



WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal **one (1) 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 which wear are not warranted, including but 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 it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESS 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 OMEGA, 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.

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:

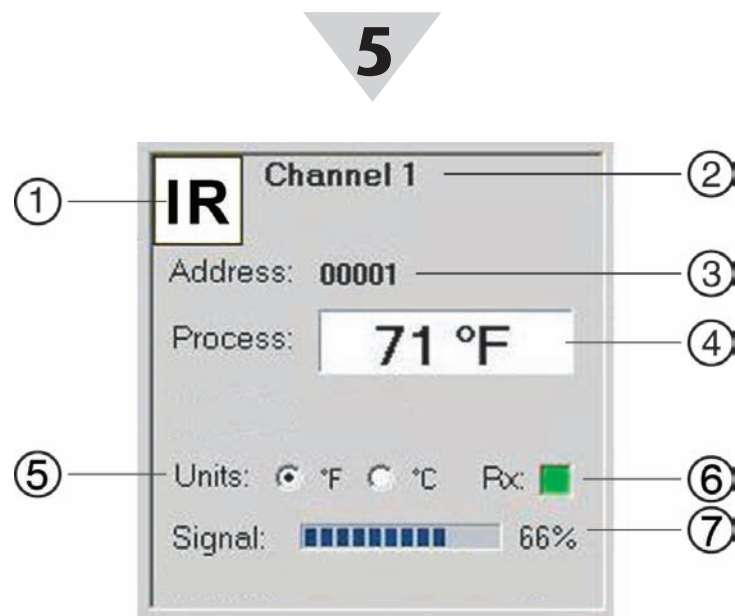
1. Purchase Order number to cover the COST of the repair or calibration,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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.

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(1) Instrument Type

This box indicates the type of instrument that your unit has been programmed to operate with.

(2) Reference

This location will display the reference name you typed into the "Description" field when this box was configured. This can be changed at any time.

(3) Address

The number displayed here is the address number you specified when this display box was configured. This number must match the corresponding Connector/Transmitter that has the same number specified or your system will not receive the correct data readings.

(4) Process

This is the actual process temperature reading that is being measured by your instrument.

(5) Units

Units of measurement setting can be changed from here without going into the main channel configuration menu. Just click with your mouse onto the desired °C or °F button to make a change.

(6) RX

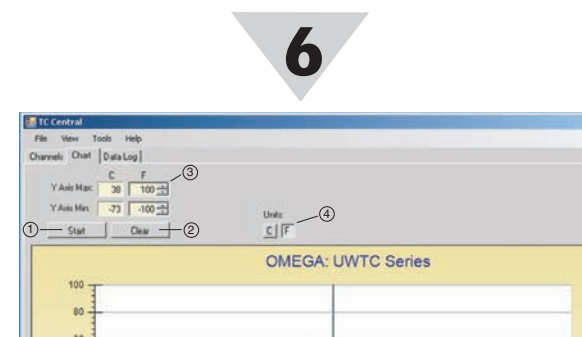
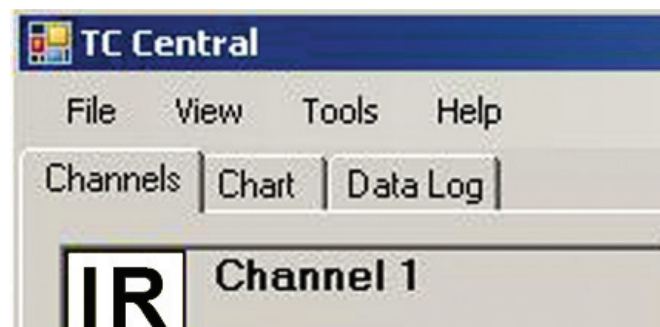
The "RX" indicator box will display a green light that blinks each time the receiver acquires data from the corresponding instrument.

(7) Signal

This percentage bar graph indicates the radio signal strength being received by the receiver. This should be used as guidance when installing your system to help determine the best location and positioning of your equipment.

Chart Tab

The "Chart" tab allows you to start, stop and view real-time data from your instrument in a screen plot that you can save and print.



(1) Start Button

The "Start" button will open the dialog box shown below. This box allows you to select one or more channels to be plotted. Click the checkbox next to the channel(s) number you want to include in your plot.

Line Color

You can change the color specified for each channel's line. Click the "Change" button to select a new color for the Channel selected.

Interval

The total logging time is displayed for the interval setting selected. In general, the interval should normally be set to a value equal to or greater than the same sample time you programmed into the corresponding connector/transmitter for that channel.

You can choose to have the data logging/chart recording session end after your selected number of data points, or have the session run continuously. After your selected number of data points have been collected in the continuous mode, the oldest data point is shifted out on the left, and the newest data point is added to the right. Data will continue to be collected and displayed until you click on the "Stop" button above the chart.

If you click the OK button, the data logging session will start, and "Recording Data" will flash in the status bar. The "Start" button above the chart will change to "Stop", indicating that if you click it again, the logging session will be terminated.

You can also start or stop a data recording session from the File menu. Once data has been collected, you can save it in a (*.csv) (comma separated values) file and open it in Microsoft Excel for further analysis. It is recommended that you "Save As" in Excel as a Microsoft Excel Workbook (*.xls). If you do not modify the (*.csv) version of the file, you can open it from TC Central's File menu, and display it in the chart and data log.

(2) Clear Button

The "Clear" button will delete all data from the chart and the data log.

(3) Y Axis Control

The Y Axis Min and Y Axis Max controls allow you to adjust the viewable range of temperatures to suit your particular application. The narrower the range between min and max, the more detail can be seen on the chart.

(4) C or F Button

The C or F button allows you to change the units of degrees displayed on the chart, and on the data logging.

SECTION 6 - Specifications

Measurement Accuracy: ±1.0°C (1.8°F)

Measurement Resolution: 1°C/1°F

Transmit Sample Rate: 1 sample/every 2 seconds (fixed)

RF: 915 mHz (USA, CANADA) or 868 mHz (EUROPE)

RF Output Power: 10dBm (10 mW)

Range of RF Link:

Up to 90 m (300'): Outdoor line of sight

Up to 39 m (130'): Indoor/urban

QUICK START



OS530E Wireless Series

Quick Start - Setup Guide

omega.com
Ω OMEGA

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omega.com

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info@omega.com

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For immediate technical or application assistance:

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Customer Service: 1-800-622-2378/1-800-622-BEST®
Engineering Service: 1-800-872-9436/1-800-USA-WHEN®

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START HERE



- SECTION 1** General Description
- SECTION 2** FCC/CE Statement
- SECTION 3** Software Installation
- SECTION 4** Receiver Setup & Installation
- SECTION 5** Software Operation
- SECTION 6** Specifications

SECTION 1 – General Description

Your Omega OS530E Series Infrared Pyrometer now features a built-in Wireless Transmitter that allows your instrument to send wireless temperature measurements. When used with an optional wireless receiver and TC-Central user software you can monitor, record or data log measurements directly to your PC from up to 48 different instruments simultaneously.

The built-in wireless transmitter becomes active whenever your instrument is turned on and you are making measurements by pulling the trigger or in the "LOCK" mode.

This quick start guide outlines how to setup and operate the wireless feature with an optional receiver and the TC-Central program. All other information on operation and use of your Infrared Pyrometer can be found in the main manual that was included with your instrument.

SECTION 2 – FCC/CE Statement

FCC (Domestic Use: USA & Canada)

FCC ID: WR3-UWM100

IC: 8205A-UWM100

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.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

----- WARNING -----

To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

----- NOTE -----

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

CE (International Usage)

It is the policy of OMEGA® to comply with all worldwide safety and EMI/EMC 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.

SECTION 3 – Software Installation

TC-Central is a free software program that is included with Omega's wireless receivers. The program allows your computer to function as a temperature monitor, chart recorder and data logger.

----- NOTE -----

You must be logged into your computer as the local administrator before starting installation.

Your PC should meet the following minimum requirements:

- Pentium Class processor
- Hard Drive Space: 210 meg
- Ram: 256 meg or higher
- 1 Available USB Port
- 1 CD-ROM Drive
- Windows 2000, XB, or Vista (32bit) Operating System

1. Install TC-CENTRAL in one of two ways:
 - a. Download TC-CENTRAL by going to the "FTP Site" section at the omega.com website.
 - b. Insert your TC-CENTRAL CD into your computer's CD-ROM drive. Follow the on screen instructions to begin the installation wizard.
2. Click "Next" to continue with the installation.
3. If you accept the terms of the License Agreement, select "I accept the terms in the license agreement" and click "Next."
4. Click "Install" to begin installing TC-CENTRAL.
5. Once TC-CENTRAL has been installed, Click "Finish" to close the installation wizard screen.

SECTION 4 – Receiver Setup & Installation

There are two optional receiver styles available for use with your wireless Infrared Pyrometer.

Mini Wireless USB Receiver



Model: MWTC-REC5-915 for USA & Canada.

Model: MWTC-REC5-868 for International (CE Marked)

Remote USB Wireless Receiver



Model: MWTC-REC1-915 for USA & Canada.

Model: MWTC-REC1-868 for International (CE Marked)

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----- NOTE -----

You must complete the software installation procedure in Section 3, before connecting and attempting to operate your wireless receiver.

Installing an optional wireless receiver is fast and easy. Both models come with a standard Type-A USB connector that will plug directly into your PC.

Model MWTC-REC1 includes a 6' integral cable and mounting bracket that allows you to mount the receiver on a wall or work bench away from the computer.

Model MWTC-REC5 features a miniature design that will plug directly into a USB port on your PC.

Plug the Type-A USB connector on your wireless receiver into an empty, available USB port on your PC.

After a second or two you should see a message box pop up on your screen that says "Installing Device Drivers". After this completes you should then see a second message box that says "Your device is ready for use"

This completes the installation and setup of your wireless receiver.

----- NOTE -----

You may not see notes about device driver installation if your computer already has the proper device drivers installed.

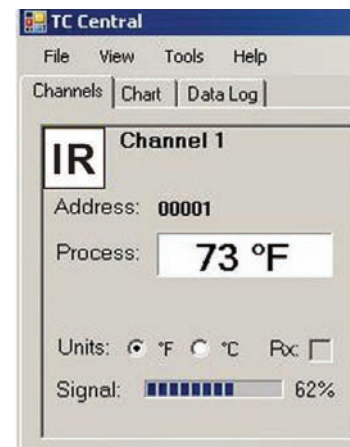
SECTION 5 – Software Operation

To launch the TC-Central program on your PC begin by accessing the "Programs" list under your "Start Menu" Next, scroll through the list of program folders to find the "TC-Central" folder. Inside the "TC-Central" folder click on the "TC-Central" program link. This will start the software running.

Channels Tab Menu



When TC-Central starts up, the "Channels" tab is displayed. This view allows you to see temperatures and properties for up to 48 different instruments at one time



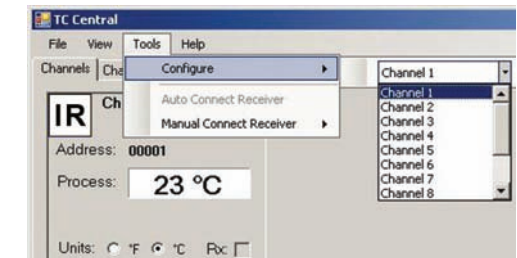
This is a partial view of the TC-Central Program in operation. You will not have any blocks receiving data until you have programmed and placed your instrument into operation.

Setting up the TC-Central Program

Before you can make wireless measurements with your Instrument the TC-Central software must be configured properly. The following steps outline how to setup your program.

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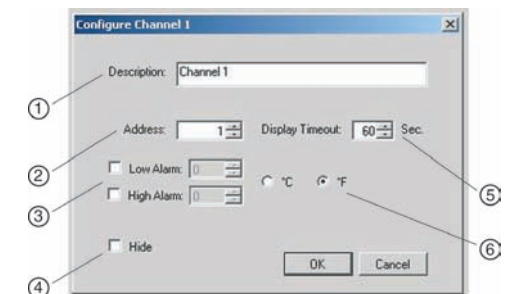
Channel Configuration



From the "Tools" pull-down menu select "Configure"... "Channel 1". This will open the program settings table were you can make selections on how you want your system to operate.

----- NOTE -----

You can hold your cursor over the measurement box and "Right Click" this will also open the settings table.



(1) Description Field

In the Description Field you can type a reference name that is associated with the location or process being measured by the instrument for address. Example.. "IR GUN #1"

(2) Address Field

You must enter the address number into this box that is printed on the instrument label provided with your unit. click on the "Up" and "Down" buttons to advance to a higher or lower address number.

----- NOTE -----

You will not be able to receive wireless measurements from your instrument unless this is set correctly.

(5) Display Timeout

The Display Timeout setting is used to set how long you want the unit to continue showing the last reading data when communication between the instrument and receiver has been lost.

(3) Low Alarm / High Alarm

When the "High" or "Low" Alarm box is checked the alarm feature becomes active. Click with your mouse on the "Up" and "Down" buttons to advance to a higher or lower setting. The displayed temperature reading will change to RED digits and begin blinking to indicate that the process temperature has gone below the low alarm or exceeded the high alarm value.

(6) °C or °F

Selecting the °C or °F button will configure the particular box to display readings in the desired units of measurement.

(4) Hide

When the "Hide" box is checked the particular box that you are configuring will become inactive and will not show up on the screen when running the TC-Central program. This is used to remove unused boxes when less than 48 instruments are being used.