Installation Instructions

DREX0019 DIV1-ADP

Division 1 Adapter Kit – Single Cable

These installation instructions are only for use with the following Drexan HeatTracer heater products: Self-Regulating (PipeGuard® Warm (PGW), MultiTrace® (MT) and PipeGuard Hot (PGH)): LP-PC-1-AL (DREX0001AL), LP-PC-2-AL (DREX0002AL), HP-PC-1-AL* (DREX0004AL), HP-PCT-2-AL* (DREX0005AL), LP-E-D1 (DREX0007-D1)

Constant wattage (PipeGuard CMH): CMH-CON (DREX0074)

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

* **Note**: when installing the (HP - high profile) HP-PC-1-AL and HP-PCT-2-AL kits discard the 6" nipple and coupling.

⚠ **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.

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

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. Each heating device branch circuit or each heating device shall have ground fault equipment protection.

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

The heating cable core is conductive and can short if not properly insulated and kept dry. Component and heating cable ends must be kept dry before and during installation. Fire-resistant thermal insulation materials should be used.

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

Bond the metallic braid of the self-regulating heating cable to a suitable grounding (earth) terminal. De-energize before installation or servicing.

HEATING CABLE RATINGS

120 -277 Volt.
PGH only: 5 – 20 W/ft., Maximum 40A.
Maximum continuous exposure temperature 121˚C.

All other self-regulating cables: 3 – 10 W/ft.,
Maximum 32A. Maximum continuous exposure temperature 65˚C
Min bend radius 1.9 inches (50mm)

CMH: 120 – 277 Volt. 30 W/ft. max.,
Maximum withstand temperature 450˚C power off.

APPROVALS*

SP® C US	Class I, Div. 1, Groups A, B, C, D
	Class II, Div. 1, Groups E, F, G
	Class III
c UL® LISTED	Class I, Groups B***, C, D
* E471335	Class II, Groups E, F, G
	Class III

*This kit is not UL listed for use with PGH product.
**When used with PipeGuard Warm and MultiTrace and associated kits only.
*** Group B is included only when this kit is used with kits DREX0001AL, DREX0002AL, DREX0004AL using Cooper Crouse-Hinds Chico A sealing compound.

c UL us LISTED	Class I, Groups A, B, C, D
	Class II, Groups E, F, G
****E471335	Class III
*****E484945	****When used with PipeGuard CMH and associated kits only.
	*****General Purpose / Ordinary Location UL File

KIT CONTENTS

- Sealing Fitting (with strain relief, union and nipple)
- (2) Crimp splices
- DIV 1 sealing compound (Chico Speedseal) and filling instructions
- Core sealer
- 3/16" tube (for PGW, MT only)
- Installation Instructions

Note: if required, Chico A sealing compound must be ordered separately

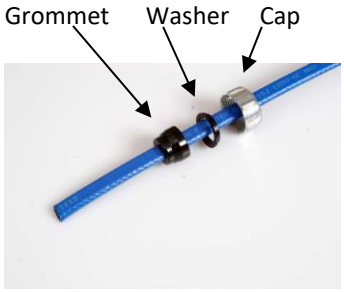
REQUIRED BUT NOT PROVIDED

Equipment

- Utility Knife
- Wire Stripper
- Pipe Wrench
- Wire Cutter
- Crimp tool
- Multi-head Screwdriver
- Needle Nose Pliers

ASSEMBLY INSTRUCTION DETAILS

1. Allow approximately 12" (30 cm) of self-regulating (see p. 5 for CMH) 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 9" (23 cm) of the heater end is exposed. Add any additional pieces supplied in accordance with the instructions provided with the Drexan kit you are using for this application.



3. Taking care not to cut the Ground Braid, remove 9" (23 cm) of outer jacket from the Heater.





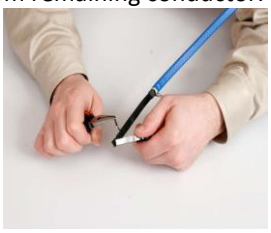

4. Push Ground Braid back towards the outer jacket cut back. Make a buckle in the Braid. With a screw driver, create an opening in the Ground Braid without cutting it, big enough to pull the cable through. Bend cable enabling it to push through the opening in the Ground Braid. Twist the Ground Braid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

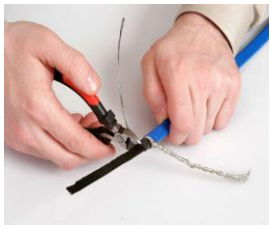



5. Strip back inner jacket and clear membrane 4½" (11 cm) from outer jacket cut back.



6. 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.

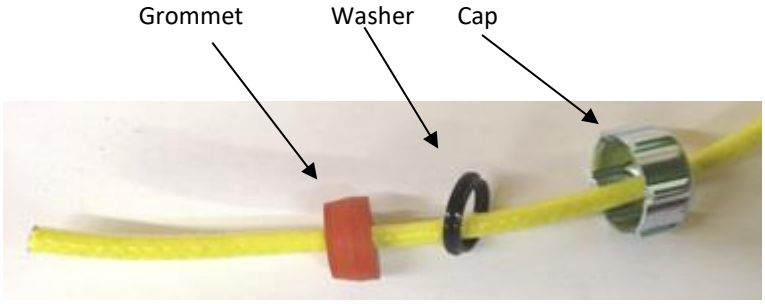

7. Place the supplied tube over one bus wire prior to sliding the core sealer over the bus wires (PGW, MT only - this will provide added protection from a short between the two bus wires). Then slide the core sealer over the bus wires of the cable, over the inner core until as close to the braid as possible.

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



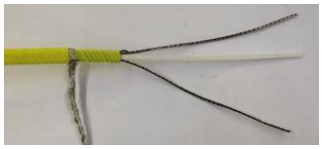
PIPEGUARD HOT (PGH)

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.



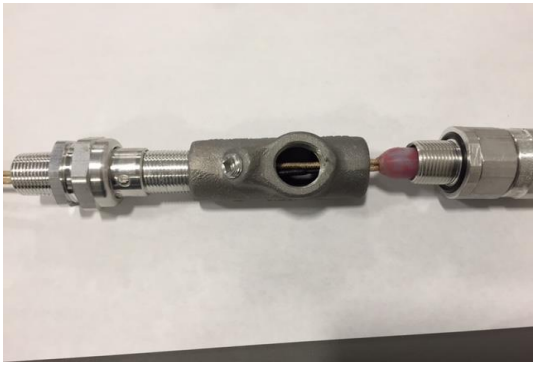

6. Slide the core sealer over the bus wires of the cable, over the inner core until as close to the Braid as possible.

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


FINAL ASSEMBLY

1. Place the sealing fitting over the cable such that the end of the outer jacket cutback and braid will be visible through the center hole of the sealing fitting and the braid is hanging out the end along with the remaining stripped cable. Push heater Strain Relief Grommet into place and tightly connect strain relief fitting to the sealing fitting.

2. When using the DIV1-ADP kit with **PipeGuard CMH** (constant wattage cable), terminate the CMH cable as per the installation instructions for the CMH-CON or CMH-PWR Termination Kit. Ensure the bus wires pass through the sealing fitting before entering the junction box as shown below. Ensure the bus wires are separated from each other (dammed).



3. Connect and tighten the nipple to the sealing fitting. Connect and tighten female thread side of the union to the nipple and the male thread side to the junction box.

4. Fill the sealing fitting with only Chico A or Chico Speedseal sealing compound when using this kit with kit part number DREX0005AL. Follow filling instructions supplied with this compound.

   Use only supplied sealing compound Chico A when using this kit with kit part numbers DREX0001AL, DREX0002AL, DREX0004AL. Follow filling instructions supplied with sealing compound.

5. Tightly secure plugs into the sealing fitting.
6. Feed Heater Conductors and Ground wire into the junction box and follow the installation instructions for making connection.