

Crystal 15PSIXP2I

Crystal XP2i Digital Pressure Gauge User Manual

Model: 15PSIXP2I

1. INTRODUCTION

The Crystal XP2i Digital Pressure Gauge is a high-accuracy instrument designed for precise pressure measurement in various industrial and scientific applications. It provides an accurate reading of 0.1% from 14 to 122°F (-10 to 50°C), making it suitable for a wide range of environments. This gauge is engineered for durability, featuring a marine-grade, corrosion-resistant nickel-plated housing and an IP67 certification, ensuring protection against dust and water submersion up to 3 ft (1 m) for 30 minutes. Its robust design allows it to withstand falls without affecting accuracy.

Key features include:

- Ability to start and stop multiple collection runs directly from the XP2i keypad.
- Capable of replacing five or more traditional digital test gauges due to its versatility.
- Equipped with a fast Pressure Safety Valve (PSV) mode to capture and display relief pressure.
- Features a large, high-contrast LCD with backlight for easy readability in various lighting conditions.



Figure 1: Crystal XP2i Digital Pressure Gauge. This image displays the Crystal XP2i Digital Pressure Gauge, a robust instrument designed for precise pressure measurement. The gauge features a large, clear digital display showing '0 PSI', indicating its current reading. Below the main display, there are four control buttons: a backlight button (lightbulb icon), a 'Hi/peak/Lo' button for capturing extreme readings, a 'zero/clear' button for re-zeroing the gauge, and a 'units' button for changing measurement units. At the top, a power button is visible. The gauge has a durable, nickel-plated housing and a threaded connection at the bottom for attachment to pressure systems. The model number and connection type are visible on the metal fitting.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the Crystal XP2i Digital Pressure Gauge. Failure to follow these instructions may result in injury or damage to the equipment.

- Always ensure the gauge is rated for the maximum pressure of the system being measured. Do not exceed the specified pressure range of 15 psi.
- Verify that the gauge connection is compatible with the system's port and is securely tightened to prevent leaks.
- Do not use the gauge in environments where explosive gases or vapors are present unless it is specifically certified for such use.

- Protect the gauge from extreme temperatures, direct sunlight, and corrosive chemicals.
- Handle the gauge with care. Although designed to be robust, dropping it from excessive heights may still cause damage.
- Regularly inspect the gauge for any signs of damage or wear before use. Do not use a damaged gauge.
- When connecting or disconnecting the gauge, ensure the system pressure is relieved to zero to prevent sudden pressure release.

3. COMPONENTS AND CONTROLS

The Crystal XP2i Digital Pressure Gauge features an intuitive interface with clearly labeled buttons for ease of use. Refer to Figure 1 for visual identification of components.

- **Power Button ():** Located at the top, used to turn the gauge ON or OFF.
- **Backlight Button ():** Activates or deactivates the display backlight for improved visibility in low-light conditions.
- **Hi/Peak/Lo Button:** Toggles between current pressure reading, highest (peak) pressure recorded, and lowest (low) pressure recorded during a measurement session.
- **Zero/Clear Button:** Used to re-zero the gauge before a measurement or to clear recorded peak/low values.
- **Units Button:** Cycles through available pressure units (e.g., PSI, kPa, bar, etc.).
- **Digital Display:** Large LCD screen showing pressure readings, units, and other operational indicators.
- **Pressure Port:** Threaded connection at the bottom for attaching the gauge to a pressure source.

4. SETUP

4.1 Unpacking

Carefully remove the Crystal XP2i Digital Pressure Gauge from its packaging. Inspect the gauge for any visible damage that may have occurred during shipping. Retain the original packaging for future storage or transport.

4.2 Battery Installation

The XP2i gauge typically operates on standard alkaline batteries. Locate the battery compartment, usually on the rear or side of the unit. Open the compartment, insert the batteries according to the polarity indicators (+/-), and securely close the cover.

4.3 Mounting and Connection

The gauge features a standard threaded pressure port at its base.

1. Ensure the pressure system is depressurized before connecting the gauge.
2. Thread the gauge's pressure port onto the system's connection point.
3. Tighten securely by hand, then use an appropriate wrench on the hex fitting (not the gauge body) to ensure a leak-free seal. Do not overtighten.
4. Once connected, slowly pressurize the system and check for any leaks.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

Press and hold the Power button () for approximately 2 seconds to turn the gauge ON. The display will illuminate

and show the current pressure reading. To turn the gauge OFF, press and hold the Power button again until the display shuts off.

5.2 Zeroing the Gauge

Before taking a measurement, especially for differential pressure or to compensate for atmospheric pressure, it is crucial to zero the gauge.

1. Ensure the gauge is disconnected from any pressure source or is at ambient atmospheric pressure.
2. Press the "Zero/Clear" button. The display should read "0.00 PSI" or the equivalent in the selected unit.
3. If the reading does not zero, ensure the gauge is stable and free from external influences.

5.3 Changing Units

To cycle through available pressure units (e.g., PSI, kPa, bar, kg/cm², inHg, mmHg, etc.), press the "Units" button. The display will update to show the current reading in the newly selected unit.

5.4 Peak/Min/Max Hold Function

The XP2i can capture and display the highest (peak) and lowest (low) pressure readings during a measurement session.

- Press the "Hi/Peak/Lo" button once to display the peak pressure.
- Press it again to display the lowest pressure.
- Press it a third time to return to the live pressure reading.
- To clear the recorded peak and low values, press the "Zero/Clear" button while in peak or low display mode.

5.5 Taking a Measurement

With the gauge connected and zeroed (if necessary), slowly apply pressure to the system. The digital display will show the real-time pressure reading.

5.6 Pressure Safety Valve (PSV) Mode

The XP2i features a fast PSV mode designed to capture and display the relief pressure even if the operator is not directly observing the gauge when the valve opens. Consult the full product manual for detailed instructions on activating and utilizing this specialized mode for pressure relief valve testing.

6. MAINTENANCE

6.1 Cleaning

Clean the exterior of the gauge with a soft, damp cloth. Do not use abrasive cleaners, solvents, or harsh chemicals, as these can damage the housing or display. Ensure the pressure port is free of debris.

6.2 Storage

When not in use, store the gauge in a clean, dry environment, away from extreme temperatures and direct sunlight. If storing for extended periods, it is recommended to remove the batteries to prevent leakage.

6.3 Calibration

For continued accuracy, periodic calibration by a qualified technician is recommended. The frequency of calibration depends on usage, environmental conditions, and company policy. Refer to Crystal's official documentation or

contact their support for calibration services.

7. TROUBLESHOOTING

This section provides solutions to common issues encountered with the Crystal XP2i Digital Pressure Gauge.

Problem	Possible Cause	Solution
Gauge does not power on.	Dead or incorrectly installed batteries.	Replace batteries with new ones, ensuring correct polarity.
Inaccurate readings.	Gauge not zeroed; environmental factors; calibration needed.	Zero the gauge before use. Ensure stable temperature. Consider professional calibration.
Display is dim or flickering.	Low battery; backlight setting.	Replace batteries. Press the backlight button to adjust brightness.
Cannot change units.	Button malfunction; locked setting.	Ensure the "Units" button is pressed firmly. Refer to the full manual for advanced settings.
Leak at connection point.	Improperly tightened connection; damaged threads/seal.	Ensure connection is tight. Inspect threads and use appropriate sealing tape if necessary.

8. TECHNICAL SPECIFICATIONS

Parameter	Value
Model	15PSIXP2I
Brand	Crystal
Pressure Range	15 psi (as per product title)
Accuracy	0.1% of reading (from 14 to 122°F / -10 to 50°C)
Operating Temperature	14 to 122°F (-10 to 50°C)
Ingress Protection (IP) Rating	IP67 (Sealed against dust and water, 30 minutes of full submersion under 3 ft / 1 m of water)
Housing Material	Nickel-plated (corrosion resistant) / Aluminum
Manufacturer	COLE-PARMER
Country of Origin	China
ASIN	B01NAXL3DI

9. WARRANTY AND SUPPORT

Crystal products are manufactured to high standards and are backed by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the warranty card




included with your product or visit the official Crystal website.

For technical support, service, or calibration inquiries, please contact Crystal customer service or your authorized distributor. When contacting support, please have your model number (15PSIXP2I) and ASIN (B01NAXL3DI) readily available.

Manufacturer: COLE-PARMER

Brand: Crystal

Related Documents - 15PSIXP2I

	<p>Crystal WT Series Digital Test Gauge Operation Manual AMETEK</p> <p>Get detailed operational guidance for the Crystal WT Series Digital Test Gauge. This manual covers setup, functions, specifications, troubleshooting, calibration, and warranty information for AMETEK's precision pressure measurement instruments.</p>
	<p>XP2i-DP Operation Manual for XP2i-DP Digital Test Gauge</p> <p>Operation manual for the Crystal XP2i-DP Digital Test Gauge by AMETEK. Covers specifications, differential pressure and vacuum applications, safety certifications, software, accessories, and warranty. Includes detailed technical information for industrial use.</p>
	<p>Crystal nVision Reference Recorder Operation Manual</p> <p>Detailed operation manual for the Crystal nVision Reference Recorder, covering functions, modules, specifications, safety, troubleshooting, and calibration. Features graphical and numerical data logging for pressure, temperature, voltage, and current measurements.</p>



[Window Installation Guide - Screwfix & Crystal](#)

Comprehensive guide to installing PVC-U windows from Crystal, covering delivery, frame fitting, glazing, adjustments, and maintenance. Provided by Screwfix.



[Crystal ONYX WiFi Touch Display User Manual for Heat Pump Control](#)

User manual for the Crystal ONYX WiFi touch display, providing instructions on operation, settings, and troubleshooting for Crystal heat pump systems. This guide details how to set up and use the device for optimal heating and cooling control.



[Crystal CBF80A 150W 8-Inch Compact Active Subwoofer - Installation and Features](#)

Detailed information on the Crystal CBF80A 150W 8-inch compact active subwoofer, including installation placement, wiring configurations, features, specifications, and technical assistance.