

USER MANUAL

TempCTRL

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2.Installation procedure for TempCTRL

2.1 General

- TempCTRL is a piece of PC software for the TEMP-4 instrument
- TempCTRL require Windows XP or Vista running on a PC with an Intel Pentium IV processor of 1 GHz and 1 GB RAM or better. We recommend monitors with a minimum resolution of 1024x768 pixels.
- One free USB ports is required on your PC.
- TempCTRL will read the four temperature channels and display them in a graph
- TempCTRL activates and deactivates digital relays, to control water temperature
- TempCTRL saves all inputs and calculated values to an Excel data file.



2.2 TempCTRL software for Windows

The following steps will explain how to install TempCTRL on your computer.

1. Insert the CD labelled TempCTRL and wait until you see Screen 1. If you do NOT see the screen, browse to the root of your CD and double click on the icon labelled TC-install.exe.

Screen 1

WinZip Self-Extractor - TC-install.exe	
Unzipping TempCTRL by Loligo Systems	Setup Cancel
Unzipping setup.exe	About

2. Click Next to start installation of TempCTRL.

Screen 2

🦉 TempCTRL
Welcome to the TempCTRL installer
Please follow the instructions on screen.
Please wait while the installer initializes.
Cancel



3. Select destination directory for TempCTRL and for the National Instruments driver and then press Next.

Screen	3	

🖫 TempCTRL	
Destination Directory Select the primary installation directory.	
All software will be installed in the following location(s). To install software into a different location(s), click the Browse button and select another directory.	
Directory for TempCTRL C:\Programmer\TempCTRL\ Browse	3
Directory for National Instruments products	
D:\LabView Runtime engine\ Browse	e
<a>< Back Next >> (<u>C</u> ancel

4. If you accept the License Agreement, please select "I accept the License Agreement(s)" and then press Next.

Screen 4

TempCTRL
License Agreement You must accept the license(s) displayed below to proceed.
NATIONAL INSTRUMENTS SOFTWARE LICENSE AGREEMENT
INSTALLATION NOTICE: THIS IS A CONTRACT. BEFORE YOU DOWNLOAD THE SOFTWARE AND/OR COMPLETE THE INSTALLATION PROCESS, CAREFULLY READ THIS AGREEMENT. BY DOWNLOADING THE SOFTWARE AND/OR CLICKING THE APPLICABLE BUTTON TO COMPLETE THE INSTALLATION PROCESS, YOU CONSENT TO THE TERMS OF THIS AGREEMENT AND YOU AGREE TO BE BOUND BY THIS AGREEMENT. IF YOU DO NOT WISH TO BECOME A PARTY TO THIS AGREEMENT AND BE BOUND BY ALL OF ITS TERMS AND CONDITIONS, CLICK THE APPROPRIATE BUTTON TO CANCEL THE INSTALLATION PROCESS, DO NOT INSTALL OR USE THE SOFTWARE, AND RETURN THE SOFTWARE WITHIN THIRTY (30) DAYS OF RECEIPT OF THE SOFTWARE (INCLUDING ALL ACCOMPANYING WRITTEN MATERIALS, ALONG WITH THEIR CONTAINERS) TO THE PLACE YOU OBTAINED THEM. ALL RETURNS SHALL BE SUBJECT TO NI'S THEN CURRENT RETURN POLICY.
1. <u>Definitions.</u> As used in this Agreement, the following terms have the following meanings:
 I accept the License Agreement(s). I do not accept the License Agreement(s).
<< Back Next >> Cancel

5. Click Next.



On

Screen 5 the status of the installation is shown.

Screen 5

📆 TempCTRL	
Overall Progress	
Currently installing TempCTBL, Part 1 of 1.	
<pre><< Back Next >></pre>	Cancel

The installation may take a while. When installation is complete Screen 6 becomes present.

Screen 6

🖫 TempCTRL		×
Installation Complete		
The installer has finished updating your system.		
	<< Back Next >> Cancel	

6. Click Next to end installation of TempCTRL.



7. Click Setup to start installation of the driver software.

Screen 7

WinZip Self-Extractor - mccdaq.exe	
Installing MCC Daq Software.	Setup
	Cancel
	About

8. Make the selection as seen on Screen 8 and press Install.

Screen 8



- 9. Click Next to start installation of InstaCal.
- 10. Change the destination directory if you want, when done, press Next.
- 11. On Screen 9 you will se a summary of the installed components, please click Next.



Screen 9

AutoResp 1	LDAQ Installation	×
Readme	-	
Fiease	👸 InstaCal and Universal Library for Windows - InstallShield Wizard 🛛 🔀	
	InstaCal and Universal Library for Windows Select the program features you want installed.	40
+	Click on an icon in the list below to change how a feature is installed.	ould
	Install to: c:\Programmer\Measurement Computing\DAQ\C\ InstallShield Help Space < Back Next > Cancel	
	Print KBack Install C	ancel

12. Click Install to start installation. When installation is complete, click Finish.

Screen 10

AutoResp 1 Readme	LDAQ Installation	×
Please	뤻 InstaCal and Universal Library for Windows -	InstallShield Wizard 🛛 🔀
	InstallShield Wizar	d Completed
+	The InstallShield Wizard H Universal Library for Wind	AQ nas successfully installed InstaCal and dows. Click Finish to exit the wizard. ould
	COMPUTING	
	< Back	Finish Cancel
	Print KB	ack Install Cancel

The following steps will explain how to finish the installation of the drivers together with your instruments.

13. Connect the instrument to your computer via an USB port. The instrument will be detected automatically.



Screen 11

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- 14. Open Instacal by following the folder hierarchy shown on Screen 11.
- 15. When opened Instacal, your instrument will be detected automatically. Wait a few seconds, until Screen 12 appears. Now press OK.

Screen 12

👪 InstaCal	
File Install C	alibrate Test Help
	Plug and Play Board Detection
PC Board I	The following plug and play devices have been detected
	IVSB-1208LS (serial# 90)
	Check those devices you wish to have added to the configuration file.
Ready	NUN



16. When pressed OK, make a double click on the currently detected board. Now Screen 13 appears. Click on Flash LED and make sure the LED on the instrument is flashing.

Screen 13

File Install	Calibrate Test Help
	Board Configuration
PC Bo	USB-1208LS
	Factory Serial No: 11E92E6
	Custom Serial No: 90
	No. of Channels:
	Flash LED
	Figure Marine 1 00
	Firmware version: 1.00
	OK Annuller

You have now installed InstaCal and the instrument has been detected by the software.



2.3 TEMP-4 instrument

INSTRUMENT FRONT SIDE

- IN 1: Pt100 temperature input. Use this input to connect the Pt100 temperature probe.
- IN 2: Pt100 temperature input. Use this input to connect the Pt100 temperature probe.
- IN 3: Pt100 temperature input. Use this input to connect the Pt100 temperature probe.
- IN 4: Pt100 temperature input. Use this input to connect the Pt100 temperature probe.
- PC: USB port for PC communication. Use the USB cable.

INSTRUMENT BACK SIDE

- RE1: Relay socket for 110/230VAC (max 3A) solenoid valve.
- RE2: Relay socket for 110/230VAC (max 3A) solenoid valve.
- RE3: Relay socket for 110/230VAC (max 3A) solenoid valve.
- RE4: Relay socket for 110/230VAC (max 3A) solenoid valve.
- Power: Power input for the DAQ-S instrument. Connect the instrument to a grounded 110/230VAC power supply using a standard pc-type cable with a grounded wall plug.

The TEMP-4 instrument is now ready for use with TempCTRL.



3.Using TempCTRL

Start TempCTRL by clicking Start \rightarrow All Programs \rightarrow TempCTRL \rightarrow TempCTRL.

Screen 14						
TempCTRL						
File Settings Help						
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			Time			
Channel 1 [%	C] Channel 2 [°C] Channel 3 [°C]	Channel 4 [°C]		RE 1 RE	2 RE3 RE4	
25,01	24,81 25,43	24,48				Log data

The user can now activate/deactivate the relays settings. Click Settings \rightarrow Channel 1 to change the settings for relay 1 etc.

Temperature control	X
Temperature control	
Setpoint [°C] Hysteresis [°C]	
Cool Heat	
OK Cancel	

Finally the user can start logging experiment data to an Excel file, by clicking Log data.