



InTemp CX5000 Gateway and Onset Data Loggers Instruction Manual

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InTemp®

Monitoring Solutions

In Temp® CX5000 Gateway
Manual



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CX5000 Gateway and Onset Data Loggers

In Temp CX5000 Gateway

Included Items:


- Mounting kit
- AC adapter

Required Items:

- In Temp Connect account
- In Temp app
- Device with iOS or Android™ and Bluetooth
- CX series loggers

The In Temp CX5000 Gateway is a device that uses Bluetooth® Low Energy (BLE) to regularly configure and download up to 50 CX series loggers and upload the data to the In Temp Connect® website automatically via Ethernet or WiFi. The gateway requires an In Temp Connect website account with gateway privileges and a phone or tablet with the In Temp app to set up the gateway.

Specifications

Transmission Range	Approximately 30.5 m (100 ft) line-of-sight
Wireless Data Standard	Bluetooth 4.2 (BLE)
Connectivity	WiFi 802.11a/b/g/n 2.4/5 GHz or 10/100 Ethernet
Power Source	AC adapter
Dimensions	12.4 x 12.4 x 2.87 cm (4.88 x 4.88 x 1.13 inches)
Weight	137 g (4.83 oz)
	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).

Setting up the Gateway

Follow these instructions for setting up the gateway in your current location. If you are an IT administrator configuring the gateway for use at a different location, see [Setting up the Gateway at a Different Site](#).

- Set up roles on the In Temp Connect website for gateway privileges.
 - Go to www.intempconnect.com and follow the prompts to set up an administrator account or skip to the next step if you already have an account.
 - Log into the account at www.intempconnect.com.
 - If you are an administrator or created the account and will be setting up the gateway, you can skip to step 2 because you automatically have the required privileges.

Otherwise, you must create a role or edit an existing role to add the privileges. Click Settings and then Roles.

 - Click Add Role and enter a description or select an existing role. Note: You must be an In Temp Connect administrator or a user with Manage Users and Roles privileges.
 - Select the Gateway privileges from the Available Privileges list on the left and click the right arrow button to move them to the Assigned Privileges list on the right as shown in this example.

Description:

Available Privileges

- ☐ Connect to Loggers in Account
- ☐ Delete Reports
- ☐ Download and Continue
- ☐ Download and Restart
- ☐ Download and Stop
- ☐ Preview and Share Reports
- ☐ Reset Logger Passkey
- ☐ Update Logger Firmware

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Assigned Privileges

- ☒ Create Shipments
- ☒ Download Now and Continue
- ☒ Download Now and Restart
- ☒ Download Now and Stop
- ☒ Edit/Delete Shipments
- ☒ Manage Gateways
- ☒ Manage Logger/Gateway Profiles
- ☒ Gateway Administrator

Gateway Privilege	Description
Create Shipments	Set up shipments of loggers via the gateway.
Download Now and Continue	Download the logger with a gateway immediately and then continue logging.
Download Now and Restart	Download the logger with a gateway immediately and then restart the logger.
Download Now and Stop	Download the logger with a gateway immediately and then stop logging.
Edit/Delete Shipments	Change or delete planned shipments of loggers via the gateway
Manage Logger/ Gateway Profiles	Set up or edit a gateway profile in InTempConnect.
Manage Gateways	Monitor active gateways in InTempConnect and configure loggers with the gateway.
Gateway Administrator	Set up and configure a gateway with the In Temp app.

Select any other privileges you want the user to have (privileges for the In Temp Connect website are noted with a cloud  icon and privileges for the In Temp app are noted with a mobile device  icon).

f. Select a user for this role and click Save. Or, if you need to add a user, click Save and then click Settings > Users. Click Add User and enter the email address and first and last name of the user. Select the role with the gateway privileges for the user and click Save.

Tip: You can assign these roles to the same user or different users.

2. Set up a gateway profile.

- In the In Temp Connect website, click Gateways and then Gateway Profiles.
- Click Add Gateway Profile.
- Type a name for the gateway, up to 30 characters.
- Select the logger family that will be used with the gateway (you can select more than one).
- Select what you want the gateway to do with each logger when connected: Download and Restart, Download and Continue, or Download and Stop. |

Important: Make sure you select either Download and Restart (CX400, CX450, CX503, CX603, and CX703 loggers) or Download and Continue if you want all loggers to continue logging once the gateway connects to them. Otherwise, if you select Download and Stop, all logging will stop once the gateway connects to the loggers and they will need to be restarted with the In Temp app or through the gateway with In Temp Connect. In addition, Download and Restart is not available for CX502, CX602, and CX702 loggers. These loggers will stop logging upon download if you select this option.

f. Select additional connection controls.

- Immediately connect to any <logger> with a new sensor alarm. Select this if you want the gateway to connect to and download any logger (as applicable) any time a new alarm trips on the logger.
- Immediately connect to any <logger> not seen by this gateway.* The gateway will automatically connect to a new logger when it is first recognized. If this option is disabled, the logger will continue logging, regardless of

what you selected for the Download option in step f. If this option is enabled, the gateway will follow the download setting selected in step f. This means if you selected Download and Restart or Download and Stop in step f, the logger will restart or stop upon the first gateway connection.

***Note:** Not ideal for storage applications.

- Immediately connect to any recently stopped <logger>. Select this if you want the gateway to connect and download a CX500, CX600, or CX700 logger when it stops logging instead of waiting for the next scheduled connection. This option is not available for CX400 loggers.
 - Immediately connect to any <CX400 or CX450 logger> with a new low battery. Select this if you want the gateway to connect and download a CX400 or CX450 logger any time a new low battery alarm trips on the logger.
- g. Choose how frequently the gateway will connect to and download the logger: every 12 hours, day, week, or month. h. Click Save. The new profile is added to the list of gateway profiles.

3. Download the In Temp app and log in.

- a. Download the In Temp app to a phone or tablet if you have not already done so.
- b. Open the app and enable Bluetooth in the device settings if prompted.
- c. Log in with your In Temp Connect user credentials.

4. Set up and start loggers. Make sure the loggers that the gateway will be downloading have been configured and started (requires privileges). All loggers must be configured with the same account used to configure the gateway. Refer to the logger documentation or go to www.intempconnect.com/help for details on starting loggers. You can also set up the gateway to configure loggers. See Configuring Loggers with the Gateway in this manual.

5. Power up the gateway.

- a. Insert the appropriate plug for your region into the AC adapter. Connect the AC adapter to the gateway and plug it in.



- b. Plug in an Ethernet cable if the gateway will be using Ethernet network settings.
- c. Wait a couple of minutes for it to completely power up before continuing. The LED will be yellow-green while it powers up and then change to a deep green once it is ready to set up.

6. Configure gateway network settings.

Note: Ports 123 and 443 must be open for the gateway to work properly.

- a. In the In Temp app, tap the Devices icon. (Don't see Gateways? You must have Gateway Administrator privileges.)
- b. The gateway should appear in the list as in this example and can be identified by its serial number. (The serial number is located on the outside of the box or on the back of the gateway). Tap anywhere in the row to access gateway settings.

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SN 20264614

CX5000

Gateway Not Configured



If the gateway does not appear, make sure it is powered up and within range of your phone or tablet or press the button on the gateway.

c. If the gateway will be using Ethernet with DHCP, the network settings should be automatically configured. A green cloud icon indicates that the gateway is connected to the internet as shown in the following example.



If you need to set up Ethernet for static IP addresses or WiFi, tap Network Settings and tap Ethernet or WiFi.

d. For Ethernet using static IP addresses: Disable DHCP. Tap IP Address, Subnet Mask, or Router to edit the addresses (consult your Network Administrator). Tap Add DNS Server and enter an address. Repeat if necessary (the app can store up to three DNS server addresses). Tap Save.

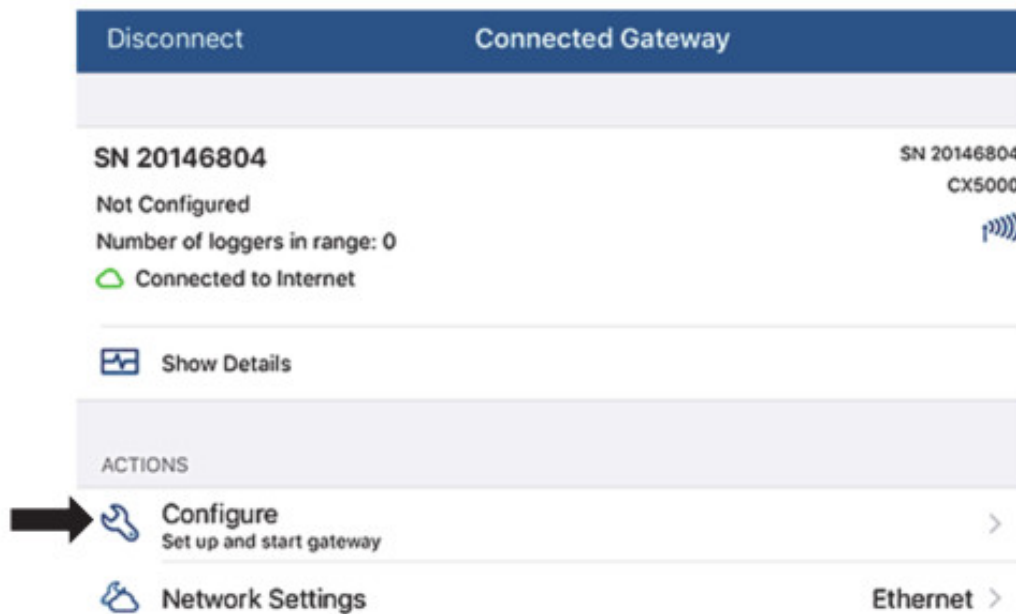
For WiFi: Select Use Current WiFi Network to use your phone or tablet's existing Wifi SSID and then type your password (the password is not copied from your mobile device). (Tap Reset WiFi on Gateway to remove an existing WiFi configuration and enter a different network name and password.) Tap Save.

Note: If the In Temp app disconnects while saving network settings, reconnect and enter the network settings again.

e. The gateway will automatically test the network connection after saving the settings. You can cancel the test if necessary. If the test is not successful, make sure all your settings are entered correctly and saved.

7. Configure the gateway.

- In the In Temp app, tap the Devices icon and then tap Gateways at the top of the screen.
- Tap the gateway to connect to it.
- Tap Configure.



- d. Select a gateway profile; swipe left or right if there are multiple profiles. (Don't see a profile? Set one up in the In Temp Connect website as described in step 2. Log out of the In Temp app and back in to see any new configurations.)
- e. Type a name for the gateway. The gateway serial number will be used if no name is entered.
- f. Tap Start. The status of the gateway should change to Running in the app.

Once a gateway has contacted In Temp Connect for the first time, a user is created for the gateway in your In Temp Connect account. The user name is listed as CX5000-`<gateway serial number>` and the role assigned to this gateway user is the same role as the user who set up the gateway. Click Settings and then Users to see the gateway added to the list of users in your account.

Notes:

- If you have been using a gateway prior to December 2018, a gateway user will automatically be added for your gateway.
- CX5000 gateway users must have gateway privileges. If you edit the CX5000 gateway user role, make sure that role keeps gateway privileges.

If you disable a CX5000 gateway user, the gateway will no longer download loggers or connect to In Temp Connect.

After a gateway has been started, it will connect to loggers within range and download them based on the settings in the profile. Data will be uploaded to the In Temp Connect website, where you can configure loggers, create shipments, search logger configurations, run reports, or schedule regular delivery of logged data and other logger information via email (see www.intempconnect.com/help). Note for CX400 loggers only: If the CX400 logger being downloaded by a gateway is in an alarm state, then the logger will be downloaded every hour until the alarm is cleared.

A signal will be sent to In Temp Connect every 10 minutes to make sure the gateway is still active (see Monitoring the Gateway with In Temp Connect). The gateway LED will also be green during normal operation (see Gateway LEDs).

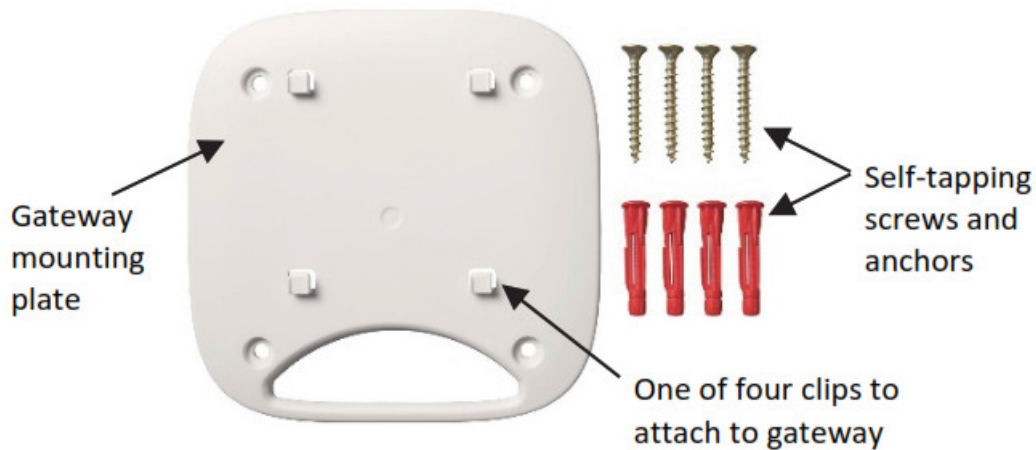
Deployment and Mounting Guidelines

Follow these guidelines when selecting a location to place the gateway:

- The gateway requires AC power and an Internet connection. Select a location for the gateway that is near an

AC outlet and an Ethernet port (if using Ethernet) or within range of your WiFi router (if using WiFi).

- The range for successful wireless communication between the gateway and the loggers is approximately 30.5 m (100 ft) with full line-of-sight. If there are obstacles between the gateway and the loggers, such as walls or metal objects, the connection may be intermittent and the range between loggers and the gateway will be decreased.
- Use the enclosed mounting kit to mount the gateway to a flat surface. Use the self-tapping screws and anchors to affix the gateway mounting plate to a wall or ceiling.



If you are mounting the gateway on a wooden surface, use both the gateway mounting plate and the mounting bracket shown below. Place the gateway mounting plate over the mounting bracket so the holes are aligned. Use the machine screws to affix it the surface (you may need to drill pilot holes in the surface first).



Once the gateway mounting plate is in place on the wall or other flat surface, use the four holes on the back of the gateway to attach it to the four clips on the mounting plate.

Use these holes
to attach the
gateway to the
clips on the
mounting plate




Connecting to the Gateway

To connect to the gateway with your phone or tablet:

1. In the In Temp app, tap the Devices icon and tap Gateways.
2. Tap the gateway in the list to connect to it.

If the gateway does not appear in the list or if it is having trouble connecting, follow these tips:

- Make sure you have Gateway Administrator privileges in the In Temp Connect website as described on page 1.
- Press the button on the gateway and then check the list again. If the gateway does not show up in the list after 30 seconds, press the button again.
- Make sure the gateway is within range of your phone or tablet when connecting to it. If your mobile device can connect to the gateway intermittently or loses its connection, move closer to the gateway, within sight if possible. Check the gateway signal strength  icon in the app to make sure there is a strong signal between the phone and the gateway. The more blue bars, the stronger the signal.
- Change the orientation of your phone or tablet to ensure the antenna in your device is pointed toward the gateway (refer to your device's manual for the antenna location). Obstacles between the antenna in the device and the gateway may result in intermittent connections.

Once your phone or tablet is connected to the gateway, you can check how many loggers are in range or click Show Details to see the last time the gateway connected to a logger and to the In Temp Connect website.

You can also select one of the following actions:

- Configure. Select a profile for the gateway. You can create a new gateway profile in the InTempConnect website under Gateways> Gateway Profiles.
- Network Settings. Change the Ethernet or WiFi settings.
- Stop Gateway. Stop a running gateway. Loggers will no longer be downloaded until you configure or start the gateway again.
- Start Gateway. Start a gateway with the current configuration settings.

Monitoring the Gateway with InTempConnect

To monitor an active gateway in the InTempConnect website, click Gateways and then Gateway Configurations. All current and previous gateway configurations are listed. Check the current configuration in the list for the status, last upload date/time and last contact with InTempConnect.

A signal is sent every 10 minutes from the gateway to InTempConnect to make sure the gateway is still active. The status for the current gateway configuration will be listed in InTempConnect. When a gateway is unable to send a signal (e.g. there is an interruption in Internet service), then it will be listed as missing in InTempConnect, the LED on the gateway will be red, and an email indicating the gateway is missing will be sent to the address on file in InTempConnect after an hour. To change the default notification settings (including whether to send an email or text and the amount of time to wait before sending a notification) or to create an additional notification, click Gateways and then Notifications in Instep Connect. The gateway will continue downloading loggers even if it is not able to connect to InTempConnect. The data will be stored temporarily in the gateway and uploaded the next time it is able to connect to In Temp Connector.

The following is a list of all status messages that may appear for the gateway:

- Gateway OK. The gateway is functioning without error.
- Missing. The gateway has not sent a signal to InTempConnect.
- Invalid gateway date, check network connection. The gateway clock time is invalid, i.e. the gateway cannot set the clock time because there is no internet connection.
- Logger error, relaunch logger(s) with In Temp App. The logger internal file is corrupt and data cannot be retrieved by the gateway. The logger must be relaunched with the In Temp app.
- Unable to update data to cloud. Logger data cannot be uploaded to InTempConnect from the gateway.

Gateway LEDs

LED Behavior	Description
Solid yellowgreen changing to deep green	The gateway is powering up; the LED is yellowgreen when the gateway is first plugged in and then changes to a deep green once it is ready to set up.
Blinking green	The gateway has been initialized. It is not connected to a logger.
Solid green	The gateway is currently connected to a logger.
Blinking red	The gateway is configured, but has been unable to connect to the Internet for at least an hour.
Solid red	The gateway is currently connected to a logger, but has been unable to connect to the Internet for at least an hour.

Pausing, Stopping, and Resetting a Gateway

Follow these instructions if you need to briefly pause a running gateway, stop a gateway completely, or reset a gateway.

- Press the button on the gateway for 1 second to pause a running gateway. Any logger downloads in process will complete, but no other connections to loggers will occur for a one minute. After one minute, connections to loggers will resume at the normal schedule.
- To stop a running gateway, connect to the gateway with the In Temp app and select Stop Gateway. The gateway will no longer connect to and download loggers until it is started again or reconfigured.
- If you need to reset a gateway, press the button on the gateway for at least 10 seconds. Anyone with Gateway Administrator privileges can then connect to the gateway with the In Temp app and reconfigure it.

Note: It may take up to 30 seconds for the gateway to appear unlocked in the In Temp app.

Grouping Gateways with InTempConnect

If you have more than one gateway using the same profile, then you can combine those gateways into a single group. This allows any gateway in that group to configure or download a logger as defined by the shared profile settings. A group is beneficial because if one gateway has a poor connection to a logger, then another gateway in the group with a better connection can download the logger instead, thereby expanding the coverage area and reducing the risk of multiple gateways incorrectly affecting a logger.

Note: If loggers are in range of more than one gateway, then those gateways should be grouped to ensure the system works correctly. If there is any risk of the Bluetooth range between devices overlapping within a facility (including gateways in different rooms, areas, or floors), then the gateways should be grouped to reduce the risk of issues.

To create a gateway group:

1. In InTempConnect, click Gateways and then Groups.
2. Click Add Group.
3. Select a gateway profile.
4. Select a location (if applicable).
5. Under Description, type a name for the group.
6. Select the gateways you want to assign to this group from the Available Gateways list and use the right arrow to move them to the Assigned Gateways list.
7. Click Save.

See www.intempconnect/help for details on gateway groups.

Configuring Loggers with a Gateway



You can use a gateway to configure loggers automatically within range instead of using the InTemp app.

To configure loggers with a gateway:



1. In InTempConnect, click Loggers and then click Configure Logger.
2. Click Create Logger Configuration.
3. Type the serial number for the logger and then click Find Logger. Note: The selected logger cannot already be part of a scheduled configuration or shipment.
4. Enter a logger name.
5. Select a logger profile.
6. Fill in any trip information fields (if applicable).
7. Click Save if you want to save this logger configuration, but are not ready to release it (i.e. not ready for the gateway to configure the logger). Click Save and Release if you are ready for the gateway to configure the logger.

Alternatively, you can use a Microsoft® Excel® spreadsheet as a template for setting up multiple logger configurations at once. To import logger configurations with a template:

1. Click Loggers and then Configure.
2. Click Import Logger Configurations.

3. Click  to create a file using the template.
4. Fill in all the fields for each logger that you want to be configured by the gateway. The template includes columns for any trip information fields you have created. Note: The selected logger cannot already be part of a scheduled configuration or shipment.
5. Save the file.
6. Click Choose to select the file. Click  if you need to remove that file and select another.
7. Click Upload.
8. Select the “Release on import” checkbox if you want the gateway to configure the loggers in the file as soon as the import is complete.
9. Click Start Import. If you did not select the “Release on import” checkbox, the loggers are added to the list with a status of Planned.

Any loggers that are not immediately released have a status of “planned.” To release planned logger configurations:

1. Click Loggers and then Configure Logger.
2. To release one logger at a time, click the Release  icon at the end of the row in the Logger Configurations table for the logger you want the gateway to configure. To release multiple loggers at a time, select the checkbox next to each logger in the Logger Configurations table (or select the checkbox next to the Serial Number column heading to select all the loggers). Click  above the table for the gateway to configure all the selected loggers.

Note: You can also set up shipments in which loggers are configured and downloaded by specified gateways at their origin and destination points. Loggers that are part of a shipment cannot be configured separately as described in this section.

See www.intempconnect/help for other details on configuring loggers with a gateway or as part of shipments.

Downloading Loggers with a Gateway

You can use a gateway to download in-range loggers on demand instead of waiting for the regular download schedule defined by the gateway profile or going onsite to download them manually with the mobile app. Note: You must have the required privileges to download loggers with a gateway. You cannot download loggers on demand with a gateway if they are already part of a shipment.

To download loggers with a gateway:

1. In InTempConnect, click Loggers and then Download Loggers.
2. Select the gateway you want to use to download loggers. This displays loggers within range of that gateway.
3. Select the loggers you want the gateway to download. Use the arrows next to a column heading to change the sort order of the column to help you locate the loggers you want to include.
4. Choose a download option for all loggers you have selected:
 - Download & Continue. The logger will continue logging once the download is complete.
 - Download & Restart (CX400, CX450 CX503, CX603, and CX703 models only). The logger will start a new configuration using the same profile once the download is complete. Note that if the logger profile was set up to start with a button push, you will need to push the button on the logger for logging to restart.

- Download & Stop. The logger will stop logging once the download is complete.
5. Click Download. The status of the download is displayed under Download Requests, where you can also cancel the download if necessary. The download will occur the next time the gateway sends a signal to InTempConnect (every 10 minutes). Once the download is complete, the Configurations table in InTempConnect is updated with the latest logger configuration information. Any applicable notifications will be sent once the download is complete.

Setting up the Gateway at a Different Site

Follow these instructions if you need to configure/start the gateway for use at a different site or to set up network settings for the gateway for a different location than the current site (for example, you are an IT administrator who is setting up a gateway that will be used at a different office). Note that you must have an InTempConnect user account with Gateway Administrator privileges and the In Temp app to continue.

Note: If the gateway will be deployed in a location that supports Ethernet with DHCP and you do not need to set up network settings in advance, then you can follow the steps in Setting up the Gateway on page 1 instead.

1. Power up the gateway. Insert the appropriate plug for your region into the AC adapter. Connect the AC adapter to the gateway and plug it in. Plug in an Ethernet cable if you will be using Ethernet at your current location. Wait a couple of minutes for it to completely power up before continuing.

The LED will be yellow-green while it powers up and then change to a deep green once it is ready to set up.

2. If you will not be configuring the gateway and only setting up network settings for the different site: Go to step 4.

If you will be configuring the gateway and have Ethernet with DHCP at your current location: Go to step 3.

If you will be configuring the gateway and using Ethernet with static IP addresses or WiFi at your current location:

Follow these steps to set up temporary network settings:

- a. Tap the Devices icon and tap Gateways at the top of the screen. Find the gateway in the list and tap anywhere in the row to open it.
 - b. Tap Network Settings and tap Ethernet or WiFi.
 - c. To use Ethernet with static IP addresses at the current location: Disable DHCP. Tap IP Address, Subnet Mask, or Router to edit the addresses. Tap Add DNS Server and enter an address. Repeat if necessary (the app can store up to three DNS server addresses). Tap Save.
 - d. To use WiFi at the current location: Select Use Current WiFi Network to use your phone or tablet's existing WiFi SSID and then type your password. Tap Save.
3. Configure the gateway.
 - a. Connect to the gateway (tap the Devices icon and then tap Gateways at the top of the screen and tap the gateway to connect to it).
 - b. Tap Configure.
 - c. Select a gateway profile; swipe left or right if there are multiple profiles. (Don't see a profile? Ask your InTempConnect administrator to set one up as described in the first section. Log out of the InTemp app and back in to see any new profiles.)
 - d. Type a name for the gateway. The gateway serial number will be used if no name is entered.
 - e. Tap Start. The status of the gateway should change to Running in the app.
 4. Set up network settings for the location where the gateway will be deployed.
 - a. Connect to the gateway (tap the Devices icon and then tap Gateways at the top of the screen and tap the

gateway to connect to it).

b. Tap Network Settings.

c. To use Ethernet with DHCP at the remote site: Tap Ethernet, enable DHCP, and tap Save.

To use Ethernet with static IP addresses at the remote site: Tap Ethernet and disable DHCP. Tap IP Address, Subnet Mask, or Router to edit the addresses for the

location where the gateway will be deployed. Tap Add DNS Server and enter an address. Repeat if necessary (the app can store up to three DNS server addresses). Tap Save.

To use WiFi at the remote site: Tap Reset WiFi on Gateway to remove any existing WiFi configuration. Type the SSID and password for the location where the gateway will be deployed and tap Save. Note: If a WiFi password is changed at the site after you set up it, the WiFi settings will need to be reconfigured. This will require a phone or tablet with the In Temp app.


d. Note that you will not be able to test the network connection for a different location. Pause any network test that is attempted.

5. The gateway is ready to use at the other site. Remove the power and package it back up. To start using it at the site, plug in the gateway in and plug in the Ethernet cable if necessary.

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Documents / Resources

	<p>InTemp CX5000 Gateway and Onset Data Loggers [pdf] Instruction Manual CX5000 Gateway and Onset Data Loggers, CX5000, Gateway and Onset Data Loggers, Onset Data Loggers Data Loggers, Data Loggers Data Loggers, Loggers Data Loggers, Data Loggers, Loggers</p>
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References

-  [InTempConnect](#)
-  intempconnect.com/help
-  [Onset HOBO and InTemp Data Loggers](#)

