



CE



QUICK START DE OMEGA User's Guide

Shop online at omega.com®

e-mail: info@omega.com For latest product manuals: omegamanual.info



OM-CP-RFTCTEMP2000A Wireless Thermocouple Temperature Data Logger

Product Overview

The OM-CP-RFTCTemp2000A is a wireless thermocouple based temperature monitoring and alarming system with LCD. A docking base is included with the data logger for mounting purposes.

Selection Buttons

The logger is designed with 3 direct selection buttons: Scroll, Units and Wireless.

- Scroll: Allows user to scroll through information displayed on the LCD Screen.
- Units: Allows user to change displayed units of measure to either °F or °C.
- Wireless: Push and hold this button for 5 seconds to activate wireless communication.

LED Indicators

Status: Green LED blinks every 5 seconds to indicate unit is logging. Wireless: Blue LED blinks every 40 seconds to indicate unit is operating in wireless mode. Alarm: Red LED blinks every 1 second to indicate an alarm condition.

Remote Thermocouple Channel

A female subminiature (*SMP*) or pluggable screw terminal is located on the bottom of the logger to connect a thermocouple. The OM-CP-RFTCTemp2000A will accept thermocouple types J, K, T, E, R, S, B, or N.

Wiring the Thermocouple

For MP Model:



Warning: Note the polarity instructions. Do not attach wires to the wrong terminals.

Quick Start Steps

Product Operation (Wireless)

- 1. Install the Omega data logging Software and USB Drivers onto a PC.
- 2. Plug an OM-CP-RFC1000-EXT (sold separately) into a USB port on the base station computer. (For transmissions over distances longer than 500' indoors line of sight (2,000' outdoors), plug additional OM-CP-RFC1000-EXTs into electrical outlets in between the base station computer and the OM-CP-RFTCTemp2000A.) The red LED will illuminate on the OM-CP-RFC1000-EXT to signify that it has been connected correctly.
- 3. Push and hold the wireless button on the OM-CP-RFTCTemp2000A for 5 seconds to activate wireless communication. The display will confirm "Wireless: ON" and the blue LED will blink every 40 seconds.
- 4. Launch the Omega data logging Software, the OM-CP-RFTCTemp2000A icon will automatically appear in the connected devices list, showing that the device has been recognized. Select the logger in the connected devices list, and click the "claim" button, wait for the device to finish updating. Select the Realtime Start method from the device tab and choose a desired reading rate from the drop-down menu and click "start".

To set up or choose an Alarm for a Realtime Session, select the alarm rules tab (Refer to the Alarm Settings section).

Product Operation (Plugged In)

- 1. Install the Omega data logging Software and USB Drivers onto a PC.
- 2. Plug the USB to Mini USB cable *(included with your logger)* into a USB port on your computer. With the wireless mode turned "OFF" on your device, plug the opposite end of the cable into the communication port on your OM-CP-RFTCTemp2000A.
- 3. Launch the Omega data logging Software, the OM-CP-RFTCTemp2000A icon will automatically appear in the software showing that the device is recognized. Select the logger in the software and choose your desired start method.
- **4.** To download your data, select the device, click the stop button, and then click the download button to view your report in the graph.

Additional Features and Operation

Alarm Settings/Rules

- 1. To create an alarm rule, select Manage Rules in the device tab of the software.
- 2. Select New and enter a Rule name. Enter alarm the parameters using the drop down menus and selection circles.
- 3. Select OK and choose the alarm to enable. The alarm bell is green when enabled and red when disabled.

Please refer to the Help file in the Omega software for more information regarding alarm settings

Trigger Settings

Application of trigger settings to the OM-CP-RFTCTemp2000A allows the device to omit excess and/or unnecessary data.

- 1. Select the device from the Connected Devices section in the software.
- 2. Click the Properties button under the device tab at the top of the software.
- 3. Under the Trigger tab in the Properties window, you can select a single point (*window*) or two point trigger.
- 4. To enable a high trigger, select Enable High Trigger and enter the desired high setpoint. **5.** To enable a low trigger select Enable Low Trigger and enter the desired low setpoint.
- 5. To disable a high or low trigger, simply uncheck the applicable box.
- 6. Click Apply to apply the trigger settings to the OM-CP-RFTCTemp2000A.

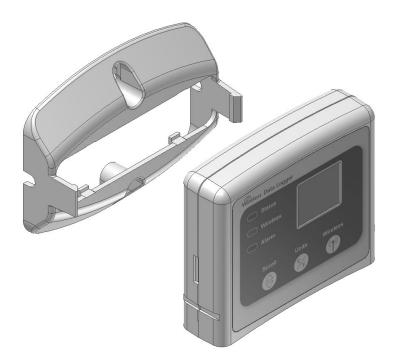
Mounting Instructions

The base provided with your OM-CP-RFTCTemp2000A can be used in two ways.

The bottom of the logger snaps in place to use and mount the unit on a table top or horizontal surface.

The base can also sucurely snap to the backside of the logger for wall mounting if desired (as shown right).

There are 2 holes in the base to allow for screws for mounting.



Troubleshooting Tips

Why are my devices not appearing?

If your OM-CP-RFTCTemp2000A isn't showing up in the Connected devices panel, or you receive an error message while using the OM-CP-RFTCTemp2000A, try the following:

• Check that your OM-CP-RFC1000-EXT is properly connected. For more information, see Troubleshooting Interface Cable problems (*below*).

• Ensure that the battery is not discharged. For best voltage accuracy, use a voltage meter connected to the battery of the device. If you have one available, try switching the battery with a fresh 9V lithium.

- Ensure that no other Omega software is running in the background
- Ensure that you are using Omega data logger software.

• Ensure that the Connected Devices panel is large enough to display devices. This can be verified by positioning the cursor on the edge of the Connected Devices panel until the resize cursor appears, then dragging the edge of the panel to resize it

Troubleshooting Interface Cable problems

Check that the software recognizes your OM-CP-RFC1000-EXT wireless receiver

If your device is not appearing in the Connected Devices list, it may be that the OM-CP-RFC1000-EXT is not properly connected.

- 1. In the software, click the File Button, then click Options.
- 2. In the Options window, click Communications.
- 3. The Detected Interfaces box will list all of the available communication interfaces. If your OM-CP-RFC1000-EXT is listed there, then the software has correctly recognized and is ready to use it.

Check that Windows recognizes your OM-CP-RFC1000-EXT wireless receiver

If the software does not recognise your OM-CP-RFC1000-EXT, there may be a problem with Windows or the USB drivers.

- 1. In Windows, click Start, right-click Computer and choose Properties or you can press Windows+Break as a keyboard shortcut.
- 2. Click Device Manager in the left hand column.
- 3. Double click Universal Serial Bus Controllers.
- 4. Look for an entry for Datalogger Interface.
- 5. If the entry is present, and there are no warning messages or icons, then windows has correctly recognized your OM-CP-RFC1000-EXT.
- 6. If the entry is not present, or has an exclamation point icon next to it, you may need to install the USB drivers. These are available on your software flash drive, and on the Omega website.

Ensure that the USB end of the OM-CP-RFC1000-EXT is securely connected to the computer

- 1. Locate the USB-A plug of your OM-CP-RFC1000-EXT.
- 2. If the interface cable is connected to your PC, unplug it.
- 3. Wait ten seconds, then reinsert it.
- 4. Check to make sure that the red LED is lit, indicating a successful connection.

Product Maintenance

Battery Replacement

Materials: OM-CP-BAT103

- 1. On the bottom of the enclosure, open the battery compartment by pulling in on the cover tab.
- 2. Remove the battery by pulling it from the compartment.
- 3. Install the new battery, taking note of the polarity.
- 4. Push the cover closed until it clicks.

Recalibration

Standard recalibration for the OM-CP-RFTCTemp2000A is two points, 25°C and 60°C for the internal channel *(ambient)*, and 0mV for the thermocouple *(remote)* channel. Recalibration is recommended annually for any Omega data logger; a reminder is automatically displayed in the software when the device is due.

Part Number	RFTCTemp2000A			
Internal Temperature Sensor	Semiconductor			
Internal Temperature Range	-20 to +60°C (-4°F to +140°F)			
Internal Temperature Resolution	0.1°C (0.18°F)			
Remote Channel Temperature Sensor Range, Resolution & Accuracy	*See Table below for Details			
Cold Jct. Compensation	Automatic based on internal channel			
Memory	16,128/channel			
Sample Rate	1 second up to 24 hours			
Channels	1 Internal & 1 Remote			
Required Interface Package	OM-CP-RFC1000-EXT (wireless); USB to Mini USB Cable			
Baud Rate	250,000			
Typical Battery Life	3 years typical at 1 minute reading rate			
Operating Environment	-20 to +60°C (-4°F to +140°F)			
Material	ABS Plastic			
Dimensions	3.0" x 3.5" x 0.95" (76.2mm x 88.9mm x 24.1mm) - Data logger only; does not include docking base			
Wireless Range	2000' max. outdoors (line of sight unobstructed) 500' max indoors (typical urban)			

* Remote Channel Range, Resolution & Accuracy

Thermocouple	Range (°C)	Resolution	Accuracy		
J	-210 to +760	0.1°C	<u>+</u> 0.5°C		
K	-270 to +1370	0.1°C	<u>+</u> 0.5°C		
Т	-270 to +400	0.1°C	<u>+</u> 0.5°C		
E	-270 to +980	0.1°C	<u>+</u> 0.5°C		
R	-50 to +1760	0.5°C	<u>+</u> 2.0°C		
S	-50 to +1760	0.5°C	<u>+</u> 2.0°C		
В	+50 to +1820	0.5°C	<u>+</u> 2.0°C		
N	-270 to +1300	0.1°C	<u>+</u> 0.5°C		

Battery Warning

WARNING: MAY LEAK, FLAME OR EXPLODE IF DISASSEMBLED, SHORTED, CHARGED, CONNECTED TOGETHER, MIXED WITH USED OR OTHER BATTERIES, AND/OR EXPOSED TO FIRE/HIGH TEMPERATURE. DISCARD USED BATTERY PROMPTLY, KEEP OUT OF REACH OF CHILDREN.

> Specifications subject to change. See Omega's terms and conditions at www.omega.com

OM-CP-RFC1000-EXT Wireless Transceiver



Product Overview

The OM-CP-RFC1000-EXT is designed with a high powered transceiver that has a substantially long transmission range, meaning better performance in occluded environments (ovens, refrigerators, etc.). This OM-CP-RFC1000-EXT also includes an external antenna, allowing more flexibility with mounting positions in both orientation and proximity to metal walls. This may be used as a repeater, or directly plugged into the PC.

Transmission Distance

The OM-CP-RFC1000-EXT transmits to other OM-CP-RFC1000-EXTs up to 4000 feet maximum typical outdoors/line of sight, 1000 feet maximum typical indoors/urban. The OM-CP-RFC1000-EXT transmits to data loggers up to 2000 feet maximum typical outdoors/line of sight, 500 feet maximum typical indoors/urban. The OM-CP-RFC1000-EXT can connect to a maximum of 64 data loggers. The OM-CP-RFC1000-EXT transmits on a frequency of 2.405GHz - 2.475 GHz.

Operating Environment

The OM-CP-RFC1000-EXT is rated for use in an environment with temperatures from -20°C to 85°C and a humidity range of 0% to 95% RH non-condensing. The OM-CP-RFC1000-EXT is rated IP40 and is protected against solids that are greater than 1mm in size. This device is not water resistant.

LEDs

The red LED indicates that the device has power. The green LED will blink when communicating with other Omega devices.

Installation Guide

Installing the Software

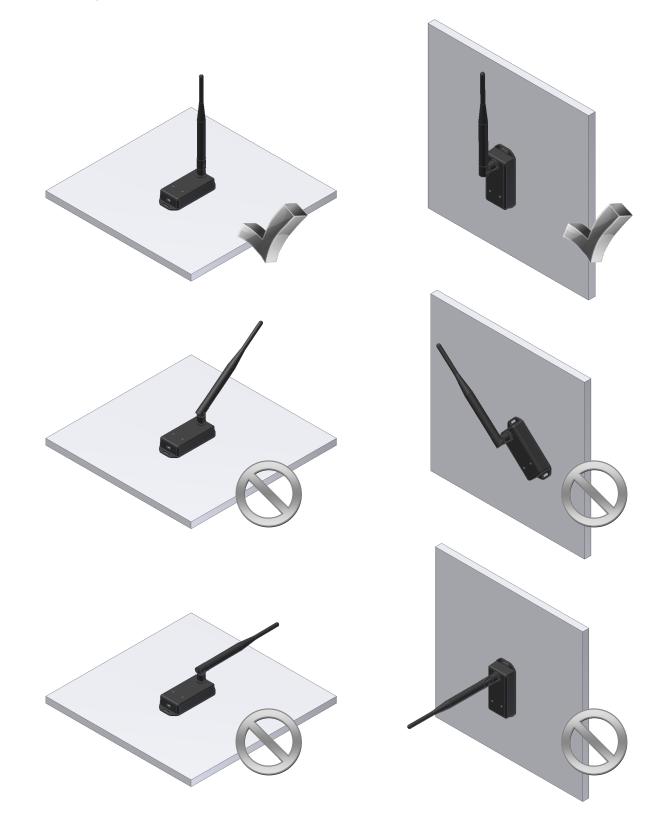
Insert the Software CD or USB Flash Drive into a Windows PC. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Install the **Omega software** and **USB Interface Drivers (under Drivers and Third Party Tools)**. The software can also be downloaded from www.omega.com.

Deploying and Activating Devices

- 1. Plug the OM-CP-RFC1000-EXT into the USB port on the base station computer. (Additional OM-CP-RFC1000-EXTs can be used as repeaters to transmit over greater distances)
- 2. If using multiple OM-CP-RFC1000-EXTs plug each one into a wall outlet in the desired locations. (If transmitting over a distance greater than 1000 feet indoors or 4000 feet outdoors or there are walls/obstacles/ corners that need to be maneuvered around, set up additional OM-CP-RFC1000-EXTs as needed.)
- 3. Verify that the data loggers are in wireless transmission mode. (*See Channel Programming steps above*) On a Windows PC, launch the Omega data logger software program. All active data loggers will be listed in the software showing that the device(s) are recognized.
- 4. To activate the data loggers, click on one to highlight, then click the **Claim** icon, and then click the **Start** icon. Do this for each logger in the list that needs to be activate.

Mounting Instructions

For best wireless performance, both the OM-CP-RFC1000-EXT and the Omega data loggers should be mounted in the same orientation. This usually means that the external antenna should be pointing straight up. The antenna can pivot to accommodate either a wall mount or a desk mount.

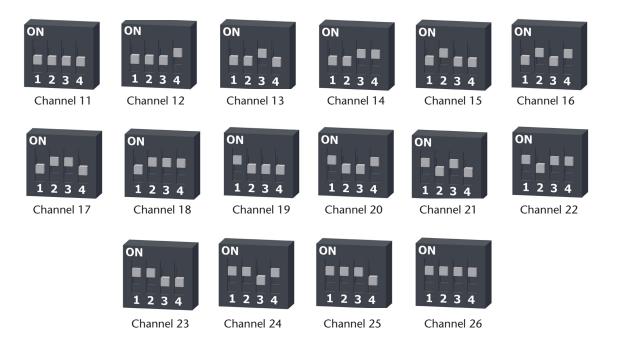


Channel Programming

The OM-CP-RFC1000-EXT transmits data on the 2.4GHz band, channel 11. Each Omega Wireless Data Logger and OM-CP-RFC1000-EXT has a set of dip switches with which the channel may be programmed.

Any Omega data logger or OM-CP-RFC1000-EXT that is on the same network are required to use the same channel. If they are not on the same channel, the devices will not communicate with one another.

Different wireless channels may be used to create multiple networks in one area, or to avoid wireless interference from other devices. The images below show the orientations available of the switches for each channel. Channel 26 (all switches in the up position) is not supported.



Follow the instructions below to configure the channel settings of the Omega Data Loggers.

OM-CP-RFC1000-EXT: To program the channel on an OM-CP-RFC1000-EXT, first unplug the OM-CP-RFC1000-EXT. Use a Phillips head screwdriver to unscrew the enclosure. The dip switches are located on the front of the PCB circuit board. Change the dip switches to match the photo. Reconnect the OM-CP-RFC1000-EXT.

OM-CP-RFTCTemp2000A: To program the channel on the OM-CP-RFTCTemp2000A data logger, start by switching the wireless mode to **OFF** by holding down the **Wireless** button on the data logger for 5 seconds.

- 1. Use the USB Cable, plug the USB end of the cable into an available USB port on the PC.
- 2. Plug the opposite end of the cable into the communication port on the OM-CP-RFTCTemp2000A.
- 3. Open the Omega data logger Software. Locate and select the OM-CP-RFTCTemp2000A in the **Connect Devices** panel.
- 4. In the **Device** tab, click the **Properties** icon. The **Properties** screen will display information about the device including **Wireless** setting.
- 5. Under the **Wireless** tab, select a desired channel (11-25) that will match with the OM-CP-RFC1000-EXT. **Save** all changes, disconnect the data logger, and return the device to wireless mode by holding down the **Wireless** button for 5 seconds.

Troubleshooting Tips

Why is the wireless data logger not appearing in the software?

If the OM-CP-RFTCTemp2000A doesn't appear in the Connected Devices panel, or an error message is received while using the OM-CP-RFTCTemp2000A, try the following:

- Check that the OM-CP-RFC1000-EXT is properly connected. For more information, see Troubleshooting Interface Cable problems (*below*).
- Ensure that the battery is not discharged. For best voltage accuracy, use a voltage meter connected to the battery of the device. If possible, try switching the battery with a new 9V lithium.
- Ensure that no other Omega data logging software is running in the background.
- Ensure that the most current Omega data logging software is being used.
- Ensure that the **Connected Devices** panel is large enough to display devices. This can be verified by positioning the cursor on the edge of the Connected Devices panel until the resize cursor appears, then dragging the edge of the panel to resize it. The screen layout may also be reset in the options menu by selecting **File**, **Options**, and scrolling to the bottom.

Troubleshooting Interface Cable problems

Check that the software properly recognizes the connected OM-CP-RFC1000-EXT wireless receiver.

If the wireless data logger is not appearing in the **Connected Devices** list, it may be that the OM-CP-RFC1000-EXT is not properly connected.

- 1. In the software, click the File button, then click Options.
- 2. In the **Options** window, click **Communications**.
- 3. The **Detected Interfaces** box will list all of the available communication interfaces. If the OM-CP-RFC1000-EXT is listed here, then the software has correctly recognized and is ready to use it.

Check that Windows recognizes the connected OM-CP-RFC1000-EXT wireless receiver.

If the software does not recognise the OM-CP-RFC1000-EXT, there may be a problem with Windows or the USB drivers.

- 1. In Windows, click **Start**, right-click **Computer** and choose **Properties** or press **Windows+Break** as a keyboard shortcut.
- 2. Click **Device Manager** in the left hand column.
- 3. Double click Universal Serial Bus Controllers.
- 4. Look for an entry for **Data logger Interface**.
- 5. If the entry is present, and there are no warning messages or icons, then windows has correctly recognized the connected OM-CP-RFC1000-EXT.
- 6. If the entry is not present, or has an exclamation point icon next to it, the USB drivers may need to be installed. These are available on the software flash drive included with the OM-CP-RFC1000-EXT, and on the Omega website.

Ensure that the USB end of the OM-CP-RFC1000-EXT is securely connected to the computer.

- 1. Locate the USB-A plug of the OM-CP-RFC1000-EXT.
- 2. If the interface cable is connected to the PC, unplug it. Wait ten seconds.
- 3. Reconnect the cable to the PC.
- 4. Check to make sure that the red LED is lit, indicating a successful connection.

OM-CP-RFC1000-EXT General Specifications

Interface Type	USB (to PC) / Wireless (to Data Logger)
Operating Environment	-20 to +85°C, 0 to 95%RH non-condensing
LED Indicators	Red & Green
Enclosure Materials	ABS Plastic (body), PVC Plastic (antenna)
Dimensions	Enclosure: 3.8" x 1.6" x 0.8" / Antenna: 7.2"
Approvals	FCC ID:OA3MRF24J40MC, IC#: 7693A-24J40MC
Transmission Distance (To other RFC1000-EXTs)	4000' max. outdoor - line of sight unobstructed 1000' max. indoors - typical urban environment
Transmission Distance (To data loggers)	2000' max. outdoor - line of sight unobstructed 500' max. indoors - typical urban
Maximum number of connected data loggers	64
Frequency	2.405GHz - 2.475GHz
Ingress Protection	IP40

CE OMEGA[®]

Compliance Information

• "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

• "To satisfy FCC RF Exposure requirements for mobile and base station transmission devices, a separation distance of 20cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter."

• "This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

• "Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante."



		OMEGAnet [®] Online Service omega.com			nternet e-mail fo@omega.com				
Servicing North America:						Servicing Europe:			
U.S.A.: ISO 9001 Certifie d	Omega Engineering, Inc., One Stamford, CT 06907-0047 Toll-Free: 1-800-826-6342		e Omega Drive, P.O. Box 4047 Tel: (203) 359-1660	Benelux:		Managed by the United Toll-Free: 0800 099 334 FAX: +31 20 643 46 43		lom Office TEL: +31 20 347 21 21 e-mail: sales@omegaeng.nl	
Canada:	FAX: (203) 359-77 976 Bergar Laval (Quebec), H Toll-Free: 1-800-83	I7L 5A1 Can	e-mail: info@omega.com nada TEL: (514) 856-6928	Czech Republic:		Toll-Free: 0800-1-66342 TEL: +4		ic TEL: +420-59-6311899 e-mail: info@omegashop.cz	
For immedi	FAX: (514) 856-6886		e-mail: info@omega.ca	France:		Managed by the United Kingdo Toll-Free: 0800 466 342 FAX: +33 (0) 130 57 54 27		lom Office TEL: +33 (0) 161 37 29 00 e-mail: sales@omega.fr	
U.S.A. and Canada:	Customer Service	: 1-800-622-2	1-800-TC-OMEGA® 378/1-800-622-BEST® 2-9436/1-800-USA-WHEN®	Gern Aust		Daimlerstrasse 26, D-7 Toll-Free: 0800 6397678 FAX: +49 (0) 7056 9398-	3	ckenpfronn, Germany TEL: +49 (0) 7056 9398-0 e-mail: info@omega.de	
Mexico/ Latin America	En Español: 001 (2 info@omega.com.		3 FAX: 001 (203) 359-7807 e-mail:espanol@omega.com	Unite King ISO 900 Certifie	dom:	OMEGA Engineering I One Omega Drive, Rive Irlam, Manchester M44 Toll-Free: 0800-488-488 FAX: +44 (0) 161 777-60	er Bend 4 5BD U 3	Technology Centre, Northbank nited Kingdom TEL: +44 (0) 161 777-6611 e-mail: sales@omega.co.uk	

It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification. 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.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of 61 months from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal five (5) year product warranty to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

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.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO ÓMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:

- 1. Purchase Order number under which the product was PURCHASED.
- 2. Model and serial number of the product under warranty, and
- 3. Repair instructions and/or specific problems relative to the
- product.

FOR NON-WARRANTY REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

- 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.

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.

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 2011 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.