USER MANUAL

EME1F1-005-R2

ALERTWERKS WIRED AIRFLOW SENSOR WITH 5 FT CABLE

24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT BLACKBOX.COM

BLACK BOX®

CHAPTER 1: INTRODUCTION AND SPECIFICATIONS

1.1 INTRODUCTION

The AlertWerks Wired Airflow Sensor is a device that registers airflow in areas where consistent flow is needed, such as in cabinets and racks where the consistent operation of a fan is critical to the safe operation of electronic equipment.

The Airflow sensor is placed in the air stream where the user can monitor the status and the amount of flowing air. In addition to an on/off indication, it also graphs the analog values over a period of time. Although this is not a precision airspeed measurement device, it can be used, for example, to indicate if a fan slows down. The user will be given an indication of the change over time. This may happen if the fan is close to failure or if the air filter is clogged.

The recognized OID for the air flow sensor on RJ45#1 is .1.3.6.1.4.1.3854.1.2.2.1.17.1.3.0

1.2 FEATURES

FEATURES:

- ON/OFF ALARM SIGNAL OF AIR FLOW
- AIR FLOW DATA GRAPHICALLY DISPLAYED OVER TIME
- ACCURATE, COST EFFECTIVE FLOW SENSING
- 2 LEDS INDICATE THE STATUS OF AIR FLOW AND THAT THE SENSOR IS SECURELY PLUGGED INTO THE UNIT
- POWER SOURCE: POWERED BY THE GATEWAY. NO ADDITIONAL POWER NEEDED.
- THE GATEWAY AUTO DETECTS THE PRESENCE OF THE AIR FLOW SENSOR.
- FULL AUTOSENSE INCLUDING DISCONNECT ALARM

1.3 SPECIFICATIONS

SPECIFICATIONS:

- DATA GRAPHICALLY DISPLAYED VIA A WEB PAGE
- DATA COLLECTION POSSIBLE VIA ANY SNMP-BASED NETWORK MANAGEMENT SYSTEM
- MEASUREMENT RATE: ONE READING EACH SECOND WITH DATA LOGGING ONCE PER MINUTE
- COMMUNICATION CABLE: RJ-45 JACK TO THE UNIT
- SENSOR TYPE: THERMISTOR
- TRAP INFORMATION: STATUS, SENSOR NUMBER, AND SENSOR DESCRIPTION.
- MAXIMUM CAT5/6 CABLE EXTENSION RUN LENGTH: 200 FEET (60 METERS)

CHAPTER 2: CONFIGURATION

2.1 CONFIGURATING THE AIRFLOW SENSOR

1. Plug the sensor into one of the RJ-45 ports on the rear panel of the unit.
2. Point your browser to the unit's IP address (default, 192.168.0.100) and then log in as the administrator using your administrator password (default is "public"). You will then be taken to the summary page.
3. Select the sensor's tab from the summary page. The layout of the next page will vary depending on your unit, so refer to your unit's manual for more information.

Next, we will cover the settings that are specific to your sensor.

Status:

If the sensor is offline, the status shows "No Status." If the sensor is online, the status will be formed by comparing the readings to the low thresholds. If, at any time, communication with the Airflow Sensor is lost, the status of the Airflow Sensor is changed to "sensorError."

Can I extend the airflow sensor? If I can, how do I do that and how far can I extend it?

Yes, you can extend the airflow sensor using a standard CAT5 LAN cable. The total run length of this sensor is roughly 98 feet (30 meters).

On / Off Type Airflow Sensor

Black Box is only shipping the On / Off type of Airflow sensor.

2.2 CONFIGURING THE AIRFLOW SENSOR ON YOUR ALERTWERKS WIRED HUB

1. Plug the sensor into one of the RJ-45 ports on the rear panel of the unit.
2. Point your browser to the unit's IP address (default, 192.168.0.100) and then log in as the administrator using your administrator password (default is "public"). You will then be taken to the summary page.
3. Select the sensor's tab from the summary page. The layout of the next page will vary depending on your unit, so refer to your unit's manual for more information.

Next, we will cover the settings that are specific to your sensor.

AlertWerks Wired Hubs

After connecting the AlertWerks Airflow sensor it will be auto detected. After clicking on the Sensors tab, click on the sensor link as shown in Figure 2-1 below:

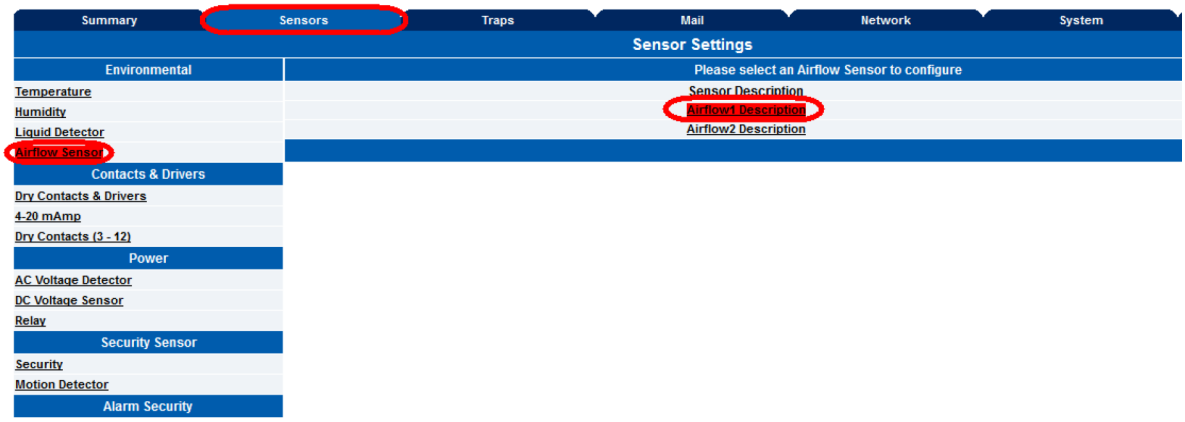

FIGURE 2-1: SENSOR LINK ON SENSORS TAB

Once you click on the Sensor link, the Sensor Settings screen will show additional tabs, including one for Settings, as

shown in Figure 2-2 below:

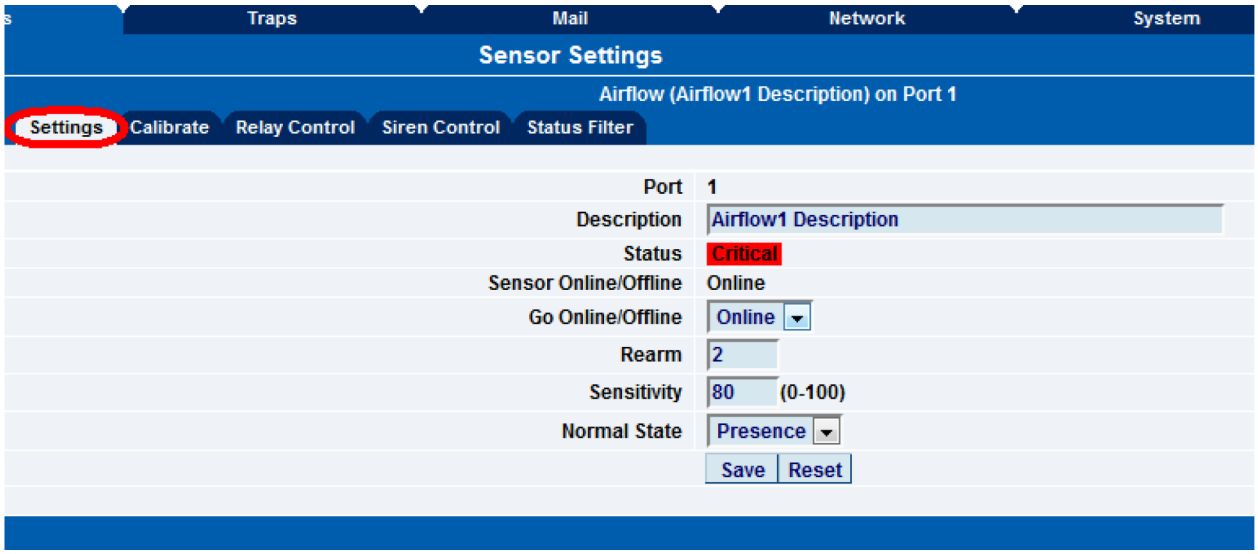

FIGURE 2-2: ADDITIONAL TABS, INCLUDING SETTINGS

In the settings tab shown in Figure 2-2, make sure that the sensor is online. Then you can re-name your Airflow sensor, adjust the rearm and sensitivity settings, and change the Normal State.

You can change the Normal state to be in the normal state when the airflow is present or not present. This is convenient when you need to be alerted if airflow was moving in an unwanted direction. For example, air flow should only be flowing out of and not in to an air sealed clean lab.

After clicking on Calibrate tab, you can calibrate the airflow sensor.

NOTE: The airflow sensor should be calibrated only if the sensor does not seem to be detecting airflow properly.

To calibrate the sensor follow the instructions on the screen and then click on the calibrate button as shown in Figure 2-3 below:

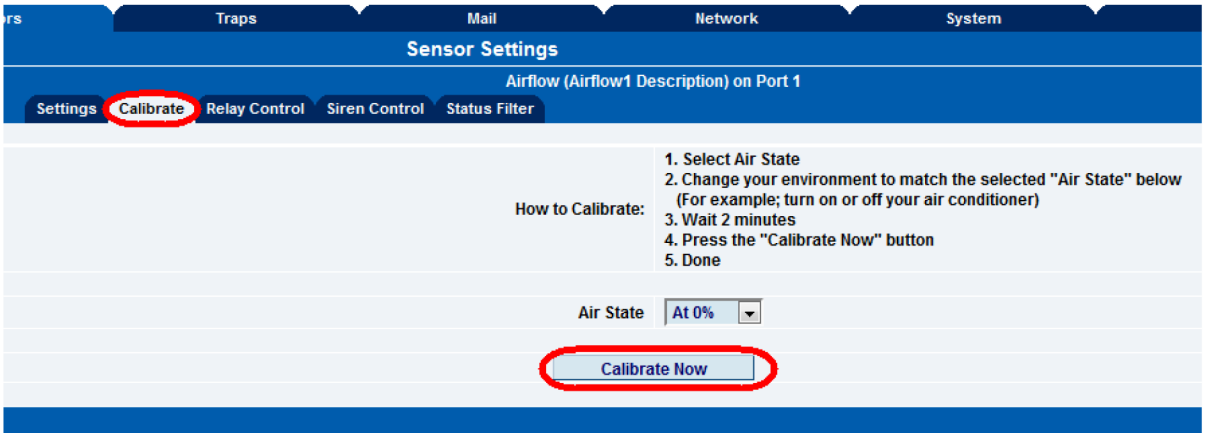

FIGURE 2-3: CALIBRATE NOW BUTTON

After clicking on the Calibrate button, a reminder will be displayed as shown in Figure 2-4 below:

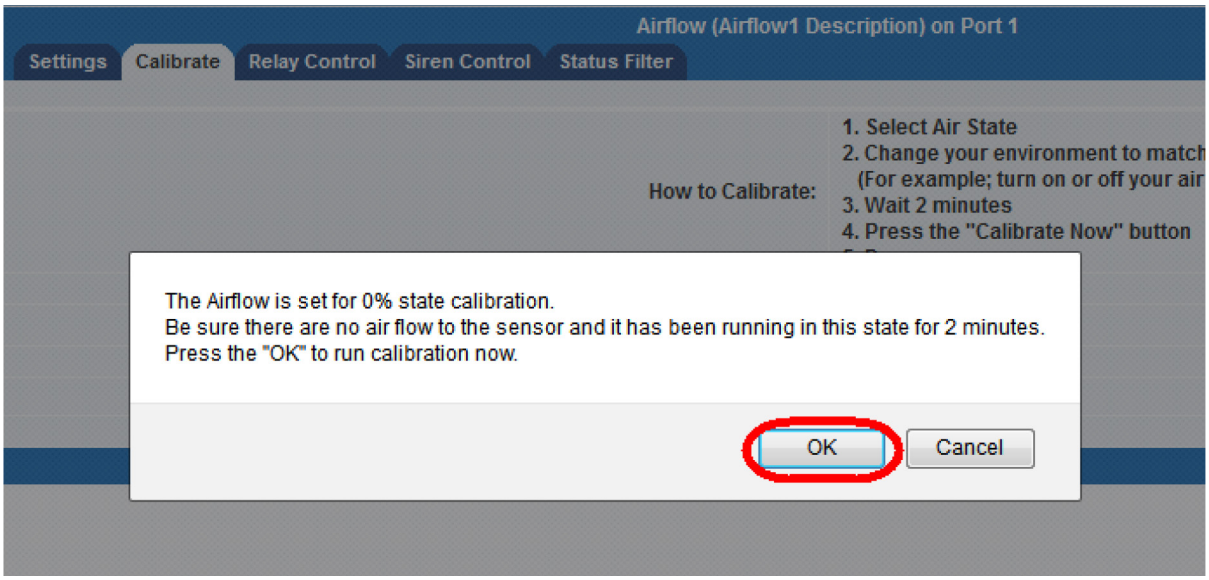

FIGURE 2-4: CALIBRATION CONFIRMATION BUTTON

Click on the OK button to begin the airflow sensor's calibration.

After clicking on the Status Filters tab, you can enable or disable the email alerts and traps, set the Continuous Time settings to eliminate false warnings, set the Minimum time between each Email or Trap, and set the Day and Time filter as shown in Figure 2-5 below:

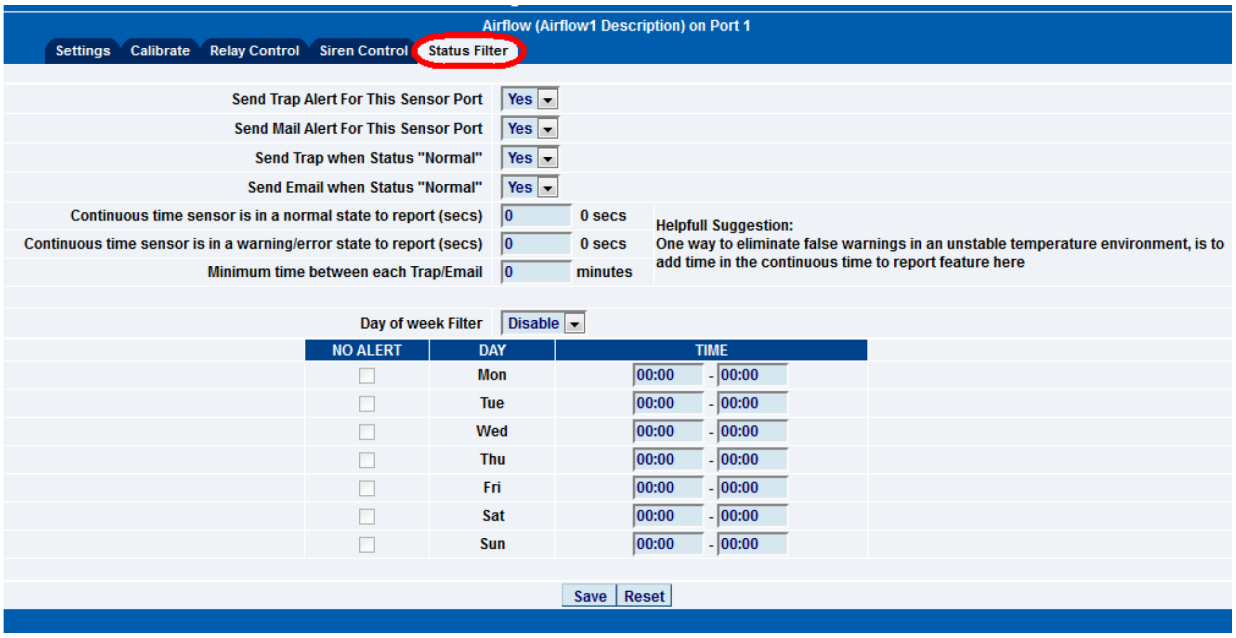

FIGURE 2-5: STATUS FILTERS TAB

AlertWerks Wired Hubs

After connecting the AlertWerks Wired Airflow sensor to the RJ-45 sensor port, logging into the unit as the Admin, and navigating to the Sensors page, the airflow sensor will be auto sensed and displayed as shown in Figure 2-6 below:

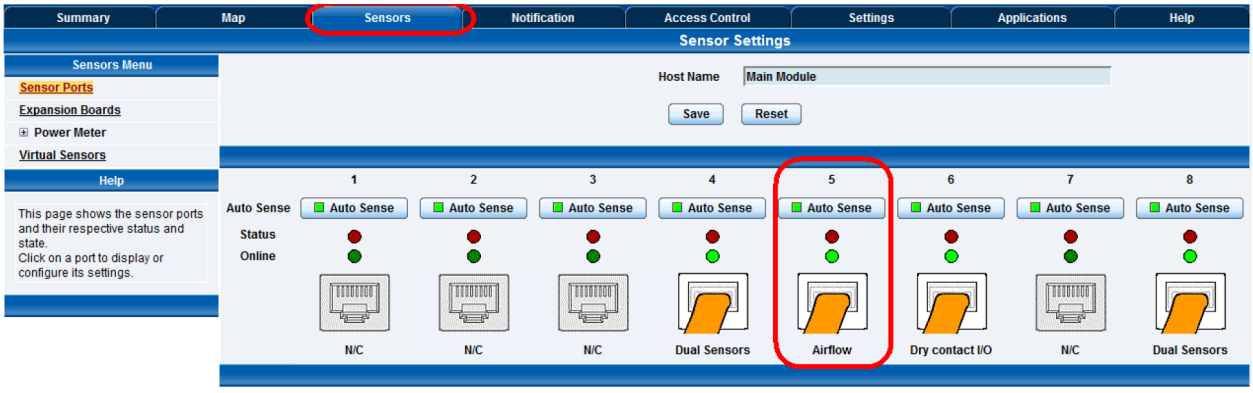

FIGURE 2-6: SCREENSHOT SHOWING AUTO SENSED SENSOR

After clicking on the Airflow sensor, the Normal Settings tab will be displayed, as shown in Figure 2-7 below:

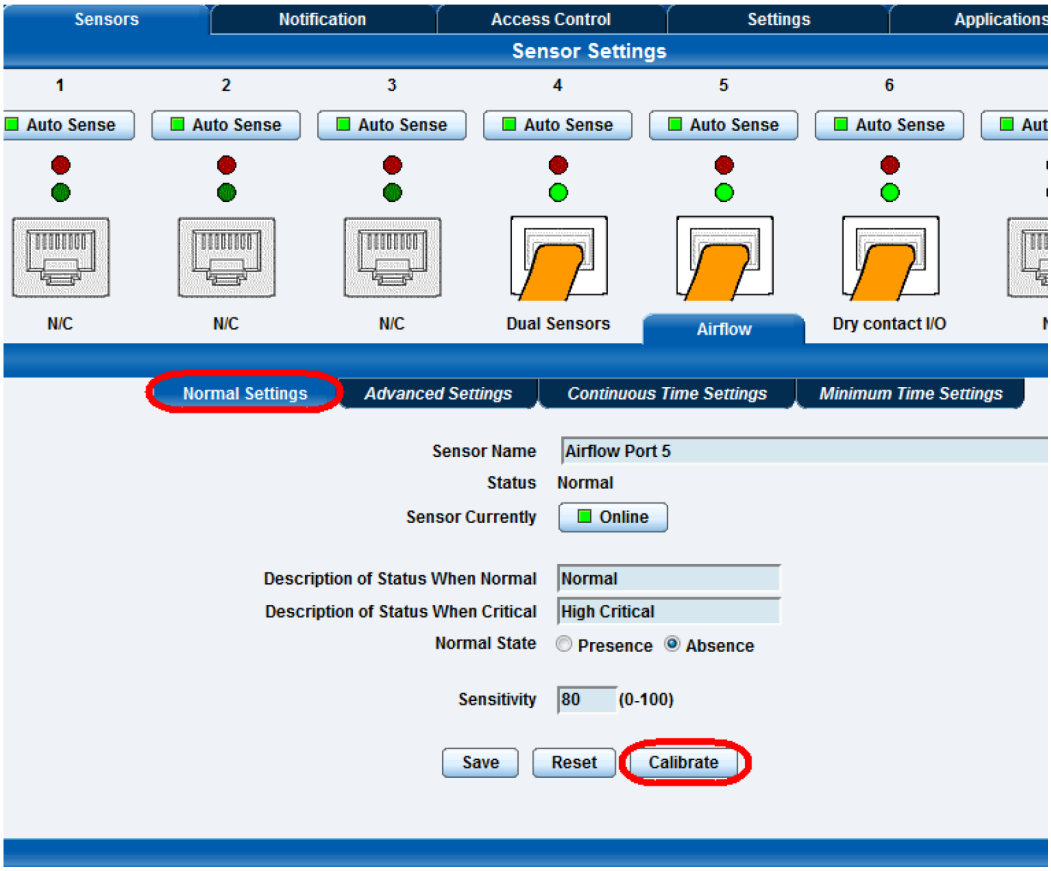

FIGURE 2-7: NORMAL SETTINGS SCREEN

On the Normal Settings tab, you can rename the sensor, rename the Status, and change the Normal State to the Presence or Absence of airflow.

The sensitivity can be set to a specific number in the event the airflow is a lot or very low.

To calibrate the Airflow Sensor, click in the Calibrate button as shown in the Figure 2-7 above.

After clicking on Calibrate button, you are able to calibrate the airflow sensor.

NOTE: The airflow sensor should be calibrated only if the sensor does not seem to be detecting airflow properly.

To calibrate the sensor, follow the instructions on the screen and then click on the calibrate button as shown in Figure 2-8 below:

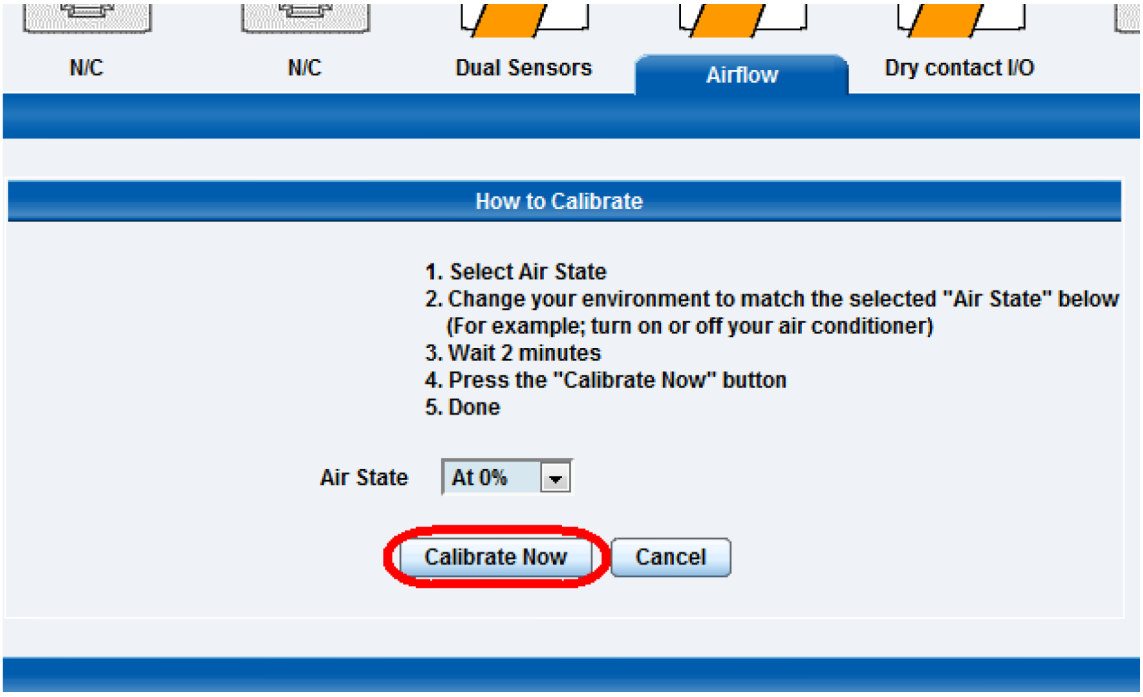

FIGURE 2-8: CALIBRATION INSTRUCTIONS SCREEN

After clicking on the Calibrate button, a reminder will be displayed as shown in Figure 2-9 below:

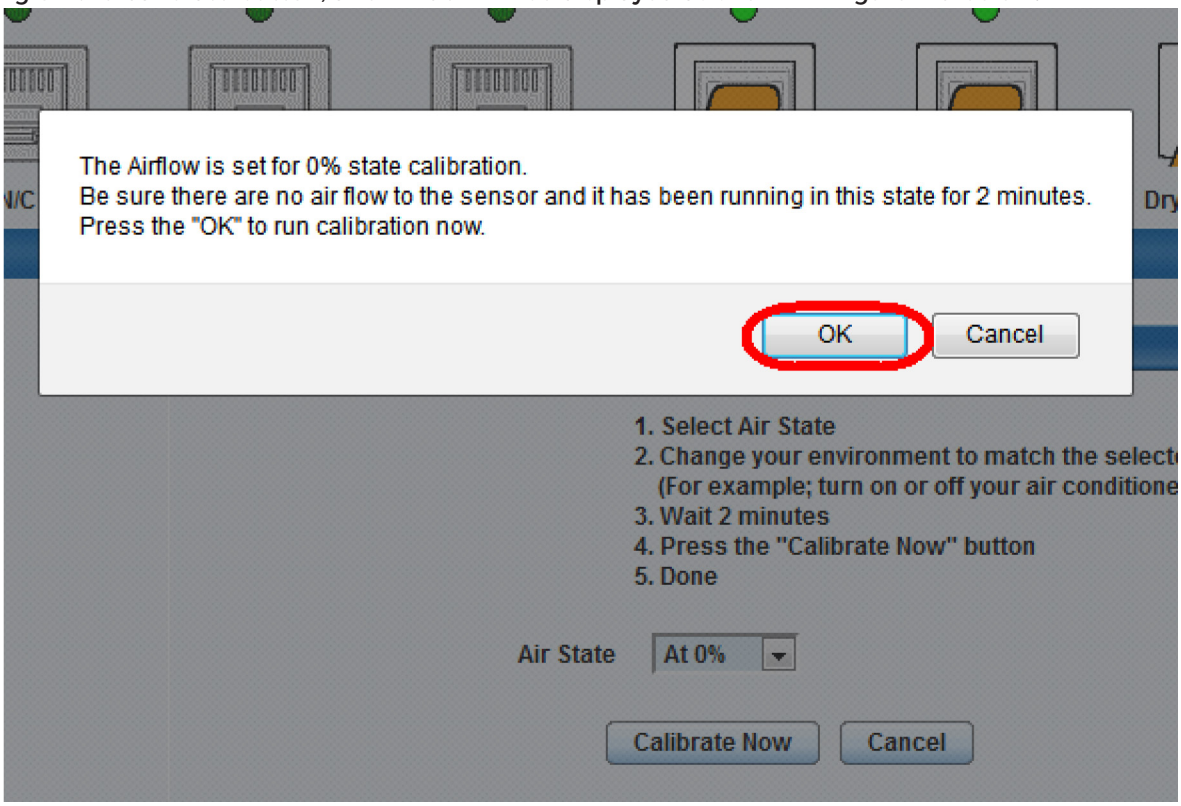

FIGURE 2-9: CALIBRATION CONFIRMATION MESSAGE

Click on the OK button to begin the airflow sensor's calibration.

APPENDIX A: REGULATORY INFORMATION

A.1 FCC STATEMENT

This equipment has been tested and found to comply with the regulations for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this Quick Installation Guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case, the user will be required to correct the interference at his/her own expense.

A.2 CE STATEMENT

This is a Class B product in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

A.3 ROHS

This product is RoHS compliant.

APPENDIX A: REGULATORY INFORMATION

A.4 NOM STATEMENT

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
    A: El cable de poder o el contacto ha sido dañado; u
    B: Objectos han caído o líquido ha sido derramado dentro del aparato; o
    C: El aparato ha sido expuesto a la lluvia; o
    D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
    E: El aparato ha sido tirado o su cubierta ha sido dañada.

APPENDIX B: DISCLAIMER/TRADEMARKS

B.1 DISCLAIMER

Black Box Corporation shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Corporation may revise this document at any time without notice.

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