

**Thermostat Conversion Kit
Data Sheet**

The Thermostat Conversion Kit was designed and packaged with the serviceman in mind. It allows a quick and easy replacement of competitive devices with a new TAC Pneumatic Thermostat.

This kit will enable the serviceman to directly replace most old or obsolete thermostats of different manufacturers without having to remove the old pipe head from the wall. The two piece design of this kit allows flexibility in covering any marks left by the old thermostat, resulting in a neat and clean installation.

Table-1 Parts List for 22-022 Kit.

Number	Part	Qty
1	Wall plate	1
2	Wall plate skirt	1
3	Mounting bracket	1
4	Tubing adaptor 3/16" x 3/16"	2
5	Tubing adaptor 3/16" x 1/4"	2
6	3/16" Tubing x 1/4" threaded adaptor	2
7	O-rings	2
8	Powers adaptor gasket	1
9	Powers adaptor	1
10	Mounting screw No. 8 x 1"	2
11	Wall plate mounting screws No. 6 x 1/2"	2
12	Thermostat mounting screws No. 6 x 1"	2
13	Tubing clamps	2
14	1/4" O.D. Plastic tubing	1

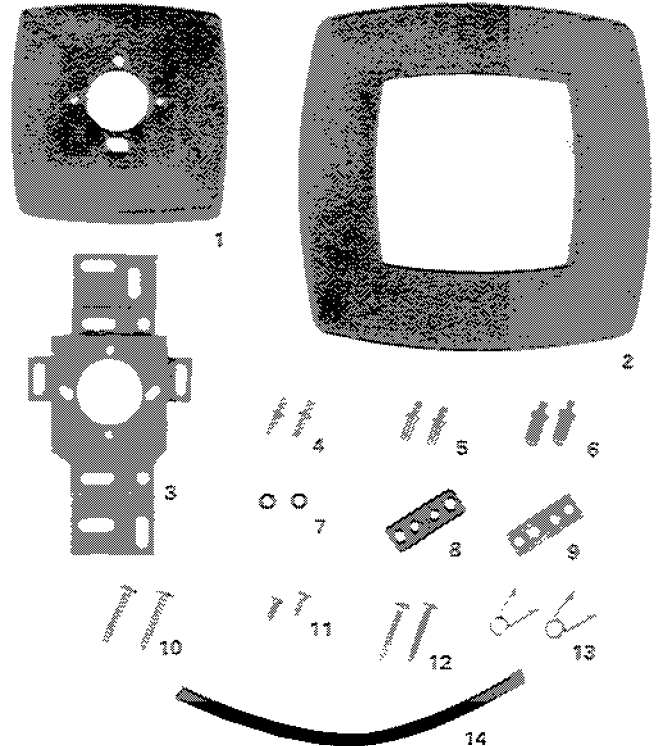


Figure-1

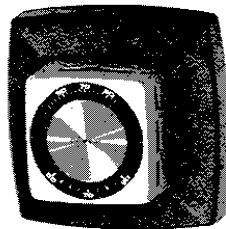
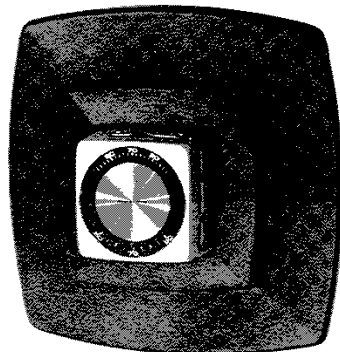


Figure-2



Thermostat
and cover not
included

CHOICE OF INSTALLATION

The 22-022 Thermostat Conversion Kit may be installed on the wall in two different ways, permitting flexibility of installation. The method of mounting is determined by the particular application or by the installer's preference. On some applications, the wall plate skirt will have to be used. On most installations, the use of the wall plate skirt is optional.

Pictured at the top left is the kit mounted using the wall plate only. This method of installation is designed to replace the newer models of competitive thermostats. This provides for a neat, modern appearance, and is generally sufficient to cover the marks left on the wall. This method of installation is also helpful in applications where there are space limitations (Figure-1).

When the kit is mounted using the wall plate and wall plate skirt, as shown in Figure-2, a larger wall surface can be covered. This extra coverage allows the conversion kit to cover marks left by most of the older, larger style thermostats. The wall plate skirt also provides an extra 3/16" of room

between wall and wall plate. This extra depth will permit an easier installation on problem applications such as some types of surface mounted pipe heads (Figure-2).

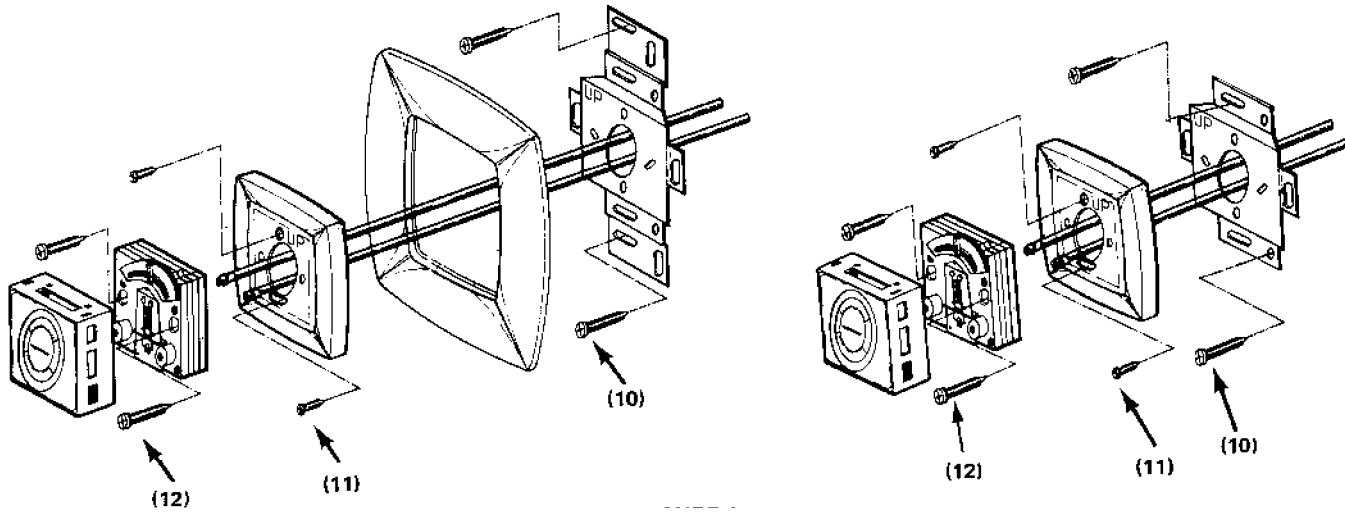


Figure-3

1. Remove the old thermostat from its pipe head and identify the pipe head using the Identification Chart on pages 4 through 6. If not listed on chart, follow the General Instructions.
2. Follow the directions found either in the Identification Chart or in General Instructions to make air line connections to the old pipe head by using the appropriate adaptors. Attach the tygothane tubing (supplied with the thermostat) to the adaptors, note which end goes to the main air line and which end goes to the branch line.
3. Determine if the wall plate skirt will be required by first checking to see if the wall plate alone will cover all the marks left by the old thermostat. Secondly, determine if the extra 3/16 inch of room that the wall plate skirt provides is needed. Do this by holding the mounting bracket over the pipe head connections made in Step 2. See Figure-4. If tygothane tubing will bend under the side mounting tabs on the bracket without kinking, then the extra room is not required. If the skirt is not needed, either for the added coverage or the extra depth, and it is not wanted for appearance; then break off the outer tabs on the bracket. See Figure-5.

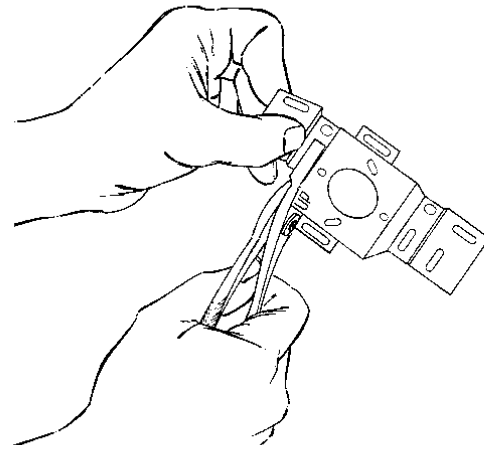


Figure-5

4. Using the screws provided (10), mount the bracket to the wall vertically and centered over the old pipe head. Make sure that the marks on the wall will be covered when the wall plate is attached. Install the bracket so that the word UP stamped on it is in the upper left hand corner. Be sure to note any variations in mounting procedure listed under application in Identification Chart.

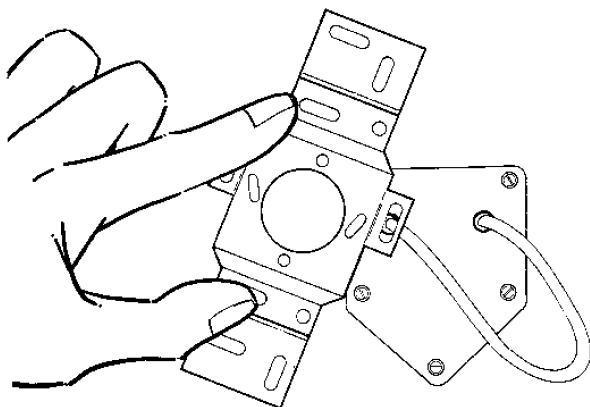


Figure-4

Note: On installations where pipe head is surface mounted and air lines are on the outside of the wall, cut out the notches on the inside of the wall plate. The notches are located on the top side only. These installations will require the bracket to be mounted perpendicular to the air lines. The bracket will have to be carefully adjusted to either a vertical or horizontal position because the wall plate cannot be adjusted in this configuration. Always mount the wall plate using the screw holes that are vertical because the horizontal holes are used to mount the thermostat.

5. Pull the tygothane tubing through the hole in the center of the bracket. Using the countersunk hole and slot, fasten the wall plate to the bracket with screws (11) provided. Make sure that the word UP on the wall plate is in the upper right-hand corner. Adjust the wall plate until it appears "level" and tighten screws. Do not overtighten screws.
6. Cut tygothane tubing and attached main air line to the port marked "M" on the thermostat. Attach the branch air line to the port marked "B". Place the thermostat on the wall plate taking care not to kink the tygothane tubing when pushing it back inside of the wall plate. Screw the thermostat to the wall plate using the screws (12) provided.
7. Adjust and calibrate the thermostat according to the instructions packaged with it.
8. Place cover on the thermostat and secure it by turning the allen head screw at the bottom of the thermostat, counterclockwise.

GENERAL INSTRUCTIONS

If the old thermostat that is being replaced cannot be found in the Identification Chart, and the fittings in this kit will not directly attach to the old pipe head, then it will be necessary to cut off the old pipe head. Cut the system tubing as close to the old pipe head as possible. If copper is used for system tubing, then follow the illustrated directions for either 0.187 OD tubing or 0.125 OD tubing. If plastic is used for system tubing then select the appropriate adaptors from kit that will connect to it. Make sure that all connections are secure. On 0.187 copper tubing applications, be sure that at least 1 inch of plastic tubing is pushed over the system tubing and that the clamps are in position.

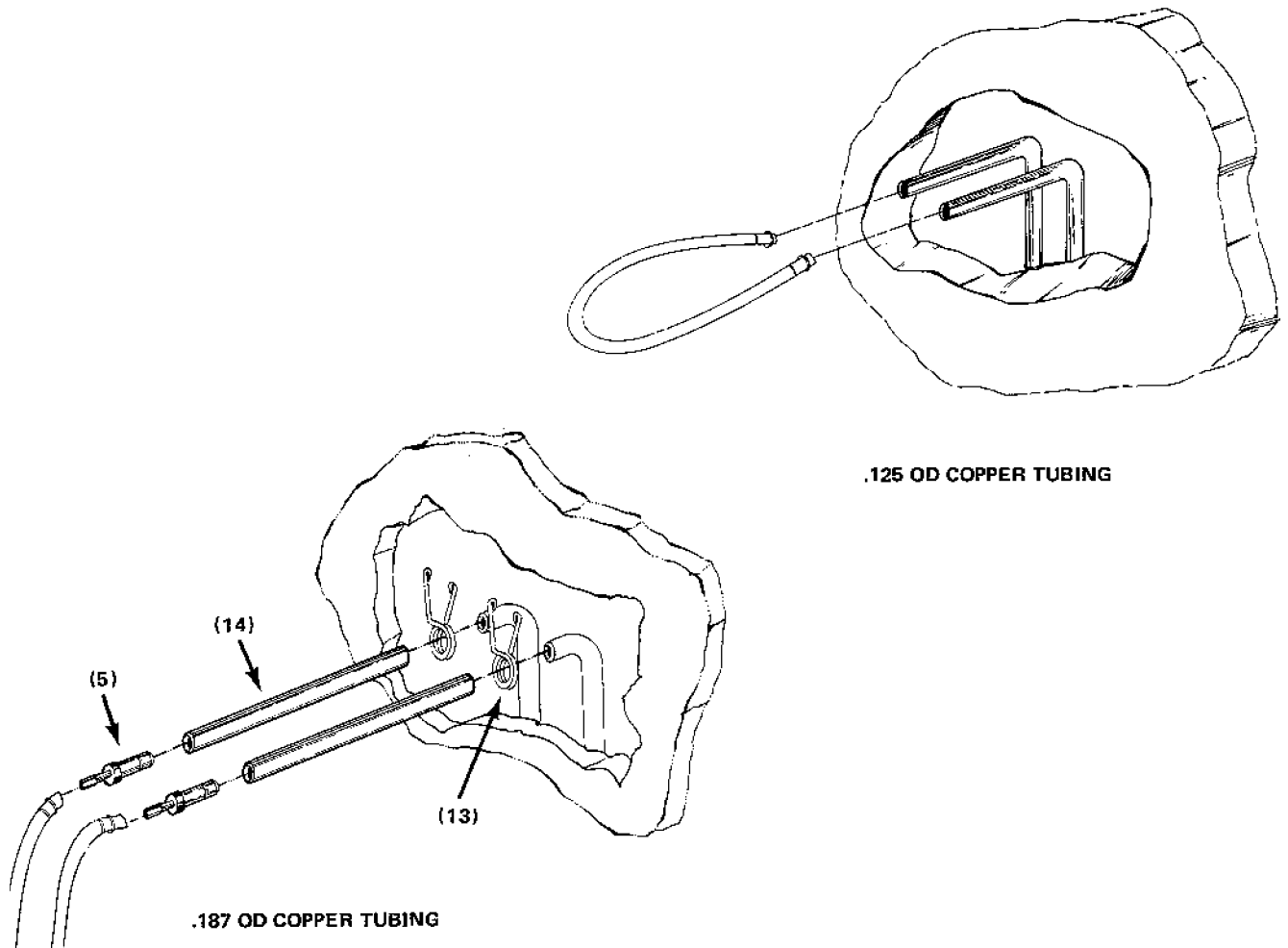


Figure-6

IDENTIFICATION CHART

Honeywell TP910

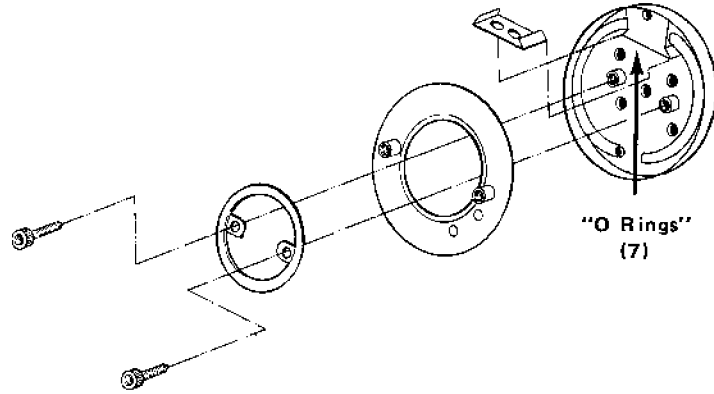
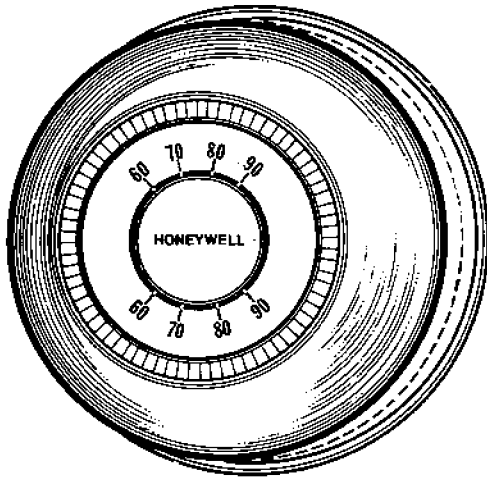


Figure-7

Remove old tubing from pipe head ports. Check the O-ring seals in pipe head by disassembling the pipe head as shown in Figure 7 and carefully pick them out of the brass port body. Replace O-rings with new ones supplied if required, and assemble the pipe head. Push the ends of the tygothane tubing into pipe head ports noting which end is connected to main air which end is connected to bleed air line. Install bracket by using the old thermostat mounting screws. Note that bracket is mounted by using the side tabs. See Figure-8.

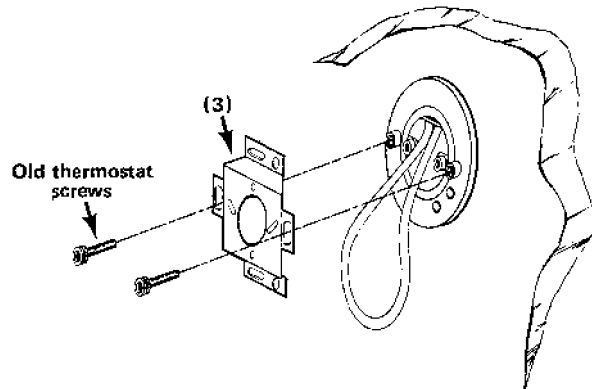


Figure-8

Honeywell TP970

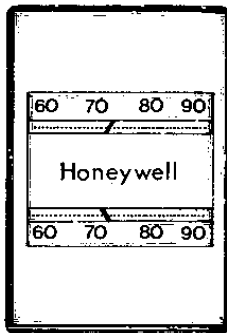


Figure-9

This thermostat was made in both vertical and horizontal models. Vertical version is shown, Figure-9.

Remove old tubing from plastic pipe head ports. Remove the screws that fasten the old mounting bracket to wall and slide the plastic pipe head out of it. Make tygothane tubing connections to the pipe head ports. Discard old bracket.

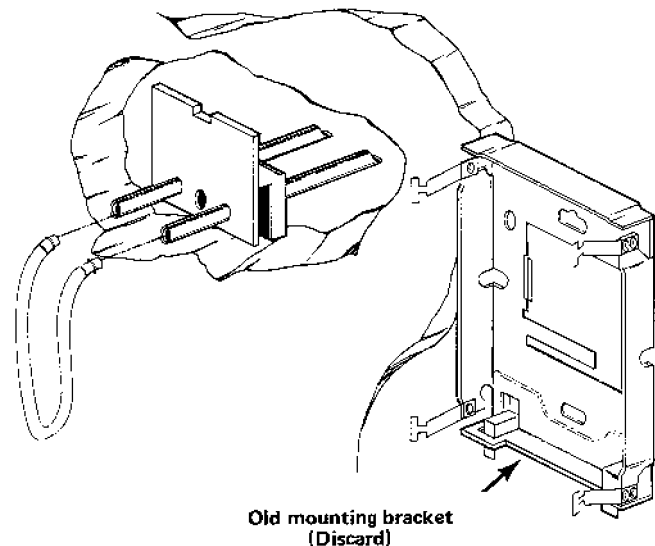


Figure-10

Johnson T4000

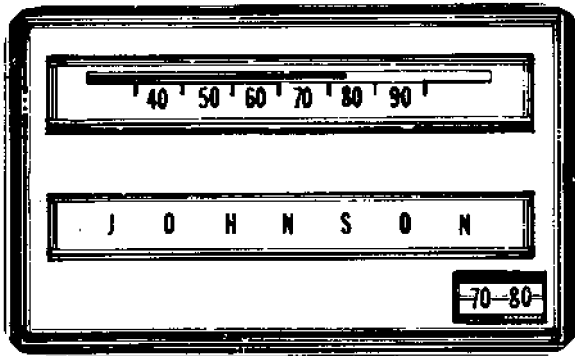


Figure-11

This thermostat was made in both vertical and horizontal models. Horizontal version is shown, Figure-11.

Remove old fittings from pipe head. Push adaptors (5) into the air line connections. Make sure that the adaptors are inserted as far as possible.

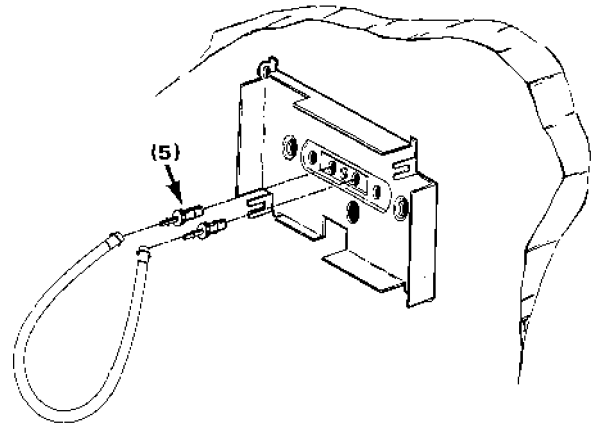


Figure-12

Johnson T400

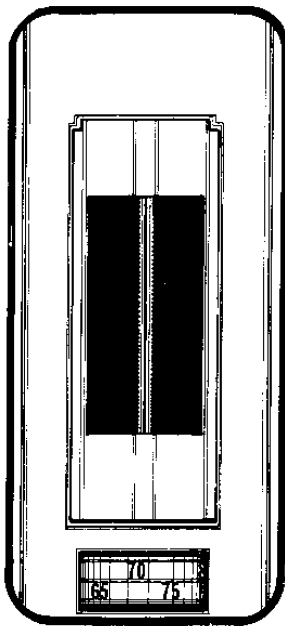


Figure-13

Remove old fittings from pipe head. Screw in the hex fittings (6) and tighten.

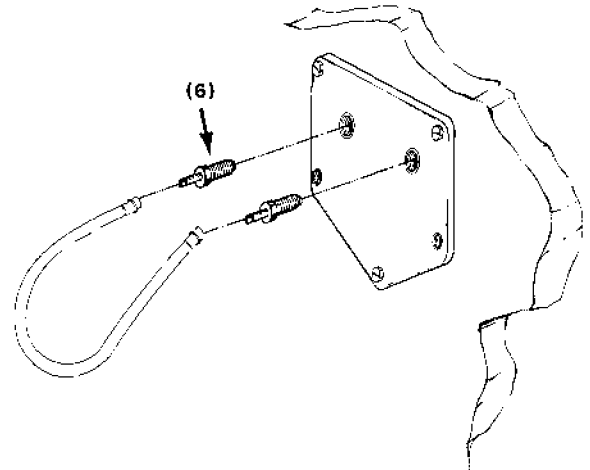


Figure-14

Powers TH180

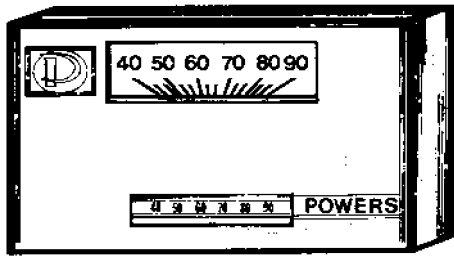


Figure-15

This thermostat was made in both vertical and horizontal models. Horizontal version is shown, Figure-15.

Leave pipe head attached to wall. Push the long ends of adaptors (4) into the air line connections on pipe head, Figure-16.

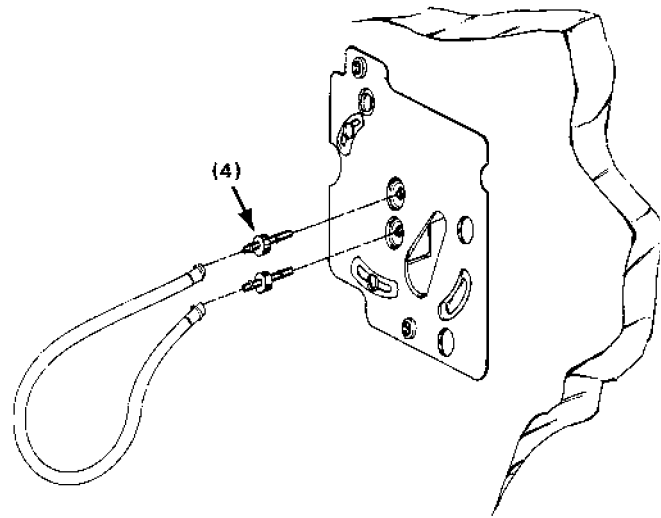


Figure-16

Powers "D" Style and T21

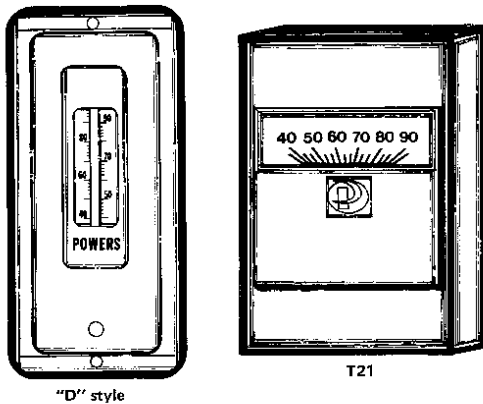


Figure-17

Leave pipe head attached to wall. Remove any fittings from pipe head and clean the sealing surface. Using the old thermostat-to-pipe head mounting screws, install the Powers adaptor and gasket as shown in Figure-18. Do not tighten the screws until the adaptors (4) have been inserted. Insert the long end of adaptors (4) into the pipe head until the shoulder of adaptor (4) is against the metal plate. Carefully tighten screws.

Note: Do not overtighten screws. 1 to 2 turns after contact with gasket and pipe head is normally sufficient.

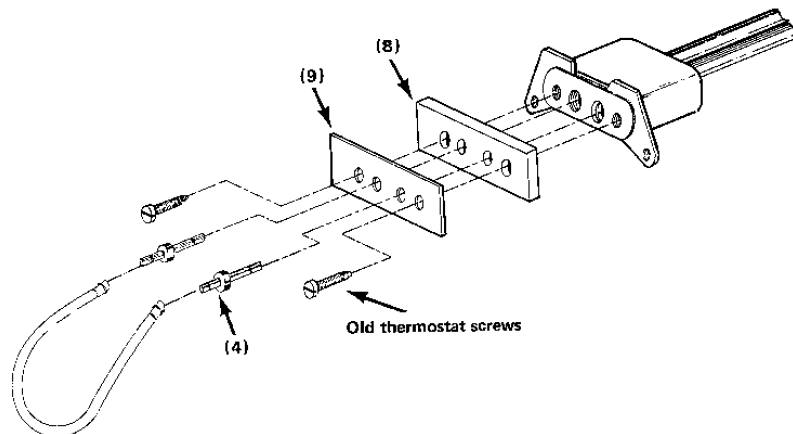


Figure-18

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