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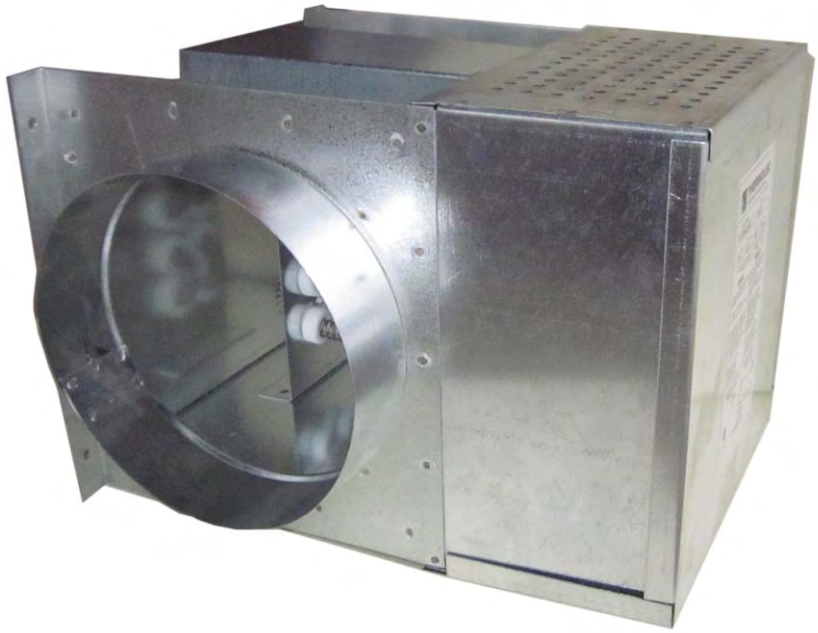
Fresh Air Heater for the RecoupAerator®

THERMO-AIR AND THERMO-ZONE Models:
TER-6-1120 1kW thru TER-8-3240 3kW

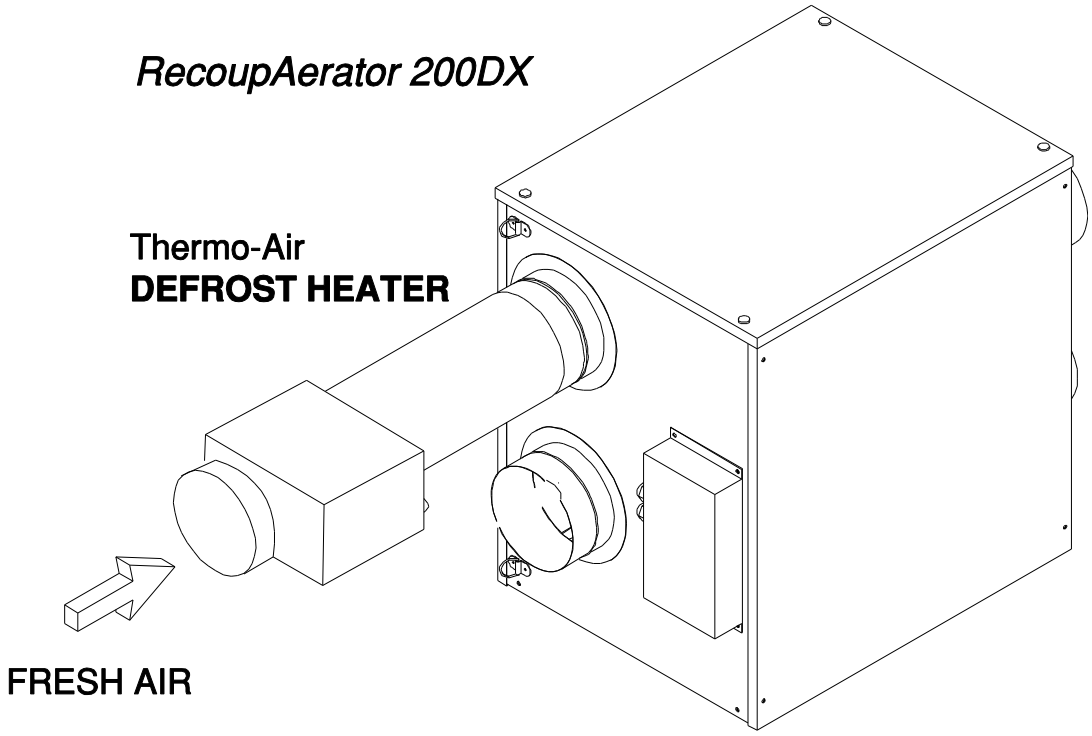


Today's buildings and homes need fresh air. When we trap the heat, excess humidity and indoor pollutants such as cleaning products, cooking and pet odors, this will negatively affect the quality of the air we breathe. Stale and humid air has to be replaced by fresh air.

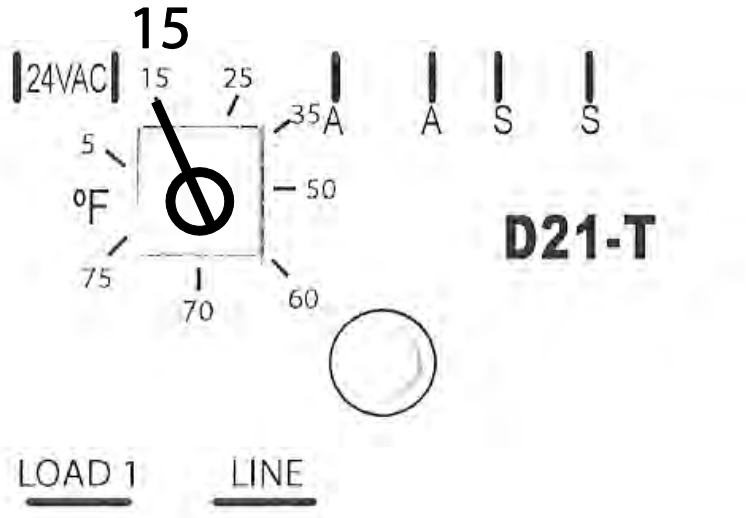
Because the *RecoupAerator®* is protected from frost by automatically shutting-down when the outside temperature reaches 10°F/-12°C, the Thermo-Air pre-heater will allow the *RecoupAerator®* to continue bringing in fresh air during extended periods of cold weather.

The Thermo-Air Heater is more than a typical duct heater. Equipped with the most advanced modulating controller and air sensor, the Thermo-Air Heater will operate with very low air flow.

Setup ***Thermo-AIR Defrost Pre-Heat*** Mounted BEFORE the *RecoupAerator®*
The Thermo-Air defrost heater, connects to the "Fresh Air In", noted as Duct 1 of the *RecoupAerator®*. Match the air flow direction labeled on the Thermo-Air with the*RecoupAerator®* air flow direction. Use Screws, mastic, and/or metal tape to make the duct connections. It is important there is no air leakage. After installation of the Thermo-Air, all ducts connected to the outside must be insulated, including the duct section housing the Thermo-Air Defrost Pre-Heater. The electronics box mounted to the Thermo-Air may be covered if necessary.



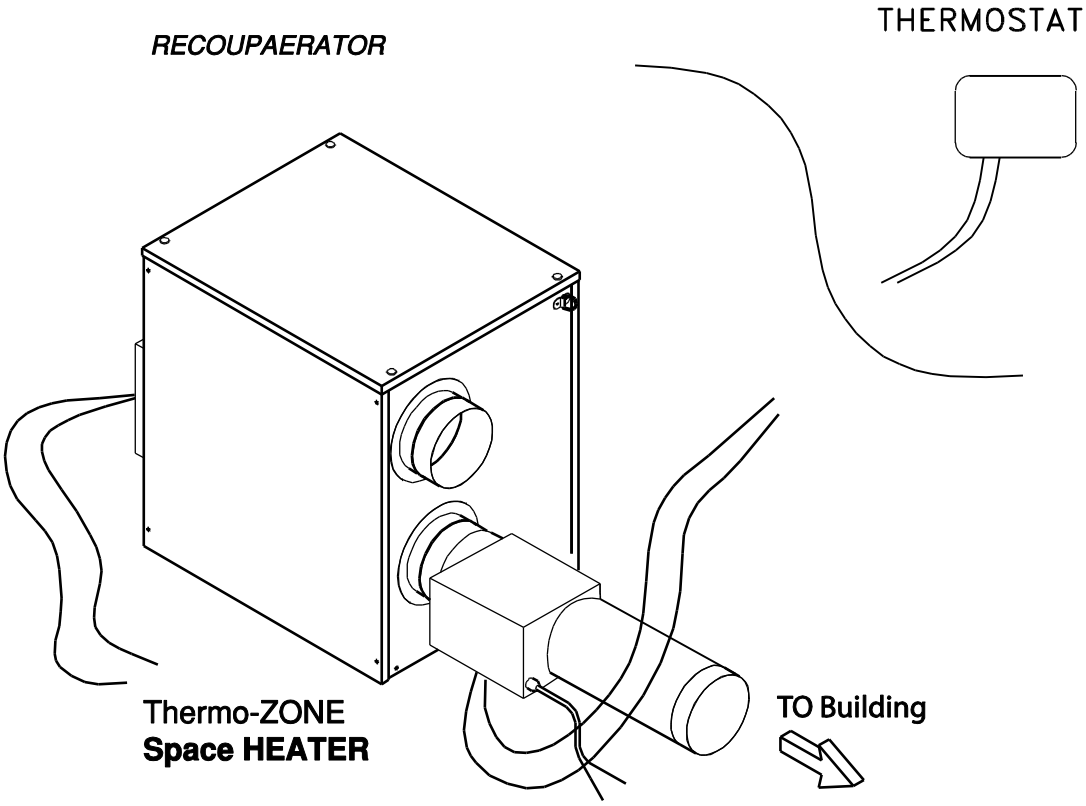
Setup The Temperature Setting, located inside the Thermo-Air control box, needs to be set to 10°F/-12°C The Thermo-Air Preheat ensures the *RecoupAerator®* provides Fresh Air supply below 10°F/-12°C



Setup ***Thermo-ZONE Space-Heat***

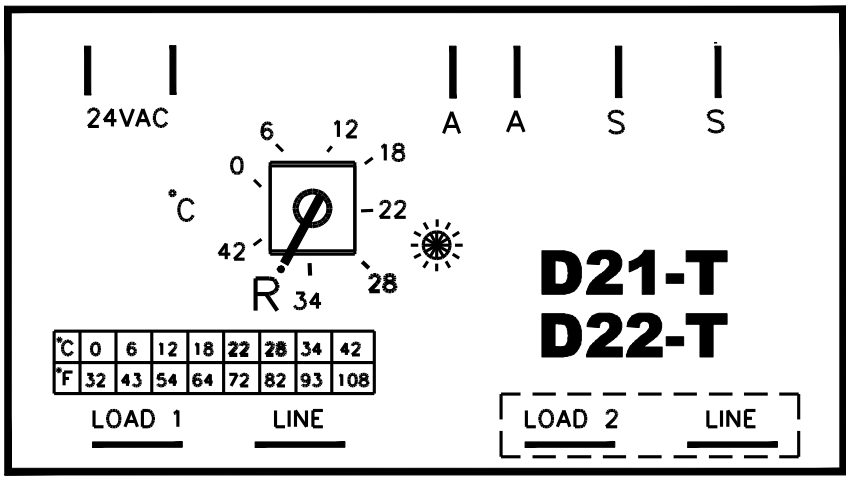
Mounted AFTER the *RecoupAerator®,* labeled Duct 2 on the *RecoupAerator®*, the Thermo-Zone will deliver heat into the ducted areas using air flow provided by the *RecoupAerator®.* The air flow sensor detects the amount of air flowing through the unit and modulates the heating capacity accordingly, maximizing savings.

When connecting the Thermo-Zone, match the air flow direction as noted on the heater. Screws, mastic, and/or metal tape are suggested to seal the ducts after making the connections. It is important to have no air leakage.



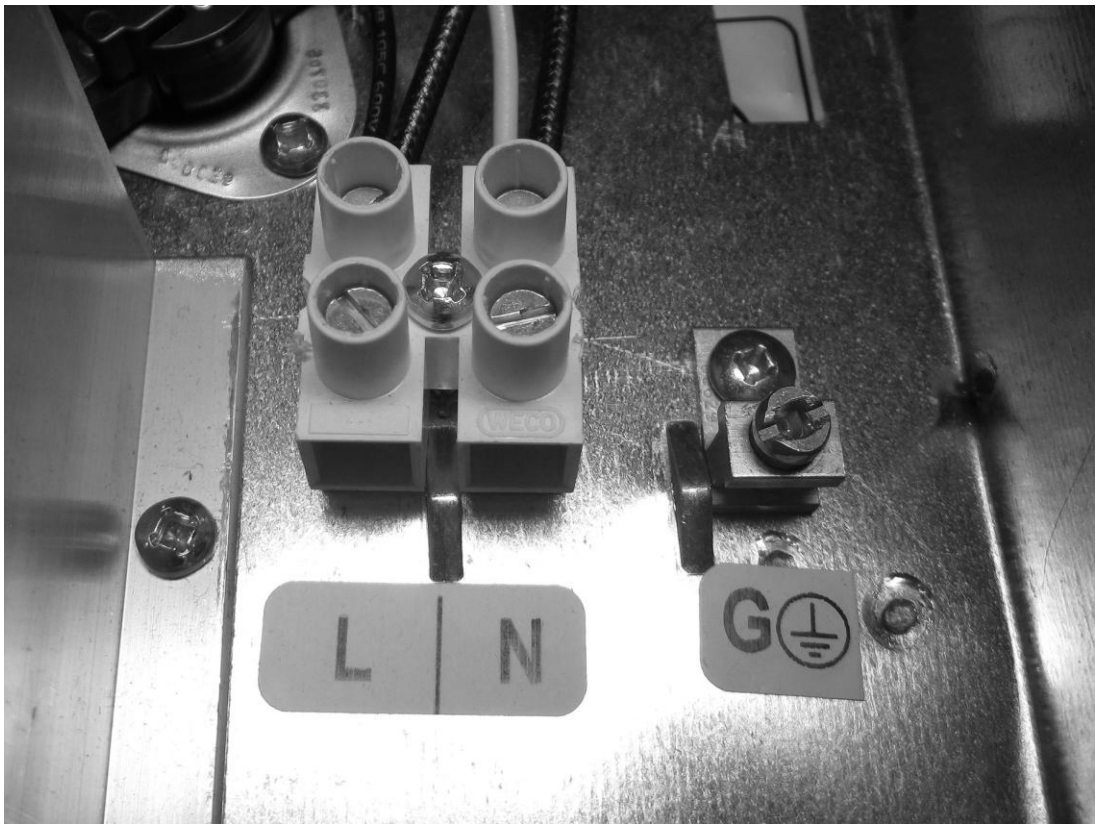
Setup

Set the Thermo-Zone temperature control to the **R (remote) position**.



Setup Electrical Wiring
Themo-Zone and Thermo-Air Heaters

Please conform to all local and national electrical codes for wiring. The heater should be wired to a dedicated circuit. Refer to the Thermo-air manufactures manual for more details about the correct gauge wire required for the heater model you have.



Make all electrical connections as labeled inside the cover of the Heater.

Call for more information about any aspect of the Thermo-Air Duct Heater 800.535.3448

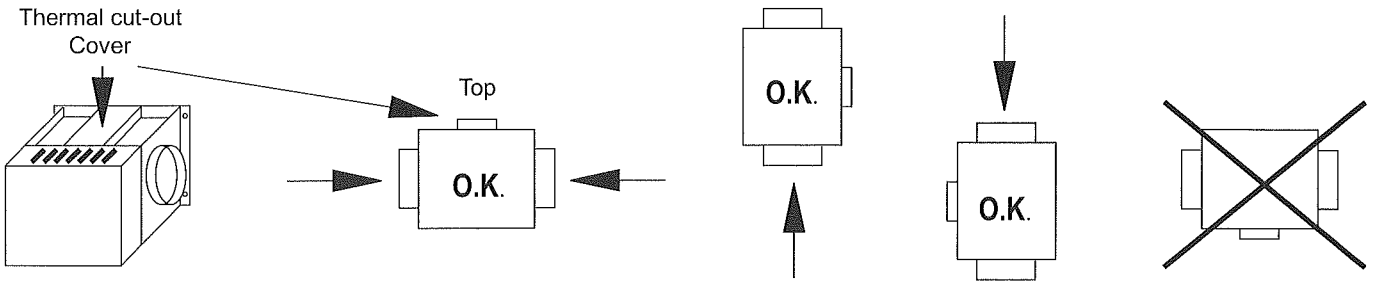
THERMOLEC LTD.

Installation Instructions for ***THERMO-AIR*** and ***THERMO-ZONE*** units.

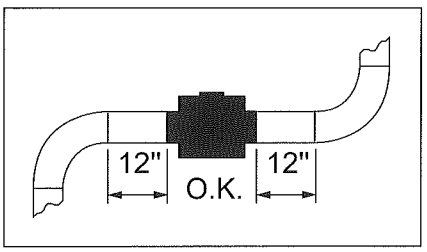
Please read instructions carefully before starting.

Mechanical Installation.

1- The air direction may be either vertical or horizontal, but when the unit is installed horizontally, the cut-out cover **must** be on top.

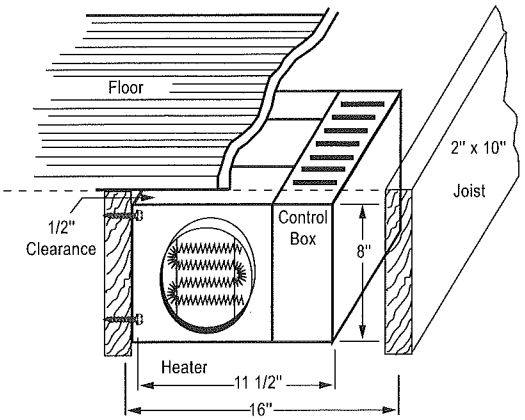


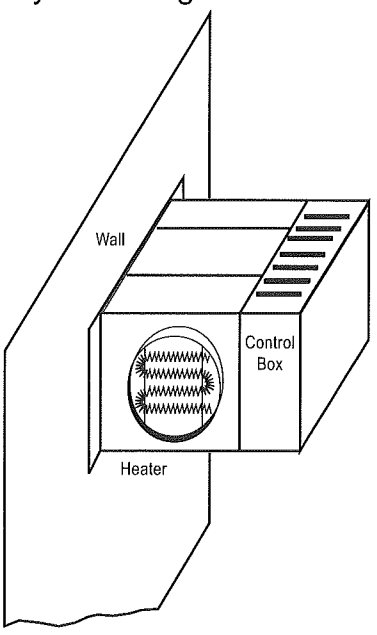
2- Do not install elbows closer than 12 inches to either the inlet or outlet of the unit.



3- The electronic controller shuts down the heater when there is no air flow.
The minimum amount of air required (in cubic feet per minute) to operate the unit is given in the CFM column of the table (30 CFM per kilowatt).
If CFM is lower than specified, the airflow sensor will limit the total capacity according to the airflow available.

4- Attach the unit to a suitable support.
The 6" model is small enough to be located between standard 16" spaced floor joists.
Always allow a minimum 1/2" clearance above the heater.





5- Electrical Installation.

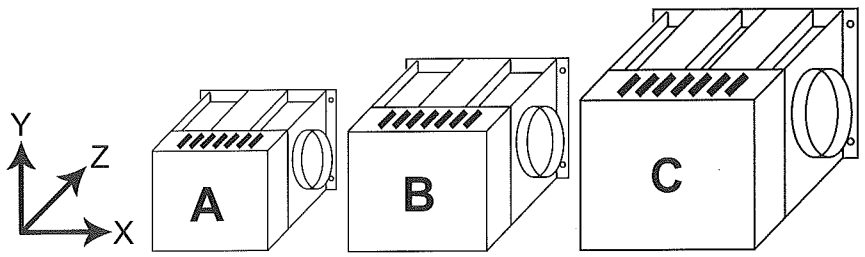
Please conform to all local and national electrical codes for wiring. The heater should be supplied by a separate cable, of appropriate gauge and with appropriate protection.
Use wires suited for 75°C. Please refer to the following table Fig. 1.

Fresh Air and Zone Heaters

Recommended wire gauge and protection

Models			Collar					Wire		Min. Air Flow
THERMO-AIR		*THERMO-ZONE*	SIZE	Dia.	KW	Volts	Amps.	Gauge	Fuses	CFM
TER-6-1120	&	ZON-6-1120	A	6	1	120/1	8.3	12	15	30
TER-6-1208	&	ZON-6-1208	A	6	1	208/1	4.8	12	15	30
TER-6-1240	&	ZON-6-1240	A	6	1	240/1	4.2	12	15	30
TER-6-2120	&	ZON-6-2120	A	6	2	120/1	16.7	12	20	60
TER-6-2208	&	ZON-6-2208	A	6	2	208/1	9.6	12	15	60
TER-6-2240	&	ZON-6-2240	A	6	2	240/1	8.3	12	15	60
TER-8-3208	&	ZON-8-3208	B	8	3	208/1	14.4	12	20	90
TER-8-3240	&	ZON-8-3240	B	8	3	240/1	12.5	12	15	90
TER-8-4208	&	ZON-8-4208	B	8	4	208/1	19.2	10	30	120
TER-8-4240	&	ZON-8-4240	B	8	4	240/1	16.7	12	20	120
TER-8-5208	&	ZON-8-5208	B	8	5	208/1	24	10	30	150
TER-8-5240	&	ZON-8-5240	B	8	5	240/1	20.8	10	30	150
TER-8-6240	&	ZON-8-6240	B	8	6	240/1	25	10	40	180
TER-10-3208	&	ZON-10-3208	B	10	3	208/1	14.4	12	20	90
TER-10-3240	&	ZON-10-3240	B	10	3	240/1	12.5	12	15	90
TER-10-4208	&	ZON-10-4208	B	10	4	208/1	19.2	10	30	120
TER-10-4240	&	ZON-10-4240	B	10	4	240/1	16.7	12	20	120
TER-10-5208	&	ZON-10-5208	B	10	5	208/1	24	10	30	150
TER-10-5240	&	ZON-10-5240	B	10	5	240/1	20.8	10	30	150
TER-10-6240	&	ZON-10-6240	B	10	6	240/1	25	10	40	180
TER-10-8240		N/A	C	10	8	240/1	33.3	8	50	240
TER-10-10240		N/A	C	10	10	240/1	41.6	6	60	300
TER-10-12240		N/A	C	10	11.5	240/1	47.9	6	60	345
TER-12-6240		N/A	C	12	6	240/1	25	10	40	180
TER-12-8240		N/A	C	12	8	240/1	33.3	8	50	240
TER-12-10240		N/A	C	12	10	240/1	41.6	6	60	300
TER-12-12240		N/A	C	12	11.5	240/1	47.9	6	60	345

To convert Cubic Feet per Minute to liters per second, multiply the CFM value by 0.47



DIMENSIONS IN INCHES

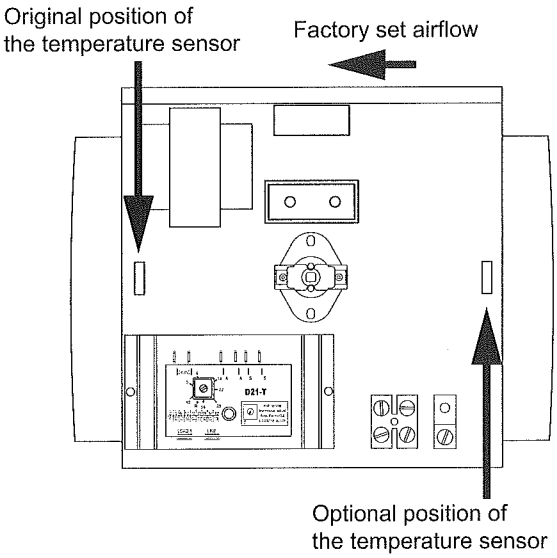
SIZE	X	Y	Z
A	11.5	8.0	11.5
B	11.5	10.0	13.5
C	15.5	12.0	15.5

6- Special Instructions for each type of unit.

THERMO-AIR **(TER models in Fig. 1)**

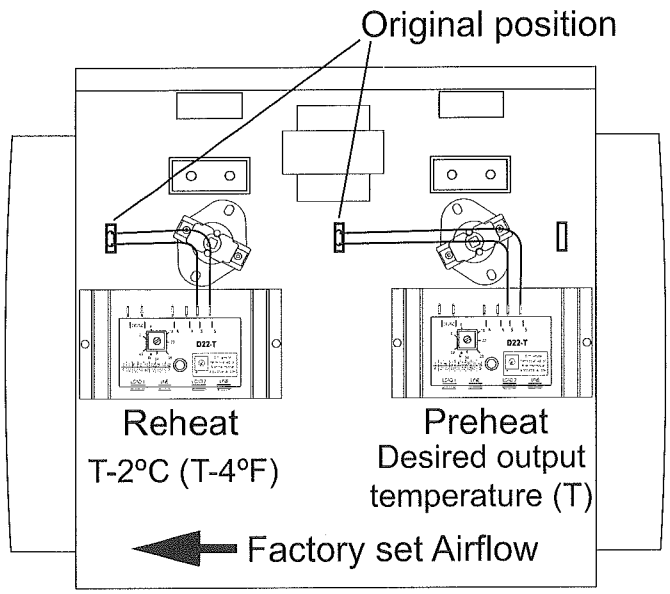
When the unit is installed and connected, set the potentiometer on the controller to the desired temperature.

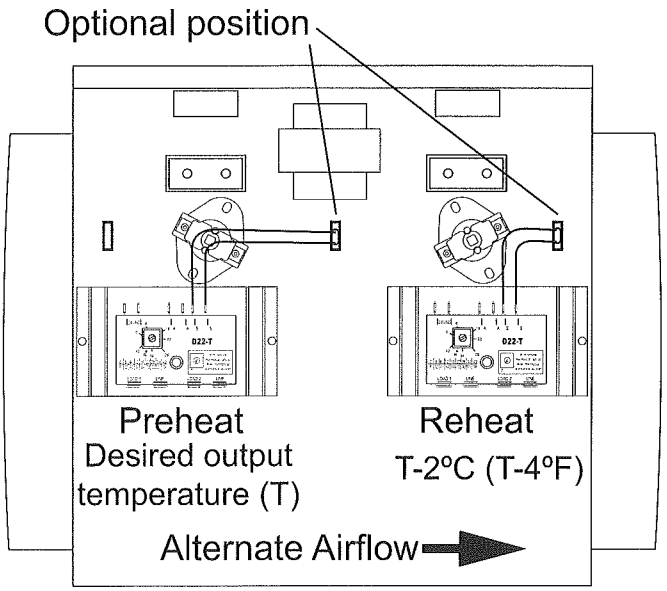
Please check the air direction carefully. The temperature sensor must be located on the air outlet side. The sensor is factory installed on the left side, so the air moves from the right to the left. It has to be moved to the right if the air outlet is on the right side. A pre-punched rectangular hole is provided on the right side to accommodate this change.



In the lower part of the table (Fig. 1) starting at SIZE C, the unit becomes bigger and the heater is split in two halves, preheat and reheat, each one supplied by its own controller and equipped with safety limits.

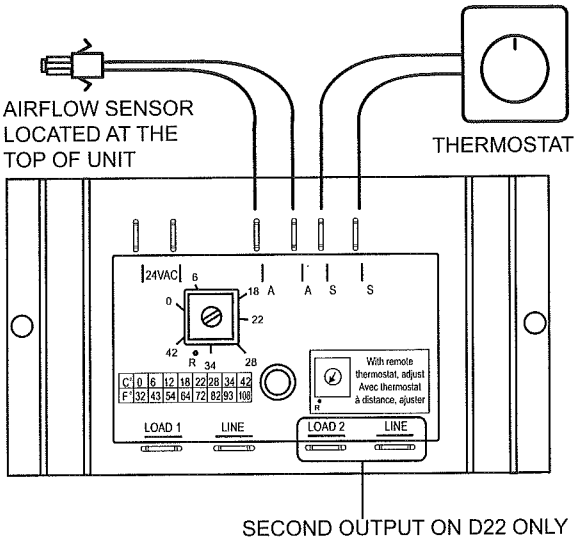
Following the air direction, the first half thus becomes the preheat section and the second half becomes the reheat section. The position of the sensors is very important. Please check the air direction through the heater carefully. In this model, there are three rectangular holes to allow the change of heat sensor position. Set the preheat controller to the desired output temperature and the reheat controller to 2 °C (4 °F) lower. During milder temperatures the preheat controller will be able to handle the full load without engaging the reheat controller. Please refer to the following diagrams.





THERMO-ZONE **(ZON models in Fig. 1)**

When the unit is installed and connected, set the potentiometer on the controller to **"R"** (remote). Install the thermostat far from a heat source, on a wall where there is no air draft. Connect the thermostat wires to the terminals marked **"S S"** on the controller.



If you don't find the exact model you need in the table, please order a standard Thermolec heater equipped with SCR control.

Remember : In case of trouble or for technical assistance, please use our free Help Line:

1-800-336-9130