Installation Instructions Lot# 211021

PG-TERM - PipeGuard® Power Connection

This kit is only for use with the following Drexan HeatTracer Self-Regulating heater products: PipeGuard® Hot (PGH), PipeGuard Warm (PGW) and MultiTrace® (MT).

APPROVALS

C SP® US

231572

Class I, Div. 2, Groups A, B, C, D
Class II, Div. 2, Groups E, F, G
Class III

CAUTION: A ground fault protection device must be used with this heating device.

ATTENTION: Ce produit doit être utilize avec une protection de mise á la terre.

⚠ **WARNING**: This is an electrical device and in order to ensure proper operation and prevent shock or fire it must be installed correctly. Read these important warnings. Follow all installation instructions.

CAUTION: Ground-fault protection is required for each circuit to de-energize all normally ungrounded conductors of heating cable sets, with ground-fault settings sufficient to allow normal operation of the heater unless applicable codes permit otherwise, to minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed and to comply with Drexan requirements, agency certifications and national electrical codes. Conventional circuit breakers may not stop arcing.

The person(s) responsible for installation shall verify that the installation and inspection are performed by personnel who are trained, qualified, and knowledgeable in trace heating systems when using the Division method of area classification. The installation and inspection shall be in accordance with the system manufacturer's design documents, product recommendations, and installation instructions

Do not use substitute parts or the use of electrical tape. Component approvals and performance characteristics are based on Drexan specific parts only. Any repairs or parts replacement must be done by Drexan or appointed agents. Substitution of parts, or utilization in a manner not specified by Drexan may impair equipment protection and void warrantee, approvals and performance claims.

The heating cable core is conductive and can short if not properly insulated and kept dry.

Heating cable core bus wires can overheat and short when damaged. When cutting the cable jacket or core do not break bus wire strands.

Components and heating cable ends must be kept dry before and during installation. Fire-resistant thermal insulation materials should be used. De-energize all power circuits before installation or servicing.

Where equipment may be installed in locations where it may be subject to damage, or exposed to excessive external stresses (e.g. vibration, heat, impact) or aggressive substances, it must be protected by additional means.

120-277 Volt.

PGH Only: 5 – 20 W/ft., Maximum 40A. Maximum intermittent exposure temperature +446°F/230°C.

Minimum bend radius: 1.72 in. (44 mm) @ -40˚F/-40˚C.

All other Cables: 3 – 10 W/ft., Maximum 32A. Maximum intermittent exposure temperature +185°F/85°C.

Minimum bend radius: 1.18 in. (30 mm) @ 68˚F/20˚C.

This kit may be installed in temperatures as low as -40°F/-40°C.

Drexan Energy Systems Inc.
Kelowna, BC, Canada, V4V 1S5

KIT CONTENTS

- Aluminum Strain Relief (cap, washer, grommet, base)
- Cold Applied Core Sealer
- Warning Label
- (2) Insulated Crimp Sleeves
- Installation Instructions
- 3/16" tube (PGW / MT only)

REQUIRED BUT NOT PROVIDED

Materials

- Glass Fiber Cloth Tape, Drexan Cat. TAPE-GCR-HT / TAPE GCS-LT or equivalent
- Pipe Straps
- Certified Junction Box – suitable for application

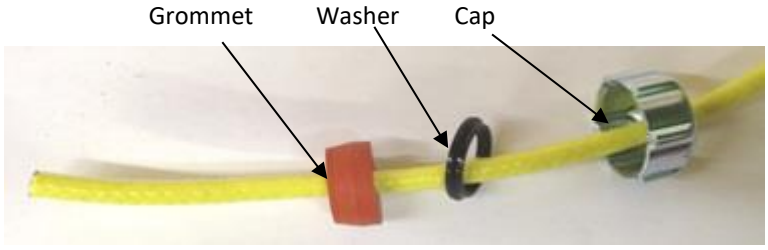
Equipment

- Utility Knife
- Wire Cutter
- Multi-head Screwdriver
- Wire Stripper
- Crimp Tool
- Pipe Wrench

ASSEMBLY INSTRUCTION DETAILS

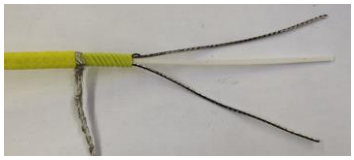
PIPEGUARD HOT (PGH)

1. Allow approximately 24" (61 cm) of heating cable for installation from the pipe.
2. Disassemble the Strain Relief assembly, cut heater on approximately a 45° angle. Thread heater through Strain Relief cap, washer and grommet (wide end towards washer) respectively until 8" (20.3 cm) of the heaters end is exposed. Put Strain Relief base aside.



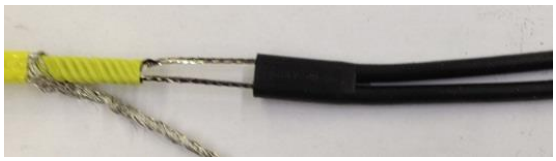
3. Taking care not to cut the Ground Braid, remove 7" (17.8 cm) of outer jacket from the Heater.

4. Push ground braid back towards the outer jacket cut back. Make a buckle in the braid. With a screw driver, create an opening in the ground braid without cutting it, big enough to pull the cable through. Bend cable enabling it to push through the opening in the ground braid. Twist the ground braid into a solid ground lead.
5. Strip back inner jacket to within 1½" (38 mm) of the outer jacket cut back exposing the bus wires. Trim the fiber heating element and spacer.



6. Slide the core sealer over the bus wires of the cable, over the inner core until as close to the braid as possible.

Note: Ensure the crotch of the core sealer is tight up to the inner jacket separating the two bus wires.

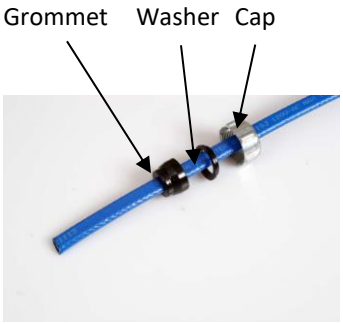



7. Push Heater Strain Relief Grommet to the edge of the insulation, until only the stripped Heater twisted Ground Braid and Conductors are exposed.

8. Feed Heater Conductors and Ground wire through the Strain Relief base into the housing and fit the Heater Strain Relief Grommet into the Strain Relief base. Tighten the Strain Relief Nut hand tight.
9. Make the electrical connections inside the housing.
10. Find a suitable location and affix the Electrical Warning Label. The presence of the trace heaters shall be made evident by the posting of caution signs or markings at appropriate locations and/or at frequent intervals along the circuit.

PIPEGUARD WARM (PGW) / MULTITRACE (MT)

1. Allow approximately 24” (60 cm) of heating cable for installation from the pipe.
2. Disassemble the Strain Relief assembly, cut heater on approximately a 45˚ angle. Thread heater through Strain Relief cap, washer and grommet respectively (wide end towards washer) until 8” (20.3 cm) of the heater end is exposed. Install strain relief base into enclosure.



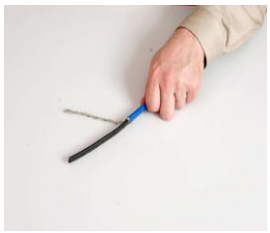
3. Taking care not to cut the Ground Braid, remove 7” (17.8 cm) of outer jacket from the Heater.






4. Push ground braid back towards the outer jacket cut back. Make a buckle in the braid. With a screw driver, create an opening in the ground braid without cutting it, big enough to pull the cable through. Bend cable enabling it to push through the opening in the ground braid. Twist the ground braid into a solid ground lead.



5. Strip back inner jacket within 1½" (38 mm) of the outer jacket cut-back.



6. Cut down the middle of the inner core between bus wires. This can be done with a scissors or knife. The core sealer will fit over the bus wires while still encapsulated by the heater core. It is not necessary to expose the bare bus wires.

7. Push Heater Strain Relief Grommet to the edge of the insulation, until only the stripped Heater twisted Ground Braid and Conductors are exposed.

8. Feed Heater Conductors and Ground wire through the Strain Relief base into the housing and fit the Heater Strain Relief Grommet into the Strain Relief base. Tighten the Strain Relief Nut hand tight.
9. Complete connections in housing in accordance with suitable local electrical codes and practices ensuring that the power connection is ground. Crimp Power Conductor Cables to Heater Conductors using Insulated Crimp if a terminal block is not being used.
10. Check that the Crimp Splices are firm. Cut, strip and splice conductors again if necessary.
11. Check Ground Connections to ensure they are firm.
12. Push conductors into the housing taking care not to kink wires or expose conductors.
13. Retighten Strain Relief Nuts (¼ turn) with a wrench.
14. Find a suitable location and affix the Electrical Warning Label. The presence of the trace heaters shall be made evident by the posting of caution signs or markings at appropriate locations and/or at frequent intervals along the circuit.