

Fluke FLUKE-805

Fluke 805 Vibration Meter Instruction Manual

Brand: Fluke | Model: 805 (FLUKE-805)

INTRODUCTION

The Fluke 805 Vibration Meter is a precision instrument designed to simplify vibration screening and provide reliable measurements for critical maintenance decisions. Unlike a simple vibration pen, this meter offers comprehensive data to assess machine health.

Key capabilities include overall vibration measurement (10 Hz to 1,000 Hz) for acceleration, velocity, and displacement, as well as Crest Factor+ for reliable bearing assessment (4,000 Hz to 20,000 Hz). It features a colored lighting system for pressure indication, an infrared temperature sensor, on-board memory for up to 3500 measurements, audio output for bearing tones, and external accelerometer support for hard-to-reach areas.



Figure 1: Front view of the Fluke 805 Vibration Meter, displaying measurement data and control buttons.

Battery Installation

The Fluke 805 Vibration Meter operates on two AA lithium iron disulfide batteries, which are included with the device. To install or replace batteries:

1. Locate the battery compartment cover on the back of the device.
2. Open the cover and insert two AA batteries, ensuring correct polarity (+/-).
3. Close the battery compartment cover securely.

A full set of batteries provides approximately 250 measurements.

Initial Power On

Press the power button (labeled with a circle and vertical line) to turn on the device. The high-resolution screen will illuminate, displaying the main measurement interface.

OPERATING THE FLUKE 805 VIBRATION METER

Taking Measurements

The Fluke 805 simplifies vibration analysis with its intuitive operation. Follow these steps to take a measurement:

1. Ensure the device is powered on.
2. Select the desired measurement mode (e.g., Overall Vibration, CF+) using the navigation buttons.
3. Place the sensor tip firmly against the equipment surface at the desired measurement point.
4. Press the **MEASURE** button. The colored lighting system (green for sufficient pressure, red for insufficient pressure) will guide you to apply the correct contact force.
5. Hold steady until the measurement is complete and the results are displayed on the screen.

The meter provides overall vibration measurements (10 Hz to 1,000 Hz) in acceleration, velocity, and displacement units. For bearing assessment, the Crest Factor+ function measures between 4,000 Hz and 20,000 Hz.

Interpreting Results

The Fluke 805 provides a four-level severity scale to indicate the condition of overall vibration and bearing health. This allows for quick assessment of equipment status (e.g., Good, Needs Attention).

The integrated infrared temperature sensor also provides temperature readings, enhancing diagnostic capabilities.

Data Management

The device has on-board memory capable of holding up to 3500 measurements. Data can be exported via USB for further analysis and trending in Microsoft Excel using built-in templates.

For hard-to-reach locations, an external accelerometer can be connected. The built-in flashlight assists in viewing measurement locations in dark environments.

Demonstration Video: A Day in the life of a Fluke 805 Vibration Meter

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This video demonstrates the practical application of the Fluke 805 Vibration Meter in various industrial settings, showcasing its ease of use and the immediate feedback it provides for maintenance professionals.

Informational Video: What Are The Differences Between The Fluke 805 And 810

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This video provides a comparative overview of the Fluke 805 and Fluke 810 vibration meters, highlighting their respective features and ideal applications to help users understand the differences.

MAINTENANCE

Cleaning and Storage

To ensure the longevity and accuracy of your Fluke 805 Vibration Meter, follow these maintenance guidelines:

- Wipe the device with a damp cloth and mild detergent. Do not use abrasive cleaners or solvents.
- Ensure the sensor tip is clean and free of debris before and after each use.
- Store the meter in a dry, cool environment, away from direct sunlight and extreme temperatures.

Battery Replacement

When the battery indicator shows low power, replace both AA batteries promptly to maintain optimal performance. Refer to the "Battery Installation" section under Setup for detailed instructions.

TROUBLESHOOTING

If you encounter issues with your Fluke 805 Vibration Meter, consider the following common troubleshooting steps:

- **No Power/Device Not Turning On:** Check battery installation and ensure batteries are fresh. Replace if necessary.
- **Inaccurate Readings:** Ensure the sensor tip is clean and making firm, consistent contact with the measurement surface. Verify that the correct measurement mode is selected.
- **Display Issues:** If the screen is unresponsive or shows errors, try removing and reinserting the batteries to perform a soft reset.
- **Data Transfer Problems:** Ensure the USB cable is securely connected to both the meter and the computer. Verify that the necessary software or drivers are installed on your computer.

For persistent issues not resolved by these steps, please contact Fluke customer support.

SPECIFICATIONS

Attribute	Value
Brand	Fluke
Model Number	FLUKE-805
Measurement Type	Vibration Meter
Low Frequency Range (Overall)	10 to 1,000 Hz
High Frequency Range (CF+)	4,000 to 20,000 Hz
Vibration Limit	50 g peak (100 g peak-peak)
A/D Converter	16-bit
Signal to Noise Ratio	80 dB
Sampling Rate (Low Frequency)	20,000 Hz
Sampling Rate (High Frequency)	80,000 Hz
Power Source	Battery Powered (2 AA Lithium Iron Disulfide)

Battery Life	250 measurements
On-board Memory	Up to 3500 measurements
Dimensions (L x W x H)	9.49 x 2.8 x 2.28 inches
Item Weight	2.54 pounds (1.16 Kilograms)
Color	Yellow
Min. Operating Voltage	3 Volts
Upper Temperature Rating	392 Degrees Fahrenheit

WARRANTY AND SUPPORT



For detailed warranty information, please refer to the official documentation provided with your Fluke 805 Vibration Meter or visit the official Fluke website. Warranty terms and conditions may vary by region.

For technical support, service, or inquiries, please contact Fluke customer service through their official channels. Contact information can typically be found on the Fluke website or in the product packaging.



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Related Documents - FLUKE-805

	<p>Fluke 805 Vibration Meter Technical Data and Specifications</p> <p>Detailed technical data, specifications, features, and applications for the Fluke 805 Vibration Meter, a reliable device for checking bearings and overall vibration in industrial machinery.</p>
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