



WARNING



FIRE HAZARD. Failure to properly follow these guidelines could result in damage or injury.

- Make sure all power is disconnected at the breaker box before wiring Smart Heat Trace.
- Installing should be performed by a qualified electrician.
- Smart Thaw Heat Trace must be properly grounded.
- Inspect heating cable for any damage prior to applying electrical power.
- Do not install on any item or device with low melting temperatures.

- If insulation material is used, be sure to use fire resistant material.
- Use a GFCI circuit to power the Smart Heat Trace.
- Keep all electrical connections dry before and during use.
- Keep buss wires separated to avoid shorting out electrical power.
- Never use metal hose clamps or any method that can over tighten against wire and damage it. Zip ties work best.
- Do not expose Smart Thaw Heating Trace to any environment that is hotter than 250°F

Instructions for attaching power cord to Smart Heat Trace

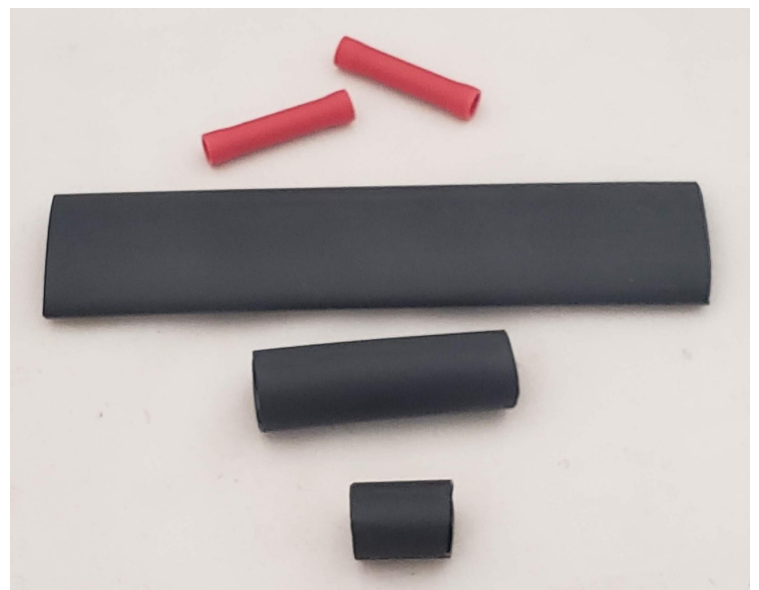
Material needed (sold separately)

2 insulated solderless butt connectors 18-22 AWG

1 piece 1/2" id 4" long 3:1 ratio adhesive lined heat shrink.

1 piece 3/8" id 1-1/2" long 3:1 ratio adhesive lined heat shrink.

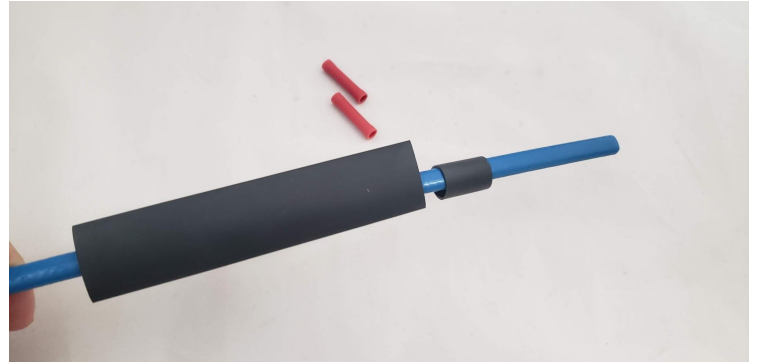
1 piece 3/8" id 1/2" long 3:1 ratio adhesive lined heat shrink.



Step 1

Slide the 4" long and 1/2" long heat shrink onto one end Smart Heat Trace wire.

Set the 1-1/2" long heat shrink aside for the other end.



Step 2

Carefully score blue insulation 3/4" from the end and remove.



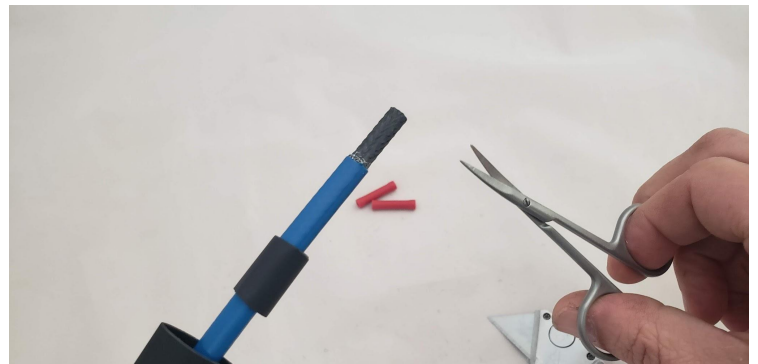
Step 3

Using small scissors, trim back all the braided ground wire.



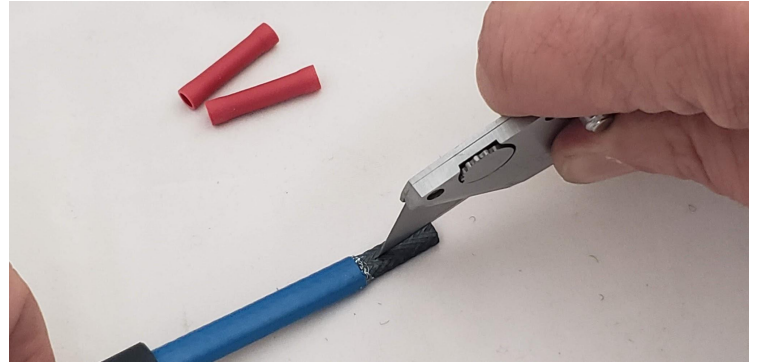
Step 4

The end of the wire should look like this.



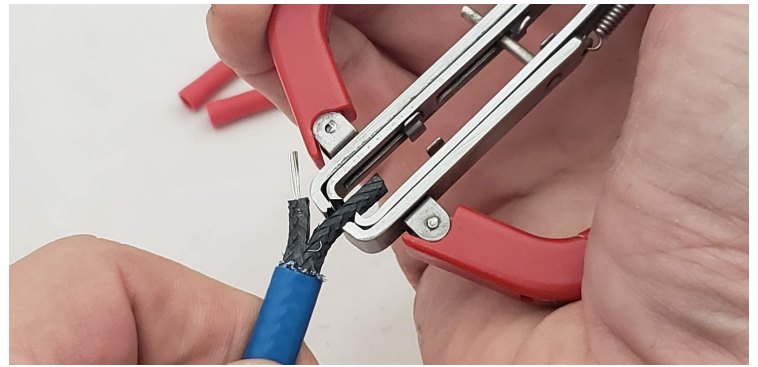
Step 5

Carefully split the black cable as close to the center as possible.



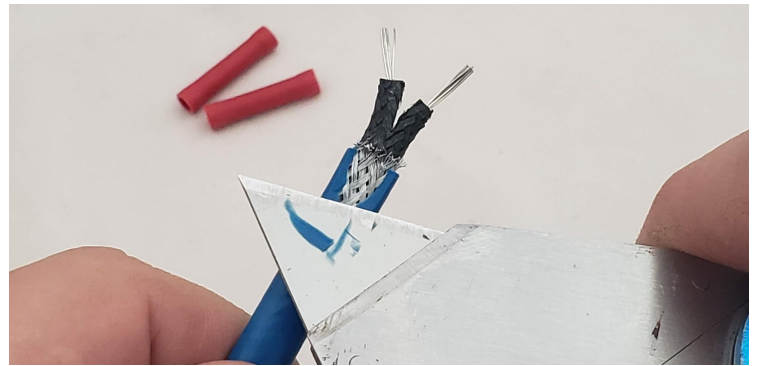
Step 6

Strip about ¼" from the end of each split part of the cable.



Step 7

Carefully skim the blue insulation about ½" from the end exposing the metal braided ground.



Step 8

Crimp one end of each butt connector to the exposed buss wire.

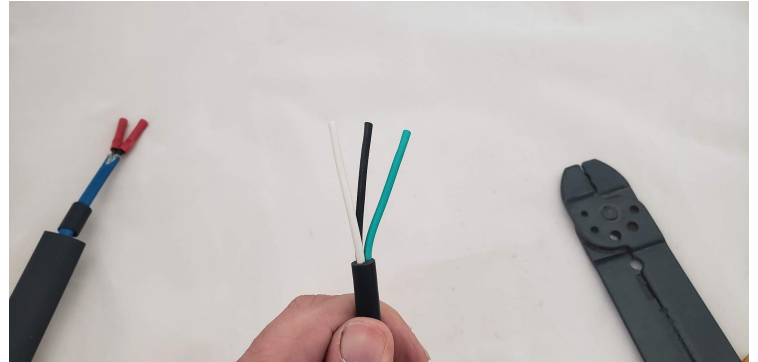


Step 9

Power cord end preparation. Recommend 18 awg or higher for longer lengths.

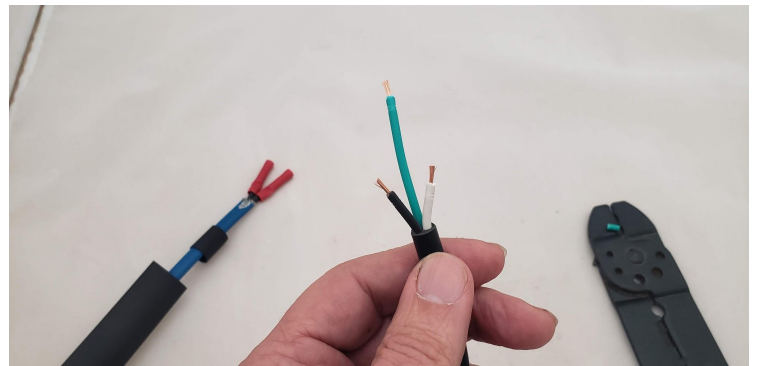
If using a 3 wire power cable strip approximately 2" of the outer jacket exposing the 3 power wires.

Note: If a different 3 wire cable is used the following instructions should be informative to help with attaching the power wires to the Smart Heat Trace™ cable.



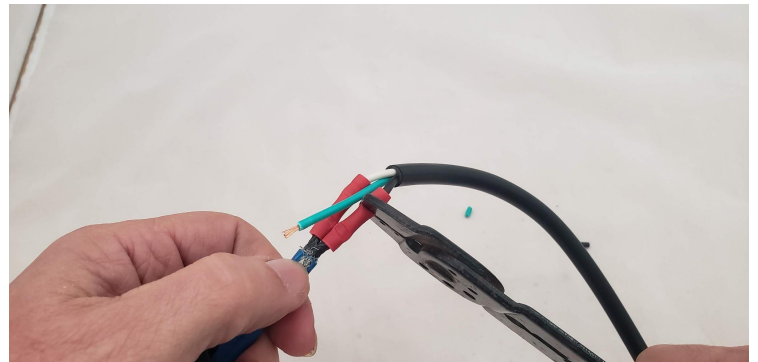
Step 10

Shorten the line (black) and neutral (white) wires to $\frac{3}{4}$ " leaving the green wire the 2" length. Strip about $\frac{1}{4}$ " insulation from all 3 wires exposing the electrical wire.



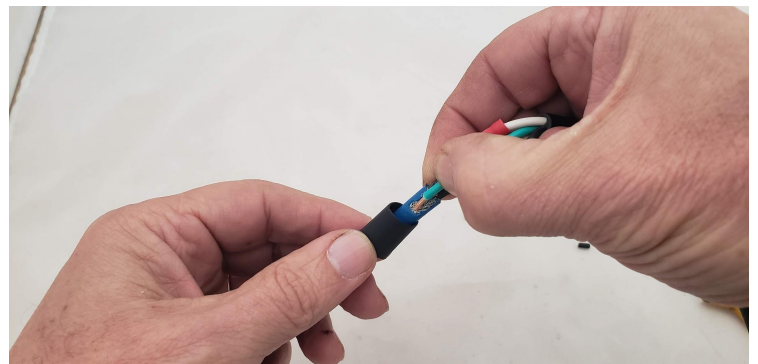
Step 11

Connect the line (black) and neutral (white) wires to each buss wire by inserting and crimping the butt connectors. Polarity is not an issue.



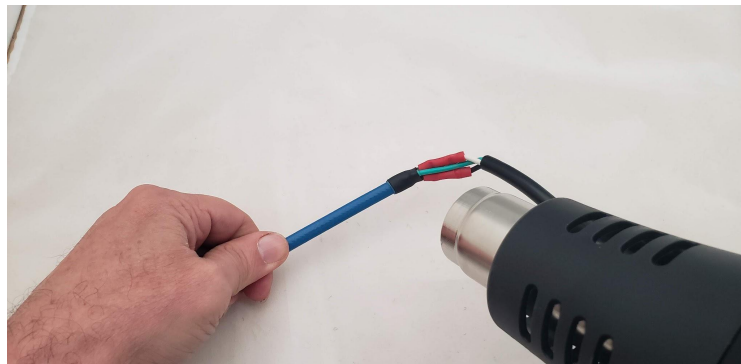
Step 12

Lay the bare portion of the ground wire (green) against the braided metal skimmed away in step 7.



Step 13

Heat the heat shrink until it tightens, pulling both bare ground wires together.



Step 14

Pull the ½" x ¼" heat shrink over the butt connectors so that the connections are approximately the center of the 4" heat shrink.



Step 15

Heat the heat shrink to seal both ends thoroughly. Check to make sure heat shrink glue has oozed slightly out each end.



Step 16

Check heat shrink to make sure no wires are exposed.



Step 17

NOTE: VERY IMPORTANT. DO NOT SKIP THIS STEP.

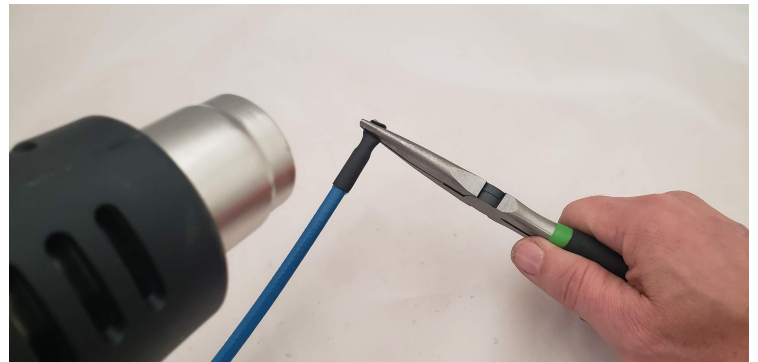
On the other end strip the blue insulation and braided ground from the Smart Heat Trace. Be very careful to remove all the strands of the braided ground wire making sure none of the strands of the ground wire touch either of the buss wires. Make sure the buss wires are not exposed except for the very tip.



Step 18

NOTE: VERY IMPORTANT. DO NOT SKIP THIS STEP.

Slide the $\frac{3}{8}$ " id 1- $\frac{1}{2}$ " long heat shrink over the end leaving about $\frac{1}{2}$ " to $\frac{3}{8}$ " of the heat shrink past the end of the wire to pinch closed. Heat the heat shrink and before the heat shrink cools, pinch the end closed with pliers or needle nose pliers for about 15 seconds. Wait for all heat shrink tubing to cool.





Smart Heat Trace™ 120 volt



Warnings and Safety Precautions



- **It is recommended to insulate the supplying faucet connections and any exposed pipes supplying water. The Smart Heat Trace will not provide freeze protection beyond the pipe or hose being protected.**
- Make sure you have ample power supplied to your Smart Heat Trace to accommodate the power consumed.
- **Do not cut or attempt to splice heater wire.**
- **Altering of your Smart Heat Trace will result in a Voided Warranty!**
- Do Not allow water to spray or drip into or around the electrical connections. Should this happen, disconnect power at the breaker and move the hose to an area to dry.
- Do Not use an ungrounded electrical plug.
- Make sure power is unplugged before connecting or disconnecting the Smart Heat Trace to the water source.
- Inspect your Smart Heat Trace before each use.
- Always use a grounded GFCI receptacle for your Smart Heat Trace.
- Always use an approved Outdoor grounded extension cord. Do Not use any extension cord that shows any damage.
- Do Not immerse electrical connectors in water.
- During long power outages, drain the hose or pipe to prevent freezing.



Smart Heat Trace™ 120 volt



Limited Warranty

Warranty

SmartTechProducts (STP) warrants to the end user that the Smart Heat Trace will be free from defects in material and workmanship for one(1) year from the original date of purchase. If you discover a defect in a product covered by this warranty, we will repair, or if repair is not possible, replace the item at STP's sole discretion. STP has no obligation to honor a warranty on a product until the customer returns the defective product to STP, with proper Proof of Purchase. STP, nor any of its third party suppliers, makes any other warranty condition of any kind, whether expressed or implied. All warranties are handled through STP's location (see below).

Exclusions

This warranty covers defects in manufacturing discovered while using the product as recommended by STP. The warranty does not cover any problem that arises as a result of improper use or modification. The warranty does not cover loss or theft, nor does coverage extend to damage caused by misuse, abuse, unauthorized modification, improper storage conditions, lightning or natural disasters. SmartTechProducts is not liable for any damages or injuries if misused or improperly modified.

Limits of Liability

Should the product(s) fail, your sole recourse shall be repair, replacement, as described in the preceding paragraphs. We will not be held liable to you or any other party for any damages that result from the failure of the product. Damages excluded include, but are not limited to, the following: Lost profits, lost savings, lost data, damage to other equipment, and incidental or consequential damages arising from the use or inability to use this product. In no event will STP be liable for more than the amount of your purchase price, not to exceed the current list price of the product, and excluding tax, shipping and handling charges. By installing or using this product, the user accepts all terms described herein.

Requirements: Proof of purchase required. For reasons other than manufacturer defects, the shipping fees will be paid by the end user returning the product.

How to obtain service under this Warranty

Contact us using one of the following methods:

Send an email to info@SmartTechProducts.com

Or write to us:

SmartTechProducts
419 S Broad Street
Klamath Falls, OR 97601
www.smarttechproducts.com
sales@smarttechproducts.com
541-882-7701

Find us on 