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› SEAFRONT SW512B Digital Differential Pressure Gauge User Manual

SEAFRONT SW512B

SEAFRONT SW512B Digital Differential Pressure Gauge User Manual

Model: SW512B

1. PRODUCT OVERVIEW

The SEAFRONT SW512B Digital Differential Pressure Gauge is a high-precision instrument designed for measuring differential pressure, positive pressure, and negative pressure. It is an essential tool for technicians in air conditioning and ventilation, maintenance researchers, and scientists.

This device is suitable for use in various applications, including verifying air conditioning and ventilation systems, on-site checks in clean rooms, and maintaining gas pressure systems.



Image 1.1: Front view of the SEAFRONT SW512B Digital Differential Pressure Gauge, showing the display and control buttons.

2. PACKAGE CONTENTS

Upon opening the package, please verify that all the following items are included:

- 1 × Digital Differential Pressure Gauge (SW512B)
- 1 × User Manual
- 1 × Print Head (Note: This might refer to a specific accessory or connection point, as no printer is included)
- 4 × Transparent Tubes
- 1 × Carrying Bag



Image 2.1: The SW512B Digital Differential Pressure Gauge shown with its included accessories: transparent tubes and carrying bag.

3. SPECIFICATIONS

Parameter	Value
Model	SW512B
Measurement Range	± 13.79 kPa
Accuracy	$\pm 0.3\%$ Fs
Linearity / Hysteresis	$\pm 0.1\%$ Fs
Maximum Pressure Limit	30 kPa
Repeatability	$\pm 0.25\%$ Fs

Parameter	Value
Pressure Fitting	1/8" (3.18 mm) Quick Coupling Plunger
Operating Temperature / Humidity	0°C - 40°C / 10% - 80% RH
Storage Temperature / Humidity	-10°C - 60°C / 10% - 70% RH
Over-range Warning	Err1 or Err2
Power Supply	3 × 1.5V AAA Batteries (not included)
Weight (approx.)	341 g
Product Dimensions (L x W x H)	10 x 10 x 10 cm
Material	Plastic
UPC	746771793115

4. SETUP

4.1. Battery Installation

The SW512B requires 3 AAA batteries (not included). Follow these steps to install them:

1. Locate the battery compartment cover on the back of the device.
2. Slide the cover downwards or unclip it to open.
3. Insert 3 AAA batteries, ensuring the correct polarity (+/-) as indicated inside the compartment.
4. Replace the battery compartment cover, ensuring it clicks securely into place.



Image 4.1: View of the open battery compartment on the back of the SW512B, showing the slots for three AAA batteries.

4.2. Connecting Pressure Tubes

The device features two pressure ports at the top for differential pressure measurement. Use the provided transparent tubes to connect to the pressure source:

1. Identify the two 1/8" (3.18 mm) quick coupling plungers at the top of the device.
2. Gently push one end of a transparent tube onto each plunger until it is securely fitted.
3. Connect the other ends of the tubes to the points where pressure needs to be measured. Ensure proper connection for accurate readings.

5. OPERATING INSTRUCTIONS

Familiarize yourself with the device's buttons and their functions before operation.



Image 5.1: Close-up view of the SW512B's control panel, indicating the function of each button: Backlight, Unit, Zero, On-Off, Record, DIF (Difference), and Hold.

5.1. Power On/Off

- To power on the device, press the **On-Off** button (red power icon) located at the bottom left of the control panel.
- To power off the device, press and hold the **On-Off** button until the display turns off.

5.2. Zeroing the Reading

Before taking a measurement, it is recommended to zero the device to ensure accuracy, especially for differential pressure measurements.

- Ensure no pressure is applied to the ports.
- Press the **ZERO** button. The display should show '0.000' or very close to zero.

5.3. Changing Measurement Units

The device supports multiple pressure units.

- Press the **UNIT** button to cycle through available measurement units (e.g., kPa, psi, bar, mmHg, etc.).
- The selected unit will be displayed on the screen.

5.4. Data Hold Function

To freeze the current reading on the display:

- Press the **HOLD** button. The current reading will be held on the display.
- Press the **HOLD** button again to release the hold and resume live readings.

5.5. Differential Measurement (DIF)

The **DIF** button is used for differential pressure measurements, comparing two pressure inputs.

- Connect the pressure sources to the two ports.
- Press the **DIF** button to activate differential measurement mode. The display will show the difference between the two inputs.
- Press **DIF** again to exit this mode.

5.6. Backlight Control

For improved visibility in low-light conditions:

- Press the **Backlight** button (light bulb icon) to turn the display backlight on or off.

5.7. Record Function

The device may have a record function to store readings. Refer to the specific on-screen prompts for detailed usage.

- Press the **Record** button (document icon) to initiate or manage data recording.

6. MAINTENANCE

6.1. Cleaning the Device

- Wipe the device with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Ensure no liquid enters the pressure ports or battery compartment.

6.2. Battery Replacement

Replace batteries when the low battery indicator appears on the display or when the device fails to power on. Refer to Section 4.1 for battery installation steps.

6.3. Storage

- When not in use for extended periods, remove the batteries to prevent leakage.
- Store the device in its carrying bag in a cool, dry place, away from direct sunlight and extreme temperatures.

7. TROUBLESHOOTING

Problem	Solution
Device does not power on.	Check battery installation and ensure batteries are new and correctly oriented. Replace batteries if necessary.
Display shows "Err1" or "Err2".	These codes indicate an over-range condition. The applied pressure exceeds the maximum limit of ± 13.79 kPa or 30 kPa. Remove excessive pressure immediately.

Problem	Solution
Inaccurate readings.	Ensure the device has been zeroed before measurement. Check for proper connection of pressure tubes and ensure there are no leaks. Verify the correct measurement unit is selected.
Display is dim or flickering.	This may indicate low battery power. Replace the batteries.

8. SUPPORT AND WARRANTY

Your satisfaction is our priority. While specific warranty details are not provided in this manual, SEAFRONT is committed to providing high-quality products and customer support.

If you encounter any quality issues with your product or are not satisfied with your purchase, please contact the seller or SEAFRONT customer service. We are always ready to assist you with any concerns or questions regarding the SW512B Digital Differential Pressure Gauge.

For further assistance, please refer to the contact information provided with your purchase or visit the official SEAFRONT brand store on Amazon: [SEAFRONT Store](#).

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

