

Terminator DP/FAK-4 and FAK-4L for In-Line Splice of Electrically Heated TubeTrace® Bundles

INSTALLATION PROCEDURES



The Heat Tracing Specialists®

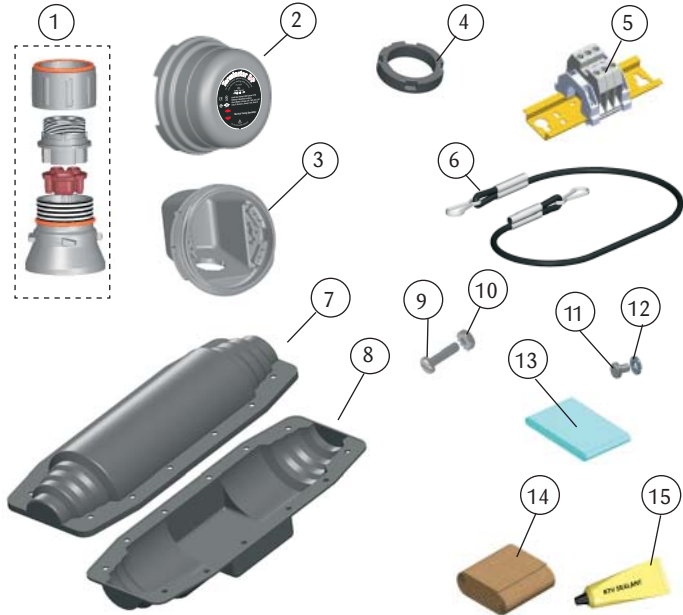
Terminator DP/FAK-4 and FAK-4L

The following installation procedures are suggested guidelines for the installation of the Terminator DP/FAK-4 and FAK-4L In-Line Splice Kit.

Receiving, Storing and Handling . . .

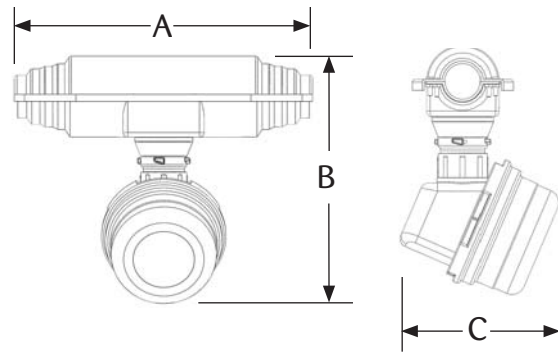
1. Inspect materials for damage incurred during shipping.
2. Report damages to the carrier for settlement.
3. Identify parts against the packing list to ensure the proper type and quantity has been received.
4. Store in a dry location.

Terminator DP/FAK-4 Kit Contents . . .



| Item | Quantity | Description |
|------|----------|--|
| 1 | 1 | Expediter Assembly: Flat Mount Base, Grommet, Threaded Grommet Compressor, and Support Cap with O-Ring |
| 2 | 1 | Junction Box Lid |
| 3 | 1 | Junction Box Base with O-Ring |
| 4 | 1 | Expediter Assembly Nut |
| 5 | 5 | Terminal Block (Typical) |
| 6 | 1 | Junction Box Cord |
| 7 | 1 | Splice Cover (Top) |
| 8 | 1 | Splice Cover (Base) |
| 9 | 12 | Pan Head S.S. Screws, #10-32 x 3/4" |
| 10 | 12 | KEPT S.S. Nuts, #10-32 |
| 11 | 3 | M5 Screw |
| 12 | 3 | M5 Lock Washer |
| 13 | 1 | Heat Reflective Tape |
| 14 | 1 | Glass Fiber Tape |
| 15 | 2 | RTV Sealant Tube |

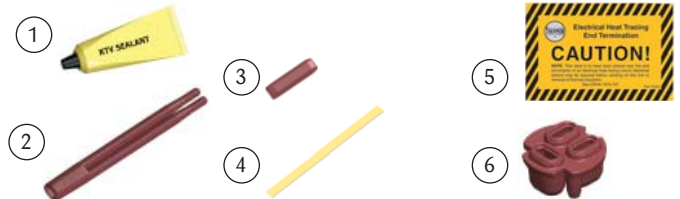
Dimensions . . .



| | A inch (mm) | B inch (mm) | C inch (mm) |
|-----------------------|------------------|----------------|----------------|
| Terminator DP /FAK-4 | 11-1/4" (175 mm) | 12" (308 mm) | 7" (185 mm) |
| Terminator DP /FAK-4L | 14-5/8" (372 mm) | 12" (308 mm) | 7" (185 mm) |

Required: Order Separately for each heater to be fabricated. PETK Power and End Termination Kits (one req'd. per heater)

- PETK-1D for BSX, RSX, VSX
- PETK-2D for KSX, HTSX
- PETK-3D for FP, HPT



| Item | Quantity | Description |
|------|----------|-------------------------------------|
| 1 | 1 | RTV Sealant Tube |
| 2 | 1 | TBX Power Connection Boots |
| 3 | 1 | ET End Cap |
| 4 | 1 | Tape Strip Teflon 6" (PETK-3D only) |
| 5 | 1 | End Termination Caution Label |
| 6 | 1 | GRW-G Grommet (PETK-3D only) |

Tools Required . . .



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The Terminator DP/FAK-4 and FAK-4L In-Line Splice Kit is designed to make a waterproof seal over the end of TubeTrace at the splice connections. Review instructions prior to installation. Kit will make one splice connection (Tube fittings not included). See separate instructions for details on splicing heat tracing.

Terminator DP Certifications/Approvals . . .

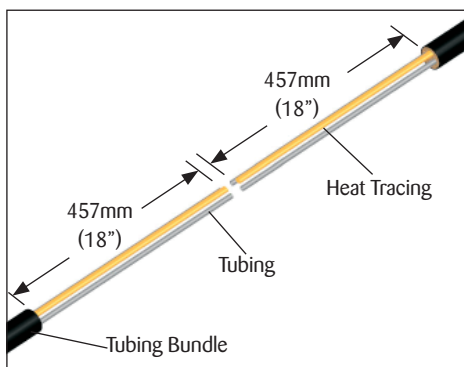


IP66 NEMA/Type 4X $-60^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$
 Ordinary & Hazardous Locations
 Class I, Division 2, Groups A, B, C, & D, Zone 2 IIC
 Class II, Division 2, Groups F & G, Class III
 Listed Heat Tracing System 137M



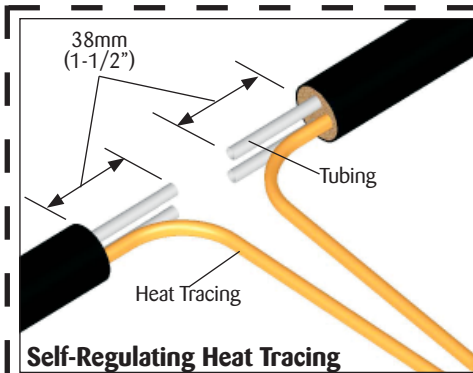
Installation Precautions . . .

- To minimize the potential for arcing and ground-fault protection. The National Electrical Code (NEC) and Canadian Electrical Code (CEC) require ground-fault protection of equipment for each branch circuit supplying electric heat tracing.
- Installation must comply with Thermon requirements and be installed in accordance with the NEC, CEC, or any other applicable national and local codes.
- Component approvals and performance ratings are based on the use of Thermon specified parts only. User supplied power connection fittings must be listed or certified for intended use.
- De-energize all power sources before opening enclosure.
- Keep ends of heating cable and kit components dry before and during installation.
- Individuals installing these products are responsible for complying with all applicable safety and health guidelines. Proper personal protective equipment, or PPE, should be utilized during installation. Contact Thermon if you have any additional questions.



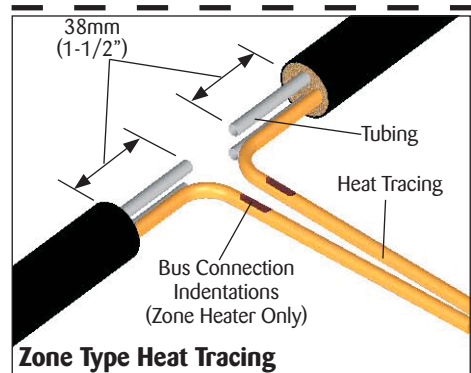
1. Remove outer jacket and insulation from tubing bundle approximately 457mm (18") from end of the tubing bundle.

Do not cut or damage the heat trace or sampling tube.
CAUTION (Found on TubeTrace SE/ME bundles)



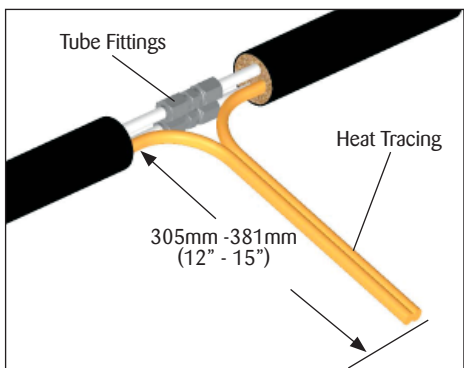
Self-Regulating Heat Tracing

2. Trim tubing to within 38mm (1-1/2") of the end of the insulation. If self regulating heat trace proceed to step 3. For Zone-type heat trace continue with identification of bus connection on step 2a.

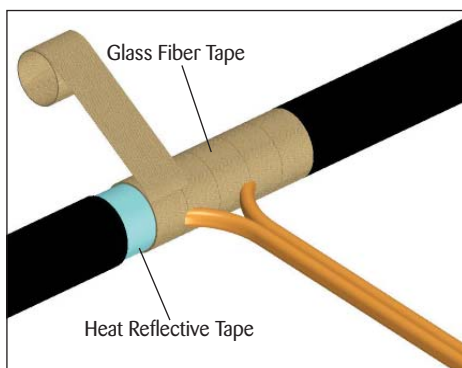


Zone Type Heat Tracing

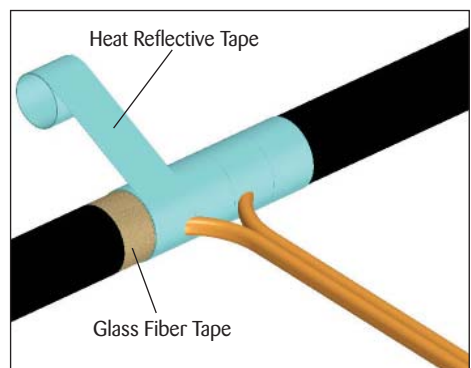
- 2a. Strip back bundle insulation 38mm (1-1/2") to 76mm(3") beyond bus connection indentation of each heat tracing. If bus connection indentation is less than 305mm (12")-381mm (15") from end of the heat tracing, proceed stripping the bundle insulation to the next indentation. Trim tubes so the bus connection indentation on each meet.



3. Make tube fitting connections with appropriate fittings (provided by others). Test fittings for leaks before proceeding.

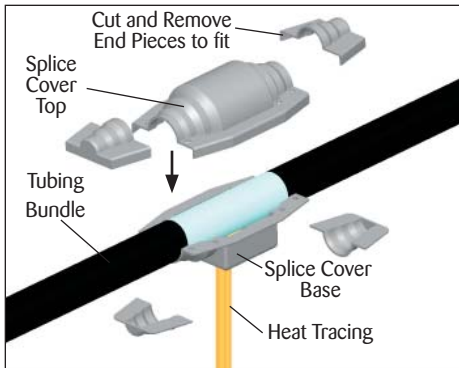


4. Wrap tubes and heat tracing with pass of heat reflective tape (25% overlap). Then wrap with 3 passes of glass fiber tape (50% overlap), or until fiber tape is equal to original bundle insulation thickness.

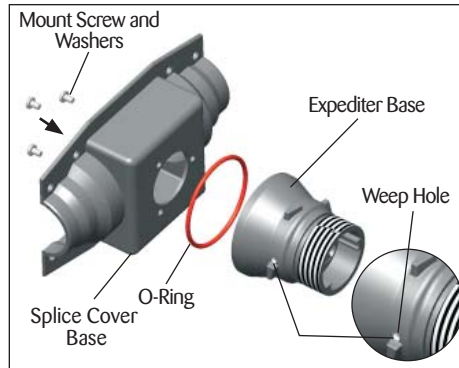


5. Complete with additional passes of heat reflective tape.

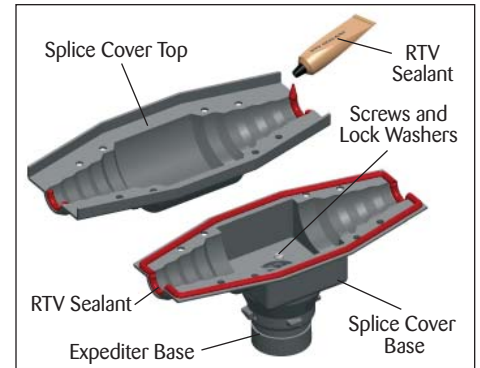
Terminator DP/FAK-4 and FAK-4L



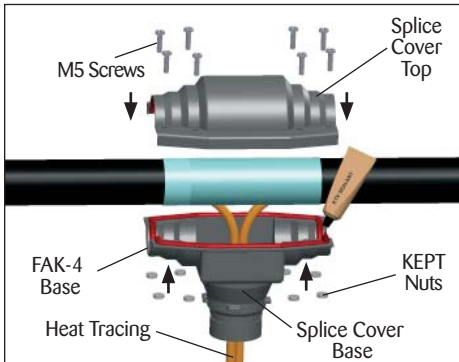
6. Cut splice cover ends to match outside diameter of tubing bundle.



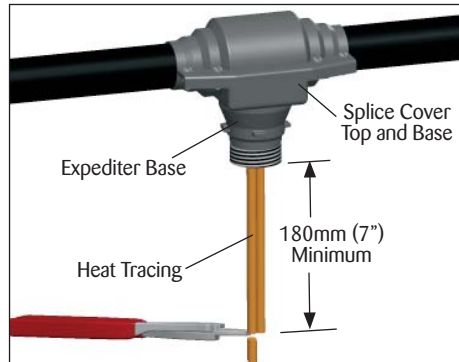
7. Mount expediter base with o-ring to splice cover base using (3) M5 mounting screws and lock washers. Punch out weep hole.



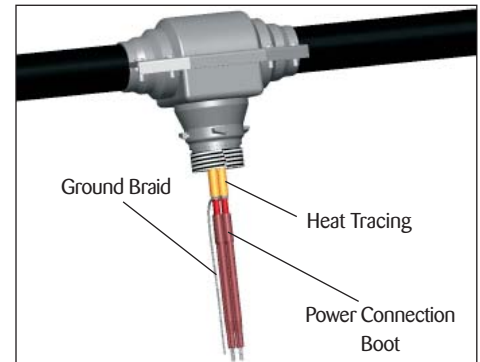
8. Form a gasket by applying RTV sealant to splice cover base and along radius of splice cover top as shown.



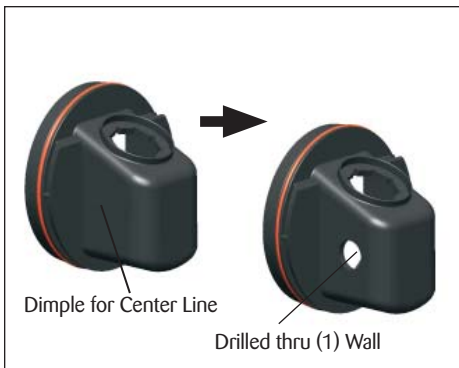
9. Assemble splice cover top, tubing bundle, and splice cover base together as shown, using 10-32 X 3/4" pan head screws and KEPT nuts.



10. Trim heat tracing to 180mm (7") minimum from expediter base.



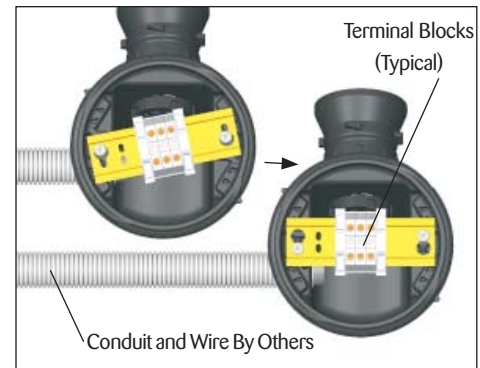
11. Terminate heat tracing with appropriate PETK termination kit. Refer to PETK installation instructions for details not addressed here.



12. For power connection applications: Use dimple molded into side of junction box base to locate center hole, drill for user supplied power connection fitting per manufacture's recommendations.



13. Mount junction box on expediter making sure to align slots to properly orient junction box base.

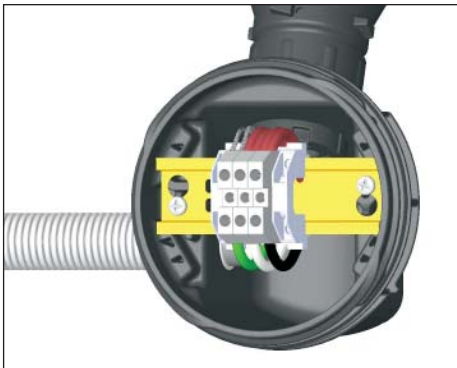


14. Install quick mount terminal blocks twist to position and tighten screws.

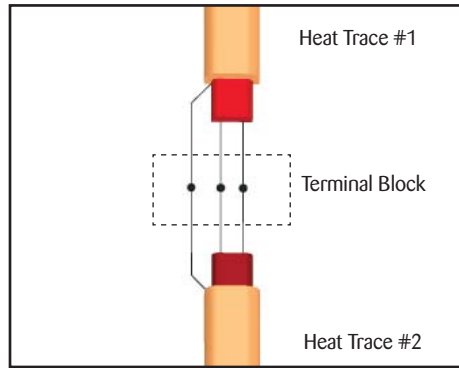


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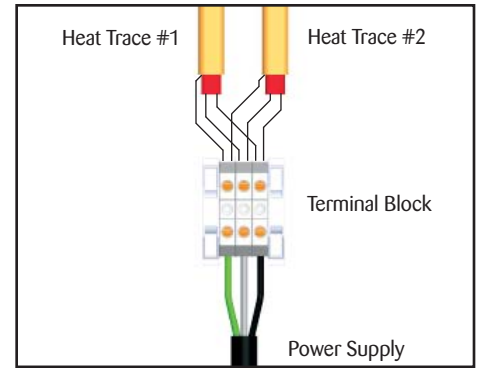
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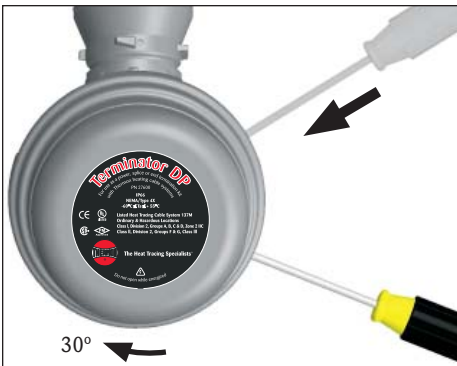
15. Complete system wiring per wiring diagram.



In-Line Splice



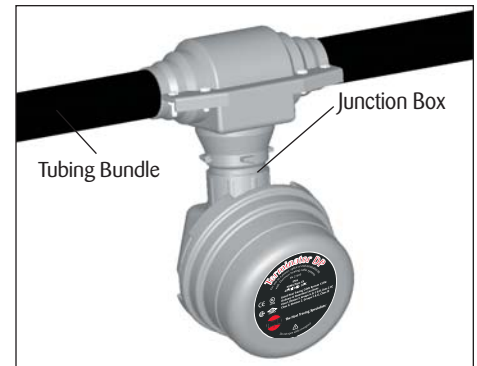
Power Connection (2 Heat Tracers)



16. Install junction box lid and twist hand tight. Insert screwdriver into ratchet slot located on side of junction box base to tighten. Lid will rotate 30°.



17. Lid latch mechanism fully engaged. To remove lid, repeat steps 16 and 17 but in opposite direction.



18. Completed Terminator FAK-4 power assembly for TubeTrace Type SE/ME Bundle (Installation shown is to feed power in the middle of a TubeTrace bundle. Many installations will be near the end of a TubeTrace bundle.)



THERMON . . . The Heat Tracing Specialists®

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