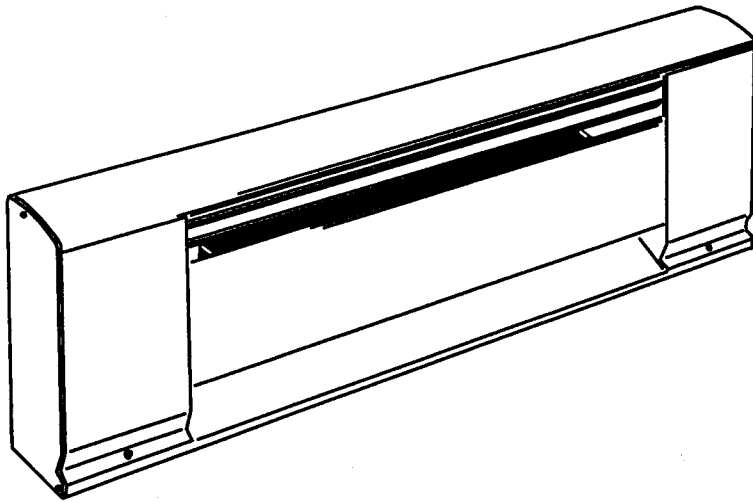


# HYDRONIC BASEBOARD HEATER

Commercial / Residential



## INSTALLATION INSTRUCTIONS



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

*America's Comfort Conditioning Company*

### 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 National Electrical Code.
2. Do not install baseboard heater below electrical convenience receptacles (outlets).
3. Do not install heaters against combustible low density cellulose fiberboard surfaces.
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. Heaters are designed for surface mounting only. Do not recess the heaters into the wall.
7. Do not tamper with or remove the temperature limiting device.

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

### 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 1).
2. Hang full length drapes to provide a minimum of 2" air space between heater front and nearest drape fold as shown in Example 1, Figure 1.
3. Hang short drapes to provide minimum of 6" clearance between bottom of drapes and top of heater, preferably more (Example 2, Figure 1).
4. Do not under any condition allow drapery to come in contact with heater. Some fabrics discolor in time from exposure 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.

5. Do not install vinyl curtains, drapes or blinds above the heater as they may discolor or deform.

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

## 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 inside or outside corner section is available for right angle mounting of two baseboard heaters and allowance should be made for locating wiring. See Figure 2 for knockout locations.

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### MOUNTING AND WIRING

1. Position the heater in the required location preferably on an outside wall under a window.
2. Determine which end the power supply will enter the heater. (This heater can be wired from either end). Drill the appropriate hole into the wall or floor for the power supply, see Figure 2 for knockout locations. Make sure that the electrical power supply is disconnected at the circuit breaker panel.
3. Remove the wiring compartment cover. If the power supply is entering on the back of the heater remove the knockout, install the cable connector (not provided) and feed the wire through the connector. Leave about 6 inches of wire extending into the box for connection. If the power supply enters on the bottom of the heater, remove plug button from the bottom of the wiring compartment, install the cable connector (not provided) and feed the wire through the connector. Push any excess cable into the wall or floor.
4. Remove the front cover of the baseboard. The front cover is snapped on the element retainer brackets. Position the heater on the wall and determine the stud locations. Drill 3/16 inch holes in the rear enclosure using the drill guide, see Figure 2. Secure the heater to the wall with minimum #8 screws 1 inch long. Snug the heater up against the wall then back the screws off about 1/2 inch to allow for expansion. If a stud is not available use the appropriate fastener such as toggle bolts or molly screw anchors for hollow walls or screws and anchors for masonry walls.
5. Replace the front cover by snapping it over the element retaining brackets.

6. Remove the wire nut in the wiring compartment and connect the power supply as shown in the wiring diagrams, Figure 3. If you are using one of the field installed accessories, refer to the wiring diagram provided with the accessory.
7. Replace the wiring compartment cover and restore power to the circuit. Turn the thermostat up and wait 2-3 minutes to see if the heater is operating properly. If the heater is not operating disconnect the power at the circuit breaker box and check wiring.

### 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 is the obligation of the owner to furnish to the company within the designated warranty period, the following information:

1. Model number and date of manufacture of product involved and date of purchase.
2. 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.

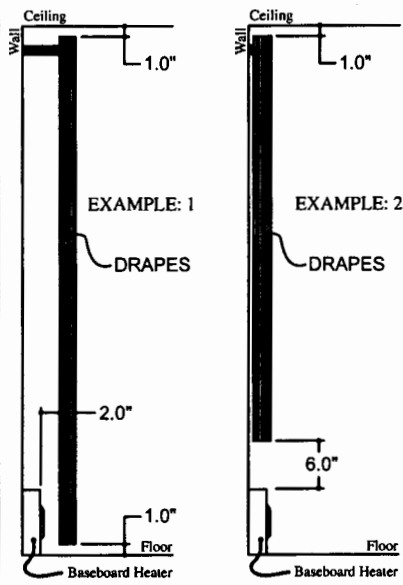


FIGURE 1

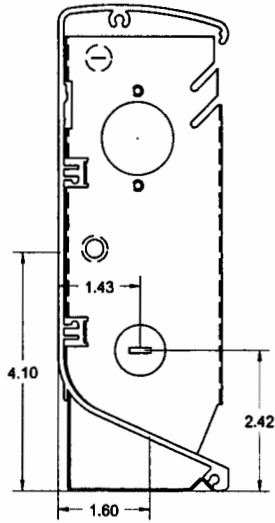
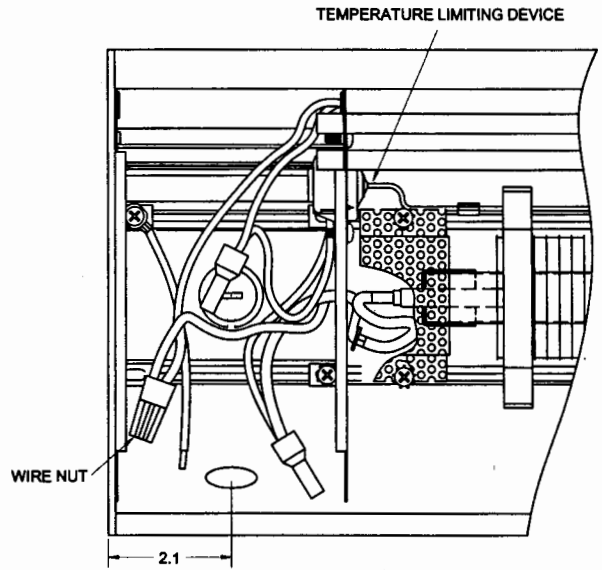
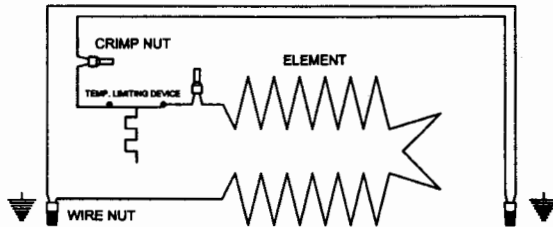


FIGURE 2



WIRING DIAGRAM



MULTIPLE UNIT WIRING

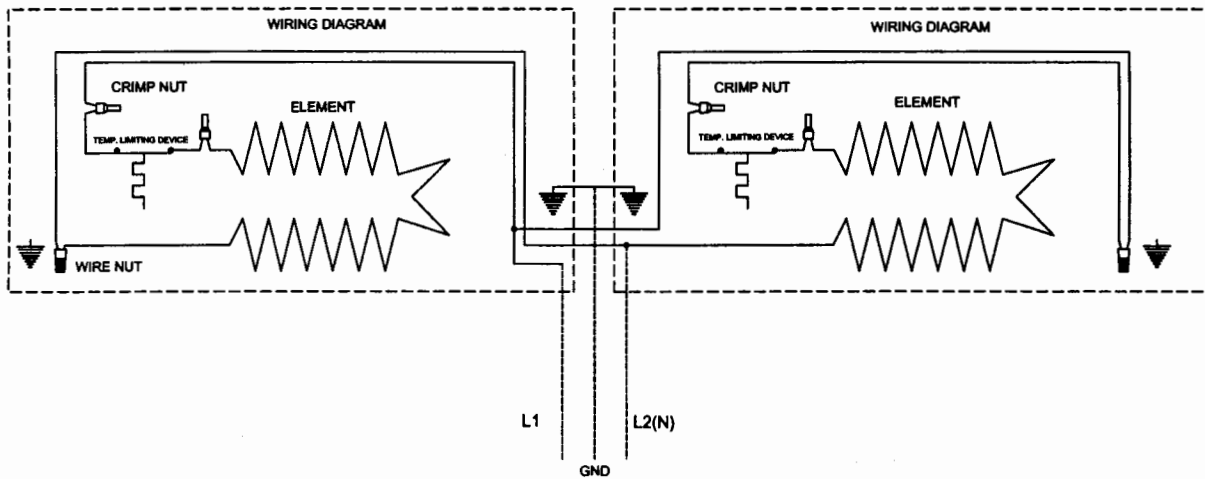


FIGURE 3

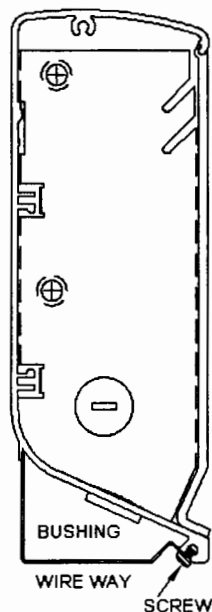
**INSTALLATION INSTRUCTIONS  
WIREWAY ADAPTER  
MODELS 3900WW28,36,48,60,72 AND96**

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

1. Remove junction box covers.
2. Remove plug on bottom of junction box and insert the snap bushing provided.
3. Using means to protect finish, place baseboard face down. Lay wires in wire way and feed wire through bushings into junction box allowing 6" min. of wire in the junction 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 for proper operation.

**INSTRUCTIONS FOR PRE-INSTALLED WIRE WAY ADAPTER**

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



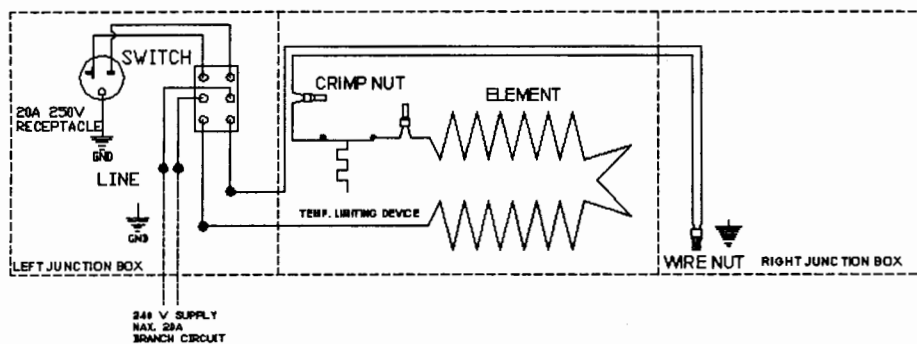
**INSTALLATION INSTRUCTIONS  
TRANSFER SWITCH WITH RECEPTACLE  
MODEL 3900AC**

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

**NOTES:**

- \*Do not eliminate or bypass the thermal cutout.
- \*Do not exceed the nameplate rating.
- \*The inbuilt accessory can be mounted in either end of the baseboard heater.

1. Remove the baseboard junction cover and retain the screw.
2. Remove the wire nut in the junction box (Do not remove the crimp nut connection).
3. Make the connections per the wiring diagram. Connect the wires marked "Line" to the supply. Connect the wires marked "Load" to the baseboard. Make sure all connections are secure.
4. Install transfer switch/receptacle cover assembly to baseboard junction box and secure with screw previously removed.
5. Restore power and check for proper operation.



**INSTALLATION INSTRUCTIONS  
INBUILT THERMOSTATS  
MODELS 3900T1,3900T2**

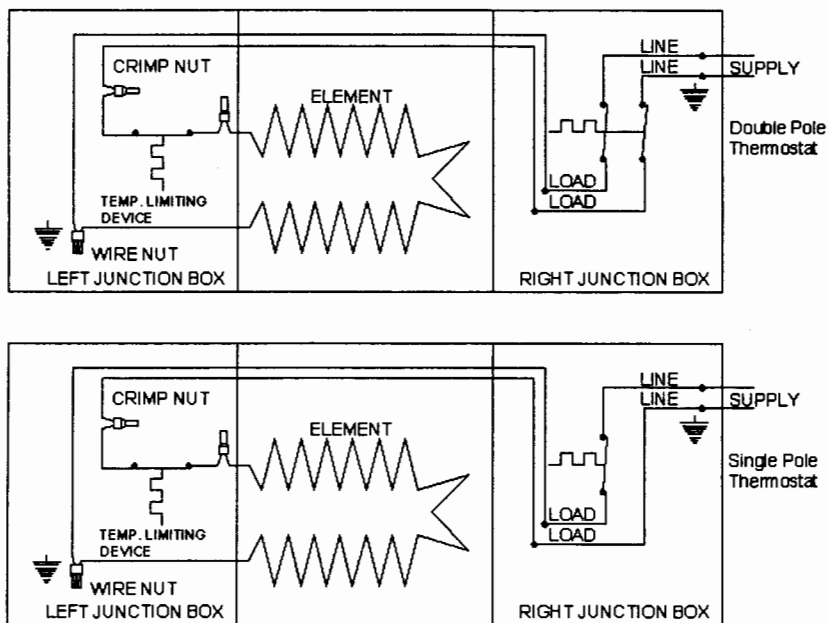
**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

**NOTES:**

- \*Do not eliminate or bypass the thermal cutout.
- \*Do not exceed the nameplate rating.
- \*The inbuilt accessory can be mounted in either end of the baseboard heater.

1. Remove the junction cover and retain the screw.
2. Remove the wire nut in the junction box (Do not disturb the crimp connection).
3. Install the thermostat and bracket in the junction with screws provided.
4. Make the electrical connections per the wiring diagram. Connect the red lead wire(s) to supply wires and the black lead wire(s) to the load.
5. Reinstall the junction box cover that is supplied with the thermostat kit. Push on the control knob.
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 the thermostat shaft counter-clockwise until the heater turns off (a faint click will be heard). One or two minor adjustments may be required.

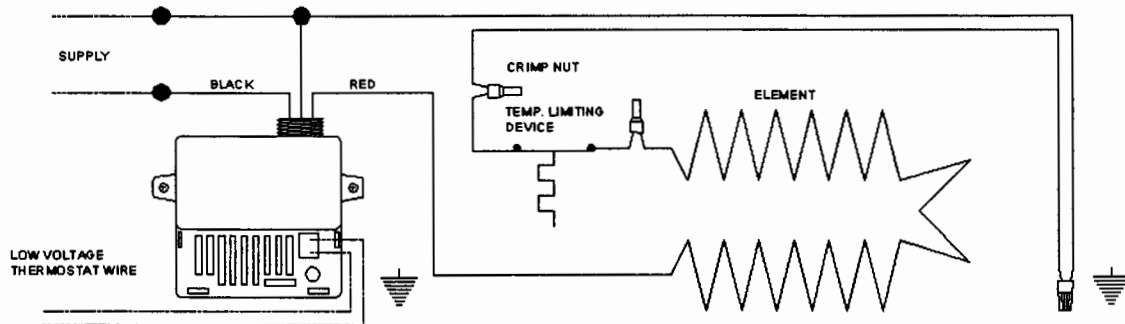
For tamper resistant operation, remove the knob and install the plug provided.



**INSTALLATION INSTRUCTIONS  
LOW VOLTAGE RELAY  
MODEL 3900LV120,208,240,277**

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

1. Remove junction box covers from baseboard and retain screws.
2. Mount relay in junction box on the top screw track with the screws provided. Mount the relay so that the wires are at the top of the baseboard.
3. Remove wire nut and wire as shown in diagram below.
4. Replace covers and restore power to the unit, check for proper operation.

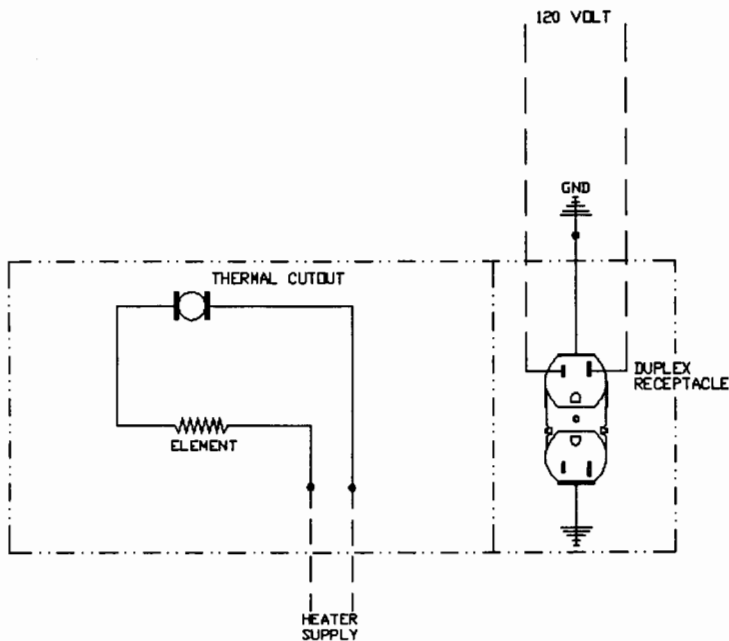


**INSTALLATION INSTRUCTIONS  
INBUILT DUPLEX RECEPTACLE  
MODEL 3900REC**

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the 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 National Electric Code.

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



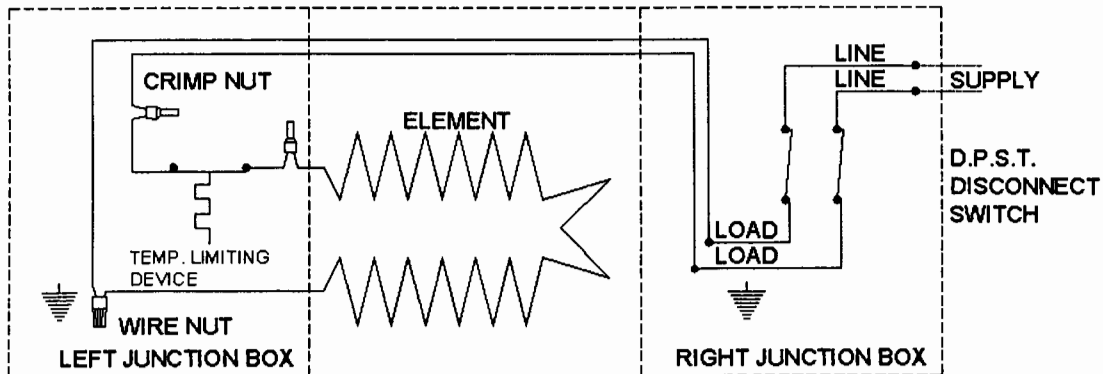
## INSTALLATION INSTRUCTIONS DISCONNECT SWITCH MODEL 3900DS

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

### NOTES:

- \*Do not eliminate or bypass the thermal cutout.
- \*Do not exceed the nameplate rating.
- \*The inbuilt accessory can be mounted in either end of the baseboard heater.

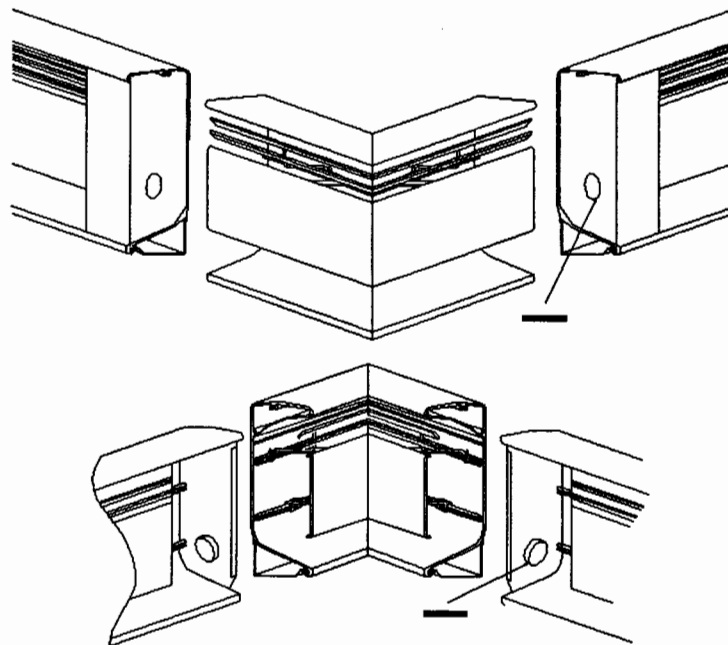
1. Remove the baseboard junction cover and retain the screw.
2. Remove the wire nut in the junction box (Do not remove the crimp nut connection).
3. Make the connections per the wiring diagram. Connect the wires marked "Line" to the supply. Connect the wires marked "Load" to the baseboard. Make sure all connections are secure.
4. Install disconnect switch cover assembly to baseboard junction box and secure with screw previously removed.
5. Restore power and check for proper operation.



**INSTALLATION INSTRUCTIONS  
INSIDE/OUTSIDE CORNER SECTIONS  
MODELS 3900ICS, 3900CS**

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

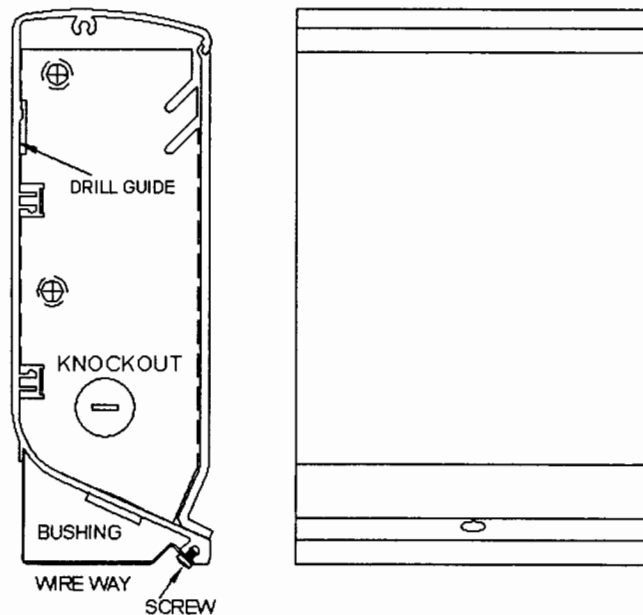
1. Remove junction box covers and the end plates from baseboard heaters that are to be joined by the corner section.
2. Remove a knockout from the exposed end of one of the baseboard junction boxes and insert the snap bushing provided.
3. Remove the front cover of the corner section mount the corner section to the wall.
4. Position the baseboard(s) next to the corner section and feed the corner section ground wire through the bushing.
5. Mount and wire the baseboard according to the baseboard installation instructions.



**INSTALLATION INSTRUCTIONS  
4" CONTROL SECTION  
MODEL 3900CS**

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

1. Remove cover from control section, the junction box cover and end plate of the baseboard and retain screws.
2. Remove knockout from side of control section adjacent to baseboard and the knockout in junction box of the baseboard.
3. Mount the control section on the wall adjacent to the baseboard. Using the drill guide, drill two 3/16" holes in the back of the control section and mount to the wall with the appropriate fasteners. Insert the snap bushing in the knockout holes.
4. Wire the desired accessory per the installation instructions and replace covers, using the end plate of the baseboard for the exposed end of the control section.
5. Restore the power and check for proper operation.

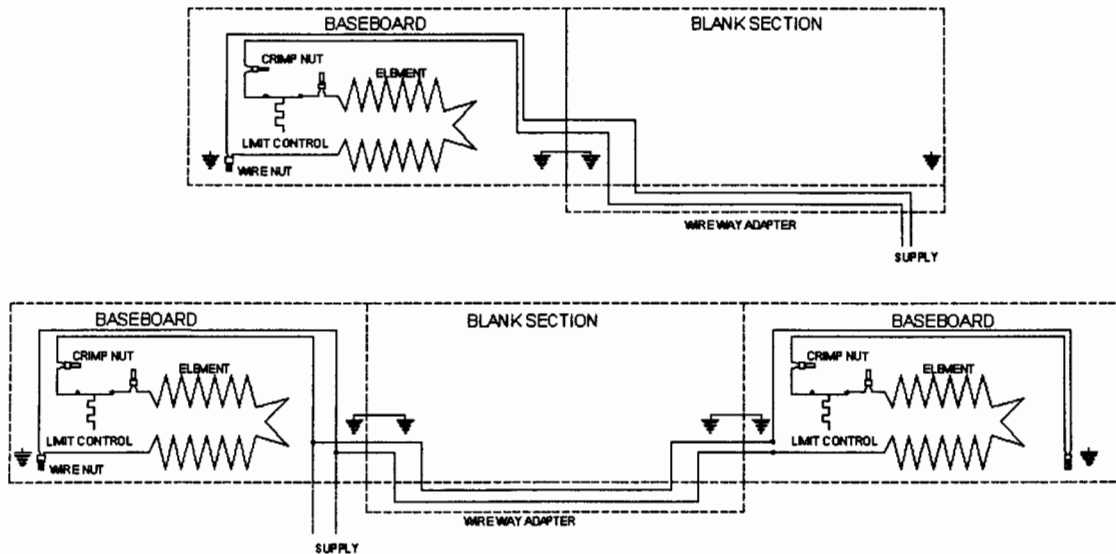


**INSTALLATION INSTRUCTIONS**  
**BLANK SECTION**  
**MODEL 39BS28, 36,48,60,72,96**

**CAUTION:** Disconnect supply service to baseboard to avoid electrical shock. All wiring connections must conform to the National Electric Code and local codes having jurisdiction.

**NOTE:** The baseboard blank section mounts against the wall similar to the baseboard. When making wiring connection: for wiring a 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 instructions).

1. Remove appropriate junction box covers from baseboard(s) and blank section.
2. Remove knockouts from junction boxes as required and insert snap bushing(s). Attach green ground lead(s) from blank section to baseboard for continuity of ground.
3. Wire baseboard(s) as required and replace covers.
4. Restore power and check for proper operation.



FORM 8931