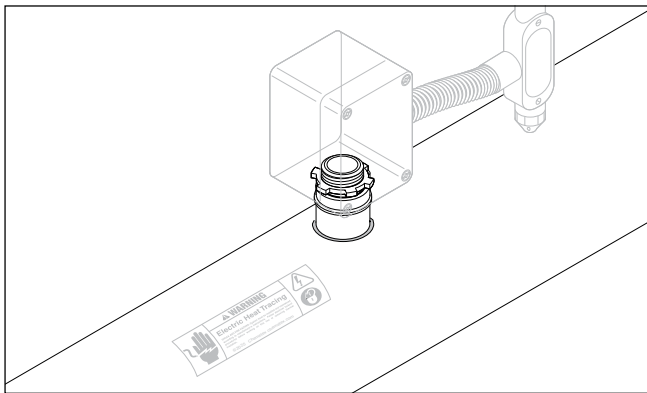


JS-100-A

Junction Box Stand Installation Instructions



APPROVALS

Hazardous Locations



Class I, Div. 2, Groups A, B, C, D
Class II, Div. 2, Groups F, G
Class III

KIT CONTENTS

Item	Qty	Description
A	1	Stand assembly
B	1	Cable lubricant
C	1	1 in locknut
D	1	Terminal block
E	1	Cable tie
F	1	Green/yellow tube
G	1	CS-100 cold applied core sealer
H	1	JS-100 transition

DESCRIPTION

The Raychem JS-100-A is a Single Entry Power Connection Transition kit. It is designed for use with Raychem BTV-CR, BTV-CT, QTVR-CT, XTVR-CT, HTV-CT, and VPL-CT industrial parallel heating cables. The kit is NEMA 4X rated only when used with an appropriate junction box.

This kit may be installed at temperatures as low as -40°F (-40°C). For easier installation store above freezing until just before installation. For technical support call Chemelex at (800) 545-6258.

TOOLS REQUIRED

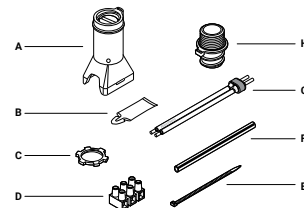
- Utility knife
- Needle nose pliers
- Wire cutters
- 3/16 in or smaller slotted screwdriver
- Two pair channel lock pliers
- Large slotted screwdriver
- Marker
- Wire stripper (for VPL)

ADDITIONAL MATERIALS REQUIRED

- Pipe strap
- GT-66 or GS-54 glass cloth tape
- NEMA 4X rated junction box with 1 in NPS threaded entry or through hole

OPTIONAL MATERIALS

- Recommended conduit drain: JB-DRAIN-PLUG-3/4IN P/N 278621-000
- Small pipe adapter for 1 in (25 mm) and smaller pipes: Catalog number JBS-SPA P/N E90515-000



WARNING:

This component is an electrical device that must be installed correctly to ensure proper operation and to prevent shock or fire. Read these important warnings and carefully follow all of the installation instructions.

- To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of Chemelex, agency certifications, and national electrical codes, ground-fault equipment protection must be used. Arcing may not be stopped by conventional circuit breakers.

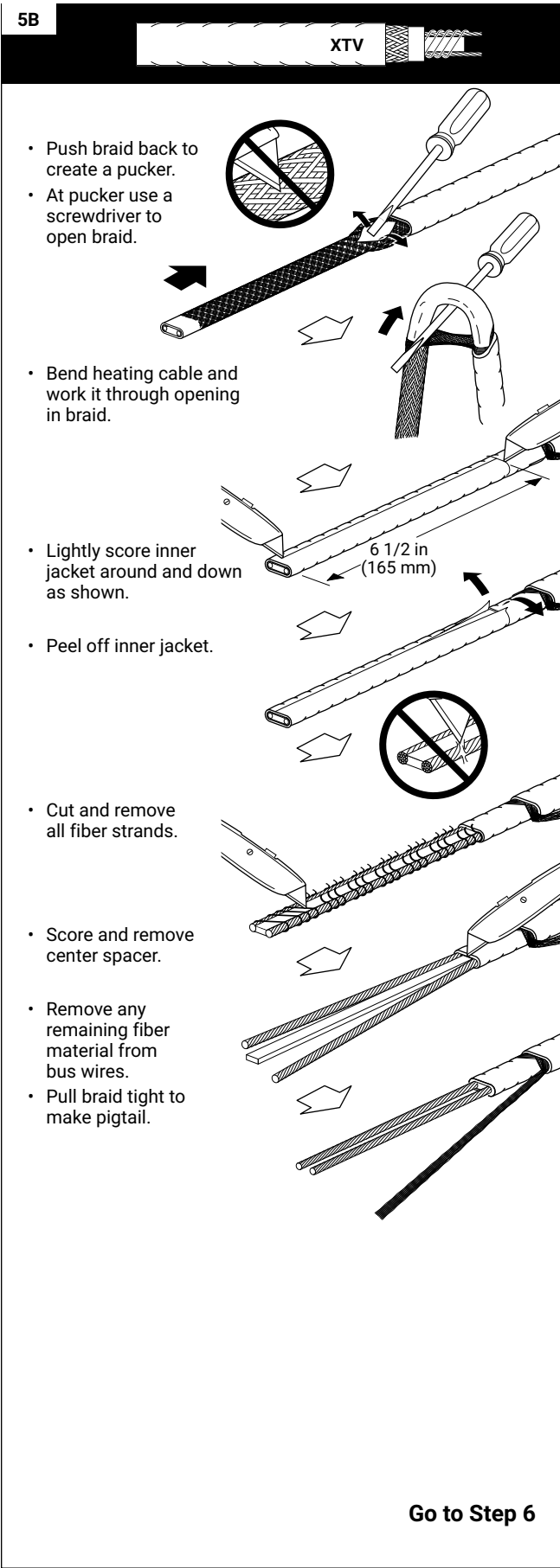
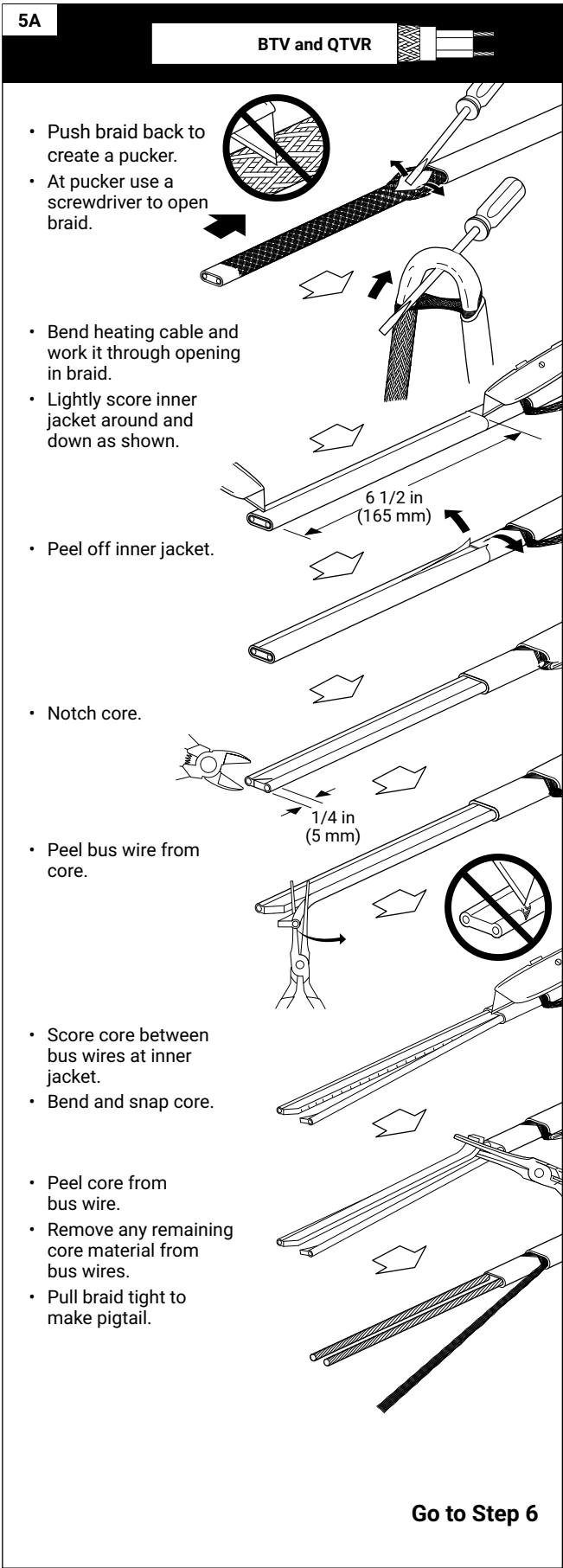
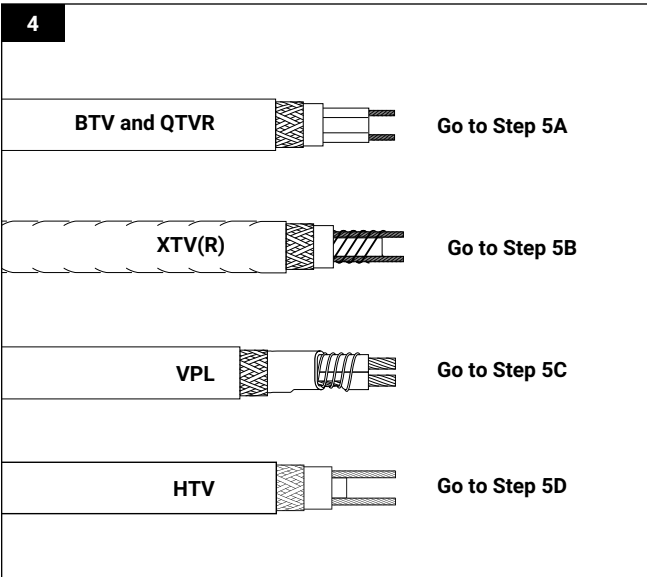
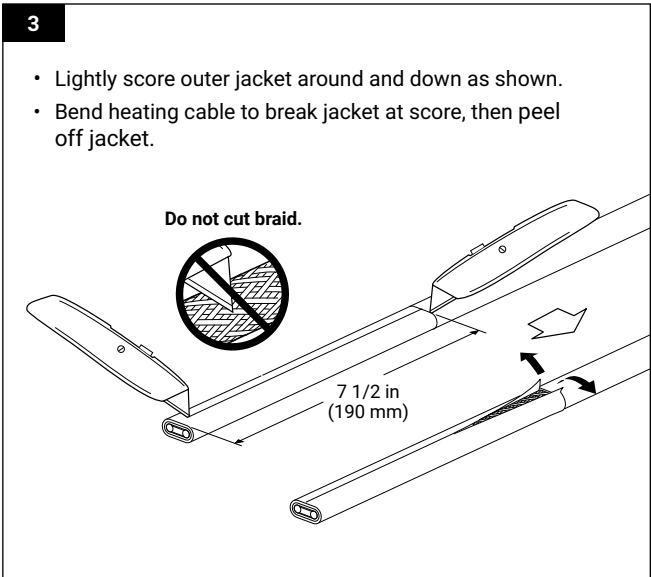
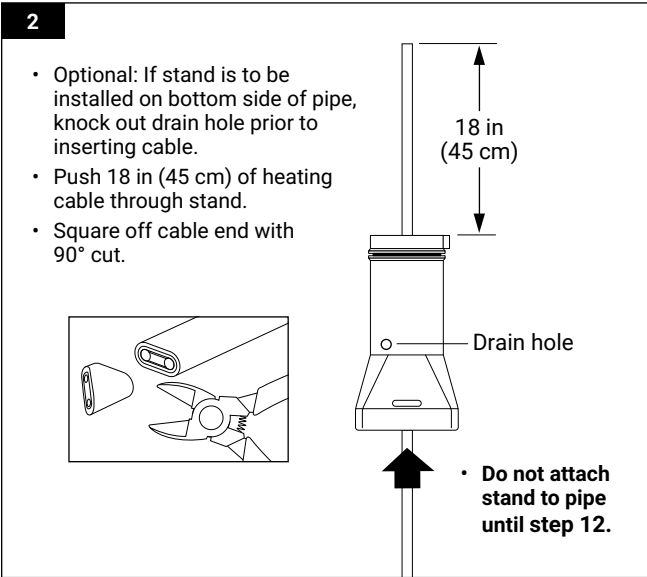
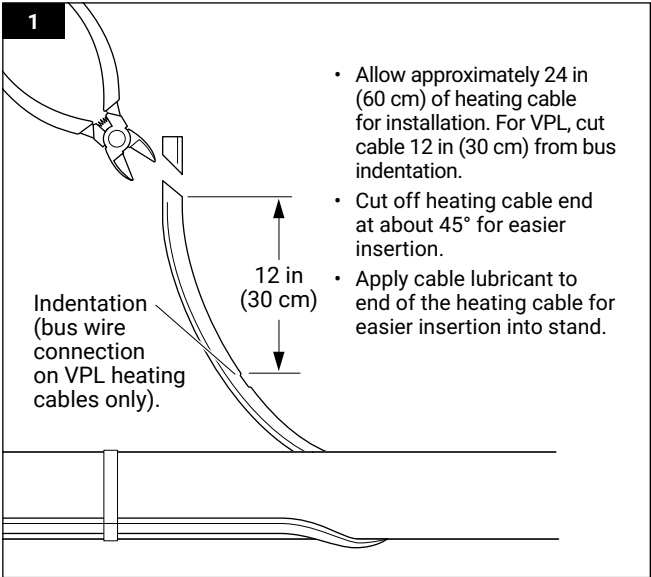
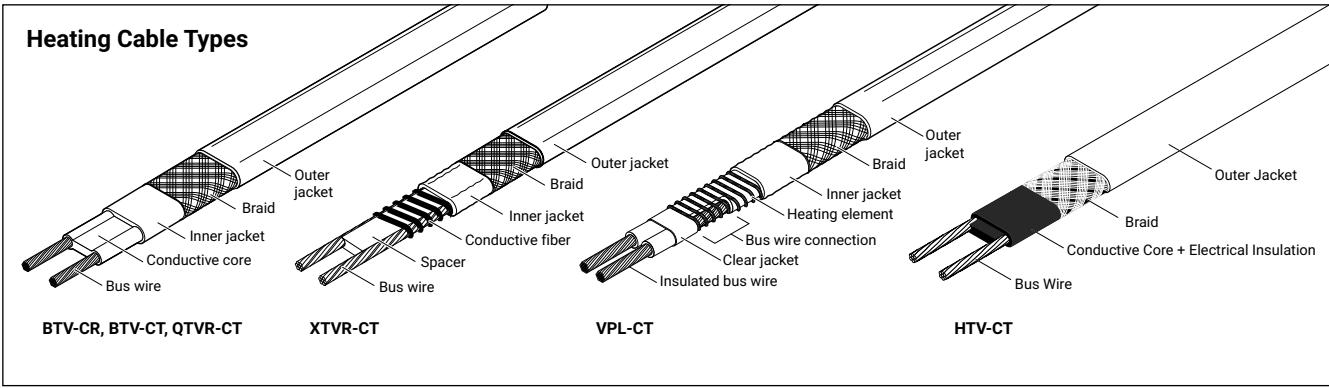
- Component approvals and performance are based on the use of Chemelex-specified parts only. Do not use substitute parts or vinyl electrical tape.
- The black heating cable core and fibers are conductive and can short. They must be properly insulated and kept dry.
- Damaged bus wires can overheat or short. Do not break bus wire strands when scoring the jacket or core.
- Keep components and heating cable ends dry before and during installation.
- Use only fire-resistant insulation materials, such as fiberglass wrap or flame-retardant foam.

CAUTION:

HEALTH HAZARD: Prolonged or repeated contact with the sealant in the core sealer may cause skin irritation. Wash hands thoroughly. Overheating or burning the sealant will produce fumes that may cause polymer fume fever. Avoid contamination of cigarettes or tobacco. Consult MSDS VEN 0058 for further information.

CHEMTREC 24-hour emergency telephone:
(800) 424-9300

Non-emergency health and safety information:
(800) 545-6258.



5C

VPL

- Push braid back and bunch as tight as possible.

- Lightly score inner jacket around and down as shown.

- Peel off inner jacket.

- Unwind heating element, cut and remove as shown.

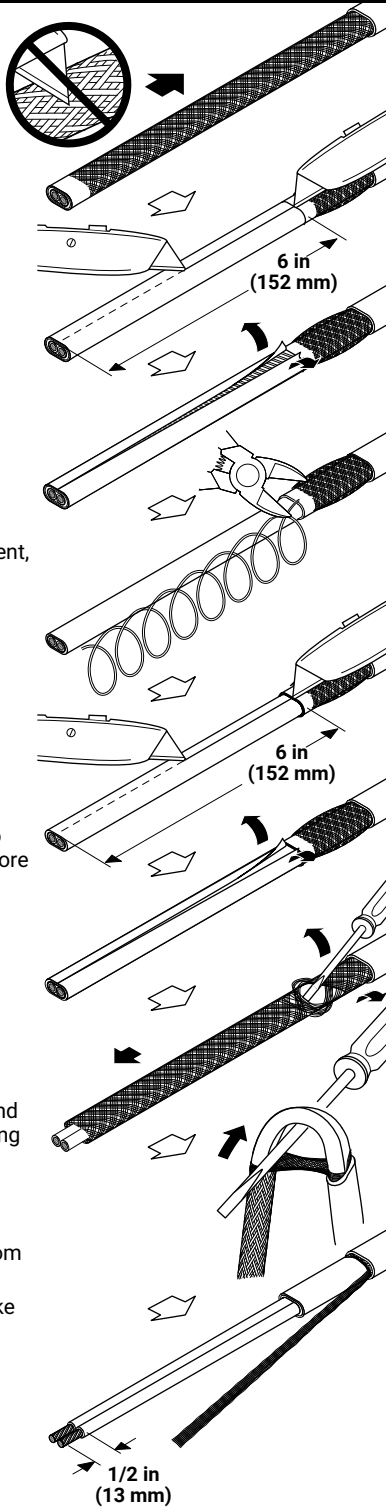
- Lightly score clear jacket around and down as shown.

- Bend heating cable to break jacket at the score then peel off jacket.

- Push braid forward. Use a screwdriver to open braid as shown.

- Bend heating cable and work it through opening in braid.

- Remove insulation from ends of bus wires.
- Pull braid tight to make pigtail.



Go to Step 6

5D

HTV

- Push braid back to create a pucker.

- At pucker use a screwdriver to open braid.

- Bend heating cable and work it through opening in braid.

- Score inner jacket and conductive core around and down as shown.

- Peel off inner jacket.

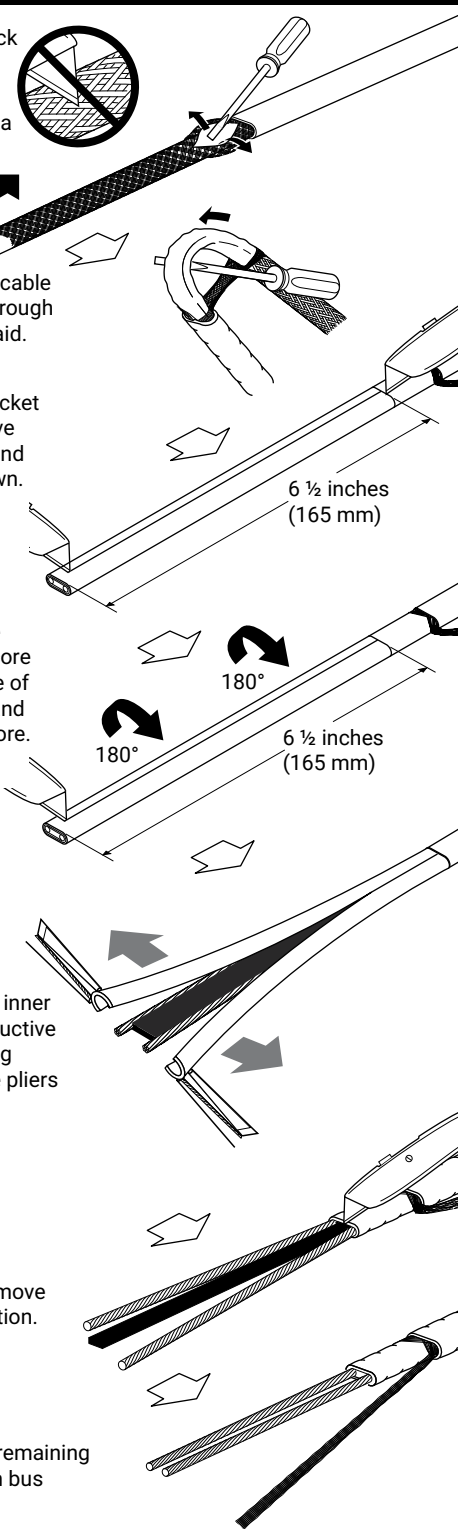
- Flip the cable 180°C and score the other side of inner jacket and conductive core.

- Remove the inner jacket, conductive core by using needle-nose pliers as shown.

- Score and remove center insulation.

- Remove any remaining material from bus wires.

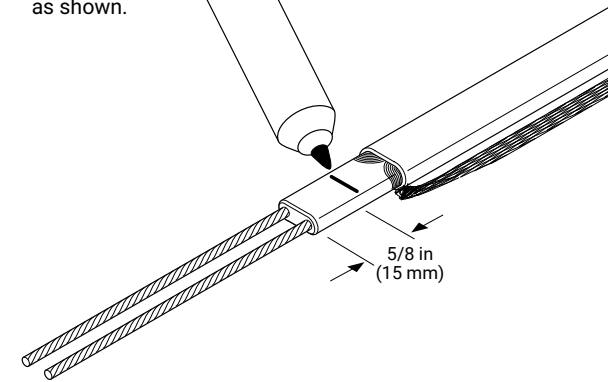
- Pull braid tight to make pigtail.



Go to Step 6

6

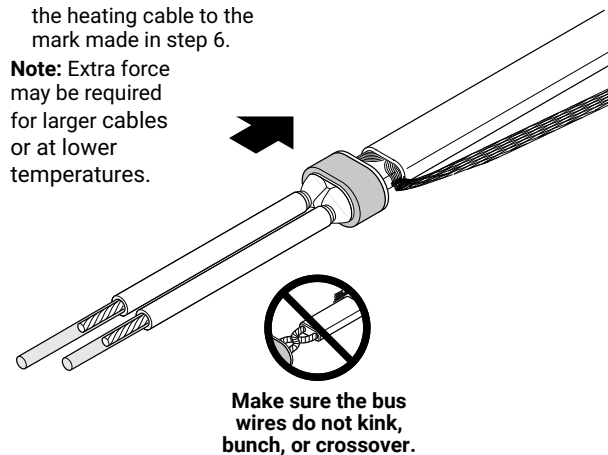
- Mark the jacket as shown.



8

- Push core sealer onto the heating cable to the mark made in step 6.

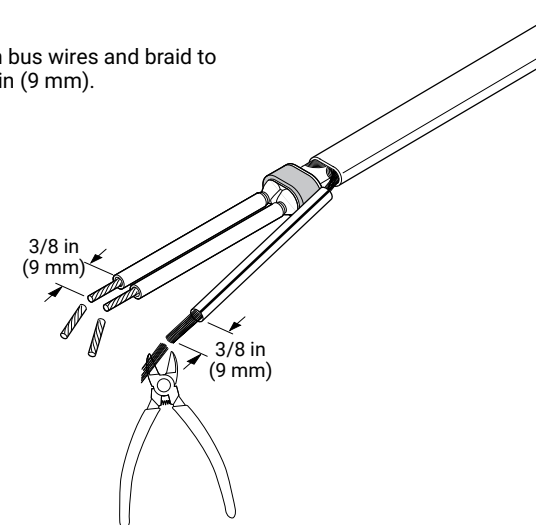
Note: Extra force may be required for larger cables or at lower temperatures.



Make sure the bus wires do not kink, bunch, or crossover.

10

- Trim bus wires and braid to 3/8 in (9 mm).

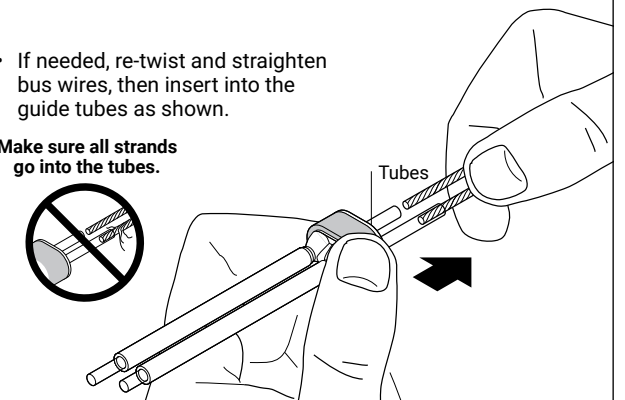


7

CAUTION: Health Hazard.
Wash hands after contact with sealant. Consult material safety data sheet VEN 0058.

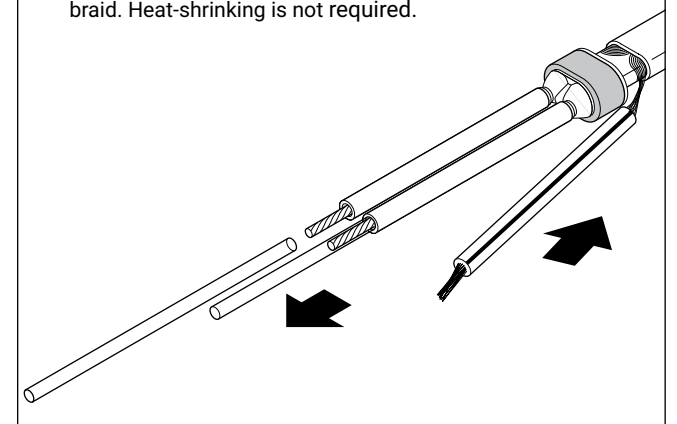
- If needed, re-twist and straighten bus wires, then insert into the guide tubes as shown.

Make sure all strands go into the tubes.



9

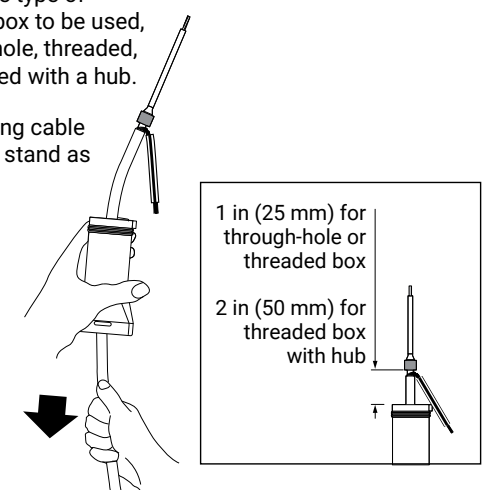
- Remove the guide tubes and dispose of them in a plastic bag.
- Slip the green/yellow tube onto the braid. Heat-shrinking is not required.



11

- Determine type of junction box to be used, through-hole, threaded, or threaded with a hub.

- Pull heating cable back into stand as shown.



1 in (25 mm) for through-hole or threaded box
2 in (50 mm) for threaded box with hub

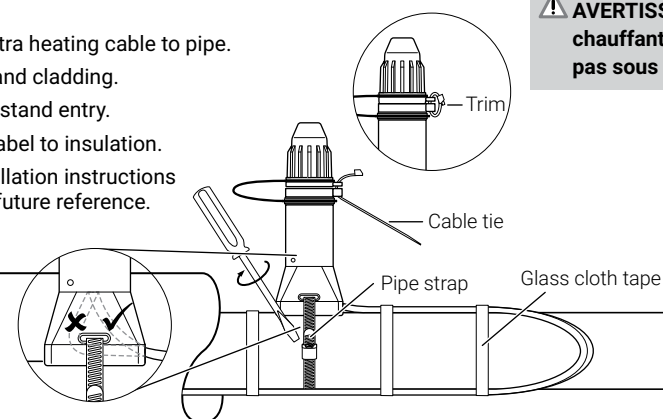
12

- Fasten end seal to pipe with strap. Do not pinch heating cable.
- Install cable tie.
- Loop and tape extra heating cable to pipe.
- Apply insulation and cladding.
- Weather-seal the stand entry.
- Fasten end seal label to insulation.
- Leave these installation instructions with the user for future reference.

CAUTION: To avoid pinching the heating cable, be sure the cable is not under the pipe strap.

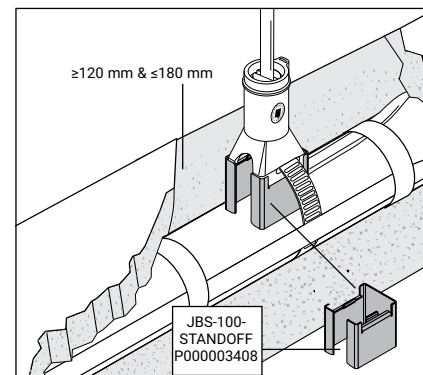
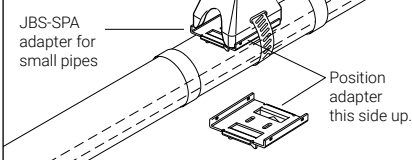
AVERTISSEMENT : Pour éviter de pincer le câble chauffant, assurez-vous que le câble ne se trouve pas sous la sangle du tuyau.

END SEAL
ELECTRIC TRACED



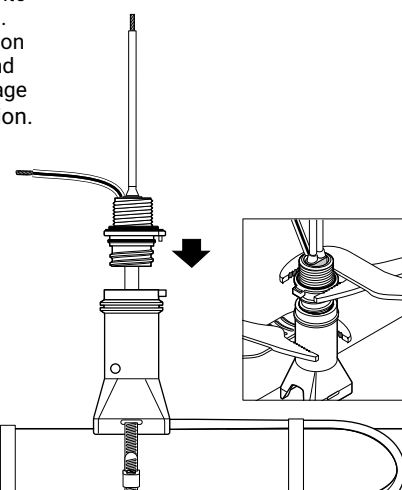
12A

Note: For 1 in (25 mm) and smaller pipes use adapter (purchased separately) between stand and pipe.



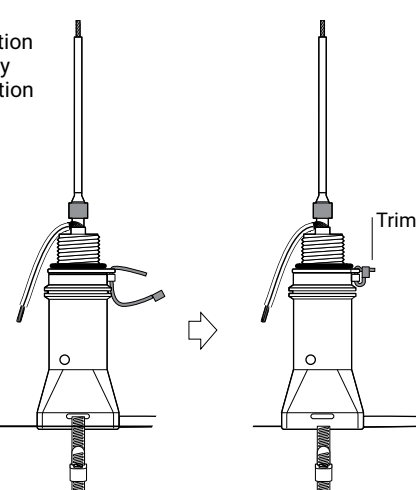
13

- Screw transition onto stand until it stops. Tighten until slots on transition and stand align. Do not damage threads on transition.



14

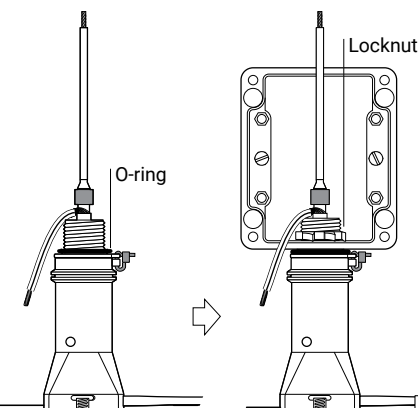
- Insert cable tie through slots on stand and transition and tighten firmly to prevent transition rotation.



15

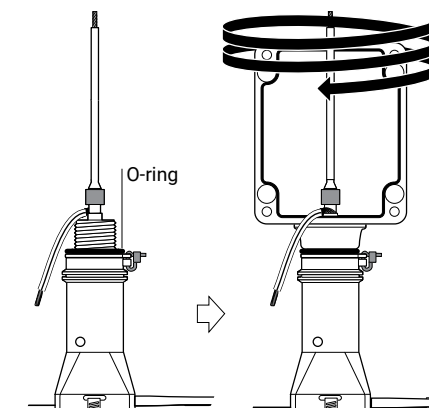
For through-hole box

- Make sure o-ring is seated in groove on transition.
- Place box onto transition and install locknut.
- Tighten locknut.



For threaded box

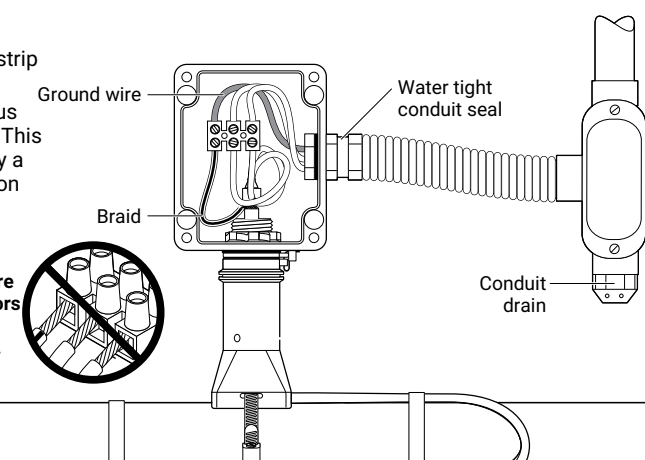
- Screw box onto transition.
- Tighten junction box.



16

- Install conduit and fittings as shown. To minimize loosening due to vibration, use flexible conduit.
- Pull in power and ground wires, strip off 3/8 in (9 mm) of insulation.
- Use terminal block to connect bus wires and braid to power wiring. This connection must be protected by a ground-fault equipment protection device.

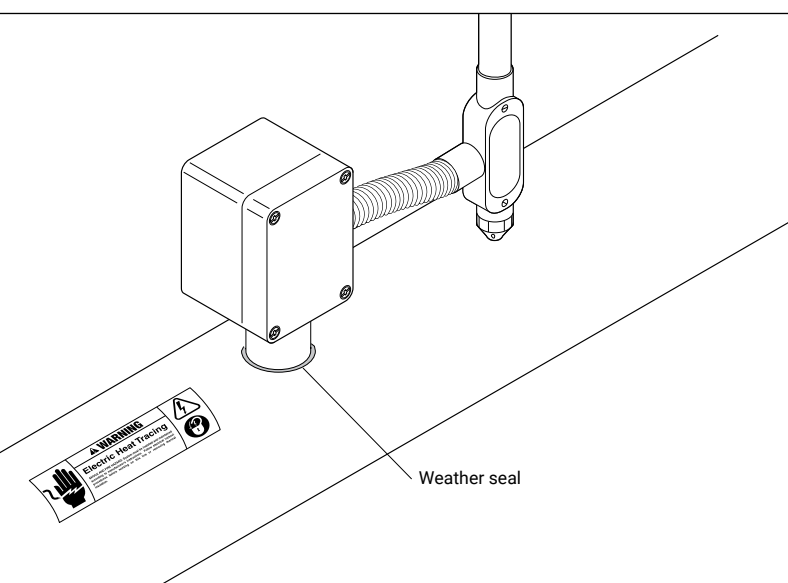
Make sure conductors are not exposed.



Chemelex recommends the use of a conduit drain to prevent water condensation build-up.

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- Install lid.
- Apply insulation and cladding.
- Weather-seal the stand entry.
- Leave these instructions with the end user for future reference.



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