



***Time Electronics***  
*Calibration, Test and Measurement*

# 8030 Pressure Control Centre Software Quick-Start Guide

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This also applies to any schematics, drawings and diagrams contained herein.

To ensure correct operation and safety, please follow the instructions in the product user manual.

Time Electronics reserves the right to change the contents, specifications and other information contained in this manual without notice.

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# 1 Description

The 8030 Pressure Control Centre is a software package that, in conjunction with our pressure controllers, provides a remote read and control capability. It offers a significant advantage, especially in those situations where the pressure controller is not directly accessible to the operating personnel.

If an 8030B pressure controller module is fitted in a CalBench with an 8060 or 7051 module featuring the control centre touch screen PC, then this software will be pre-installed and configured for use.

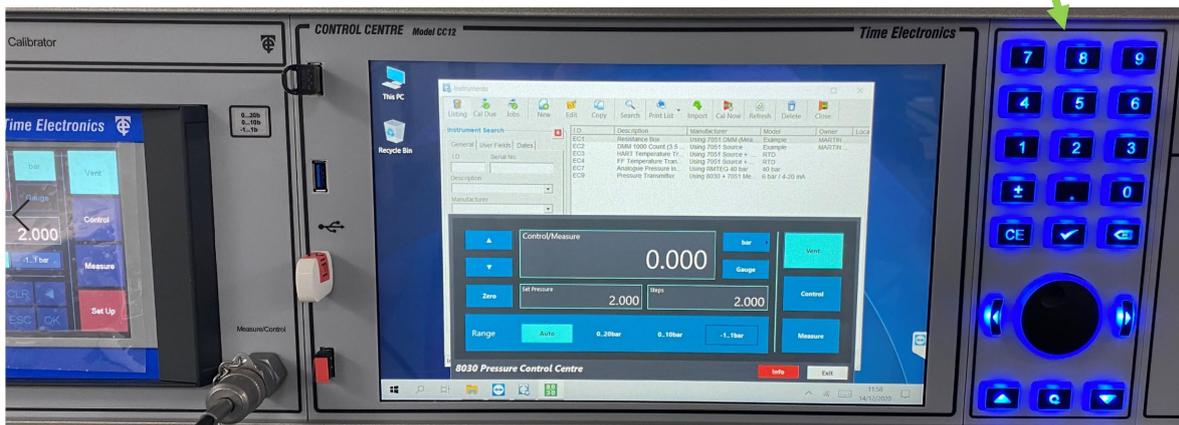
The 8030 Pressure Control Centre is available for a variety of operating systems (Windows, Unix, Macintosh) and architectures (x86 32bit, x86 64bit, ARM 64bit).

# 2 Program overview

After starting the program, the operating window will open.



The display is designed for touch screen use, keyboard entry and using the CCPAD on CalBenches.



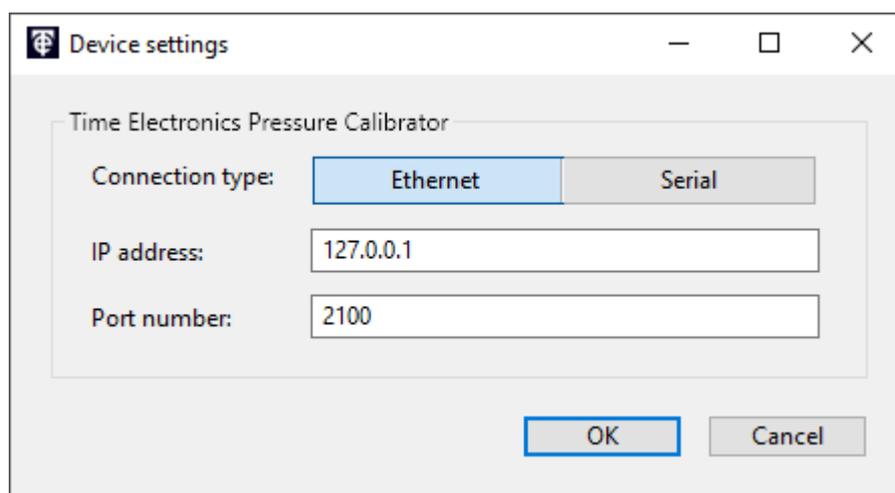
## 2.1 Configuration of the hardware connection

*NOTE: If the 8030 is a module in CalBench then this configuration is not required. It is for users installing the software on a new PC or laptop.*

To connect to a pressure controller, press the Info button, then "Set Up".

This section is password protected, enter code "0308" to access.

The device settings window opens:



A connection between software and controller can be made in two different ways:

- via an Ethernet network connection (directly or via hub / switch).
  - via direct serial cable.
1. Depending on the existing hardware cabling, select the appropriate connection type.
  2. IP Address: Enter the IP address of the controller (Ethernet) or the COM port (serial connection). Please note: The IP address must coincide with the address set in the setup menu of the controller.
  3. Port number: This is a fixed parameter of "2100" (Ethernet) or "9600.8, N, 1" (serial connection). It should not be changed.

By clicking on "Ok" these values are saved and an attempt is made to establish a connection to the device.

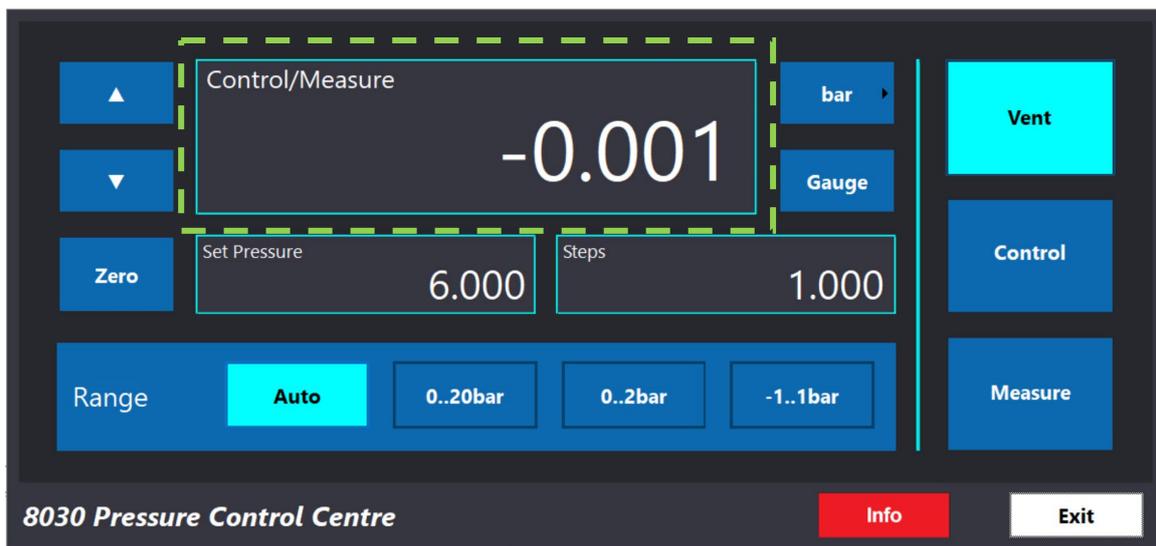
The 8030 Pressure Control Centre application remembers the last set parameters and loads them automatically at the next program start.

## 3 Basic Operation

The design of 8030 Pressure Control Centre interface is similar to that of the 8030 controller main screen for familiar operation.

### 3.1 Actual pressure display

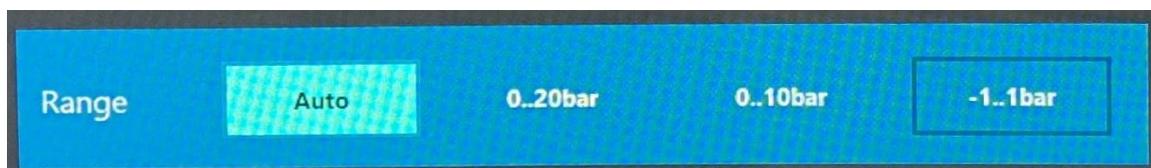
The actual pressure display shows the current pressure value in the selected unit:



If the controller has reached a stable operating point (e.g. actual and set pressure values match within a certain range), the display colour changes to green to visually reflect this.

### 3.2 Measuring range

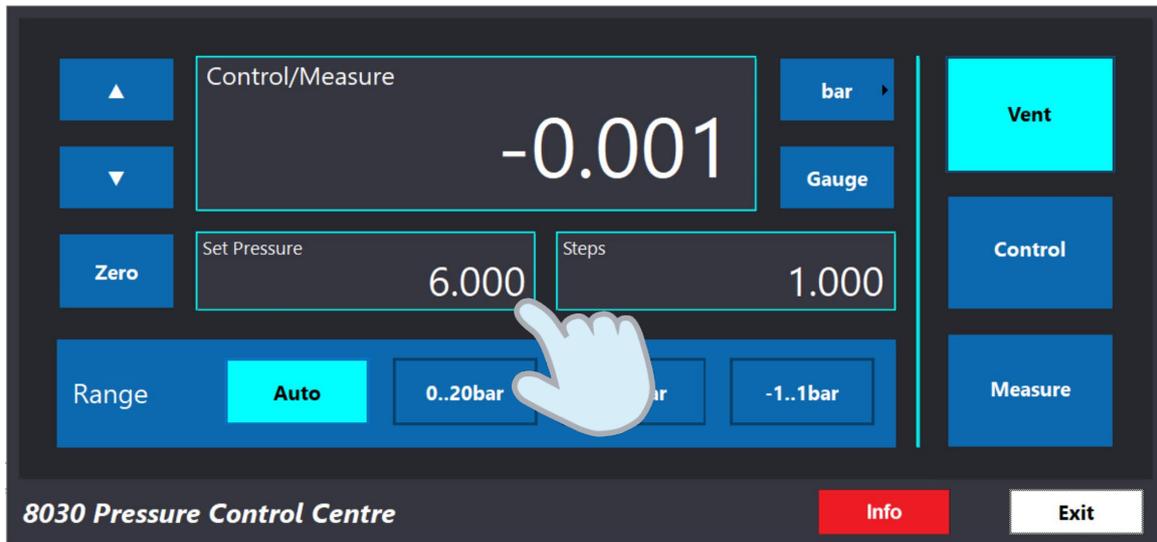
If the controller features multiple sensors, "Auto mode" can be set to auto-range the measurement across the sensors according to the selected pressure. The measuring ranges can also be selected manually. This is done with the four range buttons "Auto", "Range 1", "Range 2", "Range 3". Depending on the configured measuring ranges, the buttons will be named accordingly as below:



Non-configured sensor ranges are marked as "-" and are disabled (greyed).

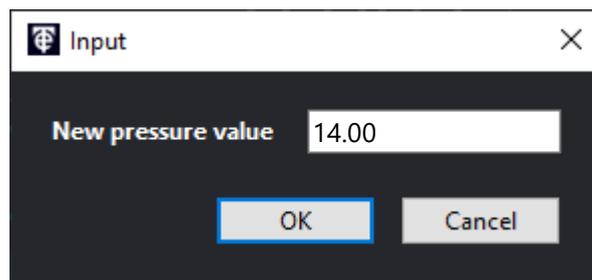
### 3.3 Target pressure setting

The target pressure is adjusted by selecting in the "Set pressure" box by mouse pointer or touch:



Once pressed an input window is displayed, where the new value can be typed in:

- "Ok" confirms the new value,
- "Cancel" aborts the input.



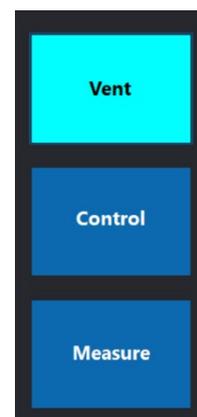
### 3.4 Controller modes: Vent / Control / Measure

The pressure controller can be switched between its modes

- Vent
- Control
- Measure

by using the corresponding buttons at the right side of the window:

The current state of the controller is shown with the button as green.

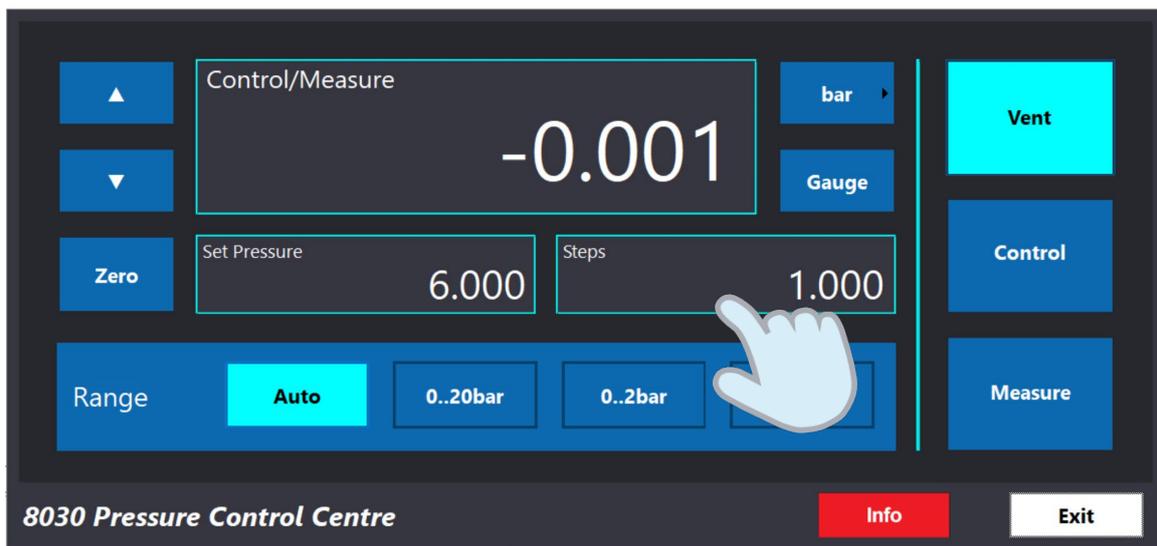


### 3.5 Step size setting and use

If the pressure to be regulated is to be repeatedly increased or decreased by a certain, fixed amount, this can be done with the "Up Arrow" and "Down arrow" buttons:

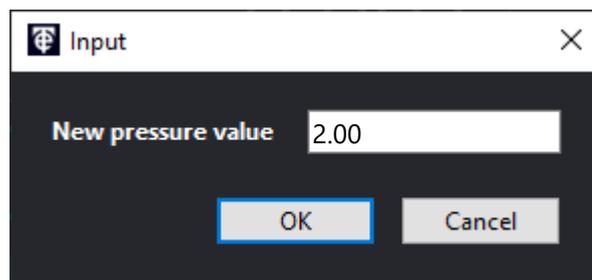


The step size is set in the same way as target pressure setting there. Select the "Step" box by mouse pointer or touch:



Once pressed an input window is displayed, where the new value can be typed in:

- "Ok" confirms the new value,
- "Cancel" aborts the input.

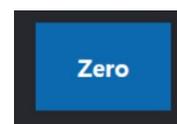


Clicking on the "Up arrow" or "Down arrow" buttons then changes the "Set pressure" up or down. In "Control" mode, the pressure change is active and happens immediately.

*Note: some older pressure controller models do not support the synchronization of the pressure step value. In that case, the last set step value is saved at program end and loaded at program start.*

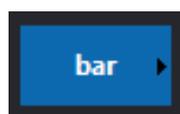
### 3.6 Zeroing the display

If the controller is in Vent mode, it is possible to zero the display by clicking on the "Zero" button.



### 3.7 Setting the pressure unit

There are currently 24 different units available, which can be selected via the "Unit" button directly to the right of the actual value display. The value of the current pressure, target pressure and step size field adapts to the selected unit.

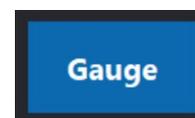


The following units are available, however, depending on the device configuration, only a partial selection may be selectable:

Pa	mH <sub>2</sub> O
kPa	torr
MPa	atm
mbar	psi
bar	lbf/ft <sup>2</sup>
kg/cm <sup>2</sup>	inHg
kg/m <sup>2</sup>	inH <sub>2</sub> O (4 °C)
mmHg	ftH <sub>2</sub> O (4 °C)
cmHg	SPEC'L
mHg	inH <sub>2</sub> O (20 °C)
mmH <sub>2</sub> O	ftH <sub>2</sub> O (20 °C)
cmH <sub>2</sub> O	hPa
	oz/in <sup>2</sup>

### 3.8 Absolute / Gauge mode (requires Baro option)

If the pressure controller is equipped with a Baro option, the display mode can be switched between absolute pressure and relative (gauge) pressure by clicking the "Abs" / "Gauge" button.



If the Baro option is absent, the controller always displays gauge values; the "Abs" / "Gauge" button can't be selected.

## 4 Data export

To copy the displayed current pressure value, all you have to do is clicking in the current value display field.

This will copy the value to the clipboard, from which it can be easily transferred to other programs or files by keyboard shortcut "Cmd + V" (Mac) or "Ctrl + V" (Unix & Windows).

## 5 User configuration

Some settings can be altered from their default values by changing the according entry at the user settings preference file. It is located at

- Mac: /Users/[user name]/Library/Application Support/com.timeelectronics.8030pressurecontrolcentre/Settings.pref
- Win: %APPDATA%\8030PressureControlCentre\Settings.pref
- Linux: /home/[user name]/.8030PressureControlCentre/Settings.pref

and is a simple text file with JSON syntax. The following user settings are alterable:

- user interface language (available: "en", "de")
- debug level ("0" or "1")
- hardware connection parameters, both for Ethernet and serial connection

## 6 Contacting Time Electronics

### **Online:**

Please visit [www.timeelectronics.com](http://www.timeelectronics.com) and select Support Request from the Contact links. From this page you will be able to send information to the Time Electronics service team who will help and support you.

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