

1 YEAR
WARRANTY



Ω OMEGA™ **User's Guide**

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DPG280 SERIES **Digital Pressure Gauge**

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Section 1 – Introduction

1.1 Precautions

- Please check the packaging and appearance after you received the product.
- Please check the mode and specification of the product. Keep correct electrical connection and mounting method.
- Please installation WITHOUT power.
- During using, please notice the technical and operation conditions: the temperature of medium, burst pressure, power supply.
- This product is a precision device, DO NOT use hard objects to touch the diaphragm or disassemble.
- During installation, do not install or disassemble strongly, especially the installation of thread.
- Please install or disassemble with a suitable wrench, otherwise, the damage is not in the scope of warranty.
- After starting the gauge, it is a normal phenomenon to take a few minutes to keep it stable and work normally.
- If the product is out of order, please contact our after-sale technical staff.
- During installation, the gauge will be affected by installation stress. After installation, please zero clearing.

(!!)The product damage caused by non-professional operation according to the operation regulation is not the scope by the warranty.

The DPG280 is shipped with 2 AAA batteries outside of the unit. To install or replace batteries, first remove the four screws. Then remove the lid using a flat head screwdriver and the two pry slots (shown above), as needed.

CAUTION: Do not apply force to keypad area on the front of the unit when replacing the lid. Force should only be applied on the raised edges of the unit or areas that do not contain keypad buttons or the screen.

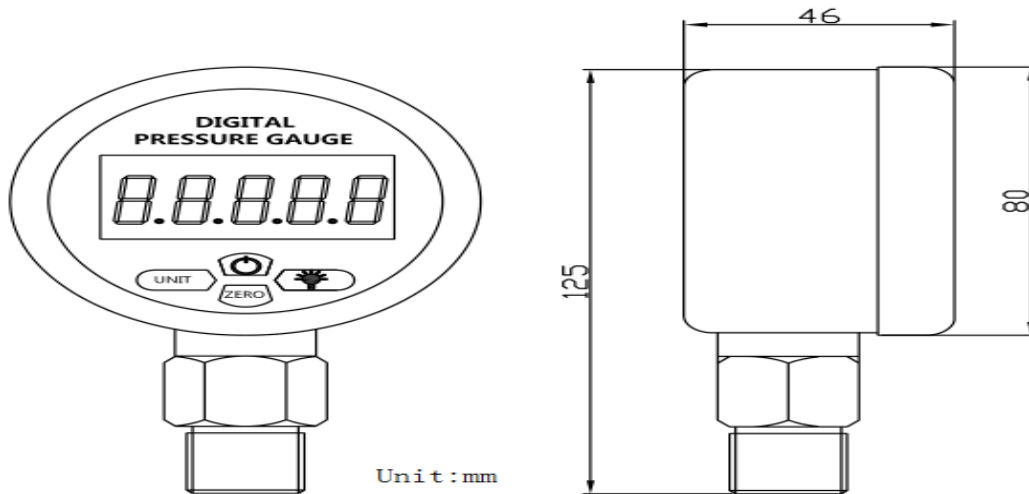
NOTE: Battery operating and storage temperatures can vary by manufacturer. The temperature rating of the replacement batteries you choose may limit the temperature to a narrower range than specified for the DPG509. Please consult the battery manufacturer for temperature limitations.

Battery life will vary based on the quality of batteries installed and combination of selected settings. Below are general guidelines to maximize battery life:

- Keep the backlight off or rarely use
- Select a low sampling rate
- Avoid prolonged exposure to extreme temperatures

Section 2 – Setup




2.1 General Dimensions



Section 3 – Menu and Configuration





3.1 LCD and Code Description



CODE	DESCRIPTION
kPa PSI Kg/cm² Bar Mpa	Pressure Unit
MAX/MIN	Max/Min Pressure
	Battery Level
0%  100%	Percent
	Communication Sign
E-E	Abnormal sensor communication or sensor damage
E-H	Current Pressure Over Range Use or Sensor Damage
E-P	Enter pressure calibration procedure, please power off and exit
P-C	Enter Temperature Compensation Procedure, Please Turn Off and Exit
r-03	Filter constant setting

3.2 Button Functionality



BUTTON	NAME	DESCRIPTION
	POWER	Short press to turn ON/OFF
	UNIT	Short press to switch pressure units
	BACKLIGHT	Short press to turn on the backlight; long press to keep the backlight on
	ZERO	Press for 4 seconds to zero clearing

3.3 Adjust of Filter Constant

Short press 'back-light' and 'ZERO' buttons together, it shows 'r-03', and means the filter constant is 03. Then change the value through pressing 'ZERO' button, the value is between 01~10. After setting, press back-light button to save and quit.

Notice: The value smaller, the figure changes more quickly; the value bigger, the figure changes more slowly and the figure more stability.

3.4 Power

BATTERY	Two AAA battery
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3.5 Data Record

1. On/off data record function

After power, short press 'back-light' button, then the 'pressure unit sign' begin to flicker, it means the data record function is open.

Press 'back-light' button again, then the 'pressure unit sign' stop flickering, it means the data record function is closed.

2. Adjustment the record interval time

Long press 'back-light' button for 3 seconds till it shows 'FXXXX', such as 'F0001', it means the data record every one second. Through press 'power' and 'zero' buttons to change the value. Through press 'back-light' button to shift different position value. After setting, press 'unit' button to save and quit. The value range: (1~3600) seconds.

3. Date export

First, please install the correct software on computer.

Second, contact gauge with computer through special USB-line which is in the package box. Third, operation methods.

3.6 Peak Value

Long press 'UNIT' button for 4 seconds, the screen will show the Maximum value after last zero clearing, then press 'UNIT' button , it will show Minimum value, then press ' UNIT' button to quit.

During show Max or Min value, long press 'ZERO' button to clear record before, and enter a new record.

3.7 Troubleshooting

1.) **Question:** Back-light Dim

Answer: Low Battery, install new battery

2.) **Question:** Battery identification flashing

Answer: Low Battery, install new battery

3.) **Question:** Pressure no change

Answer: Reason Analysis:

- (1). Pressure port is block
- (2). Zero clearing with pressure applied
- (3). Pressure sensor damage

Solutions:

- (1). Clear pressure connector
- (2). Zero clearing without pressure
- (3). Return factory for repair

4. **Question:** Showing 'E--H'

Answer: Reason Analysis:

- (1). Over pressure
- (2). Pressure sensor is damaged

Solutions:

- (1). Decrease pressure
- (2). Return factory for repair

5.) **Question:** Pressure change slowly

Answer: Sampling rate low. Sampling rate value decrease

6.) **Question:** Pressure change slowly

Answer: Value is beating too fast. Sampling rate value increase

7.) **Question:** Frequent Pressure Shock

Answer: Add Buffer Tube

8.) **Question:** High Temperature

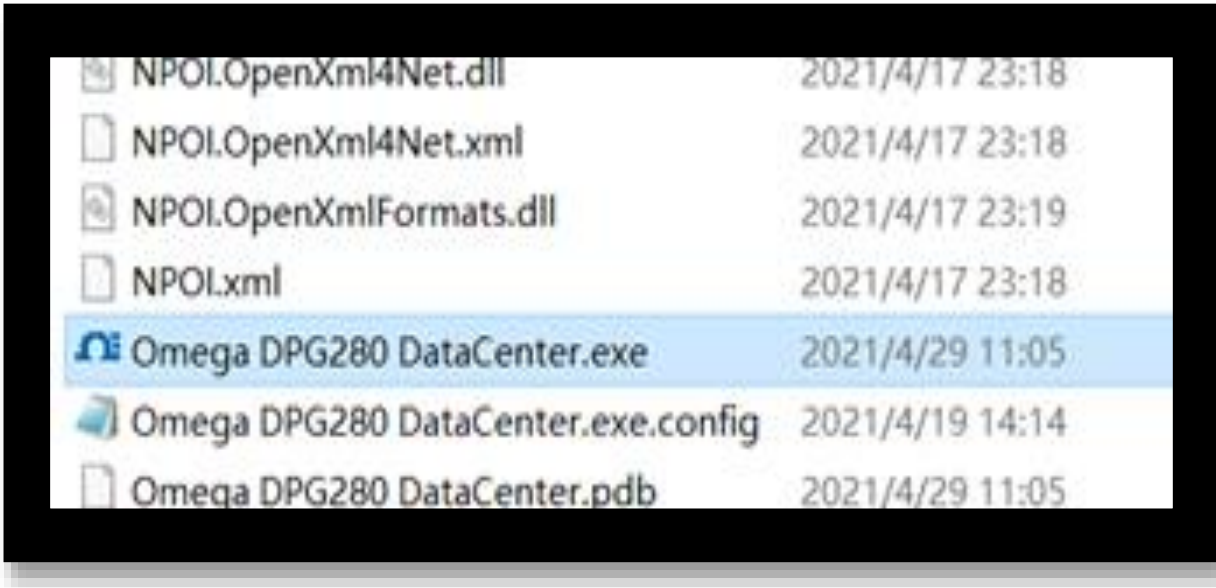
Answer: Add Radiator Tube

Section 4 - Software Instructions 4.1 Software

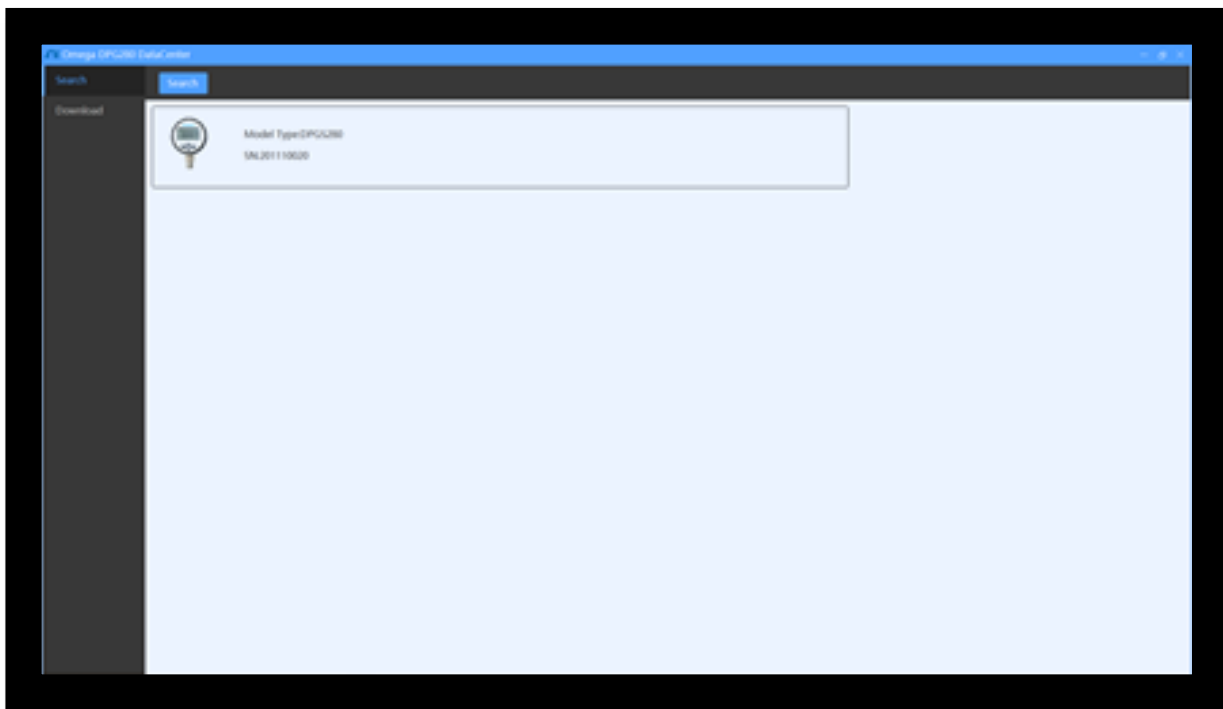
Instructions

i Quick start

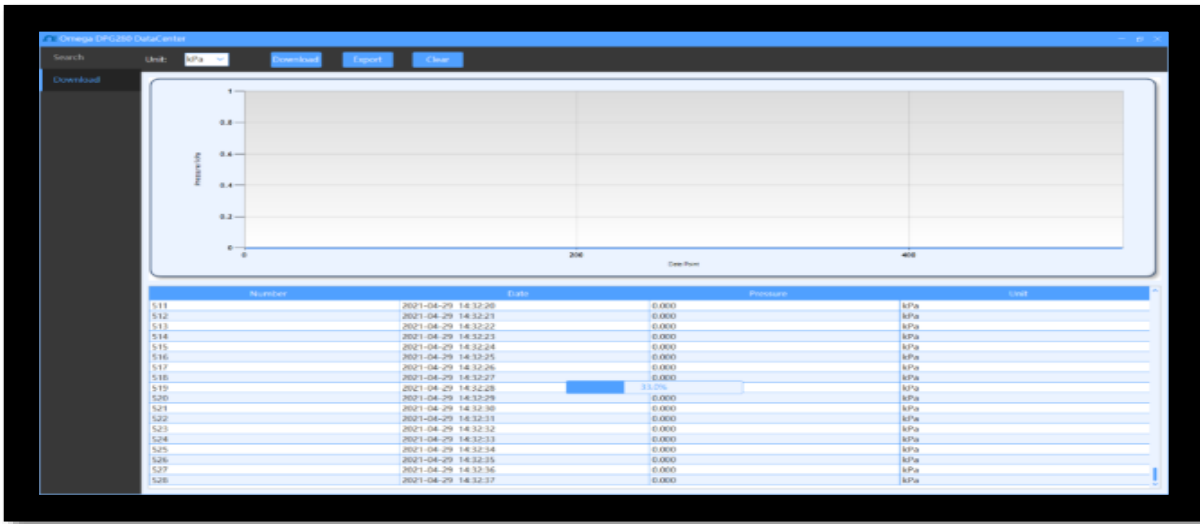
1. Plug in the USB adaptor. Extract the software package to your desired folder. Click "Omega DPG280 DataCenter.exe" to start the application. "dot net Framework 4.8" should be installed if the software cannot start. This installation has been placed in the drivers folder.



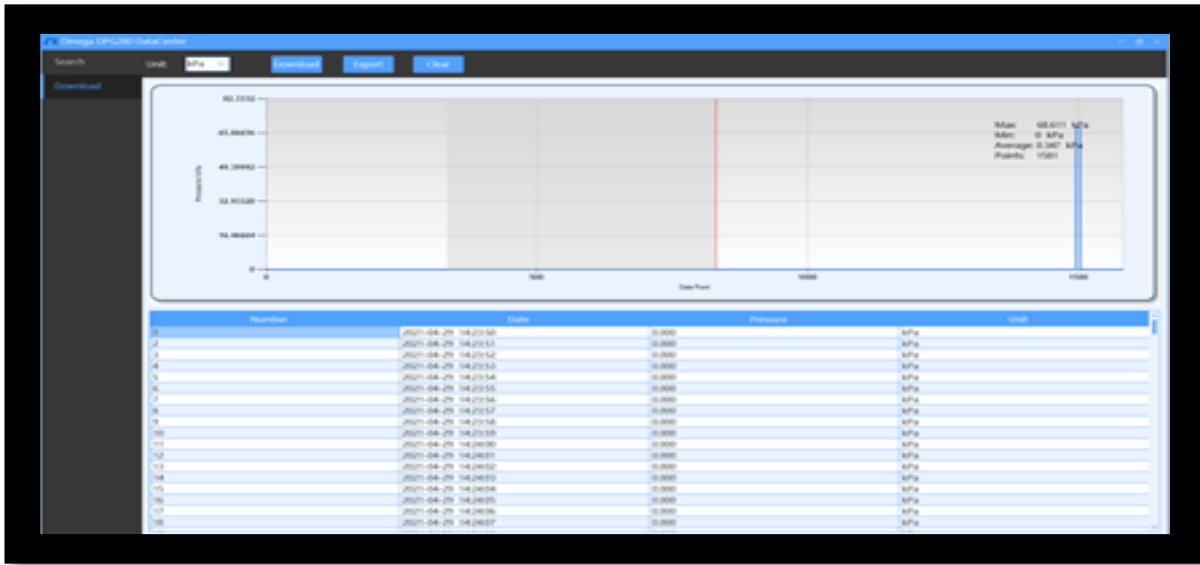
2. Click the "search" button to list the connected pressure gauge. See the "Driver install" section if no device found.



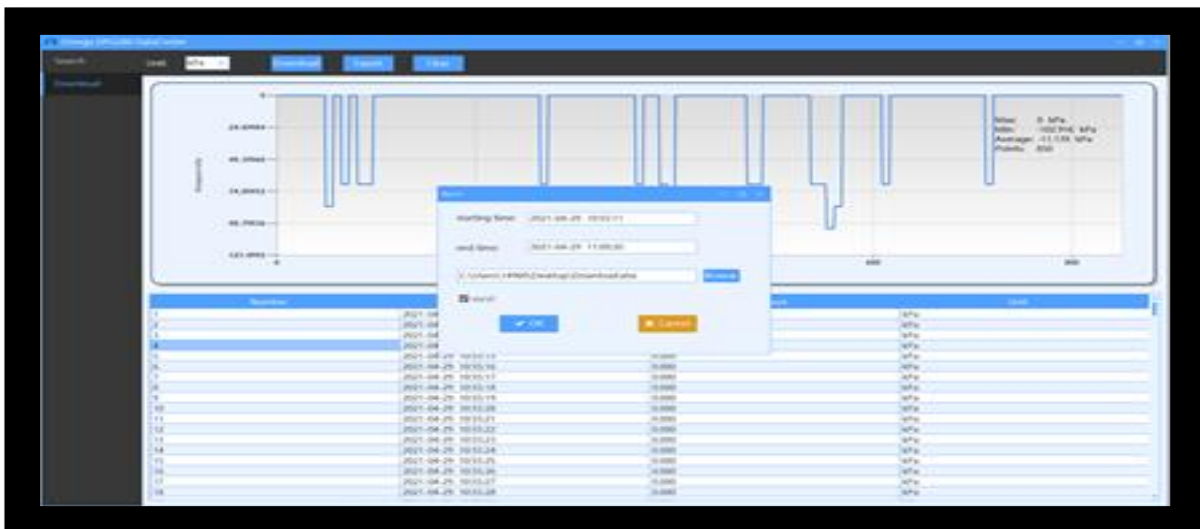
3. Select the unit and click “download” button to start the download process.



4. Drag the data chart to zoom in the curve, right click to zoom out.



5. Click the “Export” button to export the history data.



6. Click the “Clear” button to clear the history data in gauge.

ii Diver install

1. Right click the “This computer” and select “manager”

2. Right click the exclamation marked USB device and select “update driver”. Click “Browse this computer to find the driver”. Select the “/Drivers/CH341SER” folder and click “OK” to install the driver.





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WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S

CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the

product was PURCHASED,

2. Model and serial number of the product under warranty, and

3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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