

**DICKSON**

# PR125/PR325/PR525

## Pressure Logger Operation

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# Product Applications

One-step data retrieval for utility operators on-the-go! -- retrieve data without the bother of moving data loggers or laptops. Easy-to-See, Easy-to-Download Data

User-friendly "DicksonWare™" software makes it simple to integrate recorded pressure data into documents and spreadsheets, giving results a professional, polished look. When fulfillment of regulatory requirements or accurate recording of pressure for quality control is needed, this logger is the perfect instrument.

## Useful Features

- Display with Mon/Max option, unit of measure indicator, low battery indicator and much more
- USB-enabled triple speed downloading
- 1-second sampling rate
- IP68 cas
- FLASH card option

## Product Specifications

<b>Pressure Range:</b>	<b>PR125:</b> 0 - 100 PSI , <b>PR325:</b> 0 - 300 PSI, <b>PR525:</b> 0 - 500 PSI
<b>Accuracy:</b>	±1% of full scale
<b>Ambient Operating Conditions:</b>	-22 to +176°F (-30 to +80°C) 0 to 100% RH
<b>IP Rating</b>	IP68
<b>Units of Measure:</b>	<b>Via DicksonWare:</b> PSI, ATM, Bar, mBar, InH2O, FtH2O, mmH2O, mmHG, InHg, Pascal, kP, MCA; <b>Via Display:</b> PSI, ATM, mBar, InH2O, kP, MCA, BAR
<b>Approvals:</b>	CE
<b>Battery Type:</b>	1 DL123 Lithium Battery (User Replaceable)
<b>Battery Life:</b>	6 months at 5 Minute Sample Rate
<b>Fitting:</b>	1/4" NPT Thread, 5/8" Hex
<b>Sample Point Storage:</b>	60,000 points
<b>Sample Interval:</b>	User selectable from 1 second to 24 hours
<b>Download Time:</b>	45 seconds
<b>Download Type:</b>	USB or Flash Memory Card
<b>Enclosure:</b>	Glass filled Polycarbonate; Stainless Steel Hex
<b>Dimensions:</b>	3.4" DIA x 2.8" H (8.64 cm DIA x 7.11 cm H)
<b>Weight:</b>	10.7 oz (300.7 g)
<b>Minimum Version Dicksonware Required:</b>	12.4

# Getting Started

1. Install DicksonWare version 13.0 or greater on your PC (compatible with windows 98 or higher) Install battery
  - a. Carefully remove case lid
  - b. Remove battery compartment lid carefully by twisting cap clockwise
  - c. Insert battery positive side up
  - d. Replace battery cap
  - e. It may take up to 5 seconds for unit to power up
2. Open DicksonWare software via the icon on your desktop.
3. Connect the USB cable to the logger (port located to the left of the display) and to an available working USB port on your PC.
4. Your computer may detect the logger when it is powered on and connected to the computer via the USB connection. Depending on your version of Windows, the computer may go through an Add New Hardware routine.
5. Click on the Setup button. You will be prompted to select USB or Serial COM Port connection. Select USB then click Continue.
6. A Setup window will appear. All fields should be automatically filled in, confirming that DicksonWare has recognized your logger. Should all fields remain blank, refer to no communications for this model in the Technical Support section of DicksonData.com.
7. Once DicksonWare recognizes the logger, press the Clear button. This will delete all data currently stored.
8. Your logger is now ready to be placed in the desired logger location

## Changing Logger Defaults

### Pressure Logger Defaults:

- Sample Rate = 5 Minues
  - Stop or Wrap When Full = Wrap
  - Logger Display Unit of Measure = PSI
  - DicksonWare Unit of Measure = PSI
1. To change any of the logger defaults, connect the logger to your PC via the USB cable and open DicksonWare.
  2. Click on Setup
  3. The following settings can be modified:
    - a. Setup/Identification
      - i. Logger ID: Name logger
      - ii. Calibration Date: Set next calibration date
      - iii. Calibration Interval: Set calibration interval
    - b. Setup/Samples
      - i. Sample Interval: How frequently the logger takes a pressure reading
      - ii. Sub 10 Second Interval (Note: Selecting Sub 10 Second Intervals automatically activates Water Hammer mode with a sample of 1 second.)
      - iii. Stop or Wrap When Full: Stops logging when logger is full or Writes over oldest sample points when logger is full.
    - c. Setup/Channels
      - i. Name Logger Channel
    - d. Setup/Display Scale
      - i. Logger: Set scale displayed on Logger LCD
      - ii. DicksonWare: Set scale displayed when downloaded to DicksonWare
- Note:** To achieve longer battery life during operation, use a less frequent sample rate, disconnect the unit from the USB port when not downloading data, limit the frequency of memory card transfers, and do not insert the memory card all the way unless downloading.

## Useful Features

### Real Time Monitoring

Monitor and graph your process as it happens and print and save from real time screen. (This feature should be used sparingly as it causes the battery to drain very quickly.)

### Customize Graphed Data

DicksonWare™ calculates Min, Max and Average of all data collected. Customize data by eliminating unnecessary data points and customize Min, Max and Average to show only desired information.

### Export Data

A snapshot of your graph or a real-time graph of points can be easily exported to other programs such as Excel™ or PowerPoint™.

**\*\* CLICK ON THE FEATURES BUTTON IN THE \*\* SOFTWARE FOR DETAILED INSTRUCTIONS ON HOW TO USE ABOVE FEATURES**

## Logger Operating Instructions

**Note:** The loggers have a continuous display that cannot be disabled.

### Download to SD/MMC

**Note:** This feature is only for use with the Dickson Memory Cards.

Pressing this button will download any data stored in the logger to the removeable memory card. The counter will start counting down from 100. DO NOT remove the memory card until the unit is displaying current readings.

**Note:** Leaving the memory card installed in the Logger will reduce battery life by 50%. If you notice "Err" on the display, please refer to the Trouble Shooting section at [www.DicksonData.com](http://www.DicksonData.com)

### MIN/MAX

Pressing this button will start the Min/Max display cycle.

### Clearing MIN/MAX Values

Holding the "MIN/MAX" button down for 3 seconds until "clr" appears on display will clear the stored minimum and maximum values. The Min and Max displayed by the logger will be the minimum and maximum values sensed since it was last cleared.

**Note:** DicksonWare™ will show the minimum and maximum values of the downloaded data. These could be different than that displayed on the unit itself.

**For Example:** Your logger is set for a 5 minute sample rate which is good for about 224 days. After 5 days you clear MIN/MAX. After another 6 days you download the logger. The Min/Max displayed by the logger will be the MIN/MAX for the last 6 days. The MIN/MAX shown by DicksonWare™ will be the Min/Max for the last entire 11 days.

### Replacing the Battery:

1. Battery Type: DL123 Lithium Battery, Qty 1
2. If the battery is low:
  - a. Press Clear button before replacing battery to ensure uninterrupted logging. A dummy reading of -42 PSI marks the point where logging was resumed once the battery was replaced.
3. If battery loses power before being replaced:
  - a. The logger will resume logging once battery is replaced, but all readings before power loss will be off. A dummy reading of -42 PSI marks the point where logging was resumed once the battery was replaced.

### Display Features:

1. Low Battery Indicator
2. Unit of Measure Indicator

3. Water Hammer Mode Indicator
4. Logger Full Indicator (Logger has stopped logging)
5. Min/Max Readings

#### **IP Rating:**

1. This logger has an IP rating of 68
2. This logger has maintained the IP68 rating under 50 meters of water. A silicone lubricant must be applied to the cap O-ring in order to achieve these results.

#### **Installing a Flash Memory Card Reader**

Follow the instructions included with the flash card reader. Additional information and troubleshooting

## **DicksonWare™ Software Specifications**

- Microsoft Windows® compatible
- Allows for simple viewing and zooming of logged data
- Easy set-up of Dickson Data Loggers including:
  - User selectable sample intervals from 10 seconds to 24 hours
  - Display temperature in °C or °F
  - Delayed logger start times
  - Logger data capacity can be set to wrap data or stop when full
  - Allow for real time monitoring and graphing.
  - Effortless exporting of data and graphs to other software
  - Data can be viewed in tabular (numeric/table) or graphical formats
  - Fast downloading of logged data - 30 seconds (typical) from full logger
  - Even shows battery power status for battery operated loggers

### **Specifications:**

**Compatible With:** Microsoft Windows® 95, 98, 2000, NT & XP

**PC Requirements:** PC with 386 MHz or better microprocessor, 4 M RAM, CD drive

**Computer Interface:** RS-232 COM (serial) port

**DicksonWare™ Version Required (minimum):** See Specific Model for Version Requirement

## Accessories (for current pricing go to [www.dicksondata.com](http://www.dicksondata.com) or call 1-800-323-2448)

Accessory	Order #
DicksonWare™ Software and USB Download Cable	A016
NIST Traceable Calibration 3-pt (new unit)	N300
NIST Traceable Calibration 1-pt (new unit)	N100
Certificate of Validation	N520
FLASH card reader kit	A220
Removable FLASH card	A210
Pressure Fitting Accessory Kit	A791
Fire Hydrant Adapter Kit	A793
Filter Kit	R022
Steam Pressure Pigtail	A792

## Calibration Services - New Units

**N100 - NIST Traceable Calibration 1-Point:** Includes documentation to one Dickson pre-selected point on new units only.

- **N300 - NIST Traceable Calibration 3-Point:** Includes documentation of three Dickson pre-selected points (a high, medium, and low) on new units only.
- **N400 - Deluxe A2LA Accredited NIST Traceable Calibration 3-Point:** ISO Guide 25/A2LA Documentation of 3 pre-selected points of as found data before and after calibration for Dickson temperature and/or humidity instrumentation on new units only.
- **N995 - NIST User Selected Temperature Points:** Documentation of one customer specified point. Should be selected in addition to one of the above calibration options.

## The Importance and Benefits of Regular Calibrations

Once you begin to use your precision Dickson instrumentation, regular calibrations are necessary to ensure accurate readings.

The following Calibration Services are available:

- **N150 - NIST Traceable Calibration 1-Point:** Includes documentation to one Dickson pre-selected point after re-calibration.
- **N350 - NIST Traceable Calibration 3-Point:** Includes documentation of three Dickson pre-selected points (a high, medium, and low) after re-calibration.
- **N450 - Deluxe A2LA Accredited NIST Traceable Calibration 3-Point:** ISO Guide 25/A2LA Documentation of 3 pre-selected points of as found data before and after calibration for Dickson temperature and/or humidity instrumentation.
- **N995 - NIST User Selected Temperature Points:** Documentation of one customer specified point. Should be selected in addition to one of the above calibration options.

### Why should I recalibrate my instrumentation?

Over time dirt, dust and normal handling can throw your precision instrumentation out of calibration. Regular calibrations ensure that you receive the most accurate readings possible.

### How often should I recalibrate my instrumentation?

Depending on the environment your instrument is used in and how often it is handled you will want to recalibrate your instrument every 6 to 12 months. Instruments in environments where there are extreme temperatures, wide temperature ranges, humidity or pressure variations, high condensation, dirt, dust and other debris will require calibration at least every 6 months. Instruments that are frequently moved or in locations with heavy machinery that cause vibrations should also be calibrated at least every 6 months.  
Rev. 07/09

## Why should I return my instrument to Dickson for calibration?

Dickson calibrates your instrument at the factory using proprietary production/calibration software that guarantees proper calibration.

## Our Capabilities

Dickson is the first manufacturer of humidity and temperature instrumentation to receive A2LA accreditation. We are also NIST Traceable; our procedures conform to MIS-STD-45662A, ANSI/NCSL 2540-1-1994, ISO/IEC Guide 25 and ISO10012. We are experts in the manufacture and calibration of humidity and temperature instruments.

- **Fast Service:** Our turnaround time is 3 days or less so you receive not only expert service but fast service as well.
- **Easy:** We make it easy for you! No phone calls for Return Authorization Numbers are required. We remind you when your instrument is due for calibration. You simply send in the completed Calibration Order Form with your unit for calibration with freight prepaid to Dickson.

## Troubleshooting

For troubleshooting information, click [here](#) for the technical support page.

## Warranty

Dickson warrants that the products it sells will be free from defects in material and workmanship under normal use and service for a period of twelve months after delivery. In the event of a claim under this warranty, the product or part must be returned to the factory for repair or replacement (shipping pre-paid) with a Return Authorization Number (see Return Information above). It will be repaired at Dickson's option without charge. This warranty DOES NOT cover routine calibration, pen, chart and battery replacement. The foregoing warranty and remedy are exclusive and in lieu of all other warranties either expressed or implied. Dickson shall not be liable for consequential or incidental damages resulting from failure or malfunction of its products. Dickson makes no warranty for products not manufactured by it or for any products modified by buyer, or subject to misuse or neglect.

## Factory Service & Returns

Contact the factory (630-543-3747) for a Return Authorization (RA) Number before returning any instrument. The model number, serial number and a purchase order number will be requested before an RA number is issued.

- Carefully repack the instrument, label the outside of the box with the RA# and return the instrument (freight pre-paid) to Dickson.
- All instruments that do not have the RA# clearly marked on the outside of the box will be refused. When returning instruments for credit, please include all accessories in shipment.
- Calibration/Freight charges are non-refundable.

NOTE: Dickson shall not be liable for consequential or incidental damages resulting from failure or malfunction of its products.

## Customer Satisfaction

Dickson takes pride in providing you, the customer, with the highest quality instrumentation. We welcome the opportunity to help you in any way possible. Whether it be a question or a new idea in documentation, the Dickson Company would like to hear your response. Please call our Customer Service Department at 1-800-323-2448 or (630) 543-3747 (in Illinois).

## Software Return Policy

IMPORTANT-Read your Software License Agreement carefully before installing software. Dickson will accept returns for replacement of defective disks and CDs only.

## **DICKSON**

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