

MANUAL – AIR BALANCING GUIDE

Price Intelligent Controller with LCD Thermostat

PIC Series, TSTAT

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PRICE[®]

PRICE INTELLIGENT CONTROLLER WITH LCD THERMOSTAT

AIR BALANCING GUIDE

Support: Having difficulty installing or configuring this product? Price is here to help.

Controls Application Support: 204.654.5613 | controls@priceindustries.com | priceindustries.com/resources/type/literature

Instructions

For more advanced setup details, please refer to the PIC Installation and Service Manual on www.priceindustries.com.



Hold down the **Menu** button on the LCD Thermostat for **5 seconds** until prompted for a passcode; use and to enter the passcode; **DOWN, UP, UP, DOWN**.



The screen will now display “Service Menu: Application.”



Scroll down to the Balancing sub-menu.



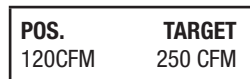
Press the **Menu** button to enter this menu.



Screen will now show “Damper Override Disabled.” Press **Menu**, and now “Disabled” will be flashing; this means you can now scroll **UP** or **DOWN** with the arrow keys to select a target to send the damper to.



For most applications, you will want to select “Go To Cool Max,” and once selected, the thermostat will read the actual CFM (position) and target CFM as the damper tries to lock on to the cooling max airflow.



NOTE: If the target is zero, airflows must be entered in the VAV sub-menu – refer to the PIC Installation and Service Manual on www.priceindustries.com.

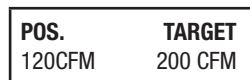
Another option to override the damper is the “Flow Override” function. This will cause the damper to target any specific airflow that may not be a cooling or heating min/max flow.



When the screen is displaying “Flow Override,” press the **Menu** button and “No Override” will begin flashing. Press the **UP** arrow key to select a CFM value for the damper to target. Press **Menu** to select the value and press the **DOWN** arrow key to view the damper position vs target screen. The position should increase steadily until the target is reached.



NOTE: “Flow Override” must be set back down to “No Override” once complete.

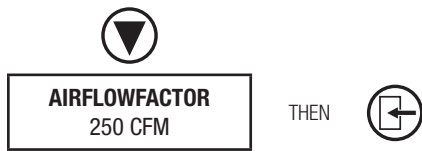


Once the thermostat says that the position and target are the same, an airflow reading can now be taken from the air outlets. Compare your instrument’s reading to what the thermostat is reading for an airflow. Some adjustment may be required. Adjustments are made in the ‘Airflow Factor’ menu, or, depending on the version of the controller, the ‘Airflow Tweak’ menu.

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For Controllers with Airflow Factor Menu



If any adjustment is required, press the 'DOWN' arrow key, the thermostat will now read 'AIRFLOW FACTOR' and will display its current CFM reading. Press the menu button and the CFM reading will change to display the current K factor, and the value will be flashing, indicating it is ready to be changed using the arrow keys.

Adjust the K factor by the percentage high or low that the balancing hood is reading versus the thermostat. For example, if the thermostat reads 250 CFM but the balancer's hood reads 300 CFM, divide 250 by 300 to get .833, this means the controller is reading 83.3% of what the balancer's hood is reading, so the K factor must be adjusted up. Supposing the box is an 8" inlet size, the K factor would be 890, so you would divide 890 by .833, and the new corrected K factor would be 1068.

$$K \text{ adjusted} = K \text{ original} / (\text{CFM stat} / \text{CFM hood})$$

For Controllers with Airflow Tweak Menu



To make adjustments on controllers with airflow tweak instead of airflow factor, scroll to the airflow tweak menu. The screen will display the current CFM. Press the menu button and the CFM reading will change to a flashing '0%'.

Adjust the % by the percentage high or low that the balancing hood is reading versus the thermostat. For example, if the thermostat reads 250 CFM, but the balancer's hood reads 300 CFM, follow the formula below to calculate the % higher or lower to offset the tweak.

$$\text{Tweak} = (1 / (\text{CFM stat} / \text{CFM hood}) - 1) * 100$$

Now the thermostat's displayed CFM should much more closely match the hood's CFM reading.

Tech Support - CALL 204 654-5613 option 4
controls@priceindustries.com

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