

### Ranges and Resolution

See table below for ranges and resolution  
User configurable for listed engineering units  
Resolution is fixed for each engineering unit

### Accuracy

±0.1% full scale ±1 least significant digit  
Accuracy includes linearity, hysteresis, repeatability  
Sensor hysteresis: ±0.015% FS, included in accuracy  
Sensor repeatability: ±0.01% FS, included in accuracy

### Display

3 readings per second nominal display update rate  
4 digit LCD, 0.5"H and 5 character 0.25"H alphanumeric  
White LED backlight active for 1 minute with button keypress  
Backlight user configurable for AUTO (1 minute), ON, or OFF

### Batteries, Battery Life, Low Battery Indication

2 AA alkaline included  
Approx. 150-1500 hours depending on backlight usage  
Low battery symbol on display

### Controls and Functions

Three button keypad: Zero/Clear/Up, On/Off, Memory/Down  
Passcode protected calibration, engineering unit selection,  
auto shutoff time, min/max setup

### Min/Max Memory

Minimum and/or maximum readings stored in memory  
Readings cleared or stored at shutoff  
User configurable

### Calibration

Zero button for gauge reference ranges  
Non-interactive zero, span, and linearity, ±10% of range

### Auto Shutoff

Factory default: 5 minutes  
User selectable: 1 minute to 8 hours or manual on/off

### Weight

Gauge: 9 ounces (approximately)  
Shipping: 1 pound (approximately)

### Housing Materials

Epoxy powder coated aluminum case with case stiffener,  
ABS/ polycarbonate bezel, coated circuit boards for humidity  
resistance, front and rear rubber gaskets, polycarbonate label  
NEMA 2 (IP51)  
Includes rubber boot

### Connection and Material

1/4" NPT male fitting  
All wetted parts are 316L stainless steel

### Overpressure, Burst, Vacuum Service

3000 psig sensor: 5000 psig overpressure  
5000 psig sensor: 7500 psig overpressure  
All others: 2 X pressure range overpressure  
Burst pressure: 4 X sensor pressure rating, or 10,000 psi,  
whichever is less  
Vacuum service: 15 psia, ±15 psig, 15 psig, 30 psia,  
100 psig, 100 psia, 200 psig sensors

### Environmental Temperatures

Storage temperature: -40 to 203°F (-40 to 95°C)  
Operating temperature: -4 to 185°F (-20 to 85°C)  
Sensor compensated range: 32 to 158°F (0 to 70°C)

### Dimensions

3.67"W x 3.19"H x 2"D with boot, not including fitting

- ±0.1% Test Gauge Accuracy
- Ruggedized Design
- Red Rubber Boot Included
- 316L Stainless Steel Wetted Parts
- Selectable Units and Auto Shutoff Times
- White LED Display Backlight
- Min/Max Memory



| Vacuum             | Range/Resolution          | Selectable Units                                                                                      |
|--------------------|---------------------------|-------------------------------------------------------------------------------------------------------|
| CTP3B15PSIVAC      | 0 to 14.70 psig vacuum    | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |
| Vacuum/Pressure    | Range/Resolution          | Selectable Units                                                                                      |
| CTP3B±15PSIG       | -14.70 to 15.00 psig      | psi, inHg/psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa |
| CTP3B30V15PSIG     | -29.92 inHg to 15.00 psig | psi, inHg/psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa |
| CTP3B15V100PSIG    | -14.7 to 100.0 psig       | psi, inHg/psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa |
| CTP3B30V100PSIG    | -29.9 inHg to 100.0 psig  | psi, inHg/psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa |
| CTP3B15V200PSIG    | -14.7 to 200.0 psig       | psi, inHg/psi, inHg, torr, inH2O, ftH2O, oz/in2, kg/cm2, atm, bar, MPa, kPa                           |
| CTP3B30V200PSIG    | -29.9 inHg to 200.0 psig  | psi, inHg/psi, inHg, torr, inH2O, ftH2O, oz/in2, kg/cm2, atm, bar, MPa, kPa                           |
| Pressure           | Range/Resolution          | Selectable Units                                                                                      |
| CTP3B3PSIG         | 0 to 3.000 psig           | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, mmH2O, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, kPa         |
| CTP3B5PSIG         | 0 to 5.000 psig           | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, mmH2O, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, kPa         |
| CTP3B15PSIG        | 0 to 15.00 psig           | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |
| CTP3B30PSIG        | 0 to 30.00 psig           | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |
| CTP3B60PSIG        | 0 to 60.00 psig           | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |
| CTP3B100PSIG       | 0 to 100.0 psig           | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |
| CTP3B200PSIG       | 0 to 200.0 psig           | psi, inHg, inH2O, ftH2O, oz/in2, kg/cm2, atm, bar, MPa, kPa                                           |
| CTP3B300PSIG       | 0 to 300.0 psig           | psi, inHg, ftH2O, oz/in2, kg/cm2, atm, bar, MPa, kPa                                                  |
| CTP3B500PSIG       | 0 to 500.0 psig           | psi, inHg, ftH2O, kg/cm2, atm, bar, MPa, kPa                                                          |
| CTP3B1000PSIG      | 0 to 1000 psig            | psi, inHg, ftH2O, kg/cm2, atm, bar, MPa, kPa                                                          |
| CTP3B2000PSIG      | 0 to 2000 psig            | psi, inHg, ftH2O, kg/cm2, atm, bar, MPa                                                               |
| CTP3B3000PSIG      | 0 to 3000 psig            | psi, inHg, ftH2O, kg/cm2, atm, bar, MPa                                                               |
| CTP3B5000PSIG      | 0 to 5000 psig            | psi, kg/cm2, atm, bar, MPa                                                                            |
| Absolute Reference | Range/Resolution          | Selectable Units                                                                                      |
| CTP3B15PSIA        | 15.00 to 0 psi absolute   | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |
| CTP3B30PSIA        | 30.00 to 0 psi absolute   | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |
| CTP3B100PSIA       | 100.0 to 0 psi absolute   | psi, inHg, torr, mmHg, inH2O, ftH2O, oz/in2, cmH2O, g/cm2, kg/cm2, atm, bar, mbar, MPa, kPa           |

### Calibration Documentation Options—add to end of model number

|           |                                          |           |                                                    |
|-----------|------------------------------------------|-----------|----------------------------------------------------|
| <b>CD</b> | Calibration data; 5 test points and date | <b>NC</b> | NIST traceability documentation, 5 points and date |
|-----------|------------------------------------------|-----------|----------------------------------------------------|

### Accessories—order separately

#### DPG-OK2, DPG-OK3, DPG-OK6

Pelican® brand high visibility orange heavy duty waterproof cases. Models available for storing 2, 3, or 6 gauges.



#### CON14SS

Quick connector to install or remove gauge without tools. 304 stainless steel, urethane seal.



#### SCR14SS

Filter screen fitting keeps debris out of gauge sensor. For food vacuum packaging applications. 303SS body, 100 micron 304SS screen.



## Types of Gauges

Gauge reference sensors always read zero with an open gauge port. Ranges 1000 psi and higher use a 14.7 psi sealed reference sensor. They are functionally similar to gauge reference sensors.

Bipolar sensors read positive pressure and vacuum in the same units, and zero with the gauge port open.

Compound ranges read inHg for vacuum and psig for pressure.

Absolute reference gauges read zero at full vacuum. With an open gauge port, their readings will vary due to continuously changing barometric pressure.

| psi                  | Compound                 | inHg            | torr            | mmHg            | inH <sub>2</sub> O | ftH <sub>2</sub> O | oz/in <sup>2</sup> | mmH <sub>2</sub> O | cmH <sub>2</sub> O | g/cm <sup>2</sup> | kg/cm <sup>2</sup> | atm             | mbar          | bar             | kPa             | MPa             |
|----------------------|--------------------------|-----------------|-----------------|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-----------------|---------------|-----------------|-----------------|-----------------|
| 0 to 14.70 psig vac  | n/a                      | 29.92 vac       | 760.0 vac       | 760.0 vac       | 406.8 vac          | 33.90 vac          | 235.1 vac          | n/a                | 1033 vac           | 1033 vac          | 1.033 vac          | 1.000 vac       | 1013 vac      | 1.013 vac       | 101.3 vac       | .1013 vac       |
| -14.70 to 15.00 psig | -29.92 inHg to 15.00 psi | -29.92 to 30.54 | -760.0 to 775.7 | -760.0 to 775.7 | -406.8 to 415.2    | -33.90 to 34.61    | -235.1 to 240.0    | n/a                | -1033 to 1055      | -1033 to 1055     | -1.033 to 1.055    | -1.000 to 1.021 | -1013 to 1034 | -1.013 to 1.034 | -101.3 to 103.4 | -.1013 to .1034 |
| -14.7 to 100.0 psig  | -29.9 inHg to 100.0 psi  | -29.9 to 203.6  | -760 to 5171    | -760 to 5171    | -407 to 2768       | -33.9 to 230.7     | -235 to 1600       | n/a                | -1033 to 7031      | -1033 to 7031     | -1.033 to 7.031    | -1.000 to 6.805 | -1013 to 6895 | -1.013 to 6.895 | -101.3 to 689.5 | -.1013 to .6895 |
| -14.7 to 200.0 psig  | -29.9 inHg to 200.0 psi  | -29.9 to 407.2  | n/a             | n/a             | -407 to 5536       | -33.9 to 461.4     | -235 to 3200       | n/a                | n/a                | n/a               | -1.03 to 14.06     | -1.00 to 13.61  | n/a           | -1.01 to 13.79  | -101 to 1379    | -.101 to 1.379  |
| 0 to 3.000 psig      | n/a                      | 6.108           | 155.1           | 155.1           | 83.0               | 6.921              | 48.00              | 2109               | 210.9              | 210.9             | .2109              | .2041           | 206.8         | .2068           | 20.68           | n/a             |
| 0 to 5.000 psig      | n/a                      | 10.18           | 258.6           | 258.6           | 138.4              | 11.54              | 80.0               | 3515               | 351.5              | 351.5             | .3515              | .3402           | 344.7         | .3447           | 34.47           | n/a             |
| 0 to 15.00 psig      | n/a                      | 30.54           | 775.7           | 775.7           | 415.2              | 34.61              | 240.0              | n/a                | 1055               | 1055              | 1.055              | 1.021           | 1034          | 1.034           | 103.4           | .1034           |
| 0 to 30.00 psig      | n/a                      | 61.08           | 1552            | 1552            | 830                | 69.21              | 480.0              | n/a                | 2109               | 2109              | 2.109              | 2.041           | 2068          | 2.068           | 206.8           | .2068           |
| 0 to 60.00 psig      | n/a                      | 122.2           | 3103            | 3103            | 1661               | 138.4              | 960                | n/a                | 4218               | 4218              | 4.218              | 4.083           | 4137          | 4.137           | 413.7           | .4137           |
| 0 to 100.0 psig      | n/a                      | 203.6           | 5171            | 5171            | 2768               | 230.7              | 1600               | n/a                | 7031               | 7031              | 7.031              | 6.805           | 6895          | 6.895           | 689.5           | .6895           |
| 0 to 200.0 psig      | n/a                      | 407.2           | n/a             | n/a             | 5536               | 461.3              | 3200               | n/a                | n/a                | n/a               | 14.06              | 13.61           | n/a           | 13.79           | 1379            | 1.379           |
| 0 to 300.0 psig      | n/a                      | 610.8           | n/a             | n/a             | n/a                | 692.0              | 4800               | n/a                | n/a                | n/a               | 21.09              | 20.41           | n/a           | 20.68           | 2068            | 2.068           |
| 0 to 500.0 psig      | n/a                      | 1018            | n/a             | n/a             | n/a                | 1153               | n/a                | n/a                | n/a                | n/a               | 35.15              | 34.02           | n/a           | 34.47           | 3447            | 3.447           |
| 0 to 1000 psig       | n/a                      | 2036            | n/a             | n/a             | n/a                | 2307               | n/a                | n/a                | n/a                | n/a               | 70.31              | 68.05           | n/a           | 68.95           | 6895            | 6.895           |
| 0 to 2000 psig       | n/a                      | 4072            | n/a             | n/a             | n/a                | 4614               | n/a                | n/a                | n/a                | n/a               | 140.6              | 136.1           | n/a           | 137.9           | n/a             | 13.79           |
| 0 to 3000 psig       | n/a                      | 6108            | n/a             | n/a             | n/a                | 6921               | n/a                | n/a                | n/a                | n/a               | 210.9              | 204.1           | n/a           | 206.8           | n/a             | 20.68           |
| 0 to 5000 psig       | n/a                      | n/a             | n/a             | n/a             | n/a                | n/a                | n/a                | n/a                | n/a                | n/a               | 351.5              | 340.2           | n/a           | 344.7           | n/a             | 34.47           |
| 15.00 to 0 psi abs   | n/a                      | 30.54 abs       | 775.7 abs       | 775.7 abs       | 415.1 abs          | 34.61 abs          | 240.0 abs          | n/a                | 1055 abs           | 1055 abs          | 1.055 abs          | 1.021 abs       | 1034 abs      | 1.034 abs       | 103.4 abs       | .1034 abs       |
| 30.00 to 0 psi abs   | n/a                      | 61.08 abs       | 1552 abs        | 1552 abs        | 830 abs            | 69.21 abs          | 480.0 abs          | n/a                | 2109 abs           | 2109 abs          | 2.109 abs          | 2.041 abs       | 2068 abs      | 2.068 abs       | 206.8 abs       | .2068 abs       |
| 100.0 to 0 psi abs   | n/a                      | 203.6 abs       | 5172 abs        | 5172 abs        | 2767 abs           | 230.7 abs          | 1600 abs           | n/a                | 7031 abs           | 7031 abs          | 7.031 abs          | 6.805 abs       | 6895 abs      | 6.895 abs       | 689.5 abs       | .6895 abs       |

## Installation Precautions

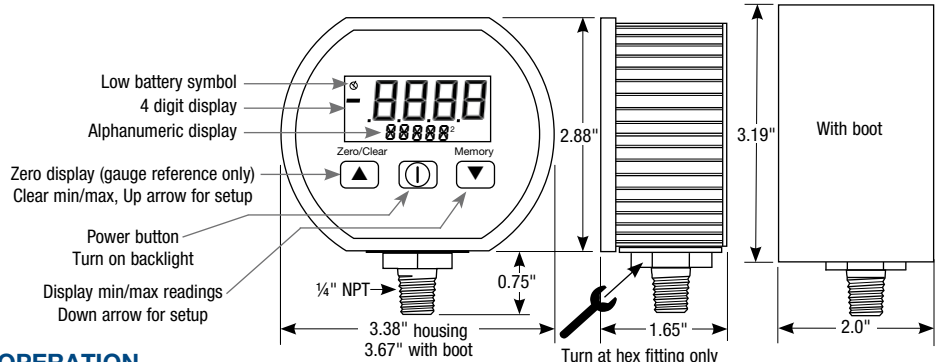
- ✓ Read these instructions before using the gauge. Configuration may be easier before installation. Contact the factory for assistance.
- ✓ These products do not contain user-serviceable parts, except batteries. Contact us for repairs, service, or refurbishment.
- ✓ Gauges must be operated within specified ambient temperature ranges.
- ✓ Permanent installations must be indoors only. Outdoor or wash down applications require installation in a NEMA 4X housing.
- ✓ Use a pressure or vacuum range appropriate for the application.
- ✓ Use fittings appropriate for the pressure range of the gauge.
- ✓ Due to the hardness of 316 stainless steel, it is recommended that a thread sealant be used to ensure leak-free operation.
- ✓ For contaminated media use an appropriate screen or filter to keep debris out of gauge port.
- ✓ Remove system pressures before removing or installing gauge.
- ✓ Install or remove gauge using a wrench on the hex fitting only. Do not attempt to turn gauge by forcing the housing.
- ✓ Good design practice dictates that positive displacement liquid pumps include protection devices to prevent sensor damage from pressure spikes, acceleration head, and vacuum extremes.
- ✗ Avoid permanent sensor damage! Do not apply vacuum to non-vacuum gauges or hydraulic vacuum to any gauges.
- ✗ Avoid permanent sensor damage! NEVER insert objects into gauge port or blow out with compressed air.
- ⚠ Gauges are not for oxygen service. Accidental rupture of sensor diaphragm may cause silicone oil inside sensor to react with oxygen.

Cecomp maintains a constant effort to upgrade and improve its products. Specifications are subject to change without notice. See [cecomp.com](http://cecomp.com) for latest product information. Consult factory for your specific requirements.

**WARNING:** This product can expose you to chemicals including nickel and chromium, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Disposal of Electrical & Electronic Equipment Applicable in the European Union and other European countries.

This product should not be treated as household waste when you wish to dispose of it. Please contact your local waste disposal authority for information and collection location for recycling electrical and electronic equipment. You may also return this product via pre-paid shipping to Absolute Process Instruments or your supplier for proper disposal.



## OPERATION

### Power-Up

Your gauge is ready for use. Batteries are installed and it has been calibrated on NIST traceable equipment.

Press and hold the power button for approx. 1 second. The display is tested.

The full-scale range in the factory default units is indicated. If the units were changed by the user, the full scale range in the selected units is then displayed. The display test is briefly shown again.

The actual pressure and units are displayed. The gauge is ready for use and readings are updated approximately 3 times per second.

For gauge reference models occasional flashing of the minus sign is normal and indicates the gauge is at zero pressure. Absolute gauges only display zero at full vacuum.

### Display Backlighting

Display backlighting, if enabled, will turn on for 1 minute when the gauge is powered up. The display backlighting may not be apparent under bright lighting.

It can be turned on at any time by momentarily pressing any button whenever the gauge is on. This also restarts the auto shutoff timer.

In user configuration, the backlight can be set for

AUTO: On for 1 minute (factory default)

ON: On whenever the gauge is on

OFF: Disabled, to increase battery life



### Zero the Display (Gauge Reference Only)

Absolute reference gauges do not use the zero feature.

Be sure the gauge is in the normal operating mode. The gauge port must be open to normal atmospheric pressure with no pressure or vacuum applied.

Press and hold the Zero/Clear button.

Continue to press the Zero/Clear button until 0000 is displayed then release the button. The gauge is now zeroed.

Occasional flashing of the minus sign with zero pressure/vacuum is normal.

The stored zero correction is erased when the gauge shuts off.

If Err 0 occurs make sure all pressure is removed and press the power button to reset the error.

### Shutoff

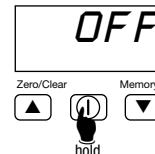
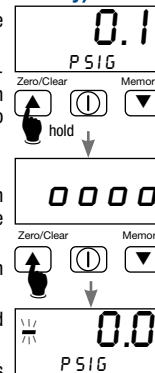
The auto shutoff timer starts at power up and restarts whenever any button is pressed. The default time is 5 minutes but can be user configured for a variety of times.

If on/off operation is selected, the gauge will stay on until manually shut off or when the batteries are depleted. Turn gauge off when not in use.

When an auto shutoff time is used, the display indicates OFF five seconds prior to shutoff. Press the power button to keep the gauge on and restart the timer.

To shut the gauge off manually, press and hold the center power button (about 3 seconds) until OFF is displayed and then release the button. The gauge shuts off.

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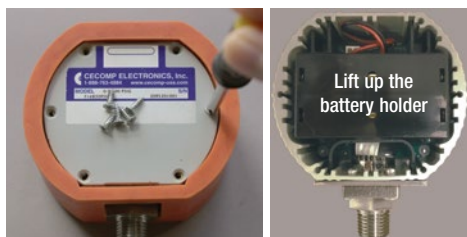




## BATTERY REPLACEMENT

A low battery indication will be shown in the upper left-hand corner of the display when the battery voltage falls sufficiently. The batteries should be replaced soon after the indicator comes on or unreliable readings may result.

1. Remove the 6 Phillips screws on the back of the unit.
2. Lift up the battery holder.
3. Remove batteries by lifting up the positive end of the battery (opposite the spring) taking care not to bend the battery holder spring.
4. Discard old batteries properly, do not discard into fire, sources of extreme heat, or in any hazardous manner.
5. Always replace both batteries at the same time with high quality alkaline batteries.
6. Install batteries with correct orientation. Incorrect polarity will damage the gauge. The negative (flat) end of each battery should be inserted first facing the battery holder spring.
7. Replace battery holder face down being careful not to pinch the wires.
8. Replace the back cover, including the rubber gasket and reinstall the six screws.



## CALIBRATION

### Setup and Preparation

Gauges are factory calibrated at approximately 23°C using NIST traceable calibration equipment. Calibration is not required before using the gauge. Calibration intervals depend on your quality standards, but annual re-calibration is customary. Calibration should only be performed by qualified individuals using appropriate calibration standards and procedures.

The calibration system must be able to generate and measure pressure/vacuum over the full range of the gauge and should be at least four times more accurate than the gauge being calibrated.

A vacuum pump able to produce a vacuum of 100 microns (0.1 torr or 100 millitorr) or lower is required for vacuum and absolute gauges.

Install fresh batteries. Allow the gauge to acclimate to ambient temperature for 20 minutes.

### Entering Calibration Mode

With the gauge off, press and hold the ▼ button, then press the Power button.

Release all buttons when the display indicates CAL.

The display begins by indicating the full-scale positive pressure rating of the gauge in the engineering units as configured by the factory, and then shows all display.

Before the gauge enters the Calibration Mode, the display initially indicates \_ \_ \_ \_ with the first underscore blinking, and with CALPC (calibration passcode) on the lower display.

Enter the 3510 passcode as described in the Configuration Passcode section.

### Calibration Mode

The gauge remains in the Calibration Mode until restarted manually or power is removed. Features not related to calibration are disabled and compound range models are set for the same engineering units for pressure and for vacuum.

The calibration may be performed in any of the available engineering units as well as percent (PCT).

For greatest accuracy, use the ▲ and ▼ buttons to select engineering units for calibration with highest number of display counts. Press and release the Power button when the appropriate engineering units are displayed.

Continued >>

| Sensor   | Suggested units for calibration |
|----------|---------------------------------|
| 3 PSI    | 6.920 FTH2O                     |
| 5 PSI    | 5.000 PSI                       |
| 15 PSI   | 775.7 MMHG or TORR              |
| 30 PSI   | 61.08 INHG                      |
| 50 PSI   | 50.00 PSI                       |
| 60 PSI   | 60.00 PSI                       |
| 100 PSI  | 7.031 KG/CM2                    |
| 200 PSI  | 407.2 INHG                      |
| 300 PSI  | 610.8 INHG                      |
| 500 PSI  | 3447 KPA                        |
| 1000 PSI | 6895 KPA                        |
| 2000 PSI | 4614 FTH2O                      |
| 3000 PSI | 6920 FTH2O                      |
| 5000 PSI | 5000 PSI                        |

The display will then indicate the currently applied pressure in the engineering units selected for calibration.

### ▲ and ▼ Button Operation

Each time one of the ▲ or ▼ buttons is pressed and released quickly, a small change is made to the digitized pressure signal. It may take more than one button press to make a change on the display.

To make larger changes, press and hold the appropriate button. After about one second, the display will begin to change continuously. Release the button to stop. Then make fine adjustments by pressing and quickly releasing the buttons as previously described.

### Gauge Reference Pressure Gauges

Apply zero pressure by venting the gauge port to atmosphere. The character display will alternate between ZERO and CAL. Adjust for a display indication of zero using the ▲ and ▼ buttons.

Note: At this point you may re-zero the gauge without doing any other calibration. Press and hold the Power button until the display indicates - - - - then release the button to store the new zero in non-volatile memory and restart the gauge.

Apply full-scale pressure. The character display will alternate between +SPAN and CAL. Adjust for a display indication of full-scale pressure using the ▲ and ▼ buttons.

Apply 50% full-scale pressure. The character display will alternate between +MID and CAL. Adjust for a display indication equal to 50% of full-scale pressure using the ▲ and ▼ buttons.

Press and hold the Power button until the display indicates - - - - then release the button to store the calibration parameters in non-volatile memory and restart the gauge.

Verify readings at 0%, 25%, 50%, 75% and 100% of full scale.

### Gauge Reference Vacuum Gauges

Apply zero pressure by venting the gauge port to atmosphere. The character display will alternate between ZERO and CAL. Adjust for a display indication of zero using the ▲ and ▼ buttons.

Note: At this point you may re-zero the gauge without doing any other calibration. Press and hold the Power button until the display indicates - - - - then release the button to store the new zero in non-volatile memory and restart the gauge.

Apply full-scale vacuum. The character display will alternate between +SPAN and CAL. Adjust for a display indication of full-scale vacuum using the ▲ and ▼ buttons.

Apply 50% full-scale vacuum. The character display will alternate between +MID and CAL. Adjust for a display indication equal to 50% of full-scale vacuum using the ▲ and ▼ buttons.

Press and hold the Power button until the display indicates - - - - then release the button to store the calibration parameters in non-volatile memory and restart the gauge.

Verify readings at 0%, 25%, 50%, 75% and 100% of full scale.

Continued >>

## Absolute Reference Gauges

Apply full vacuum to the gauge. The character display will alternate between ZERO and CAL. Press the ▲ and ▼ buttons to obtain a display indication of zero.

Note: At this point you may re-zero the gauge without doing any other calibration. Press and hold the Power button until the display indicates - - - - then release the button to store the new zero in non-volatile memory and restart the gauge.

Apply full-scale pressure. The character display will alternate between +SPAN and CAL. Press the ▲ and ▼ buttons to obtain a display indication equal to full-scale pressure.

Apply 50% of full-scale pressure. The lower display will alternate between +MID and CAL. Press the ▲ and ▼ buttons to obtain an indication equal to 50% of full-scale pressure.

Press and hold the Power button until the display indicates - - - - then release the button to store the calibration parameters in non-volatile memory and restart the gauge.

Verify readings at 0%, 25%, 50%, 75% and 100% of full scale.

## Compound and Bipolar Gauges

In addition to the steps described above for pressure gauges, apply full-scale vacuum. The character display will alternate between -SPAN and CAL. Adjust for a display indication of actual applied vacuum using the ▲ and ▼ buttons.

For bipolar and -30.00inHg to 15.00psi compound range models only, apply 50% full-scale vacuum. The character display will alternate between -MID and CAL. Adjust for a display indication equal to 50% of full-scale vacuum using the ▲ and ▼ buttons.

## CHANGING PASSCODES

The factory default passcode 3510 may be changed to a different value for configuration and/or calibration.

With the gauge off, press and hold the ▲ button to view and/or change the user configuration passcode. Then press the Power button. Release all buttons when the display indicates CFG.

### Calibration Passcode

With the gauge off, press and hold the ▼ button to view and/or change the user calibration passcode. Then press the Power button. Release all buttons when the display indicates CAL.

### Change Passcode Mode

Before the gauge enters the view or change passcode mode, the display initially indicates \_ \_ \_ \_ with the first underscore blinking, and with CFGPC or CALPC on the character display.

The gauge will automatically revert to normal operation if no buttons are operated for approximately 15 seconds. To cancel and return to normal operation, press and release the Power button.

Enter access code 1220:

Use the ▲ and ▼ buttons to set the left-most digit to 1.

Press and release the Power button to index to the next position. The 1 will remain, and the second position will be blinking.

Use the ▲ and ▼ buttons to select 2.

Press and release the Power button to index to the next position. 1 2 will remain, and the third position will be blinking.

Use the ▲ and ▼ buttons to select 2.

Press and release the Power button to index to the next position. 1 2 2 will remain, and the fourth position will be blinking.

Use the ▲ and ▼ buttons to select 0.

Press and release the Power button to proceed.

Note: If an incorrect access code was entered, the gauge will return to the start of the access code entry sequence.

Once the access code has been entered correctly, the display will indicate the existing user-defined passcode with CFGPC or CALPC on the character display.

Press the ▲ or ▼ button to select the first character of the new passcode.

When the desired first character is displayed, press and release the Power button to proceed to the next passcode character.

Repeat above until the entire passcode is complete.

To exit the User Defined Passcode change mode, press and hold the Power button.

Release the button when the display indicates - - - - to restart the gauge.