



**PressCAL High Accuracy Digital  
(Differential/Guage/Absolute)  
Pressure Indicator**

**TDP-01B  
Instrument  
Manual**



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## **PREFACE**

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Welcome & thanks for purchasing Our PressCAL Model No-TDP-01B, Our high Accuracy pressure measurement instrument.  
Please refer Technical specifications & instructions carefully before using the product.

## **STANDARED ACCESSORIES**

Please check for following Standard accessories/Observation

- 1) Product is not physically damaged.
- 2) Operating manual With Warranty certificate
- 3) Silicon pressure tubes
- 5) Carrying Bag.

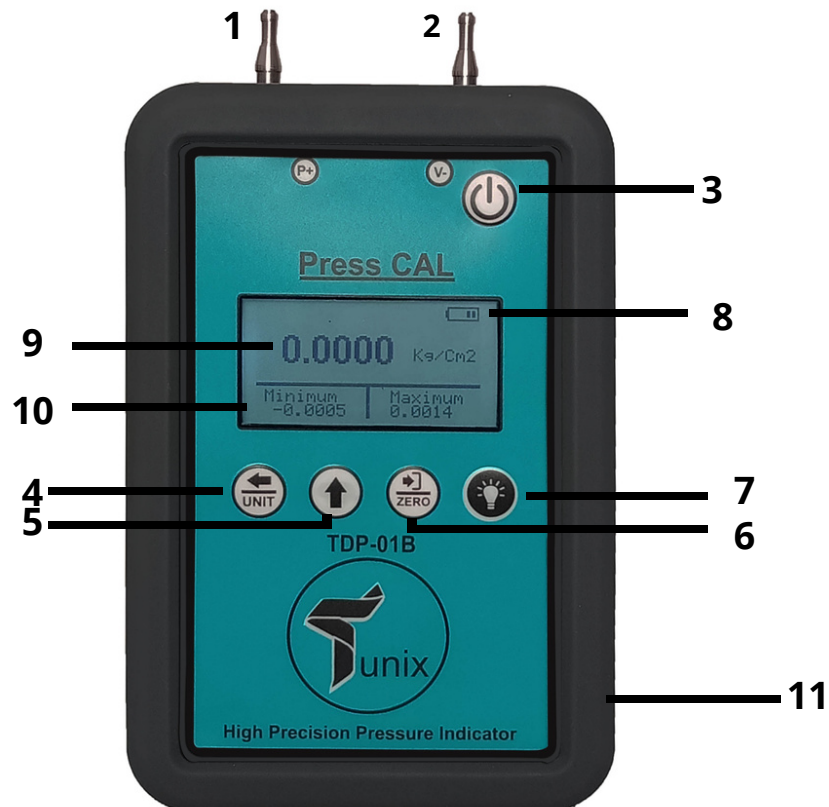
## TECHNICAL SPECIFICATION

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1. Measurement Range : Various models & ranges available ranging from 0- 0.15 PSI & upto 100 PSI (Bidirection Pressure ranges also available in request).
2. Measurement Modes : Differential & Gauge pressure modes /Absolute pressure modes( Prior order basis).
3. High Accuracy : 0.1% Full scale
4. Resolution high resolution of 5 digits ( For higher ranges depends upon the pressure range)
5. Linearity : Maximum 0.05% FS ( Defined as best fit straight line)
6. User selectable 12 multiple Pressure measurement units : Kpa, pa , hPa,Bar,mBar, Kg/cm<sup>2</sup>, PSI , mmWC, inWC, cmWC, mmHG, cmHG.
7. Power supply : 2 AA dry batteries , user replaceable
8. Battery Back up : 2 Hrs Continuous use with back light on
9. Measurement Media: Clean Dry gas/Air only
10. Weight; 410 g without carry case
11. Enclosure Dimensions : 165 mm(L) ,100mm(B) ,35 mm(W)
12. Pressure push fit Nipples : 2 units

## UNDERSTAND YOUR INSTRUMENT

1. Hi Pressure input (connect tube)
2. Low pressure Input (connect tube)
3. Instrument Switch ON /OFF button
4. Unit selection key (works as shift digit key in program mode)
5. Up Arrow key / Increment key (works as resetting key for resetting minimum & maximum values)
6. Zero Key/Enter (Press for 1 second to zero /tare the pressure display) , this key works as “Enter” command in program mode
7. Light Key (switch On/Off for display light), keep display light off for better battery life
8. Battery level indicator
9. Unit display
10. Minimum & Maximum pressure display
11. Silicon protective cover (removable)



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Battery compartment, Remove Silicon protective cover to replace the battery  
Batteries: AA size alkaline



## SWITCHING THE UNIT ON

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Press switch On key , at the start Unit Model number & serial number will be displayed , then pressure range will be displayed

## INSTRUCTIONS

- Users/customers are expected not to use the instrument below & above the pressure range mentioned, this will permanently damage the sensor
- Always Connect pressure tubes with leak free joints
- Instrument will perform “Autozero” automatically for first time at the start & a message will be displayed
- “Autozero successfully done”
- Users can also press zero key manually for 1 second to perform autozero manually
- User can change & select multiple units by pressing unit selection keys
- Upper arrow key /Increment key is used to reset the Minimum & Maximum values of pressure
- Display Back light key is used to switch Off/ On back light , it is recommended to use backlight when only needed to save battery life , backlight automatically goes “switch off” after sometime as programmed in the setting menu

## PROGRAM MODE /SETTING MENU

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Switch On the instrument & let it perform auto zero automatically & wait till main display starts  
To enter into setting menu long press (Zero Key + Light key) together for 3 seconds continuously  
The Display shows the following prompt

Password  
0000

Enter password **1204** with help of shift (left) key & Up arrow /Increment key, press Zero /enter Key to enter the password

If no key is pressed for long time, the instrument will come out of program/ setting mode

Press light key continuously to view back screen mode & come out of setting /program mode

### FOLLOWING MENU OPTIONS ARE DISPLAYED AFTER ENTERING INTO SETTING/PROGRAM MODE

1. Calibration
2. Unit
3. Auto off
4. Battery count
5. Sr. No.

Press Enter key to start Calibration mode with help of enter key, After the LCD Display shows the following prompt



## CALIBRATION

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1. Step Calibration (Full calibration Mode)
2. Edit Values (Adjusting Calibration Values)
3. Sample(Changing sampling rate)
4. DpPoint (Deactivated)
5. Resolution ( Increment or decrement )

### STEP CALIBRATION MODE

Step Calibration Mode is full calibration Mode at 10 multiple points( at every 10 % ) covering complete instrument range to provide high accuracy of 0.1 % FS throughout the operating range Use this Mode only when you have calibrated external pressure reference source & hi accuracy pressure display to calibrate this instrument

Connect the External reference pressure source with calibrated display to the instrument & following procedure.

Enter the 1. Step calibration mode with help of enter key, After the LCD Display shows the following prompt

Cali.>Step

-----  
Pressure at Zero

+000.000

Adc Count

XXXX

Enter the correct Value of the pressure with help of shift left & Up arrow key

After pressure value shown in zero, Press Enter key to move next 10% point, always remember to press enter key to save the value of pressure

```
Cali.>Step
-----
Pressure at 10%
+000.030
Adc Count
XXXX
```

After pressure value shown in 10%, Press Enter key to move next 20% point, Follow same steps at every 10 % till step calibration is complete till SPAN , a message will appear that calibration is complete

## **ACTIVATION OF “EDIT VALUES “IN CALIBRATION MODE**

Edit Values correction is used to perform small corrections in calibration values, specific to the calibration points or defined range

After Entering into setting Mode/Calibration

The calibration mode with help of enter key, After the LCD Display shows the following prompt

## CALIBRATION

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1. Step Calibration
2. Edit Values
3. Sample
4. DpPoint
5. Resolution



Enter the 2. Edit Values calibration mode with help of enter key, After the LCD Display shows the following prompt.

### Edit Table

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1. Pressure at Zero
2. Pressure at 10%
3. Pressure at 20%
4. Pressure at 30%
5. Pressure at 40%
6. Pressure at 50%
7. Pressure at 60%
8. Pressure at 70%
9. Pressure at 80%
10. Pressure at 90%
11. Pressure at Span

After display edit table in display inter Sr no.1 pressure at Zero with help of inter key (Zero key),

Pressure at Zero  
-----  
1. Pressure : +000.000  
2. Count : 208203

Edit the Pressure Value & ADC count value according to pressure value With help of left arrow (Unit) and up arrow key, after editing of count value move to edit table with help of exit key (light key).

After Show edit table in display inter Sr no.2 pressure at 10% with help of inter key (Zero key),

Pressure at 10%  
-----  
1.Pressure : +000.030  
2.Count : 224746

Edit the count value according to pressure value With help of left arrow(Unit) and up arrow key, after editing of count value move to edit table with help of exit key (light key).

After Show edit table in display inter Sr no.3 pressure at 20% with help of inter key (Zero key),  
Repeat the same procedure for other % values

Pressure at Span

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1.Pressure : +000.300

2.Count : 380893

Edit the count value according to pressure value With help of left arrow(Unit) and up arrow key, after editing of count value move to edit table with help of exit key (light key).

## WARRENTY CERTIFICATE

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This is certify that, Dry Block Temperature Calibrator having Sr. No.-----  
Date----- is properly Tested for workmanship. We Certify our Calibrator for  
satisfactory performance for the period of one year from the date of supply against any  
manufacturing defect.

Signature