PressurePro TM

Differential Pressure Recorder

Manual

The PressurePro is our groundbreaking and patent-pending line of differential pressure recorders (manometers).

The PressurePro's capabilities include:

- NIST Certificate of Accuracy
- The 4.3" Color LCD with capacitive touchscreen is the best screen in the industry.
- Advanced Pressure assist feature helps maintain negative air pressure in difficult environments
- Printer can be replaced in minutes
- Optional Spanish language operation with a simple language selection
- 16MB of internal data storage provides space for over 2 years of logs
- Large window for viewing with the lid closed
- Easy load printer paper
- International power supply, 85-240 VAC 50-60Hz 15A max
- Easy and intuitive user interface

Unpacking

The PressurePro arrives fully assembled and prepared for immediate use. Upon opening the package, kindly inspect for the following components:

• 10 ft. inlet pressure tubing

• Power Cable (6 ft.) with a 90 degree up for ease of use

• 4 rolls of thermal paper

• Owner Manual

• NIST Certificate of Accuracy

Retain both the shipping box and its packing materials for potential future shipments or servicing needs. Should any items listed on the packing slip be absent or if you have inquiries about your PressurePro, please contact your dealer or Adaptive Manometer Systems Inc. at (888) 985-3955. Completing and returning the Registration Card is required to activate the 12-month limited warranty.

PressurePro Features

- Real-time differential monitoring of containment pressure level
- Innovative user interface
- Logs years' worth of jobs. Stores each job with unique job name, address, and starting/ending dates.
- Programmable high and low alarm settings
- Large window in the case lid allows viewing pressure reading and monitoring status with lid closed to prevent damage to unit
- Touchscreen controls that are incredibly user-friendly and simple to configure
- The internal memory retains data indefinitely, providing a comprehensive record of operations that can be printed or transferred to a computer
- A completely self-contained manometer with all essential components can be securely stored in the case
- Internal rechargeable 1800mAh Polymer Li-ion type battery provides 5-6 hours of portable operation
- The accuracy of pressure measurements under various job site conditions is guaranteed through temperature compensation circuitry
- Pressure readings are displayed in Inches WC
- USB Type A port supports USB flash drives
- Audible and visual alarm systems
- Operating temperature range 32°-113°F on battery power and -4°-140°F on AC power
- 85 - 240VAC, 50-60 Hz, power supply operation (1OW max)
- QR code takes you directly to the online owner's manual

Pressure Settings

All pressure settings on the PressurePro are adjusted in units of negative air pressure. Pressing the "+" button on a pressure setting will *increase* the negative air pressure setting. Pressing the "−" button will *decrease* the negative air pressure setting. This is intuitive for most negative air pressure uses. However, in positive pressure applications, operation requires counterintuitive adjustments. To *increase* an air pressure setting in a positive pressure application, the "-" button should be pressed. To *decrease* pressure settings on a positive pressure application, the "+" button should be pressed.

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Section 1: Basic Care

The PressurePro has been meticulously designed and crafted to offer you reliable performance for an extended period. By adhering to these fundamental principles, you can guarantee that you extract the most value from your PressurePro. Once the device is configured, its operation in the field becomes straightforward. Comprehensive reports offer thorough documentation of your worksite conditions.

- Do not close items onto the screen when closing the case (e.g. the power cord hose, extra paper, etc.).
- Ensure that you connect your PressurePro to a power source that adheres to the standards set by the National Electrical Code. Keep all connections dry. As is the case with any electrical appliance, this unit possesses the potential to pose an electrical shock risk.
- Use only PressurePro thermal printer paper.
- Ensure that the device is kept away from extreme temperatures, dust, and moisture.
- To safeguard the PressurePro from potential harm while it is in operation, make sure to shut the lid. Additionally, pass the pressure tubing and power cord through the designated slot located on the side of the case.
- Do not make attempt repair or alter the unit's internal components.
- Be sure the lid is securely closed whenever transporting or hanging the unit
- Pressure Assist feature is only available under AC power; it will not operate under battery power. Only plug negative air machines in safe operating condition into the Pressure Assist outlet.; do not plug anything else into this outlet.
- Do not change pressure settings to keep Pressure Assist permanently energized.
- This device is specifically engineered for the measurement of differential pressure within the range of +0.250" to -0.250" WC. Warning: Do not attempt to apply pressure to any port using your mouth or any other high-pressure apparatus, as it will result in permanent damage to the sensor.
- When sending your unit to another location or for service at any point in time, make sure to utilize the original packaging materials and shipping box to ensure the best possible protection during transportation.
- Always protect your PressurePro from strong shocks or vibrations

Troubleshooting

- **The PressurePro will not power on.** 1. Check that the PressurePro is plugged into an operational 120v AC outlet . If 120v AC power is being supplied to the PressurePro 2. Unplug from AC power. Then unplug the power cord from the PressurePro. Check the fuse located inside the power cord connecter. If the fuse is blown a spare 20A slow blow replacement fuse is also in the connecter. Replace the fuse.
- **The Pressure Assist Outlet Does Not Work.** 1. Check that and a job is running.   2. Check that the Pressure Assist toggle is set to 'ON'. 3. Check the outlet GFCI.

Section 2: Setup

This section explains usage of your PressurePro manometer.

1. Locate a secure location for the PressurePro device outside the containment area, and then connect the power cord to an AC power outlet.
2. Attach one end of the tubing to the brass barb labeled 'Hose.'
3. Ensure that the opposite end of the pressure tubing is firmly fastened within the containment area and away from the entrance and negative air machines.
4. Press the 'Power' button to turn on the PressurePro.
5. Press 'Start' icon.
6. Touch START JOB at the top of the screen to begin a new job. On the next screen, enter a job name, then touch the check mark in the bottom right, then touch NEXT.
7. Enter a job address then touch the check mark on the bottom right, then touch START JOB.
8. If needed, check alarm settings by touching the settings icon and then the alarm icon. Adjust as needed by touching the arrows to change the value up or down.

After commencing a job, the status will remain in an alarmed state until the containment pressure falls within the normal operating range, which is defined as a pressure reading between the alarm settings.

Once the appropriate pressure level is attained, the system will transition into the NORMAL RANGE status, and a green screen will signal that the PressurePro has entered its standard operational mode. Logging and printing of pressure readings commence upon job initiation. While in regular operation, pressure readings will be recorded in memory and printed with timestamps every 30 minutes, unless a different logging interval is selected.
Should the monitored pressure deviate from the specified operational range, the unit will trigger an alarm mode, accompanied by an audible alarm, a shift in status to ">>ALARM<<," and the display of a red screen. The frequency of pressure reading logging and printing will also be adjusted to a two-minute interval unless a different logging rate is selected.

Hanging the PressurePro

You can mount the PressurePro on a wall to make it easily visible and keep it safe from potential damage on the floor. By hanging it using the handle, you can close the cover, safeguarding the unit from water damage while still being able to see the monitoring screen through the window on the cover. Make sure to guide the pressure tubing and AC cord through the slot in the case before securely latching the cover closed to prevent any harm to the unit. Please exercise caution and only hang the PressurePro from a strong, reliable hook to avoid any potential accidents that could harm the unit and affect pressure readings.

Loading the PressurePro Thermal Printer Paper

Caution: Only use PressurePro Thermal Printer Paper.

Thermal paper is designed to print on just one side. When the paper roll is improperly installed, the printer can feed the paper forward, but it won't be able to print.

1. Place the paper roll into the printer with the loose end of the paper roll closest to the bottom of the manometer.
2. Ensure that the thermal printing paper extends out of the printer and then close the printer.

Maximum hose length:

The maximum permissible hose length for a 5mm ID hose is 75 feet. Going beyond this length may result in a reduction in reading accuracy. Please exercise caution: ensure there are no kinks or abrupt bends anywhere in the tubing, as any obstructions could hinder the precise measurement of pressure within the containment area.

Other start up Notes:

To activate the PressurePro manometer, connect its power cord to a standard wall outlet with a voltage of 115 VAC and a frequency of 50-60 Hz. Afterward, simply press the power button. When you initially power up a new PressurePro unit, it will start with factory-default settings.

Starting/Ending A Job:

Initiating the START JOB command will not delete any existing job logs or modify any other configurations, including the Alarm settings. You can request a printout of the log from the previous job whenever needed.

To start a new job

1. If PressurePro is not currently running a job, the status on the Home screen will display "START JOB" at the top. Touch START JOB,
2. To enter a new Job Name, click in the Job Name box, type desired Job Name, when done entering press the check mark in the lower right-hand corner, if the Job Name is correct, Press Next.
3. To enter a new Job Address, click in the Job Address box, type desired Job Address, when done entering press the check mark in the lower right-hand corner, if the Job Address is correct, Press Start Job.

To end the current job

1. From the Home screen, touch the End Job icon in the upper right-hand corner.
2. Then confirm you want to end the job by touching Yes.

After PressurePro starts monitoring a job, if the pressure is not in the designated range, it will display in alarm status until the containment pressure falls within the designated operating range. The system will also record and print the Job Name, current pressure, timestamp, and address. Don't forget to verify that *Alarm 1* and *Alarm 2* settings align with your job site needs.

Pressure Assist Outlet (PAO)

Adaptive Manometer Systems Inc's innovative patent pending Pressure Assist Outlet is designed to assist with pressure regulation in difficult environments.

The Pressure Assist Outlet is useful:

- On windy days.
- When personnel are entering/exiting the work area.
- When waste or equipment is being moved into or out of the work area.
- In case of containment element failure.
- During abatement and removal activities that open new air pathways.

To turn on or off the Pressure Assist Outlet simply touch the PRESSURE ASSIST toggle. The FAN icon on the bottom right of the home screen will display a fan icon for on, or a fan icon crossed out with a red X for off.

The pressure Assist feature is factory set to turn the Pressure Assist Outlet at -0.022 inch WC. The pressure assist feature will turn off the Pressure Assist outlet at -0.040 inch WC.

Pressure Assist Outlet Settings: To change the PAO settings.
- Touch the SETTINGS icon on the home screen.
- Touch the PRESSURE ASSIST icon.
- To change lower threshold or upper threshold settings, tap the decimal value to be changed.
- Press the + or – icon to raise or lower the value.
- New values are saved when you press done.
- Touch done or cancel to return to the settings screen.

The negative air machine connected to the Pressure Assist Outlet should be no larger than 2000cfm and should be initially set to low or medium fan speed. The negative air machine should be exhausted to the outside with layflat ducting. The layflat ducting should extend at least 5 feet outside and should be installed in a manner that allows it fall loosely. This 'fall' of the layflat ducting helps prevent backflow of the negative air machine connected to the pressure assist outlet.

DO NOT PLUG ANYTHING OTHER THAN A NEGATIVE AIR MACHINE INTO THE PRESSURE ASSIST OUTLET!

Alarm Settings Screen

Alarm 1: Upper limit of operating window. (default is -0.020" WC) Alarm 2: Lower limit of operating window. (default is -0.040" WC) The PressurePro can be used in both positive and negative pressure monitoring applications.

- Negative Pressure Application -- Asbestos or lead abatement settings: Alarm 1 setting -0.020" WC, Alarm 2 setting -0.050" WC
- Positive Pressure Application -- Clean room or HVAC system settings: Alarm 1 setting +0.050" WC, Alarm 2 setting +0.020" WC

To change the alarm settings

- Touch the SETTINGS icon on the home screen.
- Touch the Alarm icon.
- To change Alarm 1 or Alarm 2 settings, tap the decimal value to be changed.
- Press the + or – icon to raise or lower the value.
- New values are saved when you press done.
- Touch done or cancel to return to the settings screen.

If the containment pressure rises or falls out of the operating window, the following will occur:

1. Internal alarm will sound and will remain active until the alarm is muted by touching the alarm toggle icon or NORMAL RANGE is reached. If touched, the alarm toggle icon on the Home screen will change the alarm icon to show a red X to indicate it is muted. Once the alarm condition is over and the PressurePro returns to Normal operation, the alarm will automatically re-arm.
2. As the pressure moves outside the operating window (set in Alarm settings), the alarm will sound, and a red screen will appear around the pressure reading, and the status will change to >>ALARM<<.
3. The PressurePro will log & print the alarm and the current pressure. The printing Rate will increase to the Alarm Condition rate. Pressure readings will be time-stamped as they are saved and printed. When the containment pressure returns to within the normal operating window, the PressurePro will log and print NORMAL RANGE with a time-stamp. The screen border will change back to green, and the status will indicate NORMAL Range.

The Alarm 1 & Alarm 2 settings may need to be adjusted for each Job's requirements. For asbestos removal, the Alarm 1 & Alarm 2 settings should be in negative units when used to monitor a negative (vacuum) containment area. For positive pressure applications, use positive units for the Alarm settings. Note: If the PressurePro was actively monitoring a Job when it was turned off, it will automatically resume monitoring the current Job. POWER OFF followed by the time-stamp will print. Otherwise, AC MODE or POWER FAIL will print.

Printer Settings & Reports Screen:

The PressurePro maintains a log of all recorded data and alarm messages. The current job or any previous job logs still in data storage can be printed at any time. Note: The icon indicates that the printer is disabled while it is powered by the battery. Plug the AC cord of the PressurePro into an electrical outlet to re-enable the printer.

To view or print a Job Log

1. Touch the settings icon at the Home screen, then press the MANAGE DATA icon to go to the Data screen.
2. Select the job to be printed and press print.

Printer Replacement:

Use only official PressurePro printers. Other thermal printers will not function correctly and may damage the unit.

1. Unplug the unit from AC power.
2. Turn the unit off.
3. Unscrew all 4 screws from the printer mounting plate.
4. Lift off the printer mounting plate and gently lift the printer out of the unit.
5. Gently wiggle the wire harness connector loose from the printer.
6. Plug the wire harness into a new PressurePro printer.
7. Place the printer back into the unit, replace the mounting plate and screws.
8. **Do not over tighten or use power tools!**

Date and time settings:

1. Touch the settings icon at the Home screen, then press the DATE & TIME icon to go to the date and time screen.
2. To set the date, simply touch the text indicating the time, date, day, or year. The value can be scrolled up or down and will change when tapped. Once the desired value is shown, touch done to save and return to the setting screen..

Log Rates:

The logging and printing of pressure readings begin once a job is started. The data logging rate matches the printer settings. To change the Log Rates --

1. Go to the General Settings screen by touching the icon in the Home screen, then touch PRINTER.
2. Both the ALARM state setting and NORMAL RANGE setting can be changed.
3. The decimal value to be changed should be tapped on and then change by tapping the + or - icons.
4. Once the desired value is shown, click DONE to return to the setting screen.

Zero Calibration:

Calibration is not needed for the PressurePro between jobs. Its exceptional accuracy is maintained across a temperature range of 30°F to 130°F through internal temperature compensation and other circuitry. Please be aware that the PressurePro emits a gentle clicking noise as it periodically compensates for zero offset drift caused by variations in barometric (atmospheric) pressure and temperature. We suggest performing annual NIST calibration verification for optimal performance.

To manually reset calibration

1. Disconnect the pressure tubing from both inlet nozzles.
2. From the Home screen, touch the setting icon.
3. From the settings screen, touch the Calibration icon.
4. Touch BEGIN.
5. When the calibration is complete, the screen will display the new calibrated pressure.
6. To return to the settings screen, simply tap the "accept" button. Please keep in mind that it's important to let the PressurePro warm up for 30 minutes before performing a zero calibration. This allows the pressure sensor to stabilize its measurements. Remember that zero calibration can only be conducted when the pressure tubing is disconnected from the manometer.

USB Flash Drive:

The USB port on the PressurePro enables personnel to collect job logs directly at the job site or back at the office by using a USB flash drive. The USB flash port works with all common pHat 32 USB flash drives. These logs can be reviewed on a PC by utilizing any text viewing program such as Note or Word.

Loading Job Logs to a USB Flash Drive:

The Job Logs that are stored in the PressurePro's memory are transferred as a unified log file onto a USB Flash Drive.

To transfer Job Logs

1. The PressurePro must be turned on and on the Home screen.
2. Plug the USB Flash Drive into the USB port on the PressurePro. The flash drive icon should appear, and the PressurePro. Press the setting icon and the data icon. Select the job or jobs to be downloaded and press download. This could take several minutes before completing.
3. When the transfer is complete, the screen will return to the data screen. The USB drive may now be removed from the USB port.

To Restore Factory Defaults

1. From the Home screen, touch the settings icon to go to the setting screen.
2. From the setting screen, you can restore the factory defaults of the alarm, printer, and pressure assist outlet.
3. Simply touch the corresponding Icon, touch factory default, then touch done to return to the setting screen

To Erase Job Logs

1. From the Home screen, touch the settings icon to go to the settings screen.
2. From the setting screen, touch MANAGE DATA icon.
3. Select an individual job, group of jobs, or SELECT ALL.
4. Touch delete, then Done when completed.
5. Touch BACK to return to the settings screen.

Data Space

When data storage reaches 90% full a warning to delete or download data will pop up. At 95% new jobs can not be started until data space is made available.

Shipping & Repair:

To initiate a return for your unit, please contact the Technical Support Department at Adaptive Manometer Systems Inc. They will provide you with a Warranty Number (W#) to facilitate tracking of your unit. Alternatively, you can send an email to info@adaptivemanometers.com. When returning the unit, please enclose a concise description of the issue, along with your company's name, address, phone number, and the name of the responsible individual.

Make sure to prominently display the assigned W# on the outside of the box. Please note that we do not accept Cash on Delivery (COD) shipments. If you no longer have the original packaging materials, ensure that the unit is securely packaged in a sturdy container with ample padding to protect it from all sides. The packaging should prevent any movement of the unit during transit.

Ship To: Adaptive Manometer Systems Inc.

8200 East Pacific Place Suite 306 Denver, CO 80231

888-985-3955

PressurePro Model 1 Warranty

Coverage: This warranty covers any defects in materials or workmanship in the PressurePro Model 1 Differential Pressure Recorder (hereinafter referred to as "Product") for a period of one (1) year from the date of original purchase by the original purchaser.

What is Covered: The manufacturer warrants that the Product will be free from defects in materials and workmanship under normal use and service during the warranty period. In the event of a defect, malfunction, or other failure of the Product not caused by any misuse or damage to the Product while in the consumer's possession, the manufacturer will, at its sole discretion, repair or replace the defective Product or its components, free of charge to the original purchaser.

Exclusions: This warranty does not cover defects or damages resulting from:

1. Misuse, abuse, negligence, or accidents.
2. Unauthorized modifications or repairs.
3. Failure to follow the operating and maintenance instructions provided with the Product.
4. Use of the Product in a manner inconsistent with its intended purpose.
5. Acts of nature, such as lightning, flooding, or power surges.
6. Normal wear and tear.

LIMITATION OF LIABILITY: REPAIR OR REPLACEMENT OF THE PRODUCT ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND CONSTITUTE MANUFACTURER'S SOLE LIABILITY FOR ANY BREACH OF THIS WARRANTY. MANUFACTURER'S LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE PRODUCT, NOR SHALL MANUFACTURER UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT.
SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTIAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITAITON OR EXCLUSION MAY NOT APPLY TO YOU.

Obtaining Warranty Service: To obtain warranty service, please follow these steps:

1. Contact our Customer Support team at 888-985-3955 or info@adaptivemanometers.com within the warranty period.
2. Provide proof of purchase, including the original purchase receipt or invoice.
3. If requested by the manufacturer return the manometer to original purchase location or if directed by the manufacturer, ship the defective Product, freight prepaid, to the address provided by the Customer Support team.

Manufacturer's Obligations: If a defect covered by this warranty is properly notified and verified, the manufacturer will, at its sole discretion, either repair or replace the defective Product or components. The manufacturer may use new or refurbished parts for repairs or replacements.

Limitation of Liability: To the extent permitted by applicable law, the manufacturer's liability under this warranty is limited to the repair or replacement of the Product as described above. The manufacturer shall not be liable for any indirect, consequential, incidental, or punitive damages arising from the use or inability to use the Product.

Governing Law: This warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.

By making use of this warranty, the customer agrees to be bound by the terms and conditions outlined herein.

Entire Agreement: This warranty constitutes the entire agreement between the purchaser and the manufacturer regarding the Product and supersedes all prior agreements, understandings, representations, and warranties.

Contact Information: For questions or warranty service, please contact:

Adaptive Manometer Systems Inc.

8200 E. Pacific Place Suite 306 Denver, CO 80231

888-985-3955 info@adaptivemanometers.com

Note: Please retain the original purchase receipt or invoice, as it will be required to verify the warranty coverage. This warranty is non-transferable and applies only to the original purchaser of the Product.

PRESSUREPRO™

Registration/Warranty

This information must be provided within 30 days of purchase to activate the 12 Month Warranty. Registration may be mailed to our office or submitted online at info.adaptivemonometers.com

Manometer / Differential Pressure Recorder

Date of Purchase: _____

Retail Supplier: _____

Serial Number:_____

Registered To:
Company or Individual: _____

Address: _____

_____

Contact Phone Number: _____

ADAPTIVE MANOMETER SYSTEMS, INC

8200 E. Pacific Place Suite 306

Denver, CO 80231

Phone Number: 888-985-3955

www.Adaptivemanometers.com