NELSON™ HEAT TRACING SYSTEMS

D1CMD CLASS I, DIV. 1 CONTINUITY MONITOR DEVICE

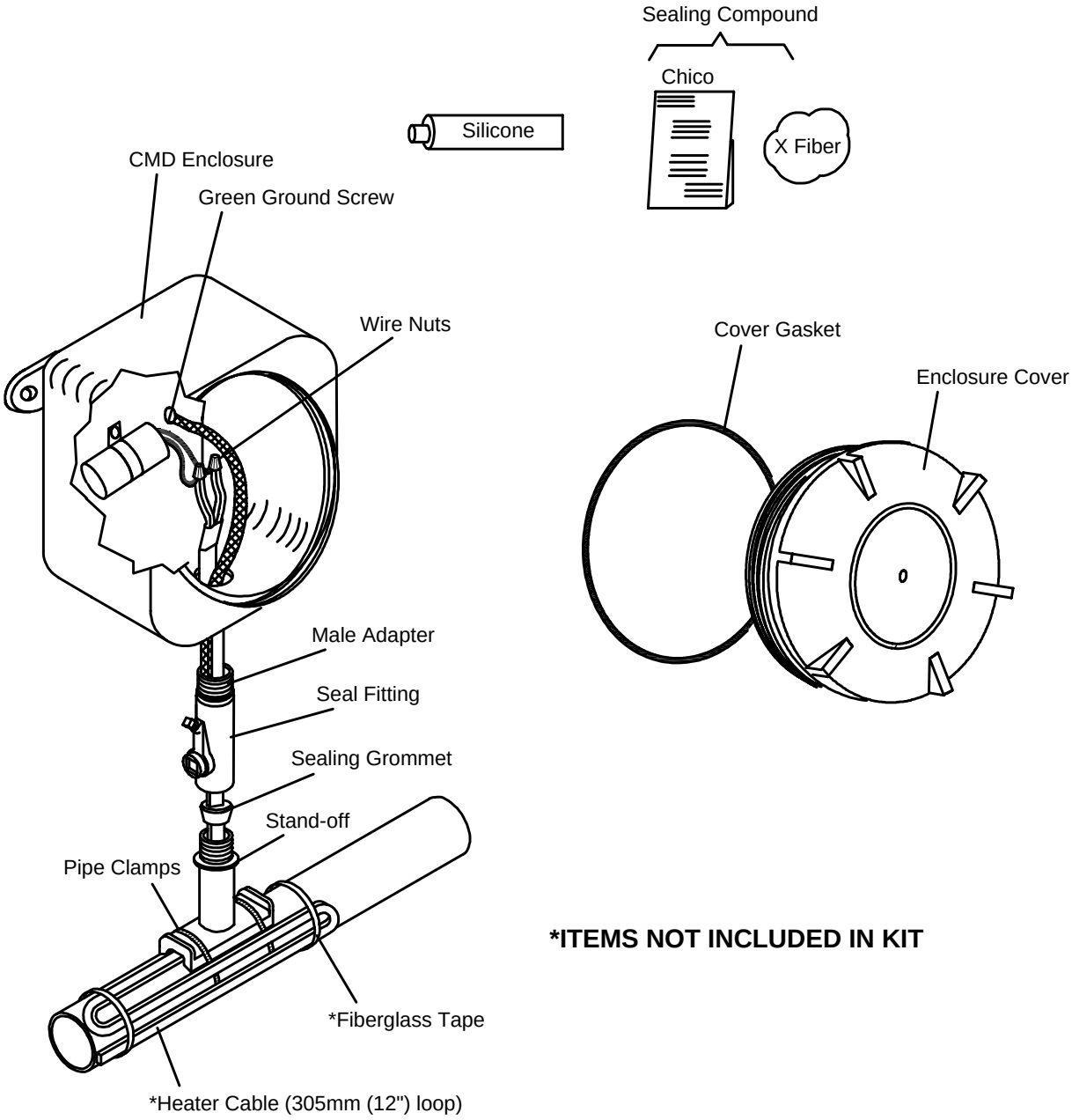
INSTALLATION INSTRUCTIONS

DESCRIPTION

The D1CMD Class I Div. 1 Continuity Monitor Device provides the cable termination and explosion proof seal parts needed to make the power end electrical connections associated with Nelson Heat Tracing Systems' self-regulating heater cables.

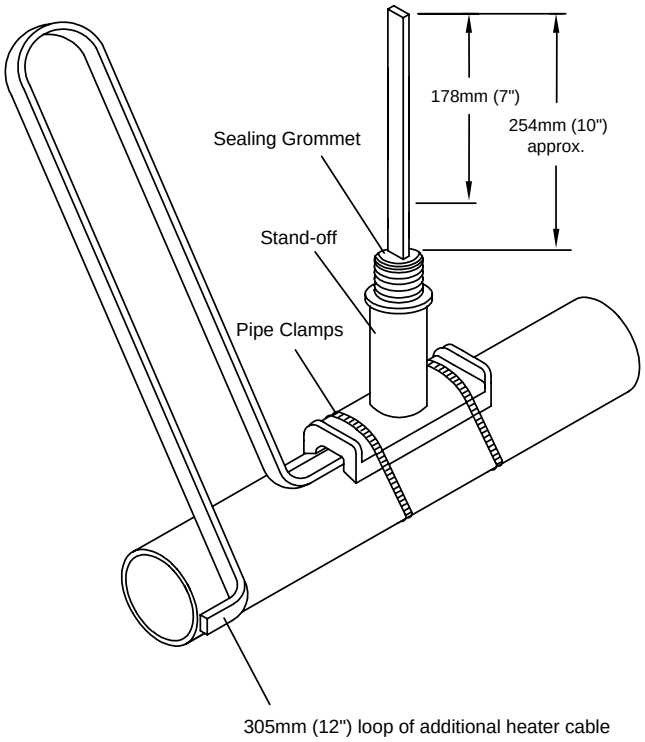
KIT CONTENTS

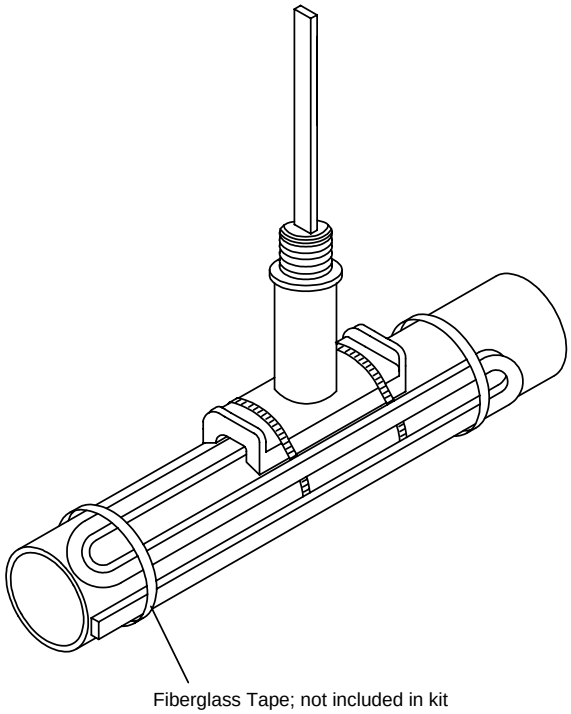
1	CMD Enclosure	1	Stand-off
1	Tube of Silicone	1	Power Termination
1	Sealing Grommet	1	Seal Fitting
1	Sealing Compound	1	Male Adapter
1	X Fiber	2	Pipe Clamps



***ITEMS NOT INCLUDED IN KIT**

STAND-OFF POSITIONING





❶ Take approximately 357mm (14”) of the heater cable and push it through the bottom opening of the stand-off. Leaving a 305mm (12”) loop of additional cable to be installed after the stand-off is secured. Allow 178mm (7”) of the heater cable for termination.

❷ Mount the stand-off to pipe using the pipe clamps included in kit.

⚠ WARNING:

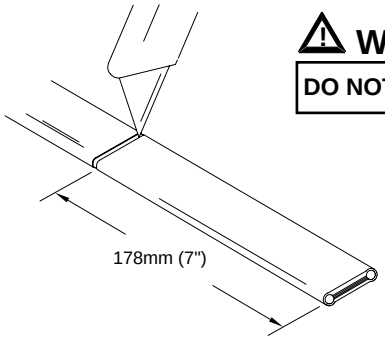
Do not install pipe clamps over the heater cable.

❸ Slide the sealing grommet over heater cable and position at stand-off.

❹ Secure the additional l305mm (12”) loop of heater to the pipe using fiberglass tape (not included in kit).

❺ Prepare heater cable for termination. Proceed to “*Overjacket Stripping Procedures”* on sheet 3.

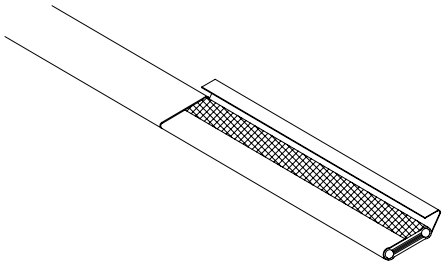
OVERJACKET STRIPPING PROCEDURES



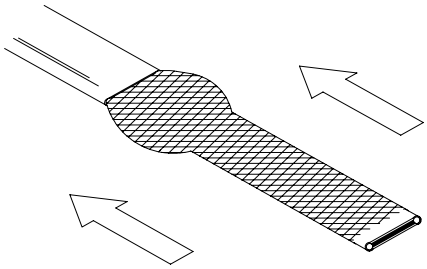
⚠ WARNING:
DO NOT CUT BRAID

❶ Lightly cut around heater overjacket 178mm (7”) from the end. Bend cable to break overjacket.

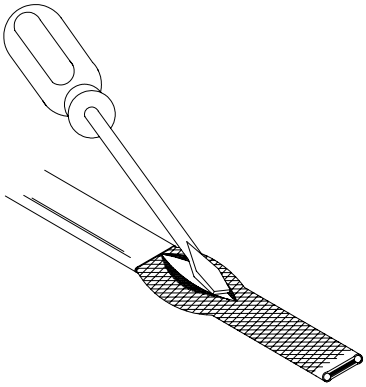
❷ Lightly cut overjacket up the center between first cut mark and the cable end. Bend cable to break overjacket.



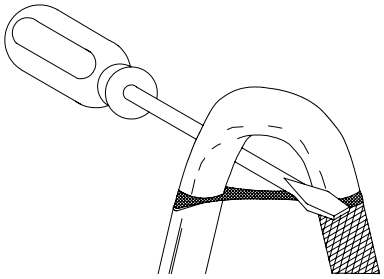
❸ Remove overjacket from heater cable.



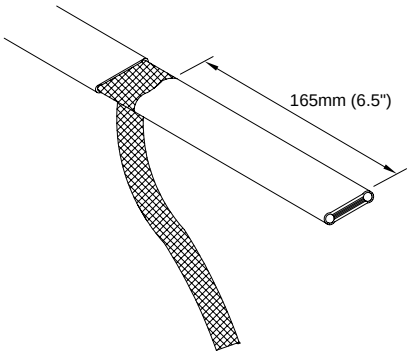
❹ Move braid back toward the overjacket, creating a bulge.



❺ At the bulge, separate the braid to make an opening.



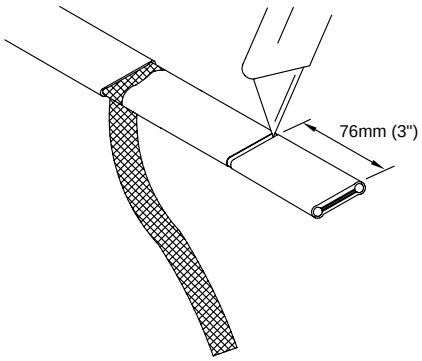
❻ While bending the heater cable, work it through the braid opening.



❼ Pull the braid tight.

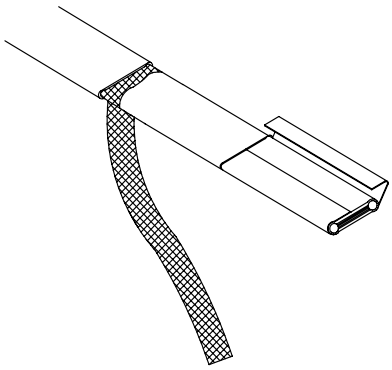
❽ Proceed to *“Outer Jacket Stripping Procedures”* on sheet 4.

OUTER JACKET STRIPPING PROCEDURES

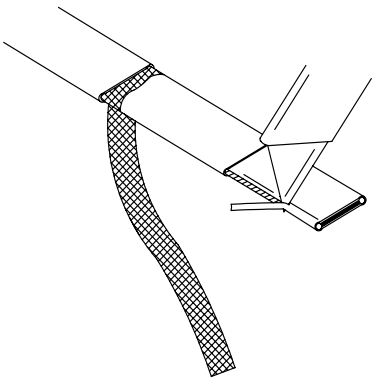


❶ Lightly cut around heater outer jacket 76mm (3") from the end. Bend cable to break outer jacket.

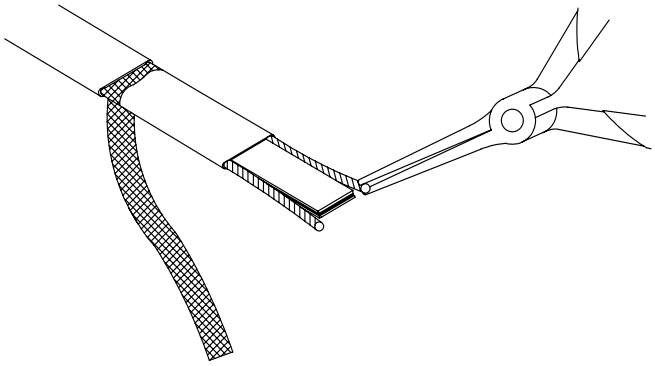
❷ Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



❸ Remove the jacket from the heater cable.

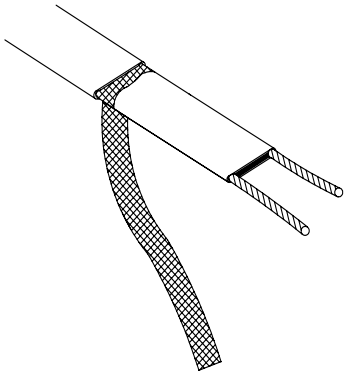


❹ Shave the core material from the outside of each bus wire.



❺ Starting at the end, pull each bus wire away from the core material.

❻ Remove exposed core material.



❼ Cut 6mm (0.25") off the end of each bus wire.

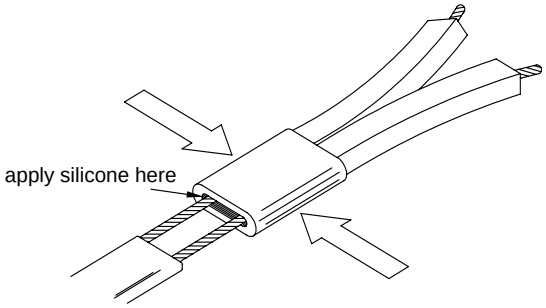
❽ Proceed to *"Power Termination"* on sheet 5.

⚠ WARNING:
DO NOT CUT BUS WIRES

POWER TERMINATION

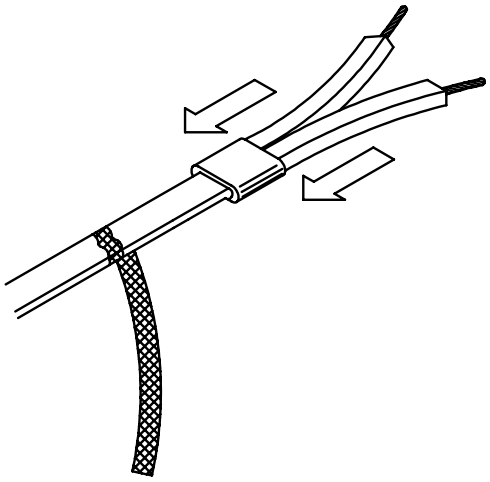
⚠ WARNING:

- **Bus wires must not touch or cross while inserting into power termination.**
- **Only power terminations specifically approved for the vendors style and type of heater cable must be used.**



❶ Insert bus wires into power termination.

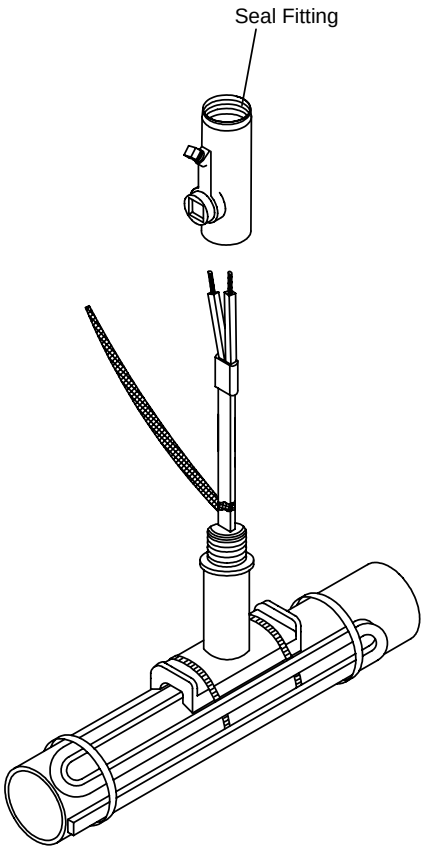
❷ Squeeze power termination opening and fill with silicone.



❸ Push power termination to overlap jacket.

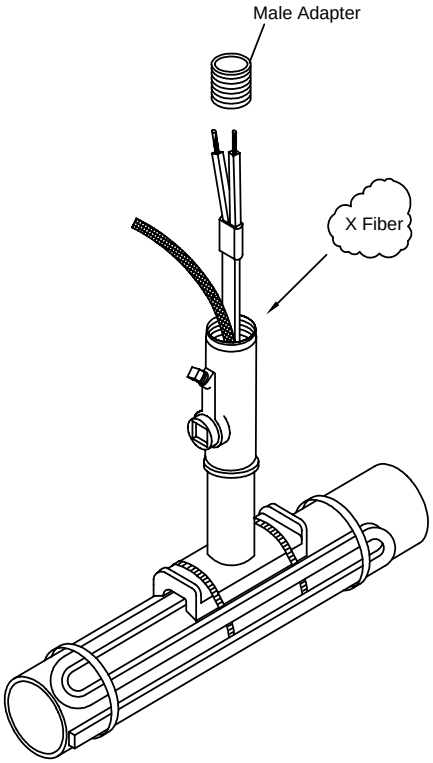
❹ Proceed to *"Seal Fitting Installation"* on sheet 6.

SEAL FITTING INSTALLATION PROCEDURES



❶ Slide seal fitting over the heater cable and braid, screw onto the stand-off by hand until snug fit.

Note: The heater cable must be positioned in the seal fitting so the braid transition point is visible through the seal fitting opening. See Detail "A" on sheet 8.

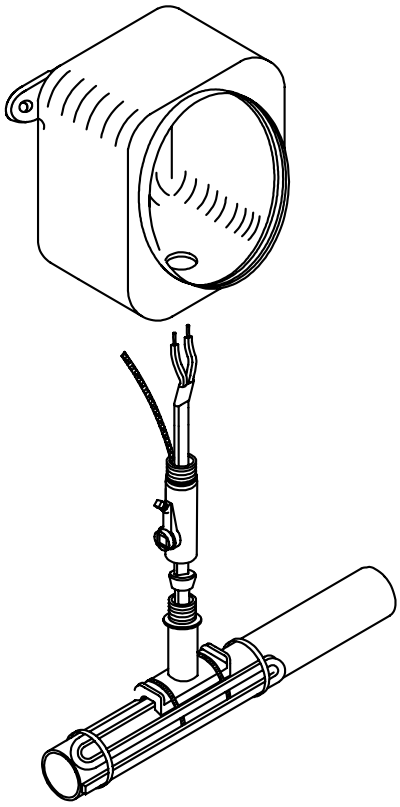


Note: If this kit is mounted in an orientation that would allow the sealing compound to flow out, place packing material (X Fiber) around the heater cable.

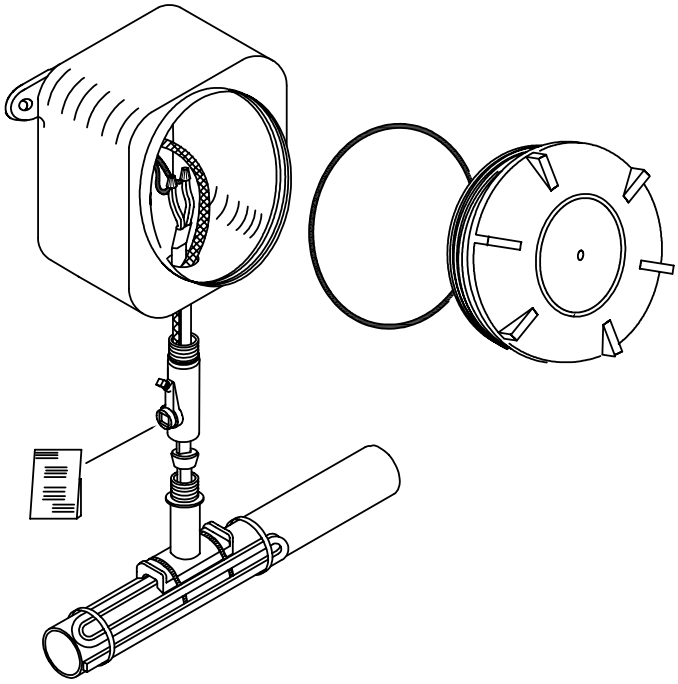
❷ Slide male adapter over the heater cable and braid, screw into seal fitting by hand until snug fit.

❸ Proceed to "*Sealing Compound Procedure*" on sheet 7.

CMD ENCLOSURE INSTALLATION



❶ Place the CMD enclosure over the heater cable and braid, screw onto male adapter until secured.



❷ Connect each heater cable bus wire with each of the CMD capacitor lead wires using wire nuts. *See diagram on sheet 1.*

❸ Place cover gasket and cover onto the CMD enclosure; screw until tightened.

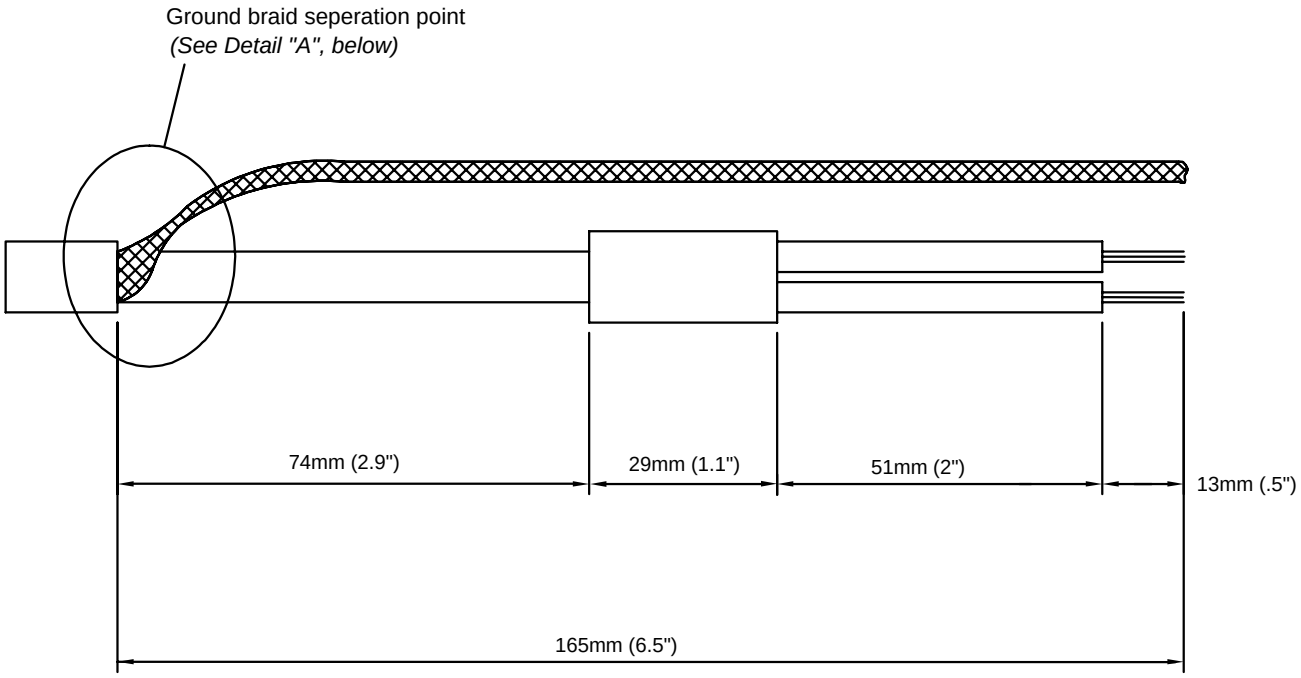
❹ Mix sealing compound according to the instructions on the pouch. Knead to mix liquid and powder in pouch.

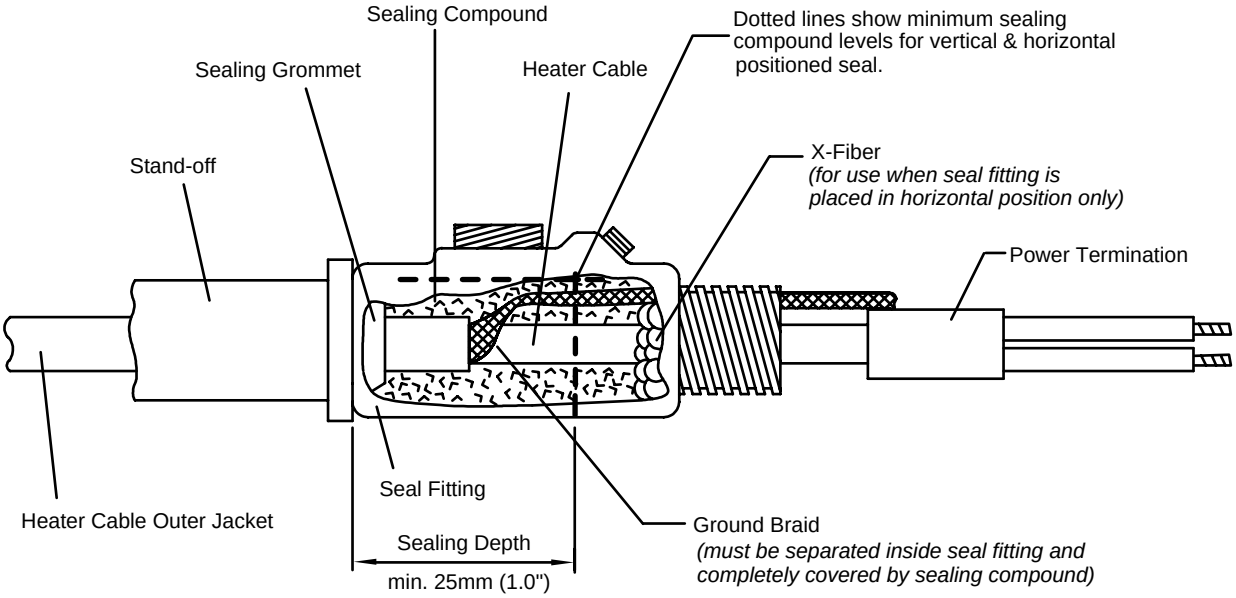
❺ Snip off a corner of the pouch and fill the seal fitting.

⚠ WARNING:

Sealing compound must completely cover the braid transition point. See Detail "A" on sheet 8 for reference.

TEMPLATE





DETAIL "A"

Nelson Heat Tracing Systems products are supplied with a limited warranty. Complete Terms and Conditions may be found on Nelson's website at www.nelsonheaters.com.