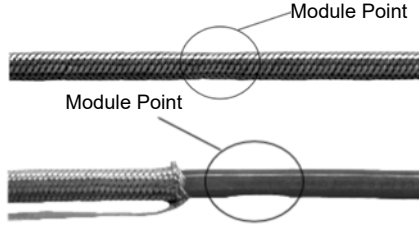
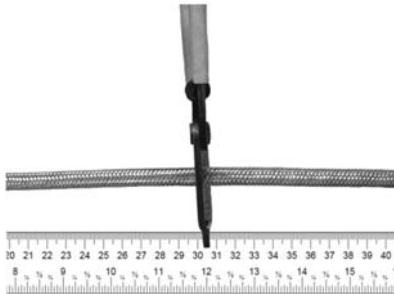


LEAD TERMINATION PREPARATION



STEP 1:
Determine the module length of the heating cable. Module points can be identified by slight indentations on the rounded surface of the outer jacket. You can determine the module point by touch or visually by sliding back the metallic overbraid.



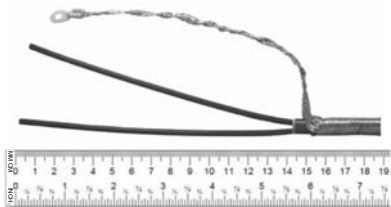
STEP 2:
Cut the cable between the module points for the desired length of cold lead. The length of "cold lead" must be at least 12" (30.5cm) but no longer than the module length minus 6" (15.2cm). The section of cable between the end of the cable and the first module point will be the cold lead. This section will be used for lead termination / power input connection.



STEP 3A:
Push 6" (15.2cm) of the metallic overbraid back to expose the extruded jacket on the cable. Using a pair of Wire Cutters, cut off 4" (10.1cm) of the exposed cable.



STEP 4:
Pull the metallic braid back over the end of the cable. Push the cable through the side of the metallic braid. Twist the empty braid to form a pigtail lead and crimp a ring terminal on the end (see picture above). A crimp barrel can also be used to extend the ground (braid) to another 12AWG ground wire.

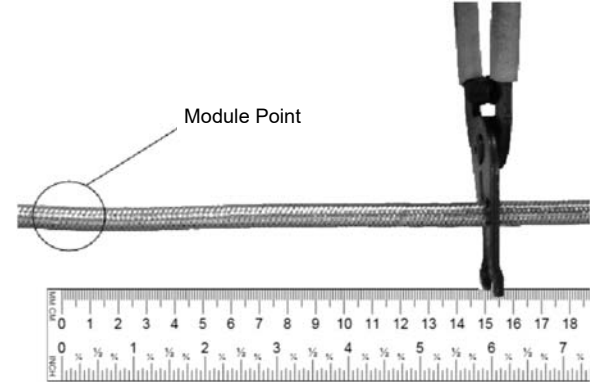


STEP 5:
Slide the metallic overbraid back at least an additional 6" (15.2cm) to further expose the cable jacket. Using a knife, carefully cut and remove 6" (15.2cm) of the extruded jacket to expose the spirally wrapped resistance wire and the two bus wires. Do **NOT** damage the bus wires or the bus wire insulation; the resistance wire must **NOT** come into contact with the exposed bus wires. Unwrap and cut the resistance wire back to the point you cut the cable jacket.



STEP 6:
Slide a lead pouch over the two bus wires and over the extruded jacket. Push the metallic braid up to the lead pouch. Slide a shrink tube over the lead pouch and the metallic braid. Using a heat gun or other appropriate heating device, apply heat evenly over the entire surface of the tube, shrinking it over the metallic braid and lead pouch. Using wire strippers, remove 0.75" (1.9cm) of the insulation from the bus wires to expose the conductors.

END TERMINATION PREPARATION



STEP 1:
Locate the last module point of the cable run. Cut the cable 6" (15.2cm) beyond this point to form a cold end.



STEP 2:
Using diagonal cutters and / or a knife, remove 0.75" (1.9cm) of the metallic braid and 0.50" (1.2cm) of the extruded jacket to expose the inner wrap. Remove the inner wrap back to the extruded jacket to expose the spirally wrapped resistance wire and the two insulated bus wires. Unwrap and cut off the resistance wire back to the inner wrap. Be careful not to damage the insulation on the bus wires. Cut one of the bus wires 0.25" (0.6cm) shorter than the other one. Make certain the resistance wire, the two bus wires, and the metallic braid do **NOT** contact each other.



STEP 3:
Slide an end pouch over the two bus wires and extruded jacket. Slide a shrink tube over the end pouch and the metallic overbraid. Using a heat gun or other appropriate heating device, apply heat evenly over the entire surface of the tube, shrinking it over the metallic braid and end pouch.

NOTE: When attaching the heating cable to the pipe, make sure that the last module point is in contact with the pipe surface.

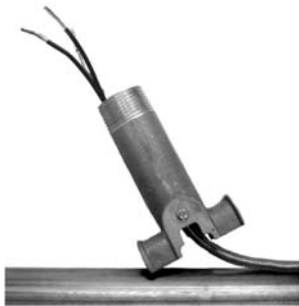
POWER INPUT CONNECTION INSTALLATION

⚠ WARNING

Only authorized and trained personnel should perform the following procedure. The hazard of electrical shock exists with any electrical installation project. Disconnect all supply power at the source prior to making the heating cable power input connections.

⚠ CAUTION

A temperature controller is required for all constant-wattage heating cable.



STEP 1:

Prepare heating cable end as specified under "Lead Termination Preparation". Insert approximately 8" (20cm) of the heating cable(s) through the bottom of the cast aluminum pipe standoff, making sure the first module point stays in contact with the pipe.

NOTE: A maximum of three cables fit through pipe standoff.



STEP 2:

Place the standoff on the pipe surface at the point where the supply wiring and associated fittings will connect to the pipe heat tracing cable. Fasten the standoff to the pipe with pipe straps. Fill the top of the standoff with Silicone RTV to provide a moisture seal between the pipe and electrical junction box. Make certain there are no voids between the cable and pipe standoff. Allow an appropriate amount of time for the Silicone RTV to cure.

STEP 3:

Ensure the junction box chosen is equipped with a minimum of two 1" NPT female threaded hubs. Secure junction box onto the standoff. Pull the input power source wiring through the associated opening into the junction box. Connect the heating cable lead wires to a temperature controlling device and input power source wiring using wire nuts provided. Be sure to follow temperature controlling device installation instructions. If applicable, secure the braided pigtail ground to the standoff using the standoff ground screw provided or to the junction box using the junction box ground screw/receptacle. Ensure an adequate earth ground is provided to safely ground the entire assembly. Close the junction box and attach the Caution Label to the cover of the junction box.



SPLICE INSTALLATION

⚠ WARNING

Only authorized and trained personnel should perform the following procedure. The hazard of electrical shock exists with any electrical installation project. Disconnect all supply power at the source prior to making the heating cable power input connections.

STEP 1:

Prepare the heating cable ends to be spliced together as specified under "Lead Termination Preparation".

CAUTION: Never connect the two parallel conductors of the heating cable together.

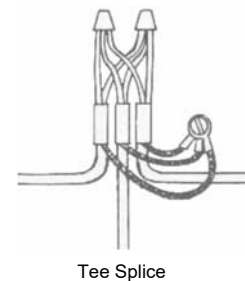
STEP 2:

Insert the heating cable cold leads up through the pipe standoff and into the junction box. Attach the pipe standoff and junction box to the pipe where the splice is to be located. Fasten it with appropriately sized pipe clamps.

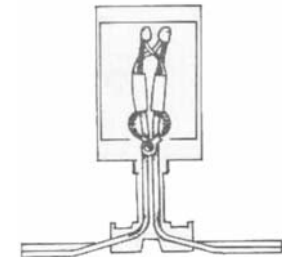
NOTE: A maximum of three cables fit through pipe standoff.

STEP 3:

Connect the leads of the heating cable ends together using wire nuts as shown in the illustrations (wire nuts are not provided with FECABSK).



Tee Splice



In-line Splice

STEP 4:

Connect the terminal lugs on the braid leads to a grounded screw on the pipe standoff or on the junction box.

NOTE: The junction box and pipe standoff must be grounded.

STEP 5:

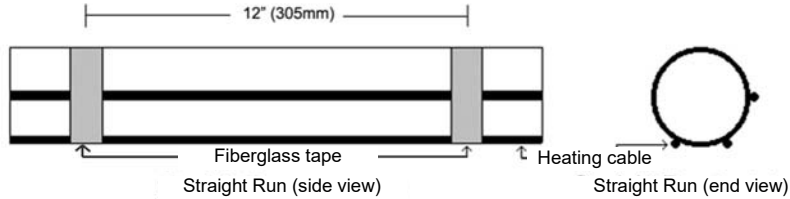
Test the cable installation for continuity and insulation resistance. The insulation resistance between the bus wires and the metallic braid must be greater than 50 megohms at 500 volts. Close the junction box and attach the Caution Label to the cover of the junction box.

HEATING CABLE INSTALLATION

CAUTION

Minimum installation temperature: -22°F (-30°C)

Cable Wrapping Techniques



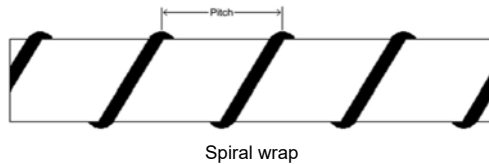
A straight run is the simplest method to installing heating cable. It is possible to have multiple straight runs on a single object. With a single straight run, position cable at the bottom of a horizontal pipe.

CAUTION

Do not wrap the heating cable over itself or have two heating cables touch.

All parts of heating cable must make intimate contact with surface to be heated. Use heat conductive putty to fill voids between cable and pipe surface.

Wrap adhesive tape every 12" (305mm) around heating cable and pipe to attach the cable. Minimum insulation resistance acceptable after the system has been installed and thermally insulated: The measurement made by applying 500Vdc between each circuit and ground with the set de-energized and all circuit neutrals isolated from ground.



Spiral wrapping provides more heater coverage than a straight run. It can also require more heating cable. Verify the pitch length (see illustration) prior to installation to ensure you have enough heating cable to finish the job. If you need assistance in determining the pitch length, call your local distributor or BriskHeat[®].

CAUTION

Do not wrap the heating cable over itself or have two heating cables touch.

All parts of heating cable must make intimate contact with surface to be heated. Use heat conductive putty to fill voids between cable and pipe surface.

Wrap adhesive tape every 12" (305mm) around heating cable and pipe to attach the cable.

Minimum insulation resistance acceptable after the system has been installed and thermally insulated: The measurement made by applying 500Vdc between each circuit and ground with the set de-energized and all circuit neutrals isolated from ground.

Heating Cable Placement on Different Types of Objects

