LYCEBELL LC-846A

LYCEBELL LC-846A HVAC Anemometer CFM Meter User Manual

Model: LC-846A | Brand: LYCEBELL

1. Introduction

Thank you for choosing the LYCEBELL LC-846A HVAC Anemometer CFM Meter. This device is designed for accurate measurement of wind speed, air flow, and air temperature. It is an essential tool for HVAC professionals, outdoor enthusiasts, and anyone requiring precise air movement data. This manual provides detailed instructions for the proper setup, operation, and maintenance of your anemometer to ensure optimal performance and longevity.
Key features include:

- Accurate wind speed measurement with MAX/MIN/Current readings.
- High precision air flow (CFM) and air temperature measurements.
- Large backlit LCD display for clear readability in various lighting conditions.
- Data hold function and built-in data recorder for up to 600 sets of values.
- Manual/Auto power off feature to conserve battery life.
- Equipped with a dust-proof carrying case for protection and portability.

2. Product Overview

Familiarize yourself with the components and display of your LC-846A Anemometer.

Figure 2.1: LC-846A Anemometer Main Unit and Vane Probe with Dimensions

This image displays the main unit of the LC-846A Anemometer and its detachable vane probe, along with their respective dimensions. The main unit features a large LCD screen and control buttons, while the vane probe is connected via a coiled cable.

Figure 2.2: Air Volume Range Display

The anemometer's display shows the air volume range and other measurement specifications, highlighting its capability to measure various air parameters.

Figure 2.3: Button Functions

This image illustrates the various buttons on the LC-846A Anemometer and their corresponding functions, such as backlight control, MAX/MIN mode, unit switching, and data recording.

Figure 2.4: Battery Type and Extendable Wand

The image shows the 9V battery compartment and the extendable wand feature of the wind sensor, allowing for flexible positioning during measurements.

3. Setup

1. **Battery Installation:** Open the battery compartment cover on the back of the main unit. Insert one 9V (6F22) battery, ensuring correct polarity. Close the cover securely.
2. **Connect Vane Probe:** Connect the coiled cable from the vane probe to the USB port on the top of the main unit. Ensure the connection is firm.
3. **Extend Vane Probe (Optional):** The vane probe features an extendable wand. Gently pull the probe head away from the handle to extend it for reaching difficult areas. Push it back to retract for storage.
4. **Power On:** Press the **POWER ON/OFF** button to turn on the device. The LCD display will illuminate.

4. Operating Instructions

This section details the functions and operation of the LC-846A Anemometer.

Video 4.1: LYCEBELL 846A CFM Meter Overview

This video provides a visual guide to the LYCEBELL 846A CFM Meter, demonstrating its components,

assembly, and basic functions. It shows how to connect the probe, power on the device, and navigate through some of its settings.

1. **Power On/Off:** Press the **POWER ON/OFF** button to turn the device on or off. The device will automatically power off after a period of inactivity to save battery.
2. **Unit Selection:** Press the **UNIT** button to cycle through wind speed units: m/s, km/h, ft/min, knots, mph.
3. **Temperature Unit Selection:** Press the **°C/°F** button to switch between Celsius and Fahrenheit for temperature readings.
4. **MAX/MIN/AVG Mode:** Press the **MAX/MIN** button to view maximum, minimum, or average wind speed/air flow readings. Press again to cycle.
5. **Data Hold:** Press the **HOLD** button to freeze the current reading on the display. Press again to release.
6. **Backlight Control:** Press the **LIGHT** button to turn the LCD backlight on or off.
7. **Air Flow Area Setting:** To measure CFM, you must first input the duct's cross-sectional area. Press **SAMPLE AREA**, then use the arrow keys to adjust the value and **ENTER** to confirm.
8. **Data Recording:** Press **REC** to start recording data. The device can store up to 600 sets of measured values. Press **READ** to view recorded data.
9. **Wind Speed/Air Volume Toggle:** Use the **VEL/FLOW** button to switch between wind velocity and air volume (CFM) measurements.

Figure 4.1: Anemometer in Use for HVAC and Air Flow

This image demonstrates the LC-846A Anemometer being used in practical applications, such as measuring air flow in an HVAC system and balancing air in a large space.

5. Specifications

Specification	Value
Brand	LYCEBELL
Model	LC-846A
Item Dimensions (L x W x H)	6.41 x 3.34 x 1.36 inches
Item Weight	1.93 pounds
Wind Speed Range	0.001~100 mph (0.3~30 m/s)
Wind Speed Accuracy	+/- 3% +/- 0.2 reading
Wind Speed Resolution	0.001

Specification	Value
Air Flow Range (CFM)	0-999900 ft^3/min
Air Flow Area	0.001-9999 ft^2
Air Temperature Range	32.0-113.0 °F (0~45°C)
Data Storage	Up to 600 sets of measured values
Power Source	9V (6F22) Battery

6. Troubleshooting

- **Device does not power on:**
  - Check if the 9V battery is installed correctly with proper polarity.
  - Replace the battery if it is depleted.
- **Inaccurate readings:**
  - Ensure the vane probe is clean and free from obstructions.
  - Verify that the vane probe is securely connected to the main unit.
  - Confirm that the correct air flow area is set for CFM measurements.
  - Avoid taking measurements in turbulent air conditions.
- **Display is dim or unreadable:**
  - Activate the backlight by pressing the **LIGHT** button.
  - Check battery level; a low battery can cause a dim display. Replace if necessary.
- **Data recording issues:**
  - Ensure there is sufficient memory available for new recordings.
  - Follow the data recording steps precisely as outlined in the Operating Instructions.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents. Keep the vane probe free of dust and debris to ensure accurate readings.
- **Storage:** When not in use, store the anemometer in its protective carrying case in a cool, dry place, away from direct sunlight and extreme temperatures. Remove the battery if storing for extended periods to prevent leakage.
- **Battery Replacement:** Replace the 9V battery when the low battery indicator appears on the display or if the device fails to power on.

Figure 7.1: Protective Carrying Case

The anemometer comes with a durable, dust-proof carrying case for safe storage and transport, protecting the device from drops and bumps.

8. Warranty and Support

The LYCEBELL LC-846A Anemometer comes with a 12 Months Worry-Free Replacement warranty for any defective product due to the production process. For technical support, warranty claims, or any questions regarding your device, please do not hesitate to contact our friendly support team. Refer to the contact information provided with your purchase or visit the official LYCEBELL website for assistance.

9. Applicable Scenarios

The LC-846A Anemometer is suitable for a wide range of applications, including:

- Air flow balancing in HVAC systems.
- Testing dust collection systems.
- Environmental monitoring (meteorology).
- Outdoor activities such as sailing, hiking, and kite flying.
- Long-range shooting.

- Cooling diagnostics.