



### MCK-5-xL 5-8kV Class

### Motor (In-line) Connection Kits for 1/C Medium-Voltage Power Cable

#### General Instructions

##### Suggested Installation Equipment (not supplied with kit)

- Cable preparation tools
- Raychem P42 cable preparation kit or cable manufacturer approved solvent
- Clean, lint-free cloths
- Lug(s) and installation tools
- Raychem recommended torch

##### Recommended Raychem Torches

Install heat-shrinkable cable accessories with a "clean burning" torch, i.e., a propane torch that does not deposit conductive contaminants on the product.

Clean burning torches include the Raychem FH-2609, FH-2629 (uses refillable propane cylinders) and FH-2616A1 (uses disposable cylinder).

##### Safety Instructions

**Warning:** When installing electrical power system accessories, failure to follow applicable personal safety requirements and written installation instructions could result in fire or explosion and serious or fatal injuries.

To avoid risk of accidental fire or explosion when using gas torches, always check all connections for leaks before igniting the torch and follow the torch manufacturer's safety instructions.

To minimize any effect of fumes produced during installation, always provide good ventilation of confined work spaces.

##### Adjusting the Torch

Adjust regulator and torch as required to provide an overall 12- inch bushy flame.

The FH-2629 will be all blue, the other torches will have a 3- to 4-inch yellow tip. Use the yellow tip for shrinking.

##### Regulator Pressure

FH-2616A1	Full pressure
FH-2609	5 psig
FH-2629	15 psig

##### General Shrinking Instructions

- Apply outer 3- to 4-inch tip of the flame to heat-shrinkable material with a rapid brushing motion.
- Keep flame moving to avoid scorching.
- Unless otherwise instructed, start shrinking tube at center, working flame around all sides of the tube to apply uniform heat.

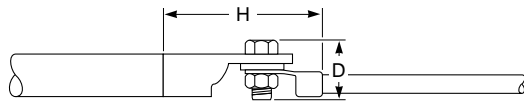
To determine if a tube has completely recovered, look for the following, especially on the back and underside of the tube:

1. Uniform wall thickness.
2. Conformance to substrate.
3. No flat spots or chill marks.
4. Visible sealant flow if the tube is coated.

## 1. Product selection.

Check kit selection with cable dimensions in Table 1.

**Note:** The Raychem MCK-5 Motor Connection Kit is designed for use with shielded or unshielded feeder cables. When shielded cables are used, a Raychem HVT termination kit is recommended to terminate the feeder cable prior to installation of the MCK-5.



**Table 1**

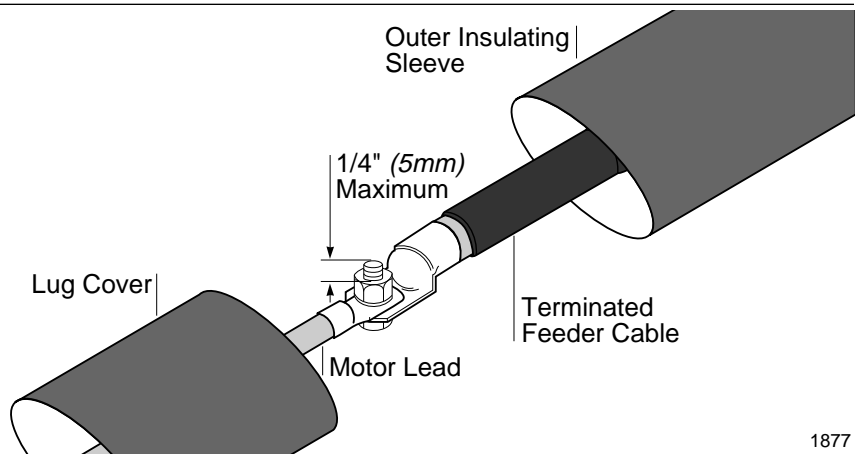
Kit	Motor Feeder Conductor Size	Bolt Length Max (D)	Connection Length Max (H)
MCK-5-1L	#8-250 kcmil	1" (25mm)	6.0" (150mm)
MCK-5-2L	300-1000 kcmil	1-1/2" (40mm)	7.0" (175mm)

## 2. Position tubes; install lugs.

After completing phase rotation check, align motor lead with appropriate feeder cable.

Remove all fiber braid (if any) from the cables and clean for 6" (150mm) beyond each lug. Place the tubes over the cables as shown.

Install lugs on feeder cables and motor leads. Bolt connections tight. Insert bolt through tang of largest lug first. Bolt must not extend through nut more than 1/4" (5mm).



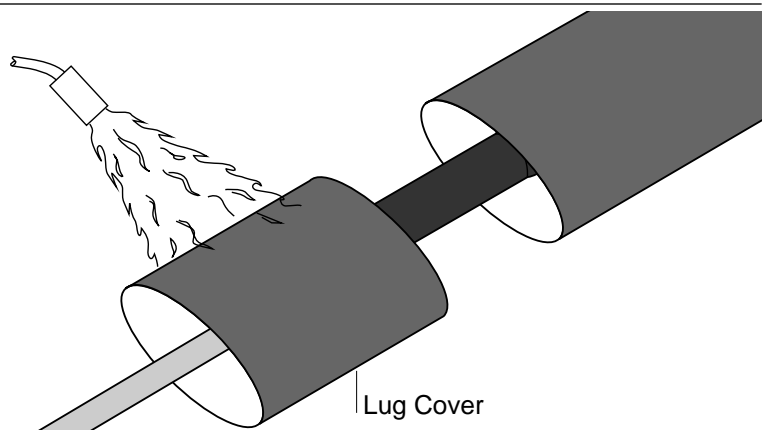
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**Note:** MCK insulating caps are designed to accommodate the largest lugs normally used. However, many installations require shorter caps due to space limitations. MCK can be trimmed to any desired length as long as the following rules are observed.

- The cuts must be clean with no jagged edges.
- The cap length must be sufficient to completely cover the mastic strips – approximately 1-1/2" (40mm) beyond the end of the longest lug barrel.
- If the cap is trimmed, an equal length should be trimmed from the lug cover sleeve.

## 3. Install lug cover.

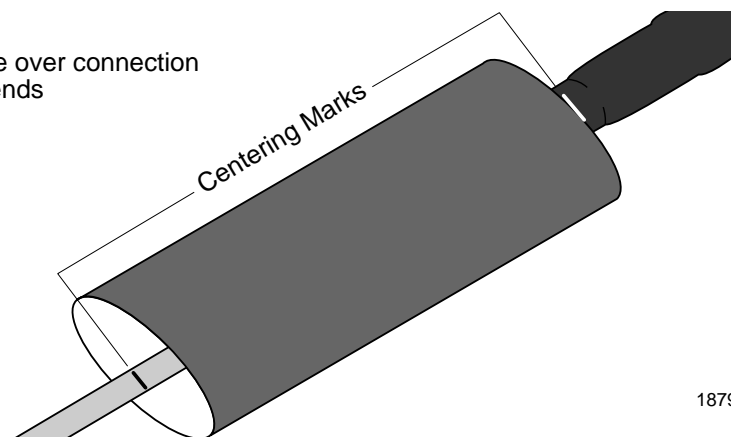
Center the lug cover sleeve over the bolted connection and shrink in place.



## 4. Mark cables.

Center the outer insulating sleeve over the connection area and mark its end positions on the cables.

Center tube over connection and mark ends

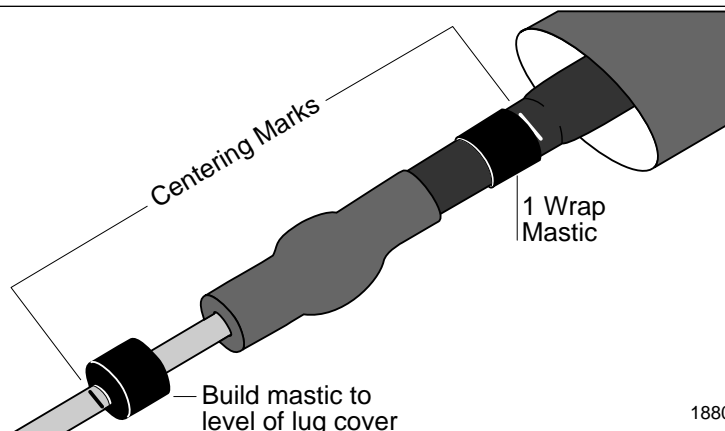


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## 5. Apply mastic.

Remove release papers from mastic strip. Make one complete wrap of mastic around the feeder cable, just inside the mark made in Step 4.

Wrap mastic around the motor lead (just inside mark made in Step 4). Make as many wraps as necessary to build the motor lead up to the diameter of the lug cover sleeve. Discard excess mastic.



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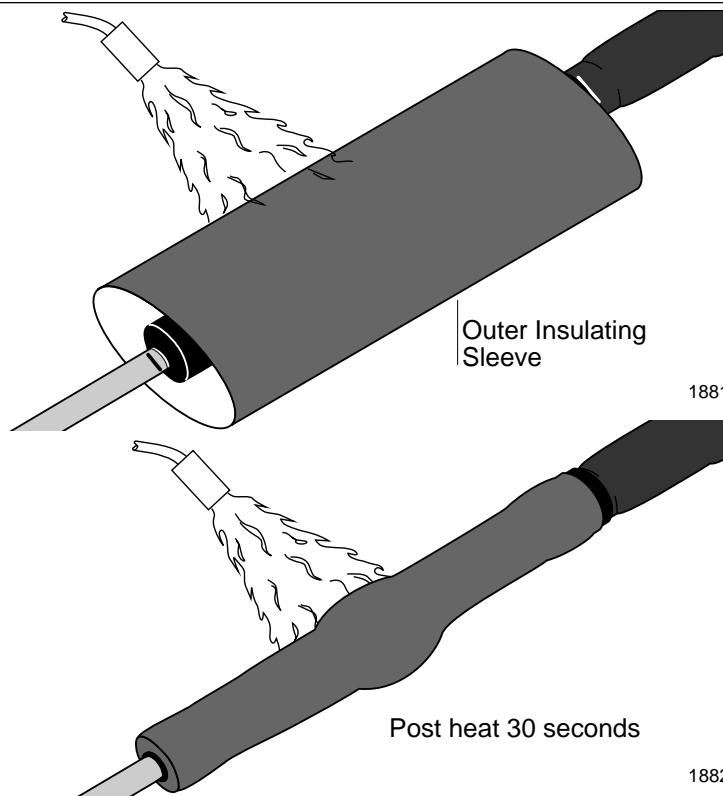
## 6. Position tube; shrink in place.

Center the outer sleeve over the connection area, covering the mastic wraps. Begin shrinking at the center, working the torch with a smooth, brushing motion around all sides of the sleeve.

Continue to each end as the sleeve shrinks and conforms to the cable contours. Post heat sleeve for approximately 30 seconds after sleeve has fully shrunk.

Allow to cool enough to touch before replacing in motor terminal box.

**Installation is complete.**



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