

# BASEBOARD HEATER

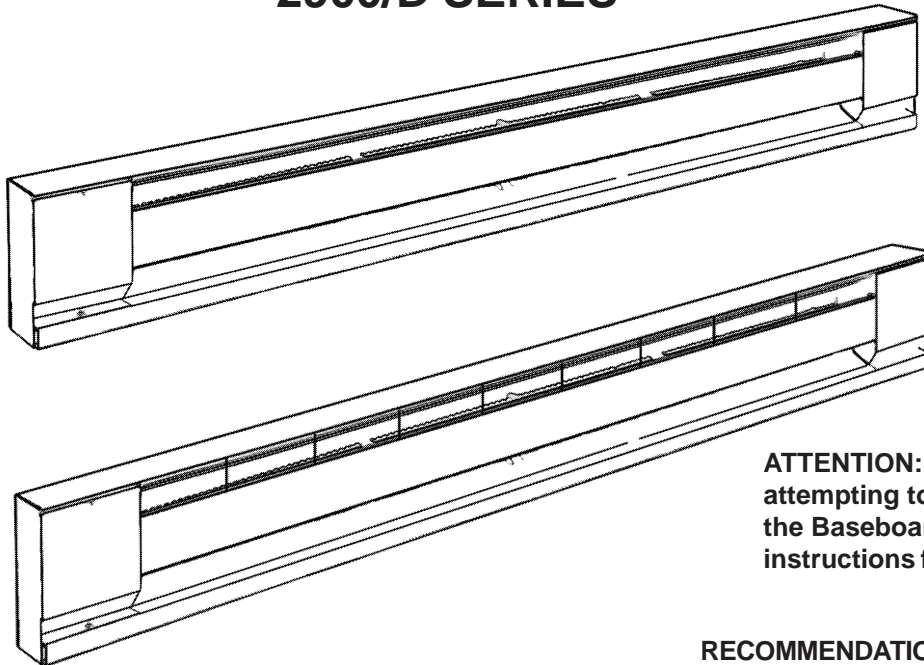
## Commercial / Residential 2900/D SERIES

## INSTALLATION INSTRUCTIONS



TPI Corporation  
P.O. Box 4973  
Johnson City, TN  
37602-4973

America's Comfort Conditioning Company



**ATTENTION:** Read carefully before attempting to install, operate or service the Baseboard Heater. Retain these instructions for future reference.

### LOCATION OF HEATER

Heaters should be located to provide a blanket of heat over the coldest wall of the room, preferably on a outside wall under a window.

### CAUTIONS AND WARNING STATEMENTS

1. Wiring procedures and connections should be in accordance with national and local codes having jurisdiction. Note: all baseboards must be grounded in accordance with article 250 of the N.E.C.
2. Do not install baseboard heater below electrical convenience receptacles (outlets).
3. Do not install insulation on any inside surface of this baseboard heater. The over temperature control may be rendered inoperable resulting in possible hazard in the event of abnormal operation or blockage.
4. High temperatures are present at outlet air openings. Keep electrical cords, drapes and other furnishings or objects clear of these openings.
5. To reduce risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.
6. High temperatures, keep electrical cords, drapes and other furnishings away from the heater.

### RECOMMENDATIONS FOR DRAPE PLACEMENT NEAR BASEBOARD HEATER

1. Allow minimum clearance of 1" from drapes to ceiling and to top of floor covering to permit air circulation (example 1, figure 2.)
2. Hang full length drapes to provide a minimum of 2" airspace between heater front and nearest drape fold as shown in example 1, figure 2.
3. Hang short drapes to provide minimum of 6" clearance between bottom of drapes and top of heater, preferably more (example 2, figure 2).
4. Do not under any condition allow drapery to come in contact with heater. Some fabrics discolor in time from exposure to sunlight or warm air. Check to make sure drapery material will not discolor, shrink, or stretch upon extended (1000 hour) exposure to temperatures of 200°F.

Heaters may be mounted directly to any floor surface, including carpeting. Wall to wall carpet (maximum thickness: 3/4") may extend under or to the front of the baseboard heater. This is provided the flooring material does not obstruct air flow to the heater.

### WIRING OF BASEBOARD

Refer to the Wiring Diagrams and Figure 1 for Knockout Locations.

1. Ensure that electrical power supply is disconnected at circuit breaker panel.

**IMPORTANT: OWNER SHOULD RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE**

- Remove junction box cover from supply end.
- Remove desired knockouts and route supply cable through openings using proper fitting. Using means to protect finish, place heater face down with bottom toward wall and positioned where heater location is desired.
- Locate wall studs and line up center of stud with notch along bottom edge of heater. Remove keyhole mounting hole in line with notch. Provisions for mounting repeat at 4" intervals to aid in locating 16" or 24" on center stud.

NOTE: Use of carpenter's square placed along bottom edge and lined up with notch allows placement of screws 4 3/4" above mounting surface. The screw or nail may be run into 1/4" of surface. With proper keyhole opening removed, heater may be raised slightly and hung over screw head. Tighten screws further after in place. Keyhole opening is intended to accommodate a No. 8 screw with a head diameter of 3/8" maximum. If nailing directly through heater, use a 3/16" knockout below baffle and heating element.

- Remove wire nut connector (do not open crimp connector). Make connections in the wiring compartment. See wiring diagram. Connect ground conductors using approved connector.
- Replace wiring compartment cover making sure all screws are secured in place.
- Turn on power supply. Adjust thermostat for desired temperature.

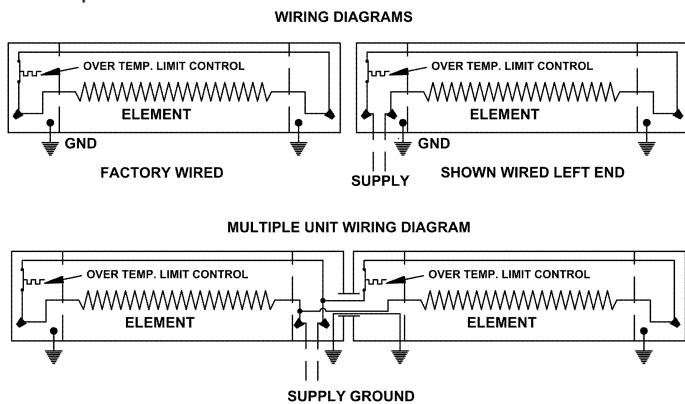
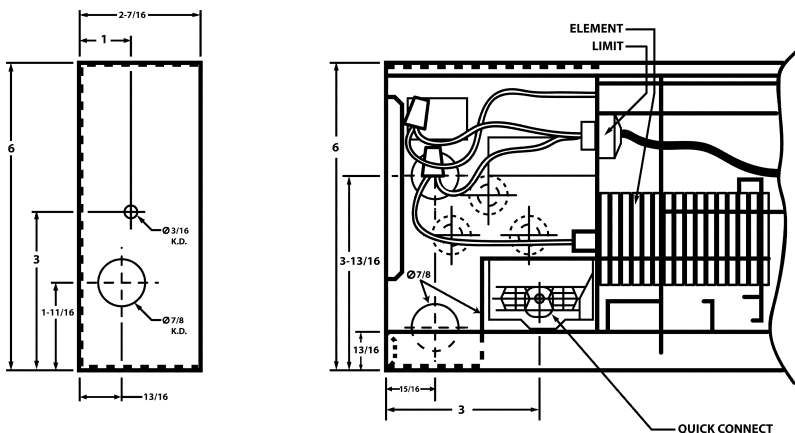


Figure 1



## THE FOLLOWING STEPS SHOULD BE TAKEN FOR INSTALLATION

Verify input voltage and name plate voltage of heater for compatibility. Wiring can be done from either end of heater. A corner section is available for right angle mounting of two baseboard heaters and allowance should be made for locating wiring. See Figure 1 for knockout locations.

- Remove wiring compartment from supply end.
- Loosen screw in built-in cable clamp. Insert supply cable into wiring compartment allowing sufficient cable length for connection to heater. Tighten cable clamp screw. Ensure that the clamp is only on sheath portion of the supply cable.
- Push excess supply cable back into wall.
- Repeat steps 4 through 7 above.

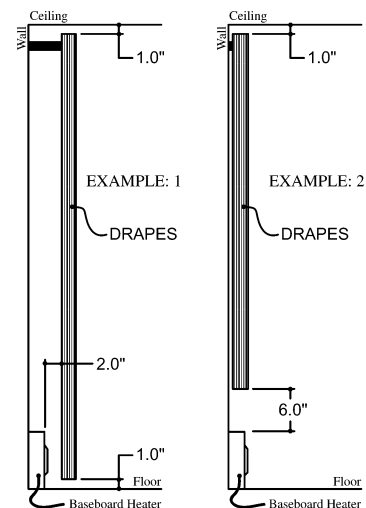
## CLEANING INSTRUCTIONS

At the beginning of each heating season, it is recommended that heaters be cleaned to eliminate any accumulation of dust or lint. Before cleaning, make sure the power is OFF at the circuit breaker panel and the heating element cool. Do not remove front cover during cleaning. Use the narrow suction attachment of the vacuum cleaner and move from end to end and above and below fins and cabinet. When cleaning is complete, turn power ON.

IN CASE OF PRODUCT FAILURE: It shall be the obligation of the owner to furnish to the company within the designated warranty period, the following information:

- Model number and date of manufacture of product involved and date of purchase.
- Complete description of the problem encountered with product. Upon receipt of the above, the company will reply to the owner within a period not to exceed fifteen (15) working days, the action to be taken by owner. When requested, it shall be the obligation of the owner to return the defective part to the company within thirty (30) days after its removal, or otherwise to follow instruction from the company. Return parts to the appropriate service center.

Figure 2



# INSTALLATION INSTRUCTIONS

## BUILT-IN THERMOSTAT

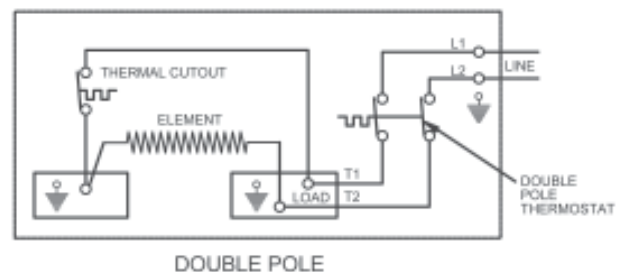
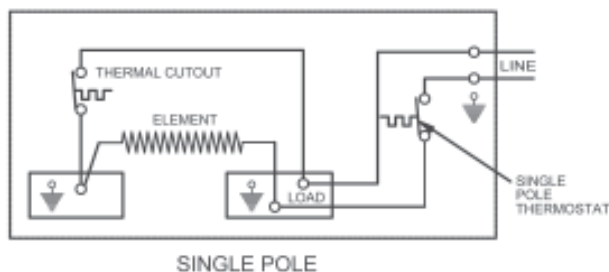
**CAUTION:** Disconnect supply service to avoid electric shock. All wiring connections must conform to national electric code and local codes having jurisdiction.

### NOTES:

- \* Do not eliminate or bypass the thermal cutout.
  - \* Be sure load controlled by the thermostat does not exceed the thermostat nameplate rating.
  - \* The in-built thermostat accessory can be mounted in either end of baseboard.
1. Remove junction box cover.
  2. Remove wire nut in junction box (Do not disturb the crimp connection).
  3. Install thermostat accessory in the junction box with the two (2) screws provided.
  4. Make connections per wiring diagram. Connect read lead wire(s) to line supply and black lead wire(s) to load.
  5. Install one of the new junction box covers provided. Reinstall cover so the thermostat shaft extends through cover. Press control knob on to thermostat shaft.
  6. Restore power to the baseboard.
  7. Thermostat operation: Turn thermostat shaft fully clockwise. When the room has reached the desired comfort level, slowly turn thermostat shaft counter-clockwise until heater turns off (a faint click will be heard). One or two minor adjustments may be required.

### TAMPER RESISTANT THERMOSTAT INSTALLATION

1. Repeat steps 1, 2, 3, 4, 5,6 and 7.
2. Reinstall junction box cover , install plug button.

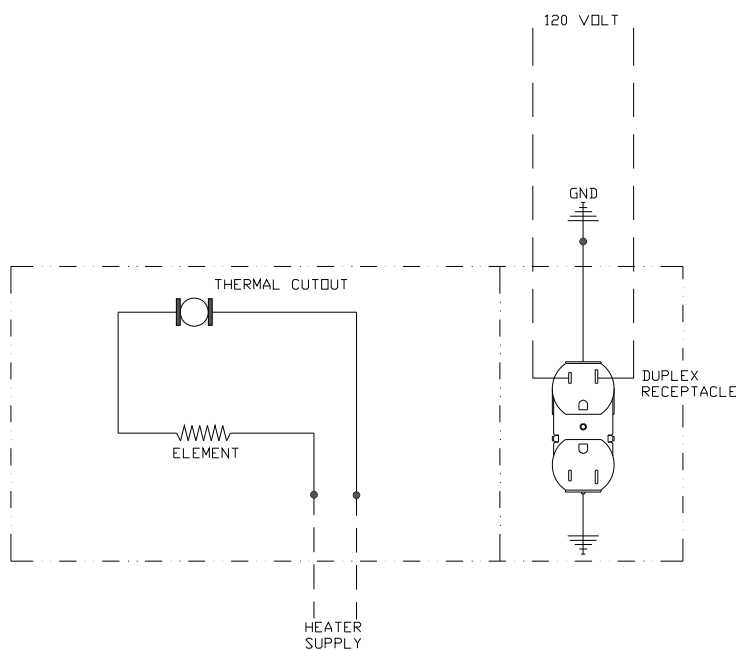


## INSTALLATION INSTRUCTIONS INBUILT DUPLEX RECEPTACLE

**CAUTION:** Disconnect supply service to baseboard and receptacle to avoid electrical shock. All wiring connections must conform to National Electric Code and Local Codes having jurisdiction.

NOTE: The receptacle must be connected to a branch circuit, other than the baseboard heater circuit, having over current protection in accordance with the National Electric Code.

1. The receptacle cover assembly can be mounted in the left or right hand junction box.
2. Remove baseboard heater junction box cover and retain screw.
3. Attach the 120V branch supply leads and ground lead the receptacle. Use copper conductors only.
4. Install receptacle cover assembly to the baseboard junction box, secure with previously removed screw.
5. Restore power and check for proper operation.



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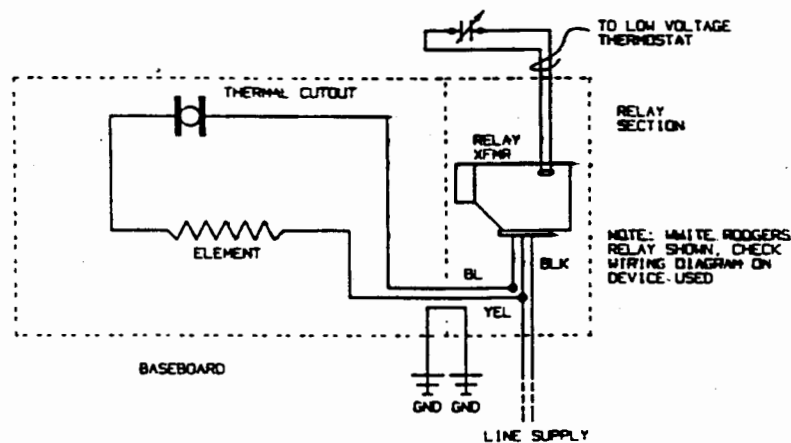
## INSTALLATION INSTRUCTIONS

### LOW VOLTAGE RELAY SECTION

**CAUTION:** Disconnect supply service to avoid electrical shock. All wiring connections must conform to the national electric code and local codes having jurisdiction.

1. Remove front cover.
2. Remove 1/2" diameter knockout in upper low voltage section, install 1/2" snap bushing (supplied).
3. Remove knockout in lower section for power supply. Remove knockout from exposed end of baseboard for heater wire entry.
4. Install thermal relay in upper section of accessory. Insert threaded nipple through hole in barrier, secure with 1/2" conduit lock nut (not provided).
5. Attach accessory with heater to wall, insert snap bushing (supplied).
6. Route supply wires through accessory box knockouts. Attach green ground lead from accessory to heater ground screw for continuity of ground.
7. Install heater and accessory covers. Restore power supply and check for proper operation.

**NOTE:** Due to the nature of the relay, there will be a delay "on" or "off" with thermostat cycle.



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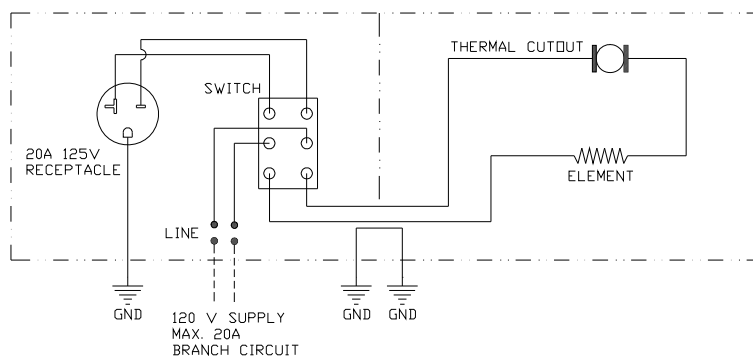
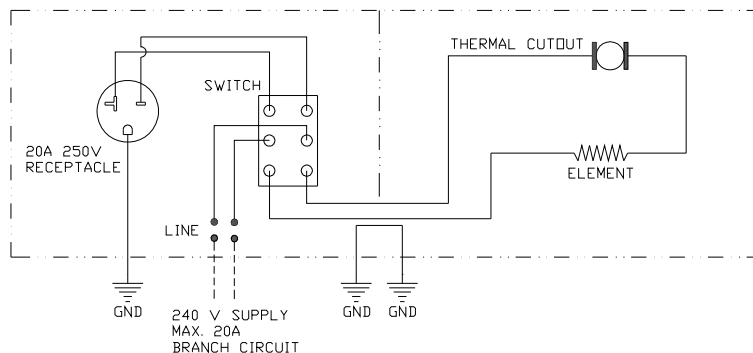
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FORM 9927

## INSTALLATION INSTRUCTIONS TRANSFER SWITCH WITH RECEPTACLE SECTION

**CAUTION:** Disconnect supply service to avoid electrical shock. All wiring connections must conform to national electric code and local codes having jurisdiction.

1. Remove front covers from accessory and baseboard.
2. Remove knockout for supply entrance and knockout from exposed end of baseboard for heater wire entry.
3. Attach accessory to wall with heater, insert bushing (supplied) from baseboard junction box.
4. Make connections per wiring diagram. Connect branch circuit conductors marked "line", connector conductors marked "heater" to heater load conductors.
5. Attach green ground lead from accessory to heater junction box for continuity of ground.
6. Reinstall heater junction box cover and accessory cover, restore power and check for proper operation.



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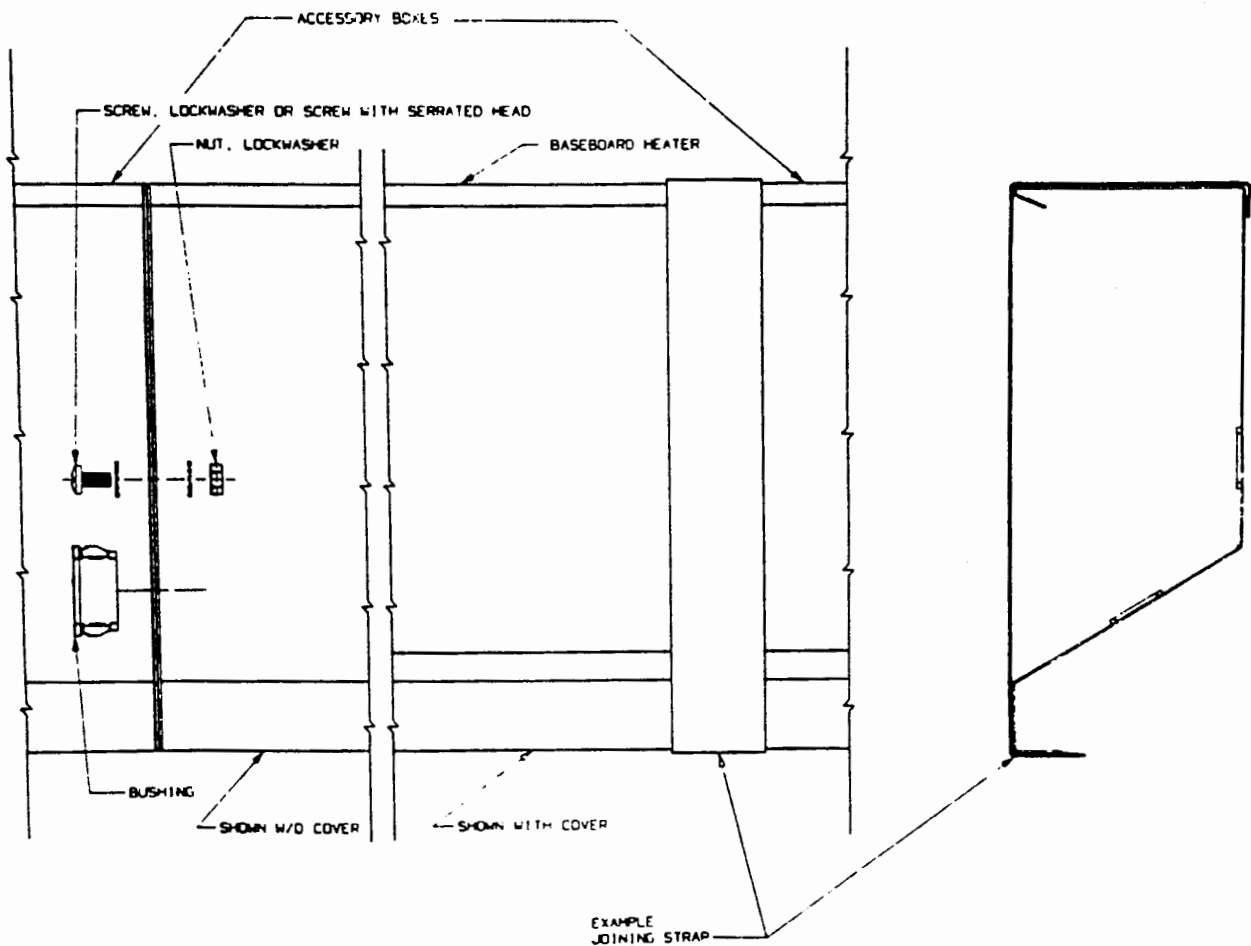
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## INSTALLATION INSTRUCTIONS

### BASEBOARD JOINER KIT

**CAUTION:** Disconnect supply service to avoid electric shock. All wiring connections must conform to national electric code and local codes having jurisdiction.

1. Remove junction box covers.
2. Remove large and small knockouts from exposed ends of baseboards.
3. Temporally assemble baseboards with machine screw, lockwashers, and nut. Insert snap bushing into the 7/8 in. holes.
4. After the baseboards are aligned, finish tightening the machine screw. Install the previously removed junction box covers.
5. Hook small end of joining strap over bottom of both baseboards, position the strap over the top while springing the top part of strap upward and snap over the top rear break.
6. Attach assembled baseboards to wall.



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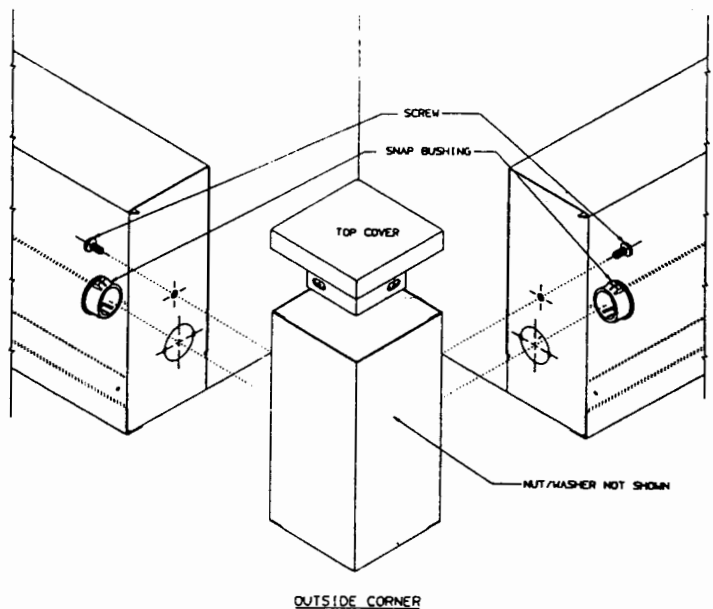
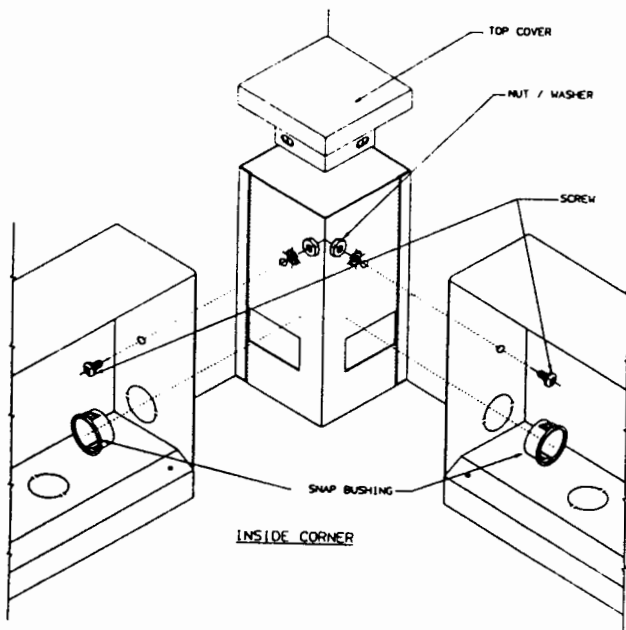
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## INSTALLATION INSTRUCTIONS

### INSIDE / OUTSIDE CORNER SECTION

CAUTION: Disconnect supply service to avoid electrical shock. All wiring connections must conform to national electric code and local codes having jurisdiction.

1. Remove junction box covers from baseboard heaters that are to be joined to the corner section.
2. Remove the top cover from the corner section.
3. Remove small and large knockouts from exposed ends of baseboards to be connected to the corner section.
4. Position the two heaters and corner section for either inside or outside corner assembly.
5. Loosely attach the heaters to the corner section with two (2) machine screws, washers and nuts.
6. Insert snap bushing(s) through knockout hole(s) in baseboard(s) into slot(s) of the corner section.
7. After the baseboard(s) and corner section are located in the final position, finish tightening the machine screws, reinstall the corner section top and baseboard junction box cover(s).



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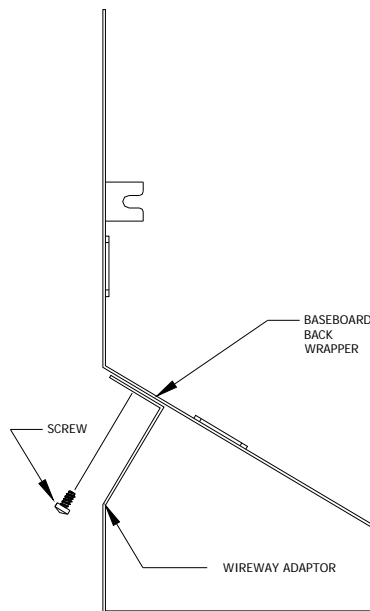
## INSTALLATION INSTRUCTIONS WIRE WAY ADAPTER

**CAUTION:** Disconnect supply service to avoid electrical shock. All wiring must conform to nation electric code and all local codes having jurisdiction.

1. Remove junction box covers.
2. Remove bottom knockouts on bottom of junction boxes on heat shield side. Insert snap bushings provided.
3. Using means to protect finish, place baseboard face down. Lay wires in bottom of baseboard and feed wire through bushings into junction box allowing minimum of 6" wire into each box.
4. Attach wire way adapter to baseboard with screws provided.
5. Mount baseboard to wall (refer to baseboard installation instructions).
6. Complete wiring connections inside junction boxes for continuous parallel wiring.
7. Reinstall junction box covers and check heater(s) for proper operation.

### INSTRUCTIONS FOR PRE-INSTALLED WIRE WAY ADAPTER

1. Remove junction box covers.
2. Using means to protect finish, place baseboard face down. Remove the adapter retaining screws and adapter.
3. Lay wires in bottom of baseboard and feed through bushings into junction box allowing minimum of 6" wire into each box.
4. Re-install wire way adapter and secure with previously removed screws. Proceed with Steps 5, 6 and 7 above.



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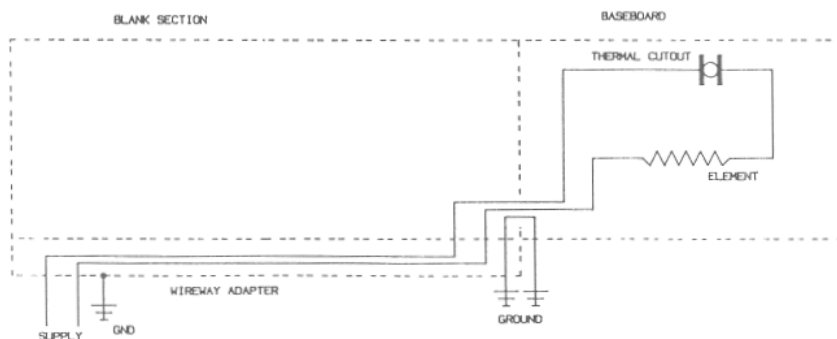
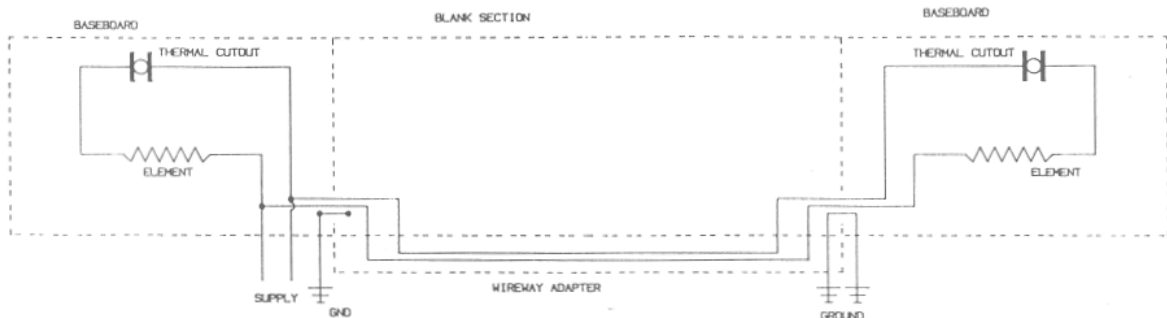
# INSTALLATION INSTRUCTIONS

## BASEBOARD BLANK SECTION

CAUTION: Disconnect supply service to avoid electrical shock.  
All wiring connections must conform to national electrical codes having jurisdiction.

NOTE: The baseboard blank section mounts against the wall similar to the baseboard. When making wiring connection: for wiring single baseboard and the supply is through the blank section or when wiring for continuous parallel connections for multiple baseboard installation, then a wire way adapter must be used. (See wire way adapter installation instructions).

1. Remove appropriate junction box covers from baseboard(s) and blank section.
2. Remove knockouts from heat shield side of junction boxes as required, insert snap bushing(s).  
Attach green ground lead(s) from baseboard blank section to baseboard junction boxes for continuity of ground.
9. Reinstall all junction box covers.

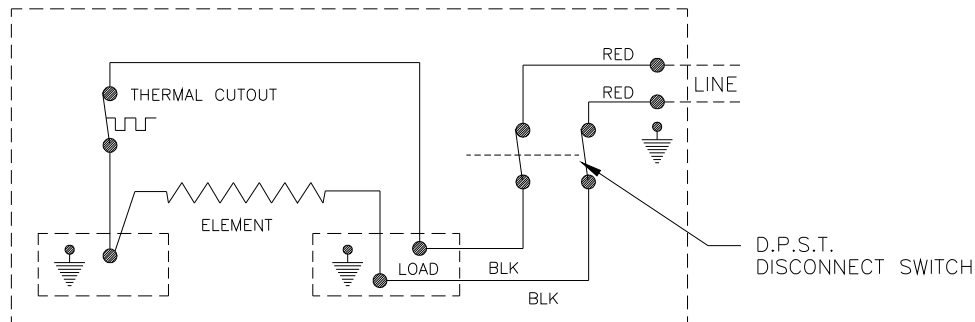


## INSTALLATION INSTRUCTIONS DISCONNECT SWITCH

**CAUTION:** Disconnect supply service to avoid electrical shock. All wiring must conform to nation electric code and all local codes having jurisdiction.

### NOTES:

- \* Do not eliminate or bypass the thermal cutout.
  - \* Do not exceed the name plate rating.
  - \* The in-built accessory can be mounted in either end of baseboard.
1. Remove junction box cover, retain screw.
  2. Remove wire nut in junction box (Do not disturb the crimp nut connection).
  3. Make connections per wiring diagram. Connect red lead wires to line supply and black lead wires to load.
  4. Install disconnect switch cover assembly to baseboard junction box and secure with screw previously removed.
  5. Restore power and check for proper operation.



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# INSTALLATION INSTRUCTIONS

## COVER MOUNTED BUILT-IN THERMOSTAT ACCESSORY

**CAUTION:** DISCONNECT SUPPLY SERVICE TO AVOID ELECTRIC SHOCK. ALL WIRING CONNECTIONS MUST CONFORM TO NATIONAL ELECTRIC CODE AND LOCAL CODES HAVING JURISDICTION.

### NOTES:

- Do not eliminate or bypass the thermal cutout.
  - Be sure load controlled by the thermostat does not exceed the thermostat nameplate rating.
  - The built-in thermostat accessory can be mounted in either end of the baseboard.
1. Assemble thermostat to one of the covers provided as shown in Fig. 1.
  2. Remove junction box cover. Retain cover screw.
  3. Remove wire nut in junction box (Do Not Disturb Crimp Connection).
  4. Make Connections per wiring diagram:
    - SINGLE POLE: Connect read lead wire to supply line and black leadwire to load.
    - DOUBLE POLE: Connect L1, L2 to supply line and T1, T2 to load.
  5. Dress wiring into junction box. Install thermostat / mounting cover to junction box, secure with screws previously removed to maintain ground continuity.
  6. Press control knob onto thermostat shaft, restore power to baseboard.
  7. Thermostat Operation: Turn thermostat control knob fully clockwise, when room temperature has reached desired comfort level, slowly turn thermostat control knob counterclockwise until heater turns off (a faint click may be heard). One or two minor adjustments may be required.

### TAMPER RESISTANT THERMOSTAT INSTALLATION:

Repeat steps 1, 2, 3, 4, 5.

1. With a small blade screwdriver, pry the snap bushing from the front cover. Restore power to baseboard.
2. With a small blade screwdriver, adjust the thermostat shaft per step 6. Re-install snap bushing.

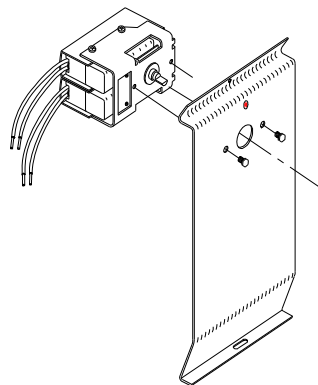
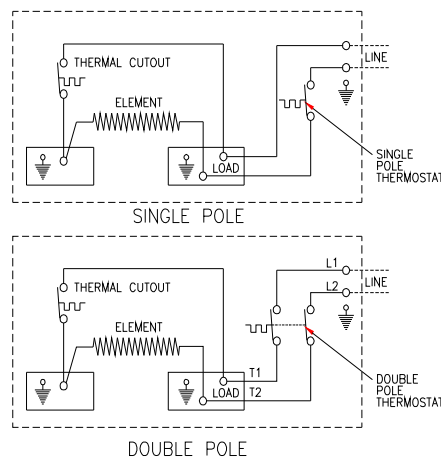


Fig.1



## LIMITED WARRANTY

Products manufactured by TPI Corporation are warranted to the original consumer to be free from defects in material and workmanship for twelve (12) months from the original purchase date.

The TPI limited warranty does not cover products that have been modified outside of our factory, damage or failure caused by acts of God, abuse, misuse, connected to or placed on other than rated voltage, abnormal usage, fault, installation, failure to follow suggested maintenance procedures enclosed with the product, improper maintenance or any repairs other than those provided by an authorized TPI service center.

**There are no obligations or liabilities on the part of the Corporation for consequential damages arising out of or in connection with the use or performance of the product or other indirect damages with respect to loss of property, revenues, profit, costs of removal installation, or reinstallation.**

**All implied warranties with respect to TPI products, including implied warranties for merchantability and implied warranties for fitness, are limited in duration to twelve (12) months from original date of purchase, except those products or parts of products which are warranted for long periods thereon.**

Some states do not allow the exclusions or limitation of incidental or consequential damages and some states do not allow limitations on how long an implied warranty lasts. The above exclusions or limitations may not apply to you.

During the warranty period, TPI Corporation will, at its sole option, repair or replace any defective parts or products returned, freight prepaid, to the TPI Corporation factory or such other locations as TPI Corporation may designate. Returned products must be packaged carefully and TPI Corporation shall not be responsible for damage in transit.

When returning parts, the owner must provide the model number of the product and nature of difficulty being experienced. This warranty does not obligate TPI Corporation to bear the cost of labor in replacing any assembly, unit or component part thereof, nor does the company assume any liability for secondary charges, expenses for installing or removal, freight or damages. There will be charges rendered for product repairs made after the warranty period has expired. Proof of purchase, including date, must accompany request for in-warranty service. In any event, TPI Corporation's maximum liability shall not in any case exceed the list price for the product claimed to be defective. This warranty gives to you specific legal rights and you may have other rights, which may vary from state to state. For the name of your nearest authorized TPI Corporation service center, please write to TPI Corporation, P.O. Box 4973, Johnson City, TN 37602.

Heating Products Warranty Coverage	
Elements in Baseboards	10 Years
All Other Heating Products	1 Year
Thermostats and Controls	2 Years

Ventilation Products Warranty Coverage	
Series HD or HDH Fans	5 Years
Series UHP or IHP Fans	3 Years
All other Ventilation Products	1 Year



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