



Pneumatic Wall Thermostat & Humidistat Conversion Kit General Instructions

DESCRIPTIVE DATA

This kit is available for replacement of the competitors' thermostats shown in table with Schneider Electric thermostats. See page 2. Refer to table and specific column where parts used are indicated. Read instructions and select needed parts. If surface run raceway wiremold or tubing is used, you must cut out section of base.

INSTALLATION

The same general procedure for conversion of all devices applies.

1. Remove stat (and rings) from wall.
2. Remove air head (and gasket) from fitting.
3. Clean fitting surface if required.
4. See table for specific section applicable.
5. Identify correct mounting parts and instructions.
6. Place the plastic ring against the wall, with the two plastic 5/32-inch tubes drawn through. As these tubes connect to the thermostat, draw through each part added in this procedure. Identify the main and branch tubes.
7. Place the multi-slotted metal plate into the plastic ring and secure to the air head or wall using the screws indicated in the appropriate section.
8. Obtain the thermostat mounting plate and screws from the **thermostat box**.
9. Place the foam gasket between the multi-slotted plate and front plate, with tholes 24 and 25 in alignment. Secure the stat mounting plate to the front plate by using (2) 6-32 flat head screws in the tapped holes 24 and 25 in the multi-slotted plate.
10. Insert a 5/32-inch barbed coupling into each tube.
11. Cut the stat tubes to about 3 inches long and insert the 5/32-inch barbed couplings from the tubes of the wall ring assembly.
12. Remove the stat cover, push the tubes in the ring cavity and secure the stat to its mounting plate with the (3) Allen head screws.
13. Install the stat cover, the installation is complete.

APPLICATION

Kit converts pneumatic one and two pipe thermostats to Series TK wall thermostats.

Change From	Change to Schneider Electric ^a	See Section
HO or HP 900, 900A, B,C, D	HKS-5033 ^b	1
HP 901A	HKS-5033 ^b	1
TP 410A	TK-1001	2 ^c
TP 410B	TK-1101	2 ^c
TP or TO 900A D.A.	TK-1001	1
TP or TO 900A R.A.	TK-1101	1
TP or TO 900B D.A.	TK-1301	1
TP or TO 900B R.A.	TK-1381	1
TP or TO 900D	TK-1201	1
TP or TO 900G	TK-1301	1
TP or TO 901A	TK-5001	3
TP or TO 901B	TK-5101	3
TP or TO 901C	TK-5001	4
TP 910A	TK-1001	2 ^c
TP 901B	TK-1101	2 ^c
TP 911A D.A.	TK-1301	2 ^c
TP 911C D.A.	TK-1601	2 ^c
TP 913A, D	TK-1201	2 ^c
TP 913B	TK-1301	2 ^c
TP 923A	TK-5001	2 ^c
TP 923B	TK-5101	2 ^c
TP 924A	TKS-5001 ^b	2 ^c
TP 931 D.A.	TK-1001	5
TP 931 R.A.	TK-1101	5
TP 933A R.A.	TK-1381	2 ^c
TP 938A D.A.	TK-1071 ^d	6
TP 938B R.A.	TK-1171 ^d	6
TP 970A	TK-1001	6
TP 970B	TK-1101	6
TP 971A D.A.	TK-1301	6
TP 971B R.A.	TK-1381	6
TP 971C	TK-1601	6
TP 972A D.A. at 15 PSI	TK-1281	6
TP 972B D.A. at 20 PSI	TK-1201	6
TP 973A	TK-5001	6
TP 973B	TK-5101	6
TP 974	TKS-5001 ^b	6
TRO 900A D.A.	TK-1001	1
TRO 900A R.A.	TK-1101	1

Change From	Change to Schneider Electric ^a	See Section
JOHNSON		
H 101, 102, 103, 105	HKS-5033 ^b	7
H 4100, 5100	HKS-5033 ^b	8
T 400 D.A., 401 D.A., 403 D.A.	TK-1001	7
T 400 R.A., 401 R.A., 404 R.A.	TK-1101	7
T 432	TK-1281	7
T 460 D.A.	TK-1301	7
T 460 R.A.	TK-1281	7
T 465	TK-1601	7
T 4002 D.A.	TK-1001	8
T 4002 R.A.	TK-1101	8
T 4003 D.A.	TK-1071	8
T 4003 R.A.	TK-1171	8
T 4004 D.A.	TK-5001	8
T 4004 R.A.	TK-5101	8
T 4502 D.A.	TK-1301	8
T 4502 R.A.	TK-1301-150	8
T 4512 D.A.	TK-1601	8
T 4512 R.A.	TK-1601-150	8
T 4752 D.A. AT 15 PSI	TK-1201	8
T 4752 R.A. AT 20 PSI	TK-1201-150	8
T 5002	TKS-5001 ^b	8
POWERS		
HU 186, 190, 190 SM	HKS-5033 ^b	14
HT 186 (Room)	HKS-5033 ^b	13
HT 190 (190-1396)	HKS-5033 ^b	14
TH 180D	TK-1001	13
TH 180R	TK-1101	13
TH 180HC	TK-1201	13
TH 180DN	TK-1301	13
TH 180DNV	TK-1601	13
TH 180RDN	TK-1381	13
Type "D" (TH 832)	TK-1001	14
TT 180	TKS-5001 ^b	14
TT 184 (Room)	TKS-5001 ^b	13
Model 5 (TH 181)	TK-1201	14
ROBERTSHAW		
H 10, 50	HKS-5033 ^b	10, 11, 12
T 15-101	TK-1001	10, 11, 12
T 16-101	TK-1101	10, 11, 12
T 18-101	TK-1001	9
T 19-101	TK-1101	9
T 21-101	TK-1301	10, 11, 12
T25	TK-1601	10, 11, 12
T 26-101	TK-1301	10, 11, 12
T 30, T 31-101	TK-1201	10, 11, 12
T 32	TK-1201	9
T 51, 52	TKS-5001 ^b	10, 11, 12

^a See page 11 for energy conservation options.

^b May also need RKS-1001 or RKS-5001.

^c AT-536 not required. Holes in thermostat mounting plate match Honeywell mounting holes. Use of AT-505 is recommended to facilitate piping and improve appearance.

^d Restriction in main must be removed. Action of reset signal must be reversed for R.A. model.

Note: AT-536 kit is not complete for stats replaced with Schneider Electric TK-16XX, 1X7X stats. Additional parts must be furnished by the office.

Table-1

Main Air Pressure Requirements for Day-Night and Heating-Cooling Dual Pressure Thermostats				
Schneider Electric	Johnson	Honeywell	Powers	Robertshaw
15 psig and 20 psig ^a	15 psig and 20 psig	13 psig and 18 psig	18 psig and 25 psig	15-17 psig and 21-25 psig

^a TK-1700 Series requires 22 psig.

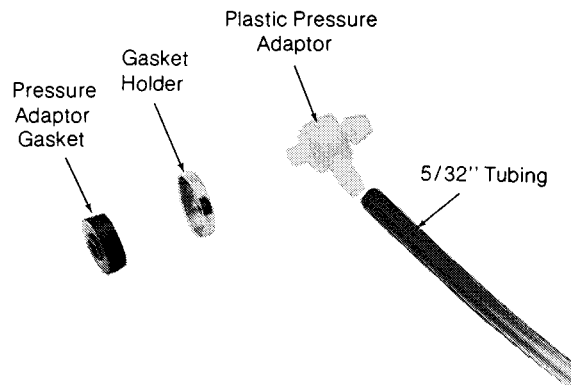


Figure-A Assembly of Connector Fitting.

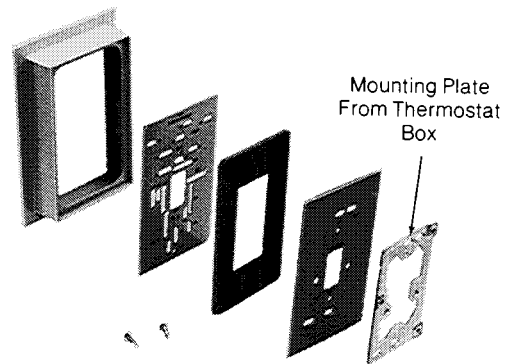
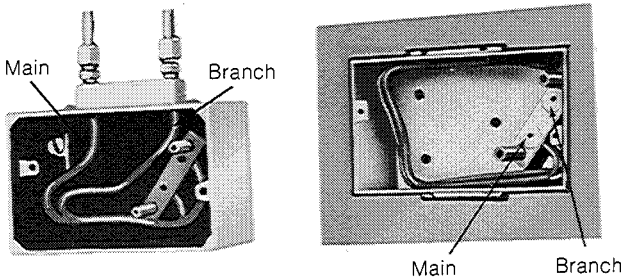


Figure-B Stat Mounting Parts.

HONEYWELL HO, HP, TO, TP, TRO 900



Surface Box

Flush Box

Figure-1

Collect Parts From Bag and Assemble

Obtain plate and spacers. Assemble connectors as shown in Fig. A and insert into holes indicated below.

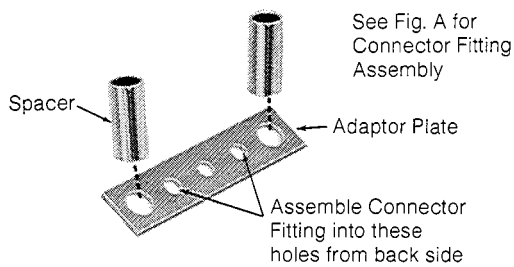


Figure-2

Install Air Head Adapter

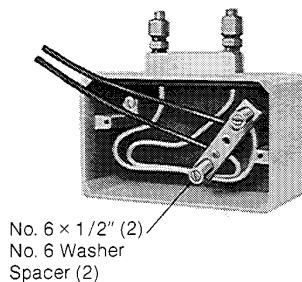


Figure-3

1. Position the plate, with connectors installed, over the threaded bosses in the air head, with rubber rings down against air head holes.
2. Place spacers over threaded bosses in air head.
3. Obtain (2) #6 x 1/2-inch machine screws and two washers. Place washers on screws and insert screws into threaded bosses and tighten.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 2 and 19

No. 6 x 2" Screws (2)

Note: Schneider Electric thermostat mounts horizontally for this application. Rotate all parts in Fig. B 90° CCW.

HONEYWELL TP-410, 910-924, 933

Note: AT-536 not required on thermostats shipped after 10-1-82. See (°) note on page 2.

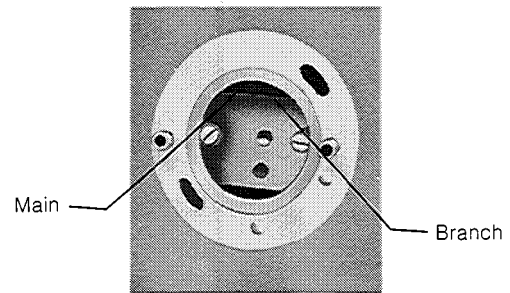


Figure-4 Flush Banjo.

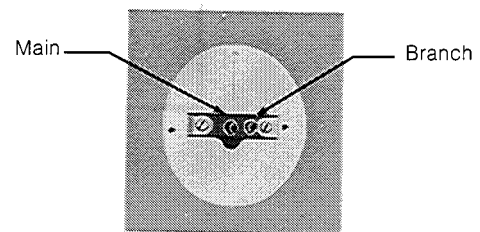


Figure-5 Mortar Joint.

Insert Tubes Carefully into "O" Rings; Use New "O" Rings from Bag Only If Necessary

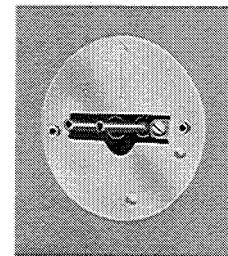


Figure-6

Obtain from kit (2) 5/32-inch tubes. Insert the tubes carefully into the "O" rings in the air head. Use the new "O" rings from the kit only if the existing "O" rings appear cracked, hard, deformed or not capable of sealing on the new tubes.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

	Slots	Screws
Flush Banjo	13 & 10	No. 6 x 1/2" (2)
Surface Banjo^a	or	No. 6 x 1" (2)
Mortar Joint	13 & 12	No. 6 x 1" (2)

^a Cut out section of base for tubes.

HONEYWELL TP 901A, B

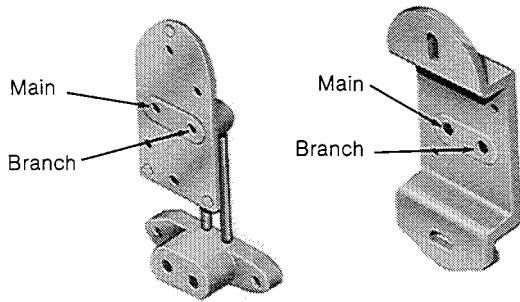


Figure-7 Flush Fittings.

Collect Parts From Bag and Assemble

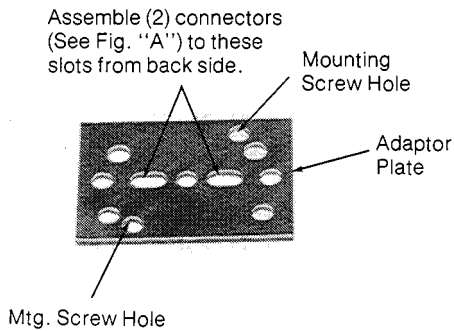


Figure-8

Install Air Head Adapter

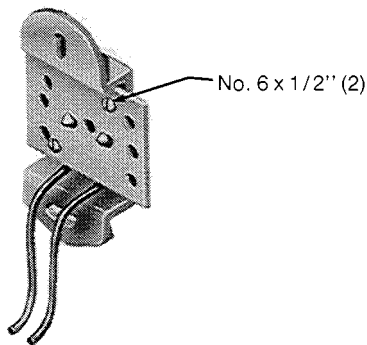


Figure-9

Attach the plate to the air head, with the rubber rings of the connectors positioned against the air head. Use (2) #6 x 1/2-inch machine screws.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

	Slots	Screws
Flush Fitting	8 & 15	No. 6 x 1-1/2" (2)
Plaster Back	5 & 15	No. 6 x 2" (2)

HONEYWELL TP 901C

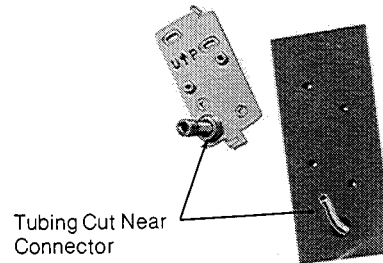


Figure-10 Mullion or Partition.

Splice Plastic and Copper Tubing

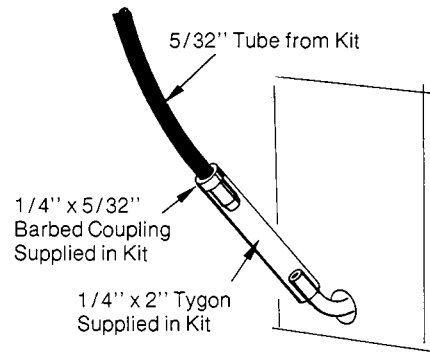


Figure-11

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

	Slots	Screws
Flush	3 & 14	No. 8 Sht. Mtl. (2)
Plaster Back	9 & 12	No. 6 x 2" (2)

HONEYWELL TP 931

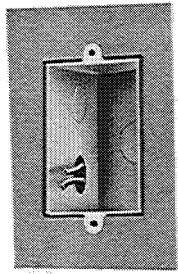
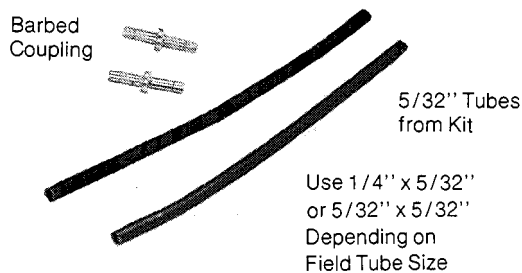


Figure-12 Flush Electrical Box.

Collect Parts Shown



Note: 5/32" coupling usable on 3/16" tube.

Figure-13

Note: 5/32" coupling usable on 3/16" tube.

Splice Plastic Tubing

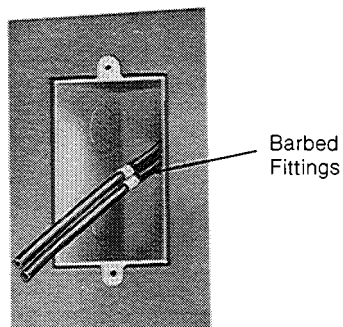


Figure-14

1. Insert 5/32 x 5/32 or 1/4 x 5/32-inch barbed couplings from the kit into plastic tubes.
2. Push the (2) 5/32-inch tubes, from the kit, onto the couplings.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 3 and 17.

No. 6 x 1-1/2" Screws (2).

HONEYWELL TP 970-974

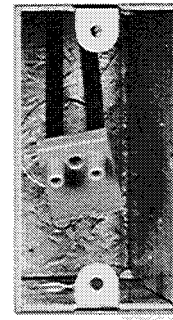


Figure-15 Deep Wall Box.

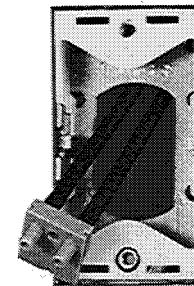


Figure-16 Shallow Wall Box with Plaster Ring.

Cut Off Plastic Tubes Close to Air Head

1. Insert 5/32 x 5/32 or 1/4 x 5/32-inch barbed couplings, from the kit, into the plastic tubes leading from the air head.
2. Push the (2) 5/32-inch tubes, from the kit, onto the couplings.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Holes 22 and 23.

No. 6 x 1-1/2" Screws (2).

**JOHNSON T 400, 401, 403, 432, 460, 465,
H 101, 102, 103, 105**

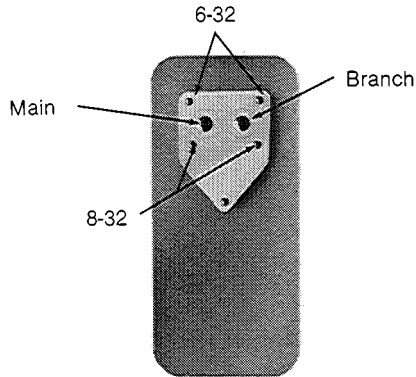


Figure-17 Flush Fitting.

Collect Parts From Bag and Assemble

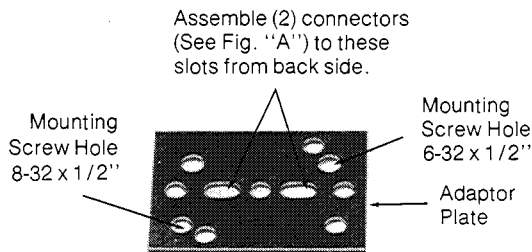


Figure-18

Install Air Head Adaptor.

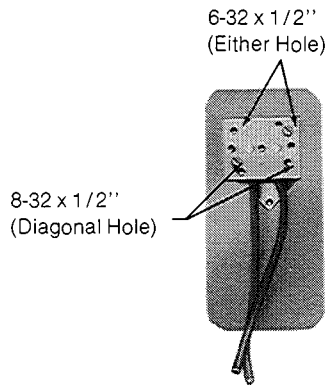


Figure-19

Attach the plate to the air head with the rubber rings of the connectors positioned against the air head. Use (1) #6-32 x 1/2-inch screw (upper right corner) and one #8-32 x 1/2-inch screw.

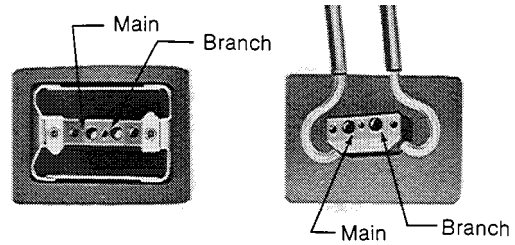
Install "Stat" Mounting Parts.

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 13 and 18.

No. 8 x 1-1/2" Sheet Metal Screws (2).

JOHNSON H & T 4000, 5000



Flush Box

Surface Fitting

Figure-20

When removing thermostat and mounting hardware, be sure to remove flat clamp plate and rubber "duck-bill" valve from the air head.

Collect Parts From Bag and Assemble

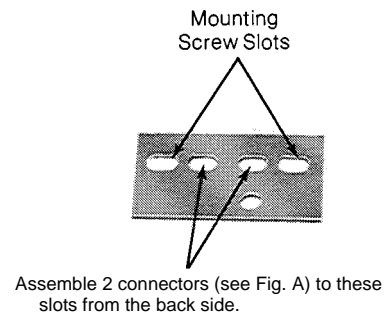


Figure-21

Install Air Head Adapter

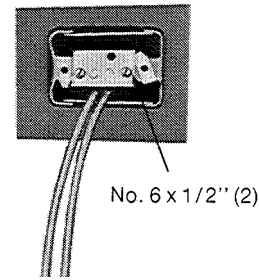


Figure-22

Attach the plate to the air head, with the rubber rings of the connectors positioned against the air head. Use (2) #6 x 1/2-inch screws.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

	Slots	Screws
Mortar Joint	13 & 11 or 9 & 16	No. 6 x 1-1/2" (2)
Flush Box		No. 6 x 1" (2)
Surface Box^a	5, 13 & 15	No. 8 x 1-1/2" Sht. Mtl. (3)

^a Clip out section of base for tubes.

ROBERTSHAW T 18, 19, 32

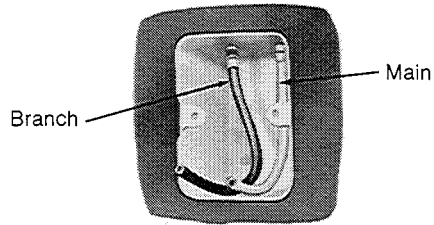
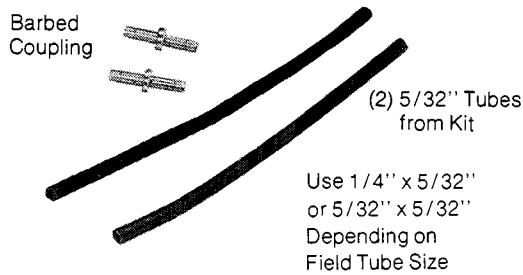


Figure-23 Flush Box.

Collect Parts Shown



Note: 5/32" coupling usable on 3/16" tube.

Splice Plastic Tubing

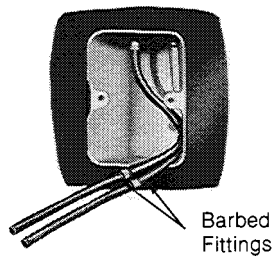


Figure-24

1. Insert 5/32 x 5/32 or 1/4 x 5/32-inch barbed couplings, from the kit, into the plastic tubes.
2. Push the (2) 5/32-inch tubes, from the kit, onto the couplings.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 12 and 13.

No. 5 x 1-1/2" Screws (2).

ROBERTSHAW H 10, 50, 52, T 15, 16, 21, 25, 26, 30, 31, 51, 52

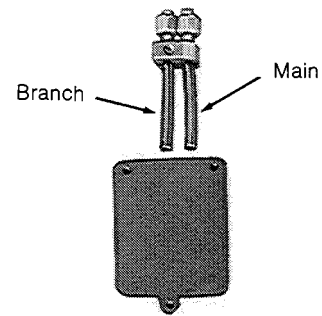


Figure-25 Surface Fitting.

Collect Parts Shown

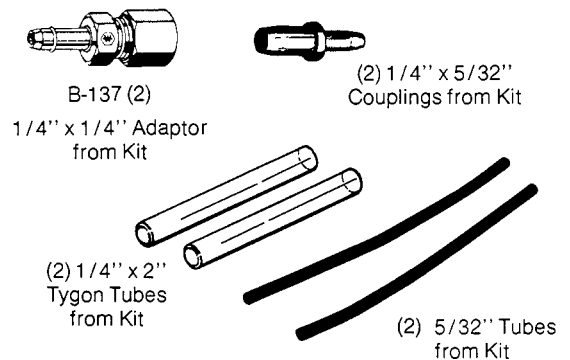


Figure-26

Splice Plastic Tubing to Copper Tubing with Adaptors and Couplings

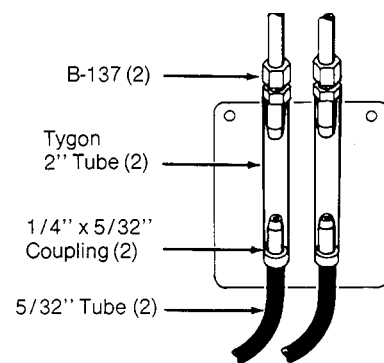


Figure-27

Install "Stat" Mounting Parts

Collect parts shown in Fig B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 1, 4 and 17.

No. 8 x 1-1/2" Sheet Metal Screws (3).

Cut out section in base for tubes.

ROBERTSHAW H 10, 50, 52, T 15, 16, 21, 25, 26, 30, 31, 51, 52

ROBERTSHAW H 10, 50, 52, T 15, 16, 21, 25, 26, 30, 31, 51, 52

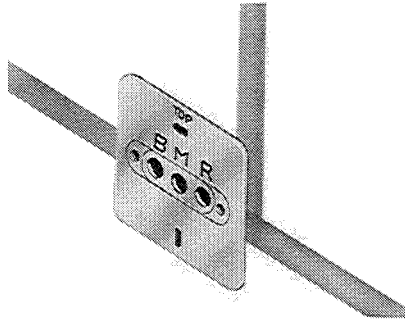
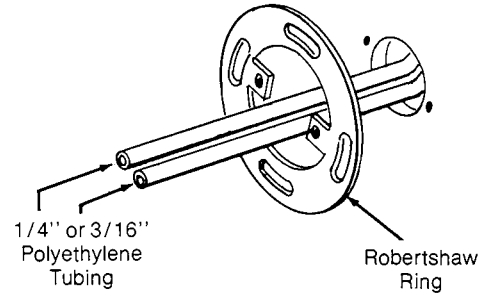


Figure-28 Mortar Joint.



Same Mounting Ring on Wall, Mortar Joint Fitting, or Surface Mounting Fitting

Collect Parts From Bag and Assemble

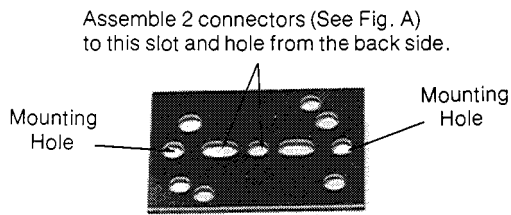


Figure-29

Assemble 2 connectors (See Fig. A) to this slot and hole from the back side.

Install Air Head Adaptor

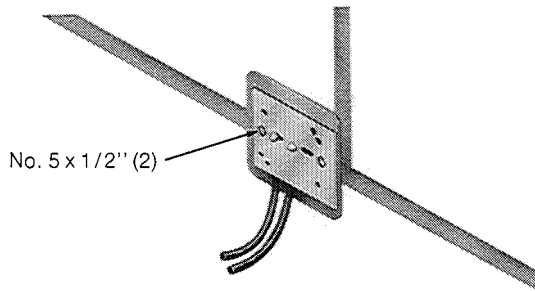


Figure-30

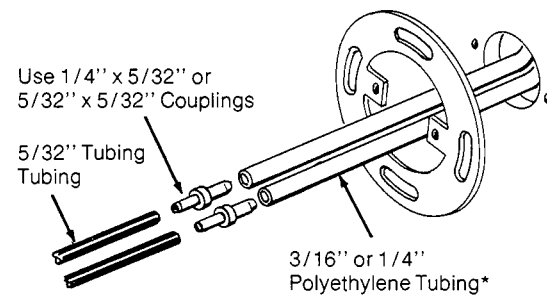
Attach the plate to the air head, with the rubber rings of the connectors positioned against the air head. Use (2) #5 x 1/2-inch screws.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 13 and 2.

No. 5 x 1-1/2" Screws (2).



*If 3/16" polyethylene, use two small barbed fittings in Kit.

Figure-31

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 12 and 13.

No. 5 x 1-1/2" Screws (2).

POWERS HT 186, TT 184, TH 180

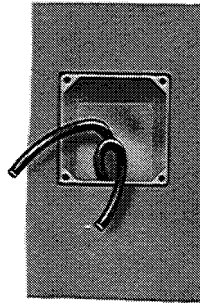


Figure-32 Flush Box.

Collect Parts Shown

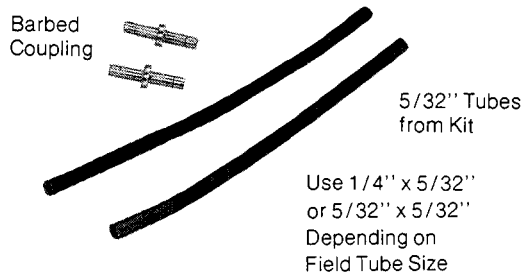


Figure-33

Splice Plastic Tubing

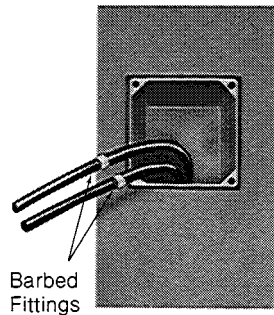


Figure-34

1. Insert 1/4 x 5/32 or 5/32 x 5/32-inch barbed coupling, from the kit, into the plastic tubes.
2. Push the (2) 5/32-inch tubes, from the kit, onto the couplings.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 9 and 12 or 8 and 14.

No. 6 x 1-1/2" Screws (2).

POWERS "D", MODEL 5, HU 186, 190, TT 180, HT 190

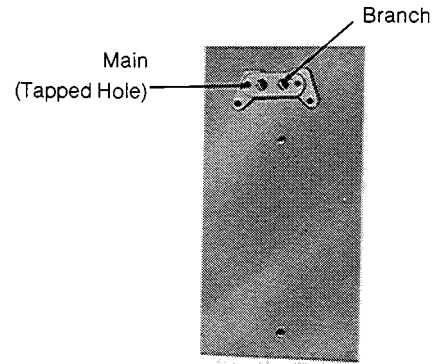
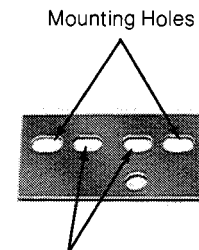


Figure-35 Flush Fitting.

Collect Parts From Bag and Assemble



Assemble 2 connectors (See Fig. A) to these slots from the back side.

Install Air Head Adaptor

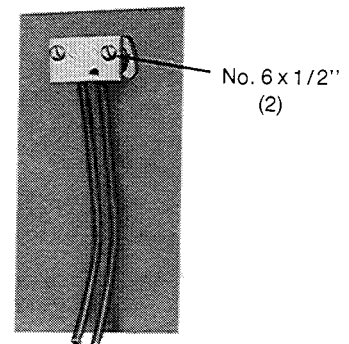


Figure-36

Attach the plate to the air head, with the rubber rings of the connectors positioned against the air head. Use (2) #6 x 1/2-inch screws.

Install "Stat" Mounting Parts

Collect parts shown in Fig. B and the screws indicated below for appropriate type of air head. Refer to step 6 under "Installation".

Use Slots 7 and 20.

No. 10 x 2" Sheet Metal Screws (2).

Table-2

Direct Schneider Electric Replacement	OPTIONS FOR ENERGY CONSERVATION					
	Energy Conserving Dial Ranges		Two Setpoints			
	Heating	Cooling	Day/Night		Heating/Cooling	
			1 Dial	2 Dials	1 Dial	2 Dials
TK-1001	TK-1002 TK-1002-065	TK-1003 TK-1003-078	TK-1300 Series	TK-1710, TK-1750 Series		
TK-1101	TK-1102 TK-1102-065	TK-1103 TK-1103-078	TK-1380 Series	TK-1720, TK-1760 Series		
TK-1201					TK-1530 TK-1570	TK-1731 TK-1735 TK-1736
TK-1281 (TK-1201-150)					TK-1540 TK-1580	TK-1741 TK-1745 TK-1746
TK-1301	TK-1302 TK-1302-065	TK-1303		TK-1710, TK-1750 Series		
TK-1381 (TK-1301-150)	TK-1382	TK-1383		TK-1720, TK-1760 Series		
TK-1601	TK-1602 TK-1602-065	TK-1603				
TK-1681 (TK-1601-150)	TK-1682	TK-1683				
TK-5001	TK-5002	TK-5003				
TK-5101	TK-5102	TK-5103				

On October 1st, 2009, TAC became the Buildings business of its parent company Schneider Electric. This document reflects the visual identity of Schneider Electric, however there remains references to TAC as a corporate brand in the body copy. As each document is updated, the body copy will be changed to reflect appropriate corporate brand changes

Copyright 2010, Schneider Electric
All brand names, trademarks and registered
trademarks are the property of their respective
owners. Information contained within this
document is subject to change without notice.

Schneider Electric
1354 Clifford Avenue
P.O. Box 2940
Loves Park, IL 61132-2940

www.schneider-electric.com/buildings

