CoPOS CoTERM User Guide

CoTERM is a computing appliance designed to operate CoPOS stations and registers. CoTERM connects to a CoPOS+ Server for operation and offers a complete replacement for Logic Box Terminals (also known as "Logic Boxes"). Up to 15 CoTERMS or Logic Box Terminals can be connected to a single CoPOS+ Server at once.

What is the CoTERM Controller?

The Controller is a secondary menu screen where system functions can be performed, such as rebooting or powering off the CoTERM. The following are key combinations used to navigate to and from the Controller.

Ctrl + Alt + F1 - Brings the user to CoPOS

Ctrl + Alt + F2 - Brings the user to the CoTERM Controller

1) Installation

1. Attach all required hardware firmly to the CoTERM:

    - A CoTERM power cable.

    - A VGA video cable connected to a monitor.

   - A keyboard connected to any USB port.

    - An ethernet cable.

2. Attach the other end of the CoTERM's ethernet cable firmly to the CoPOS+ Server's right-most ethernet port (labelled N2 on the CoPOS+ Server diagram). If any Network Switches are used between these two devices, turn them on and insert the ethernet cables into each of them firmly. See Section "5 - Networks" for further information.

3. Prepare the CoPOS+ Server for CoTERM connections. See below for instructions on this procedure.

4. Turn CoTERM on. The Power Button on the front of the CoTERM, in the bottom left corner. The Power Button will turn blue when CoTERM is ON. Then wait for CoTERM to configure itself automatically; this may take several minutes.

5. When CoTERM prompts you, import a CoTERM Key. See Section "2 - CoTERM Keys" for further information.

6. When CoTERM prompts you, select a Station Number. See Section "3 - Station Numbers" for further information.
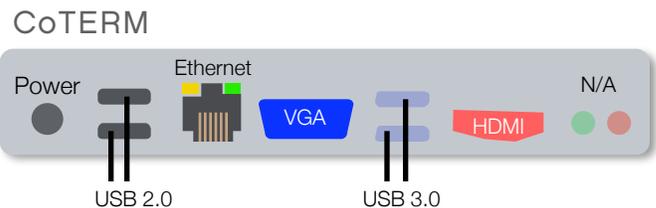
How do I prepare the CoPOS+ Server for CoTERM connections?

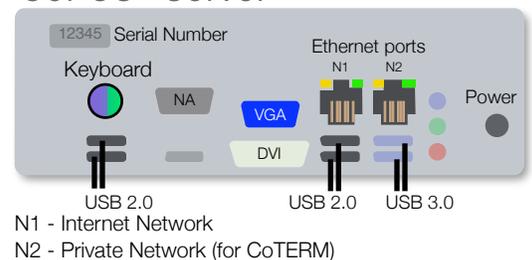1. Access the CoPOS+ Server. The CoPOS+ Server *must* have Internet connectivity for this operation.

2. Update the CoPOS+ Server to the latest controller. To do this, navigate to the CoPOS+ Controller (Ctrl + Alt + F2), select "4 Upgrade" and then "2 Update Controller." Wait for the operation to finish.

3. In the CoPOS+ Controller, navigate to the "4 Upgrade" menu. Select the "3 Update Kernel" option.

4. If the CoPOS+ Server displays a message stating "This CoPOS+ Server is already running the newest kernel," then no further steps are necessary.

5. If this message does not appear, the CoPOS+ Server will guide users through installing the Kernel Update. Make sure to read and follow any instructions given. When finished, the CoPOS+ Server will reboot.

CoTERM

Power — Ethernet — VGA — HDMI — N/A

USB 2.0 — USB 3.0

CoPOS+ Server

12345 Serial Number

Keyboard — NA — VGA — DVI — Ethernet ports N1 N2 — Power

USB 2.0 — USB 2.0 — USB 3.0

N1 - Internet Network
N2 - Private Network (for CoTERM)

2) CoTERM Keys

A CoTERM Key is a computer file that is unique to each CoPOS+ Server. Before each CoTERM can connected to their CoPOS+ Server, the CoTERM Key must be transferred.

To obtain a CoTERM Key from a CoPOS+ Server:

1. Locate USB Storage for use in this procedure.
2. Complete the following steps on your CoPOS+ Server.
3. Insert your USB Storage. Verify that the CoPOS+ Server prints "USB Storage is available" on the screen or LCD.
4. Navigate to the CoPOS+ Controller (by pressing Ctrl + Alt + F2).
5. Select the menu item "7 CoTERM" and then select the menu item "2 Keys."
6. Select the menu item "1 Copy Key to USB."
7. Select "Copy Key" and then press "OK."
8. If the screen says "Key Copied," press enter. You may now remove the USB Storage from your CoPOS+ Server.
9. If the screen did not say "Key Copied," either disconnect and reinsert the USB Storage or try a different USB Storage device, and retry the above steps again.

To import the CoTERM Key onto the CoTERM:

When CoTERM needs a CoTERM Key, it will prompt the user for one. After you have completed the steps above, insert the USB Storage into any of the CoTERM's USB slots. Press the enter key when noted by the text on the screen to import the CoTERM Key.

This USB Storage can be reused to transfer the CoTERM Key. We recommend that each owner of a CoPOS+ Server maintain a single CoTERM Key on USB Storage, clearly labelled and placed in a secure location.

3) Station Numbers

Each CoTERM or Logic Box Terminal connects to CoPOS using a unique Station Number between 100 and 114.

Unlike Logic Box Terminals, whose Station Number is determined by the port to which is it connected, CoTERM's Station Numbers are selected and saved on the CoTERM itself.

When turned on, CoTERM either connects to its saved Station Number automatically, or displays the Station Number List. Your CoTERM's saved Station Number is listed at the top of the CoTERM Controller's main menu (Ctrl + Alt + F2).

How do I connect to a different Station Number?

1. Navigate to the CoTERM Controller (Ctrl + Alt + F2).
2. Select "2 Reconnect As New Station."
3. The CoTERM will disconnect from its current Station and display the Station Number List.
4. Select a Station Number. Station Numbers that other CoTERMs or Logic Box Terminals are using will not be shown.

Every Station Number has a name. These station names can be used to assign user-friendly identifiers like "Lane 2" or "Deli." Station names can be assigned via the Device Table within the CoPOS System Maintenance Menu.

4) Updates and Hardware

How do I update the CoTERM?

CoTERMs update automatically, either when the CoTERM is powered on, or when the CoPOS+ Server is updated.

Because CoTERM updates are collected from the CoPOS+ Server, users should manually update their CoPOS+ Server's Controller regularly (outside of their store operating hours).

I get a message that says, "CoTERM software is newer than CoPOS+ software"

Update your CoPOS+ Server's Controller as soon as possible (outside of store operating hours). Restart the CoPOS+ server after the update.

What hardware can I use with CoTERM?

Many USB compatible items are compatible with CoTERM, including keyboards, scanners, label printers, receipt printers, and scales. PS2-to-USB adaptors are available for keyboards. Serial-to-USB converters are also supported. Parallel-to-USB connections are unsupported by CoTERM (see Section "6 - Basic Troubleshooting" for more information).

How do I view a list of hardware connected to CoTERM?

1. Navigate to the CoTERM Controller (Ctrl + Alt + F2)
2. Select "5 More…"
3. Select "1 View USB Devices" (To test a scale, select "2 Scale Tester" instead)
4. The list will be displayed, or if no devices are found, a message stating "No USB Devices Attached" will appear. Press enter to exit the list.

5) Networks

The CoPOS+ Server's right-most Ethernet port is used to connect the server to the CoTERMs. One end of the ethernet cable is plugged into the CoPOS+ Server (into the port labelled N2 on the diagram); the other end goes:

• If there is only one CoTERM in use, the other end of the ethernet cable can be plugged directly into that CoTERM.

• If multiple CoTERMs are used, then the ethernet cable is plugged into a Network Switch, which splits the Ethernet connection. Each port on the switch can be connected to many Ethernet cables, each of which are plugged into CoTERMs across a store or building.

Hybrid network (Logic Box and CoTERMs)
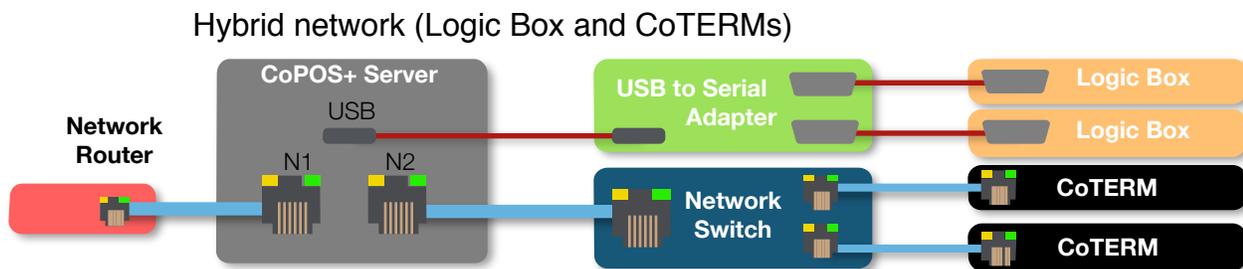
An example configuration for CoTERMs: a long ethernet cable is plugged into the CoPOS+ Server's right-most Ethernet port. The other end will extend all the way to where most of the CoTERMs will be used, where it is connected to a Network Switch. A standard Network Switch has a single row of eight ethernet ports. Any one of these ports is connected to the CoPOS+ Server. Any of the other seven Ethernet ports are connected to CoTERMs with separate Ethernet cables.

How does the CoPOS+ Server connect to a CoTERM versus a Logic Box Terminal or the Internet?

A CoPOS+ Server has two networks. One network is for connecting to the Internet. This is how CoPOS+ Servers get updates, connect to the cloud, and upload backups. The Internet Network is connected to the N1 port on the CoPOS+ Server diagram above. The N1 port can only be used for Internet.

The other network is confined to the building or company that is using the CoPOS+ Server; this is called the Private Network. Only CoTERMs use the Private Network. Multiple CoTERMs can be connected to this network using a Network Switch. The Private Network is connected to the N2 port on the CoPOS+ Server diagram. The N2 port can only be used for CoTERMs.

In contrast, Logic Box Terminals connect to the server using serial ports, which is not considered a "network." For a CoPOS+ Server to connect with Logic Box Terminals, a Serial-to-USB adaptor is used, which splits USB connection from a CoPOS+ Server into multiple Serial ports. Each Serial port is physically assigned a Station Number. Unlike CoTERMs, the only way to change a Logic Box Terminal's Station Number is to change which physical connection the serial cable is using.

How can Logic Box Terminals and CoTERMs coexist on my CoPOS+ Server?

To avoid conflict between CoTERMs and these hardcoded serial adapters, server administrators can reserve Station Numbers for Logic Box Terminal use only:

1. Access your CoPOS+ Server.
2. Navigate to the CoPOS+ Controller (by pressing Ctrl + Alt + F2)

3. Select the menu item "7 CoTERM" and then select the menu item "4 Logic Box Reserved Stations"

4. Select from the menu how many CoTERM Station Numbers you want available for CoTERMs. For example, if your serial adapter has four or eight Logic Box Terminals connected to it, then the user would select the fourth or eighth option, respectively.

How can I see connected CoTERMs through the CoPOS+ Server?

On the CoPOS+ Server, follow the instructions below:

1. Navigate to the CoPOS+ Controller (by pressing Ctrl + Alt + F2)

2. Select the menu item "7 CoTERM" and then select the menu item "3 View CoTERM List"

3. To refresh the list, press enter. To exit, press the right arrow button and then enter.

Each Station Number has a status: Active, Ready or Serial.

- "Ready" means that no other device is using that Station Number. These are the only Station Numbers in the Station Number List.

- "Active" means that a CoTERM is currently connected to that Station Number.

- "Serial" means that Station Number has been reserved for a Serial-to-USB adaptor. See the above section.

What is a CoTERM Network Channel?

Channels are an advanced feature allowing for CoPOS+ Servers and CoTERMs to communicate using a different set of IP addresses. Setting your network to Secondary is not advised without CoPOS support.

6) Basic Troubleshooting

My CoTERM is just a blue screen with a blinking cursor. Is the CoTERM frozen?

No, CoTERM is waiting for the user to do something. Verify that the keyboard is fully connected to the CoTERM and press the enter key.

How do I turn off the CoTERM? When I press the power button it brings me to the CoTERM controller!

Either power off CoTERM in the CoTERM Controller or hold down the Power Button for several seconds to turn it off manually.

My CoTERM says "A network error has been detected: Network Cable Unplugged"

CoTERM has detected that the ethernet cord has been unplugged from the rear of the computer. Re-insert the cable. Replace the cable with another ethernet cable if the problem is not resolved.

My CoTERM says "A network error has been detected: Cannot Access CoPOS Server"

CoTERM has lost its network connection with the CoPOS+ Server. Verify that the CoPOS+ Server is on, and that all cables, ports, or switches connecting the two devices are firmly connected and functional. Verify that the CoTERM's network channel is the same as the CoPOS+ Server.

My CoTERM says "Your CoTERM's Key may be invalid."

First, verify that your CoPOS+ Server is on and fully functional. Second, select "Try Again" on the error prompt by pressing the right arrow and enter. If this does not solve the problem, follow the CoTERM Key transferring steps in Section 2.

My CoTERM says "Waiting for CoPOS to start"

The CoTERM has connected to the CoPOS+ Server successfully, but it cannot find a CoPOS program running. If the message persists, restart CoPOS or restart the CoPOS+ Server.

My CoTERM says "CoTERM requires that your CoPOS+ Server be running the most recent…"

1. Upgrade to the most recent release of CoPOS. (Go to www.copos.com to see the latest release information)
2. In CoPOS, navigate to "System Maintenance."
3. Navigate to "Enter/Edit Device Table."
4. Type in any Station Number and press enter. In the menu that appears near the bottom of the screen, navigate to "SAVE" to the right.
5. Press "YES" to Save and then "YES" to export the Device Table. Press the ESC Key several times to return to the main menu.

Colors in CoPOS aren't correct on a CoTERM.

1. In CoPOS, navigate to "System Maintenance."
2. Navigate to "Enter/Edit Device Table."
3. Type in a Station Number used by CoTERM's and press enter. In the menu that appears near the bottom of the screen, navigate to "DEVICE TYPE" to the right. Select "CoTERM" from the menu.
4. Select "YES" to Save and then "YES" to export the Device Table. Repeat this for all CoTERM Station Numbers. Press the ESC Key several times to return to the main menu. Log out of CoPOS, and then log back in.
5. Repeat this procedure for every CoTERM.

My CoTERM is still acting up! When all else fails?

You may reset the CoTERM to its Factory Defaults, which reverts the CoTERM back to its original unconfigured state. *This will fully disconnect the CoTERM from the CoPOS+ Server;* the CoTERM will *not* be able to reconnect until the CoTERM Key and Station Number are re-entered.

1. Navigate to the CoTERM Controller (Ctrl + Alt + F2)
2. Select "5 More…" and then select "6 Reset Factory Defaults"
3. Read the window carefully, and if you understand, select "Reset CoTERM" to proceed.
4. Read the second window carefully, and if you understand, select "Reset CoTERM" to proceed.
5. The CoTERM will reset to Factory Defaults and reboot.

My receipt printer doesn't work with CoTERM.

Image 1: Parallel Port

If the Receipt Printer *only* supports Parallel Port connection, CoTERM does not support it. An example of a parallel port is shown to the right (Image 1). Some parallel port devices *may* work, but parallel port Receipt Printers will not.

Make sure that your receipt printer is connected to any of CoTERM's USB ports. This is done using a cable called USB B-type. An example is shown on the right (Image 2).
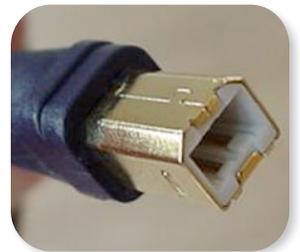

Image 2: USB B-type Cable

Glossary of Terms

- **Cloud** - Another name for Internet Storage.
- **Controller** - A secondary menu screen in CoPOS+ and CoTERM. Used for system functions.
- **CoPOS** - A Point of Sale computer program or package. Can also refer to the company that develops the program.
- **CoPOS+ Server** - A physical computer running CoPOS.
- **CoTERM** - A computing appliance designed to operate CoPOS stations or registers through the CoPOS+ Server.
- **CoTERM Key** - A computer file that allows a CoTERM to connect to a CoPOS+ Server.
- **Ethernet** - A modern computer cable used for creating networks. Also referred to Cat 5, Cat 5e or Cat 6 cable.
- **Internet Network** - The network connected to the Internet on CoPOS+ Servers.
- **IP Address** - A set of numbers indicating a computer's location on a network.
- **Factory Defaults** - The configuration in which a product is shipped to its users.
- **Logic Box Terminal** - A legacy computing appliance that operated CoPOS stations or registers through the CoPOS+ Server. Also known as "Logic Boxes." CoTERMs are designed to replace Logic Box Terminals.
- **Network** - A connection made between multiple computers.
- **Network Switch** - Hardware that splits an ethernet connection into multiple ports to share the network.
- **Parallel** - A legacy computer connector, often used for older devices.
- **Private Network** - A network which is confined to a single building or company. For CoPOS+, this is the CoTERM's network.
- **Serial** - A legacy computer connector, used for Logic Box Terminals, printers, and scales.
- **Serial Number** - A unique identifier applied to the each product the CoPOS company ships.
- **Station Number** - A designator for each CoPOS connection available for Logic Boxes or CoTERMs.
- **Update** - Obtaining a new version of software.
- **USB** - A modern computer connector that is used for printers, storage devices, keyboards, barcode scanners, etc.
- **USB B-type** - A modern computer connector that is mostly used for printers.
- **VGA** - A type of video cable designed for monitors.

CoTERM Controller Menu Structure

This is the layout of the CoTERM Controller menu, which can be accessed via Ctrl + Alt + F2.

1. Refresh Status - Refreshes the information above the menu, which is:
 "CoTERM (Serial Number) is connected to (Station Number)."

2. Reconnect As New Station - Disconnects the CoTERM from its current Station and displays the Station Number list.

3. CoTERM Station Reset - Disconnects and then reconnects the CoTERM to its current Station Number.

4. Reboot CoTERM - Restarts the CoTERM.

5. Poweroff CoTERM - Powers off the CoTERM.

6. More…
 1. View USB Devices - Displays a list of connected USB Storage, Scanners, Scales, and other accessories.
 2. Scale Tester - A status screen for scales. Gives current weight or error messages.
 3. Reset USB Connections - Resets all USB devices connected to the CoTERM.
 4. Server Station Reset - Resets the current CoPOS station on the server (in case of freezes). An advanced feature.
 5. CoTERM Network Channel - A menu for toggling between Primary and Secondary Networks. An advanced feature.
 6. Reset Factory Defaults - Resets the CoTERM back to a clean state. An advanced feature.
 7. CoTERM Documentation - See a plain text form of this documentation in CoTERM.

Documentation Version 2.1 - 10/10/2014