

Installation Instructions

HP-T-FG

PipeGuard® High Profile Tee Connection



These installation instructions are only for use with the following Drexan HeatTracer Self-Regulating heater products:

PipeGuard® Hot (PGH), PipeGuard Warm (PGW) and MultiTrace®.

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



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 equipment protection shall be provided to de-energize all normally ungrounded conductors of electrical heating cable sets, with ground fault settings sufficient to allow normal operation of the heater unless applicable codes permit otherwise, and 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.

Do not use substitute parts or substitute electrical tape. Component approvals and performance characteristics are based on Drexan specific parts only. Substitution will void warranty, 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.

Component and heating cable ends must be kept dry before and during installation. Fire-resistant thermal insulation materials should be used.

APPROVALS*



Class I, Div. 2, Groups A, B, C, D

Class II, Div. 2, Groups E, F, G

Class III

231572

*Approvals listing is for PG-TERM and HPA-69R components only.

120 – 277 Volt.

PGH: 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)

PGW/MT: 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

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KIT CONTENTS

- Glass reinforced polyester conduit box with terminal block (3 cables), cover and gasket
- High temperature grommet – 2-cable
- 3/4" rigid coupling (2)
- 2-10" pipe straps (2)
- Installation Instructions
- PG-TERM Kit (2):
 - Aluminum strain relief (cap, washer, grommet, base)
 - Crimp splice (2)
 - Cold applied core sealer
- Galvanized pipe bracket 10g 2-hole
- Cold applied core sealer (HPA-69R)
- 3/4"x 3" nipple (2)
- Myers Hub 3/4" (2)
- 3/4" sealing ring (2)
- Warning label
- Installation Instructions

REQUIRED BUT NOT PROVIDED

Materials

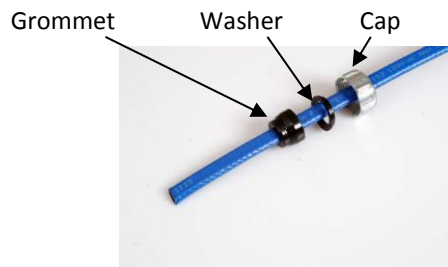
- Glass fiber cloth tape, Drexan Cat. TAPE-GCR-HT / TAPE GCS-LT or equivalent
- Additional pipe straps

Equipment

- Utility knife
- Wire cutter
- Multi-head screwdriver
- Wire stripper
- Crimp tool
- Pipe wrench

ASSEMBLY INSTRUCTION DETAILS

1. Allow approximately 32" (80 cm) of heating cable for installation from the pipe for all three heater cables.
2. Screw Nipple into Housing. Attach Rigid Coupling to the base of the Nipple.
3. Disassemble two Strain Reliefs and cut heaters on approximately a 45° angle. Thread heaters through Strain Relief cap, washer and grommet (2 hole) (wide end towards washer) respectively until 8" (20.3 cm) of the heater ends are exposed. Put Strain Relief bases aside.

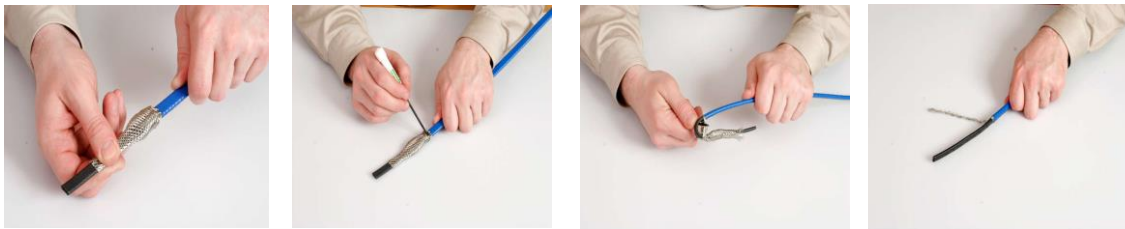


4. Taking care not to cut the Ground Braid, remove 7" (17.8 cm) of outer jacket from the Heater.





5. Push Ground Braid back towards the outer jacket cut-back. Make a buckle in the braid. With a screwdriver, 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.

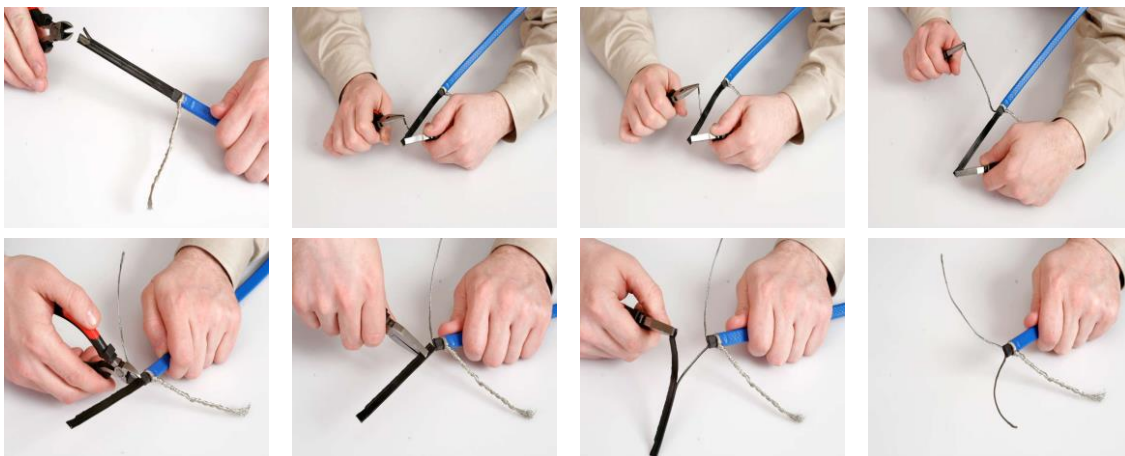


6. Strip back inner jacket and clear membrane within 1½" (38 mm) of the outer jacket cut-back.

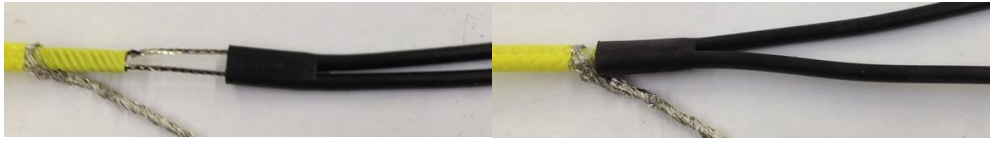


7. Notch core. Peel one of the conductors from the core. Score core between the conductors as close as possible to cut-back end. Peel core from remaining conductor. Clean conductor wires until wires are completely exposed.

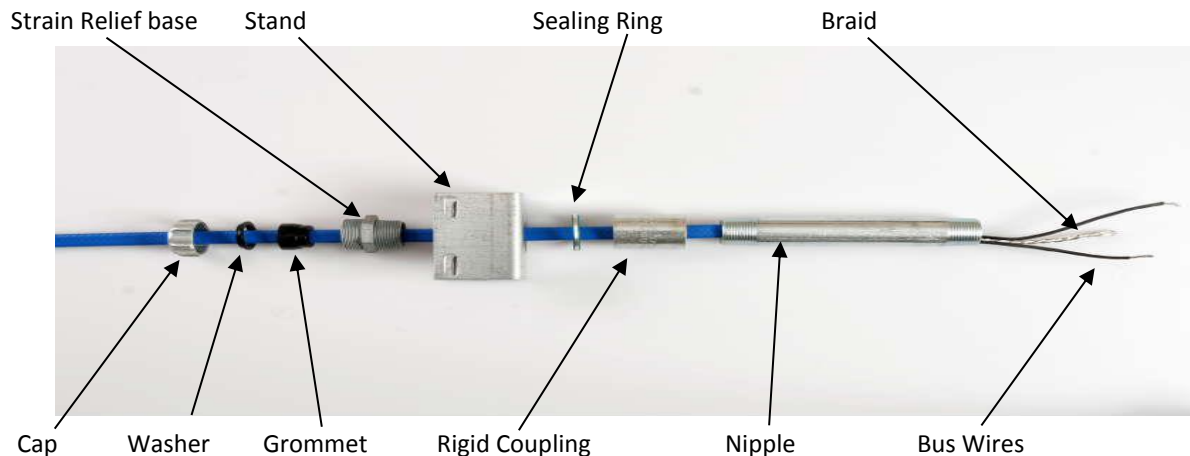
NOTE: For **PGH** (PipeGuard Hot) cable, strip the inner jacket to within 1½" (38 mm) of the outer jacket cut-back exposing the bus wires. Trim off the fiber heating element and spacer.



8. 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



9. Assemble the Stand by placing it between the Rigid Coupling, Sealing Ring and the Strain Relief base. Tighten the Housing, Nipple, Rigid Coupling, Stand and Strain Relief base until all are snug using appropriate tools.



10. Feed the heater conductors and ground wire through the Strain Relief base up the Nipple and into the Housing. Fit the heater Strain Relief Grommet into the Strain Relief base. Hand-tighten the Strain Relief Nut and Washer.
11. Locate an appropriate hole for the Power Connection and bring power to the box in accordance with suitable local electrical codes and practices.
12. Insert Ground wires into the (Green Yellow) Ground Terminal Block by pushing Terminal Blocks open with a screwdriver. Remove the screwdriver to make the connection.
13. Insert Power conductors into the Terminal Block by pushing Terminal Blocks open with a screwdriver. Remove the screwdriver to make the connection. Ensure that the conductor is not visible and pull-test the connection.
14. Insert heater conductors into the Terminal Block by pushing Terminal Blocks open with a screwdriver. Remove the screwdriver to make the connection. Ensure that the conductor is not visible and pull-test the connection.
15. Retighten Strain Relief Nuts ($\frac{1}{4}$ turn) with a wrench.
16. Install lid on Housing making sure not to pinch conductors.
17. Attach to the pipe using SS Straps through the pipe bracket ensuring pipe straps are underneath cable, not over top.
18. 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