

Installation Instructions

CMH- TERM38 (DREX0051)

CMH-TERM516 (DREX0052)



These installation instructions are for use with Drexan HeatTracer CMH heater products.

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

For technical support call Drexan at 1.800.663.6873

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.

Ground-fault equipment protection must be used 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 metal sheath of CMH heating cable shall be grounded, but shall not be used as the grounding means.

Metallic structures or materials such as metal pipes used to support CMH cable shall be grounded.

CMH Cable is not to cross or come in contact with itself.

CMH heating cables are to be thermostatically controlled.

Component approvals and performance characteristics are based on Drexan specific parts only.

Substitution will void approvals and performance claims.

Component and heating cable ends must be kept dry before and during installation.

Fire resistant thermal insulation should be used.

CMH cable may be terminated in any certified or approved enclosure mounted off the heated surface.

Approvals



Class I, Div. 1, Groups A, B, C, D
Class II, Div. 1, Groups E, F, G
Class III

Additional Materials Required

- Fine tooth Hacksaw
- Multi-head Screwdriver
- Pipe Wrench
- Pliers
- Silicone RTV Sealant

Equipment Required

The following equipment is needed for this assembly:

- Pipe straps
- Thermostat
- Junction box

CMH-TERM Kit contains

- 1-Strain Relief Fittings
- Heat Shrink Sleeving
- Silicon Boots 3/8"
- Silicone Boots (for end seal only)
- 1-3/4" sealing ring (use with HP bracket, bottom entry)
- 2 – Anti-short bushings

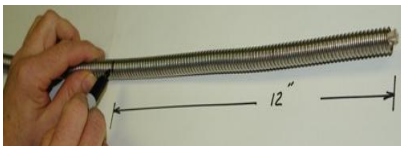
Assembly Instruction Details

Note: CMH cable may be terminated in any enclosure certified for the application.
When using a non-metallic enclosure be sure to use a hub with a grounding lug.
All enclosures are to be mounted off the heated surface.

Megger the insulation resistance between the sheath and conductors. The reading should be 40 Megohms or higher.

Note: When cutting CMH cable with a hacksaw, cut around the sheath taking care not to damage the internal conductors. The conductors should be cut with appropriate wire cutters.

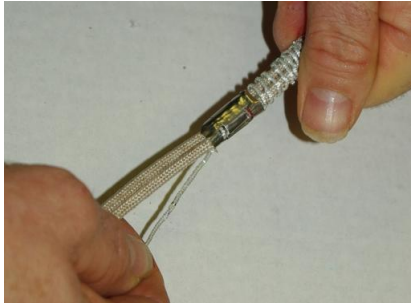
1. Using a hacksaw, cut the desired length of CMH cable allowing an extra three feet per end and appropriate cable length for heat sinks such as valves, flanges and pipe supports.
2. Screw the CMH gland body into an enclosure and mount in a suitable location.
3. Using a hacksaw cut the sheath back 12" (30.5cm) from the raw end taking care not to damage the heater core. Remove and discard the sheath material.



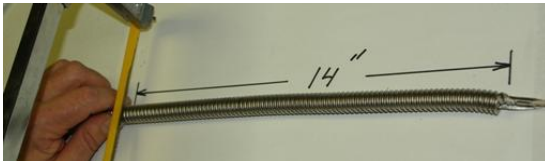
4. Un-wrap the outer layer of glass cloth tape and then the layer of mica insulating tape to expose the contact clip that holds the heater element in contact with the conductor buss wire. Cut and discard the unwound lengths.



5. Unwind the heater element down to the clip. Cut and discard the heater element. **DO NOT REMOVE CLIP.**



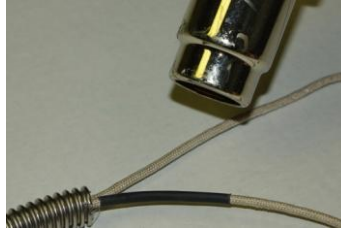
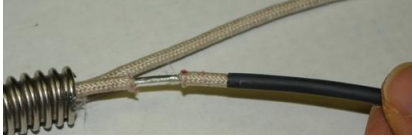
6. Measure 14" (35.5cm) from the clip, mark the sheath and cut around using the hacksaw taking care not to damage the internal core. Discard the sheath. Insert the anti-short bushing (collar) into the sheath between the sheath and the core. Wrap around the core next to the sheath/bushing a couple layers of electrical tape to prevent the insulation from unwrapping.



7. Cut and remove the first contact clip. Unwind and discard the outer insulating layers and the heater element as in STEP 4 & 5. **Note: be sure to cut the heater element flush to the end of the cable sheath.**



- Remove the second clip and place the supplied heat shrink over the exposed buss wire where the contact clip was located and over the end of the heater element to ensure the heater element does not come in contact with the cable sheath **Note:** it is not necessary to shrink the tubing. This kills the next 10" (25.4cm) zone of heating cable under the sheath and serves as a 10" (25.4cm) cold lead.



- Apply silicone sealant around the cable sheath, 3/4" (20mm) from the end of the sheath prior to placing the supplied clear silicone boot over the buss wires and onto the sheath. This will provide an environmental seal inside the junction box. **Important:** At this time megger the cable between the sheath and conductors to ensure the heater element is not in contact with the end of the cable sheath (dead short). The insulation resistance reading should be 40 Megohm or higher.



- Remove the clam shell portion of the gland fitting (remove 4 screws). Place a ring of silicone around the boot as shown in the below picture. The silicone will assist with sliding the boot into the strain relief chamber as well as provide an environmental seal.



- Insert the cable through the gland and into the enclosure. Replace the clam shell and re-install screws (tighten screws in a rotating order).



- Make the electrical connection as required.

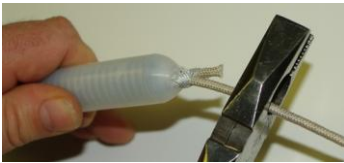
End of Circuit Termination

Note: CMH cable may be terminated in any enclosure certified for the application.
When using a non-metallic enclosure be sure to use a hub with a grounding lug.
All enclosures are to be mounted off the heated surface.

Repeat Steps # 1 through # 8

- Trim the buss wire conductors to different lengths. Apply silicone sealant around the sheath 3/4" (20mm) back from the end of the sheath and install the supplied clear silicone boot over the buss wires and onto the sheath. This will provide the environmental seal inside the junction box.

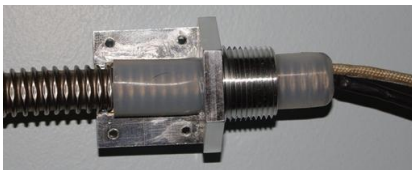
Important: after the boot is installed megger the cable between the sheath and conductors to ensure the heater element is not in contact with the end of the cable sheath (dead short). The insulation resistance reading should be 40 megohms or higher.



- Remove the clam shell portion of the gland fitting (remove 4 screws). Place a ring of silicone around the boot as shown in the below picture. The silicone will assist with sliding the boot into the strain relief chamber.



- Insert the cable through the gland chamber and into the enclosure. Replace the clam shell and re-install screws (tighten screws in a rotating order).



- Push the supplied silicone boots onto the conductors

