Marley® Engineered Products

MEP-PCA-HW

For Electrical Connection Kit MEP-PCA-HW

Installation, Operation & Maintenance Instructions

TOOLS REQUIRED:

Crimping Tool, Flat Head Screwdriver Wire Cutter, Diagonal Cutting Pliers, Utility Knife or Razor Blade, Measuring Tape

KIT DESCRIPTION:

The electrical connection kit is used for making electrical connections for the CRG Families of self regulating parallel heating cables.

The kit contains components needed to make one power input connection.

KIT CONTENTS:

QTY	DESCRIPTION
1	Connector Body
1	Connector Cap
1	Connector Gland Washer
1	Grommet
1	Strain Relief Grip
1	Standoff Bracket
2	Rolls of Self-Fusing Tape
2	16-14AWG Insulated Butt Connectors
2	14AWG Cold Lead Wires
1	Roll of Fiberglass Tape
1	Pipe Strap (for 2” to 6” O.D. pipes)
1	Ring Tongue Terminal
1	Instruction Sheet

Additional Items Required But Not Supplied:

Wire Connectors (for power supply to 14 AWG cold lead connections)
Weather Tight Junction Box(¾” NPT Hubs)* Sealing Fitting(Division 1)*
Pipe Strap (for pipe sizes other than 2” to 6” O.D.)
Additional Fiberglass Tape

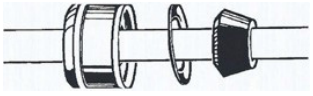
General Installation Precautions:

1. Ground metal structures used for support or on which the cable is installed in accordance with NEC or CES Code part 1, Section 10.
2. After installation of thermal insulation is complete, the electrical resistance of the entire branch circuit should not be less than 1O Mohms.
3. Install cable at -30° C or above
4. Do not install heater closer than 13mm 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 72° C.
5. Minimum bending radius for the heater is 6mm.

Input Power Connection

A. Connecting Heater to Cold Leads

1. Insert heater through the connector cap, gland washer, and grommet. Pull about 250 mm (10”) of heater through the grommet.



2. Score and remove 20 cm(8”) of the outer jacket to expose the braid.



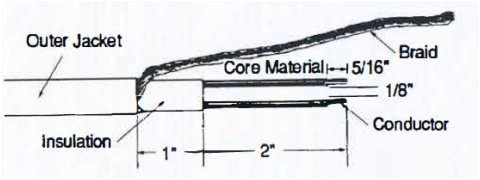
3. Unravel 20 cm(8”) of braid and twist it into a pigtail.

4. Cut off 13 cm (5”) of the exposed heater. (This should leave 8 cm (3”) of non-braided heater.)

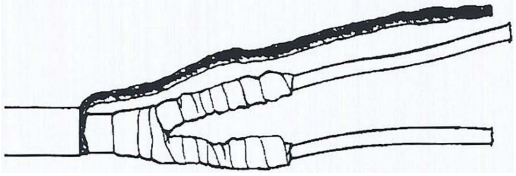
Input Power Connection

A. Connecting Heater to Cold Leads

5. Remove 5 cm (2”) of the insulation (inner jacket) from the end of the heater, exposing the black core. Cut out a strip of core material about 3 mm (1/8”) wide by 5 cm (2”) long from the center of the heater. Remove 8 mm (5/16”) of core material from each conductor, being careful not to cut the conductor strands.



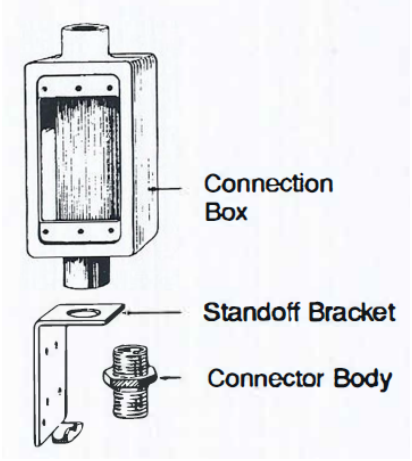
6. Strip 5/16” of insulation from each cold lead wire and connect a cold lead wire to each of the heater conductors using the insulated butt connectors. Wrap each connection and heater conductor with the silicone self-fusing tape, making sure to completely cover all exposed black core material and to overlap the heater insulation. Wrap over the self-fusing tape with fiberglass tape.



B. Connecting Heater to Electrical Power

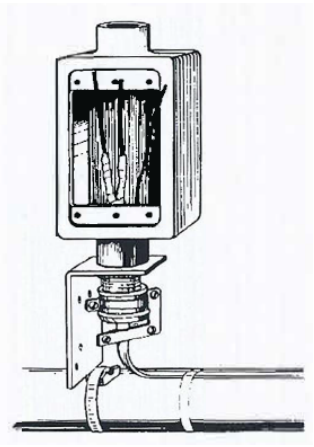
1. Slide the grommet up to the outer jacket cutback.

2. Insert the connector body through the standoff bracket and thread a junction box onto the connector body (customer supplied).



3. Guide the cold leads, braid and heater through the connector body into the box, insert the grommet in the connector body and tighten the connector cap. This should position the heating portion of the heater in the connector and the heater to cold lead connections about 2” out of the connector so that the heating portion will not enter the connection box.

4. Attach the rounded portion of the strain relief grip to the connector cap so that the heater is aligned with the flat surface of the grip. Attach the grip to the heater. Attach the standoff bracket to the pipe using the pipe strap.



5. Connect the cold lead wires to power supply wires using approved wire connectors. Attach the braid pigtail to ground using the ring tongue terminal provided. Install the box cover.