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WARMFLO 2.5Kw High Efficiency Duct Heater Installation and Setup Guide



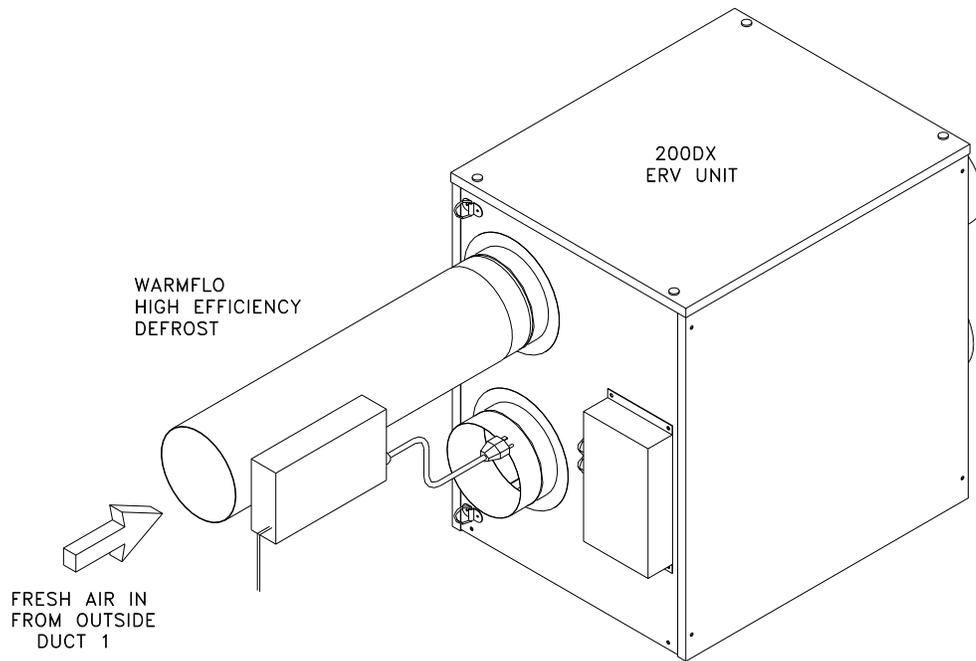
Thank you for purchasing the WarmFlo 2.5 Kilowatt heater for use with your *RecoupAerator*®!

For Defrost: The high efficiency defrost option should be installed when outdoor air temperatures are below 12°F for extended periods. The defrost will actively pre-heat the incoming air, maintaining a 12°F air stream to ensure the *RecoupAerator* provides a Fresh Air supply below freezing temperatures. This feature is electronically controlled, and will not use more electricity than needed to maintain the incoming air temperature.

For Post Heat: As a post heater, the WarmFlo unit will deliver heat into the ducted space using air flow from the *RecoupAerator*®.

Setup for Defrost Pre-Heat

1 The WarmFlo 2.5KW, as a high efficiency defrost, connects to the “Fresh Air In”, noted as Duct 1 of the *RecoupAerator*. Match the air flow direction labeled on the WarmFlo 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 WarmFlo and the remaining duct work, all ducts connected to the outside must be insulated. Including the duct section housing the WarmFlo Defrost Pre-Heater. The electronics box mounted to the WarmFlo may be covered if necessary after wiring. See details below.

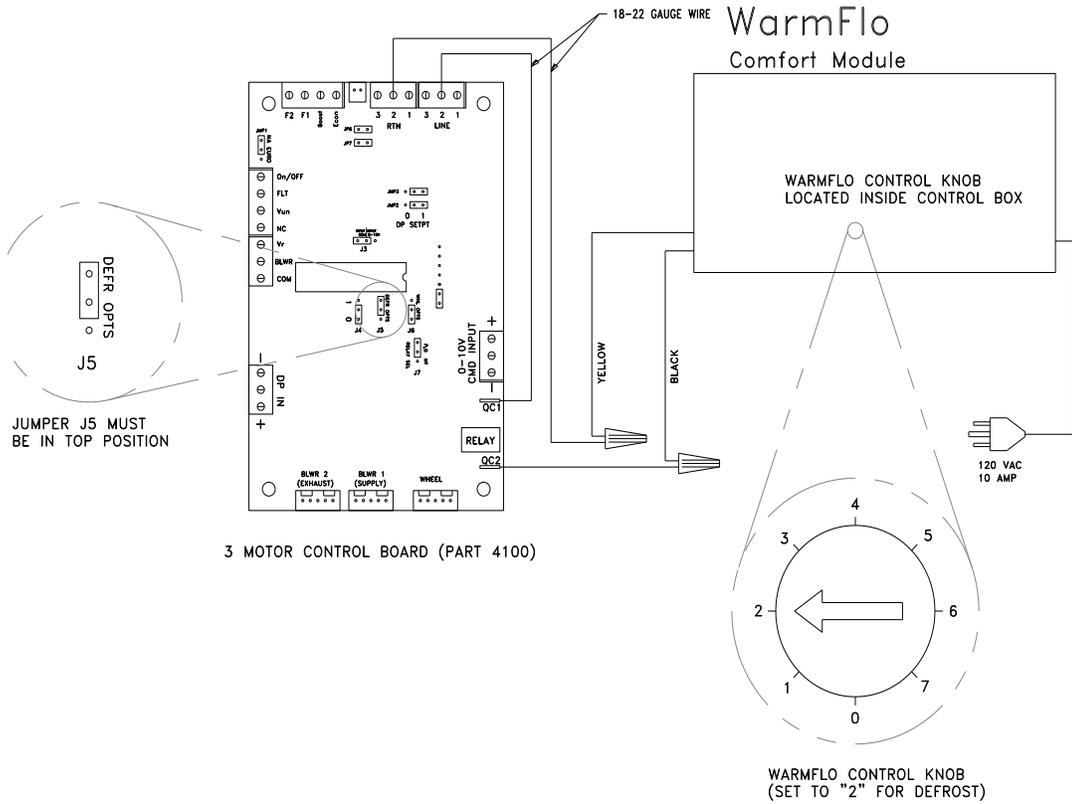


2 Set the Output Temperature to position “2”. The Temperature Setting knob is inside the WarmFlo control box. The *RecoupAerator* is designed to shut off below 10°F, and the WarmFlo Defrost Heat is meant to keep the Fresh Air Inlet at above the *RecoupAerator* frost protection shutoff temperature. The WarmFlo Defrost Preheat ensures the *RecoupAerator* provides a Fresh Air supply below freezing temperatures.

WarmFlo Control Board Settings	
Control Knob Setting	Output Temperature (°F)
0	0
1	6
2	12°F Pre-Heat
3	18
4	88
5	100
6	112
7	124

Setup for Defrost Pre-Heat (cont)

3 Jumper 5 must be in the top position as shown below.



WarmFlo Pre-Heat Energy Usage in Watts Based on Outdoor Temp and RecoupAerator Flow Rate

Outside Temp F	Single RecoupAerator					2 RecoupAerators		CFM
	30	70	100	150	200	300	400	
10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.0	47.5	110.8	158.3	237.4	316.5	474.8	633.0	
0.0	95.0	221.6	316.5	474.8	633.0	949.6	1266.1	
-5.0	142.4	332.3	474.8	712.2	949.6	1424.3	1899.1	
-10.0	189.9	443.1	633.0	949.6	1266.1	1899.1	2532.1	
-15.0	237.4	553.9	791.3	1186.9	1582.6	2373.9		
-20.0	284.9	664.7	949.6	1424.3	1899.1			
-25.0	332.3	775.5	1107.8	1661.7	2215.6			
-30.0	379.8	886.2	1266.1	1899.1	2532.1			
-35.0	427.3	997.0	1424.3	2136.5				
-40.0	474.8	1107.8	1582.6	2373.9				
-45.0	522.3	1218.6	1740.8					
-50.0	569.7	1329.4	1899.1			WarmFlo 1.0		
-55.0	617.2	1440.2	2057.4			WarmFlo 2.5		
-60.0	664.7	1550.9	2215.6					

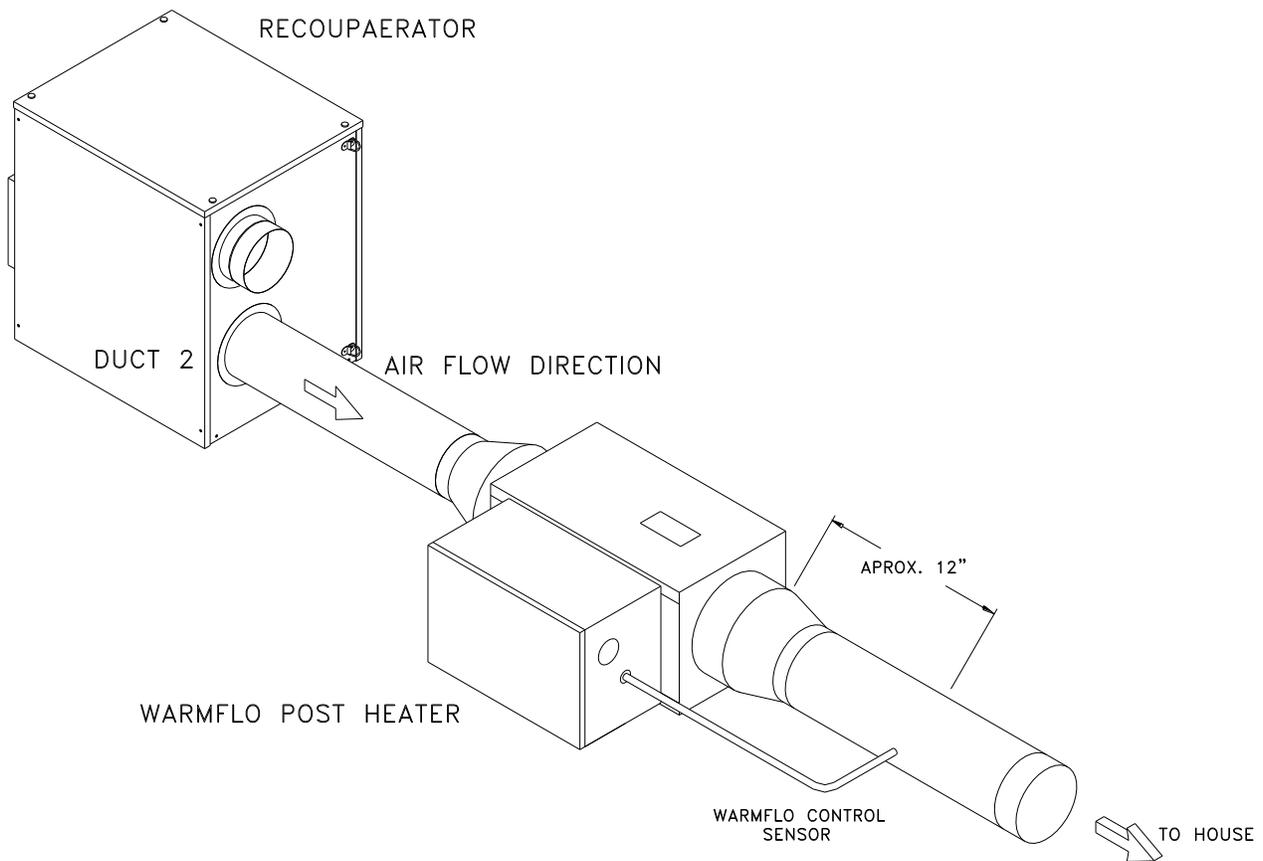
* In extreme outside low temperatures, it is recommended to run the RecoupAerator® at as low a flow rate as possible.

Setup for Post-Heat

1 The WarmFlo heater connects to the *RecoupAerator*[®] Fresh Air Duct into the house labeled Duct 2 on the *RecoupAerator*[®]. When connecting the WarmFlo, 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 there is no air leakage. See details below.

Required: Duct Reducers 8" to 6" diameter for connection to the WarmFlo heater.



WarmFlo 2.5KW Post Heat Energy Usage			
Unit CFM Delivery	Max. Temp (F)	BTU	Watts
70	124	4234	1241
100	124	6048	1773
150	120.5	8505	2493
200	107.4	8510	2494

* In extreme outside low temperatures, it is recommended to run the *RecoupAerator*[®] at as low a flow rate as possible.

Setup for Post-Heat (cont)

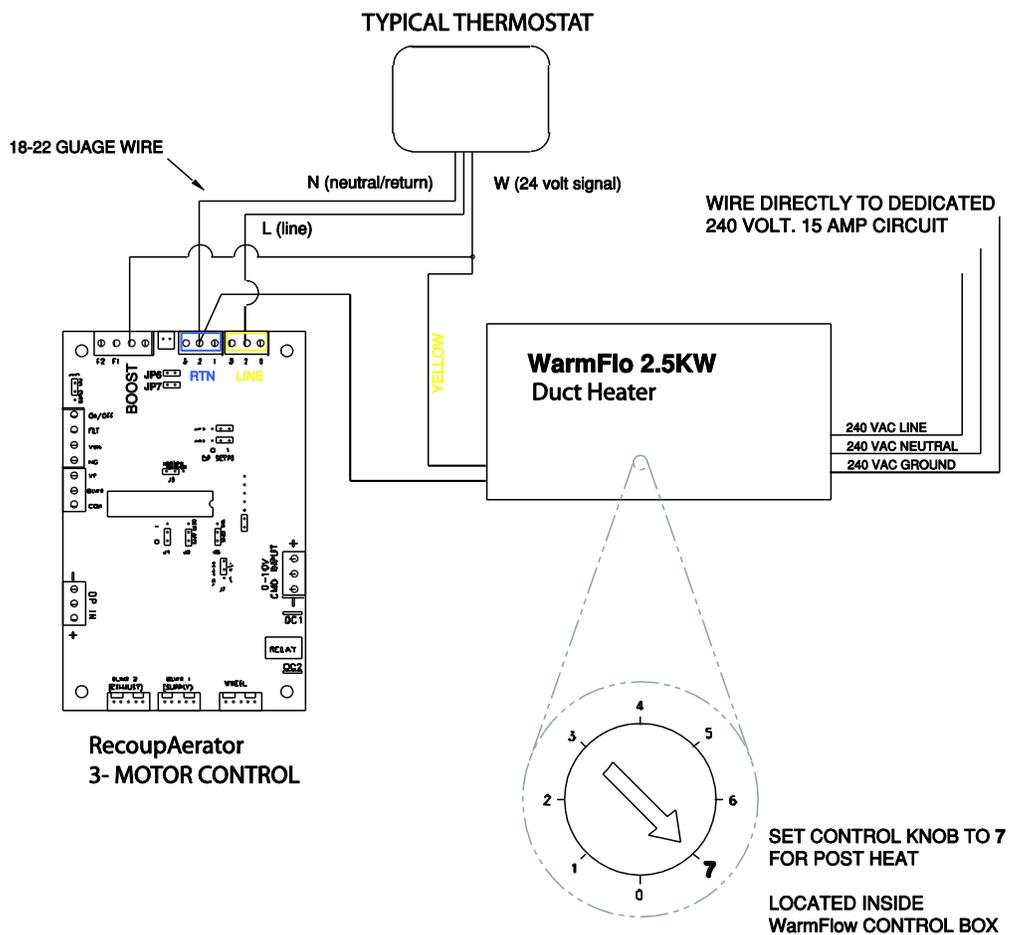
2 Install the WarmFlo temperature sensor in the duct connected to the heater output. The sensor should be installed approximately 12" from the output of the WarmFlo unit thru a ½" hole. Attach the sensor mounting plate to the exterior of the duct with sheet metal screws (self drilling TEK Screw recommended). Seal the area around the sensor and hole with metal tape or other appropriate sealant.

3 Set the WarmFlo temperature control to **position 7**, as to deliver the maximum amount of Btu's, which will meet the heating demand in as little time as possible. Adjustments can be made per the specific installation.

The Warmflo is a self modulated, pulse heater with a temperature feedback control loop. This feedback controls the output temperature of the air stream. This temperature is manually set on the WarmFlo (please see the instructions provided with the heater).

Post Heat Wiring for *BOOST* (full Flow when heating)

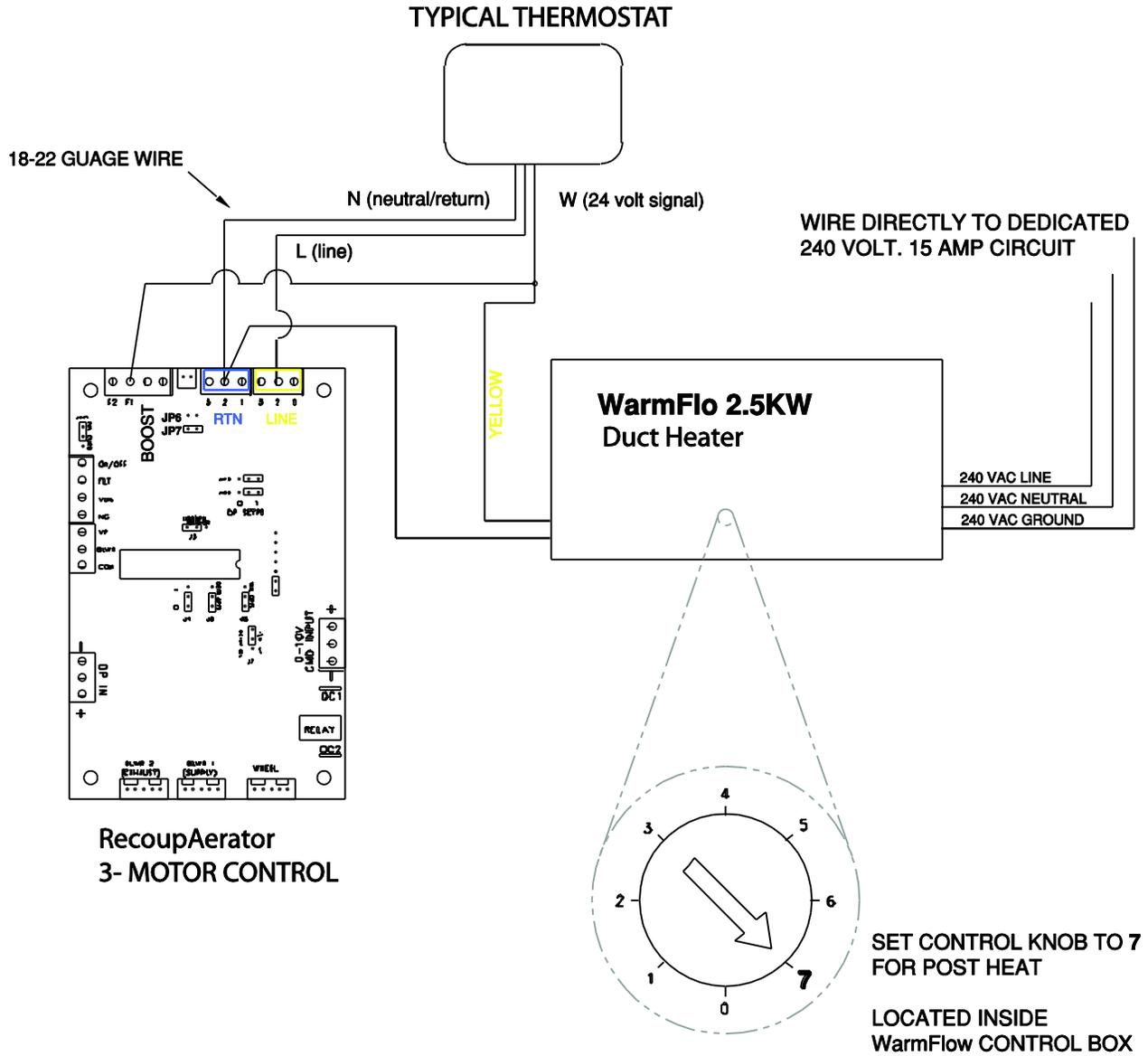
When using as a post heater, the WarmFlo 2.5KW should be wired directly to a dedicated 240 volt, 15 amp circuit. The post heater requires a 24 VAC signal supplied by the *RecoupAerator*, and is switched on by the thermostat.



Post-Heat Wiring with flow set by RecoupAerator Wall Dial

This post-heat wiring option will run the WarmFlo Heater at a flow set by the user on the *RecoupAerator* Wall Dial Control. The WarmFlo post-heater requires a 24 VAC signal supplied by the *RecoupAerator*, and is switched on when the Thermostat calls for heat.

Remove **Jumper 6** and **connect the 24VAC** signal line to **F1** on the *RecoupAerator*.



Note: If an external 24VAC source is used remove both jumpers 6 & 7. For example, removing both jumpers 6 & 7 allows control by a furnace 24VAC source while safely isolating the *RecoupAerator's* 24VAC system.

Call for more information on any aspect of your WarmFlo Duct Heater.