



# SLCABUC-CSA-M Electrical Connection Kit Installation

## Instructions for SLCAB and SLMCAB series Heating Cable

### DESCRIPTION

The kit contains components needed to make one input power connection and one end termination in Ordinary or Division 2 locations. Splices and power input splices can be made by using 2 kits.

### KIT APPROVALS



Ordinary Locations 2E\*, 3(A,B,C), 5(A,B)  
Hazardous  
(Classified) Locations  
Class I, Division 2, Groups B, C, D  
Class II, Division 2, Groups E, F, G  
Class III, Division 2

**Approvals valid only when** used with appropriate heating cable and installation accessories, and installed in accordance with all applicable instructions, codes, and regulations.

\*2E approved for 3 watts/ft and 5 watts/ft only

### KIT CONTENTS

Quantity	Description
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1	Connector body
1	Connector cap
2	Connector gland washers
1	Grommet
1	Termination boot
1	Strain relief grip
1	Standoff bracket
1	Locknut
1	Termination block
1	Roll of fiberglass tape
1	Silicone sealant
1	Pipe strap (for 2" to 6" [51 to 152mm] O.D. pipes)
1	Ring tongue terminal
1	End seal kit

#### Additional Items Required But Not Supplied:

Weather Tight Junction Box (3/4" NPT Hubs)\*  
Pipe Strap (for pipe sizes other than 2" to 6" O.D.)  
Additional Fiberglass Tape

\* The hazardous location designation of the complete cable set is governed by the lowest hazardous location rating of the outlet box.

#### Tools Required:

Flat-Head Screwdriver  
Wire Cutters  
Diagonal Cutting Pliers  
Needle-nose Pliers  
Utility Knife or Razor Blade  
Crimp Tool

### GENERAL INSTALLATION PRECAUTIONS

1. If the heating cable has a stainless steel braid, the following caution applies: The metal covering shall not be used as the bonding-to-grounding means. Alternative means of protection shall be provided per CE Code part I.
2. Ground metal structures used for support on which the cable is installed in accordance with CE Code part I, Section 10.
3. For cables installed in outdoor or wet indoor locations, use a suitable weatherproofing cover (such as aluminum jacketing) to protect the thermal insulation.
4. After installation of thermal insulation is complete, the insulation resistance of the system should not be less than 10 Mohms when measured at 500 V dc between each circuit and ground with set de-energized and all circuit neutrals isolated from ground.
5. Install at -30°C or above.
6. 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.
7. Minimum bending radius for the heater is 1/4" (6mm)

## TECHNICAL INFORMATION FOR SLCAB SERIES SELF-REGULATING HEATING CABLE

### Specifications

Maximum Exposure Temperature: 185°F (85°C)

Maximum Maintenance Temperature: 150°F (66°C)

#### Maximum Circuit Length (ft.)

Heat Cable Type	Thermal Rating @ 50°F (Watts/ft.)	Service Voltage (Volts)	Maximum Circuit Length (ft.)	Bus Wire Size (AWG)	Circuit Breaker Size	Start-up Temperature		
						50°F (10°C)	0°F (-20°C)	-20°F (-29°C)
SLCAB3120	3	120	330	16	15 amp	300	200	180
					20 amp	-	270	230
					30 amp	-	330	330
SLCAB3240	3	240	660	16	15 amp	660	410	360
					20 amp	-	560	480
					30 amp	-	660	660
SLCAB5120	5	120	270	16	15 amp	230	150	130
					20 amp	270	200	175
					30 amp	-	270	260
SLCAB5240	5	240	540	16	15 amp	460	300	260
					20 amp	540	400	345
					30 amp	-	540	520
SLCAB8120	8	120	210	16	15 amp	150	95	85
					20 amp	200	125	100
					30 amp	210	190	170
					40 amp	-	210	210
SLCAB8240	8	240	420	16	15 amp	295	195	170
					20 amp	390	250	225
					30 amp	420	375	340
					40 amp	-	420	420
SLCAB10120	10	120	180	16	15 amp	115	70	60
					20 amp	150	95	85
					30 amp	180	145	120
					40 amp	-	180	165
SLCAB10240	10	240	360	16	15 amp	230	150	130
					20 amp	305	200	175
					30 amp	360	300	260
					40 amp	-	360	360

## TECHNICAL INFORMATION FOR SLMCAB SERIES MID-TEMPERATURE SELF-REGULATING HEATING CABLE

### Specifications

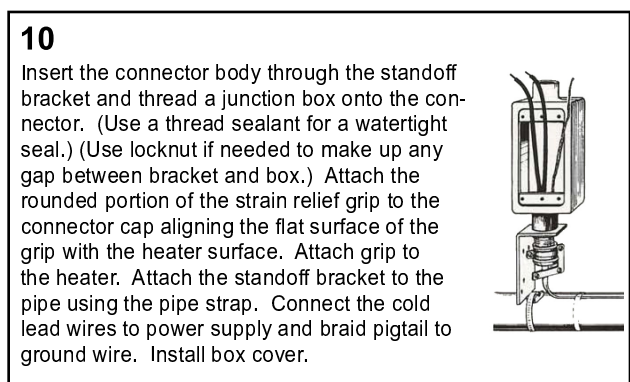
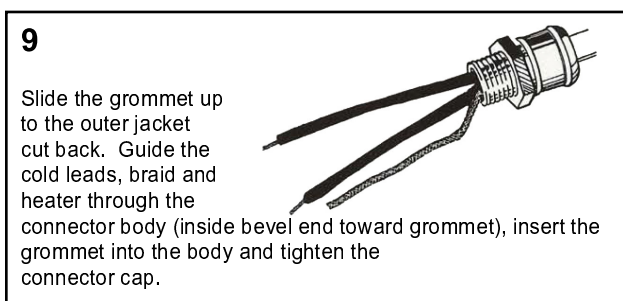
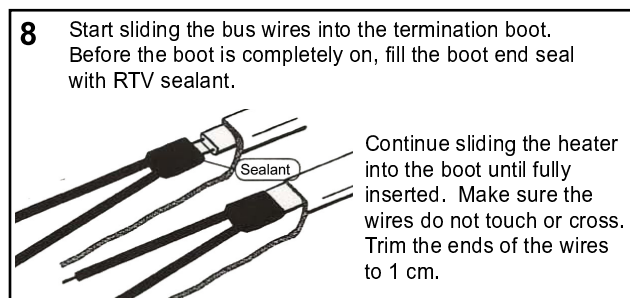
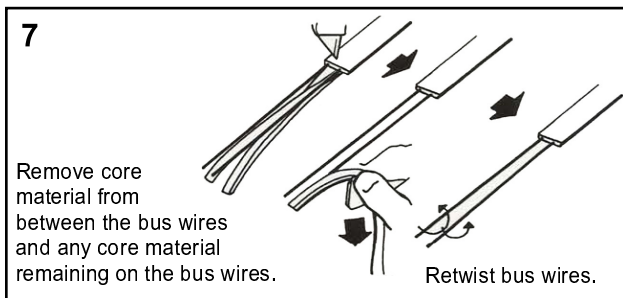
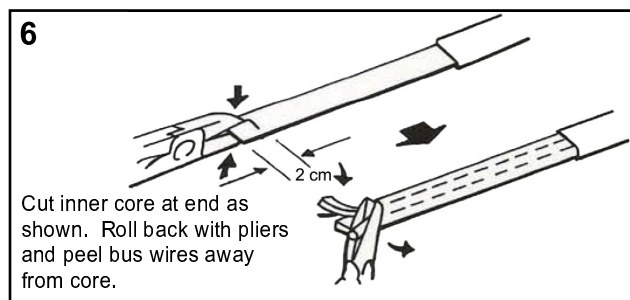
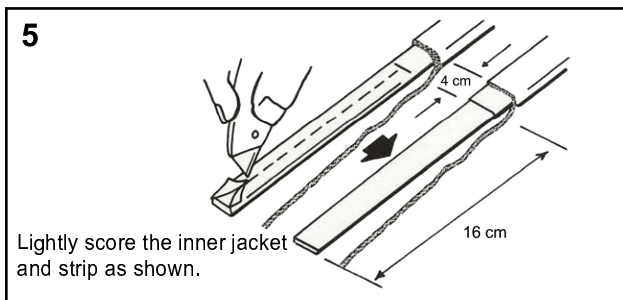
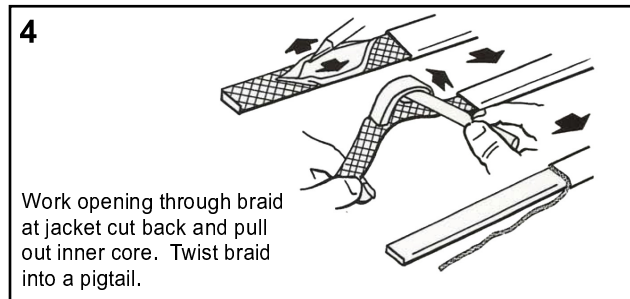
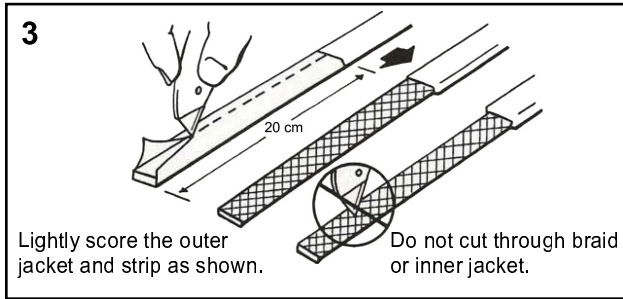
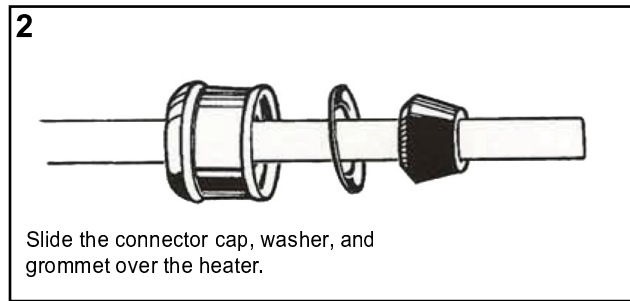
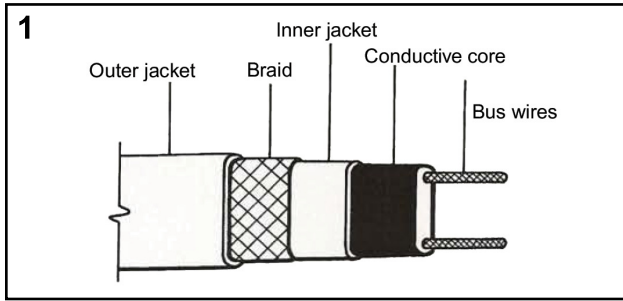
Maximum Exposure Temperature: 366°F (185°C) 150 PSIG Saturated Steam

Maximum Maintenance Temperature: 250°F (120°C)

#### Maximum Circuit Length (ft.)

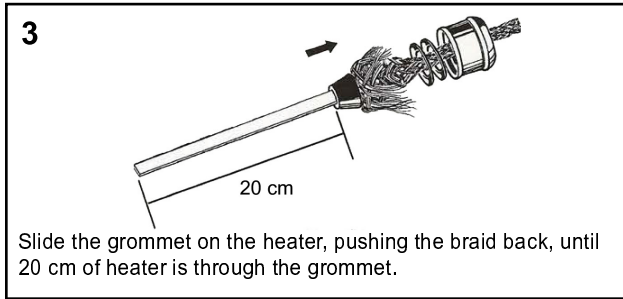
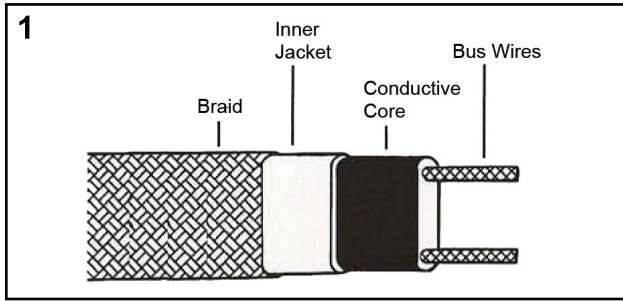
Heat Cable Type	Thermal Rating @ 50°F (Watts/ft.)	Service Voltage (Volts)	Maximum Circuit Length (ft.)	Bus Wire Size (AWG)	Circuit Breaker Size	Start-up Temperature		
						50°F (10°C)	0°F (-20°C)	-40°F (-40°C)
SLMCAB5120	5	120	240	16	15 amp	150	135	130
					20 amp	200	180	170
					30 amp	240	220	210
SLMCAB5240	5	240	480	16	15 amp	250	230	220
					20 amp	330	305	295
					30 amp	480	440	420
SLMCAB10120	5	120	180	16	15 amp	90	85	80
					20 amp	120	110	105
					30 amp	180	165	160
SLMCAB10240	5	240	280	16	15 amp	140	130	125
					20 amp	190	175	170
					30 amp	280	260	250
SLMCAB15120	5	120	135	16	15 amp	70	65	60
					20 amp	90	85	80
					30 amp	130	125	120
SLMCAB15240	5	240	200	16	15 amp	100	95	90
					20 amp	135	125	120
					30 amp	200	185	180

# POWER CONNECTION INSTRUCTIONS FOR HEATER WITH BRAID AND OUTER JACKET

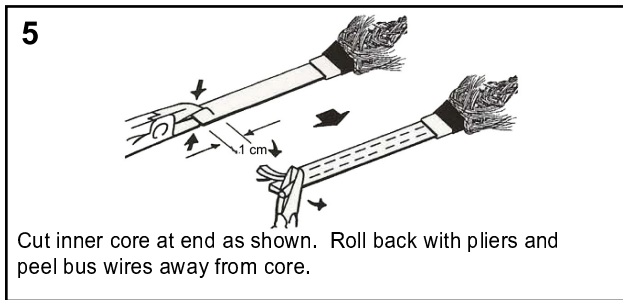


Secure the heater to the pipe with fiberglass tape or cable ties about every 30 cm.

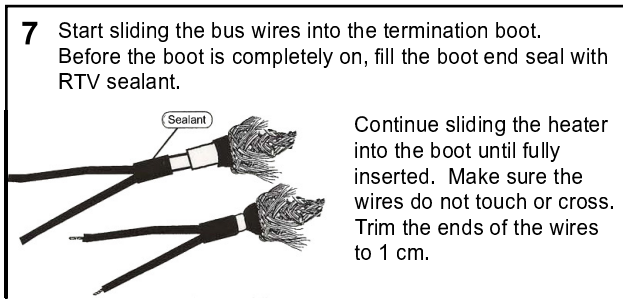
# POWER CONNECTION INSTRUCTIONS FOR HEATER WITH BRAID ONLY (NO OUTER JACKET)



Slide the grommet on the heater, pushing the braid back, until 20 cm of heater is through the grommet.

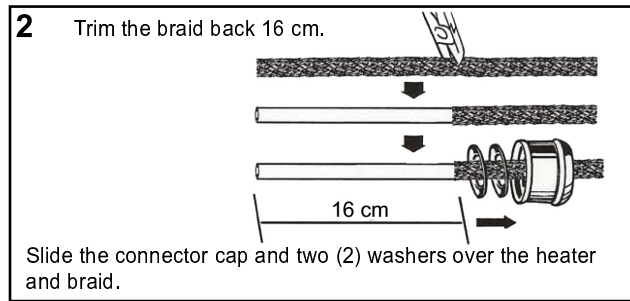


Cut inner core at end as shown. Roll back with pliers and peel bus wires away from core.

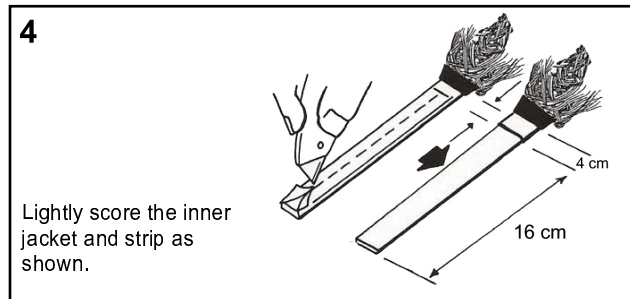


7 Start sliding the bus wires into the termination boot. Before the boot is completely on, fill the boot end seal with RTV sealant.

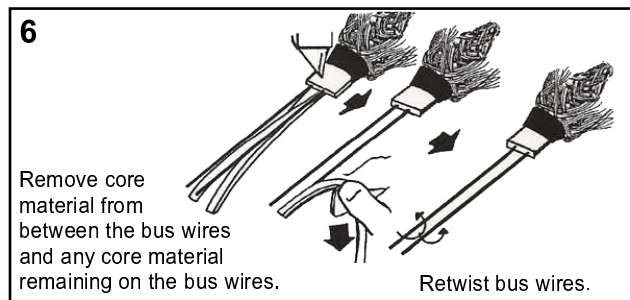
Continue sliding the heater into the boot until fully inserted. Make sure the wires do not touch or cross. Trim the ends of the wires to 1 cm.



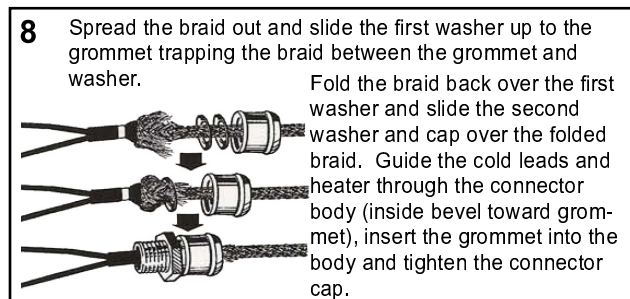
2 Trim the braid back 16 cm. Slide the connector cap and two (2) washers over the heater and braid.



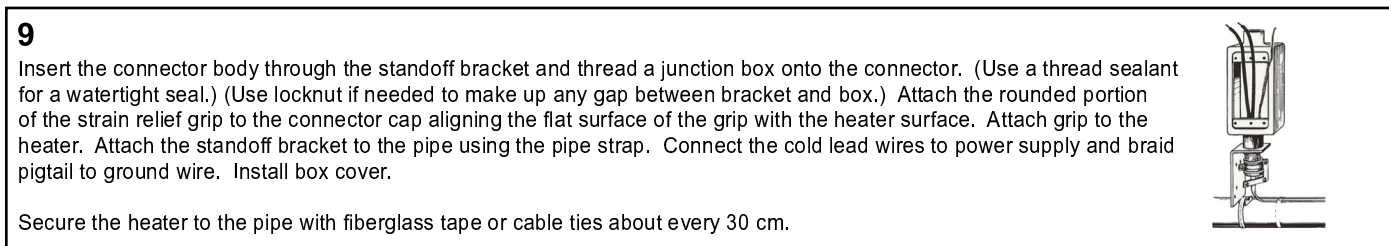
4 Lightly score the inner jacket and strip as shown.



6 Remove core material from between the bus wires and any core material remaining on the bus wires. Retwist bus wires.



8 Spread the braid out and slide the first washer up to the grommet trapping the braid between the grommet and washer. Fold the braid back over the first washer and slide the second washer and cap over the folded braid. Guide the cold leads and heater through the connector body (inside bevel toward grommet), insert the grommet into the body and tighten the connector cap.



9 Insert the connector body through the standoff bracket and thread a junction box onto the connector. (Use a thread sealant for a watertight seal.) (Use locknut if needed to make up any gap between bracket and box.) Attach the rounded portion of the strain relief grip to the connector cap aligning the flat surface of the grip with the heater surface. Attach grip to the heater. Attach the standoff bracket to the pipe using the pipe strap. Connect the cold lead wires to power supply and braid pigtail to ground wire. Install box cover.

Secure the heater to the pipe with fiberglass tape or cable ties about every 30 cm.



## INPUT POWER SPLICE

(for power connection to two lengths of heater) (additional kits required)

To make a power connection to two lengths of heater use a box with an additional hub to accommodate the second heater. Follow the power connection procedure on page 3 or 4 for the first heater. For the second heater, install the connector fitting components in the additional hub in the box. Prepare the heater following the procedure on page 3 or 4; then guide the cold leads and heater through for connection to power inside the box.

## SPLICE

(for splicing two lengths of heater) (additional kits required)

To splice one length of heater to another length, use a box with appropriately located hubs. Follow the power connection procedure on page 3 or 4 for the first heater. For the second heater, install the connector fitting components in the additional hub in the box; then guide the cold leads and heater through. Attach leads from one heater to leads from the other heater.