

# DigiMano 2000

### **Pressure / Vacuum Meter**

## **INSTRUCTION MANUAL**



### **Netech Corporation**

110 Toledo St, Farmingdale, NY 11735 http://www.NetechBiomedical.com

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### Warranty

Netech warrants the DigiMano 2000 against defects in materials and workmanship for one year from the date of original purchase. The standard warranty is extended for a second year if the instrument is returned to Netech for its recommended yearly recalibration.

During the warranty period, we will repair or, at our option, replace at no charge a product that proves to be defective, provided you return the product shipping prepaid to Netech Corporation. Only serialized products are covered under this warranty.

This warranty does not apply if the product has been damaged by accident or misuse or as the result of service or modification by other than Netech Corporation, or if its serial number is defaced or removed.

Netech reserves the right to discontinue the DigiMano 2000 at any time, and change its specifications, price, or design without notice and without incurring any obligation. Netech guarantees availability of service parts for 5 years after the manufacture of the unit is discontinued.

The warranty is void if you elect to have the unit serviced and / or calibrated by someone other than Netech Corporation.

The warranty covering your product becomes void when the tamper-resistant Quality Seal is removed or broken without proper factory authorization.

We strongly recommend, therefore, that you send your instrument to Netech Corporation for factory service and calibration, especially during the original warranty period.

The purchaser assumes all liability for any damages or bodily injury, which may result from the use or misuse of the unit by the purchaser, his employees, agents, or customers.

In no event shall Netech Corporation be liable for consequential damages

Please register to receive special offers, free software updates, and more. Plus, you'll qualify for exclusive complimentary benefits that vary by region. Any failure to complete and submit this registration will not diminish your rights found in the limited warranty that accompanied your product at purchase.

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#### **Notices**

#### Patents / Copyright

Copyright © 2024 by Netech Corporation. All rights reserved. No part of this publication may be reproduced or transmitted in any form other than for the purchaser's personal use without written permission from Netech Corporation.

#### **Trademarks**

DIGIMANO are trademarks of Netech Corporation. Any other trademark names used in this manual are only for editorial purposes and the benefit of the respective trademark owner with no intention of improperly using that trademark.

### **Quality Assurance**

Netech is ISO 9001-2015 Certified. This instrument was thoroughly tested and inspected according to Netech's ISO 9001-2015 quality standards and test procedures and found to meet those specifications when it was shipped from the factory.

#### **Calibration**

DigiMano 2000 is calibrated using standards traceable to National Institute of Standards and Technology (NIST) and the unit is shipped with a calibration certificate.

### **Safety Considerations**

This manual contains operating and safety instructions for the safe operation and to maintain the equipment in a safe condition. The safety instructions are either warnings or cautions to protect the user and the equipment from injury or damage. Do not use this equipment for any other purpose than stated.



#### **Returns and Credits**

Please note that only serialized products and their accessory items (i.e., products and items bearing a distinct serial number tag) are eligible for partial refund and/or credit. Non-serialized parts and accessory items (e.g., cables, carrying cases, auxiliary modules, etc.) are not eligible for return or refund. Only products returned within 60 days from the date of original purchase are eligible for refund/credit.

In order to receive a partial refund/credit of a product purchase price on a serialized product, the product must not have been damaged by the customer or by the carrier chosen by the customer to return the goods, and the product must be returned complete (meaning with all manuals, cables, accessories, etc.) and in "as new" and resalable condition.

Products not returned within 60 days of purchase, or products, which are not in "as new", and resalable condition, are not eligible for credit return and will be returned to the customer. The Return Procedure (see below) must be followed to assure prompt refund / credit.

### **Restocking Charges**

Products returned within 30 days of original purchase are subject to a minimum restocking fee of 15 %. Products returned in excess of 30 days after purchase, but prior to 60 days, are subject to a minimum restocking fee of 20 %. Additional charges for damage and / or missing parts and accessories will be applied to all returns.

#### **Return Procedure**

All items being returned (including all warranty-claim shipments) must be sent freight-prepaid to our factory location. When you return an instrument to Netech Corporation, we recommend using United Parcel Service, Federal Express, DHL or Air Parcel Post. We also recommend that you insure your shipment for its actual replacement cost. Netech Corporation will not be responsible for lost shipments or instruments that are received in damaged condition due to improper packaging or handling. Use the original carton and packaging material for shipment.

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#### **Returns for Refund / Credit**

A Return Material Authorization (RMA) number must be obtained from our service or customer service dept, before a product is returned for refund or credit. The RMA number should be clearly marked on the package along with a statement indicating the reason for return.

### **Repair and Calibration**

Products returned for repair or recalibration must obtain a RMA (Return Material Authorization) from our service department after completing a service request form our website <a href="http://www.NetechBiomedical.com/repair.php">http://www.NetechBiomedical.com/repair.php</a> or contact:

Netech Corporation Service Dept. 110 Toledo Street New York, 11735 Email: Service@NetechCorp.

#### **Models and Part Numbers**

DigiMano 2000 Models:

Display: cmH2O, mBar, inH2O, mmHg, PSI

Part Number	Description
220-2CMH2O	-0.6 to 2 PSI 0.1% FS
220-10CMH2O	-3 to 10 PSI 0.1% FS
220-25CMH2O	-8 to 25 PS 0.1% FS
220-50CMH2O	-10 to 50 PSI 0.1% FS
220-50CMH2O-0.25	-10 to 50 PSI 0.25% FS
220-95CMH2O-0.25	-10 to 95 PSI 0.25% FS
220-200cmH2O	0 to 200 PSI 2.0% FS



Display: kPa, mBar, inH2O, mmHg, PSI

Part Number	Pressure Range
220-2PSI	-0.6 to 2 PSI
220-10PSI	-3 to 10 PSI
220-25PSI	-8 to 25 PS
220-50PSI	-10 to 50 PSI
220-50PSI-0.25	-10 to 50 PSI
220-95PSI-0.25	-10 to 95 PSI
220-150PSI- KPA	Þ[ơÁOTçænijænà ^
220-150PSI-KPA-SS	-10 to 150 PSI

#### **Standard Accessories**

The following standard accessories are included with each unit

Part Number	Description
201	Die cut - Hard caring Case
220-USER-Manual	User Manual CD

### **Optional Accessories**

Part Number	Description
220-203C	Connector Kit
204	Syringe Pump
302	AC Adapter

Various optional Accessories including universal connector kits are available. Contact factory for part numbers.

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### **General Overview**

#### Introduction

The DigiMano 2000 is a portable instrument designed to measure the pressure and vacuum of non-corrosive fluids and gases. It is housed in an aluminum case. A large 3½ digit LCD display presents measurement results in one of five selectable engineering units.

To provide superior performance, the DigiMano 2000 uses one of the latest semiconductor pressure sensors. It is powered by one 9-Volt alkaline battery. Optionally, an AC adapter may be used.

The DigiMano 2000 is available in sixteen models with different engineering units of display, pressure ranges, and accuracies.

The DigiMano 2000 is CE marked and is shipped with a Certificate of Calibration traceable to the NIST.

The DigiMano 2000 is a rugged instrument that performs its measurements quickly, accurately, and with ease.

#### **Controls & Indicators**

- 1. **Display:** A 3½ Digit LCD indicates the result of the measurement being made.
- 2. On-Off Button: Turns the DigiMano 2000 pressure meter on and off.
- **3. Unit Button:** Select the desired unit of measure for display. A lit LED will indicate the unit.
- 4. Zero Button: Automatic adjustment of zero.
- 5. Peak Button: Select peak pressure reading.
- **6. Low Battery Indicator**: LoBat appears in upper left corner of display.
- **7. Pressure Port**: 1/8" FPT adaptable to any standard fitting.
- **8. Connector for AC Adapter:** Use optional part 302 AC adapter.





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### **Operating Instructions**

- **1.** Turn the DigiMano 2000 on and allow two minutes for the transducer to warm up and stabilize.
- **2.** Select the desired engineering unit of measure to be displayed. The previously selected unit will be displayed when the instrument is first turned on.
- **3.** With no pressure applied the display should read zero (0). If not, push the automatic zero button.
- **4.** Connect the DigiMano 2000 to the device to be tested or to a pressure vacuum line.
- **5.** Read the pressure or vacuum in the measurement units selected. The negative sign (-) will be displayed when reading vacuum measurements.
- **6.** For peak pressure readings push the PEAK button. The display will alternate between "PE" and the maximum pressure reading since entering peak mode. To return to normal operation push the PEAK button again.
- **7.** The display update rate may be increased by holding the PEAK and UNIT buttons.
- **8.** Over time the initial reading at startup may drift slightly from zero. This offset may be permanently stored by pushing the UNIT and ZERO buttons while turning the meter on. Hold the buttons until the display reads "0000" then " ----". Turn the meter off and on and the new zero offset will be stored in memory.

### **Specifications**

Display: 3-1/2 Digit 0.5 in LCD

Polarity Display: The negative sign (-) is displayed when there is a vacuum reading

**Accuracy:** 0.1% -0.25% full scale ± 1 count or 0.05% ± 1 count depending upon model (Pressure Only)

**Operating Temperature:** 0°C to 40°C

Media Compatibility: Non-corrosive fluids and gases

Maximum Pressure: Double the rated Pressure



Power: One 9 volt alkaline battery or optional AC adapter.

**Low Battery Indicator:** LO BAT on display if battery Voltage is ≤ 6.8 volts.

**Physical Dimensions:** Size: 4.75 X 2.5 X 1.5 in (12 X 6.5 X 4 cm) Weight: 11.9 oz

(0.34kg)

#### **Precautions**

- 1. Do not exceed the rated maximum pressure of the instrument. Although a transient pressure of two times the rating will generally be tolerated, prolonged exposure to higher pressure may cause sensor damage.
- 2. Do not connect the instrument to corrosive gases or highly ionic fluids.
- 3. Do not continue to use the instrument if it is wet.
- 4. Avoid using at extreme temperatures.

### **Trouble Shooting**

When inaccurate pressure vacuum readings are suspected, check the following items:

- 1. Install a fresh 9 Volt alkaline battery.
- 2. Turn the DigiMano 2000 on and verify that the display reads zero with no pressure applied to the instrument,  $00 \pm 1$  count.
- 3. Push the automatic zero button.
- 4. Connect the instrument to a pressure source, apply a known pressure, and verify the reading within the specifications of the DigiMano 2000.1 count depending upon model

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### **Maintenance and Storage**

#### Calibration / Service

The mechanical assembly of DigiMano 2000 contains no parts that can be serviced by the user. The unit should be returned to Netech Corporation for repair or calibration. The alignment and adjustment parameters are critical to the robust and efficient performance of the unit and can be performed only at the factory. The unit is factory calibrated with NIST traceable standards and recommended to be calibrated once a year.

Netech maintains a complete repair and recalibration service at a very low cost and fast turnaround. Estimates for repair and recalibration are available upon request.

DigiMano 2000 contains NO USER SERVICEABLE PARTS and calibration/ service should be performed only by Netech. Attempt to repair / service the unit outside Netech voids the warranty.

### Returning the DigiMano for Re-Calibration

Products returned to Netech for repair or recalibration requires a RMA (Return Authorization Number) for speedy processing of the service required.

To obtain a RMA number follow the link <a href="http://www.betechBiomedical.com">http://www.betechBiomedical.com</a> and fill in the required information, Email <a href="mailto:service@NetechBiomedical.com">service@NetechBiomedical.com</a> or call 800-547-6557 (US & Canada), International 631-531-0100.

When shipping units to the factory enclose a copy of the RMA and the number should be on used as the reference in the shipping label.

The shipment should be addressed to:-

Attn: Service Department
Netech Corporation
110 Toledo St.
Farmingdale, New York 11735.



## **Appendix**

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