



nVision Introduction

Thank you for choosing the nVision Reference Pressure Recorder from Crystal Engineering Corporation. Your nVision is a combination of leading edge technology and rugged industrial design. nVision, coupled with CrystalControl Software, allows you to make nVision exactly what you need it to be.

CrystalControl Configuration Software

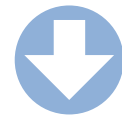
CrystalControl enables you to custom configure your nVision to tailor it suit your needs. With only a mini USB B cable and a computer running Microsoft Windows* the CrystalControl Configuration Software allows you to customize your nVision to suit your specific needs and applications.

Installation

CrystalControl is distributed as a self-extracting Setup application. Insert the enclosed CD and launch CrystalControlSetup.exe. Follow the on-screen prompts for installation.

Software is also available from the Crystal Engineering website: www.crystalengineering.net/downloads.

Microsoft Windows XP [SP3], Windows Vista [SP2] or Windows 7 Enterprise. Microsoft, Windows, XP, Vista or 7 is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.



Connect or Disconnect your nVision (Disconnect button)

Chassis or Module Configuration Settings (Platform, Modules list)

Customize Settings with the "Config" tab (Config tab)

Commit Changes with "Update Gauge" (Update Gauge button)

32 Character Message Store (Message Store field)

Enable only the units you need (Enabled Units list)

User Defined Unit (User Factor, User Offset, Name, Resolution)

View stored recorded data in "DataViewer" (DataViewer tab)

Download only checked runs (Checked runs in Recorded Runs list)

Hover cursor over graph to see date & time summary (Show Point Values)
 > Left-click & drag to zoom
 > Right-click for additional options:
 - Copy
 - Save Image As
 - Show Point Values
 - Un-zoom
 - Undo all Zoom/Pan
 - Set Scale to Default

Select data run for graphing (Graph button next to a run)

Export and Save in .xls format (Export Data... button)

Reset graphing to default zoom view (Reset Chart button)



We hope your nVision meets your expectations, and we're interested in any comments or suggestions you may have. You can send us a note at sales@crystalengineering.net.

Many features in this and our other products are a direct result of your comments!

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Visit us on the web at www.crystalengineering.net

Button Functions


Depending on your particular configuration your nVision may physically look different than the model shown, and all descriptions are intended for general representation only. Some settings can be enabled and disabled using the **CrystalControl** software, and may not be visible on your model. For an in-depth look at all functionality and options for the nVision, please refer to the nVision Operation Manual located on your nVision CD (also available at www.crystalengineering.net/downloads).

Display Options

nVision has several screen options depending upon how the recorder is populated with modules. A summary of the available screen types is shown below. You may view the data in single or dual mode (upper and lower modules simultaneously). Additionally, you may view the data numerically or graphically to suit your needs.







 This icon represents a component that can be modified with **CrystalControl** software





 This icon represents a component that can be modified with **CrystalControl** software

nVision Reference Recorder shown.
 All instructions on this spread are also applicable to nVision Lab Reference

Module Interfaces	
Pressure Modules (PM)	Crystal Pressure Fittings (CPF) System: Medium Pressure Female (MPF) 1/4" medium pressure tube system with 7/16-20 threads
Temperature Module (RTD100)	IP67 rated M8 connector (P/N: 3953) with terminal block for 2-, 3-, 4-wire support
Current, Voltage & Switch Test Module (MA20)	2mm banana jacks for sheathed plugs. 12.7mm (0.5") spacing
Barometric Reference (BARO)	5.8mm (.23")OD sensor located in Power Module Bay. Calibrate using 3/16" ID tubing.

Power Icon Key - nVision Reference Recorder						
Icon						
Description	External Power (USB)	100%	75%	50%	25%	0%**
Power Remaining						
**Replace Batteries or connect to USB Power						

Power Icon Key - nVision Lab Reference		
Icon		
Description	External Power (AC Adapter)	USB Connection*
*USB Connection is for data transfer only		

nVision Numerical Display

Numerical: Upper Module Screen

High / Low: Peak always measured at 10 readings per second

Filter: 20-reading moving window (fixed)

Δ/min: Rate of change per minute in 10-reading moving window (fixed)

Vertical Scale: Applied versus full-scale pressure


Maximum Working Pressure: (Pressure Module Only)

RTD100 °C

26.12

Hi 26.25
 Lo 24.71
 Filter 26.18
 Δ/min -1

Sensor Reading biased towards applicable module (Upper Module reads higher on the screen, Lower Module reads lower on the screen)

Selectable Units (via Setup button) 

Numerical: Lower Module Screen (Default)

Hi 1695.6
 Lo -0.1
 Filter 0.0
 Δ/min -1

0.0 PSI G

3000 PSI Max

Numerical: Dual Module Screen (Both Sensors)

RTD100 °C

26.12



0.0 PSI G

3000 PSI Max



nVision Graphical Display

In the graphical modes the nVision navigad enables you to control how you view your data.

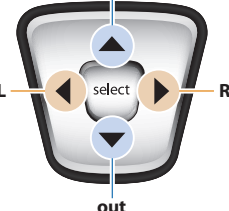
Data Scroll

Using the  &  keys allows you to navigate to specific points along your run, while displaying reading and time information.

Graph Zoom

Using the  &  keys allows you to zoom in and out of your recorded run to suit your needs.

Graph Zoom



Date & Time stamping

Graphical: Upper Module Screen

Live 26.12 °C

26.6
 26.1
 25.6

26.24

57s

18-Jun-10 09:17:00.0

Graphical: Dual Module Screen (Both Sensors)

Live 26.12 °C

1698
 872.2

26.6
 26.1
 25.6

26.24

57s

Live PSI G 18-Jun-10 09:17:00.0

Graphical: Lower Module Screen

Live 1698

872.2

57s

Live PSI G 18-Jun-10 09:17:00.0

Test safely with live readings announced regardless of cursor location or zoom level