

# Terminator DS/DE FAK-4 and FAK-4L

In-Line Splice Kit for  
Electrically Heated  
TubeTrace® Bundles

## INSTALLATION PROCEDURES



# Terminator DS/DE FAK-4 and FAK-4L

## 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 DS/DE FAK-4 and 4L Kit Contents



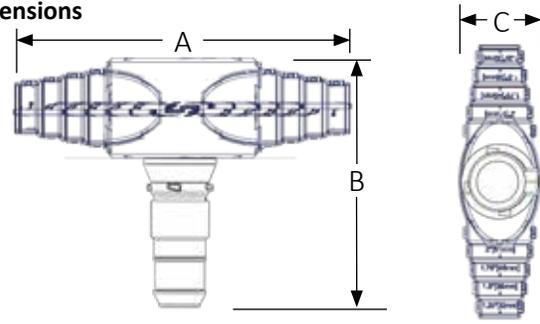
Item	Quantity	Description
1	1	Expediter Assembly: Flat Mount Base, Grommet, Threaded Grommet Compressor, and Support Cap with O-Ring
2	1	Splice Cap
3	1	In-Line Splice Cover (Top)
4	1	In-Line Splice Cover (Base)
5	1	Nut
6	1	Heat Reflective Tape
7	2 (FAK-4) 3 (FAK-4L)	RTV Sealant Tube
8	1	Glass Fiber Tape
9	1	Silicone Gasket
10	1	Self-Vulcanizing Tape

**Required:** Order Separately for each heater to be fabricated.

## SCTK Power and End Termination Kits (one req'd. per heater)

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

## Dimensions



	A mm (inch)	B mm (inch)	C mm (inch)
Terminator DS/DE FAK-4	279 mm (11")	277 mm (11-7/8")	81 mm (3-1/5")
Terminator DS/DE FAK-4L	489 mm (19-1/4")	321 mm (12-5/8")	141 mm (5-1/2")

## Installation Precautions

- To minimize the potential for arcing on electrical heat tracing and fire caused by product damage or improper installation, use ground-fault protection. The National Electrical Code (NEC) and Canadian Electrical Code (CEC) require ground-fault protection of equipment for each branch circuit supplying electrical 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.

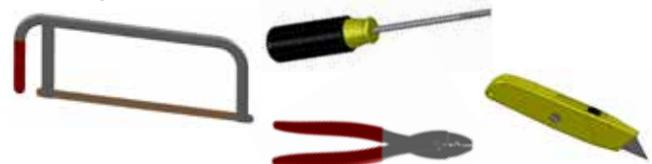
## Terminator DS/DE Certifications/Approvals



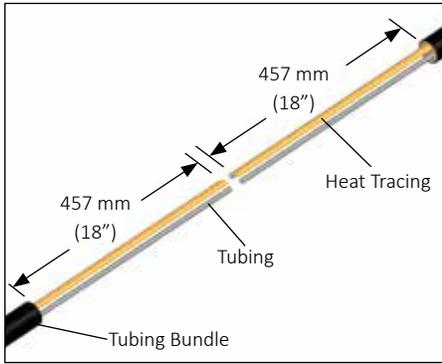
IP66 NEMA/Type 4X -60°C ≤ Ta ≤ +55°C  
 Ordinary & Hazardous Locations  
 Class I, Division 2, Groups A, B, C, & D, Zone 2 IIC  
 Class II, Division 2, Groups F & G,  
 Class III Listed Heat Tracing System 137M



## Tools Required

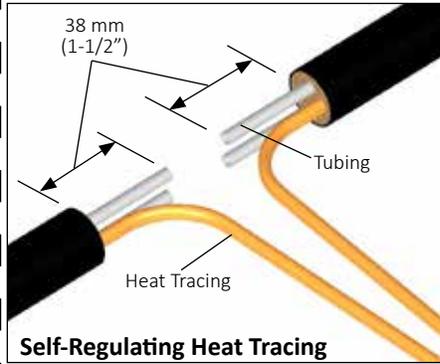


# INSTALLATION PROCEDURES



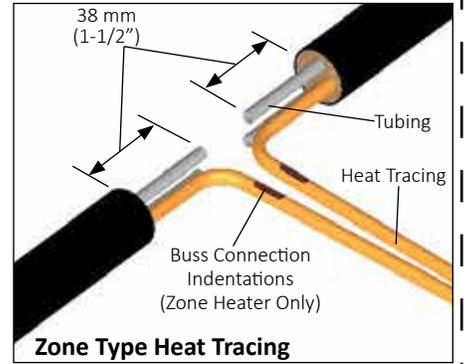
1. Remove outer jacket and insulation from tubing bundle approximately 457 mm (18") from end of the tubing bundle.

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



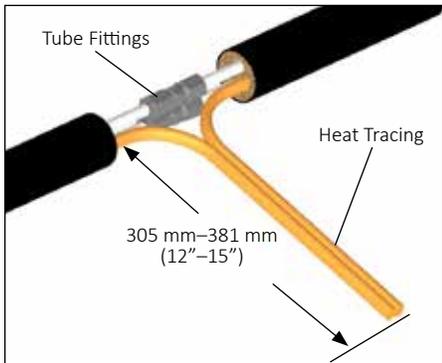
**Self-Regulating Heat Tracing**

2. Trim tubing to within 38 mm (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.

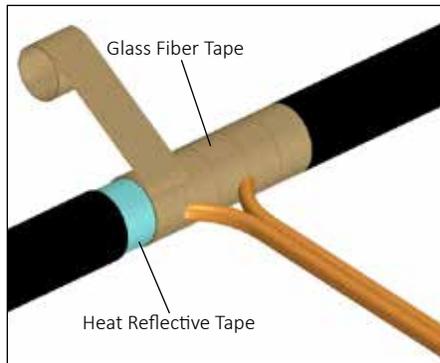


**Zone Type Heat Tracing**

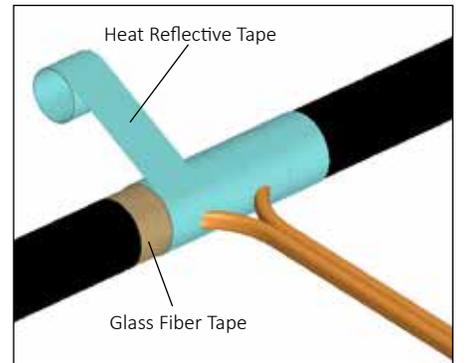
- 2a. Strip back bundle insulation 38 mm (1-1/2") to 76 mm (3") beyond bus connection indentation of each heat tracing. If bus connection indentation is less than 305 mm (12") to 381 mm (15") from end of the heat tracing, proceed stripping the bundle insulation to the next indentation. Trim tubes so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



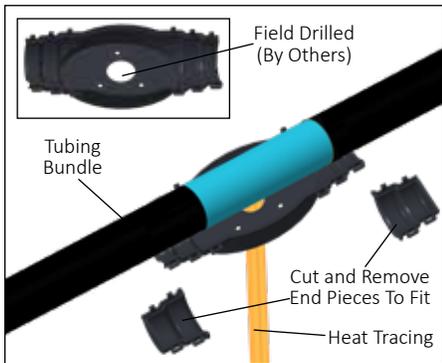
3. Make tube fitting connections with appropriate fittings (provided by others). Test fittings for leaks before proceeding.



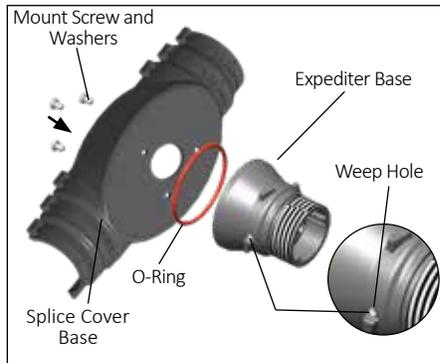
4. Wrap tubes and heat tracing with pass of heat reflective tape (25% overlap). Then wrap with 3 passes of glass fiber tape (50% overlap), or until fiber tape is equal to original bundle insulation thickness.



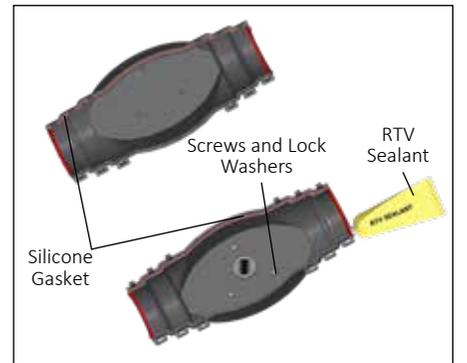
5. Complete with additional passes of heat reflective tape.



6. Cut splice cover ends to match outside diameter of tubing bundle. Field drill expediter base holes.

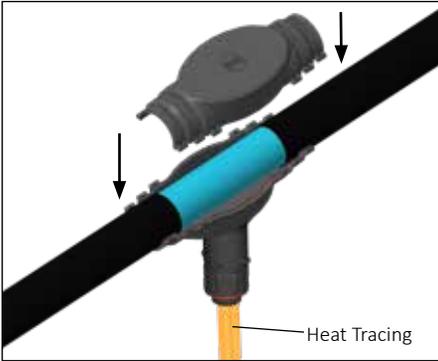


7. Mount expediter base with o-ring to the splice cover base using (3) M5 mounting screws and lock washers. Punch out weep hole.



8. Install silicone gasket and cut off excess. Apply RTV sealant to both halves.

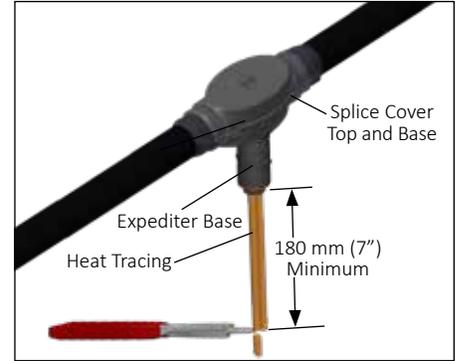
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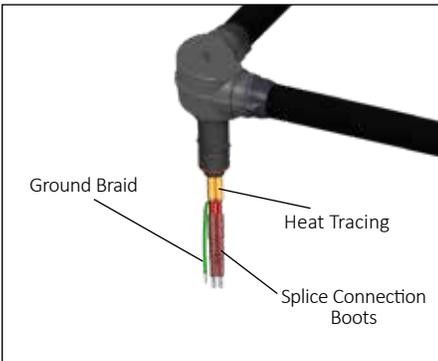
**9.** Assemble splice cover top, tubing bundle, and splice cover base together as shown. Snap together firmly. Inspect ends of tubing splice cover for snug fit. Apply additional RTV sealant where needed.



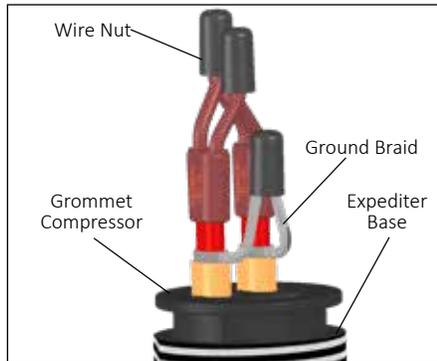
**10.** Apply self-vulcanizing tape around bundle jacket and work up over FAK ends.



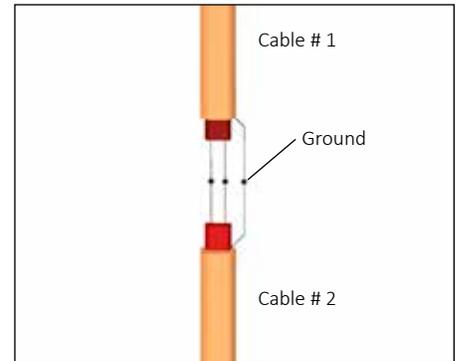
**11.** Trim heat tracing to 180 mm (7") minimum from expediter base.



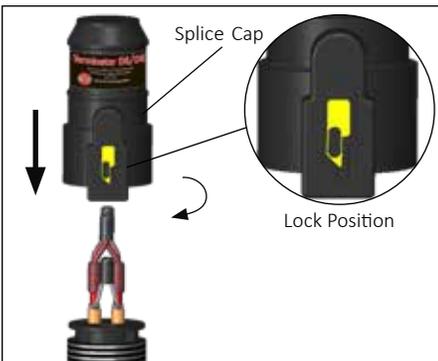
**12.** Terminate heat tracing with appropriate SCKT termination kit. Refer to SCKT installation instructions (purchased separately) for details not addressed here.



**13.** For splice connections: Connect bus wire using small wire nuts (for BSX, HTSX, KSX) or medium wires. (for RSX, VSX-HT, HPT, and FP). Connect braid wire using large wire nut. See wiring details for splice connections.



**14.** Complete system wiring between fabricated heat tracing.



**15.** Mount splice cap to Terminator base, tighten securely. Make sure latch mechanism is in the locked position.



**16.** To remove splice cap, lift latch mechanism to unlock position (as shown) and unscrew.



**17.** Complete Terminator DS/DE FAK-4/4L Kit for Electrically Heated Tube Trace Bundles. Tighten connection cap securely.

