AOPUTTRIVER AP-856A

AOPUTTRIVER AP-856A Pro HVAC Anemometer Instruction Manual

Model: AP-856A

1. Introduction

The AOPUTTRIVER AP-856A Pro HVAC Anemometer is a professional handheld device designed for accurate measurement of wind speed, air velocity, temperature, and air flow (CFM/CMM). This instrument is ideal for HVAC system analysis, environmental monitoring, and various industrial applications. It features a large LCD display with backlight, data hold function, and USB connectivity for data transmission to a PC.

2. Key Features

- **High Precision Measurement:** Measures wind speed from 0.001 to 100 mph (0.001-45 m/s) with high accuracy.
- **CFM/CMM Functionality:** Calculates air flow (CFM/CMM) with adjustable area input.
- **Temperature Measurement:** Integrated temperature sensor (32-113°F).
- **Multiple Units:** Displays wind speed in m/s, km/h, ft/min, knots, and mph.
- **MAX/MIN/Current Readings:** Provides maximum, minimum, and current wind speed values.
- **USB Data Transmission:** Connects to PC via USB for data storage and analysis using included software.
- **Large Backlit LCD:** Ensures clear readability in various lighting conditions.
- **Data Hold Function:** Freezes the current reading on the display.
- **Auto Power Off:** Conserves battery life by automatically shutting down after 5 minutes of inactivity.
- **Stretchable and Adjustable Blades:** Flexible probe design for versatile measurements.

3. Package Contents

Upon opening the package, please verify that all items listed below are present and in good condition:

- AOPUTTRIVER AP-856A Pro CFM Anemometer (Main Unit and Vane Probe)
- Portable Carry Case
- 9V (6F22) Battery
- USB Cable
- CD with Software

- Instruction Manual
- Small Screwdriver

Image: The complete package contents of the AOPUTTRIVER AP-856A anemometer, neatly arranged. This includes the yellow main unit, the black vane probe with its coiled cable, a black hard-shell carry case, a 9V battery, a USB cable, a software CD, a printed instruction manual, and a small screwdriver.

4. Parts Identification

Familiarize yourself with the components and controls of your AP-856A anemometer:

Image: A detailed diagram illustrating the various parts and functions of the AP-856A anemometer. The main unit and the vane probe are clearly labeled with numbers corresponding to the list below.

1. LCD Display
2. Max/Min Value Switch (MAX/MIN button)
3. Power Key (VOL button)
4. Wind Velocity/Flow Transform Key (VEL/FLOW button)
5. Data Holding Key (HOLD button)
6. Unit Transform Key (UNIT button)
7. Data Record Key (REC button)
8. Measuring Key for Average Value of Wind Flow (START button)
9. Read Out Recorded Data Key (READ button)
10. Wind Flow AVG 2/3 MAX and Figure Input (OPTION/ENTER button)
11. Reset Key in "READ" Mode/Clear Recorded Data (RESET button)
12. Backlight On/Off Key (LIGHT button)
13. Temperature Unit Switch (℃/℉ button)
14. Duct Area Input and Sampling Time Setting Key (AREA button)

15. USB Interface
16. Connecting Wire (Coiled cable between main unit and probe)
17. Wind Velocity Sensors (Vane Probe)

5. Setup

5.1 Battery Installation

1. Locate the battery compartment cover on the back of the main unit.
2. Use the provided small screwdriver to loosen the screw on the battery cover.
3. Remove the cover.
4. Insert the included 9V (6F22) battery, ensuring correct polarity (+/-).
5. Replace the battery cover and tighten the screw.

5.2 Software Installation (for PC Connectivity)

To utilize the data transmission and analysis features, install the provided software on your computer:

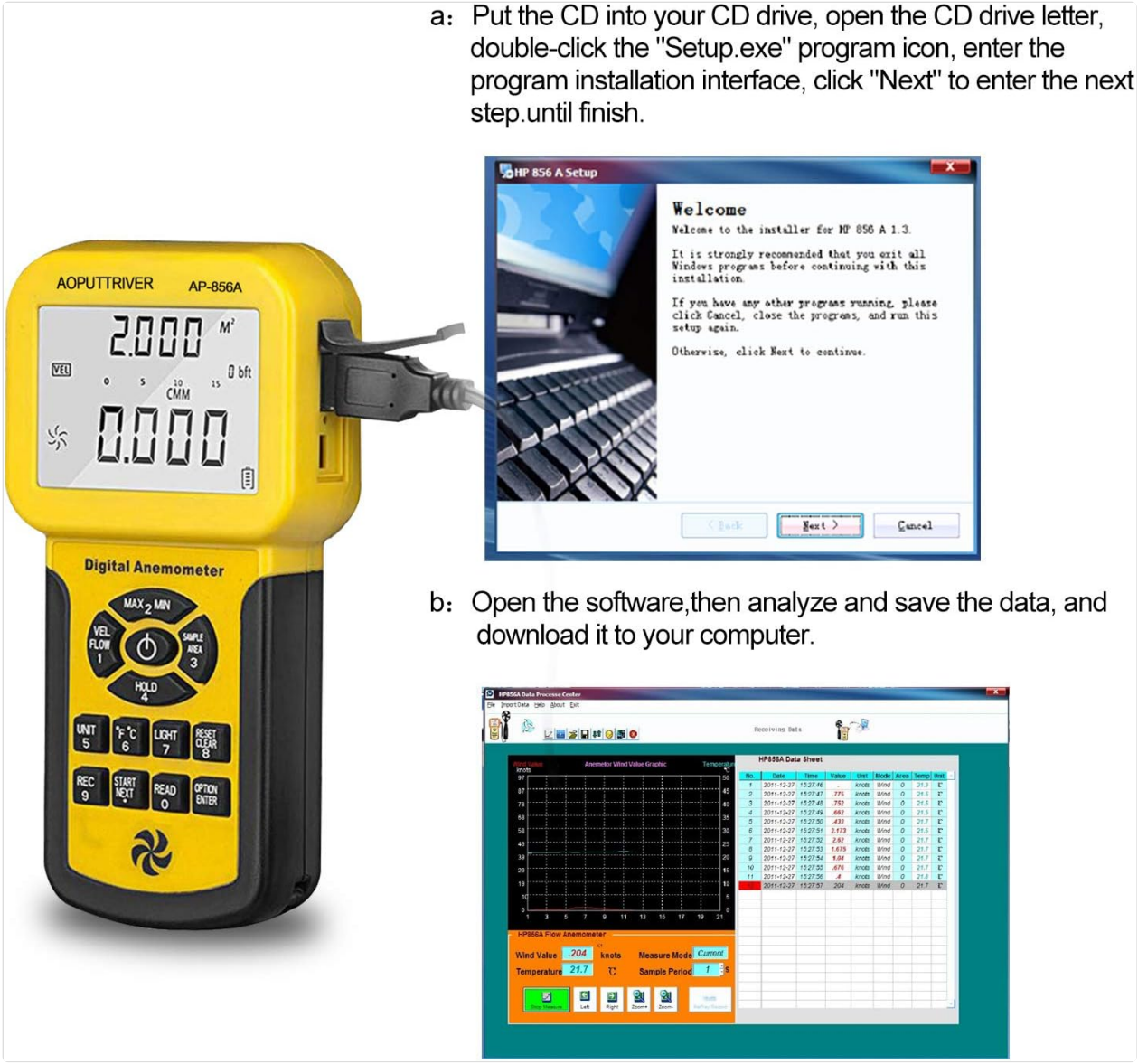


Image: This image displays two key steps for PC connectivity: (a) the software installation wizard, prompting the user to click 'Next' to proceed with the setup, and (b) the main interface of the data analysis software, showing a graph of wind values, measurement modes, and a table of recorded data.

1. Insert the provided CD into your computer's CD drive.
2. Open the CD drive letter and double-click the "Setup.exe" program icon.
3. Follow the on-screen instructions of the installation wizard. Click "Next" to proceed through the steps until the installation is complete.
4. Once installed, you can open the software to connect the anemometer via the USB cable (refer to Section 6.5 for data transmission).

6. Operation

6.1 Power On/Off

- Press the **VOL** button to turn the device on.
- To turn off, press and hold the **VOL** button, or allow the device to auto power off after 5 minutes of inactivity.

6.2 Wind Speed Measurement

The anemometer can measure wind speed in various units and display maximum, minimum, or current values.

Image: A table detailing the wind velocity measurement ranges, resolution, lowest start point, and accuracy for units including m/s, ft/min, knots, km/h, and mph. Below the table, the anemometer is shown in use, with a hand holding the vane probe to measure airflow.

- Ensure the vane probe is connected to the main unit.
- Point the vane probe directly into the airflow you wish to measure.
- The wind speed will be displayed on the LCD.
- Press the **UNIT** button to cycle through different units: m/s, km/h, ft/min, knots, mph.
- Press the **MAX/MIN** button to switch between Maximum, Minimum, and Current (real-time) wind speed readings.

6.3 CFM/CMM Air Flow Measurement

To measure air flow (CFM - Cubic Feet per Minute or CMM - Cubic Meters per Minute), you need to input the area of the duct or vent.

Wind Flow Range:
CMM: 0-999900m 3 /min
CFM: 0-999900 ft 3 /min

Unit	Range	Resolution
CMM(M 3 /MIN)	0-999900	0.001-100
CFM(FT 3 /MIN)	0-999900	0.001-100

How to measure the CFM?

Flow =velocity *(Free Area)

A: You can press the button of "UNIT"to choose the CFM

B: Then press the "AREA" key, and press the numbers keys to enter a new duct area,such as the number 1 or 2,and then press the "ENTER" key to confirm.

C: Put the stretchable vane to measure the air Velocity, and then you will get the CFM in the LCD display

Image: A visual guide on how to measure CFM. It shows the anemometer's display and buttons, with text steps explaining to press 'UNIT' for CFM, then 'AREA' to input duct dimensions, and finally to place the vane probe to measure air velocity, which then calculates and displays the CFM.

1. Press the **UNIT** button repeatedly until "CFM" or "CMM" is displayed.
2. Press the **AREA** key. The display will prompt for area input.
3. Use the number keys (0-9) to enter the duct or vent area (e.g., 1 for 1 ft^2, 2 for 2 ft^2).
4. Press the **ENTER** key to confirm the area input.

5. Position the stretchable vane probe in the airflow path. The device will measure the air velocity and automatically calculate and display the CFM/CMM value.

6.4 Other Functions

- **Data Hold:** Press the **HOLD** button to freeze the current reading on the display. Press again to release.
- **Backlight:** Press the **LIGHT** button to turn the LCD backlight on. Press again to turn it off.
- **Temperature Unit Switch:** Press the **°C/°F** button to switch between Celsius and Fahrenheit temperature units.
- **Data Record:** Press the **REC** button to start recording data. Press **START** to save the current reading. Press **READ** to view recorded data. Press **RESET** to clear recorded data.

6.5 USB Data Transmission

The AP-856A allows you to connect to a PC to store and analyze measurement data.

- Ensure the software is installed on your PC (refer to Section 5.2).
- Connect the anemometer to your PC using the provided USB cable. The USB interface is located on the side of the main unit.
- Open the installed software on your computer.
- Within the software, you can initiate data transfer, view real-time measurements, and analyze recorded data. Refer to the software's help documentation for detailed instructions on its features.

7. Specifications

Parameter	Value
Brand	AOPUTTRIVER
Model Number	AP-856A
Wind Speed Range	0.001~100 mph (0.001-45 m/s)
Wind Speed Accuracy	+/- 3%+0.2 rdg (mph), +/- 3%+0.1 rdg (m/s)
Wind Speed Resolution	0.001 mph / 0.001 m/s
Temperature Range	32-113℉ (0-45℃)
CFM/CMM Range	0-999900 ft^3/min (CFM), 0-999900 m^3/min (CMM)
CFM/CMM Resolution	0.001-100
Wind Flow Area Input	0.001-9999 ft^2
Power Supply	1 x 9V (6F22) Battery (included)
Auto Power Off	After 5 minutes of inactivity
Material	Acrylonitrile Butadiene Styrene (ABS)
Item Dimensions (L x W x H)	8.2 x 2.8 x 11.06 inches (20.8 x 7.1 x 28.1 cm)
Item Weight	11.3 ounces (320 grams)

Parameter	Value
USB Cable Length	79 inches (approx. 2 meters)

8. Maintenance

8.1 Cleaning

- Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- Keep the vane probe clean and free from dust or debris to ensure accurate readings.

8.2 Battery Replacement

When the low power indicator appears on the LCD, replace the 9V battery promptly to ensure continued accurate operation. Follow the battery installation steps in Section 5.1.

8.3 Storage

When not in use for extended periods, remove the battery to prevent leakage. Store the anemometer in its portable carry case in a cool, dry environment, away from direct sunlight and extreme temperatures.

Image: A person in work overalls is shown carrying the AP-856A anemometer's portable black hard case by its handle, demonstrating its ease of transport and protection for the device.

9. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Battery is dead or incorrectly installed.	Check battery polarity. Replace with a new 9V battery.
Inaccurate wind speed readings.	Vane probe is obstructed or dirty; Vane is not perpendicular to airflow; Low battery.	Clean the vane. Ensure the vane is directly facing the airflow. Replace battery if low.

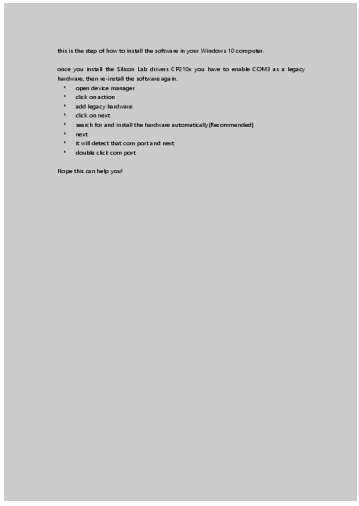
Problem	Possible Cause	Solution
CFM/CMM readings are incorrect.	Incorrect area input; Vane not properly positioned.	Verify the entered duct area. Ensure the vane is placed correctly within the airflow.
USB data transmission not working / Software issues.	Software not installed correctly; USB cable faulty; Driver issues; Incompatibility with OS.	Reinstall the software from the provided CD. Try a different USB port or cable. Check device manager for driver issues. Ensure your operating system meets software requirements. Contact customer support if issues persist.
Backlight not working.	Low battery; Malfunction.	Replace the battery. If the issue persists, contact customer support.

10. Warranty and Support

AOPUTTRIVER provides 2-Years Technical Support for the AP-856A Pro HVAC Anemometer. If you encounter any problems with your product, require technical assistance, or have questions regarding its operation, please do not hesitate to contact AOPUTTRIVER customer support. Please refer to the contact information provided on the product packaging or the official AOPUTTRIVER website for the most current support channels.
For optimal performance and longevity of your device, please adhere to the instructions and maintenance guidelines provided in this manual.

Related Documents

	AOPUTTRIVER AP-570C-APP Bluetooth Connection Guide Step-by-step instructions for connecting the AOPUTTRIVER AP-570C-APP clamp meter to your smartphone via Bluetooth. Includes troubleshooting tips for a seamless setup.
	Quick Start Guide - AOPUTTRIVER Infrared Thermometer AP-2732 Get started quickly with your AOPUTTRIVER Infrared Thermometer (AP-2732). This guide covers battery installation, basic operation, and understanding the display readings for models like the AP-2732.



this is the step of how to install the software in your Windows 10 computer.

once you install the Silicon Lab drivers CP10x you have to enable COM3 as a legacy hardware, then re-install the software again.

- open device manager
- click on action
- add legacy hardware
- click on next
- search for and install the hardware automatically (Recommended)
- next
- it will detect that com port and next
- double click com port

Hope this can help you!

[pdf] Installation Guide Guide

User guide AOPUTTRIVER AP 856A Pro CFM Anemometer Handheld Wind Speed Meter HVAC with Backlight Max Min Avg Functions for Measuring Air Velocity Temperature Flow Patio Lawn Garden 51mbvHkwCUL m media amazon images I |||

this is the step of how to install the software in your Windows 10 computer once you install the Silicon Lab drivers CP210x you have to enable COM3 as a legacy hardware, then re-install the software again. * open device manager * click on action * add legacy hardware * click on next * search for and...

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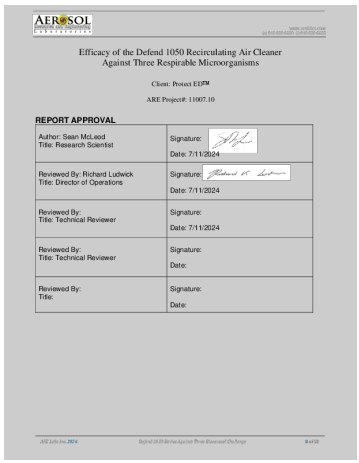

AEROSOL RESEARCH LABORATORIES

Efficacy of the Defend 1050 Recirculating Air Cleaner
Against Three Respirable Microorganisms

Client: Protect EIPM

ARE Project#: 11007.10

REPORT APPROVAL

Author: Sean McLeod Title: Research Scientist	Signature: Date: 7/11/2024
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www.arelabs.com p 913-850-6630 f 913-850-6635 Efficacy of the Defend 1050 Recirculating Air Clea ... on the test device when set to Speed 5 by measuring with a handheld digital anemometer AOPUTTRIVER **AP-856A** . The average of 6 location linear flow rates and the total area the air passes through were...

lang:en score:7 filesize: 1.67 M page_count: 31 document date: 2024-09-17