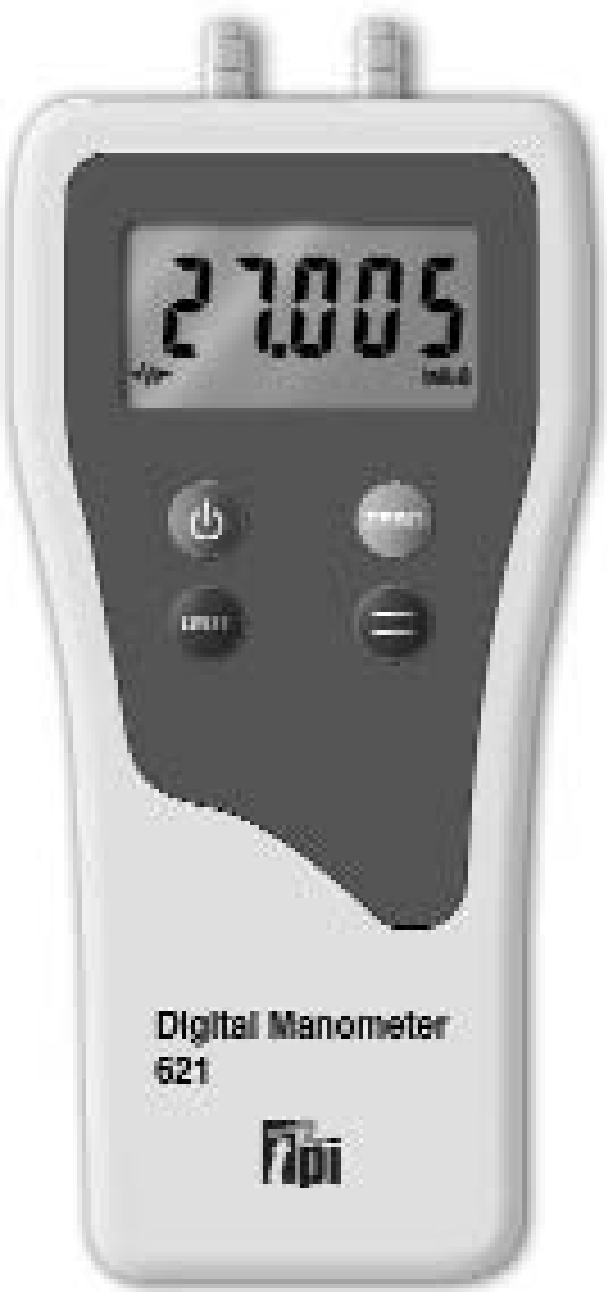
621

Digital Manometer

Instruction Manual



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Introduction

Congratulations

Thank you for purchasing TPI brand products. This meter is easy to use and is built to last. It is backed by a 2 year limited warranty. Please remember to return your product warranty registration card.

Product Description

The TPI 621 is a hand held pressure meter with superior resolution .

TPI 610 - Single Input - 4 Function - single unit of pressure

All these models measure over the range of -40.0 to +120.0 mbar. Each unit has a resolution of 0.01 mbar to +19.00 mbar and automatically auto-ranges above ± 19.00 mbar to 0.1 mbar resolution. Each model is supplied complete with carry pouch, battery and instruction manual.

Safety Considerations

WARNING: Please follow the manufacturer's test procedure whenever possible. Make sure the pressure to be measured is not outside the range of the TPI 621 meter.

ALWAYS

- Test the pressure meter before use to ensure it is operating properly
- Ensure that the connecting hose you are using is free from kinks or splits
- Double check all connections before testing

NEVER

- Connect the Instrument to an unknown pressure source if the source is twice the working pressure of the instrument the sensor will be damaged and may cause injury to the user
- Tamper with the instrument or attempt to modify it in any way. Otherwise, accident and injury may occur and the warranty becomes void.

Technical Data

Controls

Turns the 621 on. Hold down to turn unit off.

ZERO Momentarily press the ⏻ button to "ZERO" the dispaly ("ZERO" will flash on the lower left of the LCD)

= Smoothing function to stabilize rapidly changing pressure readings

UNITS Selects 7 units of pressure kPa, PSI, inHg, mmHg inH_2O, mmH_2O, mbar

Turns the back light on (automatically turns off after 30 seconds)

Features & Benefits

Autoranging - Provides high resolution & accuracy at low

Auto Power Off - Powers off after 40 minutes to conserve battery life.

Trim Mode - Smoothing function to stabilize erratic readings. It displays the average value of 4 values previously measured.

Zero Function - Provides immediate push button zeroing for Speed and accuracy.

Units - Change the display value in any one of the following engineering units. kPa, PSI, inHg, mmHg, inH20, mmH20 and mbar.

Back Light - Provides easy reading of LCD in low light areas.

Pressure Coverstion Table

	Atmos	bar	inHg	inH_2O	PSI	mmHg	mmH_2O	Pascals
Atmos	1	9.86923×10^{-1}	3.34207×10^{-2}	2.458×10^{-3}	6.8046×10^{-2}	1.316×10^{-3}	0.9677×10^{-4}	9.869×10^{-6}
bar	1.01325	1	3.3864×10^{-2}	2.491×10^{-3}	6.8948×10^{-2}	1.333×10^{-3}	0.9807×10^{-4}	1.000×10^{-5}
inHg	29.9213	29.53	1	7.355×10^{-2}	2.036	3.937×10^{-2}	2.89567×10^{-3}	2.953×10^{-4}
inH_2O	406.8	401.48	13.60	1	27.68	0.5354	3.937×10^{-2}	4.014×10^{-3}
PSI	14.6955	14.504	0.4912	3.6127×10^{-2}	1	1.934×10^{-2}	1.422323×10^{-3}	1.4503×10^{-3}
mmHg	760	750.06	25.400	1.868	51.715	1	7.35433×10^{-2}	7.502×10^{-3}
mmH_2O	10.3327×10^{3}	10.1976×10^{3}	3.4544×10^{2}	25.400	703.07	13.599	1	.101972
Pascals	1.01325×10^{5}	1.000×10^{5}	3.386×10^{3}	2.491×10^{2}	6.8948×10^{3}	1.333×10^{2}	9.8071	1

Step by Step Procedures

1. Press the 'ON' key and the LCD display will be activated and automatically zeroed (if it does not read 0.00 proceed as follows
2. Momentarily Press the ⏻ key and the display should zero within +/- 0.05 if not repeat until it does
3. Connect pressure meter to installation or equipment to be tested using appropriate hose connection in accordance with the manufacturers instructions
4. The pressure reading will appear on the display. To activate the backlight in poor light conditions press the ☼ key at any time
5. If the reading is erratic or changing activate the smoothing function by pressing the '=' key
6. To convert the displayed pressure reading to another engineering unit depress the 'UNIT' key anytime and scroll through to the desired units of pressure.

Accessories & Specifications

Standard accessories

9V battery A009
Soft Pouch A600

Optional Accessories

2 metre (6 ft) nitrile rubber tubing A601
Large Zipped pouch A904

Specifications

Auto Range	-300.0 to -300.0 mbar -120.4 to 120.4 inH_2O
Accuracy	-40.2 to 40.2 inH_2O: ±(0.2% of F.V.) <-40.2 & >40.2 inH_2O: ±(1% of M.V.)
Over Pressure	Protected to 15 PSI
Power Supply	9V
Relative Humidity	0% to 80%
Operating Temp.	0°C to +40°C
Storage Temp.	-10°C to +50°C
Auto Power Off	40 Minutes
Input Type	Differential

Maintenance

Battery Replacement:

The 621 will display a battery symbol when the internal 9V battery needs replacement.
Replace battery as follows:

1. Ensure instrument is switched off
2. Loosen the six cross head screws on the back of the instrument
3. Remove the back cover
4. Remove old battery
5. Replace with new battery 9V NEDA 1604 or equivalent
6. Reassemble the instrument in reverse order from above being sure not to trap any wires between the two halves of the case
7. Re-fit the six cross head screws being sure not to over tighten

Cleaning: Use a mild detergent and a slightly damp cloth to clean the surfaces of the instrument.

Trouble Shooting Guide

Problem	Probable Cause
Unit does not zero	Zero button has not been pushed.
Unit still does not zero	If reading is greater than 0.05 and constantly fluctuates return to local Service Centre.
'Bat' appears on display	Replace battery immediately 9V NEDA 1505 or equivalent

EC Declaration of Conformity

This is to certify that model 610/615/620/625 conform to the protection requirements of the council directive 89/336/EEC, in the approximation of laws of the member states relating to Electromagnetic compatibility by application of the following standards
EN50081-1 1992 Emissions Standard
EN50082-1 1992 Immunity Standard

To ensure conformity with these standards, this instrument must be operated in accordance with the instructions and specifications given in this manual.