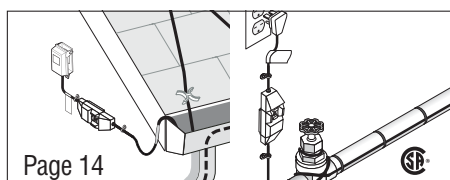
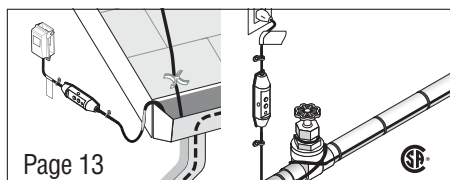
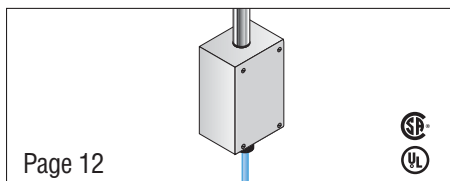
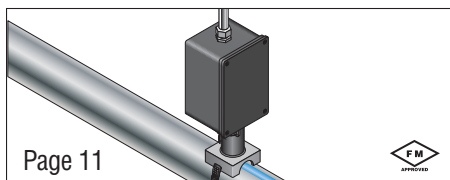
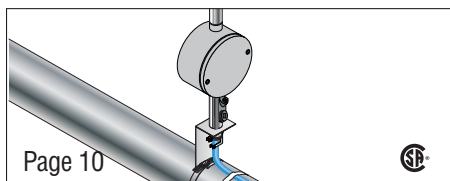
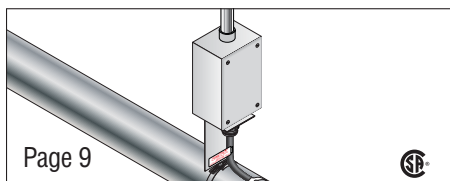
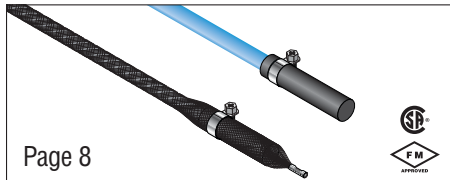
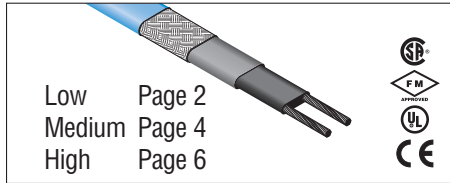


## Cut-to-Length

Cut-to-Length Field Terminated Heating Cable

### Specifications



## 2700, 2300, 2000 Series Self-Regulating Heating Cable

Low, Medium and High Temperature

## SRHC-ES End Seal Kit

For use in Ordinary and Division 2 Locations

## 1548-4000C

Power Connection and End Seal Kit

For use in Ordinary Locations

## 1548-4010C

Power Connection and End Seal Kit

For use in Ordinary and Division 2 Locations

## 1548-40PTP/1548-40PTJ

Power Connection Kit for Pipes

For use in Ordinary and Division 2 Locations

## 1548-40RGP

Power Connection and End Seal Kit

For use on Roofs and in Gutters

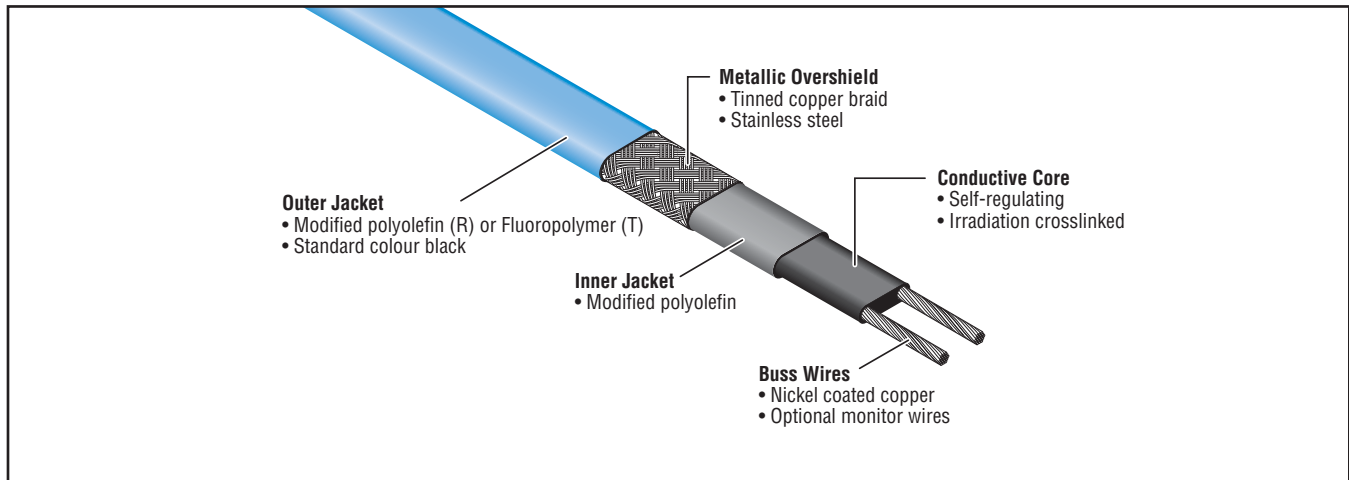
## HTLN-GFC-KIT-120

Plug-in Power 120V Connection Kit  
with End Seal

## HTLN-GFC-KIT-240

Plug-in Power 240V Connection Kit  
with End Seal

### Data Sheet



#### Description

The 2700 series self-regulating heating cables offered by Heat-Line are designed to supply a specified amount of heat at any point along their length in direct response to local temperature variations. These cables can maintain temperatures up to 150°F (65°C) and survive intermittent exposure up to 185°F (85°C) with power applied.

The 2700 series self-regulating heating cables can be cut to length and terminated in the field, and will not overheat or burnout when overlapped.

#### Applications

The industrial-grade 2700 cables provide freeze protection and process temperature maintenance for fluid transport and storage systems, while also providing efficient snow-melting solutions for roof and gutter applications. The buss wires, jackets and metallic braids can be configured for both ordinary (non-classified) and hazardous (classified) locations, including areas where exposure to corrosive or organic materials is possible.

#### Accessories

Heat-Line carries a full line of approved accessories, including power connection kits, terminations, splices, end seals, and controls.

#### Performance Ratings

Output wattage	3, 5, 8, 10 W/ft @ 50°F (10°C)
Supply voltages	110 – 120 Vac or 208 – 277 Vac
Continuous maintenance temp.	150°F (65°C) max
Intermittent exposure temp.	185°F (85°C) max
T Rating*	T-5 (10 W/ft), T-6 (3, 5, 8 W/ft)
Braid resistance	
Tinned copper	0.003 Ω/ft
Stainless steel	0.125 Ω/ft

\*T-Rating per the 1999 NEC, Tables 500-5(d) and verified by FM and CSA.

#### Approvals / Certifications



##### Ordinary locations

##### Hazardous locations

Class I, Div 1\* / 2, Groups A, B, C, D  
Class II, Div 1\* / 2, Groups E, F, G  
Class III, Div 1\* and 2



##### Ordinary locations

##### Hazardous locations

Class I, Div 1\* / 2, Groups B, C, D  
Class II, Div 2, Groups F, G  
Class III, Div 1\* and 2

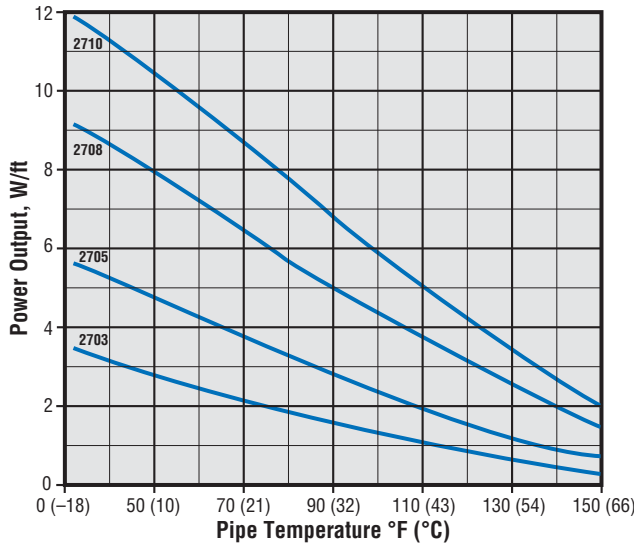


##### Roof and Gutter

##### Hot Water Maintenance

\*Contact Heat-Line representative for information on Division 1 hazardous location systems.

### Power Output Curves



### Product Ordering Information

Example: **2705 - 1 1 R 00**

- Series**: 27 2700
- Nominal Power Output**:
  - 03 3 W/ft @ 50°F (10 W/m @ 10°C)
  - 05 5 W/ft @ 50°F (16 W/m @ 10°C)
  - 08 8 W/ft @ 50°F (26 W/m @ 10°C)
  - 10 10 W/ft @ 50°F (33 W/m @ 10°C)
- Voltage**:
  - 1 120 Vac (110 - 120)
  - 2 240 Vac (208 - 277)
- Class**:
  - 1 Ordinary/Div. 2
  - 3 Ordinary/Div. 2 w/monitor wires
  - 4 Class I, Div. 1
- Braid/Outer Jacket**:
  - C Tinned copper
  - S Stainless steel
  - R Tinned copper w/modified polyolefin jacket
  - T Tinned copper w/flouropolymer jacket
- Reserved**: \_\_\_\_\_

### 120 Volt Breaker Sizing vs. Max Circuit Length (ft)

		15A	20A	30A	40A
2703-1 If started at:	50°F (10°C)	300	-	-	-
	0°F (-17°C)	200	270	330	-
	-20°F (-29°C)	180	230	330	-
2705-1 If started at:	50°F (10°C)	230	270	-	-
	0°F (-17°C)	150	200	270	-
	-20°F (-29°C)	130	175	260	270
2708-1 If started at:	50°F (10°C)	150	200	210	-
	0°F (-17°C)	95	125	190	210
	-20°F (-29°C)	85	100	170	210
2710-1 If started at:	50°F (10°C)	115	150	180	-
	0°F (-17°C)	70	95	145	180
	-20°F (-29°C)	60	85	120	165

### 240 Volt Breaker Sizing vs. Max Circuit Length (ft)

		15A	20A	30A	40A
2703-2 If started at:	50°F (10°C)	660	-	-	-
	0°F (-17°C)	410	560	660	-
	-20°F (-29°C)	360	480	660	-
2705-2 If started at:	50°F (10°C)	460	540	-	-
	0°F (-17°C)	300	400	540	-
	-20°F (-29°C)	260	345	520	540
2708-2 If started at:	50°F (10°C)	295	390	420	-
	0°F (-17°C)	195	250	375	420
	-20°F (-29°C)	170	225	340	420
2710-2 If started at:	50°F (10°C)	230	305	360	-
	0°F (-17°C)	150	200	300	360
	-20°F (-29°C)	130	175	260	360

**Note:** Recommended circuit breakers to minimize the effect of transit start-up currents. Westinghouse: Types BA, EB, EHB, FB, HFB. General Electric: E100 Type TEB, E150, Types TED, THED. Square D: Types EH, FAIF. **The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.**

### Power Adjustment Factor

Part No.	208 Volts	277 Volts
2703-2	0.75	1.28
2705-2	0.86	1.16
2708-2	0.91	1.10
2710-2	0.93	1.08

### Heat-Line Freeze Protection Systems

1095 Green Lake Road  
 Algonquin Highlands, ON Canada  
 KOM 1S0  
 Tel: (705) 754-4545  
 (800) 584-4944  
 Fax: (705) 754-4567  
 info@heatline.com  
 www.heatline.com

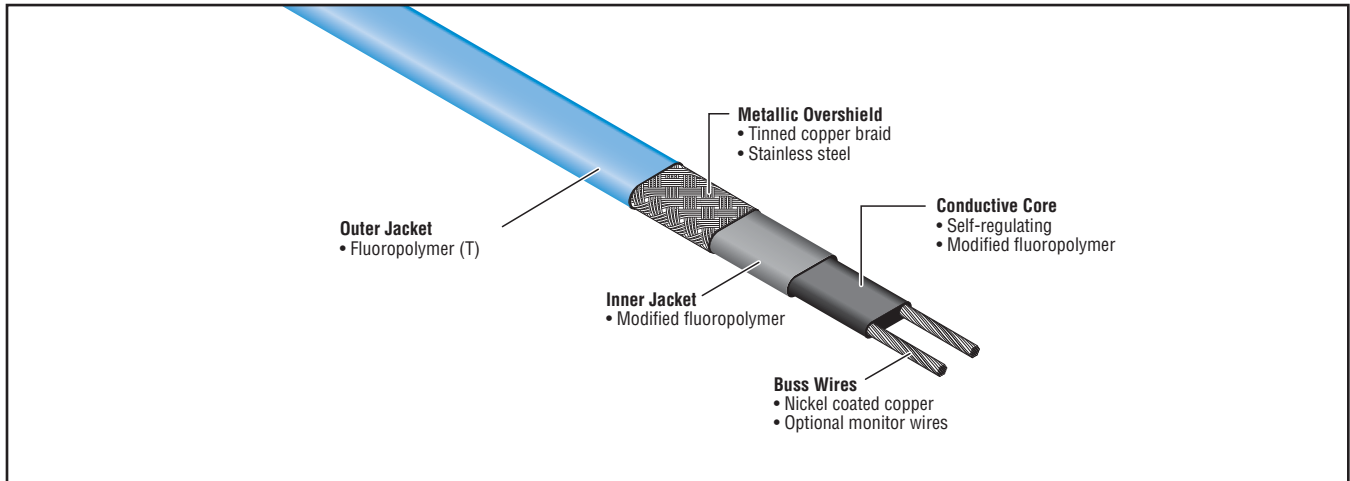
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# 2300 Series Self-Regulating Heating Cable Medium Temperature

## Data Sheet



### Description

The 2300 series self-regulating heating cables offered by Heat-Line are designed to supply a specified amount of heat at any point along their length in direct response to local temperature variations. These cables can maintain temperatures up to 250°F (120°C) and will withstand 150 psig saturated steam purging and intermittent temperature excursions to 366°F (185°C).

The 2300 series self-regulating heating cables can be cut to length and terminated in the field, and will not overheat or burnout when overlapped.

### Applications

The industrial grade 2300 cables provide freeze protection and process temperature maintenance for fluid transport and storage systems requiring high levels of heat output or exposure to elevated temperatures.

The buss wires, jackets and metallic braids can be configured for both ordinary (non-classified) locations and hazardous (classified), including areas where exposure to corrosive or organic materials is possible.

### Accessories

Heat-Line carries a full line of approved accessories, including power connection kits, terminations, splices, end seals, and controls.

### Performance Ratings

Output wattage	5, 10, 15 W/ft @ 50°F (10°C)
Supply voltages	110 – 120 Vac or 208 – 277 Vac
Continuous maintenance temp.	250°F (120°C) max
Intermittent exposure temp.	366°F (185°C) max
T Rating*	T-3
Braid resistance	
Tinned copper	0.003 Ω/ft
Stainless steel	0.125 Ω/ft

\*T-Rating per the 1999 NEC, Tables 500-5(d) and verified by FM and CSA.

### Approvals / Certifications



#### Ordinary locations

#### Hazardous locations

- Class I, Div 1\* / 2, Groups A, B, C, D
- Class II, Div 1\* / 2, Groups E, F, G
- Class III, Div 1\* and 2



#### Ordinary locations

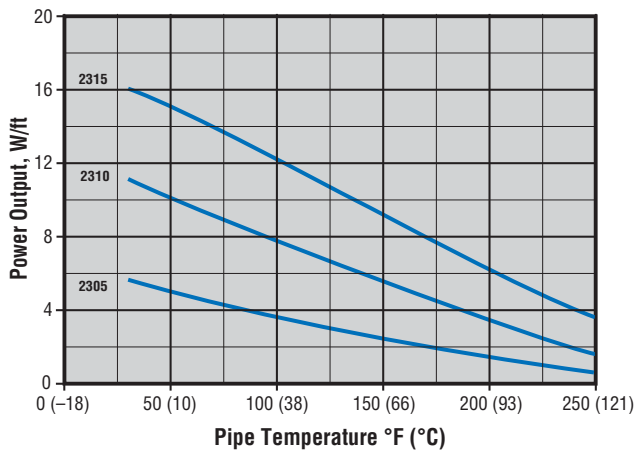
#### Hazardous locations

- Class I, Div 1\* / 2, Groups B, C, D
- Class II, Div 2, Groups F, G
- Class III, Div 2



\*Contact Heat-Line representative for information on Division 1 hazardous location systems.

### Power Output Curves



### Product Ordering Information

Example: **2305 - 1 1 C 00**

<b>Series</b>	23 2300
<b>Output</b>	05 5 W/ft @ 50°F (16 W/m @ 10°C) 10 10 W/ft @ 50°F (33 W/m @ 10°C) 15 15 W/ft @ 50°F (49 W/m @ 10°C)
<b>Voltage</b>	1 120 Vac (110 - 120) 2 240 Vac (208 - 277)
<b>Class</b>	1 Ordinary/Div. 2 3 Ordinary/Div. 2 w/monitor wires 4 Class I, Div. 1
<b>Braid Option</b>	C Tinned copper S Stainless steel T Tinned copper w/fliouropolymer jacket
<b>Reserved</b>	

### 120 Volt Breaker Sizing vs. Max Circuit Length (ft)

		15A	20A	30A
2305-1 If started at:	50°F (10°C)	150	200	240
	0°F (-17°C)	135	180	220
	-40°F (-40°C)	130	170	210
2310-1 If started at:	50°F (10°C)	90	120	180
	0°F (-17°C)	85	110	165
	-20°F (-29°C)	80	105	160
2315-1 If started at:	50°F (10°C)	70	90	130
	0°F (-17°C)	65	85	125
	-20°F (-29°C)	60	80	120

### 240 Volt Breaker Sizing vs. Max Circuit Length (ft)

		15A	20A	30A
2305-2 If started at:	50°F (10°C)	250	330	480
	0°F (-17°C)	230	305	440
	-20°F (-29°C)	220	295	420
2310-2 If started at:	50°F (10°C)	140	190	280
	0°F (-17°C)	130	175	260
	-20°F (-29°C)	125	170	250
2315-2 If started at:	50°F (10°C)	100	135	200
	0°F (-17°C)	95	125	185
	-20°F (-29°C)	90	120	180

**Note:** Recommended circuit breakers to minimize the effect of transit start-up currents. Westinghouse: Types BA, EB, EHB, FB, HFB. **General Electric:** E100 Type TEB, E150, Types TED, THED. **Square D:** Types EH, FAIF. The National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices. **The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.**

### Power Adjustment Factor

Part No.	208 Volts	277 Volts
2305-2	0.78	1.25
2310-2	0.86	1.16
2315-2	0.92	1.09

### Heat-Line Freeze Protection Systems

1095 Green Lake Road  
Algonquin Highlands, ON Canada  
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Tel: (705) 754-4545  
(800) 584-4944  
Fax: (705) 754-4567  
info@heatline.com  
www.heatline.com

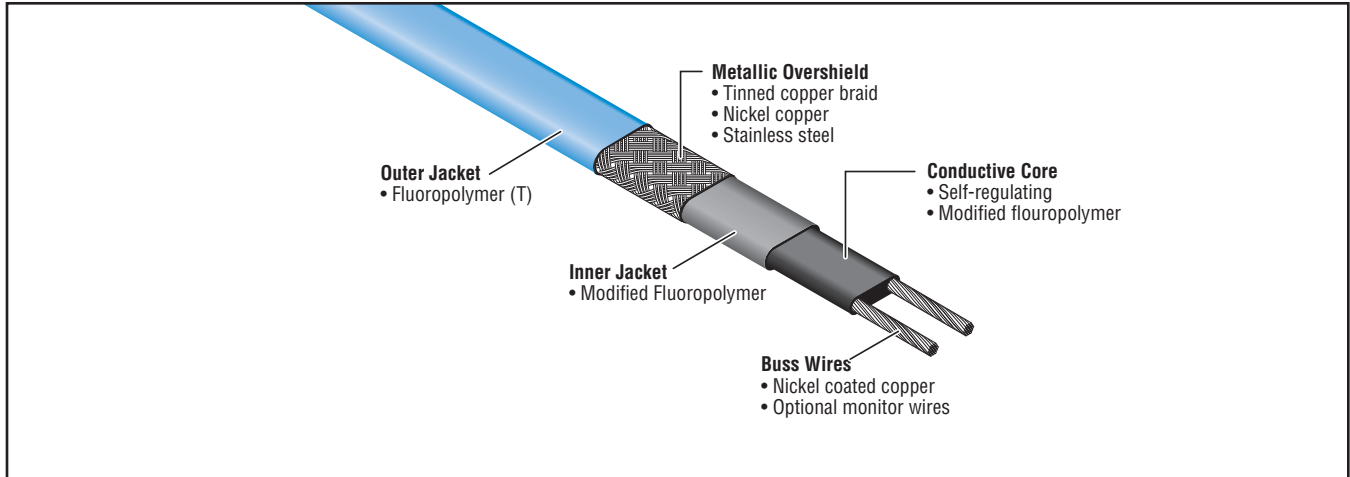
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# 2000 Series Self-Regulating Heating Cable High Temperature

## Data Sheet



### Description

The 2000 series self-regulating heating cables offered by Heat-Line are designed to supply a specified amount of heat at any point along their length in direct response to local temperature variations.

These cables can maintain temperatures up to 375°F (190°C) and will withstand 190 psig saturated steam purging and intermittent temperature excursions to 450°F (232°C) with power applied.

The 2000 series self-regulating heating cables can be cut to length and terminated in the field, and will not overheat or burnout when overlapped.

### Applications

The industrial grade 2000 cables provide freeze protection and process temperature maintenance for fluid transport and storage systems requiring very high levels of heat output or exposure to elevated temperatures.

The buss wires, jackets and metallic braids can be configured for both ordinary (non-classified) locations and hazardous (classified), including areas where exposure to corrosive or organic materials is possible.

### Accessories

Heat-Line carries a full line of approved accessories, including power connection kits, terminations, splices, end seals, and controls.

### Performance Ratings

Output wattage	5 through 30 W/ft @ 50°F (10°C) (other wattages also available)
Supply voltages	110 – 120 Vac or 208 – 277 Vac
Continuous maintenance temp.	375°F (190°C) max
Intermittent exposure temp.	450°F (232°C) max
T Rating*	T-2C
Braid resistance	
Tinned copper	0.003 Ω/ft
Stainless steel	0.125 Ω/ft

\*T-Rating per the 1999 NEC, Tables 500-5(d) and verified by FM and CSA.

### Approvals / Certifications



#### Ordinary locations

3(A,B,C), 5(A,B)

#### Hazardous locations

Class I, Div 1\* / 2, Groups B, C, D  
Class I, Div 2, Groups B, C, D  
Class II, Div 2, Groups F, G



#### Ordinary locations

#### Hazardous locations

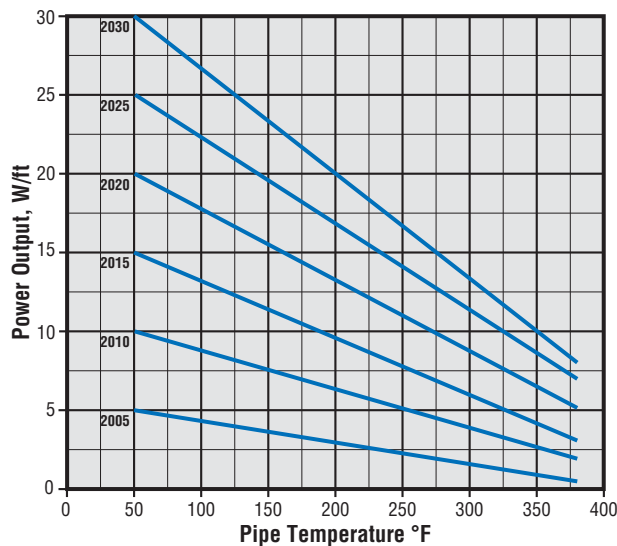
Class I, Div 1\*, Groups B, C, D  
Class I, Div 2, Groups A, B, C, D  
Class II/III, Div 1\*, Groups E, F, G  
Class II/III, Div 2, Groups F, G  
Class I, Zone 1\*, Group IIB + H2,  
Class I, Zone 2, Group IIC



SEMCO - (CE mark):

\*Contact Heat-Line representative for information on Division 1 hazardous location systems.

### Power Output Curves



### Product Ordering Information

Example: **2005 - 1 1 C 00**

- Series**
  - 20 2000
- Output**
  - 05 5 W/ft @ 50°F (16 W/m @ 10°C)
  - 10 10 W/ft @ 50°F (33 W/m @ 10°C)
  - 15 15 W/ft @ 50°F (49 W/m @ 10°C)
  - 20 20 W/ft @ 50°F (66 W/m @ 10°C)
  - 25 25 W/ft @ 50°F (82 W/m @ 10°C)
  - 30 30 W/ft @ 50°F (98 W/m @ 10°C)
- Voltage**
  - 1 120 Vac (110 - 120)
  - 2 240 Vac (208 - 277)
- Class**
  - 1 Ordinary/Div. 2
  - 3 Ordinary/Div. 2 w/monitor wires
  - 4 Class I, Div. 1
- Braid Option**
  - C Tinned copper
  - S Stainless steel
  - K Nickel copper
  - T Tinned copper w/flouropolymer jacket
  - F Stainless steel w/flouropolymer jacket
  - M Nickel copper w/flouropolymer jacket
- Reserved**

### Power Adjustment Factor

Part No.	208 Volts	277 Volts
2010-2	0.88	1.14
2020-2	0.94	1.08
2030-2	0.99	1.01

### 120 Volt Breaker Sizing vs. Max Circuit Length (ft)

		15A	20A	30A
2005-1 If started at:	50°F (10°C)	180	240	335
	0°F (-18°C)	165	220	330
	-50°F (-45°C)	150	200	300
2010-1 If started at:	50°F (10°C)	120	160	180
	0°F (-18°C)	105	140	180
	-50°F (-45°C)	90	120	180
2015-1 If started at:	50°F (10°C)	80	105	135
	0°F (-18°C)	70	90	135
	-50°F (-45°C)	60	80	120
2020-1 If started at:	50°F (10°C)	60	90	120
	0°F (-18°C)	55	70	110
	-50°F (-45°C)	50	65	100
2025-1 If started at:	50°F (10°C)	45	60	85
	0°F (-18°C)	40	50	80
	-50°F (-45°C)	40	50	80
2030-1 If started at:	50°F (10°C)	40	50	70
	0°F (-18°C)	35	45	70
	-50°F (-45°C)	35	45	70

### 240 Volt Breaker Sizing vs. Max Circuit Length (ft)

		15A	20A	30A
2005-2 If started at:	50°F (10°C)	360	480	540
	0°F (-18°C)	325	430	540
	-50°F (-45°C)	290	385	540
2010-2 If started at:	50°F (10°C)	240	320	360
	0°F (-18°C)	230	305	360
	-50°F (-45°C)	225	300	360
2015-2 If started at:	50°F (10°C)	160	210	270
	0°F (-18°C)	140	185	270
	-50°F (-45°C)	120	160	240
2020-2 If started at:	50°F (10°C)	115	150	230
	0°F (-18°C)	110	145	220
	-50°F (-45°C)	105	140	210
2025-2 If started at:	50°F (10°C)	90	120	170
	0°F (-18°C)	80	100	160
	-50°F (-45°C)	80	100	160
2030-2 If started at:	50°F (10°C)	80	100	140
	0°F (-18°C)	70	90	140
	-50°F (-45°C)	70	90	140

**Note:** Recommended circuit breakers to minimize the effect of transit start-up currents. Westinghouse: Types BA, EB, EHB, FB, HFB. General Electric: E100 Type TEB, E150, Types TED, THED. Square D: Types EH, FAIF. **The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.**

### Heat-Line Freeze Protection Systems

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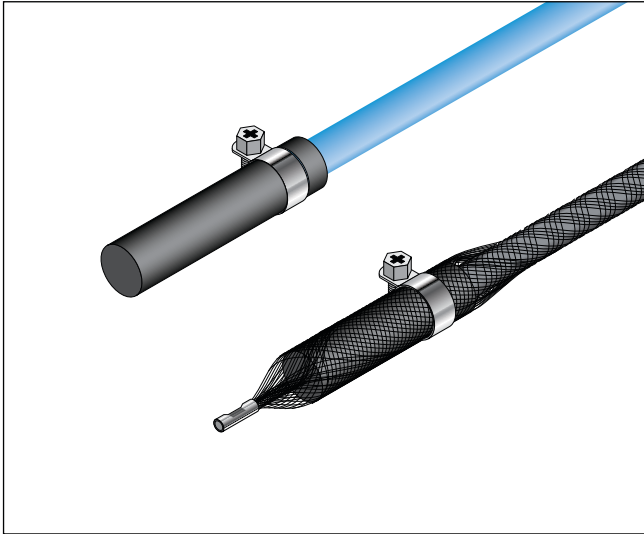
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# SRHC-ES End Seal Kit

For use with Heat-Line 2700 and 2300 Series Heating Cables in Ordinary and Division 2 Locations

## Installation Instructions



### Kit Description

The Dekoron<sup>®</sup> SRHC-ES end seal kit distributed by Heat-Line is used for making the end seal termination for Dekoron 2700 and 2300 Family of Heating Cables.

### Tools Required

- Flat-head screwdriver
- Diagonal cutting pliers
- Utility knife or razor blade
- Phillips screwdriver
- Barrel crimp tool

### Approvals



#### Non-Hazardous Locations

#### Hazardous Locations

- Class I, Div. 2, Group A, B, C, D
- Class II, Div. 2, Group E, F
- Class III, Div. 2



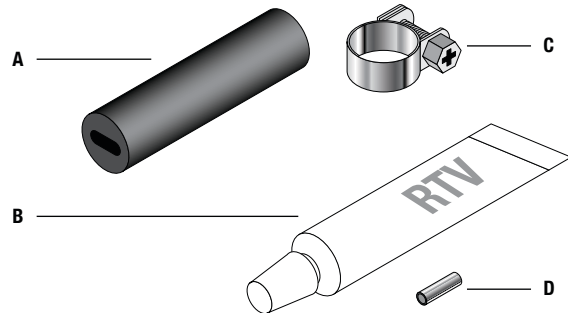
#### Non-Hazardous Locations

#### Hazardous Locations

- Class I, Div. 2, Group B, C, D
- Class II, Div. 2, Group F, G
- Class III

### Kit Parts

Item	Qty	Description
A	1	End Cap
B	1	RTV Sealant
C	1	Clamp
D	1	Barrel Crimp



### WARNING:

- The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.
- If the heating cable has a stainless steel ground braid, the following caution applies: The metal covering shall not be used as the bonding-to-ground means. Alternative means of protection shall be provided per CE Code part I.
- For cable installed in outdoor or wet indoor locations, use a suitable weather proofing cover (such as aluminum jacketing) to protect the thermal insulation.
- After thermal insulation is complete the insulation resistance of the entire branch circuit should not be less than 10M ohms.
- Ground metal structures used for support or on which the cable is installed in accordance with CE Code part 1, Section 10.
- Install cable at -22°F (-30°C) or above.
- Do not install heater closer than 1/2 inch to any exposed combustible surface, unless the cable has a metal shield or sheath and is provided with a positive temperature control which will limit the surface temperature to a value not exceeding 162°F (72°C).
- Minimum bending radius for heating cable is 1/4 inch.

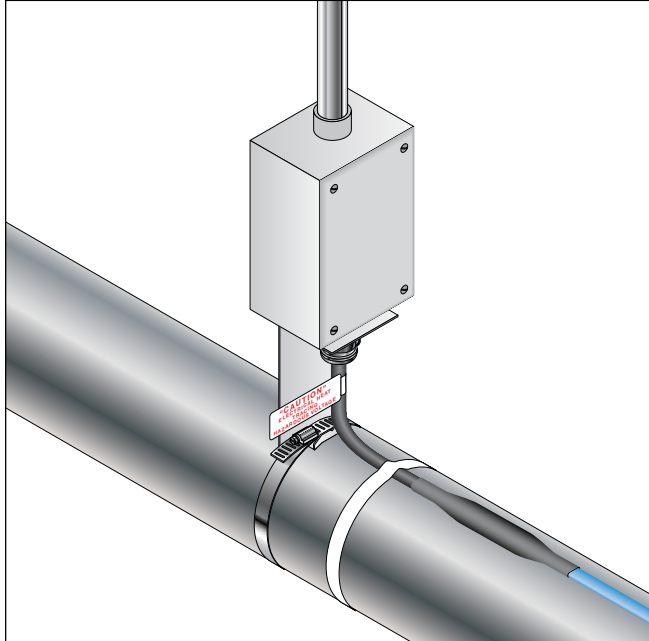




# 1548-4000C Power Connection and End Seal Kit

For use with Heat-Line 2700 Series Heating Cables in Ordinary Locations

## Installation Instructions



### Kit Description

The Dekoron<sup>®</sup> 1548-4000C electrical connection kit distributed by Heat-Line is used for making electrical and end-seal connections for the Dekoron 2700 Family of heating cables.

### Tools Required

- Flat-head screwdriver
- Pliers
- Diagonal cutting pliers
- Utility knife or razor blade
- Wire stripper cutter
- Measuring tape
- Needle-nose pliers
- Crimp tool

### Additional Materials Required (but not provided)

- Weather tight junction box (Damp or Wet Locations)
- Standard junction box (Ordinary location)
- Pipe strap (for pipe sizes other than 2 in. to 6 in. O.D.)
- Additional fiberglass tape or nylon cable ties

### Approvals

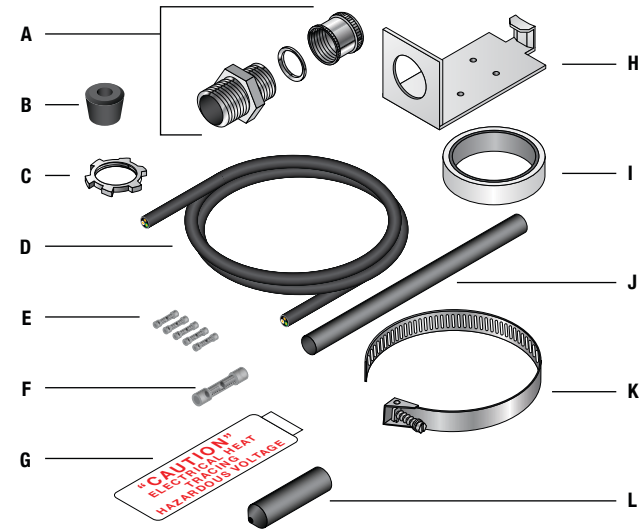


#### Non-Hazardous Locations

Heating Cable Types 3A, 3B, 3C

### Kit Parts

Item	Qty	Description
A	1	Connector Body
	1	Gland Washer
	1	Gland Nut
B	1	Grommet
C	1	Locknut
D	1	Cold Lead Cable – 14/3, 18"
E	5	Insulated Butt Connectors – 14-16 AWG
F	1	Insulated Butt Connector – 10-12 AWG
G	1	Caution Label
H	1	Standoff Bracket
I	1	Roll of Fiberglass Tape
J	1	Heat Shrink Tube (1/2" x 6")
K	1	Pipe strap (for 2" to 6" O.D. Pipes)
L	1	End Seal Boot



### ⚠ WARNING:

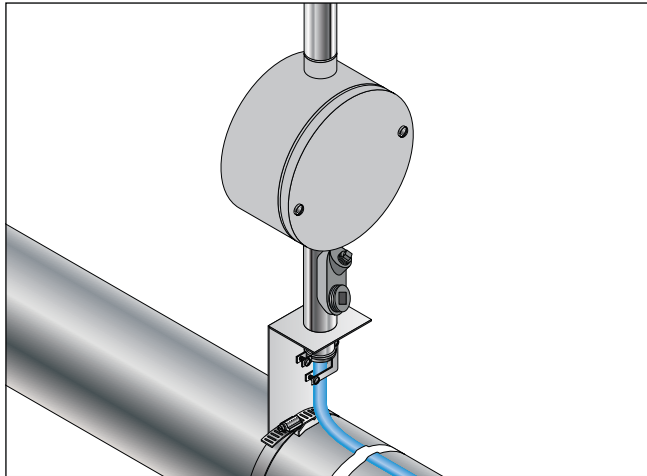
- **The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.**
- If the heating cable has a stainless steel ground braid, the following caution applies: The metal covering shall not be used as the bonding-to-ground means. Alternative means of protection shall be provided per CE Code part I.
- For cable installed in outdoor or wet indoor locations, use a suitable weather proofing cover (such as aluminum jacketing) to protect the thermal insulation.
- After thermal insulation is complete the insulation resistance of the entire branch circuit should not be less than 10M ohms.
- Ground metal structures used for support or on which the cable is installed in accordance with CE Code part 1, Section 10.
- Install at –22°F (–30°C) or above.
- Do not install heater closer than 1/2 inch to any exposed combustible surface unless the cable has a metal shield or sheath and is provided with a positive temperature control which will limit the surface temperature to a value not exceeding 162°F (72°C).
- Minimum bending radius for heating cable is 1/4 inch.



# 1548-4010C Power Connection and End Seal Kit

For use with Heat-Line 2700 and 2300 Series Heating Cables in Ordinary and Hazardous Location:

## Installation Instructions



### Approvals



#### Non-Hazardous Locations / Hazardous Locations

- Class I, Div 1\*2, Groups A, B, C, D
- Class II, Div 1\*2, Groups E, F, G
- Class III, Div 1\* and 2

\*Contact Heat-Line representative for information on Division 1 hazardous location systems.

### Kit Description

The Dekoron<sup>®</sup> 1548-4010C electrical connection and end seal kit distributed by Heat-Line contains components needed to make one power input connection and one end termination in Ordinary or Division 2 locations; or one power input connection in Division 1 locations; or one end termination in Division 1 locations. Splices and power input splices can be made by using 2 kits.

### Tools Required

- Flat-head screwdriver
- Wire cutters
- Diagonal cutting pliers
- Needle-nose pliers
- Utility knife or razor blade
- Crimp tool
- Phillips screwdriver

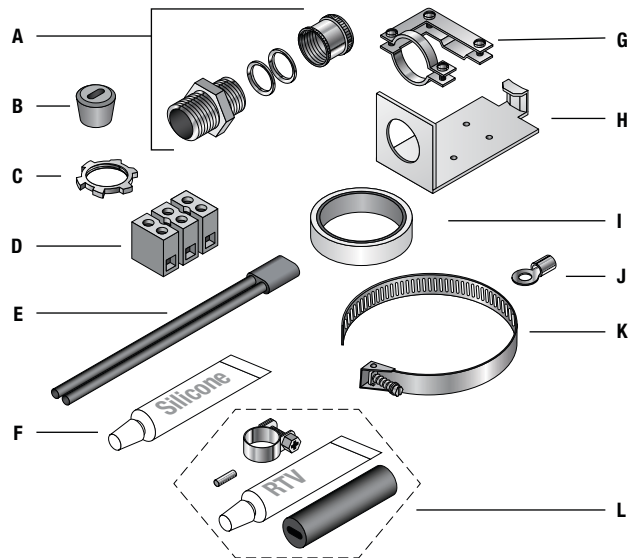
### Additional Materials Required (but not provided)

- Weather Tight Junction Box (3/4 in. NPT Hubs)\*
- Sealing Fitting (Division 1)\*
- Pipe Strap (for pipe sizes other than 2 in. to 6 in. O.D.)
- Additional Fiberglass Tape

\*The hazardous location designation of the complete cable set is governed by the lowest hazardous location rating of the sealing fitting and outlet box.

### Power Connection Kit Parts

Item	Qty	Description
A	1	Connector Cap
	2	Connector Gland Washers
	1	Connector Body
B	1	Grommet
C	1	Locknut
D	1	Termination Block
E	1	Termination Boot
F	1	Silicone Sealant
G	1	Strain Relief Grip
H	1	Standoff Bracket
I	1	Roll of Fiberglass Tape
J	1	Ring Tongue Terminal
K	1	Pipe Strap (for 2" to 6" O.D. Pipes)
L	1	End Seal Kit



### WARNING:

- The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.
- If the heating cable has a stainless steel ground braid, the following caution applies: The metal covering shall not be used as the bonding-to-ground means. Alternative means of protection shall be provided per CE Code part I.
- For cable installed in outdoor or wet indoor locations, use a suitable weather proofing cover (such as aluminum jacketing) to protect the thermal insulation.
- After installation of thermal insulation is complete, the insulation resistance of the system should not be less than 10 Mohms when measured at 500 Vdc between each circuit and ground with set de-energize and all circuit neutrals isolated from ground.
- Ground metal structures used for support or on which the cable is installed in accordance with CE Code part 1, Section 10.
- Install at -22°F (-30°C) or above.
- Do not install heater closer than 1/2 inch to any exposed combustible surface unless the cable has a metal shield or sheath and is provided with a positive temperature control which will limit the surface temperature to a value not exceeding 162°F (72°C).
- Minimum bending radius for heating cable is 1/4 inch.



# 1548-40PTP/1548-40PTJ Power Connection Kit for Pipes

For use with Heat-Line 2700 and 2300 Series Heating Cables in Ordinary and Division 2 Locations.

1548-81HTJ/81HTP for use with Heat-Line 2000 Series Heating Cables.

## Installation Instructions

### Kit Description

The Dekoron HTP 1548-40PTP/1548-40PTJ electrical connection kit distributed by Heat-Line is designed for use in ordinary and Division 2 locations. The kit provides excellent resistance to ultraviolet rays from sun, as well as inorganic chemicals and most corrosives. The HTP1548-40PTP/1548-40PTJ electrical connection kit does not include an end seal termination.

Contact Heat-Line directly for recommendations on end seal termination kits suitable for your application.

### Tools Required

- Ruler or tape measure
- Utility knife
- Needle-nose pliers
- Flat blade screw driver
- Diagonal cutters
- Heat gun or mini torch

### Additional Materials Required (but not provided)

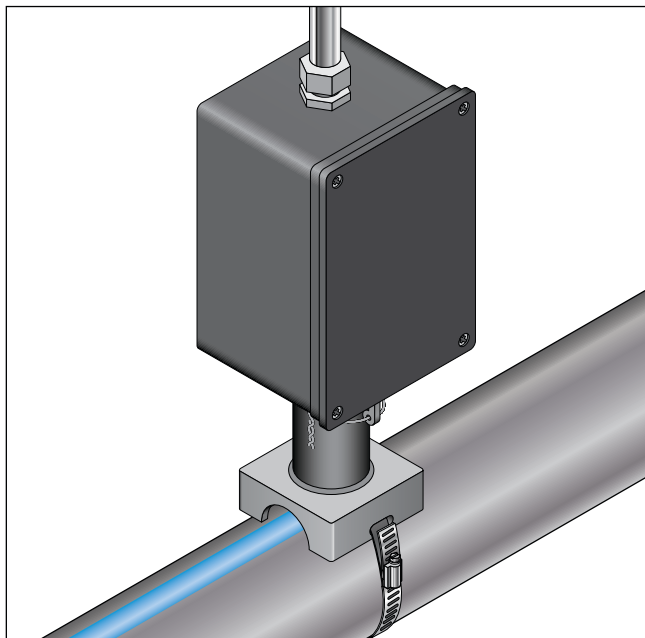
- Appropriately sized pipe clamp
- Conduit grounding clamp (for heater without overbraid)

### Approvals



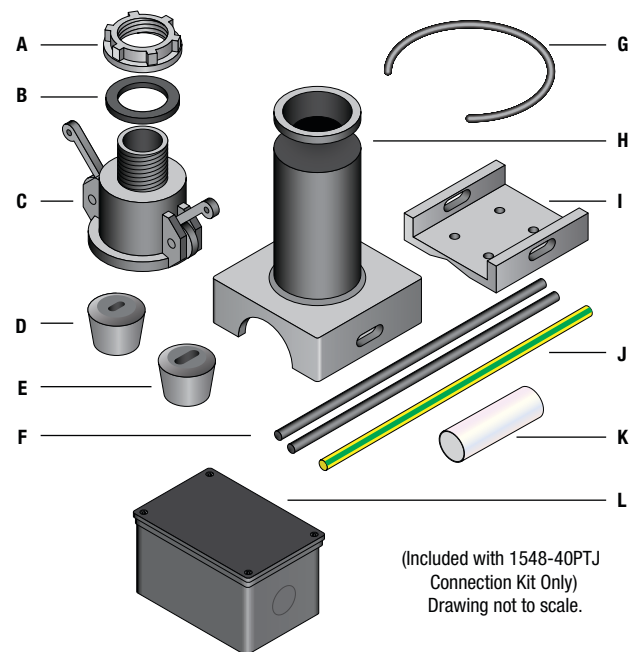
#### Non-Hazardous and Div. 2 Approved Locations

Class I, Div. 2 Groups A, B, C, D  
Class II/ III, Div. 2 Groups F,G  
Class 1, Zone 2 Groups IIC



### Kit Contents

Item	Qty	Description
A	1	Lock Ring
B	1	Sealing Gasket
C	1	Top
D	1	Sealing Grommet (Small Hole for Heating Cable with Ground Braid Only and No Outer Jacket)
E	1	Sealing Grommet (Large Hole for Heating Cable with Ground Braid and Outer Jacket)
F	2	Heat Shrink Tubes – Black (1/8" x 5-1/2")
G	1	Stainless Steel Wire
H	1	Base
I	1	Adaptor (For Installation on Pipe Smaller Than 1")
J	1	Heat Shrink Tube – Green/yellow (1/4" x 5-1/2")
K	1	Heat Shrink Tube – Clear (1/2" x 1-1/2")
L	1	NEMA 4X junction box (4-1/2" H x 3" W x 2 1/2" D) (Included with 1548-40 PTJ Kit)



### WARNING:

- The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.
- If the heating cable has a stainless steel ground braid, the following caution applies: The metal covering shall not be used as the bonding-to-ground means. Alternative means of protection shall be provided per CE Code part I.

- Ground metal structures used for support on which the cable is installed in accordance with CE Code part I, Section 10.
- For cables installed in outdoor or wet indoor locations, use a suitable weatherproofing cover (such as aluminum jacketing) to protect the thermal insulation.
- After installation of thermal insulation is complete, the insulation resistance of the system should not be less than 10 Mohms when measured at 500 Vdc between

each circuit and ground with set de-energized and all circuit neutrals isolated from ground.

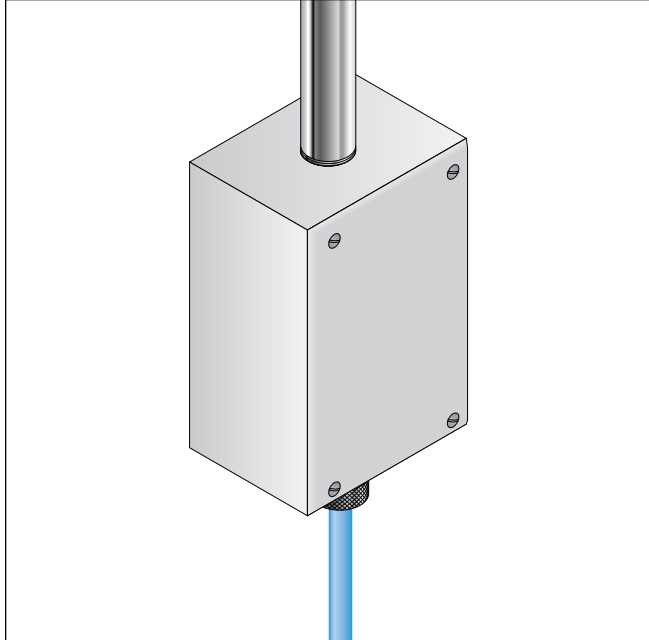
- Install at  $-22^{\circ}\text{F}$  ( $-30^{\circ}\text{C}$ ) or above.
- Do not install heater closer than 1/2 inch to any exposed combustible surface unless the cable has a metal shield or sheath and is provided with a positive temperature control which will limit the surface temperature to a value not exceeding  $162^{\circ}\text{F}$  ( $72^{\circ}\text{C}$ ).
- Minimum bending radius for heating cable is 1/4 inch.



# 1548-40RGP Power Connection and End Seal Kit

For use with Heat-Line 2700 Series Heating Cables for Roof and Gutter

## Installation Instructions



### Kit Description

The Dekoron<sup>®</sup> HTP 1548-40RGP power connection kit for roof and gutters distributed by Heat-Line includes materials for one power connection and one end seal termination.

For use with Dekoron 2705-1RG (-2RG) as CSA type 2E for roof and gutter de-icing.

For use with Dekoron 2705-11T (-21T) as UL Listed snow melting and de-icing equipment.

### Tools Required

- Ruler or tape measure
- Utility knife
- Needle-nose pliers
- Flat blade screw driver
- Diagonal cutters
- Heat gun or propane torch

### Additional Materials Required (but not provided)

- Appropriate junction box and lock nut

### Approvals



**De-Icing and Snow Melting Equipment**  
when used with associated kits and installed per manufacturer's instructions.



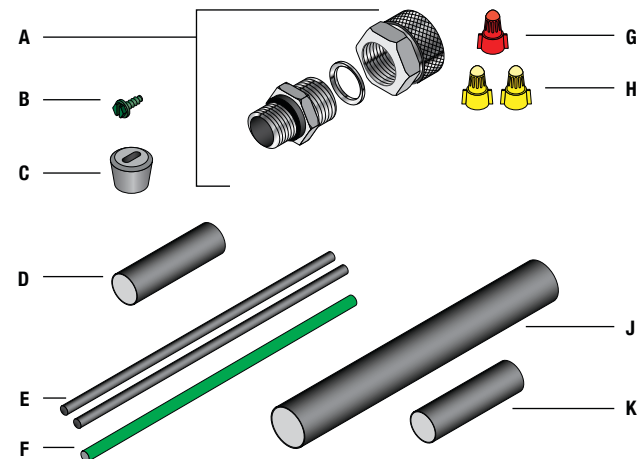
**Certified Roof De-Icing**  
when used with associated kits and installed per manufacturer's instructions.

### Power Connection Kit Parts

Item	Qty	Description
A	1	Sealing Fitting
B	1	Grounding Screw
C	1	Grommet
D	1	Heat Shrink Tube – Black (1/2" x 1-1/2")
E	2	Heat Shrink Tubes – Black (1/8" x 5-1/2")
F	1	Heat Shrink Tube – Green (1/4" x 5-1/2")
G	1	Wire Nut 18-12 AWG – Red
H	2	Wire Nuts 20-12 AWG – Yellow

### End Seal Kit Parts

J	1	Heat Shrink Tube – Black (3/4" x 4")
K	1	Heat Shrink Tube – Black (1/2" x 1-1/2")



### ⚠ WARNING:

- The Canadian Electrical Code and National Electric Code requires ground fault protection of equipment for each branch circuit supplying electrical heating cables or devices.
- The contents of the component kit must be installed correctly to ensure proper operation and to prevent shock and fire. Read these important warnings and carefully follow all the installation instructions.
- Overheating heat-shrink tubes will produce fumes that may cause irritation. Use adequate ventilation and avoid charring or burning.
- To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, use a ground fault protection device. Arcing may not be stopped by conventional circuit breakers.
- Component approvals and performance are based on the use of specified parts only. Do not substitute parts or use vinyl electrical tape.
- The black heating-cable core is conductive and can short. It must be properly insulated and kept dry.
- Damaged bus wires can overheat or short. Do not break bus wire strands when preparing the cable for installation.
- Bus wires will short if they contact each other. Keep bus wires separated.
- Heat-damaged components can short. Use a heat gun or torch with a soft yellow low-heat flame; not a blue focused flame. Keep the flame moving to avoid overheating, blistering, or charring the heat-shrink tubes. Avoid heating the other components. Replace any damaged parts.
- Leave these installation instructions with the user for future reference.



# HTLN-GFC-KIT-120

## Plug-in Power 120V Connection Kit with End Seal for use with 2700 Series

### Installation Instructions

#### Kit Description

The Heat-Line HTLN-GFC-KIT-120 is a 120V, 15A, plug-in, ground-fault-protected power connection and end seal kit for use with Heat-Line HTLN or 2700 Series 120V heating cables in select watt densities.

This kit ensures compliance with Heat-Line, NEC, and CEC requirements for ground-fault protection of equipment. It includes materials for one power connection and one end seal. All Heat-Line HTLN or 2700 Series heating cables are designed for water-pipe freeze protection applications. Only HTLN or 2700 Series 5W/ft @50F (16 W/m @ 10C) heating cables are approved for both pipe freeze protection and roof and gutter de-icing applications.

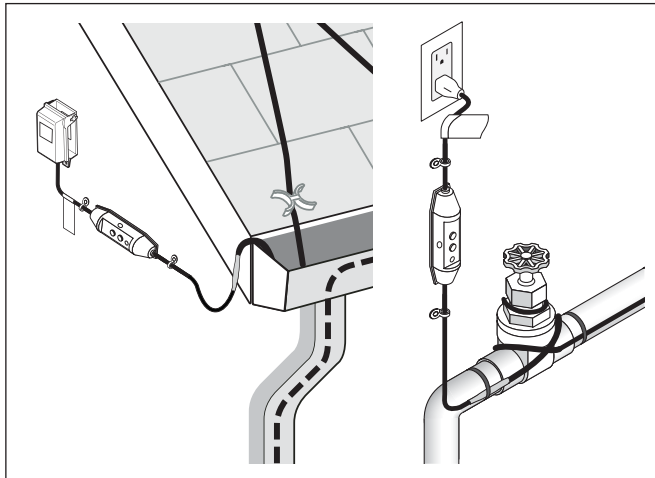
For expert technical support call Heat-Line at (800) 584-4944.

#### Tools Required

- Needle-nose pliers
- Diagonal cutters
- Phillips screwdriver
- Utility knife
- Heat gun
- Crimping pliers
- Lineman's pliers

#### Additional Materials Required (but not provided)

- Grounded, certified 15-amp, 120-volt receptacle (receptacle must be approved for wet locations if exposed to weather).
- Cable ties, cable guard, downspout hangers, and roof clips may be required for roof and gutter applications.
- Pipe applications may require fiberglass tape, cable ties, foil tape and additional warning labels to complete the installation.



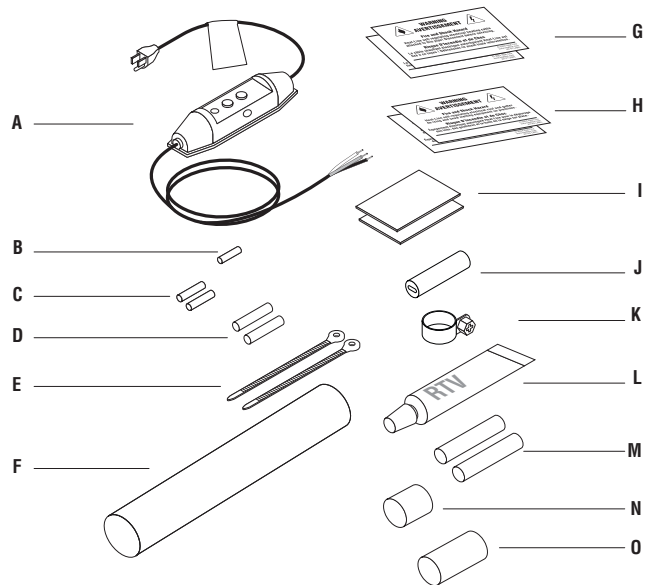
#### Approvals



Usage W and S  
Installation Types A and B USA

#### Power Connection Kit Parts

Item	Qty	Description
A	1	Plug-in cord 14 AWG, 120V 5-15P with in-line GFC (4' length)
B	1	Uninsulated 10-12 AWG braid crimp
C	2	Uninsulated 14-16 AWG buss wire crimps
D	2	Heat-shrinkable tubes (3/4 inch long x 1/8 inch dia.)
E	2	Cable tie with mounting hole (8 inch)
F	1	Heat-shrinkable tube (8 inch long x 3/4 inch dia.)
G	2	Warning labels for pipe-trace applications (orange)
H	2	Warning labels for roof and gutter applications (yellow)
I	2	Mastic strips (1 1/2 inch long x 1 1/2 inch dia.)
J	1	Silicone form fitting end seal
K	1	Stainless steel mini bolt clamp for end seal
L	1	RTV silicone tube black
M	2	Heat-shrinkable tube (1 1/2 inch long x 1/4 inch dia.)
N	1	Heat-shrinkable tube (1 inch long x 1/2 inch dia.)
O	1	Heat-shrinkable tube (2 inch long x 1/2 inch dia.)



#### ⚠ WARNING:

These components are electrical devices. They must be installed correctly to ensure proper operation and to prevent shock or fire.

- Read these rules and instructions carefully. Failure to follow them could result in serious bodily injury and/or property damage.
- Check your local building, plumbing and electrical codes before installing. You must comply with their rules.
- Shock and Fire Hazard. Damaged heating cable or components can cause electrical shock, arcing, and fire. Do not attempt to energize damaged cable or components. Replace them immediately using a new length of heating cable and the appropriate Heat-Line accessories.
- Do not use extension cords.
- For the Heat-Line warranty to be valid, you must comply with all the requirements outlined in these guidelines.
- To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of the national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit.
- Component approvals and performance are based on the use of specified parts only. Do not substitute parts.
- Keep components and heating cable ends dry before and during installation.
- Damaged buss wires can overheat or short. Do not break braid or buss wire strands when scoring the jacket or core.
- Buss wires will short if they contact each other. Keep buss wires separated.
- Heat-damaged components can short. Always use a heat gun over a torch. Avoid heating other components. Replace any damaged parts.
- Use only fire-resistant insulation materials such as fiberglass wrap.
- Leave these installation instructions with the user for future reference.
- For additional installation questions, support, or replacement parts contact Heat-Line at (800) 584-4944.



# HTLN-GFC-KIT-240

## Plug-in Power 240V Connection Kit with End Seal for use with 2700 Series

### Installation Instructions

#### Kit Description

The Heat-Line HTLN-GFC-KIT-240 is a 240V, 15A, plug-in, ground-fault-protected power connection and end seal kit for use with Heat-Line HTLN or 2700 Series 240V heating cables in select watt densities.

This kit ensures compliance with Heat-Line, NEC, and CEC requirements for ground-fault protection of equipment. It includes materials for one power connection and one end seal. All Heat-Line HTLN or 2700 Series heating cables are designed for water-pipe freeze protection applications. Only HTLN or 2700 Series 5W/ft @50F (16 W/m @ 10C) heating cables are approved for both pipe freeze protection and roof and gutter de-icing applications.

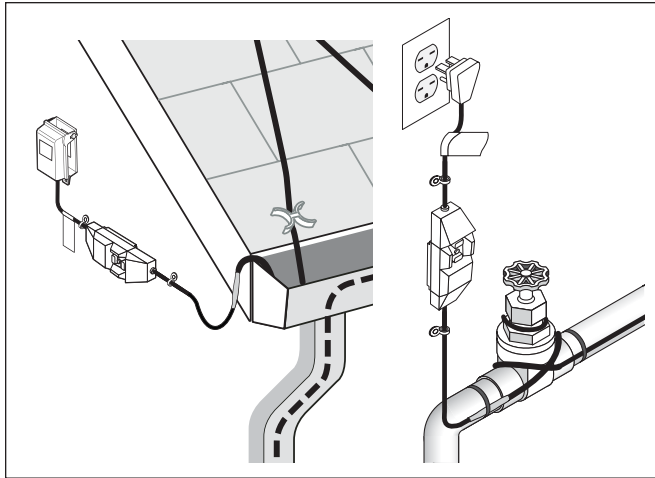
For expert technical support call Heat-Line at (800) 584-4944.

#### Tools Required

- Needle-nose pliers
- Diagonal cutters
- Phillips screwdriver
- Utility knife
- Heat gun
- Crimping pliers
- Lineman's pliers

#### Additional Materials Required (but not provided)

- Grounded, certified 15-amp, 240-volt receptacle (receptacle must be approved for wet locations if exposed to weather).
- Cable ties, cable guard, downspout hangers, and roof clips may be required for roof and gutter applications.
- Pipe applications may require fiberglass tape, cable ties, foil tape and additional warning labels to complete the installation.



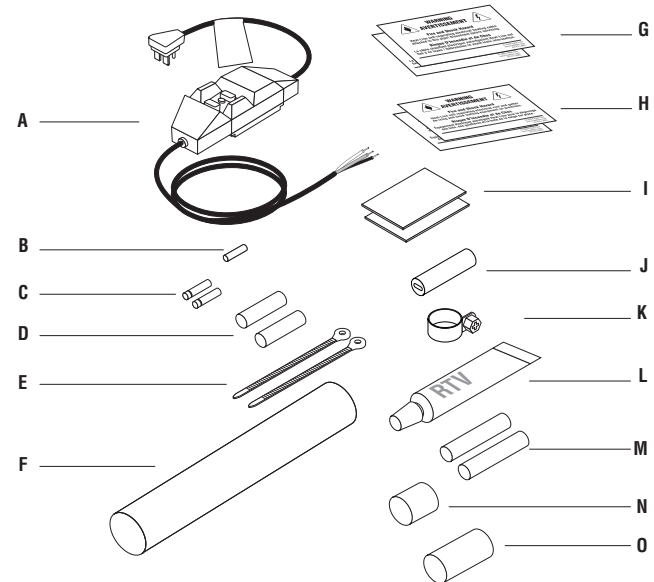
#### Approvals



Usage W and S  
Installation Types A and B USA

#### Power Connection Kit Parts

Item Qty	Description
A 1	Plug-in cord 12 AWG, 240V 6-15P with in-line GFC (6' length)
B 1	Uninsulated 10-12 AWG braid crimp
C 2	Uninsulated 10-12 to 14-16 AWG step down buss wire crimps
D 2	Heat-shrinkable tubes (3/4 inch long x 1/8 inch dia.)
E 2	Cable tie with mounting hole (8 inch)
F 1	Heat-shrinkable tube (8 inch long x 3/4 inch dia.)
G 2	Warning labels for pipe-trace applications (orange)
H 2	Warning labels for roof and gutter applications (yellow)
I 2	Mastic strips (1 1/2 inch long x 1 1/2 inch dia.)
J 1	Silicon form fitting end seal
K 1	Stainless steel mini bolt clamp for end seal
L 1	RTV silicone tube black
M 2	Heat-shrinkable tube (1 1/2 inch long x 1/4 inch dia.)
N 1	Heat-shrinkable tube (1 inch long x 1/2 inch dia.)
O 1	Heat-shrinkable tube (2 inch long x 1/2 inch dia.)



#### ⚠ WARNING:

These components are electrical devices. They must be installed correctly to ensure proper operation and to prevent shock or fire.

- Read these rules and instructions carefully. Failure to follow them could result in serious bodily injury and/or property damage.
- Check your local building, plumbing and electrical codes before installing. You must comply with their rules.
- Shock and Fire Hazard. Damaged heating cable or components can cause electrical shock, arcing, and fire. Do not attempt to energize damaged cable or components. Replace them immediately using a new length of heating cable and the appropriate Heat-Line accessories.
- Do not use extension cords.
- For the Heat-Line warranty to be valid, you must comply with all the requirements outlined in these guidelines.
- To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of the national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit.
- Component approvals and performance are based on the use of specified parts only. Do not substitute parts.
- Keep components and heating cable ends dry before and during installation.
- Damaged buss wires can overheat or short. Do not break braid or buss wire strands when scoring the jacket or core.
- Buss wires will short if they contact each other. Keep buss wires separated.
- Heat-damaged components can short. Always use a heat gun over a torch. Avoid heating other components. Replace any damaged parts.
- Use only fire-resistant insulation materials such as fiberglass wrap.
- Leave these installation instructions with the user for future reference.
- For additional installation questions, support, or replacement parts contact Heat-Line at (800) 584-4944.