plus a Watts 9-11 auto fill/pressure-reducing/dual-check valve backflow preventer with atmospheric vent. Both panels are plumbed in 1.25" L copper and come equipped with Watts quick-connect unions for fast and easy plumbing to the other panels in the Hydronex series.







DDirectPump Panels Offer Direct Pumping

DDirect Panels deliver boiler temperature water to the zone(s) of your choice. If your boiler is operating at 160°F, this panel delivers 160°F water. Perfect for radiators, fan coils, staple-up, under floor radiant, kick space heaters, or indirect water heaters. Order with one to five independently controlled and pre-wired zone pumps. Each zone has its own pump with 1" spring check valve, and terminates in 1" L copper. Main line is piped in 1.25" L copper, and equipped with Watts quick-connect unions. Each pump is factory-wired to a zone control. Choice of three pump brands.



DMix Panels come with Thermostatic Mix Valves

DMix Panels come with choice of one to three independently controlled and pre-wired zone pumps. Include easily adjustable 1", 100° to 180°F Watts MixTemp valve. Set the mix valve and up to three independently controlled zone pumps will be supplied with that temperature water. Total flow to all zone pumps should not exceed 5 gpm to avoid excessive pressure drop through valve. Used to deliver heat to ZZone panels, radiant manifolds, or low-temperature radiators. Each zone includes a 3/4" spring check valve. Each pump can be easily isolated for quick service. Choice of three pump brands. Main line is piped in 1.25" L copper, equipped with Watts quick-connect unions, and temperature gauge.





DVIP Pump Panels are Equipped with Weather-Responsive, Variable-Injection Mixing

These panels come with an outdoor reset control that changes the water temperature as the weather changes. As the weather gets colder, the electronic control speeds up the variable-speed pump to push more boiler water into the radiant loop. A simpler, more reliable and cost effective approach than the old motorized mix valves. Order with one to five independently controlled pre-wired zone pumps. Used to deliver heat to ZZone Panels, radiant manifolds, or low-temperature radiators. Each zone includes a 3/4" spring check valve. Each pump can be easily isolated for quick service. Choice of three pump brands. Main line is piped in 1.25" L copper, equipped with Watts quick-connect unions, and a temperature gauge.



VIP Mechanical Room Panel

This panel includes an outdoor reset control that varies the water temperature according to the outside air temperature. Includes a pre-wired outdoor reset control, a pre-wired and pre-plumbed variable-speed pump, and quick-connect unions. This panel can be installed independently, or is fully compatible with the other 1.25" copper Hydronex P and D Panels.



Z Panels include Watts Radiant's stainless steel manifolds pre-installed in locking powder-coated steel enclosures. Enclosures are 4.5" deep and can be installed between 2" x 6" studs, or surface mounted. Z Panels are installed in, or near, the zone(s) they are heating. Each stainless steel manifold comes with isolation valves for each manifold and supply/return temperature gauges.



ZZone — Basic Delivery Manifold

The basic ZZone distributes water sent to it by a D Panel, or other field-installed zone pump. Use it where one manifold is supplying only one zone. The ZZone is available with two to eight circuits. Each circuit can serve up to 300 sq.ft. with 1/2" radiant piping on 12" centers, or 200 sq.ft. on 8" centers with 3/8" or 1/2" radiant piping. Use the ZZoneA if you are serving two or more zones from one manifold location. Comes with factory pre-wired zone control and valve actuators for up to six different zones. The ZZoneA is available with two to eight circuits. Shown illustrated with pre-wired zone control and valve actuators.





ZMixPumpZone

Where you have a fixed-temperature boiler and no mechanical room zone pump, the ZMixPumpZone is the answer. It mixes straight boiler-temperature water down to a field-adjustable 100° to 180°F, and then pumps it to the manifold. Available with two to seven circuits. Use the ZMixPumpZoneA if serving two or more zones from one manifold location. Comes with factory pre-wired zone control and valve actuators for up to six different zones. The ZPumpZoneA is available with two to seven circuits. Shown illustrated with pre-wired zone control and valve actuators.



ZMixPumpZone

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Two Types of Hydronex Enclosures



Rail mount (P and D Series)

Fasten P-Series and D-Series

Panels to any wall.

- Rails mount to the wall.
- Panels hang on the rail.
- Enlarged cut-outs for every piping option.

(Z-series)

Fasten Z-series Panels to walls or between studs.

- Narrow profile.
- Mounts between studs or on walls.
- Removable access door with keyed lock.





Custom HydroControl® and HydroSkidTMMechanical Packages

Watts Radiant's Custom HydroControl and HydroSkid mechanical packages are designed and manufactured to your project specifications. Each comes complete from the factory fully tested and ready for installation. We use quality components and fittings to ensure trouble-free operation and longevity. HydroControls are priced at our factory, or by using RadiantWorks® design software. Simply send us your project specifications and/or a Radiant-Works Zone List report, and we'll prepare a schematic and a quote.

The next few pages show a range of typical packages. HydroControls and HydroSkids feature professional-grade components from companies you trust —Watts, B & G, Taco, Grundfos, Tekmar, and other names you know. Allow approximately four (4) weeks for delivery.

TYPICAL HYDRONIC COMPONENTS

Primary Circulating Pump with isolation flanges.

- Secondary Circulating Pump(s) with isolation flanges.
- Injection Pump Mixing.
- Three-way Automatic Tempering Valve(s).
- In-line Automatic Micro-bubble Air Remover.
- Pressure Gauge.
- Temperature Gauge.
- Manual Fill and Air Purge Assembly.
- Automatic Pressure Regulating Valve with auto-fill option.
- Spring Check Valve(s) in zones.
- Secondary Purge Valves 2 way, full port.
- Typical Snow Melt Panel.
- Miscellaneous Service Valves and Fittings as needed.
- Type L copper pipe and fittings.
- All HydroControls are mounted with uni-struts and vibration dampening clamps.
- Mechanical schematic showing how to make connections.



Typical Snow Melt Panel

TYPICAL ELECTRICAL COMPONENTS

- UL®-Listed Electrical Service Box.
- Cube-type, Plug-in Relays.
- Wiring enclosed in flexible conduit.
- Fusetron with Manual Power Isolation Switch.
- 112 or 14 Gauge Solid Copper Wiring for high voltage connections
- 118 Gauge Solid Copper Wiring for low voltage connections.
- Electrical schematic showing field connections to HydroControl.



Variable Speed Injection HydroControl Panel

Tools and Fasteners

ClipTie Staplers Hangers Crimpers Cutters

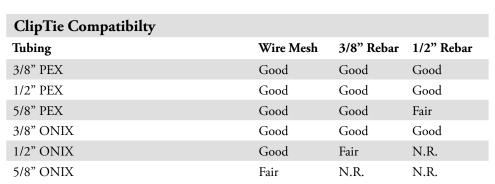




ClipTies® Clipper Tool Accessories

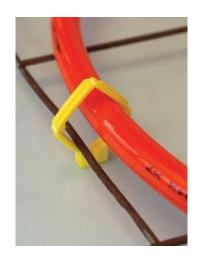
Description	Order Number	Model Number	Package Quantity
ClipTie Clipper Accessories			
ClipTies (960/Bag)	81000773	C10038-960	1
Clip Bag (holds 600 ClipTies)	81000777	C20090	1











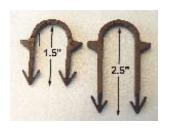


FoamBoard Stapler

The FoamBoard Stapler is for installing Onix or PEX where foam board insulation is used. The FoamBoard stapler is designed to staple 3/8" and 1/2" Onix and 3/8" to 3/4" PEX to a wide variety of foam insulation boards. The stapler comes fully assembled and uses 1.6" staples for 1" insulation and 2.4" staples for 2" (or thicker) insulation boards. The FoamBoard Stapler holds up to 120 staples.



Description	Order Number	Model Number	Package Quantity
FoamBoard Stapler and Accessories			
FoamBoard Stapler	81000826	P667400	1
FoamBoard Staples 1.6" (300/Pack)	81000822	P667300	1
FoamBoard Staples 2.4" (300/Pack)	81000825	P667350	1







ClipTwister ScrewClip Tool

The ClipTwister ScrewClip Tool is designed to install the Screw Clips easily into board type insulation using a standard cordless drill. The ScrewClip is designed to hold 3/8" or 1/2" Onix, or 3/8", 1/2" and 5/8" PEX. Simply screw

the clip into the insulation and snap the tubing into the clip.











Jada Clips

These clips are used for attaching 1/2" and 5/8" PEX pipe to wire mesh by snapping the clip to the mesh. The clip can also be held by screws or nails to wood.



Description	Order Number	Model Number	Package Quantity
Jada Clip			
1/2" and 5/8" Jada Clip	81006649	JADA CLIPS	100

Staple Guns

WattsRadiant Staple Guns are professional tools that do an excellent job stapling both Onix and RadiantPEX. You can get them in the traditional hand held form or with a convenient adjustable length Extension arm.



ONIX Staple Gun and Staples			
Onix 3/8" Staple Gun	81000588	668510	1
Onix 3/8" Staple Gun with Extension	81000584	668500	1
Onix 1/2" Staple Gun	81000587	668509	1
Onix 1/2" Staple Gun with Extension	81000585	668505	1
Onix Staples for both 3/8" and 1/2" (1660/Pack)	81004290	668018-1660	1



PEX Staple Gun and Staples			
PEX 1/2" Staple Gun	81000834	P668510	1
PEX 1/2" Staple Gun with Extension	81000831	P668505	1
PEX Staples for 1/2" (10 000/Pack)	81000583	P668019	1
Staple Gun Accessories			
Extension Arm Retrofit Kit	81000592	668515	1
Staple Plate Conversion Kit (3/8" and 1/2" Onix)	81005498	668520	1
Staple Plate Conversion Kit (1/2" PEX)	81000837	P668522	1



Railway Track

Railway Track securely holds Onix and PEX where wire mesh or rebar is not used. Applications include concrete slabs, thins slabs, sand beds, and sub grade gravel beds. Triple Track allows for centre spacing of 6", 9", 12" or 18", while Single Track allows for 6", 8", 10" 12", 14", 16" or 18" centre spacing.



Description	Order Number	Model Number	Package Quantity
Railway Track			
4 Ft. length Triple-Track Railway for 3/8", 1/2", 5/8" PEX and 3/8" Onix	81002002	P100500	10
13 Ft. length Single-Track Railway for 3/4" PEX and 1/2" Onix	81000784	P200500	10

StrapDownTM

A very simple way to fasten Onix or PEX supply and return piping to wood or metal studs or joists. A screw is used to hold the StrapDown where you are not using a ClipRail.



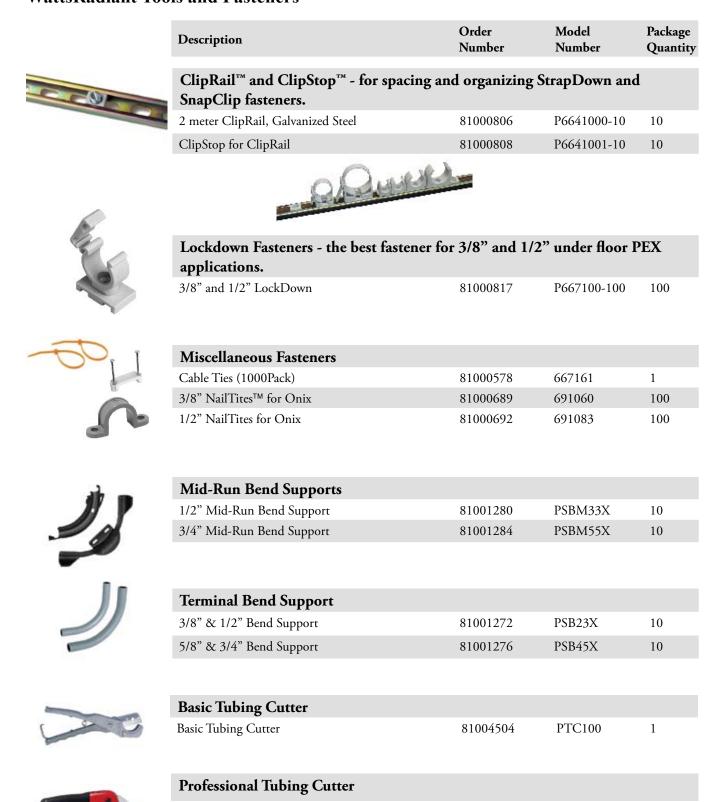
$StrapDown^{TM}$			
3/8" to 5/8" Onix and 3/8" to 3/4" PEX StrapDown Fastener	81000811	P6641525	10
5/8" to 1" Onix and 3/4" to 1" PEX StrapDown Fastener	81000814	P6642542	10

SnapClipTM - for fastening Onix and PEX in slab only applications. SnapClips are used for slab and thin slab applications in combination with ClipRails, or can be installed singly using screws.



SnapClips			
3/8" PEX SnapClip	81000793	P6640012-100	100
1/2" PEX SnapClip	81000795	P6640015-100	100
5/8" PEX and 3/8" Onix SnapClip	81000797	P6640018-100	100
3/4" PEX and 1/2" Onix SnapClip	81000799	P6640020-100	100
5/8" Onix SnapClip	81000801	P6640025-100	100
1" PEX and 3/4" Onix SnapClip	81000803	P6640028-100	100





81001393

The professional tubing cutter is made of all-metal, heavy-duty construction and is designed for the

PCT200

1

Professional Tubing Cutter

rigors of daily jobsite use.





Description	Order Number	Model Number	Package Quantity
CrimpAll Tool			
CrimpAll Tool Kit Complete with 3/8", 1/2", 5/8", 3/4" Crimp Jaws For Use With PEX Tubing	81003038	PCCRT2346	1
3/8" Crimping Jaws Only	81003719	PCJ22	1
1/2" Crimping Jaws Only	81003720	PCJ33	1
5/8" Crimping Jaws Only	81003722	PCJ66	1
3/4" Crimping Jaws Only	81003721	PCJ44	1
CrimpAll Adjustment Tool	81003717	PCCRT1001	1

Interchangeable crimping jaws make the **CrimpAll** the only tool in North America that crimps 3/8", 1/2", 5/8" and 3/4" crimp rings. Tough plastic tool kit helps you keep track of all your crimping tools. Kit includes the CrimpAll tool, interchangeable 3/8", 1/2", 5/8" and 3/4" jaws, Go/No-Go crimp gauge, and adjustment tools.



CinchTool for use with our new CinchClamp for PEX Pipe

CinchTool 81009709 PCCCT5 1 PEX connections take only seconds with the new CinchTool and CinchClamp. Great for those hard to reach places. Ratchet design releases only when the CinchClamp tab is fully pinched, thus ensuring a leak-proof connection. No gauge or tool calibration necessary. Meets ASTM F-2098 specifications.



RingMaster™ Crimp Ring Tool			
3/8" Crimp Tool	81001086	PCCRT2N	1
1/2" Crimp Tool	81001088	PCCRT3N	1
3/4" Crimp Tool	81001089	PCCRT4N	1
1" Crimp Tool	81001090	PCCRT5N	1

The RingMaster Tool is larger for more leverage. RingMaster comes complete with crimp ring Go/No-Go Gauge.



CrimpMaster™ Compact Crimp Tool			
3/8" Crimp Tool	81001152	PCMT22	1
1/2" Crimp Tool	81001153	PCMT33	1
3/4" Crimp Tool	81001154	PCMT44	1

The Crimpmaster Tool is larger for more leverage. RingMaster comes complete with crimp ring Go/No-Go Gauge.



Go/No-Go Gauge			
For 3/8"-3/4" PEX Crimp Rings	81001123	PCGA234P	1
For 1" PEX Crimp Rings	81001124	PCGA5P	1

The Go/No-Go Gauges are used to determine that the ring has been properly crimped and to aid in maintaining your crimp tool calibration.



D:	Order	Model	Package	
L	escription	Number	Number	Quantity



PEX Unwinder

PEX Unwinder 81000838 P669231 1

Our PEX Unwinder handles all sizes of coils. The coil sits on the tripod and is held in place as it unwinds with four guide-bars. The PEX feeds through a guide ring on top of the Unwinder. The PEX Unwinder comes complete with two hold down arms.



ONIX Unwinder

Onix Unwinder 81000602 669231

Our Onix unwinder allows Onix coils to be quickly and easily unwound for easier and faster Onix hose layout on the jobsite. The center post allows Onix coil to move around without sliding off the Unwinder. Heavy-duty ball-bearing construction means years of use and easy tuning.



ONIX SelfTite™ Clamp Pliers

SqueezeTite™ Pliers 81000600 669100

This SqueezeTite Pliers are locking calliper pliers that allow worry free handling of all sizes of our SelfTite Clamps. This uniquely designed tool prevents the SelfTite clamp from accidentally sliding free, as could happen with standard pliers. With SqueezeTite Pliers, SelfTite clamps can be locked in the open position, freeing both hands to secure Onix to the barb.



Infrared Digital Thermometer

Inframeter 81000599 669021 1

The Inframeter is a compact and powerful point-and-shoot infrared digital thermometer. And it's the radiant contractor's best friend.



WaterPEXTM

WaterPEX Pipe Fittings Valves Accessories





10 WaterPEXTM Cross-linked Polyethylene Tubing

WaterPEX is a cross-linked polyethylene tubing manufactured without an oxygen barrier. All sizes are manufactured in accordance with American Standard Testing Methods F-876 and F-877 to SDR-9 dimensional standards. It is listed by the National Sanitation Foundation NSF-61 for use in potable water systems. WaterPEX labeled "NSF CL-R" meets the requirements for use in chlorinated domestic continuous re-circulation systems. WaterPEX is also listed by the International Code Council Evaluation Service (ICC-ES, successor to ICBO), the International Association of Plumbing and Mechanical Officials (IAPMO) and carries the Uniform Plumbing Code symbol. WaterPEX is tested and certified to the Canadian Standard Association (CSA) standard B137.5.

For use in potable water systems and hydronic systems that do not require an Oxygen Barrier.

Description	Order Number	Model Number	Package Quantity
1/4" WaterPEX Pipe WHITE			
1/4" x 100'	0650391	P022041-100	Coil
3/8" WaterPEX Pipe WHITE			
3/8" x 100'	0650392	P022061-100	Coil
3/8" x 500'	0650393	P022061-500	Coil
1/2" WaterPEX Pipe WHITE			
1/2" x 20'	0650408	P022081-20	25/Lengths
1/2" x 100'	0650394	P022081-100	Coil
1/2" x 250'	0651035	P022081-250	Coil
1/2" x 500'	0650395	P022081-500	Coil
1/2" x 1000'	0650396	P022081-1000	Coil
3/4" WaterPEX Pipe WHITE			
3/4" x 20'	0650409	P022121-20	10/Lengths
3/4" x 100'	0650397	P022121-100	Coil
3/4" x 250'	0651036	P022121-250	Coil
3/4" x 500'	0650398	P022121-500	Coil
3/4" x 1000'	0650399	P022121-1000	Coil
1" WaterPEX Pipe WHITE			
1" x 20'	0650410	P022161-20	5/Lengths
1" x 100'	0650400	P022161-100	Coil
1" x 300'	0651024	P022161-300	Coil
1" x 500'	0650401	P022161-500	Coil
1 1/4" WaterPEX Pipe WHITE			
1 1/4" x 20'	0650411	P022201-20	5/Lengths
1 1/4" x 100'	0650402	P022201-100	Coil
1 1/4" x 300	0650403	P022201-300	Coil
1 1/2" WaterPEX Pipe WHITE			
1 1/2" x 20	0651075	P022241-20	5/Lengths
1 1/2" x 100	0651077	P022241-100	Coil
2" WaterPEX Pipe WHITE			
2" x 20	0651076	P022321-20	5/Lengths
2" x 100	0651078	P022321-100	Coil





WaterPEXTM Cross-linked Polyethylene Tubing

Description	Order Number	Model Number	Package Quantity
1/2" WaterPEX Pipe BLUE			
1/2" x 20'	0650406	P022081-20B	25/Lengths
1/2" x 100'	0650385	P022081-100B	Coil
1/2" x 250'	0651055	P022081-250B	Coil
1/2" x 500'	0650386	P022081-500B	Coil
1/2" x 1000'	0650387	P022081-1000B	Coil



3/4" WaterPEX Pipe BLUE			
3/4" x 20'	0650407	P022121-20B	10/Lengths
3/4" x 100'	0650388	P022121-100B	Coil
3/4" x 250'	0651056	P022121-250B	Coil
3/4" x 500'	0650389	P022121-500B	Coil
3/4" x 1000'	0650390	P022121-1000B	Coil

1/2" WaterPEX Pipe RED			
1/2" x 20'	0650404	P022081-20R	25/Lengths
1/2" x 100'	0650377	P022081-100R	Coil
1/2" x 250'	0651057	P022081-250R	Coil
1/2" x 500'	0650378	P022081-500R	Coil
1/2" x 1000'	0650379	P022081-1000R	Coil

3/4" WaterPEX Pipe RED			
3/4" x 20'	0650405	P022121-20R	10/Lengths
3/4" x 100'	0650380	P022121-100R	Coil
3/4" x 250'	0651058	P022121-250R	Coil
3/4" x 500'	0650381	P022121-500R	Coil
3/4" x 1000'	0650382	P022121-1000R	Coil



WaterPEXTM Crimp Ring Style Brass Fittings

The fastest, most economical, and time proven method of joining PEX Pipe.



Description	Order Number	Model Number	Package Quantity
PEX Brass Crimp Ring Sweat Ad	lapters		
1/2" Male Sweat x 1/2" Crimp	0650507	PC650X	25
3/4" Male Sweat x 3/4" Crimp	0650508	PC675X	25
1" Male Sweat x 1" Crimp	0650509	PC700X	25
1/2" Female Sweat x 1/2" Crimp	0650511	PC750X	25
3/4" Female Sweat x 3/4" Crimp	0650512	PC775X	25
1" Female Sweat x 1" Crimp	0650513	PC800X	25





PEX Brass Crimp Ring Male and Female NPT Adapters



PEX Brass Crimp Ring Couplings			
3/8" Crimp Ring Coupling	0650564	PCC22X	25
1/2" Crimp Ring Coupling	0650566	PCC33X	25
3/4" x 1/2" Crimp Ring Coupling	0650567	PCC43X	25
3/4" Crimp Ring Coupling	0650568	PCC44X	25
1" x 3/4" Crimp Ring Coupling	0650569	PCC54X	25
1" Crimp Ring Coupling	0650570	PCC55X	25





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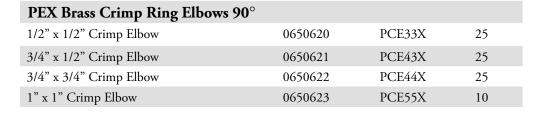


WaterPEX Crimp Ring Style Brass Fittings

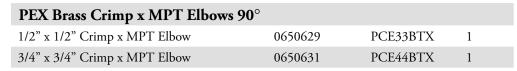


Description	Order Number	Model Number	Package Quantity
PEX Brass Crimp Ring Tees			
1/2" x 1/2" x 1/2" Crimp Tee	0650602	PCT333X	25
1/2" x 1/2" x 3/4" Crimp Tee	0650603	PCT334X	25
3/4" x 1/2" x 1/2" Crimp Tee	0650604	PCT433X	25
3/4" x 1/2" x 3/4" Crimp Tee	0650605	PCT434X	25
3/4" x 3/4" x 1/2" Crimp Tee	0650607	PCT443X	25
3/4" x 3/4" x 3/4"Crimp Tee	0650608	PCT444X	25
3/4" x 3/4" x 1" Crimp Tee	0650609	PCT445X	10
1" x 3/4" x 1/2" Crimp Tee	0651030	PCT543X	10
1" x 3/4" x 3/4" Crimp Tee	0650610	PCT544X	10
1" x 1" x 3/4" Crimp Tee	0650612	PCT554X	10
1" x 1" x 1" Crimp Tee	0650613	PCT555X	10
1" x 1" x 1/2" Crimp Tee	0650611	PCT553X	10











PEX Brass Crimp x Copper Sweat Elbows 90°				
1/2" x 3/4" PEX Crimp x Sweat	0650634	PCE34	1	
3/4" x 3/4" Crimp x Sweat	0650635	PCE44	1	



PEX Brass Crimp x FP1 Drop Ear	90°			
1/2" Crimp x 1/2" FPT Drop Ear	0650641	PCDE33BFX2	25	
3/4" Crimp x 1/2" FPT Drop Ear	0650644	PCDE43BFX2	25	

PEX Brass Crimp Plugs			
1/2" Brass Crimp Plugs	0650651	PCP3X	25
3/4" Brass Crimp Plugs	0650652	PCP4X	25
1" Brass Crimp Plugs	0650653	PCP5X	25



WaterPEX Crimp Ring Style Brass Fittings



Description	Order Number	Model Number	Package Quantity
PEX Copper Crimp Rings			
3/8" Copper Crimp Ring	0650550	PCCR2X	100
1/2" Copper Crimp Ring	0650551	PCCR3X	100
5/8" Copper Crimp Ring	0651031	PCCR6X	100
3/4" Copper Crimp Ring	0650552	PCCR4X	100
1" Copper Crimp Ring	0650553	PCCR5X	25





PEX Copper Stub-Out Brackets and 90° Stub-Out Elbows				
1/2", 3/4" and 1" - 90° Stub Out Bracket 20'	' 0650832	PCCB345	1	
1/2" Crimp x 1/2" Nom. Sweat 6" Stub-Out Elbow	0650833	PCSTUBLXX	1	
1/2" Crimp x 1/2" Nom. Sweat	0650837	PCSTUB8350	1	





PEX Galvanized Stub-Out Brackets and Plastic Grommets				
1/2", 3/4"and 1" Galvanized Universal Bracket 20"	0650828	PCGB345	1	
1/2" Plastic Insert Grommets	0650829	PCIG33	10	
3/4" Plastic Insert Grommets	0650830	PCIG44	10	
1" Plastic Insert Grommets	0650831	PCIG55	10	





WaterPEX Copper Crimp Manifolds

Description	Order	Model	Package
	Number	Number	Quantity



•	Number	Number	Quantity
1" Closed End x 3/4" Crimp End	x 2"oc 1/2"]	PEX Crimp Ou	ıtlets
M-3 Copper Crimp Manifold	0650424	PL154303	1
M-4 Copper Crimp Manifold	0650425	PL154304	1
M-5 Copper Crimp Manifold	0651032	PL154305	1
M-6 Copper Crimp Manifold	0650426	PL154306	1
M-7 Copper Crimp Manifold	0651033	PL154307	1
M-8 Copper Crimp Manifold	0650424	PL154308	1
M-9 Copper Crimp Manifold	0650427	PL154309	1
M-10 Copper Crimp Manifold	0650428	PL154310	1
M-12 Copper Crimp Manifold	0650429	PL154312	1



1" Closed End x 3/4" Crimp	End x 2"oc 1/2"	PEX Crimp Ba	ll Valve
M-3 Copper Crimp MBV	0650430	81001238	1
M-4 Copper Crimp MBV	0650431	81003095	1
M-6 Copper Crimp MBV	0650432	81001240	1
M-8 Copper Crimp MBV	0650433	81001241	1
M-10 Copper Crimp MBV	0650434	81001243	1
M-12 Copper Crimp MBV	0650435	81001244	1



Faucet and Water Closet Connections			
1/2" WaterPEX Brass Crimp x 1/2" Plastic Faucet Coupling Nut	0650858	PFC33-10	50
1/2" WaterPEX Brass Crimp x 1/2" Plastic Closet Coupling Nut	0650863	PTC33-10	50

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FREIGHT TERMS:

All shipments are F.O.B. shipping point. Shipments from the factory of less than 500 lbs or \$3,500.00 net are F.O.B. factory. Factory shipments over 500 lbs, \$5,000.00 list or \$3,500.00 net will be prepaid and allowed within Canada when made at the lowest motor carrier transportation rate. Short-shipments and/or damaged goods must be reported within 72 hours.

PAYMENT TERMS:

Invoices are due and payable 30 days from the date of invoice. A 2% cash discount is allowed on net amount of invoice if paid on or before the 10th of the following month. Invoices dated on or after the 25th will be considered as dated the first of the next month

STOCKING WHOLESALER MINIMUM CHARGE:

A minimum billing charge of \$75.00 applies to shipments F.O.B. factory. Stocking Wholesaler Customers are encouraged to order sufficient material to avoid this charge which is necessitated by increased costs of processing small orders.

SPECIAL PRODUCTS:

Orders for special or modified products are non-cancellable and non-returnable.

LIMITED WARRANTY:

WATTS Industries Canada Inc. warrants each product against defects in material and workmanship for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental or consequential damages, including, without limitation, damages or

other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemicals, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product.

THE COMPANY MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY.

RETURNED GOODS RESTOCKING CHARGE:

No material shall be returned without authorization. When credit is issued it will be at the price charged, or prevailing price if lower, less handling charges based on costs of reconditioning, boxing, etc. However, a minimum 25% handling charge will apply. A minimum handling charge of \$35.00 is applied whenever the 25% handling deduction does not total \$35.00. Products which are obsolete or made to special order are not returnable.

NOTE:

Prices and terms are subject to change without notice and supersede all previous quotations. The right is reserved to change

or modify product design or construction without prior notice and without incurring any obligation to make such changes and modifications on products previously or subsequently sold.

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J.D.S. SALES LTD.

4 Lancaster Street St. John's, NL • A1A 5P7

Phone: (709) 579-5771 • Fax: (709) 579-1558

E-mail: jds@nf.sympatico.ca

BELL AND BELL SALES LIMITED

79 Moody Park Drive Williamswood, NS • B3V 1B8

Phone: (902) 455-2939 • Fax: (902) 431-2949

E-mail: bellsales@eastlink.ca

LES ENT. ROLAND LAJOIE

6221 Rue Marivaux • St-Leonard, QC • H1P 3H6

Phone: (514) 328-6645 • Fax: (514) 328-6131

E-mail: info@ent-lajoie.com

LES ENT. ROLAND LAJOIE

23 du Buisson

Pont Rouge, QC • G3H 1X9

Phone: (418) 873-2500 • Fax: (418) 873-2505

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WALMAR MECHANICAL SALES

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E-mail: chrisbrown@walmar.net

PALSER ENTERPRISES LTD.

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MAR-WIN AGENCIES

1333 Clifton Street Winnipeg, MB • R3E 2V1

Phone: 204-775-8194 • Fax: 204-786-8016

E-mail: marwin@mts.net

MAR-WIN AGENCIES

Saskatchewan

Phone: (306) 721-4822 • Fax: (306) 721-2017

Email: westernhvac@sasktel.net

D.C. SALES LTD.

#13-6130-4th Street S.E Calgary, AB • T2H 2A6

Phone: (403) 253-6808 • Fax: (403) 259-8331 E-mail: barry.graham@dcsalesltd.com

D.C. SALES LTD.

16726 111 Street

Edmonton, AB• T5M 2S5

Phone: (780) 496-9495 • Fax: (780) 496-9621 E-mail: barry.graham@dcsalesltd.com

CON-CUR WEST MARKETING, INC.

71B Clipper Street Coquitlam, BC • V3K 6X2

Phone: (604) 540-5088 • Fax: (604) 540-5084

E-mail: dconte@concurwest.com

GTA SALES TEAM

Phone: (888) 208-8927 • Fax: (888) 479-2887

E-mail: gtasales@wattscanada.ca

TOLL FREE CUSTOMER SERVICE LINE: 1-888-208-8927

Watts Industries (Canada) Inc. 5435 North Service Road Burlington, Ontario L7L 5H7

Phone: 905-332-4090 Fax: 905-332-7068

Watts Industries (Canada) Inc. 27049 Gloucester Way Langley, BC V4W 3Y3

Phone: 604-856-1680 Fax: 604-856-1699

www.wattscanada.ca