QUICK START

ΩΞ OMEGA®

User's Guide

CO₂, Humidity and Temperature

- Status
- Wireless
- Alarm

22.42°C
38.00%RH
1030ppm

Scroll | Units | Wireless

°C RH CO₂

ΩΞ OMEGA® Wireless Data Logger

ΩΞ OMEGA® CO₂ Sensor

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OM-CP-RFCO2RHTEMP2000A
Wireless CO₂, Humidity & Temperature Data Logger

Product Overview

The OM-CP-RFCO2RHTEMP2000A is a wireless data logger that measures and records carbon dioxide, humidity, and temperature levels in a variety of applications. This data logger is ideal for use in air quality studies including HVAC applications and much more.

The OM-CP-RFCO2RHTEMP2000A data logger comes with a 16 ft cable connected to the CO_2 sensor, making it ideal for placement within enclosed environments such as an incubator to ensure optimum levels. The logger features an LCD screen which provides instant access to current readings, as well as minimum, maximum, and average statistics. The device also features configurable alarms, battery life indicator, and the ability to reset statistics without impacting the data collection. The logger features a convenient wall mount, while the CO_2 sensor is equipped with dual lock for easy and secure placement and effortless mobility.

Temperature recorded on the OM-CP-RFCO2RHTEMP2000A can be expressed in °C, °F, °R, or K while humidity can be shown in %RH, mg/ml, and Dew Point. Carbon dioxide can be expressed as either ppm or as a percentage. All units can be viewed on both the LCD screen as well as in the software.

The device can be used to determine ventilation efficiency in a variety of environments including buildings, offices, hospitals, schools, and laboratories. By determining the levels of carbon dioxide, improvements can be made to the ventilation systems and energy saving opportunities become more easily identified.

Selection Buttons
The logger is designed with 3 direct selection buttons: Scroll, Units and Wireless.
- **Scroll:** Allows user to scroll through current readings, average stats and device status information displayed on the LCD Screen.
- **Units:** Allows user to change displayed units of measurement: °C, °F, °R, K Units for the temperature channel, %RH, mg/mL, Dew Point Units for the humidity channel and ppm and % for the carbon dioxide channel.
- **Wireless:** Push and hold this button for 5 seconds to activate or deactivate wireless communication.
- **Manual Reset Option:** Allows user to manually reset the statistics within the device to 0 without needing to use the Omega software. Any data recorded up to that point is recorded and saved.

LED Indicators
- **Status:** Green LED blinks every 5 seconds to indicate unit is logging.
- **Wireless:** Blue LED blinks every 15 seconds to indicate unit is operating in wireless mode.
- **Alarm:** Red LED blinks every 1 second to indicate an alarm condition.

Connecting Information
Port Information
The OM-CP-RFCO2RHTEMP2000A data logger has a screw attachment for the CO_2 sensor cable *(Note: The sensor and logger body must have matching serial numbers to operate).*
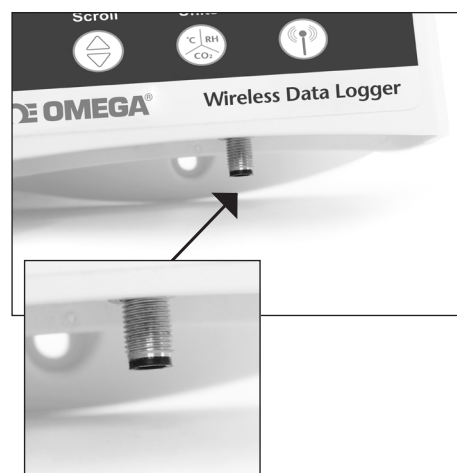
Quick Start Steps

Product Operation (Wireless)

1. Install the Omega Software and USB Drivers onto a Windows PC.

2. The OM-CP-RFC1000-EXT interface device comes with a USB cable. Plug one end of the cable into an available USB port on the PC and plug the opposite end of the cable into the communication port on the OM-CP-RFC1000-EXT.

3. Push and hold the wireless button on the OM-CP-RFCO2RHTEMP2000A for 5 seconds to activate wireless communication. The display will confirm "Wireless: ON" and the blue LED will blink every 15 seconds.

4. Launch the Omega Software. All active Omega Data Loggers that are within range will automatically appear in the connected devices window. Each data logger in the list can be identified by serial number (*printed on the exterior of the logger*).

5. To claim a device, select the desired data logger in the list and click the Claim icon.

6. Select the start method, reading rate and any other parameters appropriate for the desired data logging application. Once configured, deploy the data logger by clicking the **Start** icon.

7. To download data, select the device in the list, click the **Stop** icon, and then click the **Download** icon. A graph will automatically display the data.

Product Operation (Plugged In)

1. Install the Omega Software and USB Drivers onto a Windows PC.

2. Before plugging the data logger in the computer, make sure the wireless setting on the device is set to "Wireless: OFF". If wireless mode is on, press and hold the Wireless button on the device for 5 seconds.

3. The OM-CP-RFCO2RHTEMP2000A comes with a USB cable. Plug one end of the cable into an available USB port on the PC and plug the opposite end of the cable into the communication port on the OM-CP-RFC1000-EXT.

4. Launch the Omega Software. All active Omega Data Loggers that are within range will automatically appear in the connected devices window. Each data logger in the list can be identified by serial number (*printed on the exterior of the logger*).

5. To claim a device, select the desired data logger in the list and click the Claim icon.

6. Select the start method, reading rate and any other parameters appropriate for the desired data logging application. Once configured, deploy the data logger by clicking the **Start** icon.

7. To download data, select the device in the list, click the **Stop** icon, and then click the **Download** icon. A graph will automatically display the data.

Additional Features and Operation

Alarm Settings/Rules
In the Omega data logging software, alarms can be created on two levels; in the software itself, and programmed specifically to the data logger. Creating alarm rules in the software allows the user to utilize alarms while real time recording, and have the added benefit of features such as e-mail and SMS notification. An alarm that is programmed on the data logger will only alert the user from the device itself, whether that is by a flashing LED, audible alarm, or local LCD notification.

Creating a Real-time Alarm Rule
1. Within the Device tab in the Omega data logging software, in the Alarms group, click **Manage Rules**, then select **New**.
2. Enter a name in the Rule name box, and select whether notifications will occur when **All** conditions are met or **Any** condition is met.
3. Select the desired conditions to have met before notifications occur, and select which notifications will occur from the drop down menus.
4. If selecting to receive notifications by email or text message, select **Email Settings** and make sure the correct info has been entered. Email and text message notifications will not be received if settings are incorrect.
5. Click **OK**. The **OK** button will be disabled if the Rule name box is empty.

Changing the Alarm Settings of a Device
1. In the Connected devices panel, select the OM-CP-RFCO2RHTEMP2000A device.
2. Click the **Properties** button under the device tab at the top of the software, and select the **Alarm** tab in the **Properties** window.
3. The High and Low settings indicate reading thresholds at which the alarm becomes active.
4. The Delay setting indicates how long to wait before the alarm becomes active after passing an alarm threshold.
5. The Use cumulative alarm delay checkbox indicates whether the alarm delay should reset when reading values fall back within the alarm threshold.
6. Once the alarm is configured appropriately, click **Apply** to save the settings.

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

Mounting Instructions
The base provided with the OM-CP-RFCO2RHTEMP2000A can be used as a wall mount only.

The base can securely snap to the backside of the logger for wall mounting (as shown to the right).

There are two holes in the base to allow for screws for mounting.
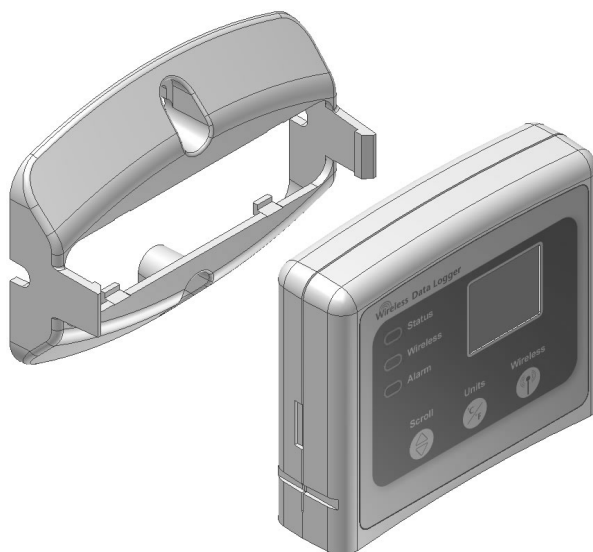
Troubleshooting Tips

Why is the wireless data logger not appearing in the software?
If the OM-CP-RFCO2RHTEMP2000A doesn't appear in the Connected Devices panel, or an error message is received while using the OM-CP-RFCO2RHTEMP2000A, 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 OM-CP-BAT103.
• Ensure that no other Omega software is running in the background.
• Ensure that **Omega 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 transceiver.
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 transceiver.
If the software does not recognize 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.

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
The OM-CP-RFCO2RHTEMP2000A standard calibration is one point at 25°C for the temperature channel, two points at 25%RH and 75%RH for the humidity channel and the CO_2 channel is verified at fresh air level. (verification point of 70ppm or 5% of the reading.)

Recalibration is recommended annually for any Omega data logger; a reminder is automatically displayed in the software when the device is due.

Countries approved for use, purchase and distribution of the OM-CP-RFCO2RHTEMP2000A:

Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, Columbia, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Honduras, Hungary, Iceland, Ireland, Israel, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Mexico, New Zealand, Norway, Peru, Poland, Portugal, Romania, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, The Netherlands, Turkey, United Kingdom, United States, Venezuela, Vietnam

OM-CP-RFCO2RHTEMP2000A General Specifications

Reading Rate	1 reading every second up to 1 reading every 24 hours
Memory	10,752 readings per channel
LED Functionality	• Green LED blinks every 5 seconds to indicate unit is logging • Blue LED blinks every 15 seconds to indicate unit is in wireless mode • Red LED blinks every 1 second to indicate alarm condition
Wrap Around	Yes
Start Modes	Immediate Start, Delay Start
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	9V lithium battery included; user replaceable
Battery Life	Approximately 16 months typical at a 10 minute reading rate
Data Format	• For Display: °C or °F • For Software: Date and time stamped °C, K, °F, or °R
Time Accuracy	± 1 minute/month
Computer Interface	USB to mini USB, 250,000 baud for standalone operation or OM-CP-RFC1000-EXT required for wireless operation
Operating System Compatibility:	XP SP3/Vista/Windows 7/Windows 8
Omega Software Compatibility	The OM-CP-RFCO2RHTEMP2000A is compatible with OM-CP Standard Software version 4.2.1.1 & OM-CP Secure Software version 4.2.0.1 or later
Operating Environment	0°C to +55°C (+32°F to +1131°F); 0 to 95%RH non-condensing, 0.002 to 100PSIA
Dimensions	Data logger: 3.0" x 3.5" x 0.95" (76.2mm x 88.9mm x 24.1mm) Sensor: 1.98" x 1.98" x 1.15" (50.3mm x 50.3mm x 29.2mm) Cable Length: 16' (192")
Weight	140g (4.9oz)
Enclosure Material	ABS Plastic
Alarm	User configurable audible, on-screen, email and text (SMS) alarms. Alarm Delay: A cumulative alarm delay may be set in which the device will activate the alarm (via LED) only when the device has recorded a user specified time duration of data.
Audible Alarm Functionality	1 Beep per second for reading alarm above/below threshold
Approvals	US (FCC), CA (IC), CE, South Korea (KCC), China (CMIIT), Japan (LCIE)

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 20 cm 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.

OM-CP-RFCO2RHTEMP2000A

Carbon Dioxide (CO$_2$)

Measurement Range	0ppm to 200,000ppm
Measurement Resolution	10ppm
Calibrated Accuracy	±70ppm
Sensor Warm Up Time:	30 seconds

Humidity

Measurement Range	0%RH to 95%RH
Measurement Resolution	0.08%RH
Calibrated Accuracy	±3%RH from 25%RH to 75%RH @ 25°C, 7%RH otherwise

Temperature

Measurement Range	0°C to +55°C (+32°F to 131°F)
Measurement Resolution	0.08°C
Calibrated Accuracy	±1°C

Wireless

RF Frequency	2.45GHz IEEE 802.15.4 ultra-low power wireless transceiver with fully bi-directional communication
Band	ISM band 2.405-2.475 GHz Operation (channels 11 through 25) @ 250 kbps
Maximum Output Power	+0dBm typical
Receiver Sensitivity (OM-CP-RFC1000-EXT)	-95dBm typical
Range	2000' max. outdoors (line of sight unobstructed) 500' max. indoors (typical urban)
Transmission Distance (to other OM-CP-RFC1000's)	• OM-CP-RFC1000-EXT & OM-CP-RFC1000-IP69K 4,000' max. outdoors - line of sight unobstructed 1,000' max. indoors - typical urban environment • OM-CP-RFC1000-EXT-EUR 2,500' max. outdoors - line of sight unobstructed 700' max. indoors - typical urban environment
Transmission Distance (to data loggers)	• OM-CP-RFC1000-EXT, OM-CP-RFC1000-EXT-EUR & OM-CP-RFC1000-IP69K 2,000' max. outdoors - line of sight unobstructed 500' max. indoors - typical urban environment

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

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OM-CP-RFC1000-EXT
Wireless Transceiver

Other models available:

OM-CP-RFC1000-EXT-EUR
Approved for European markets

OM-CP-RFC1000-IP69K
Splash Proof for
harsh environments

Product Overview

The OM-CP-RFC1000-EXT, a high powered transceiver that has a substantially long transmission range, providing enhanced performance in occluded environments (ovens, refrigerators, etc.). The OM-CP-RFC1000-EXT also features an external antenna, allowing more flexibility with mounting positions in both orientation and proximity to metal walls. The device may be used as a repeater, or directly plugged into the Windows 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 Omega Data Logger Software
Insert the Omega Software Flash Drive into an open USB port on a Windows PC. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Installation Wizard. Software can also be downloaded from the Omega website.

1. Locate the **Autorun.exe** file on the Omega Software Flash Drive.

2. Select **"Omega Software"** in the Omega Installer Options window panel.

3. If the Windows PC doesn't already have .NET 4.0 Framework, installation may be required.
   Note: *To see if the .NET 4.0 Framework is installed, go to the Windows Control Panel and select Programs.* *"Microsoft .NET Framework 4.0" would be listed as a Windows program.*

4. Select **"Install Omega Software"** if .NET framework is installed on the Windows PC, or if installing on a Windows 8 machine.

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.
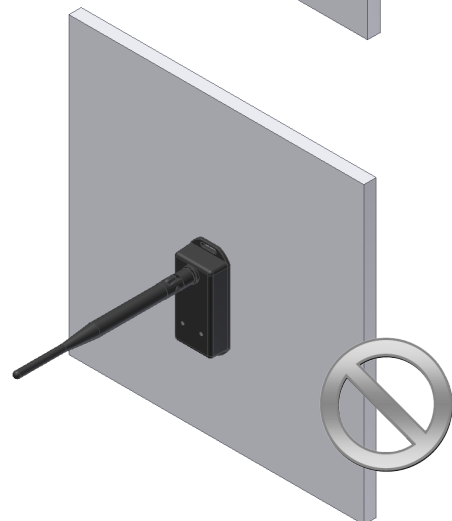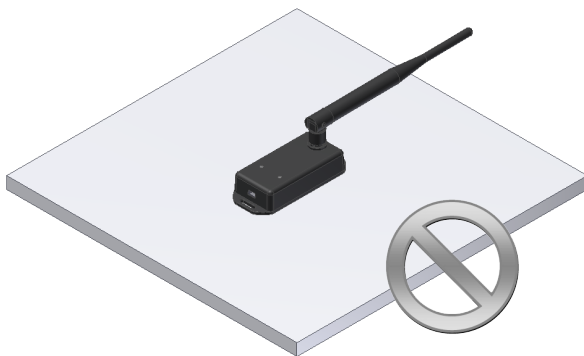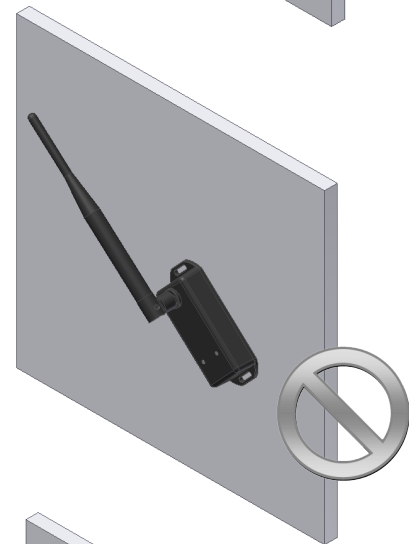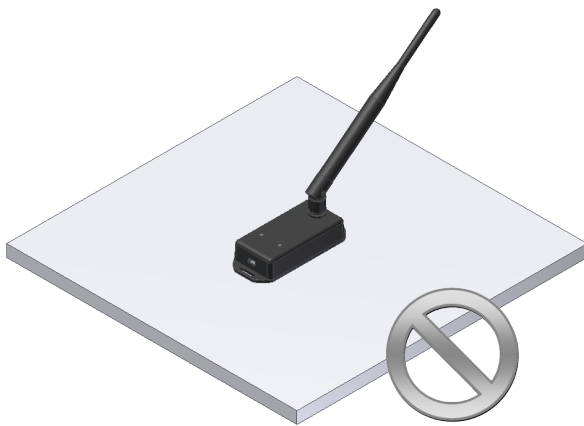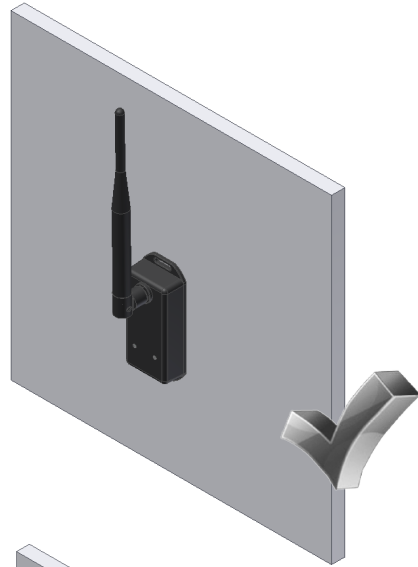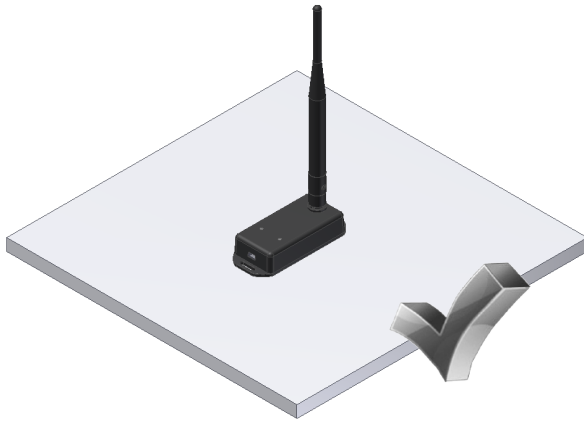
Channel Programming

The OM-CP-RFC1000-EXT transmits data on the 2.4GHz band and is programmed by default on 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.

Different wireless channels may be used to create multiple networks in one area, or to avoid wireless interference from other devices. Any Omega data logger or OM-CP-RFC1000-EXT that is on the same network is required to use the same channel. If all of the devices are not on the same channel, the devices will not communicate with one another.

The images below show the orientations available of the switches for each channel. Channel 26 (all switches in the up position) is not supported.

Channel 11   Channel 12   Channel 13   Channel 14   Channel 15   Channel 16

Channel 17   Channel 18   Channel 19   Channel 20   Channel 21   Channel 22

Channel 23   Channel 24   Channel 25   Channel 26
(not supported)

Follow the instructions below to configure the channel settings of the OM-CP-RFC1000-EXT.
1. To program the channel on an OM-CP-RFC1000-EXT, first unplug the OM-CP-RFC1000-EXT.
2. Use a Phillips head screwdriver to unscrew the enclosure.
3. Find the dip switches located on the front of the PCB circuit board.
4. Change the dip switches to match the the desired channel using the diagram above.
5. Screw the enclosure back together and reconnect the OM-CP-RFC1000-EXT.
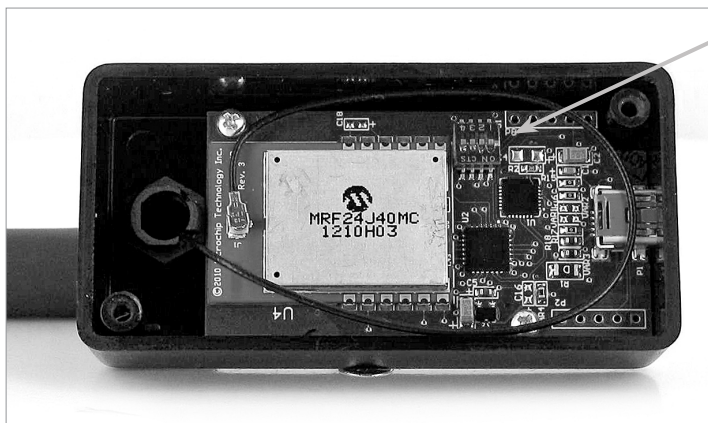
Close-up

Quick Start Manual

OM-CP-RFCO2RHTEMP2000A: To program the channel on the OM-CP-RFCO2RHTEMP2000A 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-RFCO2RHTEMP2000A.
3. Open the Omega data logger Software. Locate and select the OM-CP-RFCO2RHTEMP2000A 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.

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.

Troubleshooting Tips

Why is the wireless data logger not appearing in the software?
If the OM-CP-RFCO2RHTEMP2000A doesn't appear in the Connected Devices panel, or an error message is received while using the OM-CP-RFCO2RHTEMP2000A, 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°C 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 OM-CP-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

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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."

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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.

MADE IN USA

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 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.

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.

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