

HTD Heat Trace

H07210

Electrical Connection Kit

(For use with AutoWatt (AWX) Family Heaters)

Kit Contents

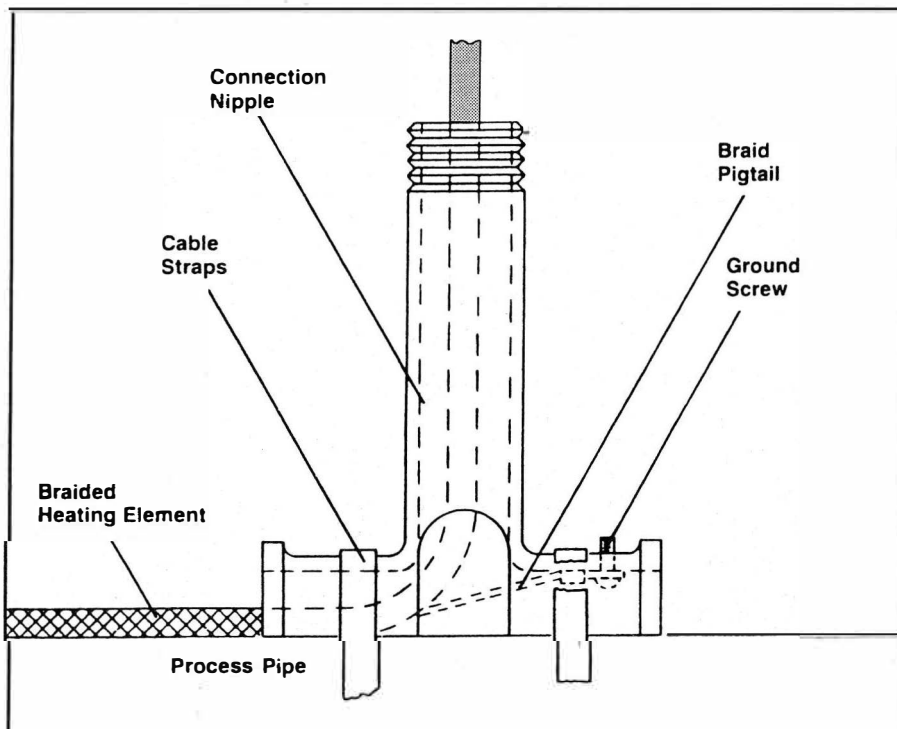
- 1 Connection Nipple
- 2 Ring Terminals
- 1 Screw
- 3 Crimp Connectors, large
- 2 Crimp Connectors, small
- 2 Pipe Straps
- 2 End Boots
- 1 Sealant, 3 oz.
- 1 Roll Fiberglass Tape
- 1 Caution Label

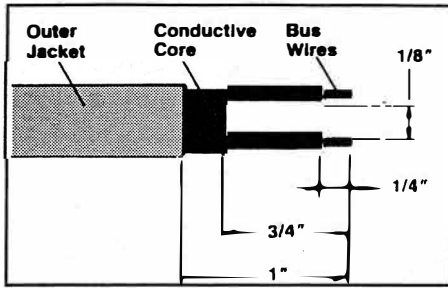
Connection Kit H07210

H07210 electrical connection kit is a universal all-in-one connection kit for making the electrical connections for the AWX Family heating elements. The kit contains the necessary components (except conduit box) to make **one input connection** or **one splice connection** or **one input power splice connection**, as well as **two termination connections**. The connection kit fits pipes up to 6" IPS. For larger pipes, use additional cable ties end-to-end. The H07210 kits are approved by Factory Mutual for use in Class I, Div. 2, Groups A, B, C and D; Class II/III, Div. 2, Groups F & G; and Class I, Zone 2, Groups IIC

Input Power Connection Procedure

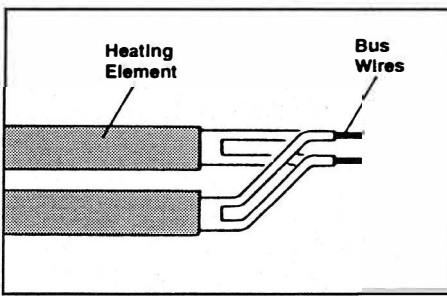
1. Insert the heating element through the connection nipple allowing 6" to extend beyond the top of the connection nipple.
2. Place the connection nipple on the pipe surface at the point where the conduit will connect into the system. Fasten the connection nipple to the pipe using the metal cable straps.
3. Screw the appropriately sized connection box (not supplied) onto the connection nipple. Connect the conduit into the connection box. Pull appropriate size input power wires (not supplied) through the conduit into the connection box.
4. Separate the heater conductors as outlined in the stripping procedure. (See back page.)
5. Connect the heater bus wires to the input power wires using the uninsulated crimp connectors. Put end sealant on each crimp connector and tape each connector separately with high-temperature tape. Next, seal the splice area and tape the crimp connectors with high-temperature tape.
6. Fill the connection nipple from the top using end sealant until sealant flows out of the top or bottom of the connection nipple.
7. Push the splice and input power wires into the connection box and attach the gasket and cover.
9. Attach the caution label to the connection box cover.





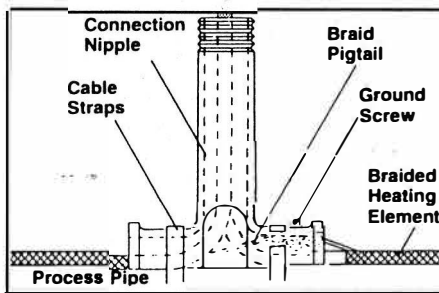
Stripping Procedure For AWX Family High-Temperature SR

1. Remove the outer jacket 1" from the end, exposing the core.
2. Cut out a strip of core material $\frac{1}{8}$ " wide x $\frac{3}{4}$ " long.
3. Score around each bus wire $\frac{1}{4}$ " from the end, being careful not to cut the wires inside.
4. Bend the core material at the scored points of each bus wire with pliers to break the core-to-wire bond.
5. Remove core material from conductors with razor blade or knife.



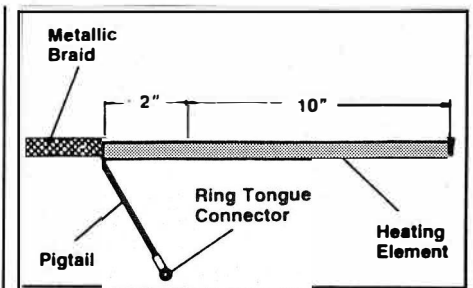
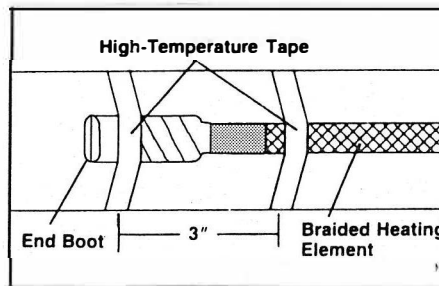
Input Power Splice

1. Follow steps 1 through 4 of the input power connection procedures. (See front page.)
2. Twist one bus wire from each heater together with bus wire from the other heater, connecting the heaters in parallel. (See diagram.) Crimp a butt connector onto each lead.
3. Crimp the input power wires into the open end of the butt connectors.
4. Seal each crimp connector with end sealant and tape them separately with high-temperature tape. Next seal the splice area, being sure to seal the area between the heaters well, and the tape crimp connectors together with high-temperature tape.
5. Push the splice and input power wires into the connection box and attach the gasket and cover.
6. Attach the caution label to the connection box cover.



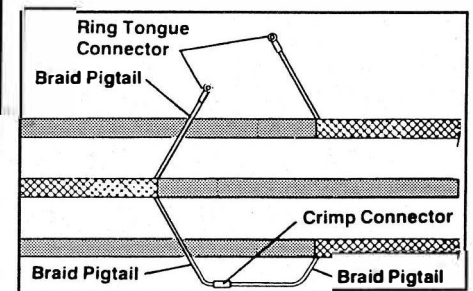
Splice Connection Procedure

1. Cut the heating elements to extend 10" beyond the established splice point.
2. Follow steps 1 through 8 of the input power connection procedures, (see front page), except that two heaters will be used instead of power leads.



Braided Heater Grounding For Class I, Division 2 Area

1. Remove 10" of metallic braid from the end of the heating element.
2. Unravel the next 2" of metallic braid and twist into a pigtail. Attach the ring tongue connector to pigtail.
3. Connect the ring tongue connector to connection nipple using a ground screw.



Tee Splice Connection Procedure

1. Follow instruction for input power splice connection, except that three heaters and no power input connections are used.

For Braided Heater

2. Remove 10" of metallic braid from all three heaters.
3. Unravel 2" of metallic braid from each heater.
4. Separate the braid on the single heater into two equal strands. Twist the braid to form two pigtails on the single heater and one pigtail each on the other heaters.
- 4A. Connect braid pigtails as shown in the diagram, using one butt crimp connector and two ring-tongue terminals.

Termination Procedure

1. Remove the metallic braid 3" from end.
2. Trim the end of the heating element so that one bus wire is $\frac{1}{4}$ " shorter than the other, making sure the conductors are not shorted together.
3. Fill the end boot with end sealant and slide onto the heating element. Tape the end boot into place with high-temperature tape.
4. Anchor the heating element onto the pipe with high-temperature tape.