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# User's Guide

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# TC-08

## 8 Channel Thermocouple USB Data Acquisition Module Quick Start Guide

MQS4528/0707



OMEGAnet® Online Service omega.com	Internet e-mail info@omega.com
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**Servicing North America:**

**U.S.A.:** One Omega Drive, Box 4047  
Stamford, CT 06907-0047  
Tel: (203) 359-1660  
FAX: (203) 359-7700  
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FAX: (001) 203-359-7807  
e-mail: espanol@omega.com  
info@omega.com.mx

**Servicing Europe:**

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Tel: +420 (0)59 6311899  
FAX: +420 (0)59 6311114  
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e-mail: info@omegashop.cz

**Germany/Austria:** Daimlerstrasse 26, D-75392 Deckenpfronn, Germany  
Tel: +49 (0)7056 9398-0  
FAX: +49 (0)7056 9398-29  
Toll Free in Germany: 0800 639 7678  
e-mail: info@omega.de

**United Kingdom:** One Omega Drive, River Bend Technology Centre  
Northbank, Irlam, Manchester  
M44 5BD United Kingdom  
Tel: +44 (0)161 777 6611  
FAX: +44 (0)161 777 6622  
Toll Free in United Kingdom: 0800-488-488  
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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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2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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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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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

**WARNING:** These products are not designed for use in, and should not be used for, human applications.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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## **4 Software updates/ replacing lost software**

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The latest version of the TC-08 software can be downloaded free of charge from our web site at:

[www.omega.com](http://www.omega.com)

If you require a new CD, please contact OMEGA Engineering.

## **5 Writing your own software**

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The CD ROM contains all the manuals and drivers which allow you to develop your own custom programs easily. Follow section 1.3 to install.

## **6 Input connections**

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The installed product manuals contain complete descriptions of input connections. Follow section 1.3 to install.

## **7 Technical support**

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The OMEGA Engineering web site at:

[www.omega.com](http://www.omega.com)

also contains regularly updated technical support information. Both the product manual and the web site contain phone/fax and e-mail contact information for our technical support team.

## **1 Introduction**

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Thank you for purchasing a TC-08 data acquisition module.

This guide explains how to install the software and product manual using the supplied CD-ROM.

The product manual contains detailed information about using the product and its software. It includes all the information you will need to connect and set up your product. The product manual is installed in electronic format, but if you would prefer a paper copy, you can print the PDF files on the CD-ROM.

## **2 General safety warning**

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We strongly recommend that you read the general safety information below and also the product-specific safety warning in the product manual before using your product for the first time. If you do not use the equipment in the manner specified, then you may impair the protection provided. This could result in damage to your computer or injury to yourself or others.

The product manual is installed on your computer when you install the supplied software.

### **Maximum input range**

You can find the maximum input range and, where applicable, overload protection range in the product manual installed on your computer. Always operate the product within the specified input range. Operation outside the range of the overload protection is likely to cause permanent damage to the unit.

### **Mains voltages**

TC-08 data acquisition modules are not designed for use with mains voltages. To measure mains we recommend the use of a differential probe that is specifically designed for such measurements.

## Safety grounding

The ground of every product is connected directly to the ground of your computer through the interconnecting cable supplied. This is done in order to minimize interference. Therefore, always use the supplied cable to attach the product to your computer.

As with most oscilloscopes and data acquisition modules, take care to avoid connecting the ground input of the product to anything which may be at some voltage other than ground. If in doubt, use a voltmeter to check that there is no significant AC or DC voltage between the oscilloscope ground and the point to which you intent to connect it. Failure to check may cause damage to the product or computer and could cause injury to yourself or others.

With temperature converters, take great care when measuring temperatures near mains equipment. If a sensor is accidentally connected to mains voltages, you risk damage to the converter or your computer and your computer chassis may become live.

You should assume that the product does not have a protective safety earth. Incorrect configuration or use on voltages outside the maximum input range can be hazardous.

## Repairs

The unit contains no user-servicable parts. Repair or calibration of the unit requires specialized test equipment and must be performed by OMEGA Engineering.

## 3 Installing the software and manual

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**Note:** Please follow the software installation instructions below **BEFORE** connecting the hardware product.

### 3.1 Installing under Windows XP SP2 or Vista

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- 1) Insert the TC-08 software CD into your CD-ROM drive.
- 2) If Autorun is enabled, the CD will start up automatically.  
If so, go to step 6.
- 3) Press the **Start** button and select **Run...**
- 4) Type **d:\TC-08** (where "**d:**" is your CD-ROM drive).
- 5) Press the **Enter** key.
- 6) Click the **Install Application Software** button.
- 7) The program will guide you through the installation.

### 3.2 Installing USB products

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USB products are supported only by Windows XP SP2 or Vista.

Install the software before connecting the product to the USB port for the first time (see section 3.1)

Once you have completed the software installation instructions in section 3.1, do the following:

- 1) Connect the USB cable between the product and one of the USB ports on your computer.
- 2) Allow the computer to automatically detect and configure your hardware product\*.

For instructions on how to configure the TC-08 software, see the electronic manual.

\* If Windows displays a warning message about Windows Logo testing you must click "Continue Anyway" to complete the installation and start using the hardware product.

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