



CT Series

Terminal User's Guide



Models CT70 & CT72



www.lathem.com

**THIS EQUIPMENT COMPLIES WITH FCC REQUIREMENTS
PURSUANT OF PART-15**

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.

WARNING: Changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The device has been evaluated to meet general RF exposure environment.

To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20cm between the radiator and your body, and fully supported by the operating and installation configurations of the transmitter and its antenna(s).

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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Lathem Time Corporation
200 Selig Drive, SW,
Atlanta, GA 30336

www.lathem.com

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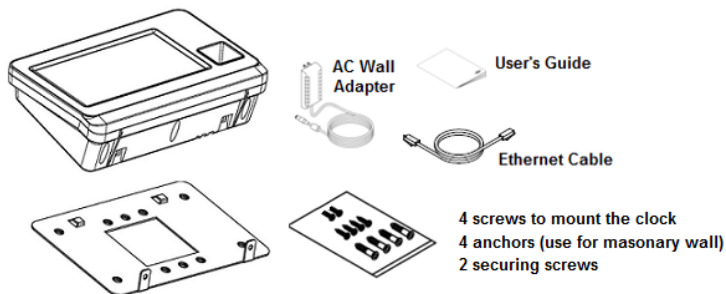
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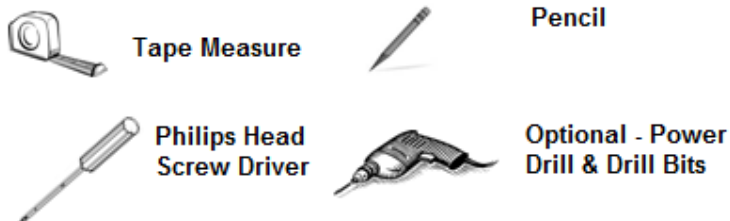
Package Contents

Please verify that your package includes the following items. If your package is missing an item, please call our help desk at (800) 224-1877.



Note: Remove the protective film on the clock bezel and touch screen by pulling the white tabs in the upper right corner after the clock is installed.

Recommended Installation Tools



Online and Email Support

Lathem.com provides access to numerous support resources. Visit the following link: <http://kb.lathem.com> for additional help or to submit a question. You should receive a reply within 24 hours.

Telephone Support

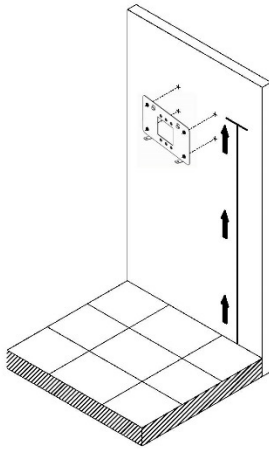
The help desk is available between the hours of 8am and 6pm ET Monday through Friday. Please call **(800) 224-1877** to speak with our help desk.

Install the CT Series Clock

Step 1: Select a site to install your clock that will be convenient to employees clocking in and out. When deciding where the clock will be installed, keep in mind that an 115vAC power outlet should be within reach of the mounting location as well as either a wired or wireless internet connection.

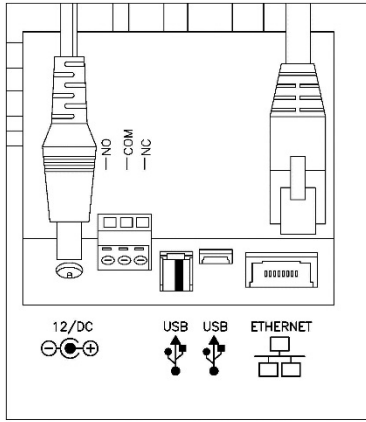
Step 2: After selecting the appropriate installation site, use the mounting-plate to determine the appropriate height. Hold the mounting-plate on the wall and mark the screw hole locations on the wall.

Install the mounting-plate to the wall using the supplied screws. For sheetrock walls, drill a 3/16" diameter hole through each of the four screw locations; each approx. 1-1/2" deep. Install the plastic "anchors" included in the mounting screw packet.

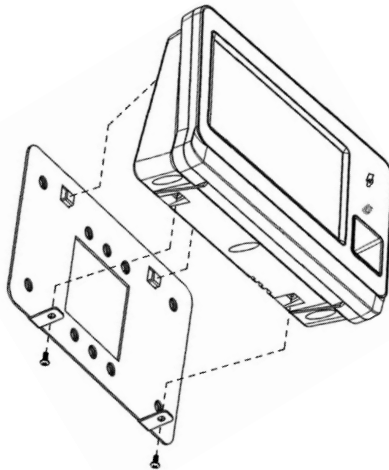


Note: The bottom of the clock should be about **45** inches from the floor.

If using a wired network connection plug the RJ 45 network cable into the Ethernet port and the Power Adapter plug into the power adapter port which is located in the compartment on the back of the clock.



Step 3: Align the CT clock with the tabs on the mounting-plate and secure the two together with the 2 Philips head screws. Be careful not to pinch the AC cord or network cable.



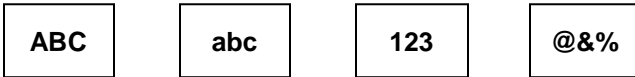
When finished, plug the power adapter into an AC wall outlet.


Wi-Fi or Wired Network Connection

The CT series clock can communicate with PayClock Online via a Wi-Fi or Wired Network Connection.

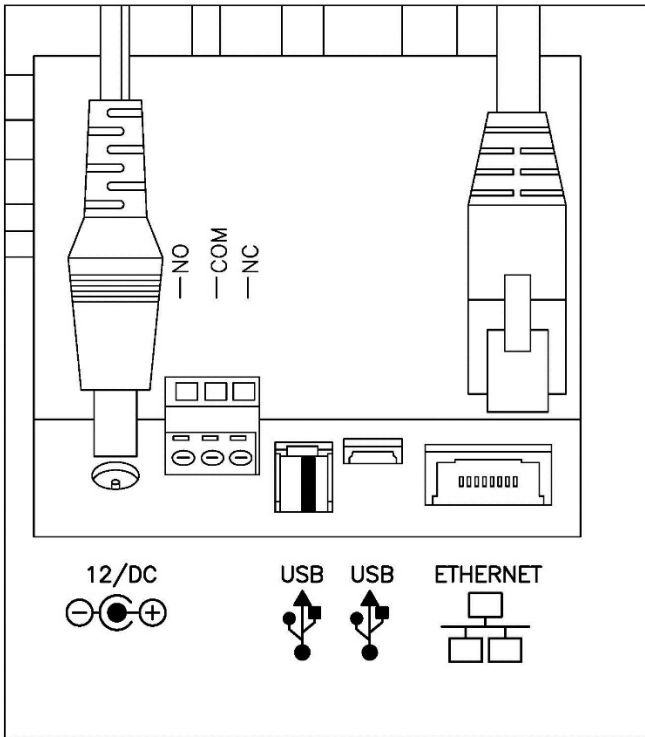
Wi-Fi Connection – With the power adapter connected and the clock mounted follow these steps to set up the connection. **Note:** A wireless access point on the network is required.

- From the CT clock touchpad tap Settings and enter the administrator password and tap OK.
- The Administrator Menu will display.
- Tap Wireless and select Wi-Fi Networking On if it isn't already.
- A list of available wireless networks will display.
- Select the desired wireless network, the WIFI Passcode screen will display.
- Using the master buttons to select upper case letters, lower case letters, number or symbols enter the passcode for the wireless network. **Note:** You may need to contact your network administrator for wireless passcode information.



- Tap OK when the passcode has been entered. A confirmation message will display when connected.
- Tap  back until you have reached the main screen.

Wired Connection - Plug the RJ45 network cable into the Ethernet port and the Power Adapter plug into the Power Adapter port which is located in the compartment on the back of the clock. See drawing below.



When finished, plug the power adapter into an AC wall outlet.

PayClock Online

The PayClock Online product communicates with the clock over the internet.

Adding a CT series clock

Adding a CT series clock to PayClock Online is a 2 step process. Add the clock in PayClock Online first and then from the clock connect to PayClock Online over the internet.


Step 1 - Adding a CT series Clock

The CT series clock **must** be added to PayClock Online first otherwise the connection will fail.

- Log into PayClock Online and select Clocks > Manage Clocks from the list of items on the left.
- Click New. The Select Clock Type window will open.
- Choose CT70 or CT72 depending on your model and click Select.
- The clock properties will display.
- From the General tab, enter a name for the clock under Device Nickname.
- Next enter the serial number of the clock. Note: Enter the serial number **exactly** as it shows on the label on the clock.
- Click Save.

Step 2 - Connect the Clock to PayClock Online

The clock must be set up in PayClock Online before attempting this step. The clock must be powered up and connected to the network with access to the internet.

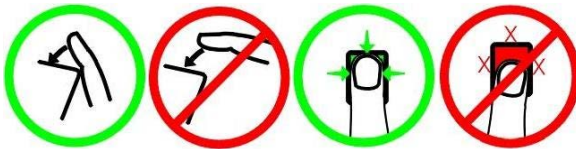
- At the clock tap the Settings button. Enter the administrator PIN and press OK.
- From the Administrator Menu tap **Sync Now**.
- The clock will connect over the internet to PayClock Online.
- After the connection is made the data will be downloaded to the clock and it will be ready for use.
- When complete a cloud icon  will show on the clock's display identifying it is connected to PayClock Online.
- The clock will be operational and ready for use.

Using the CT Clock

The clock will be ready to use after downloading the employees. To punch, the employee will simply present a badge, place an enrolled finger on the sensor (Model CT72) or use a PIN. Instantly they are identified and punched In or Out.

To punch with a badge simply move the badge over the illuminated hand/badge symbol on the front of the clock.

Model CT72 allows employees to punch with a finger simply place the enrolled finger on the sensor. The best method of finger placement is to roll the finger flat onto the sensor, as shown below.



When the transaction is successful; a confirmation beep will sound, a text message will appear, a custom audio message may be played, and the display will turn either green or red indicating a good or bad transaction.

Employee Transactions

Employees can record transactions or view total information by presenting a badge, entering a PIN or presenting an enrolled finger.

Clocking IN/Out - Finger Sensor (CT72)

- Place an enrolled finger on the finger sensor of the clock.
- When the finger is verified a confirmation beep will sound, a text message will appear, a custom audio message may be played, and the display will turn either green or red indicating a good or bad transaction.

Clocking IN/Out - Badge

- Move the badge over the badge reader symbol on the front of the clock.

- When the badge is read a confirmation beep will sound, a text message will appear, a custom audio message may be played, and the display will turn either green or red indicating a good or bad transaction.

Clocking IN/Out - PIN

- Tap the **Clock In/Out** button on the touch-pad of the clock.
- The IDENTIFICATION screen will display. Using the numeric key pad enter the employee's PIN number and tap OK.
- A confirmation beep will sound, a text message will appear, a custom audio message may be played, and the screen will turn either green or red indicating a good or bad transaction.

Department Transfers - Finger Sensor (CT72)

- Tap the **Transfer** button on the touch-pad of the clock.
- The IDENTIFICATION screen will display. Place an enrolled finger on the finger sensor of the clock. A confirmation beep will sound and the list of available departments will display.
- Tap the desired department. A confirmation screen will display showing the department into which the employee transferred.

Department Transfers - Badge

- Tap the **Transfer** button on the touch-pad of the clock.
- Move the badge over the badge reader symbol on the front of the clock.
- When the badge is read a confirmation beep will sound, and the list of available departments will display.
- Tap the desired department. A confirmation screen will display showing the department into which the employee transferred.

Department Transfers - PIN

- Tap the **Transfer** button on the touch-pad of the clock.
- The IDENTIFICATION screen will display. Using the numeric key pad enter the employee's PIN number and tap OK. A confirmation beep will sound and the list of available departments will display.
- Tap the desired department. A confirmation screen will display showing the department into which the employee transferred.

Amount Entries - Finger Sensor (CT72)

- Tap the **Amounts** button on the touch-pad of the clock.
- The IDENTIFICATION screen will display. Place an enrolled finger on the finger sensor of the clock.
- A confirmation beep will sound and the AMOUNT ENTRY screen will display.
- Using the numeric key pad enter the value for the amount and Tap OK. A confirmation screen will display showing the amount entered for the employee.

Amount Entries - Badge

- Tap the **Amounts** button on the touch-pad of the clock.
- Move the badge over the badge reader symbol on the front of the clock.
- When the badge is read a confirmation beep will sound and the AMOUNT ENTRY screen will display.
- Using the numeric key pad enter the value for the amount and Tap OK. A confirmation screen will display showing the amount entered for the employee.

Amount Entries - PIN

- Tap the **Amounts** button on the touch-pad of the clock.
- The IDENTIFICATION screen will display. Using the numeric key pad enter the employee's PIN number and tap OK.
- A confirmation beep will sound and the AMOUNT ENTRY screen will display.
- Using the numeric key pad enter the value for the amount and Tap OK. A confirmation screen will display showing the amount entered for the employee.

Viewing Totals - Finger Sensor (CT72)

- Tap the **Totals** button on the touch-pad of the clock.
- The IDENTIFICATION screen will display. Place an enrolled finger on the finger sensor of the clock.
- A confirmation beep will sound and the employee's grand totals for the pay period and any benefit time will display.

Viewing Totals - Badge

- Tap the **Totals** button on the touch-pad of the clock.
- Move the badge over the badge reader symbol on the front of the clock.
- When the badge is read, a confirmation beep will sound, and the employee's grand totals for the pay period and any benefit time will display.

Viewing Totals - PIN

- Tap the **Totals** button on the touch-pad of the clock.
- The IDENTIFICATION screen will display. Using the numeric key pad enter the employee's PIN number and tap OK.
- A confirmation beep will sound and the employee's grand totals for the pay period and any benefit time will display.

Supervisor Transactions

Supervisors have the ability at the clock to view and edit employee punches, add new employees, send messages and override shift lockouts.


To set up an employee as a supervisor, in PayClock Online select the desired employee and set the employee's Access Profile to "Supervisor", then select the employees they will be able to manage.

To enter into supervisor mode at the clock tap the SUPERVISOR button. The IDENTIFICATION screen will display. Use one of the following methods to enter Supervisor Mode:

- Using the numeric key pad enter the supervisors PIN and tap OK.
- Move the supervisors badge over the badge reader symbol on the front of the clock.
- Place an enrolled finger on the finger sensor of the clock. (Model CT72)


Viewing Punches

At the clock tap the SUPERVISOR button. The IDENTIFICATION screen will display.

- Using either a badge, PIN or finger enter supervisor mode.
- At the Employee selection screen, tap on the name of the desired employee.
- Tap Punches. The Punches screen will display.
- Use the left, right, up or down arrows to scroll through the punch information.
- When finished tap  to return to the default screen.


Adding Punches

Tap the SUPERVISOR button on the clock. The IDENTIFICATION screen will display.

- Using either a badge, PIN or finger enter supervisor mode.
- At the Employee selection screen, tap on the name of the desired employee.
- Tap Punches. The Punches screen will display.
- Use the left or right arrows to select the desired date and press the +ADD button.
- Using the up and down arrows set the desired hour and minute and then tap ADD.
- At the confirmation screen select Yes to add the punch. The added punch will display on the screen and will be added to the employee's timecard.
- When finished tap  to return to the default screen.

Viewing Totals


Tap the SUPERVISOR button on the clock. The IDENTIFICATION screen will display.

- Using either a badge, PIN or finger enter supervisor mode.
- At the Employee selection screen, tap on the name of the desired employee.
- Tap Totals. The employee's grand totals for the pay period and any benefit time will display.
- When finished tap  to return to the default screen.

Send Message


Tap the SUPERVISOR button on the clock. The IDENTIFICATION screen will display.

- Using either a badge, PIN or finger enter supervisor mode.
- At the Employee selection screen, tap on the name of the desired employee.

- Tap Messaging. Select to send a sound message or a text message.
- Using the left and right arrows select the desired sound or text message.
- At the confirmation screen select Yes. On the next punch the employee will receive the sound or text message.
- When finished tap  to return to the default screen.

Override Lockout

Tap the SUPERVISOR button on the clock. The IDENTIFICATION screen will display.

- Using either a badge, PIN or finger enter supervisor mode.
- At the Employee selection screen, tap on the name of the desired employee.
- Tap Override Lockout.
- At the confirmation screen select Yes to have the next punch for the employee ignore the shift lockout.
- When finished tap  to return to the default screen.

Enrolling Fingers

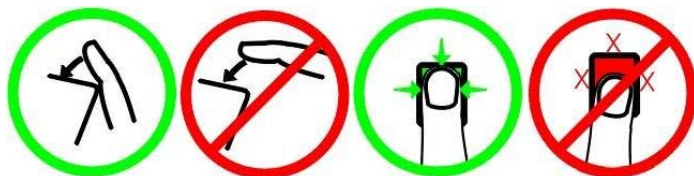
The CT72 model has a built in optical fingerprint sensor that allows for up to 2 fingerprints per employee to be enrolled. Employees can punch and review time balances by scanning their finger.

The Admin or Supervisor have the ability to enroll employee fingerprints.

To enroll a finger, tap the ENROLL button and enter the Admin PIN then tap OK.

Finger Placement on the Sensor

Proper finger placement is **critical** to ensure reliable finger reads. The best method of finger placement is to place the pad of the finger, not the tip, flat onto the center of the sensor window, as shown below. Apply gentle pressure and hold the finger on the sensor window until the sensor's light blinks, then lift the finger.



Reasons the sensor failed to recognize an employee

- The finger was positioned incorrectly.
- The finger moved during the reading.
- The wrong finger was used.
- The finger was too wet or dry.
- The finger was cut or otherwise changed.

Enrolling Employee Fingers

At the clock tap the ENROLL button and enter the Admin PIN then tap OK.

- At the Employee selection screen, tap on the name of the desired employee.
- Tap the Enable icon on the tan bar at the bottom. You know the fingerprint is enabled when the label changes to Disable.

- Tap Primary Finger. The Select finger to register screen will display.

Employees should enroll their dominant finger. To identify the dominant finger, ask the employee with which finger they use to point.

- Tap the finger to enroll and tap Next. The employee should be ready to place their finger on the sensor as prompted.
- The employee will be prompted to place and lift their finger on the sensor a total of 5 times.
- When the employee's enrollment is complete, choose to enroll another finger for the same employee or enroll different employee. If you are finished with enrollments choose Enrollment Complete.
- The clock is ready to starting accepting punches for the enrolled employees.

Administrator Functions

The CT clock has one administrator. The Settings function allows you to review the device information, set up the network communications, set the time / date, review an error log and reset the clock to the factory defaults.


To enter the settings mode, at the clock tap the Settings button. The IDENTIFICATION screen will display.

- Using the numeric key pad enter the administrator PIN number and tap OK.
- The Administrator Menu screen will display.

Network

This menu allows you to configure the network communication settings between the clock and PayClock Online.

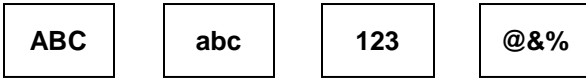
At the clock tap the Settings button and enter the administrator PIN.


- The Administrator Menu screen will display.
- Tap Network. The Network Setup screen will display.
- If you want to set the clock's IP address as a "Static" IP turn off DHCP by tapping the button. The screen will refresh and the fields will become active.
- Tap IP Address. The IP Address screen will display.
- Using the numeric key pad enter the IP address you want to assign to the clock and tap OK.
- Do the same for the Subnet Mask and Gateway.
- When finished tap  to return to the default screen.

Wireless

This menu allows you to configure the Wi-Fi communication settings. At the clock tap the Settings button and enter the administrator PIN.

- The Administrator Menu screen will display.
- Tap Wireless. The Available Networks screen will display.
- Select Wi-Fi Networking On if it isn't already.
- Tap the desired wireless network from the list. The WIFI Passcode screen will display.
- Using the master buttons to enter the passcode for the wireless network. **Note:** You may need to contact your network administrator for wireless passcode information.



- Tap OK when the passcode has been entered. A confirmation message will display when connected.
- If you want to set the clock's wireless IP address as a "Static" IP, tap Advanced.
- The Network Setup screen will display. Turn off DHCP by tapping the button. The screen will refresh and the fields will become active.
- Tap IP Address. The IP Address screen will display.
- Using the numeric key pad enter the IP address you want to assign to the clock and tap OK.
- Do the same for the Subnet Mask and Gateway.
- When finished tap  to return to the default screen.

Sync Now

This menu allows you to initiate a manual synchronization between PayClock Online and the clock.

At the clock tap the Settings button and enter the administrator PIN.


- The Administrator Menu screen will display.

- Tap Sync Now, the clock will start the update process and return the default screen when finished.

Date/Time Setup

This menu allows you to manually configure the time zone, DST and how the hours will display on the clock.


At the clock tap the Settings button and enter the administrator PIN.

- The Administrator Menu screen will display.
- Tap Date & Time and make the desired changes.
- When finished tap  to return to the default screen.

Signal-Door Access

This menu allows you to configure how the clock uses the on-board relay.

At the clock tap the Settings button and enter the administrator PIN.


- The Administrator Menu screen will display.
- Tap Signal-Door Access. The signal-door access screen will display.
- Select the Relay Mode.
 - Off – The relay is disabled.
 - Access – The relay will be used to activate a door strike allowing employees to enter the facility.
 - Signal – The relay will open/close to sound the signaling device.
- The Schedule button will display if Signal is selected. Press Schedule and enter the bell events. Up to 100 events can be programmed.
- Select the duration to for the relay. By default, it is set at 5 seconds.
- Use the Test button to activate the on-board relay to test the connection.
- When finished tap  to return to the default screen.

See **Appendix F** for steps to add/edit/delete bell events.

Device Info

This menu item displays clock information such as the clocks serial number and software version.

At the clock tap the Settings button and enter the administrator PIN.


- The Administrator Menu screen will display.
- Tap Device Info. The device information will display.
- When finished tap  to return to the default screen.

Support

This menu item allows you to test the clocks connection to the internet and PayClock Online. You can also display any errors that the clock may have experienced.

Testing the Clocks Internet Connection


At the clock tap the Settings button and enter the administrator PIN.

- The Administrator Menu screen will display.
- Tap Support and then Test Connection.
- The internet connection, ports and connection to PayClock Online will be tested.
- When finished tap  to return to the default screen.

See **Appendix A** for details on testing the clocks connection.

Reviewing the Clocks Error Log


At the clock tap the Settings button and enter the administrator PIN.

- The Administrator Menu screen will display.
- Tap Support and then Error Log.
- Any logged information will display.
- When finished tap  to return to the default screen.

Check for Updates

This menu item allows the clock to check to see if any updates are available. If updates are found the clock will guide the user through the update process.

At the clock tap the Settings button and enter the administrator PIN.

- The Administrator Menu screen will display.
- Tap Check for Updates. Please be patient this may take a few minutes. Follow the on-screen instructions.
- When finished tap  to return to the default screen.

Factory Reset

Use caution when selecting this menu item. This menu item will reset the entire clock to the manufacturer default settings.

All settings, administrators, supervisors, employees and data will be cleared from the clock; you cannot recover this information.

At the clock tap the Settings button and enter the administrator PIN.

- The Administrator Menu screen will display.
- Tap Factory Reset. The warning screen will display.
- Tap Reset Device if you are sure you wish to reset and clear the clock.
- The clock will reboot and restart as if it were a new clock that had never been used.

Troubleshooting the CT Series

If the PayClock software doesn't communicate with the clock, try these suggestions:






General Troubleshooting

- Make sure that all connections are secure and the cable is intact or the wireless access point is connected.
- Make sure that the network cable is securely connected to the Ethernet port on the clock.
- Make sure the wireless access point is working.
- Make sure that the clock's power supply is securely connected to an electrical outlet.
- Make sure that the power supply is securely connected to the clock and the unit is powered up.

If after going through each item above you are still not communicating with the clock, have the network administrator or IT person make sure there aren't any issues with the network.

CT Series Troubleshooting

Issue	Resolution
The clock isn't connecting to PayClock Online.	If your clock isn't connecting to PayClock Online, use the Test Connection button. See Appendix A for details.
The clock shows "Not Found" when a badge is presented.	Make sure that the number that is printed on the badge matches what was entered in the Badge Number field in PayClock for the employee.

<p>What does the cloud  on the display represent?</p>	<p>This represents that the clock is connected to PayClock Online.</p>
<p>What does the bar graph  on the display represent?</p>	<p>This represents the signal strength for the wireless connection.</p>
<p>Why can't I open the Enroll screen on a CT72? I tap Enroll  and get a sound but the screen doesn't open?</p>	<p>The clock lost the connection to the internet. The clock must have an active connection to the internet to enroll employee fingers. Check to see if the cloud  icon is displaying at the top of the screen.</p>
<p>Why does the clock show "Punch Accepted" instead of Punch In or Out when an employee punches?</p>	<p>The clock lost the connection to the internet so it displays Punch Accepted. The clock must have a connection to the internet to determine if a punch is In or Out. Check to see if the cloud  icon is displaying at the top of the screen.</p>
<p>Do I need to routinely clean the fingerprint sensor on the CT72 clock?</p>	<p>The reader window may need cleaning from time to time. It will pick up dirt and salts from fingers. To clean the reader, apply the sticky side of a piece of cellophane tape on the window and peel it away. If necessary, gently wipe the window with a cloth (not paper) dampened with a mild ammonia-based glass cleaner to remove any milky haze.</p> <p>DO NOT:</p> <ul style="list-style-type: none"> -Clean the sensor window with paper -Pour glass cleaner directly on the sensor window -Use alcohol-based cleaners -Submerge the sensor in liquid

<p>The finger sensor of my CT72 clock has a scratch. Does this affect the operation?</p>	<p>Scratches, pokes or other physical damage to the sensor window coating can affect its ability to read fingers. Such damage cannot be repaired. Please contact the PayClock Online help desk at (800) 224-1877 for assistance.</p>
<p>Why is the CT72 not reading the employee's finger when enrolling or punching?</p>	<p>Make sure:</p> <ul style="list-style-type: none"> -The employee's finger is correctly placed on the sensor. -If the finger is too dry, breathe on it or have the employee touch their finger to their forehead or side of their nose and then place the finger on the sensor. -If the finger is too moist, have the employee rub their finger on their pants or sleeve and then place the finger on the sensor.
<p>No matter how the employee places their finger on the CT72 sensor, it will not read the fingerprint.</p>	<p>Try re-enrolling the employee's finger, if that doesn't work enroll a different finger.</p>
<p>The employee has injured their finger and the CT72 sensor will not read their fingerprint.</p>	<p>Enroll a different finger for the employee.</p>
<p>Why do the employee badges sometimes register a punch while in the badge rack?</p>	<p>The clock uses an internal antenna. Make sure badges are kept 6" away from the clock when not in use to avoid accidental badge reads.</p>
<p>What does the blinking light in the small rectangular opening on the front of the clock mean?</p>	<p>This blinking light represents the connection to the wired network (LAN).</p>

Appendix A – Testing the Connection to PayClock Online

Important

This tool has been designed to assist you in the event the clock fails to connect to PayClock Online. Even with this tool it may be necessary to involve your IT department or someone familiar with your network if you have connection issues.

The CT series clock has a function that will allow the user to test the connection to PayClock Online. This test will verify the internet connection, access to the internet through the required ports and the connection to the PayClock Online service.

With the clock powered up and connected to the network, tap the **Settings** button and enter the administrator PIN.

- The Administrator Menu screen will display.
- Tap **Support** and then **Test Connection**.

Test 1 - Internet connection test.

Pass = The test cycle will move to the port test.

Fail – What should I do if this test fails?

- Does another device successfully connect to the internet? Such as a laptop(wired/wifi) or a smartphone(wifi).
- Does the clock show an IP address?
 - Wired = Go to Settings>Network
 - Wifi = Go to Settings>Wireless>Advanced
- If no IP Address shows contact your IT department for assistance.

Test 2 – Ports used by the clock will tested.

Pass = The test cycle will move to the PayClock Online service test.

Fail – What should I do if this test fails?

- Open the listed port(s) to traffic.
- Contact your IT department to open the listed port(s) to traffic.

Test 3 – PayClock Online Service used by the clock will tested.

Pass = The test cycle will display a summary of the test.

Fail – What should I do if this test fails?

- Open the listed port(s) to Inbound / Outbound traffic.
- Contact your IT department to open the listed port(s) to traffic.

Notes

The internet test will attempt to ping www.google.com. If ping is disabled on the network a false test result could be displayed and may require you to involve your IT department or someone familiar with your network.

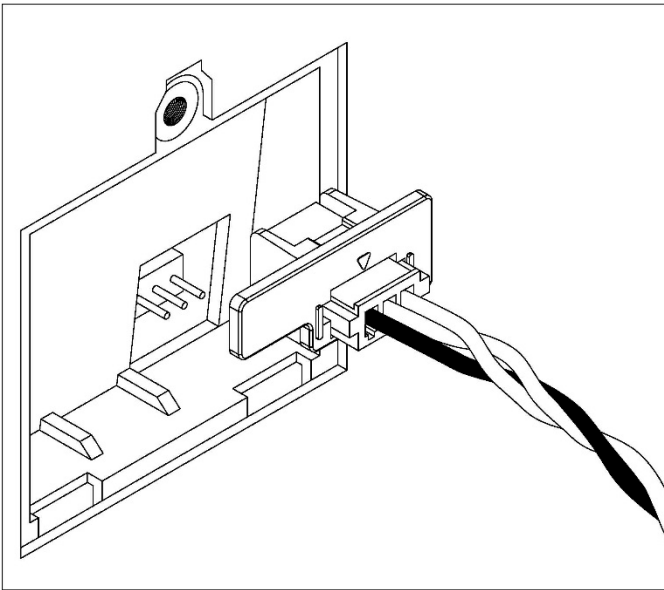
It may be necessary to involve your IT department or someone familiar with your network if there is a failure with the Ports or PayClock Online Services test which requires changes to the network / firewall settings.

Appendix B – Installing a Battery

The CT series clock has an optional re-chargeable battery so the clock is operational during a power failure. Once the power is restored the battery will automatically re-charge.

- Remove the cover from the battery compartment on the back of the clock using a Philips head screwdriver.
- Position the battery connector as shown.
- Plug the battery connector into the clock connector.
- Tuck the connector wires and battery into the battery compartment, being careful not to pinch the wires.
- Insert the cover into the slot and tighten the Philips head screw.

Note: Make sure the wires are not pinched when closing cover.




Appendix C – Adjusting Finger Sensitivity

With model CT72 if an employee's finger is mistakenly read as another employee, you can adjust the sensitivity level by employee.

Example: Joe Smith puts his finger on the sensor but Stan Able shows as punching on the display. The solution would be to increase Stan's security level. Increasing Stan's security level will lessen the chance of Stan's fingerprint being read as another employee.

Adjusting Finger Sensitivity

At the clock tap the ENROLL button and enter supervisor mode.

- At the Employee selection screen, tap on the name of the desired employee.
- At the Fingerprint screen tap Security Level. The Security screen will display these settings.
 - 1 – Low Sensitivity
 - 2 – Medium Low Sensitivity
 - 3 – Moderate Sensitivity (default setting)
 - 4 – Medium Hi Sensitivity
 - 5 – Hi Sensitivity
- Tap on the desired setting.
- Tap Next, the setting will be applied to any fingerprints enrolled for the selected employee.
- When finished tap  to return to the default screen.

Appendix D – Bell Relay Connections

The CT series clock has a built-in relay that can control bells or door access.

Relay Specifications

- Type: Dry Contact Closure
- Rating: 2 amps at 24VDC or 120VAC
- Contacts: NO-Normally Open, COM-Common, NC-Normally Closed

Bell Relay Connections

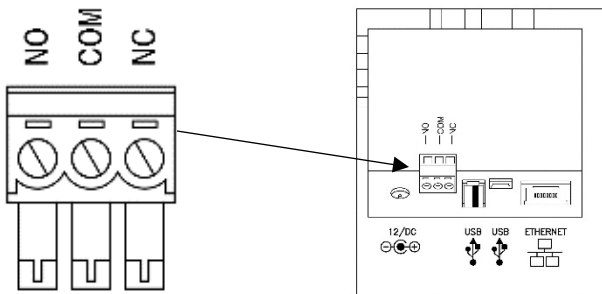
When you are connecting to a signaling device make sure you have the following skills:

- Understand basic wiring principles and techniques
- Can interpret wiring diagrams
- Have circuit wiring experience

Note: The wiring must be installed in accordance with national and local electrical codes.

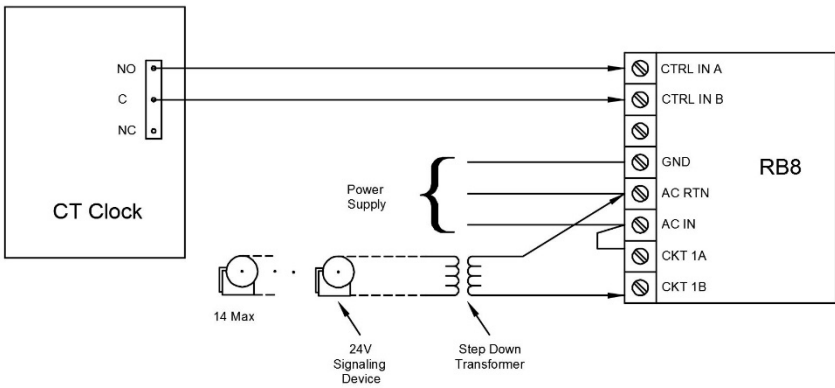
To connect the signaling device

- Unplug the relay screw terminal connector on the back of the clock.

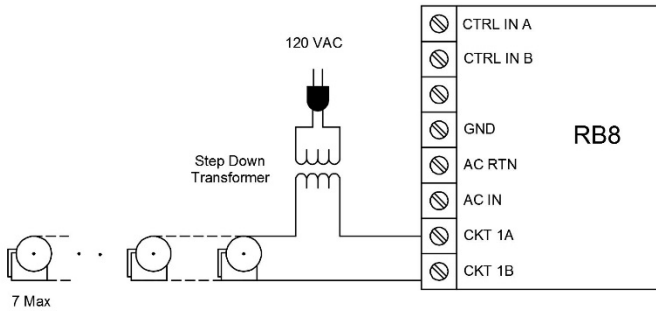


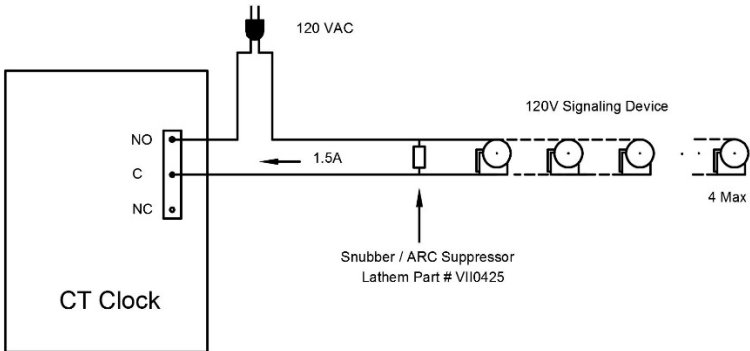
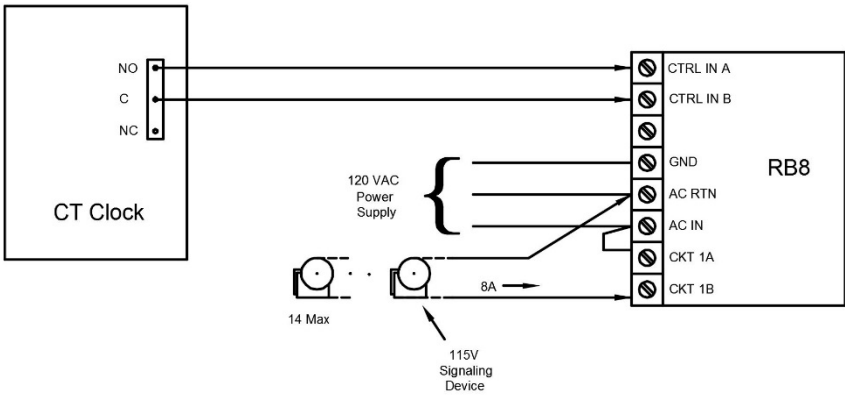
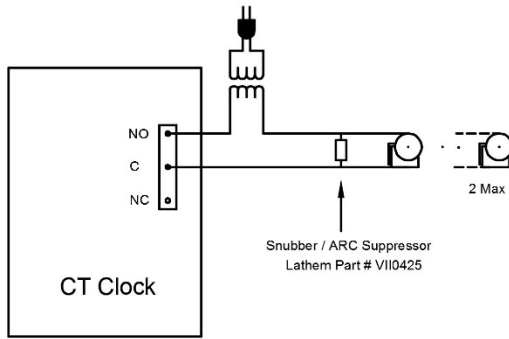
- Connect the wires from the signaling device to the screw terminals. Plug the terminal connector into the socket on the clock. Only one (1) wire should be inserted into the terminal block positions NO and COM, all wire splices should be done externally. See the following diagrams for details.

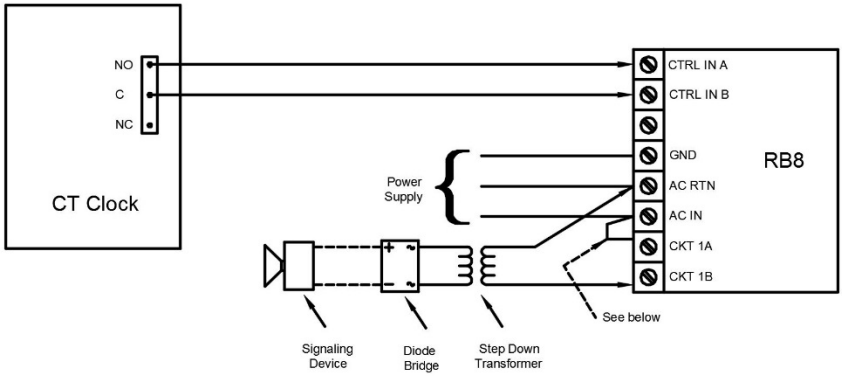
Important! Relay contacts provide no power for signaling devices. The relay is a dry contact closure rated 2 amps at 24VDC or 120 VAC. Connecting a device or series of devices that draw more than the rated amperage from the terminal will result in serious damage! It is recommended to use the optional RB8 Relay Booster Box to control devices that require more than 2 amps.



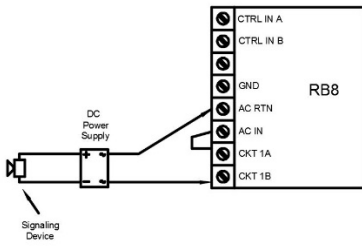
- OR -



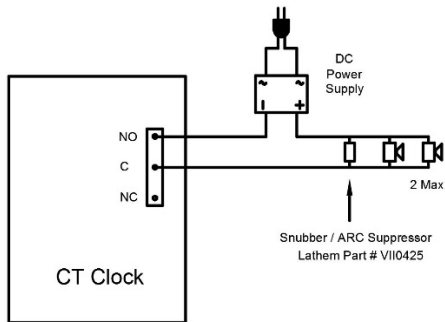
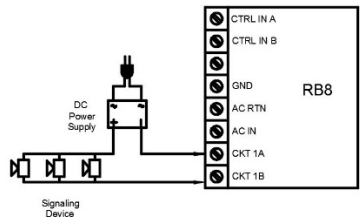




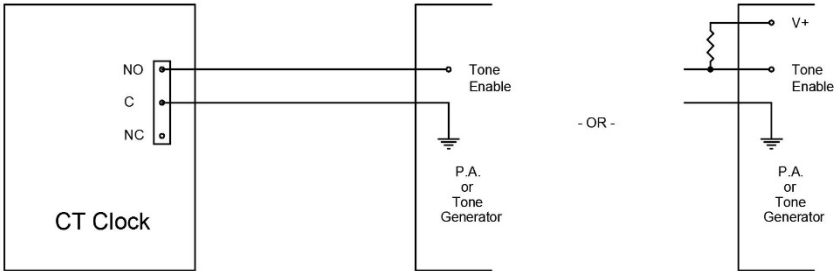
- OR -



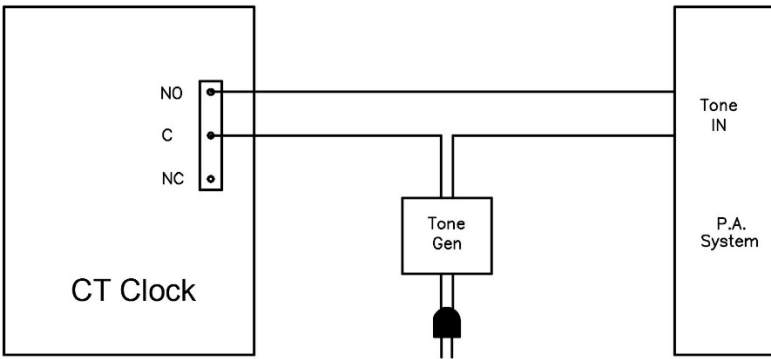
- OR -



Wiring to P.A. System / Tone Generator



- OR -



Important! Connecting the CT clock to a public address (PA) system requires the use of an external Tone Generator. Contact your PA supplier to acquire an appropriate Tone Generator for your system.

Appendix E – Access Relay Connections

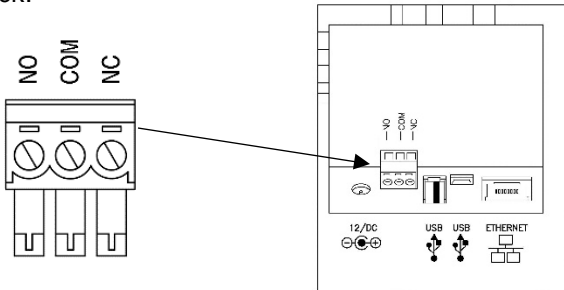
When you are connecting to a door access device make sure you have the following skills:

- Understand basic wiring principles and techniques
- Can interpret wiring diagrams
- Have circuit wiring experience

Note: The wiring must be installed in accordance with national and local electrical codes.

Connecting the CT clock to a Door Strike

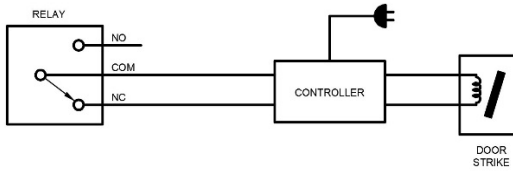
- Unplug the relay screw terminal connector on the back of the clock.



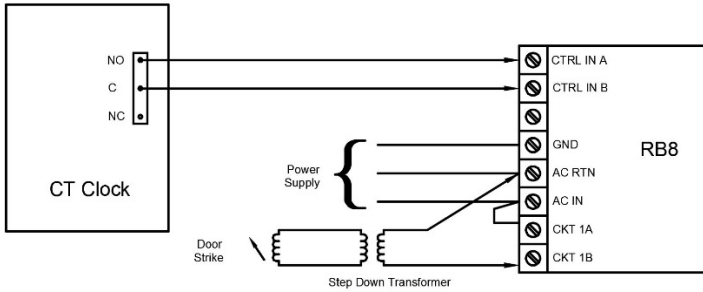
- Connect the wires from the door access device to the screw terminals. Plug the terminal connector into the socket on the CT clock. Only one (1) wire should be inserted into the terminal block positions NO and COM, all wire splices should be done externally. See the following diagrams for details.

Important! Relay contacts provide no power for signaling devices. The relay is a dry contact closure rated 2 amps at 24VDC or 120 VAC. Connecting a device or series of devices that draw more than the rated amperage from the terminal will result in serious damage! It is recommended to use the optional RB8 Relay Booster Box to control devices that require more than 2 amps.

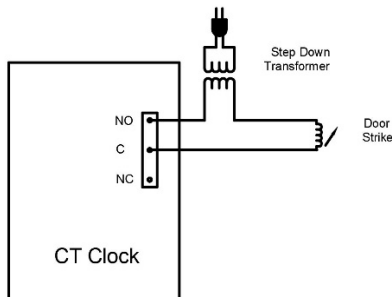
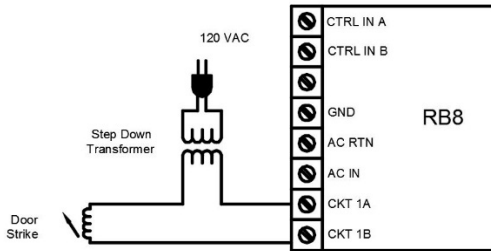
Wiring for a Door Access Control System



Door Strike Wiring - For Door Strikes more than 1.5 Amps (Peak)




- OR -



Appendix F – Add/Edit/Delete Bell Events


Up to 100 events can be programmed. Events consist of the time and the day of week the event will activate the relay.

Adding a Bell Event


- From the CT tap Settings and enter the administrator PIN and tap OK.
- From the Administrator Main Menu tap Signal-Door Access.
- The Signal-Door Access screen will display.
- Tap Signal under the Relay Mode.
- Tap Schedule under Signal Events. The Signal Event Schedule screen will display.
- Tap “add event”. The Add Event screen will display.
- Using the up and down arrow keys select the desired hour, minute and AM/PM for the bell event.
- Tap on the desired days of the week, a check will display in the box identifying the day is selected.
- Tap OK to save the event. The programmed event will display in the list.
- Continue adding the desired events.
- When finished tap  to return to the default screen.

Editing a Bell Event

- From the CT tap Settings and enter the administrator PIN and tap OK.
- From the Administrator Main Menu tap Signal-Door Access.
- The Signal-Door Access screen will display.

- Tap Signal under the Relay Mode.
- Tap Schedule under Signal Events. The Signal Event Schedule screen will display with all the schedule events.
- Tap on the desired event and make the needed changes.
- Tap OK to save the changes.
- When finished tap  to return to the default screen.

Deleting a Bell Event

- From the CT tap Settings and enter the administrator PIN and tap OK.
- From the Administrator Main Menu tap Signal-Door Access.
- The Signal-Door Access screen will display.
- Tap Signal under the Relay Mode.
- Tap Schedule under Signal Events. The Signal Event Schedule screen will display with all the schedule events.
- Tap Delete and then Yes to remove the event.
- When finished tap  to return to the default screen.

One-Year Limited Warranty

Lathem warrants the hardware products described in this guide against defects in material and workmanship for a period of one year from date of original purchase from Lathem or from an authorized Lathem reseller. The conditions of this warranty and the extent of the responsibility of Lathem Time Corporation ("Lathem") under this warranty are listed below.

1. This warranty will become void when service performed by anyone other than an approved Lathem warranty service dealer results in damage to the product.
 2. This warranty does not apply to any product which has been subject to abuse, neglect, or accident, or which has had the serial number altered or removed, or which has been connected, installed, adjusted, or repaired other than in accordance with instructions furnished by Lathem.
 3. This warranty does not cover dealer labor cost for removing and reinstalling the machine for repair, or any expendable parts that are readily replaced due to normal use.
 4. The sole responsibility of Lathem under this warranty shall be limited to repair of this product, or replacement thereof, at the sole discretion of Lathem.
 5. If it becomes necessary to send the product or any defective part to Lathem or any authorized service dealer, the product must be shipped in its original carton or equivalent, fully insured with shipping charges prepaid. Lathem will not assume any responsibility for any loss or damage incurred in shipping.
 6. **WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY:** Except only the limited express warranty set forth above, the products are sold with no expressed or implied warranties of any kind, and the implied warranties of merchantability and fitness for a particular purpose are hereby expressly disclaimed. No warranties are given with respect to products purchased other than from Lathem or an authorized Lathem reseller and any such products are purchased "as is, with all faults." In no event will Lathem be liable for any direct, indirect, special, incidental or consequential damages arising out of or in connection with the delivery, use or inability to use, or performance of this product. In the event any limited remedy given herein shall be deemed to have failed of its essential purpose, Lathem's maximum liability shall be to refund the purchase price upon return of the product.
 7. Proof of date of purchase from Lathem or an authorized Lathem reseller is required for warranty service on this product.
 8. This Warranty grants specific legal rights. Additional legal rights, which may vary by locale, may also apply.
 9. Should any difficulties arise with the performance of this product during warranty, or with any Lathem authorized service centers, contact Lathem Time.
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